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United Nations Development Program

Project title: Implementation of the Fanga'uta Lagoon Stewardship Plan (Tonga R2R Phase II) and replication of lessons learned from the Tonga R2R Phase I to priority areas in Vava'u		
Country: Tonga	**Implementing Partner (GEF Executing Entity):** Department of Environment, Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC)	**Execution Modality:** UNDP Support Services to National Implementation (NIM)
This project will contribute to the following Sustainable Development Goal (s): SDG 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture, SDG 5: Gender equality, SDG 13: Climate action, SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development, and SDG 15: Protect, restore, and promote sustainable use of terrestrial ecosystems. **This project will contribute to the following UNDP MCPD Outcome/Output (2023-2027):** (Outcome 1) By 2027, people, communities and institutions are more empowered and resilient to face diverse shocks and stresses, especially related to climate variability impacts; and ecosystems and biodiversity are better protected, managed, and restored. Output 1.1 Enhanced gender-responsive actions on climate change adaptation, mitigation, and climate security across sectors implemented		
UNDP Social and Environmental Screening Category: Substantial	**UNDP Gender Marker:** 2	
Quantum Award ID: 1214259	**Quantum Project/Output ID: 01000322**	
UNDP-GEF PIMS ID number: 6475	**GEF Project ID number: 10518**	
LPAC meeting date: 27 July 2023		
Last possible date to submit to GEF: 21 June 2023		
Latest possible CEO endorsement date: September 12, 2023		
Project duration in months: 60		
Planned start date: February 1, 2024	**Planned completion date:** January 31, 2029	

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Expected date of Mid-Term Review: November 30, 2026	**Expected date of Terminal evaluation:** October 30, 2028
Expected Operational Closure Date: October 31, 2029	**Expected Financial Closure Date**: 31 April 30, 2030

Brief project description: The marine biological diversity of the Kingdom of Tonga is critical to the wellbeing of its people and the foundation of their lifestyle. The Tongan economy heavily relies on the fisheries and marine resources, which in turn depend on the country's rich biological diversity. However, this rich biological diversity is under threat from multiple sources, including habitat loss, degradation, overexploitation, invasive alien species, pollution, and climate change. Without its wetland and marine biodiversity, Tonga would lose its aesthetic, spiritual, and educational values, which are integral to the people's wellbeing and traditional way of life.

The GEF project is both timely and essential in protecting Tonga's indigenous marine species and ecosystems from destructive activities, halting wetland degradation, and restoring degraded mangrove, coral, and seagrass areas. The project aims to control unsustainable resource use and mitigate climate-induced risks through a holistic and integrated Ridge to Reef management approach that builds on the lessons and experiences from the R2R Phase I project. The project will employ an integrated approach consisting of strengthened and effective governance, enhanced capacity for planning and implementing marine resource management strategies built on a solid foundation of a whole-of-community participation, gender equity and social inclusion (GESI) responsive interventions complemented by the development of resilient blue/green livelihoods.

To conserve the wetland ecosystems that support the lives and livelihoods of local communities, the project aims to implement an integrated strategy to prevent and manage unsustainable and destructive activities that reduces the risks to Tonga's indigenous marine species and ecosystems from threats such as habitat loss, degradation, overexploitation, invasive species, pollution, and climate change. The objective of the project is "to effectively implement the Fanga'uta Stewardship Plan (FSP) for strengthened, integrated and inclusive management of the Fanga'uta Lagoon, and replicate successful strategies and lessons learned from the Tonga R2R Phase I to priority areas in Vava'u". This will be achieved through three interrelated components, each focused on addressing the identified corresponding barriers:
Component 1. Conservation of critical lagoon ecosystems and management of the catchment to improve ecological services of the Fanga'uta Lagoon and replication in priority areas in Vava'u.
Component 2. Governance: Policies, institutions and capacity building for sustainable and adaptive management and biodiversity conservation.
Component 3. Awareness raising and knowledge management of the ecosystem functions and services of the Fanga'uta Lagoon and the priority Vava'u biodiversity sites

FINANCING PLAN	
GEF Trust Fund grant	**USD 3,864,685**
UNDP TRAC resources	**USD 25,000**
(1) Total Budget administered by UNDP	**USD 3,889,685**
(2) Total confirmed co-financing to this project not administered by UNDP	**USD 12,360,000**
(3) Grand-Total Project Financing (1)+(2)	**USD 16,249,685**

SIGNATURES:		
Signature: **Sione 'Akauola** **Chief Executive Officer - MEIDECC**	**Agreed by Government Development Coordination Authority**	**Date/Month/Year:** **01/02/2024**
Signature: **Sione 'Akauola** **Chief Executive Officer - MEIDECC**	**Agreed by Implementing Partner**	**Date/Month/Year:** **01/02/2024**
Signature: **Munkhtuya Altangerel** **Resident Representative** **UNDP Fiji** DocuSigned by: Tuya Altangerel 0831C98A2FBF485...	**Agreed by UNDP**	**Date/Month/Year:** 31-Jan-2024

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Acronyms and Abbreviations

BPPS NCE	Bureau for Policy and Program Support, Nature, Climate and Energy
BIORAP	Rapid Biodiversity Assessment
CCMC	Coastal Community Management Committee
CMC	Community Management Committee
DOE	Department of Environment (of MEIDECC)
EMP	Environmental Management Plan
ESMF	Environment and Social Management Framework
FLC	Fanga'uta Lagoon Catchment
FPIC	Free, Prior and Informed Consent
FSP	Fanga'uta Stewardship Plan
FSP	Full Sized Project
GAP	GESI Action Plan
GBV	Gender Based Violence
GBF	Post 2020 Global Biodiversity
GCRMN	Global Coral Reef Monitoring Network
GEF	Global Environment Facility
GEFSEC	Global Environment Facility Secretariat
GESI	Gender Equity and Social Inclusion
GOA-ON	Global Ocean Acidification Observing Network
GoT	Government of Tonga
IUCN	International Union for the Conservation of Nature
IMO	International Maritime Organization
KAP	Knowledge, Aptitudes and Practices
LMMA	Locally Managed Marine Areas
MAFFF	Ministry of Agriculture, Food and Forestry
MEIDECC	Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications
MESCAL	Mangrove Ecosystems for Climate Change and Livelihood' (MESCAL) project
MPA	Marine Protected Area
MSP	Medium Sized Project
NBSAF	National Biodiversity Strategy and Action Framework
NSDF	National Strategic Development Framework
NT	Near Threatened
PA	Protected Area
PCIC	Pacific Climate Change Centre
PIBF	Pacific Islands Blue Foundation
PIDF	Pacific Island Development Forum
PIF	Project Identification Form
PIR	GEF Project Implementation Report
POPP	Program and Operations Policies and Procedures
PPG	Project Preparation Grant
PSIDS	Pacific Small Island Development States
PWD	Persons with Disabilities
R2R	Ridge to Reef
SAMOA	Small Island Developing States Accelerated Modalities of Action Pathway
SDG	Sustainable Development Goals
SES	Social and Environment Screening

SESP	Social and Environment Screening Procedures
SMA	Special Area Management
SPC	South Pacific Commission
SPREP	Secretariat of the Pacific Regional Environment Program
STAP	GEF Scientific Technical Advisory Panel
TDA	Tonga Development Bank
TOR	Terms of Reference
TWG	Technical Working Group
UNCBD	United Nations Convention on Biological Diversity
VEPA	Vava'u Environmental Protection Association

II. DEVELOPMENT CHALLENGE

1) Introduction

1. The Kingdom of Tonga is located in the central South Pacific and has a combined land and sea area of 720,000 km². It is an archipelago of 172 coral and volcanic islands of which 36 islands are inhabited. Tonga consists of four main island groups: (1) Tongatapu and 'Eua in the south, (2) Ha'apai in the middle, (3) Vava'u in the north and (4) Niuafo'ou and Niua Toputapu in the far north. The population of Tonga is 100,179[1]. Tongatapu is the most populous accounting for 71% of the Tonga's total population, 15% in Vava'u, 7% in Haapai, 5% in 'Eua and 2% in the Niuas. Tongatapu is a raised coral atoll and is distinctly flat and low lying. Vava'u is mostly raised coral atolls with some low-lying islets whereas Ha'apai is typically flat with some islets and sand cays. Kao and Tofua are two volcanic islands in the Ha'apai group. The two Niuas are high volcanic islands surrounded by fringing and barrier reefs, which is located northeast of the main island of Tongatapu. Each island is further subdivided into districts**.**

2. Tonga supports a wide diversity of flora and fauna. According to Tonga's fourth national report on biodiversity (NBSAP, 2010) the country supported a total of 2,264 species of fauna and flora, out of which only 357 species has been assessed. Out of the species assessed, 6 were found to be endemic. Tonga supports 581 species of plants and is a home for 45 birds, 2 of which are endemic to Tonga and Near Threatened (NT), such as Tongan whistler (*Pachycephala jacquinoti*) and Polynesian Megapode. About 80% of the plant species, 65% of reptiles and less than 5% of birds and mammals are threatened. Additionally, out of 457 species of invertebrates described, roughly 15% are threatened. There are over 50 species of sacred or fragrant plants, known as 'akau kakala, that are central to the spiritual and economic fabric of Tongan society. These are planted or protected as integral components of Tongan agroforestry. The 2020 International Union for Conservation of Nature (IUCN) Red List counts a total of 90 threatened species including 7 plant species and 20 fish species. In the species rich marine environment, 38 species of pelagic fish were identified in both deep sea and coastal zone[2]. Marine fish unique to Tonga include the Black fin Damselfish (*Amblyglyphidodon melanopterus*), the Swallowtail (*Fangblenny Meiacanthus procne*), the Green Canary Blenny (*Meiacanthus tongaensis*), the Black Foxface (*Siganus niger*), the Tonga Grouper (*Epinephelus chlorocephalus*), the Tongan Spiny Basslet (*Acanthoplesiops naka*), a pufferfish (*Canthigaster flavoreticulata*), the Tiger Pygmy Goby (*Eviotatigrina* sp), the Blackstreaked Blenny (*Salarias nigrocinctus*), the Linedfin Rockskipper (*Praealticus multistriatus*), and the Coralbrotulas (*Diancistrus alatus*) and (*Diancistrus manciporus* 12 species of whales and six species of marine turtles were also recorded. Humpback whales and bottlenose whales are considered endangered and together with hawksbill turtles are all protected under Tongan legislation. Tunas, sea turtles and other deep water predators concentrate in hotspots, found at intermediate latitudes close to coral reef habitats, shelf breaks and seamounts. The protection of these ecosystems is crucial in conserving biodiversity at these hot spots, especially during spawning times. Coral reefs are common and widely distributed around the islands. There are three types recognized: fringing, barrier and submerged reefs. They offer the best choice for fishing due to the variety and abundance of fishes in this environment. However, their proximity to land means they are over exploited. The common reef fishes were recorded at about 158 species, 150 species of Mollusks, 33 species of Echinoderms and 26 species of Crustaceans.[3]

3. The biological diversity of Tonga is critical to the people of country. In addition to the significant biodiversity and species endemism, the marine ecosystems of Tonga play critical ecological roles that sustain life. The maintenance and provision of critical habitat for marine fauna and nutrient cycling are just a few of the essential ecological services provided by marine ecosystems. At least 15% of the population are dependent on fisheries resources for their

[1] Tonga Statistics Department (2021). https://tongastats.gov.to/

[2] Bone, Q and N.B. Marshall, 1992. Biology of Fishes, Tertiary level Biology. Blackie Academic & Professional, Melbourne Australia.

[3] Thaman, R. 1996. A review of uses and status of trees and forests in land use systems in Samoa, Tonga, Kiribati and Tuvalu. UNDP, Suva Fiji.

livelihoods.

4. About 55% of the fishing population are concentrated in four constituencies: Tongatapu 10; Ha'apai 13 and Vava'u 14. A wide range of harvested species support subsistence livelihoods and small-scale commercial fisheries. Almost the entire catch is harvested from the reefs and lagoons with only minor quantities of coastal pelagic harvested. These fisheries are heavily exploited and many are depleted with declines in fish density, biodiversity and size[4]. Finfish catches are dominated by herbivores (parrotfishes, rabbitfish and surgeonfish indicating depletion of predators). Overfishing is the principal cause of depletion, though destructive practices (such as sand/coral mining, mangrove cutting) and pollution also contributes to habitat degradation, leading to the decline in catch rates and catches. In common with many other Pacific Island Countries (PICs), Tonga is heavily dependent on its fisheries and ocean resources for food, transport, economic development and culture. Rural communities are particularly dependent on fisheries (in addition to agriculture) and many are highly vulnerable to extreme weather events. Tonga and its fishing communities are also in the front line of climate change - threatened by erratic rainfall, extreme weather events, sea-level rise, and loss of coral reefs from rising oceans temperatures, ocean acidification and local environmental degradation. Isolation and scale also means that Tonga and rural communities face challenges in access to markets, high costs of transport and energy. About 15% of households own fishing gear and about 5% own a boat, or canoe. About 25% of households in Tonga are estimated to currently live below the basic needs and poverty is most prevalent in the more isolated island communities heavily reliant on subsistence and cash fishing and farming. About 22% of households in Tonga are now headed by females—an increase of 757 more households than in 2016.[5] On Tongatapu, that number is 3,754 female heads of households, and on Vava'u, that number is 587. This situation has arisen given the increasing number of men who leave their families to find work overseas, leaving behind women to head the family unit. These households tend to live below the poverty level and the women's workloads are increased as they play double duty in domestic chores. Additionally, as the urban population around Tongatapu grows, overpopulation stresses have increased in swamp areas, leaving vulnerable people, including some female-headed households at risk of extreme natural events.[6]

5. Despite, the high dependency on the coastal and marine environment, these environments are facing challenges such as overfishing that is reducing stocks in the inshore waters, illegal fishing is taking place in Special Management Areas (SMAs), there is over-exploitation of live rock and coral for export. The health of the main lagoon of Fanga'uta that is of significant value to the Tongan people has declined in recent years along with the dumping of waste, leakage of raw sewage, unsustainable land reclamations and clearing of mangroves and more broadly significant erosion of the coasts by sea level rise, unsustainable sand mining and land reclamation and natural disasters such as cyclones.

Human Context and Global Significance of Project Sites

6. The project will be implemented in two of the four main island groups, namely Tongatapu and Vava'u. Tongatapu Island is the largest island with a land area of 257 km² and about 40 km in length. It lies on a geologically active zone along the edge of the Fijian and Pacific plates and has been progressively uplifted and tilted in very recent geologic time. There is no river or stream on the island, and relief is mostly flat to gently undulating, with only minor areas of rolling slopes around the southern and eastern coasts. The focus in Tongatapu island is the Fanga'uta Lagoon which is the semi-enclosed lagoon. The Fanga'uta Lagoon encompasses an area of 36.6 km² with a mean depth of ~1.4 m and a maximum of 6 m, excluding the entrance channel.[7] The Fanga'uta Lagoon supports several types of very diverse and productive ecosystems, including mangroves, mudflats, seagrass beds, and coral patch reefs. The lagoon also contributes to the sustainability of the Tongatapu Island's coastal fisheries. The fauna and flora of the Fanga'uta Lagoon system is relatively diverse: 96 species of fishes; 9 species of large algae (macroalgae); 2 species of seagrasses; 16 species of near-shore plants; 1 species of jellyfish; 1 species of sea anemones; 30 species of hard and soft corals; 40 species of mollusks (including octopus, clams and other shellfish); over 13 species of crustaceans;

[4] Tonga Fisheries Sector Plan (2016-2024)
[5] 2021 Census
[6] TSDF II p. 37.
[7] MACBIO 2017

and over 11 species of echinoderms (starfish, cucumbers and urchins). Tonga has eight (8) mangrove species; two of the most common species in Tonga and on the main island of Tongatapu are *Rhizophora samoensis* and *Rhizophora stylosa*. The mangrove areas have significant uses for local people, providing nursery ground for many fish and crustaceans as well as being traditionally exploited for construction wood, the gathering of crabs, fish and fuel wood, and used for local medicines, dyes and tannins. The lagoon is an important breeding ground for birds and fish, which live within and are supported by the mangroves growing around the lagoon's shores. The lagoon is of national significance for birds and the mangrove forests surrounding the lagoon are important feeding, roosting and breeding areas for many bird species

7. Surrounded by deep oceanic waters, Vava'u has a wide range of marine habitats and species, most notably its coral reefs and migrating humpback whales which are attracted by the sheltered deep lagoons. The reefs of the Vava'u group have a good diversity of hard corals, with a total of 206 species in 55 genera. 197 species were found that had not been reported before from Vava'u, 95 species were found that had not been reported before from Tonga, and 67 species were recorded that represented extensions of their known biogeographic ranges. A reef condition index was calculated based for the reefs around Vava'u Archipelago for coral, fish and invertebrate biodiversity, coral cover and the density of target fish. Sites with a reef score of more than 85% and a low incidence of disease, predation and pollution were considered the most eligible reefs for Marine Protected Area (MPA) status. In total seven sites, all located in the southern part of Vava'u, scored more than 85% and are considered the most suitable areas for protection as MPAs. Marine ecosystems are, however, very important to the tourism industry. Whale watching and whale swimming brings significant revenue to local businesses, including food and accommodation providers. Tourist operators are reluctant to share details about their revenue and expenditures, but they exhibit a willingness to pay for species and ecosystem conservation that will benefit the experiences of tourists. The Vaipua Channel contains an important mangrove nursery area recognized by the local community as an area worth preserving for its biodiversity values as a nursery ground for a large number of crustacean and fish species that spend other parts of their life cycle elsewhere, such as coral reefs. A large number of species that spend their juvenile stages in mangrove areas are of conservation significance, and provide a crucial trophic link between terrestrial and marine habitats. Survey sites near Taoa in the Vaipua Channel had high coral cover and potential for reef development. Almost a quarter of the benthic cover was Crustose Coralline Algae(CCA), a very important encrusting pink algae that helps reefs recover. Similarly, the small existing marine protected area covering the immediate area around each of the Lualoli, Taula and Maninita islands and its surrounding waters is identified of many conservation values, including: reef health, reef fish and fish biomass, corals, sea turtle nesting beaches, seabirds breeding site and a rare plant (*Sesbania coccinea*). This area also has a high marine mammal population especially humpback whales(seasonally) and reefs that support sharks. These three islands are also identified by Birdlife International as the Maninital important Bird Area (IBA). This IBA is a major breeding site for black and brown noddies, white terns, with smaller numbers of red-footed boobies and frigate birds. The nesting colonies support over 15,000 seabirds, especially the black noddy on Maninita and the white tern on Taula. The Vava'u Turtle Monitoring Program (VTMP) turtle nesting survey in 2012/13 identified hawksbill turtle nesting evidence on the beach at Maninita Island. Hawksbill turtles are listed as critically endangered on the IUCN Red List. The Maninita Island is also of particular interest for conservation due to the comparatively higher abundance and diversity of fish and better balanced fish community structure.

8. Many of the communities within the Fanga'uta Lagoon area are dependent for their livelihoods and wellbeing on the ecosystem services the lagoon provides. Therefore, the restoration and rehabilitation of the lagoon to a state where it can regain its resilience and sustain and provide the goods and services required is important. The lagoon is a life-support system for families and communities, providing a wide range of marine and intertidal values, water and food security, traditional medicine and livelihoods. The lagoon plays a strong role in social and cultural affirmation and has provided eco-system goods and services such as mangrove wood, fisheries, seaweed, and shellfish for generations. However, in recent years yields have dropped and some species are no longer sustainably exploited. For example, mangroves have been exploited and areas reclaimed. The lagoon also provides services such as habitats to support fisheries, attenuate pollution, carbon sequestration, recreational opportunities and coastal protection. In order to continue receiving benefits from the lagoon in the future, protecting and improving its health, ecosystem goods and services and its resilience will require the lagoon ecosystems to be healthy. In recent years, considerable concern has been expressed by both women and men about possible contamination and loss of productivity of the lagoon due to the effects of urbanization, changing land use, pollution and overfishing. Residents

of the area, young and old believe that improving the condition of the lagoon is essential to protecting livelihoods and food production, and by better preparing themselves cope with the impacts of changing climate conditions. Further information regarding the specific concerns of different groups of people, including women, youth and elders, and in targeted communities is contained in Annex 10.

9. The Fanga'uta Lagoon was declared a Marine Reserve in 1974 under the Birds and Fish Preservation (Amendment) Act for the protection of fish species and for protection of mangroves as the key nursery habitat for finfish including snapper and mullet. Mullet fishing in the lagoon peaked in the 1960s and went into decline before commercial fisheries (but not subsistence fishing) in the lagoon were prohibited in 1974. The biodiversity values of the lagoon are noted in the IUCN Directory of Protected Areas in Oceania published in 1991 and the Tonga's NBSAP Stocktaking Report of 2004 which record the number of species in the lagoon. Management of the lagoon is guided by the Fanga'uta Stewardship Plan (FSP) that was gazetted in July 2017. The Fanga'uta Lagoon is the only protected area in Tonga for wetland habitat and also has the largest area of wetlands in Tonga. The Fanga'uta Lagoon marine reserve fits into IUCN Category VI i.e. a protected area with sustainable use of natural resources. The Fanga'uta Lagoon is also important culturally as a place of beauty and enjoyment, and it has a rich archaeological history dating back over 2,850 years to early Lapita settlement.

Threats and root causes of biodiversity loss:

10. Despite global significance and national importance of marine biodiversity in the Kingdom of Tonga and a number of conservation initiatives taken during the last few decades, the country's natural resources and biological capital faces a number of threats as briefly described below:

Habitat destruction and loss of marine biodiversity

11. Marine ecosystem are systematically being degraded due to unsustainable land use (deforestation) and use of fertilizers and pesticides. Run off from surrounding farms pollute the waterways. Unauthorized encroachment and reclamation of land, which includes removal of part of the ecosystem, is contributing to the degradation of coastal and marine ecosystems. Removal of mangroves and the creation of direct access to the lagoons encourages direct littering and allows pollution from septic tanks leakages. Mining of coral for export and over exploitation and use of destructive fisheries methods (dynamite and drugs) on marine resources further degrades the marine ecosystem. As a consequence, natural and sensitive habitats are replaced with impervious roads and homes, which result in removing flora and fauna, and changes to the hydrological cycle.

12. Specifically, in the case of the Fanga'uta lagoon in Tongatapu island group, the health of the lagoon and its catchment has been in decline for some years, due to a combination of natural and human-induced environmental changes. This has been largely attributed to inadequate land development approaches that has led to the use of septic tanks in urban areas as there is no sewage drain network[8]. The septic tanks leak raw sewage into the groundwater and the coastal regions. There is also no stormwater reticulation system to retain and detain runoff during storm events While this is the case for Tongatapu, other islands are also urbanizing, as a result of which, the lagoon will face significant challenges including: pollution from poorly-managed sewage and run-off from agriculture pesticides and fertilizers; waste dumped in or near the water; changes in tidal flows and water circulation; fragmented land-use decision-making; increased competition between competing land-use practices; increased fishing pressure; and unsustainable urban and agricultural practices that cause habitat loss and degradation; and mangrove clearing and illegal land reclamation. Fanga'uta lagoon is enclosed with a unique shallow entrance and only the tide generates a significant current in its vicinity. Its water circulation is complex as tide, wind and wave-induced currents have significant roles in water movement[9]. The annual Fanga'uta Lagoon status reports prepared under the GEF Tonga R2R Phase I project compared earlier 1999 water quality monitoring data with two recent monitoring periods in 2015 and 2016. This comparison has confirmed that the depth of water in the lagoon has decreased in some sections of the lagoon (Fanga, Kakau, Funga'uta and Vaini) and water quality has deteriorated since 1999. The Pea and

[8] State of Environment Report 2018
[9] SOPAC, 2008

Fangakakau sections in the inner lagoon were found to have the most water quality concerns, with high fecal coliform counts (indicators of sewage pollution) as well as high phosphate concentrations (over international standards). In contrast the Mouth and Mu'a Sections are the cleanest parts of the lagoon. Levels of dissolved oxygen and acidity were relatively stable between the two recent monitoring periods. Nitrate (NO3) levels declined dramatically from 2015 to 2016, but the reduction of nitrate levels has not yet led to reversal of the symptoms of eutrophication, including algal overgrowth. In 2015, the level of coliform counted in different springs and wells showed significant readings (in 'Umusi, Halaleva, Havelu and Vaini, indicating excessive leakages of septic sewage into the lagoon.[10] The apparent improvement in water quality was not observed in surveys of benthic (bottom-dwelling) animals and plants which have continued to decline, particularly since 2015.[11] Corals are virtually absent from the entire lagoon system and have remained so since 1998, while average seagrass covers in all sections of the lagoon dropped to 4.5% in 2016, declining from a high of 29% in 1999 and algal cover dropped to 13% in 2016 from a high of 25.5% in 1999.[12] At the same time, the amount of mud, sand, rubble and rock has increased and now covers 73% of the lagoon floor.[13] The increase in non-living sediments may be contributing to the shallowing of the lagoon. Monitoring undertaken for the 2016 Fanga'uta Lagoon Status Report showed a significant shallowing in most of the lagoon since 1998 apart from the Mouth and Mua survey sections. In particular, this has obstructed the movement of large fish and sea animals due to heavy sedimentation near the Nukunukumotu-Nukuleka area that would require the removal of sediments to maintain depth of up to 3-4m so that fish and other sea animals could easily visit lagoon[14].

13. To support sustainable fishing, designing of Special Management Areas (SMAs) is not alone sufficient, but these need to be effectively managed and maintained by communities as well. The lack of maintenance of the lagoon has resulted In obstruction to the replenishment and recharging of the lagoon from the sea due to heavy sedimentation near Nukunukumotu-Nukuleka area. This restricts the movement of large fish and sea animals in and out of the lagoon. Hence, sediments should be removed to maintain depth of up to 3-4m so that fish and other sea animals could easily visit the lagoon.

Mangrove cutting and dieback

14. The cutting of mangroves and the reclamation of mangrove areas on the edges of the Fanga'uta lagoon has continued to occur despite being prohibited under legislation. Drivers for development on the edge of the lagoon include the pressure for land allocation (town allotments) as a result of population growth on Tongatapu, together with a failure to observe and implement the legislation. Unsustainable stripping of the mangroves for tannins for the tapa making and medicine, and cutting the mangroves for firewood and building materials, as well over exploitation of crabs and fishes pose additional threats to the remaining mangroves in Tonga. The harvest, use, and sale of mangrove wood in Tonga is not measured or monitored. Urban expansion has led to mangrove clearing and illegal coastal reclamations along the fringe of the Fanga'uta Lagoon and its extents have reduced due to limited land availability and the subsequent sub-division and housing encroaching on once mangrove-laden land e.g. Popua development. The encroachment of housing to the seawater level has meant damage to housing from flooding and storm surges is more common. The flooding impacts will only increase as the mangroves that once provided a barrier to storm surge waves are reduced, and more housing is adding to these impacts (SOE, 2019). Community members (male and female) and relevant stakeholders need to work closely together to find means of stopping illegal land reclamations along the lagoon fringes. As a consequence of reduced mangrove cover, there is loss of habitats and decrease in fish catch rate and loss of resources for buildings, crafts and medicine, in addition to damage to coastal ecosystems and foreshore protection. The resulting impacts of threats to mangroves are the loss of habitats for native marine species and the declining of essential ecosystems functions and services including normal marine hydrological cycle such as high and low tide flows. The degraded and disturbed lagoon ecosystems also provide conditions conductive to the spread of invasive marine and coastal species. Further, mangrove cutting is aggravated

[10] Pale, S. and Sunia, S (2015). Application of GIS-Spatial Analysis of the Status of Mangroves and Water Resources at Fanga'uta Lagoon Catchment.
[11] Aholahi, H. etal. (2017). Status of Fanga'uta Lagoon in 2016. Report to UNDP. Department of Environment
[12] Status of Fanga'uta Lagoon, R2R Project (2016)
[13] Status of Fanga'uta Lagoon, R2R Project (2016)
[14] Terminal Evaluation Report of Tonga R2R Project (2018)

by mangrove dieback, particularly in the largest area of mangroves at Nukuhetulu, but the cause is uncertain. The 2013 MESCAL report observed that the large-scale dieback in the Nukuhetulu area that might likely be due to a combination of factors including cyclones and/or the construction of a road connecting Nuku Island to Tongatapu. It was previously proposed to establish the Nukuhetulu mangrove forest as a conservation area, but most of the land in the Nukuhetulu area has been allocated to lease land prior to the work of IUCN sponsored 'Mangrove Ecosystems for Climate Change and Livelihood' (MESCAL) project that aimed at promoting the joint management and conservation of mangrove ecosystems that concluded in 2014. It would require significant time and resources for land compensation to return these allocated land areas to the government to enable mangrove planting with permission from the landowners. The lack of control of free range pigs has been a hindrance to replanting mangroves by destroying seedlings.

15. In terms of the Vava'u group, in particular the Vaipua Channel, its catchment is less populated than that of the Fanga'uta lagoon. In Vava'u, the conversion of lands on very steep slope for settlement and development is becoming a common practice. These areas have forests that provide supporting services for the protection of lagoon and marine resource from pollution. Mangrove harvesting is also a threat to the biodiversity of the Vaipua Channel lagoon.

Demand for marine resources

16. The status of the marine ecosystem has yet to be fully explored even though there are information available on fisheries and coral reefs. Lack of resource assessment due to financial constraints and limited expertise is the key issue for the marine ecosystem, however only few selected fisheries are known i.e. sea cucumbers, seaweed, and etc. The overharvest and overexploitation of the marine resources remain the major causes of the changed to the marine ecosystem. The main fisheries in Tonga are offshore tuna, snapper, groupers and inshore fisheries, which in the case of the Fanga'uta lagoon (refer to table 3 below). The Fanga'uta Lagoon has been known for centuries to support a large mullet fishery and prolific edible mussels which have served the needs for the inhabitants of Nuku'alofa and other villages in the northern part of Tongatapu. In recent years, however, the populations of mullet and edible mussels have declined at an alarming rate to the present stage that is threatening the food security and income opportunities for local communities. Edible mussels have disappeared from some locations of the lagoon where known to be colonies for them. This decline has resulted from habitat losses, increasing population and a subsequent higher demand for fish consumption, and increased urbanization in Nuku'alofaareas, putting pressure on the lagoon resources through overfishing, dredging for building aggregate, increased land reclamation and mangrove encroachment, and some indiscriminate discharges of domestic and industrial wastes into the lagoon. Fish stocks are now significantly reduced in mangrove areas, the lagoon and bays, and on near-shore coral reefs. However, there is little and ineffective management and conservation of inshore fishery resources with difficulties to implement minimum harvest size, or impose controls and closed seasons. The demand for marine resources has increased due to; Tonga growing population; change in diet towards a more marine protein-based products; and increase demand for marine products from overseas, (i.e. sea cucumbers fisheries resources, seaweeds, etc.). This impact is further exacerbated by some of the destructive fishing practices such as dynamite fishing, fish poisoning and using hookah are still ongoing even though they are illegal practices under the Fisheries Management Act 2002. Concerted actions are therefore required to ensure sustainability and guarantee long-term benefits for the health of ecosystems and human wellbeing. This includes ensuring that women play a more prominent role in fisheries management and governance to promote sustainability and accountability within families and communities. Young people can also make an important contribution to improving marine ecosystems if they had greater understanding of sustainable fisheries practices and were given a small role in monitoring and reporting.

Pollution and eutrophication

17. Pollution and eutrophication also affect Tonga's coastal waters and reefs. Pollution is from sewage, fertilizers and pesticides that contain phosphates and nitrates that lead to explosive eutrophication. Tonga does not have adequate sewerage systems in place and eutrophication has been reported, particularly around Nuku'alofa areas. In Fanga'uta lagoon, urban runoff and eutrophication are the suspected causes for loss of hard corals, and the algal bloom reported in the past. There is no reticulated sewerage system on Tongatapu and the existing septic tanks are often

poorly maintained and leak effluent to the groundwater system. The Tonga Building Code 2007 clearly states that the sides and bottoms of septic tanks must be impervious to water, but construction of many septic tanks does not meet this requirement. A further structural problem for septic tanks is the high incidence of earthquakes occurring annually in Tonga. More than 20% of Nuku'alofa residents do not have access to at least a household, septic tank sanitation facility. The majority of these non-septic sanitation facilities utilize an unlined dry or wet pit, which in almost all instances would be directly adjacent to underlying groundwater. While, solid waste management has improved in and around the Fanga'uta lagoon, through the efforts of the Waste Authority Limited in collecting waste and disposing of it in the Tapuhia Landfill, the lack of resources has resulted in solid waste not being sorted and there is a lack of government initiatives to support private entities in recycling which has led to recyclable materials being disposed-off at Tapuhia Landfill. In addition, people are still littering, particularly in the accessible mangrove areas and lack awareness of the serious long-term impacts of poor waste management practices

18. Runoff of agriculture fertilizers from plantations and sewage effluent are the major contributors to eutrophication. There are also concerns over wastes from boats a Pollution from solid waste is also an issue, especially in urban areas around the Fanga'uta lagoon. Overall pollution has resulted in the decrease of fish catch, loss of aquatic biodiversity, damage to coastal habitats and ecosystem health and reduced opportunities for generating sustainable community incomes.

Land Tenure and land use

19. Most of the land in Tonga belongs to the Royal Family and Nobles (chiefs) or is government land, while the remaining and is held under lease from the nobles by individual Tongan males who are granted a parcel of land for small scale agriculture (from 2 to 4 ha). On the more densely populated islands like Tongatapu, such as on the northern side of the Fanga'uta Lagoon, there is a shortage of land for households to practice agriculture or construct settlements. The non-tradability of land under the existing tenure system (except leasehold) may contribute to sub-optimal land distribution. The shortage of suitable land for residential and non-residential purposes in and around the Nuku'alofa urban area has led the large number of urban migrants of recent years to settle in the swampy and low-lying areas of Sopu and Popua, and the mangrove areas of the Fanga'uta Lagoon. The increased pressure on land use is mainly related to population growth and socio-economic developments including commercial agriculture. Land reclamation around the lagoon is the main threat to the mangrove ecosystem. A number of key environmental issues and problems have become apparent in the lagoon catchment as the Kingdom is facing a scarcity of land resources coupled with the increasing signs of land resources degradation such as underground water pollution, increased soil degradation due to the increase in commercial agriculture and increased uses of fertilizer and pesticide, loss of native forest and general deforestation, loss of habitat and biodiversity, and increased urban population with the problems of increasing waste generation. Rehabilitating degraded agricultural land is required to negotiate with many landholders to implement wide-scale improvements.

Climate Change

20. Changes in temperatures, shifts in rainfall patterns, a rise in sea levels, ocean acidification, and the occurrence of tropical cyclones are major concerns for the Kingdom of Tonga, where impacts are greater in low-lying coasts[15]. Rises in temperature can have an impact on fish catch and degradation of corals, while increases in rainfall and flooding can cause degradation of coral reefs due to pollution and sedimentation and debris deposition in the lagoons. Climate change impacts compound other threats, particularly land and coastal degradation, with pronounced impacts on natural ecosystems and agricultural lands. Conversion of mangrove forests has made coastlines even more vulnerable to storms; prolonged dry seasons combined with loss of forests are affecting freshwater biodiversity and water availability; and high rainfall washes sediment from poorly managed land. Climate change by reducing ecosystem resilience and invoking change in systems that have been mostly stable over the past several centuries can recalibrate both risk and impacts associated with IAS, permitting some novel arriving species

[15] https://climateknowledgeportal.worldbank.org/sites/default/files/country-profiles/15823-WB_Tonga%20Country%20Profile-WEB.pdf

to established, rapidly expanding their ranges and population and ultimately causing further impacts to these weakened natural systems and the associated human communities. Of major concern has been the frequency of cyclones that cause constricted entrance and reduced and less frequent flushing of the lagoons, destruction of coral reefs, have affected fisheries through damage to mangroves and fish habitats that negatively affect the lagoon ecosystems that would take years to re-establish and function normally. In addition, tropical cyclones contribute to soil erosion and salinization and affect the lagoon functions.

Barriers to achieving this vision are:

21. The Tonga R2R Phase I project was successful in establishing the Fanga'uta Stewardship Plan (FSP) to support, maintain and enhance the ecosystem goods and services of the Fanga'uta Lagoon through integrated approaches to land, water, forest, biodiversity and coastal resource management so as to contribute to poverty reduction, sustainable livelihoods and climate resilience. The project also established a multi-stakeholder management governance structure to guide the planning and implementation of the FSP, developed an Environmental Management Plan (EMP) and designed and piloted a Special Area Management (SMA) program for participatory management of sustainable fishing and safeguarding marine biodiversity of the lagoon. The FSP is a mechanism through which Tonga can achieve improved compliance with, and enforcement of existing national laws and regulations, as they pertain to sustainable development of the Fanga'uta Lagoon and catchment area. This includes regulations under the Fisheries Management Act, the Waste Management Act, the Environment Management Act, Environmental Impact Assessment Regulations, Birds and Fish Preservation Act, Land Act, Water Resources Act, and the National Spatial Planning and Management Act. The FSP supports implementation of national policies and plans in the FLC area including the Tonga Fisheries Sector Plan, the Agriculture Sector Plan, the Tonga Tourism Sector Roadmap and the Local Government and Community Development Program. The Project Gender and Social Inclusion Assessment and Action Plan (Annex 10) includes a GESI analysis of all relevant national policies and plans and suggests how equality and inclusion can be strengthened within the enabling legislative and policy environment. The FSP also supports implementation of multi-sectoral national plans in the Fanga'uta Lagoon Catchment (FLC) area including the National Biodiversity Strategy and Action Plan (NBSAP), the Joint National Action Plan on Climate Change Adaptation and Disaster Risk Management (JNAP), the National Invasive Species Strategy and Action Plan and the National Waste Management Strategy. The FSP ultimately supports Tonga in achieving results within the FLC area under the Tonga Strategic Development Framework 2015-2025. The terminal evaluation for the Tonga R2R Phase I project recommended that the project should be upscaled and the lessons learned from this project should be replicated by GoT, UNDP and other agencies involved through a second phase. The project was commended for piloting community-based management approaches of the Fanga'uta Lagoon and catchment area, for generating a lot of practical knowledge and for actively involving women and youth.

22. Consultations conducted in communities in the FLC revealed that men, women and young people have limited understanding of ecosystem values and the conservation of attendant mangroves, seagrass beds and corals despite their concerns regarding loss of ecosystem services. While women often seemed to be aware of harmful practices, they generally do not have sufficient voice and influence in community/lagoon decision-making, or adequate knowledge of alternative methods. This is evident through the mangrove clearing for land reclamation and dumping of effluent, waste and other sources of polluting substances into the lagoon that is causing eutrophication, siltation and destruction of lagoon habitats. The Vaipua Channel in Vava'u experiences less urban pressure but mangrove use and erosion are still present.

23. The Phase I terminal evaluation recommended that the second phase should cover all areas of lagoon with a comprehensive suite of activities to improve the lagoon's ecosystem services, including increasing women's knowledge, capacity and influence in lagoon management and governance. However, a number of barriers constrain the implementation of FSP and the replication of lessons learnt into priority areas on Tongatapu. These constraints, along with remedial actions to be undertaken by the Phase II project include:

Barrier 1: Limited technical knowhow, lack of appropriate models and insufficient demonstration of the benefits of ecosystem-based approaches to conserve biodiversity, adopt sustainable fisheries management practices and reduce risks and impacts associated with disruptive practices

in Fanga'uta Lagoon and the Vaipua Channel lagoon.

23. While, the focus of the FLC 'follow-up' initiatives is intended to support achievements of the main FSP objectives, in particular to focus on addressing current unsustainable patterns of resource use, there is a need for additional technical knowledge, expertise and improved models for ensuring the conservation of attendant mangroves, seagrass beds and corals and the ecosystem services they provide despite their high ecosystem values. In particular, this is constrained by gaps in technical knowledge and knowhow that takes into full consideration and cognizance of the complexity of the geological and geomorphological reality of the landscape/seascape (including the various ecological systems within them) inter-relationships and the spatial dimensions in which these interactions take place. As a consequence, activities within and outside the lagoon are undertaken without full recognition of the intricate ecological relationships that occur within these ecosystems. Mangrove restoration has been undertaken without taking cognizance of the land based pollution and damage from pigs and other herbivores. Similarly seagrass and coral reef restorative efforts require consideration of hydrological processes, water quality, water circulation, tidal flows and other ecological issues. This is further compounded by the lack of mapping and zoning of the lagoon has limited the ability to identify appropriate locations for conservation and resource use practices and regulation for their effective implementation. There is thus a need for better integration of the relationships between the terrestrial, coastal, freshwater and marine ecosystems and the activities of people and communities within them and thereby strengthen the commitment of all stakeholders towards its conservation and sustainable management and use.

24. While, the establishment of Fisheries Management Areas (SMAs) can provide an appropriate tool for the effective management of the lagoon ecosystem, this effort has solely focused on improving the management of fisheries resources rather than the effective management of the entirety of the lagoon ecosystem. There is a need to better streamline the SMA process, improve the collection, analysis and monitoring of the biological, ecological and social aspects of the SMAs to inform management efforts and address the effects of SMAs more broadly on food supply and livelihoods, including for landlocked communities.

Barrier 2: Fragmented legal and policy framework and institutional capacity to enforce the Fanga'uta Stewardship Plan (FSP) and weak enforcement and compliance and its replication.

25. The implementation of the FSP focuses on an integrated ecosystem management approach for the Fanga'uta Lagoon that recognizes that it must take into full cognizance the diverse, but inter-linked interactions that operate within this marine ecosystem. However, the compartmentalized nature of application of the legal and policy instruments through a largely sectoral lens (in particular related to fisheries, forestry, waste management, tourism, land use, agriculture and chemical usage, mining and infrastructure development) does not fully recognize the integrated relationships and coherence needed amongst the diverse interventions that operate within the lagoon ecosystem. Rather, the current practice seems to largely be applied as sector specific 'stand-alone' interventions. This is attributed to fragmented legal and policy instruments and limited understanding and functional coordination mechanisms to build and benefit from the multi-dimensional aspects related to marine resources. This has resulted in developments that have had negative impacts to the ecology of the lagoon as follows:

    - The Popua wetlands development in the FLC was undertaken without effective land-use planning and weak enforcement of existing legislation.
    - The Fisheries and Environment Management Acts refer to obligations to protect Fanga'uta Lagoon and all the species it contains that are of commercial or conservation significance.
    - The cutting and removal of timber which is prohibited within the foreshore under the Land (Timber) Regulations 1967 is poorly enforced and timber cutting and clearing of vegetation for infrastructure and development continue to occur in coastal fringes and mangroves[i].
    - The Tonga National Forest Policy (2009) has specific provisions for the protection of mangroves and other wetland ecosystems, but there is no enforcement.

- The Birds Preservation Act provides for protected species of birds and fish and prohibits damaging activities, but its enforcement is not effective as evident by the cutting of mangroves and the reclamation of mangrove areas on the edges of the lagoon.
- The Environmental Impact Assessment Act requires environmental impact assessments (EIA) for development projects, including the removal of trees (including mangroves) or natural vegetation, but development and land reclamation around the lagoon continue to contribute to deforestation of mangroves and increased sedimentation.
- The Environment Management Litter and Waste Control Regulations requires only minor fines (not exceeding TOP$50) and only if convicted.
- The regulatory framework for wastewater management (i.e. governing septic tanks) is lacking both prescriptive and punitive regulation. The building code specifies a septic tank design but there are no further requirements for vulnerable areas such as high groundwater or tanks adjacent to the lagoon. There is also no requirement to upgrade old deteriorating tanks to prevent leakage.

26. Given the above inconsistencies and deficiencies in legal and policy instruments and their enforcement, there is a need to ensure that competing sector-based priorities that operate in this ecosystem are managed effectively so as to ensure integrated management of the lagoon and other marine ecosystems. A legislative and policy review is required to ensure consistency of laws, policy and practice (in terms of sectors related to sewage disposal, fertilizer and chemical usage and leakage, water usage, run off, soil contamination, land reclamation and mangrove protection and other sectors) with conservation and protection of marine biodiversity and ecosystem services as envisaged through the implementation of the FSP. Following the legal and policy review, measures to ensure compliance should be designed and implemented. It should be noted that he Government of Tonga has made a strong commitment to systemically mainstream gender equality and social inclusion (GESI) in laws, policies and plans which provides a good foundation for project supported legislative review from a human-rights perspective in line with SDG commitments. The legal and policy review should build on this commitment to ensure that new legislations and policies are gender responsive and inclusive.

Barrier 3: Inadequate awareness and knowledge exchange among key stakeholders and local communities to conserve biodiversity and achieve integrated management of marine ecosystems

27. The tremendous global significance of the biodiversity of coastal and marine ecosystems in Tonga, the threats (many of which may remain undocumented), and the wide range of ecosystem services provided by coastal and marine ecosystems remain poorly appreciated by most islanders, despite that they are dependent on these ecosystem services for their food security and livelihoods. Awareness and understanding about marine biodiversity, ecosystem service values and threats is limited at all levels and in all sectors, which constrains engagement and behavior change. There is currently no communication strategy in place to raise awareness of the benefits and need for conservation of globally threatened and endemic species, ecosystem management and threat reduction. As a consequence, low value is accorded to these matters in fiscal policy instruments as reflected in the limited funding available to MEIDECC and MOF for exclusive promotion of conservation outcomes in the Fanga'uta Lagoon and Vaipua Channel, which limits the scaling up of awareness to assist the local community to adopt more sustainable lifestyles. There is also limited understanding of how men and women use ecosystem resources differently due to gendered roles and responsibilities and how workloads and relations are being affected by changes in natural resources. Low awareness of risks means that there is little investment in conservation and management of these ecosystems. Similarly, there is limited investment in awareness raising, training and capacity building on integrated conservation aspects either for staff or land users, including persons with disabilities (PWDs). PWDs are more vulnerable to the impacts of climate change as they are more reliant on personalized adaptive strategies to cope with their environment that requires cooperative assistance from others and are also likely to be injured or left behind after catastrophic weather events.

28. Underlying these difficulties is the lack of, including with the private sector, to find appropriate and sustainable solutions for effective management of the marine ecosystems and its productive resources. There is limited understanding regarding the condition of these wetland resources, their carrying capacity limits, and best practices in habitat protection and management, along with the application of equitable, transparent and accountability

procedures and practices related to the management of the Lagoon and Channel. Although there has been documentation of experiences from the past, there is a lack of regular review processes that involve community organizations, non-governmental and environmental organizations and research agencies, thus limiting the opportunities for replication and scaling up of best practices.

29. While the FSP articulates the need for ecosystem-based planning and management, there is usually a lack of critical baseline data on the extent, location, condition and threats on wetland resources and species. Consequently, there is an urgent need for a concerted and committed effort, with adequate human resources, technical skills and funding to monitor the condition of different resources, distribute data, and build the institutional, technical, human and infrastructural capacity needed to support on-going biodiversity monitoring and decision-making. Consequently, the country's knowledge base on biodiversity and natural resources, and capacity for stewardship is limited. Drivers of, and vulnerabilities to climate change in is also little understood. Among the local community, there is little understanding of the value of biodiversity and natural systems in providing critical ecosystem services (including mitigation of climate change impacts) to those dependent on these resources and the impacts that wetland degradation could have on provisioning of such services. The need to ensure impact data is disaggregated by sex, area, age and disability (SAAD) has been stressed.

30. **Project conceptual model:** The complex interacting web of factors that threaten globally significant marine biodiversity in Tonga is illustrated in a situation analysis in Figure 1. This indicates the key areas (indirect and direct factors) and the points where project intervention can contribute towards a reduction in the level of threats, and therefore contribute towards the conservation of biological ecosystems and globally threatened species – and the integrity of the ecosystems they inhabit. The main project intervention strategies are shown as yellow hexagons in Figure 1.

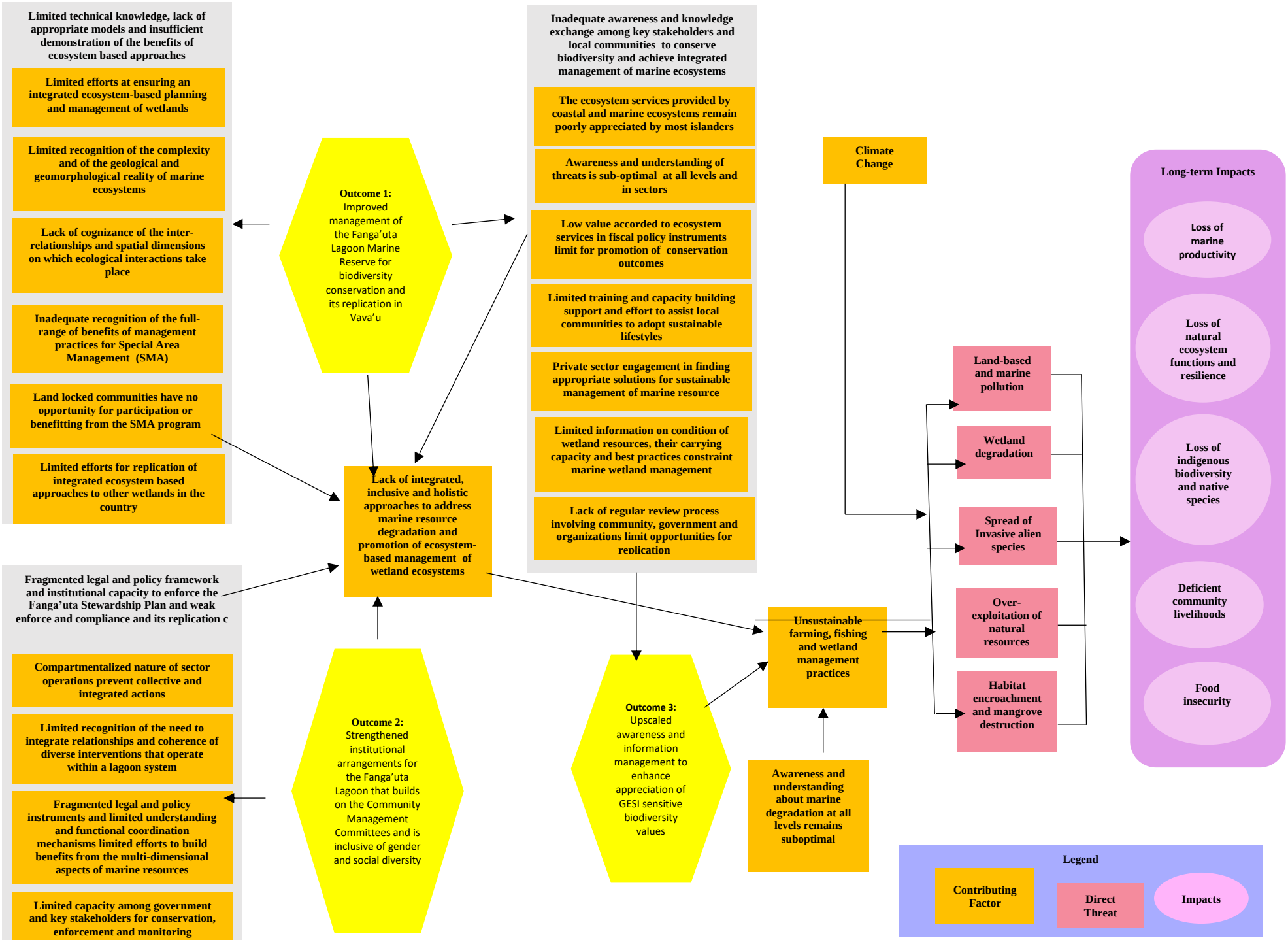


Figure 1: Problem Analysis for the project

2) Baseline scenario or any associated baseline projects

30 This section describes associated baseline projects, their achievements and linkages to the Tonga R2R Phase II project. The Tonga R2R Phase I project is mentioned here as the proposed GEF 7 project is a second phase project. It concluded in 2018 and had three components to improve the integrated environmental management of the Fanga'uta Lagoon. The GEF 7 project will build on the Phase I project by updating and implementing the FSP developed during Phase I and replicating lessons learned to priority biodiversity areas in Vava'u.

31 The extensive baseline activities provide a solid base to build on, based on the key lessons that have evolved over time. In particular, this includes the strong institutional structure that has been established for promotion of the sustainable management of the Fanga'uta Lagoon, the expertise already developed through the R2R Phase I project and the commitment of the government to manage the country's marine ecosystems. The baseline projects have helped develop a sense ownership with government and enhanced the participation of the stakeholders and communities as being the basis for driving the desirable outputs that are beneficial and relevant to the communities. Sustainability and ownership has been the core thinking in this process. Involvement of the communities in the planning process to its implementation has given people a sense of ownership and the incentive to drive the project in the direction they feel will be more beneficial to them to improve their standard of living in the medium and long term. In addition, fundamental principles and guidelines from the NBSAP, POWPA, UNCBD, JNAP, other related action plans and legislations have aided efforts at promotion of the management of these marine ecosystems to ensure coherence and complementary of these efforts. The success developed on integrated ecosystem management through the R2R Phase I project and other baseline efforts provide a foundation for controlling pollution, degradation of wetland habitats and addressing other marine environmental issues, indicating that there is scope for this approach to Tonga that could be replicated more broadly to other vulnerable parts of the country. The integrated nature of the past efforts at policy-level mainstreaming, awareness generation on IEM and land and marine degradation, arrangement of knowledge base to inform policy makers, and capacity building of government agencies, promotion of increased enforcement, research and monitoring provide a solid model for success that has been the basis for design of this project.

Table 1: Summary of Baseline Activities and Additional Complementarity

Baseline Project/Activities	Key Objectives of baseline project/activities related to the GEF project	Additional Complementarity with proposed GEF project

Integrated Environmental Management Plan of the Fanga'uta Lagoon Catchment project (GEF Grant) $1,756,880 (2014-2017)	The Plan seeks to manage the ecosystem services of the Fanga'uta Lagoon Catchment through an integrated land, water and coastal management approach thereby protecting livelihoods and food production and enhancing climate resilience. It supports maintaining and enhancing the ecosystem goods and services of Tonga's main lagoon catchment and marine reserve areas through integrated approaches to land, water, forest, biodiversity and coastal resource management that contribute to poverty reduction, sustainable livelihoods and climate resilience. It also makes a stronger linkage between sustainable development of freshwater catchment and coastal areas and promotes the implementation of holistic, integrated management of natural resources at the catchment level. The project defined creative ways to address the critical gaps in environmental and ecosystem services conservation in the Fanga'uta Lagoon catchment through the establishment of an effective governance system and sustainable management of the lagoon ecosystems; implement integrated environmental management approaches for improving conditions of critical habitats, productivity, water quality and fisheries in the lagoon catchment and strengthen knowledge and awareness of the Fanga'uta Lagoon ecosystem functions and associated socio-economic benefits within the national stakeholders and local communities.	This project outcomes provides the foundation and lessons for strengthening the implementation of the "Integrated Environmental Management Plan of the Fanga'uta Lagoon Catchment Project (FLC)" that was developed through the Phase I project and its upscaling and the lessons learned in the R2R Phase II project. The Phase II project will expand the community-based management approaches piloted in Phase I and cover all areas of lagoon with a comprehensive suite of integrated ecosystem-based activities to improve the lagoon's ecosystem services
GEF Small Grants Program (SGP)	The SGP supports complementary activities such as nursery development, address land degradation, biodiversity projects (honey bee keeping, mulberry farming, manioke and tapioca farming, vegetable gardens and native species revival), biogas projects, support for SMA establishment and Green Management Areas (GMA) in watersheds.	The SGP can support community activities that are aligned or complementary to the FSP objectives
GEF 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' USD 1,386,513	The project aimed 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. Overall, the Tonga sub-project support the implementation of a ridge to reef approach to protect biodiversity, ecosystem functions, and adapt to and mitigate climate change.	The project outcomes provide learning on improving management in existing protected areas and establishing new PAs, strengthened replanting of mangroves and protecting seagrass beds and coral reefs in Special Marine Areas, with the development of new PAs established to conserve threatened species in Fanga'uta Lagoon. Also of importance is the option for Peer-to-peer exchanges on LMMAs and sustainable adaptation methods for coastal communities and managing coastal resources in the face of climate change, plus building resilience to other serious risk factors such as cyclones and tsunamis.

GEF Ridge to Reef: Testing the Integration of Water, Land, Forest & Coastal Management to Preserve Ecosystem Services, Store Carbon, Improve Climate Resilience and Sustain Livelihoods in Pacific Island Countries. USD 10,317,454 (2015-2020)	The project aimed to test the mainstreaming of 'ridge-to-reef' (R2R), climate resilient approaches to integrated land, water, forest and coastal management in the PICs through strategic planning, capacity building and piloted local actions to sustain livelihoods and preserve ecosystem services. Specifically, project activities were aimed at pilot projects testing innovative solutions involving linking ICM, IWRM and climate change adaptation, strengthen National and Local Capacities for Ridge to Reef ICM/IWRM approaches, incorporating CC adaptation, mainstreaming of Ridge to Reef ICM/IWRM Approaches into National Development Frameworks and knowledge management and monitoring and regional cooperation	This project is specifically relevant to the GEF 7 project in that it brings a R2R approach is relevant to the planning and management of the 2 project sites. The capacity building and inclusion of the R2R approach in national policy and plans is critically relevant to the implementation of the GEF 7 project
GEF – SPREP Enhancing the capacity to develop global and regional environmental projects in the Pacific USD 1 million (2013-2017)	The project goal was to build national capacities in 14 Pacific Island countries (including Tonga) to access GEF resources through strengthening of SPREP	The overall benefit to the GEF 7 project is that SPREP as a likely partner in providing technical and policy support during implementation
GEF Mainstreaming climate change and ecosystem-based approaches into the sustainable management of the living marine resources of the WCPFC, USD 10 million	Of particular relevance is the implementation of a proactive and adaptive ecosystem-based approach to regional fisheries management, Innovative technology development and implementation to support the adaptive ecosystem-based approach to regional fisheries management and development of a strategy for improved community subsistence and resilience to climate change effects on the ecology and fisheries of the region	The GEF 7 project will build and apply the lessons of measures to improve community subsistence and resilience to climate change as well as integrating this to strategies for maintenance of a sustainable fisheries in the Fanga'uta Lagoon
Tonga Climate Resilience Sector Project (ADB Grant) – USD 19 million	The project was to implement the Strategic Program for Climate Resilience by mainstreaming climate resilience into development planning and addressing country priorities focusing on the most vulnerable sectors and communities. Under Output 4: Ecosystem Resilience and Climate-Resilient Infrastructure Investments Developed, the project intended to (i) establish community managed special marine management areas (SMAs) to introduce sustainable fishing and management of corals reefs that will benefit the local community and support local livelihoods and strengthen ability of the ecosystem to recover after climate events; (ii) identify potential mangrove planting sites to provide shoreline protection, and (iii) develop best practice guidelines and support field demonstrations on the use of mangroves as natural infrastructure in areas identified for investment.	The project provides excellent lessons for promotion of SMAs, which will be one of the key activities of the GEF 7 project. In addition In MEIDECC will be able in the future to monitor changes in mangrove cover using this platform as a baseline.

Integrated Urban Resilience Sector Project (IURSP) (ADB grant) –USD 18.275 million (2019-2025)	The project intends to enhance Nuku'alofa urban living standards by improving urban services (water, wastes, drainage, and infrastructure plus building resilience to extreme natural events and climate change). Thus, this project addresses the root causes mentioned above. In the Fanga/Haveluloto /Tofoa drainage catchment there are existing drainage outlets to the Fanga'uta Lagoon and new outlets to be constructed. The IURSP will continue support established under the NUDSP to the newly formed National Spatial Planning Authority to improve its capacity in land use planning, this will contribute to the Phase II project's objective to establish a land-use spatial plan	The IURSP would contribute to the objectives of the GEF 7 project through installation of stormwater treatment systems or nature based solutions to improve water quality from stormwater outlets into Fanga'uta Lagoon, . The land use planning envisaged under IURSP will he IURSP will contribute to the Phase II project's objective to establish a land-use spatial plan. The IURSP will also contribute to the objectives of the GEF 7 project through increasing the capacity of the septage treatment plant at Tapuhia (which will enable increased emptying of septic tanks and safe disposal of the septage at the treatment site) and increasing the capacity of the Tapuhia landfill (which will improve waste collection and reduce littering).
Tonga Pathway to Sustainable Oceans Project World Bank (2019-2025)	The objective of the Tonga Pathway to Sustainable Oceans Project is to improve management of selected fisheries and aquaculture within Tonga's territory. The Pathways project will strengthen 41 SMAs and establish 4 new SMAs and establish 30 Mabé pearl producer sites. The project will support fisheries management policy and legislation, capacity building, strategic resource management and development efforts as well as inclusive stakeholder collaboration across the selected fisheries. The most relevant sub-component is 2.3: Strengthening Tonga's Special Management Area Program. The objective of this sub-component is to support the Ministry of Fisheries in strengthening and expanding the SMA program. Activities include reviewing and updating SMA management plans; providing training and capacity building activities to Ministry of Fisheries staff and to coastal community SMA management committees to strengthen SMA management, improving SMA establishment procedures and improving monitoring and evaluation. It will also look at the potential adverse impacts on landlocked and/or neighboring non-SMA communities and identify options for mitigation to ensure that the effects of SMAs on the food supply and livelihoods of landlocked and/or non-SMA communities are adequately addressed. The total project budget is US$10 million and the budget for Component 2.3 to strength the SMA program is US$1.85 million, of which $200,000 is counted as co-financing. The project is funding about 5 SMAs in addition to designated SMA staff in the outer islands to manage SMAs in Vava'u. However, there are still many requests from communities (23 altogether that have yet to be funded) and from this, 3 are from around the Vaipua channel (Taoa, Vaipua, Vaimalo) and 6 from around the Fanga'uta Lagoon (Tofoa, Haveluloto, Siesia/ Oneata, Hoi, Pea and Patangata)	This project has direct relevance to the GEF 7 project in terms of updating SMA management plans, improving SMA establishment procedures and training SMA staff and CMCs as well as address landlocked communities. The GEF 7 project will directly build on these World Bank project activities.

Vava'u Ocean Initiative (joint program with funding from Waitt Institute)	The Vava'u Ocean Initiative (VOI) is a partnership between the Government of Tonga namely MEIDECC, Ministry of Fisheries and Ministry of Lands and Natural Resources, Waitt Institute and VEPA to strengthen and further develop sustainable ocean management programs in Vava'u. the project supports the development of three main focal areas: 1) National Marine Spatial Planning (MSP); 2) Special Management Areas (SMAs); and 3) Scientific Assessments. The SMAs focal area is a community based fisheries management program developed by the Ministry of Fisheries to designate coastal community areas including a fish habitat reserve. VOI is assisting with developing and implementing 7 SMAs in Vava'u including strengthening community management and alternative livelihood programs. Recent project work includes marine resource surveys undertaken in 2019 to support the development of three proposed SMA sites at Tefisi, Olo'ua and Taoa (Taoa is in the Vaipua Channel). The surveys created a baseline of benthos (habitat) cover, marine invertebrates and reef fish populations.	This project will contribute directly to the GEF 7 project in terms of marine spatial planning and SMA experience and alternate livelihood actions. The project also provides an useful methodology and baseline for conducting surveys of benthos, marine invertebrates and reef fish.
Fanga'uta Lagoon Crossing Bridge – proposed ADB Grant – USD 55 million	The proposed project proposes to build a bridge across the Fanga'uta Lagoon, consisting of an approximately 700 meter long bridge and 4.5 kilometers of approach roads from Nuku'alofa to southern Tongatapu. A bridge over the Fanga'uta Lagoon was identified as a key piece of infrastructure to address constraints in the current road network and to ease traffic congestion on the southern and eastern sides of Tongatapu, including the route to the airport. The bridge and its approach roads will also provide an alternative evacuation and access route in case of disasters triggered by natural hazards. The project will play a key role in the eventual climate change-induced urban redevelopment of the island, as it will help drive land and spatial planning decisions. The bridge project management unit (PMU+ are currently consulting with stakeholders including the FSP CMC.	The proposed land-use spatial plan to be developed under the Tonga GEF 7 project will ensure that any changes in land use on the south side of the bridge take into consideration nearby mangrove areas in the lagoon. This project could contribute to the objectives of the GEF 7 project through support for mangrove rehabilitation and the underlying investigations required for the proposed land-use spatial plan. The project will contribute co-financing through financing complementary activities to mitigate any potential impacts of the proposed bridge on the ecology of the lagoon.
Pacific-European Union Marine Partnership program (multi-country – EURO 50 million	The PEUMP) program that aims to improve the economic, social and environmental benefits for 15 Pacific-African Caribbean Pacific states through stronger regional economic integration and the sustainable management of natural resources and the environment. The PEUMP program will focus on supporting sustainable management and development of fisheries for food security and economic growth, while addressing climate change resilience and conservation of marine biodiversity. The program has six key result areas targeting gaps in fisheries science; fisheries development; coastal resources and livelihoods; illegal, unreported, and unregulated fishing; ecosystem-based management; biodiversity conservation; and capacity building at the national and community levels.	This program is very relevant to the GEF 7 project in that it will bring lessons from other countries, enable knowledge sharing and training in key aspects of fisheries management, coastal resources and livelihoods, ecosystem-based management and illegal fishing

Alignment with national and global priorities:

31 The project is aligned with the following national and global strategies and plans that link directly to global conventions and related initiatives:

Alignment with national priorities

32 The Tonga R2R Phase II project will support the goals of various national development policies in Tonga, including Tonga Strategic Development Framework (2015-2025), National Biodiversity Strategy and Action Plan (2019) and Tonga's 2nd Nationally Determined Contributions (NDCs) under the Paris Agreement. The Tonga National Environmental Management Strategy is under preparation by the government and has not been assessed for consistency.

Tonga Strategic Development Framework (TSDF) 2015-2025

- The proposed project will directly support the objectives of the TSDF 2015-2025, in particular national outcomes B, C, D and F:
- National Outcome B. a more inclusive, sustainable and balanced urban and rural development across island groups
- National Outcome C: human development with gender equality and more balanced and effective engagement of both men and women in decision-making and social, economic and political institutions
- National Outcome D. a more inclusive, sustainable and responsive good governance with law and order
- National Outcome F. a more inclusive, sustainable and effective land administration, environment management, and resilience to climate and risk.

33 The land-use spatial plan proposed under this Tonga R2R Phase II project will contribute to achieving Pillar 5, "Outcome 5.1: Improved land use planning, management and administration with stronger and appropriate enforcement to ensure the better provision of public spaces as well as private spaces". The proposed planting and rehabilitation of mangroves and seagrass beds and improving coral cover will contribute to achieving "Outcome 5.2: Improved use of natural resources for long term flow of benefits". Mangrove planting in coastal areas will also contribute to achieving "Outcome 5.4: Improved resilience to extreme natural events and impact of climate change" through improving coastal protection.

Tonga's National Biodiversity Strategy and Action Framework to 2030 (Draft version from 2019)

34 Tonga's second NBSAP notes two major threats to biodiversity: indiscriminate expansion of commercial agriculture; and overharvesting of land and marine-based forests ecosystems, resulting from rapid population growth and people migrating to town centers. The Tonga R2R Phase II project's focus on lagoon ecosystem services and land-use spatial planning will at least partially address both of these threats.

35 The Tonga R2R Phase II project is also aligned with all of the five strategic goals in the Draft NBSAP:

- Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society.
- Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use.
- Strategic Goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity. Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services.
- Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building.

Tonga's Sixth National Report to the United Nations Convention on Biological Diversity (2014)

36 Tonga's Fifth National Report to the UNCBD reported on Tonga's progress against the objectives of their National Biodiversity Strategy and Action Framework (NBSAF) under its overall vision of "Tonga's biodiversity and genetic resources are protected, conserved and sustainably managed". Tonga's NBSAF has 37 objectives under 8 themes. The most relevant themes to the Tonga R2R Phase II project are Theme 1 Forest ecosystem (including mangroves), Theme 2 Marine ecosystem, Theme 5 Local Community and Civil Society. The Tonga R2R Phase II project is aligned with many of objectives of the NBSAP and the most relevant are listed below:

- Objective 1.2 To ensure the optimal and sustainable allocation and use of Tonga's land and natural resources (The Phase II project will contribute through the proposed land-use spatial plan which matches the indicator "An integrated land use plan adopted & implemented. Legislation and polices adopted & enforced").
- Objective 1.3 Community participation to ensure the sustainable management of Tonga's natural resources (through the proposed community planting and rehabilitation of mangroves, rehabilitation of seagrass beds and improving coral cover).
- Objective 1.4 To improve the management of existing parks and reserves and, consistent with the integrated land use plan, to expand the conservation area network to recover representative samples of all major terrestrial ecosystems (The Phase II project will contribute through strengthening the management of the Fanga'uta Lagoon marine reserve).
- Objective 1.5 To promote the effective and systematic collective and management of relevant information through scientifically designed research and surveys. (The Phase II project will contribute through continued ecosystem monitoring and the development of an accessible information system pertaining to the Fanga'uta Lagoon and the Vava'u priority biodiversity areas).
- Objective 2.2 - Marine conservation areas. To expand the existing network of protected areas to effectively conserve major coastal and marine habitats of biological and socio-economic value. (The Phase II project will contribute through evaluating the effectiveness of and lessons learnt from SMAs for fisheries within the lagoon and by expanding and creating two marine protected areas in Vava'u).
- Objective 2.5 - Public awareness and education. To enhance public knowledge and understanding of Tonga's marine ecosystems and of issues related to their conservation as a mean of fostering public support for marine conservation objectives. (The Phase II project will contribute through its awareness program to enhance appreciation of the biodiversity values of the Fanga'uta Lagoon and the Vaipua Channel on Vava'u).
- Objective 5.1- Local communities and resource owners. To empower local communities and resource owners to effectively participate in the conservation and the sustainable management of biodiversity resources in areas under their control. (The Phase II project will contribute through its community based conservation area projects).
- Objective 5.2- Civil Society. To empower civil society and groups to be effective advocates of biodiversity & sustainable resource management. (The Phase II project will contribute through its community management committees tasked with implementing the FSP and improving governance on the Vaipua Channel on Vava'u).
- Objective 7.2- Multi-sectoral collaboration. To improve and strengthen multi-sectoral collaboration amongst all relevant sectors and stakeholders in support of biodiversity conservation and sustainable development. (The Phase II project will contribute through its cross sector collaboration between government agencies, NGOS, communities and local businesses).

Tonga Ocean Management Plan 2021:

37 This plan provides overarching goals that guide the management, monitoring, and evaluation of the ocean plan including conservation outcomes and benefits to livelihoods and economic sectors. This is to be achieved through

the following ocean management objectives, namely (1) Ensure sustainable socio-economic development and use: To ensure that Tonga benefits economically and socially but at the same time and at the same time ; (2) be able to ensure food security: To improve coherence, coordination and sustainability of Government activity on this issue by shaping and developing local data to optimize its use in decision making to improve food security in Tonga. (3) Conserve biodiversity: To promote the understanding, management, conservation and protection of the biological diversity of the Kingdom and to improve conservation of threatened species in Tonga and to encourage the development of different conservation approaches for the protection of both land and marine different flora and fauna.(4) Minimize conflicts between users**:** To coordinate actions and investments in space and time to ensure positive effects from those investments, both public and private, and to facilitate complementarity among jurisdictions as well as creating and stimulating opportunities for new users of marine areas. (5) Build climate change resilience and adaptation: To build (natural) resilience to extreme natural events and climate change and to implement actions that is designed towards the building of a resilient Tonga and (6) Protect and rehabilitate the environment: To protect nature, which has its own requirements that must be respected if long-term sustainable human development is to be achieved and if largescale environmental degradation is to be avoided or minimized.

Fisheries Sector Plan 2016-2024:

38 Goal 1: Promotes Sustainable community fisheries and use of coastal marine ecosystems through the following sub-components: Sub-Component 1.3: Enhancement of the Special Management Area (SMA) program; Sub-Component 1.2: Expansion of the SMA network and Sub-Component 1.3. Management of community fisheries. Goal 3: Efficient and knowledge-based government services and effective collaboration with industry and civil society. Sub-component 3.1. Capacity building in the fisheries administration; Sub-component 3.2. Coordination and support of stakeholder capacity building and Sub-component 3.3 Policy reform processes, including delegated responsibilities to communities over SMAs.

Agriculture Sector Plan 2016-2020

States that climate change is the single biggest issue to shape the future of agriculture in Tonga and the ability of the country to be self-reliant; notes the unrealized potential to adopt a “food first” approach for households to reduce dependence on imported foods and increase agriculture goods for sale; points out that there is inadequate recognition of the role that women play in the agriculture sector, and little knowledge and practice of soil and water conservation techniques.

Joint National Action Plan 2 on Climate Change and Disaster Risk Management (2018 - 2028)

39 Targets for a Resilient Tonga:

Target 1: Resilient coastal development, infrastructures and integrated coastal ecosystems management including the sustainability and resiliency of offshore minerals exploration and mining
Target 4: Resilient fisheries development and marine and coastal ecosystems (coral reefs, mangroves, sea grass etc.) conservation including special management area.
Target 8: Ecosystem based approach to development and conservation of biodiversity and any special management area such as cultural and historical sites
Target 9: Resilient Tourism Development and tourism infrastructures
Target 12: Strengthened capacity and awareness for all families and communities of climate change and disaster risk management with special attention and capacity for disaster preparedness, response, recovery, rehabilitation and building back better
Target 13: Strengthened parliamentary and institutional capacities working towards achieving resilience targets
Target 17: Gender equality and social inclusion (GESI) for resilient development
Target 20: Sustainable funding for climate change and resilience building needs

Forestry Policy 2009:

40 Supports coastal protection, protection of mangroves and restoration to prevent erosion and wetlands to be protected.

Climate Change Policy: A Resilient Tonga by 2035:

41 The intent of both this revised Climate Change Policy is that they will provide both the overarching framework and the action plan for the development of 'a Resilient Tonga' by 2035. It is therefore anticipated that all relevant sector policies and plans, as well as community development plans and island strategic development plans, will be aligned with this policy and the revised JNAP. The Policy suggests that (i) every costal community has a SMA and protected coastal environment, resilient low chemical input or organic farming, native biodiversity is fully protected and enhanced, development and full implementation of a zero-waste policy; a gender responsive and equitable society and an economy that is in harmony with the need of a resilient economy and society.

Alignment with International priorities

43 The project also contributes to the 2030 Agenda for Sustainable development, notably with respect to the following **Sustainable Development Goals** (SDGs):

- *SDG 2 End hunger, achieve food security and improved nutrition, and promote sustainable agriculture*, by enhancing food security in the Tongan Islands through managing risks from IAS and supporting sustainable agriculture;
- *SDG 5: Gender Equality:* Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life; undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws; enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women and adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels
- *SDG 13: Climate Action:* strengthen resilience and adaptive capacity to climate-related hazards and natural disasters; integrate climate change measures into national policies, strategies and planning and improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning
- *SDG 14 Conserve and sustainably use the oceans, seas, and marine resources for sustainable development* by testing and implementing fisheries management measures and enforcing compliance in Tonga seascapes; prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution; sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans; effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics; conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information; and increase the economic benefits from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism
- *SDG 15 Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss*, by supporting conservation and sustainable management of forests in Tongan islands to reduce land degradation; and introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species.

44 In respect to the **Post 2020 Global Biodiversity Framework** (GBF), the project will contribute to the following targets:

- Target 1: Ensure that all land and sea areas globally are under integrated biodiversity-inclusive spatial planning addressing land-and sea-use change training existing intact and wilderness areas. This will be achieved through a ridge to reef planning exercise in the nine pilot catchments that ensures that protected

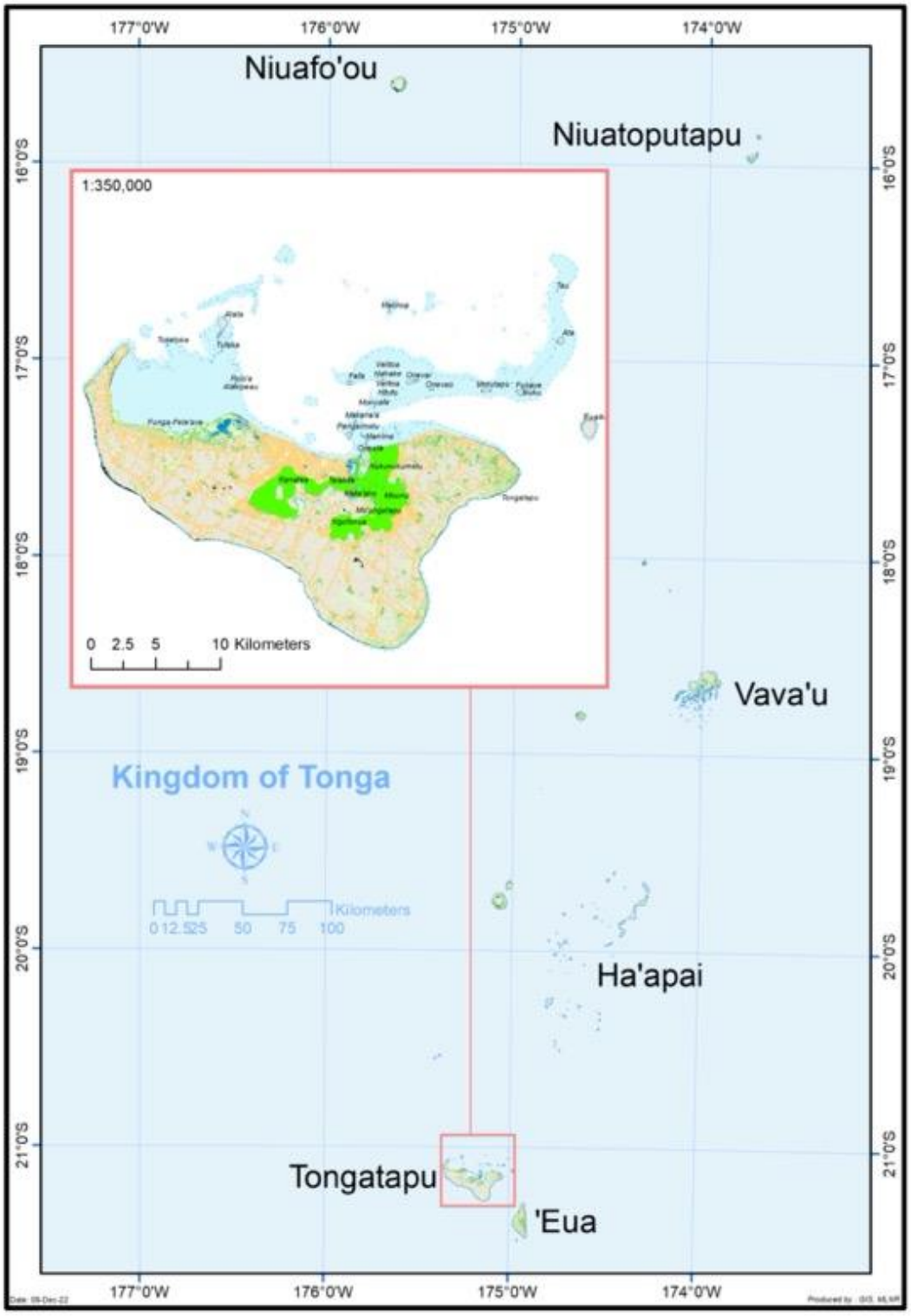
areas and community conservation areas and community fisheries reserves are integrated at the catchment planning level;

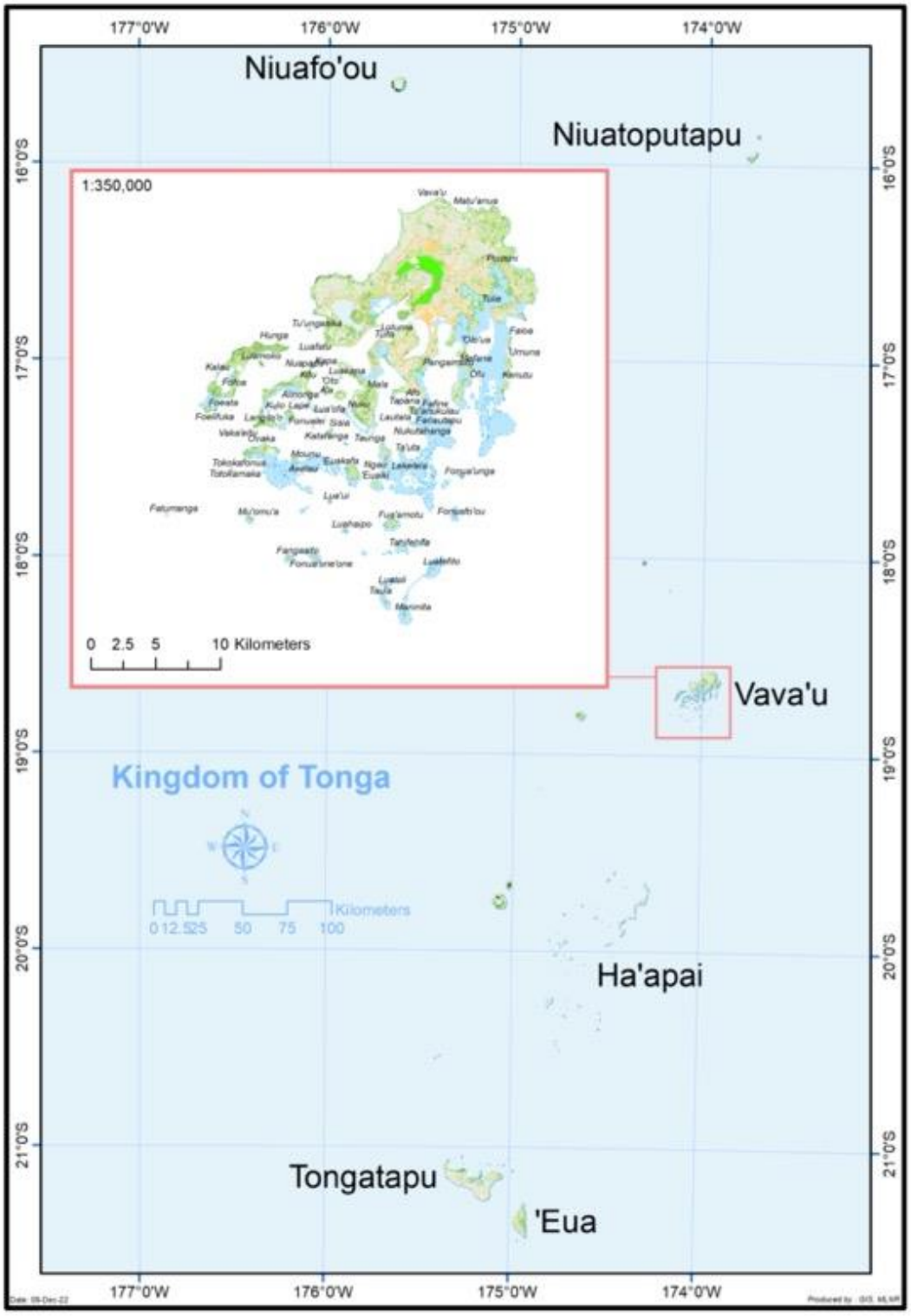
- Target 2: Ensure that at least 20 percent of degraded freshwater, marine and terrestrial ecosystems are under restoration, ensuring connectivity among them and focusing on priority ecosystems. The project will support the prevention and management of IAS in these natural areas as a means to maintain their ecological viability.
- Target 3: Ensure that at least 30 per cent globally of land areas and of sea areas, especially areas of particular importance for biodiversity and its contributions to people, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.
- Target 6: Manage pathways for the introduction of invasive alien species, preventing, or reducing their rate of introduction and establishment by at least 50 per cent, and control or eradicate invasive alien species to eliminate or reduce their impacts, focusing on priority species and priority sites. The project primary focus would be on the prevention and management of IAS, focusing on priority species in natural and production areas as well as reducing possibility of further introductions into the country through active biosecurity measures;
- Target 9: Ensure benefits, including nutrition, food security, medicines, and livelihoods for people especially for the most vulnerable through sustainable management of wild terrestrial, freshwater and marine species and protecting customary sustainable use by indigenous peoples and local communities. The project will specifically target unsustainable land and marine use practices that promote proliferation of IAS through sanitary measures, reducing land use practices that favor IAS transmittal and dispersal.
- Target 10: Ensure all areas under agriculture, aquaculture and forestry are managed sustainably, in particular through the conservation and sustainable use of biodiversity, increasing the productivity and resilience of these production systems through improved land use and marine use practices.
- Target 20: Ensure that relevant knowledge, including the traditional knowledge, innovations and practices of indigenous peoples and local communities with their free, prior, and informed consent, guides decision making for the effective management of biodiversity, enabling monitoring, and by promoting awareness, education and research. The project will encourage the promotion of traditional practices of IAS prevention and control as well as current/traditional sustainable practices related to agriculture, fisheries and grazing
- Target 21: Ensure equitable and effective participation in decision-making related to biodiversity by indigenous peoples and local communities, and respect their rights over lands, territories and resources, as well as by women and girls, and youth.

45 In relation to the Paris Agreement, the project will contribute to the following adaptation targets under Tonga's Second Nationally Determined Contributions (NDCs):

- Prevent any permanent loss of land to rising sea levels on Tonga's four main islands (Tongatapu, Ha'apai, Vava'u and 'Eua) and maintenance of the existing stocks of fish and other marine species through the expansion of MPAs and SMAs to 30 percent of Tonga's EEZ.

Map 1: Maps of Tonga (showing project locations)


177°0'W
176°0'W
175°0'W
174°0'W
16°0'S
17°0'S
18°0'S
19°0'S
20°0'S
21°0'S
Niuafo'ou
Niuatoputapu
1:350,000
0 2.5 5 10 Kilometers
Vava'u
Kingdom of Tonga
Kilometers
0 12.525 50 75 100
Ha'apai
Tongatapu
'Eua


177°0'W
176°0'W
175°0'W
174°0'W
16°0'S
17°0'S
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19°0'S
20°0'S
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Niuafo'ou
Niuatoputapu
1:350,000
0 2.5 5 10 Kilometers
Vava'u
Kingdom of Tonga
Kilometers
0 12.525 50 75 100
Ha'apai
Tongatapu
'Eua

III. STRATEGY

46. The overall objective of the project is to *support the mainstreaming of biodiversity through the implementation of the Fanga'uta Stewardship Plan (FSP) and the replication of lessons learned to priority areas in Vava'u.* This will build on the baseline activities and the parallel co-financing and utilize GEF resources to implement strengthened integrated management for wetland biodiversity and ecosystem conservation, consistent with a ridge-to-reef approach as discussed in the baseline section (Paragraph 31 above). Specifically, the Tonga R2R Phase II project will facilitate the further improvement of the ecosystem services of the Fanga'uta Lagoon through implementing the FSP in the Fanga'uta Lagoon catchment area and replicate the success and lessons learned into priority marine areas in Vava'u. Through this process, the project aims to ensure that the marine biodiversity and ecosystems of the Kingdom of Tonga are at reduced risk from threats such as resource degradation, unsustainable resource, pollution and other threats while supporting sustenance of ecosystem services important for resilient and sustainable livelihoods; and are supported through effective and enabling governance mechanisms and capacity that ensures effective participation from local communities, including women, men, young people and elders . The project will equip and empower local communities to safeguard the country's biodiversity, natural ecosystems and associated ecosystem services including marine food production systems from over-exploitation and unsustainable use. The project will also promote effective generation and dissemination of knowledge related to sustainable use and management of marine resources widely in the country.

47. The project recognizes that reducing threats and impacts associated with unsustainable resource use is critical to safeguarding marine biodiversity and ecosystems. To achieve this, the project will support harmonization of legislation and policies and strengthened capacity for use of safeguard tools and mechanisms.

48. The GEF alternative aims to remove barriers to implementation of the FSP for improving biodiversity and ecological services of the Fanga'uta Lagoon to sustain livelihoods, reduce poverty and improve climate resilience of surrounding communities. This will be achieved through: (1). Enhancing governance, information and capacity in government to support improved environmental conditions in the lagoon; (2). Enhancing equitable and inclusive a decision-making across key sectoral entities and stakeholders to reduce and manage threats to the lagoon ecosystem; (3) Supporting restoration and conservation of existing natural systems such as mangroves, coral reefs and seagrass beds and measures to reduce threats to these resources through coordinated and sustained community actions and (4) Strengthening the ongoing monitoring system for the management of the lagoon (and its extension to Vava'u) for improved ecosystem health and promote adaptive management that enhances the overall ecology of the lagoon. This project will empower stakeholders, including the men, women and youth from local communities, to maximize ownership and long-term sustainability. This will be achieved by promoting opportunities for nature-based economic livelihood development and improving communication and awareness on the linkages and benefits of conservation of marine biodiversity and ecosystem services with the food security, economic wellbeing and prosperity of rural communities. The critical role that women and youth can play in this effort must be recognized.

    The project recognizes the crucial role played by marine ecosystems in supporting the lives and livelihoods of local communities, particularly vulnerable groups. Therefore, it aims to implement a coherent strategy that promotes effective and sustainable use of marine resources while fostering the development of a sustainable economy. To achieve this goal, the project employs an integrated Ridge to Reef (R2R) approach that aligns with the vision of the FSP. The project's ultimate objective is to improve the management and conservation of coastal, and marine biodiversity and ecosystem while supporting sustainable livelihoods. The project also recognizes the risks and impacts associated with unsustainable resource use and disruptive activities and aims to effectively reduce them. This requires building and sharing knowledge on sustainable use and approaches effectively across government, stakeholders, and local communities.

49. In summary, the project will be implemented over a 5-year period based on the following principles:

- Ensuring that at harmonized cross sectoral and holistic national policy, planning, coordination and capacities are in place to support implementation of the FSP;
- Furthering an *integrated Ridge to Reef Approach* for safeguarding native biodiversity, natural ecosystems and food security rather than an exclusive sector- centric approach;
- Supporting and implementing a *participatory, consultative bottom-up project planning and implementation approach* that maximizes community ownership and long-term sustainability;
- Supporting *decentralized planning and management by communities, local district administration using the existing traditional decision-making processes* as the building blocks for integration of conservation, sustainable resource use and livelihood improvement that is commensurate with climate risk management and inclusive of the needs and perspectives of the whole-of society;
- *Strengthening capacities* of communities, women and youth and persons with disabilities (PWDs), local administration and other key stakeholders (including the private sector) within a cross-sectoral and holistic planning framework to address related concerns;
- Improving *coordination and collaboration* between local administration and national sector agencies to deliver technical expertise extension and best practices for management of the lagoon;
- Mainstreaming marine resource planning and management into key development sectors (forestry, agriculture, fisheries, waste management, infrastructure development, etc.) and management of the interface between natural areas (terrestrial and marine) and surrounding community productive areas through strengthening of community-managed approaches;
- Ensuring that in its development and implementation, gender equality and social inclusion (GESI) is mainstreamed so that the project contributes to equality and equity, through the creation of equitable opportunities and benefits for both women and men, girl and boys, including those with disabilities;
- Creating *an effective knowledge base* that builds on successful lessons and experiences from previous and on-going programs and projects;
- Ensuring an *adaptive management approach* that considers ecological, demographic, social, safeguards, market, technological and economic factors for ecosystem management; and
- Selectivity with respect to interventions and locations within the lagoon and its catchments to demonstrate cost-effective management responses that at least in some cases may be replicated elsewhere

50. The above will deliver the following desired outcomes:

- The overall effectiveness of government efforts to conserve biodiversity, reduce and restore degraded marine areas and ensure GESI mainstreaming across other sectors;
- Enhanced capacity of government officials and staffs in all sectors will lead to improved delivery of mandates and greater implementation and enforcement of GESI-sensitive legislation and policy related to marine systems;
- Enhanced capacity of communities, including women, men, youth and vulnerable people in wetland biodiversity and ecosystem conservation techniques and approaches lead to greater engagement and participation in achieving enhanced food security and conservation outcomes;
- Improved awareness and knowledge on the links between community engagement, gender equality and social inclusion, biodiversity and sustainable marine resource use and economic wellbeing will help facilitate behavioral shifts and increase support for biodiversity and ecosystem conservation across communities, government ministries in the range of relevant sectors, NGOs and private sector;
- Sustained economic incentives, resilient and sustainable livelihoods can bring about desired shifts in behavior and uptake in biodiversity and ecosystem conservation practices;

- Improved benefits from marine economic opportunities through small and medium enterprises (SME) and livelihood promotion that transform biodiversity and ecosystem impacting sectors) to be more biodiversity- and eco-friendly.

51. The above expectations have informed the project's components and approach, based on the premise that biodiversity loss and marine resource degradation are fundamentally inter-connected and can be successfully tackled by addressing them simultaneously in ways that deliver benefits to local communities.

52. The project objective will be achieved via three interrelated strategies (Project Components comprising Outcomes and Outputs) that focus on removing the three key barriers that constrain the accomplishment of the desired long-term solution (**Figure 1**) by means of intervention pathways shown in the theory of change diagram (**Figure 2)**. Indicators and assumptions for the accomplishment of expected Outcomes under the respective Components are given in the Project Results Framework. The three Components are:

Component 1.	Conservation of critical lagoon ecosystems and management of the catchment to improve ecological services of the lagoon and replication in priority areas in Vava'u.
Component 2.	Governance: Policies, institutions and capacity building for sustainable and adaptive management and biodiversity conservation.
Component 3.	Awareness raising and knowledge management of the ecosystem functions and services of the Fanga'uta Lagoon and the priority Vava'u biodiversity sites

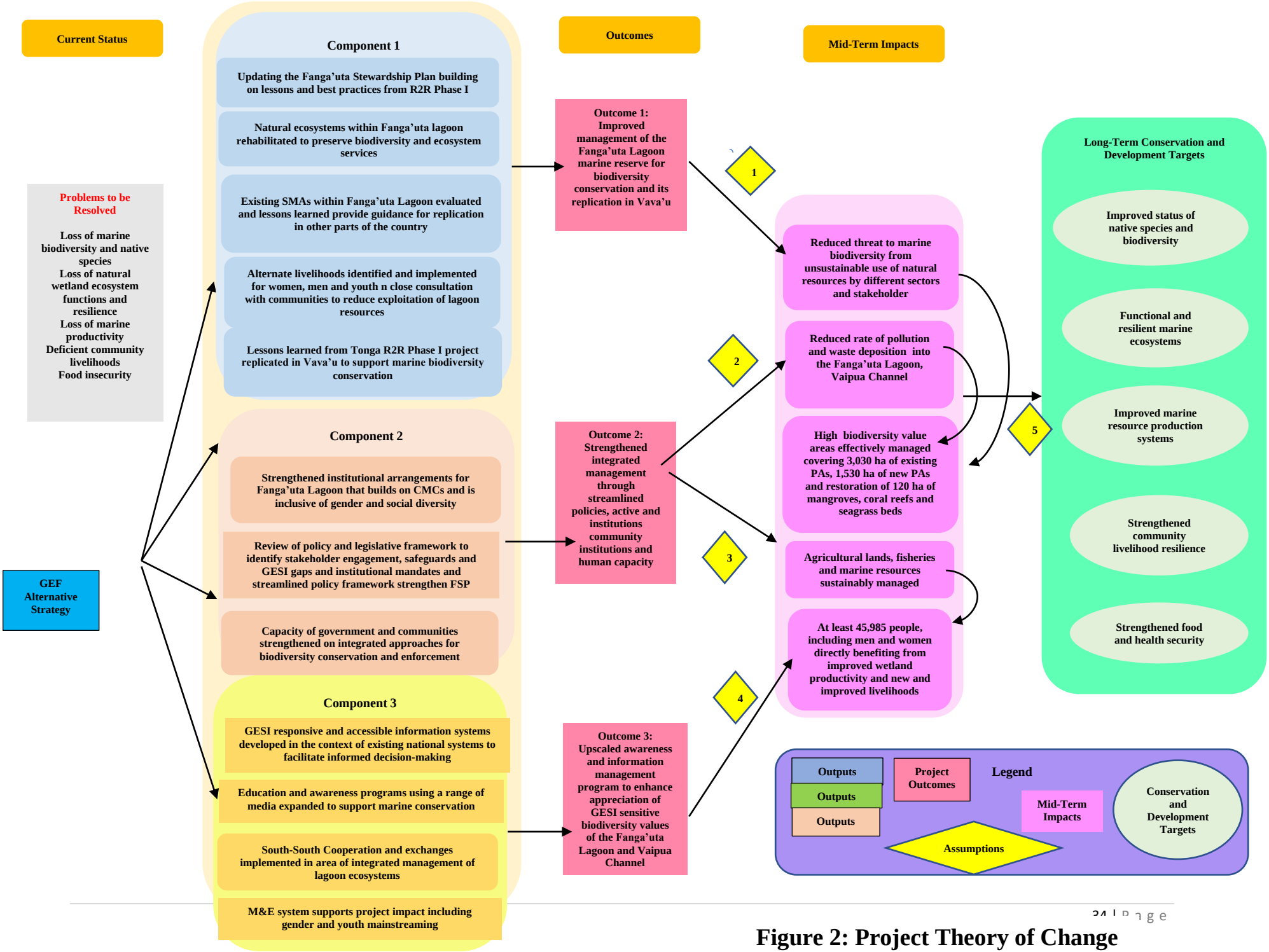


Figure 2: Project Theory of Change

Table 2: Key assumptions underpinning the Theory of Change

Number in Figure	Assumption	Notes and References
1	The increased capacities of local stakeholders, including fishers, farmers, and other marine resource dependents ensure sustainable and appropriate use and management of natural resources that results in reduction of threat to endemic species and ecosystems	The project will benefit from best practices of R2R planning from R2R Phase I project and the testing of innovative approaches for community engagement and management, and improving gender equality and social inclusion of coastal and marine areas under local community governance mechanisms. These approaches is innovative and build on existing practices from Phase I as well as best practices available from other parts of the country or regionally. The support for improved blue/green livelihood measures will build adequate incentives to enhance local community participation in ensuring conservation outcomes. The lessons learned including the feedback on R2R, SMA and livelihood planning will be channeled back into the collective knowledge base and will be used in other areas in the country.
2	There is political support for the strengthening GESI responsive legal, governance and institutional framework for SMAs, detection and control of IAS and unsustainable development activities	The Tonga government is placing a strong emphasis on ensure improved management of its land and seascapes as well as preventing, controlling, and managing unsustainable and destructive natural resource use in the country. This is to be achieved through improved coordination across different sectoral agencies and between national and district entities, establishing foundation for coordination and improved integrated marine resources management and improving information management systems. The government's commitment towards ensuring sustainable management of its seascapes is expressed in the NBSAP as part of the strategic priorities and supported by specific actions. Since the adoption of the NBSAP, a number of government and donor funded activities have been implemented in the country.
3	The developed capacities of governmental (particularly agencies that would be responsible for fisheries, environment, agriculture, tourism and waste management), GESI (Internal Affairs) and supporting collaboration, coordination and technologies are sufficient to create a viable and effective means to prevent marine biodiversity and ecosystem degradation	In line with the above, there is an increasing realization that there is a need for an improved management of marine and coastal habitats in the country and strengthen integrated measures for its planning and management, monitoring and enforcement. To support this, a critical aspect of the project is to ensure that there is an improved action plan/management plans for the proposed project wetlands, improved Fisheries Regulations stipulating shared SMA processes and equitable access to marine resources, enhance community management committee capacities for resource conservation and sustainable use, reduction of pollution and wastes and prevention and management of IAS.
4	The raised awareness and increased knowledge management expand GESI, political understanding and actions supporting biodiversity and ecosystem conservation and management within the country	The importance of actively addressing natural resource management and is recognized as fundamental to ensure the maintenance of native species and marine ecosystems in the country. The project promotes increased awareness, a monitoring system and information and knowledge promotion. If this is achieved, it will provide the country with a tested approach to direct and support natural resource conservation efforts throughout the nation.

5	There is stability in the economic and political global environment	The achievement of long-term impacts will likely be achieved if the assumptions from 1 through 4 are effective. However, this achievement is ensured based on the following assumption, namely that national and international macroeconomic conditions and other natural or man-induced factors (such a Covid-19) remain stable and manageable, so that this does not shift government priorities.

IV. RESULTS AND PARTNERSHIPS

Expected Results*:*

Global Environmental benefits:

53. The project aims to protect globally significant marine species ecosystems that are currently at risk from coastal and marine degradation and unsustainable resource use. This is essential to maintain the biodiversity of the Kingdom of Tonga and ensure sustainable livelihoods and food security. of the project will focus on implementing a management system to promote sustainable management of native marine biodiversity and ecosystems through a ridge to reef approach. The ultimate goal is to reduce environmental impacts and address threats to critical marine ecosystems while safeguarding food security systems from unsustainable resource use. To achieve this, the project will use the FSP as the instrument for strength institutional, legislative and technical measures, which will facilitate policy development, coordination and implementation of concrete measures to reduce risk and impacts from unsustainable resource use and sector-based threats on a broad scale. Moreover, specific prevention and management actions will be implemented to improve protection of both marine biodiversity and ecosystem services and food production systems from unsustainable and destructive resource utilization practices. The project sites will serve as demonstration sites to showcase effective management actions that be replicated throughout the nation. The project will have the following benefits:

- A strengthened national institutional, legislative and inclusive governance strategy for improved decision-making reduces threats on globally significant marine biodiversity and ecosystems within the Fanga'uta Lagoon and later the Vaipua Channel
- Implementation of improved site-level planning, implementation and monitoring of management measures safeguard indigenous species, natural marine ecosystems;
- Sustainable management of fisheries, tourism, livelihoods and other production systems promote improved local-based economies and increased income; and
- Improved awareness and knowledge for risk and threats promote improved GESI-responsive marine resource management approaches and technologies.

54. The two target sites comprising the Fanga'uta Lagoon in Tongatapu and the Vaipua Channel and three Protected Marine reserves of Lualoli, Taula and Maninita Islands in Vava'u covering approximately 4,560 ha includes a mix of community managed conservation areas, natural marine habitats and area of productive resource use (Table 3)

Alignment with GEF focal area objectives

55. The project is consistent with the GEF 7 Focal Area Strategies, in particular the Biodiversity Strategy and two of its objectives, which are:

- BD Objective 1: Mainstream biodiversity across sectors as well as landscapes and seascapes;

- BD Objective 2: Address direct drivers to protect habitats and species

56. More specifically, the project supports GEF BD-1-1 (by: (i) by demonstrating sustainable seascapes management across stakeholders, focusing on safeguarding marine biodiversity, ecosystems and food production.; (ii) working with local communities through the existing Special Management Area (SMA) approach to implement improved activities that contribute to biodiversity conservation, sustainable resource use and income-generating opportunities. Mainstreaming is achieved by improving inter-sectoral coordination, integration into priority sectors (agriculture, fisheries, forestry and infrastructure development), effective sharing of information and promoting adoption of improved decision-making tools. Project will also provide technical support and capacity building, and promote demonstration and knowledge sharing..

57. Without the GEF project, biodiversity integration in sectoral activities would be limited, leading to further biodiversity loss and degradation through pollution, waste disposal, over-fishing, land reclamation, and sediment deposition in the lagoon. The project corrects this by improving coordination across agencies, capacity building, and strengthening monitoring and information management systems. The project supports government efforts within the framework of the FSP implementation to mainstream biodiversity conservation in priority sectors and improve ridge to reef management towards effectively management marine biodiversity and ecosystems. The project will support the identification of mainstreaming entry points in relevant plans, policies, and strategies, promote management measures focused on improving regulations, sharing information, capacity building, and providing incentives for communities to adopt sustainable practices..

58. With respect to GEF BD-2-6, the project will contribute to the implementation of the FSP by providing a comprehensive management approach for conservation and protection of the biological resources within the lagoon and other marine systems, that address the threats and underlying causes of the degradation of the marine environments. The GEF increment will: (i) support the implementation of the FSP and strength effective governance for coordination and management of use of the lagoon resources; (ii) develop tools and practices for reduction of threats from production sectors (agriculture, fisheries, tourism and infrastructure) including improved technical capacity, demonstration of threat assessment, prevention and response, including monitoring to feed back into adaptive management; (iii) provide accredited training and guidance provided to community members to empower them in safeguarding productive and natural marine ecosystems from threats; (iv) improve the management of PAs (including community managed marine areas) through Special Management Area programs, demonstration of best practices in resource use and threat management and management and skill development; (v) demonstrate safeguard measures in the two target Islands to protect and rehabilitate biodiversity and marine food production systems; and (vii) raise awareness and share knowledge for replication.

59. These global environmental benefits are reflected quantitatively in the GEF-7 Core Indicator worksheet included in **Annex 15** and summarized Table 3 below:

Table 3: Project core indicators and targets

GEF-7 indicators and targets	
2. Marine protected areas under improved management to benefit biodiversity	4,560 ha
2.1 Marine Protected Areas Newly Created	1,530 ha
2.2 Marine Protected Areas under improved management (existing)	3,030
3.4 Area of wetlands restored	120 ha
11. Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment	45,985

59. **Project objective**: To support the implementation of the Fanga'uta Stewardship Plan (FSP) for strengthened, integrated and inclusive management of the Fanga'uta Lagoon and to replicate lessons learned from the Tonga R2R Phase I to priority areas in Vava'u. This will be achieved through the three interlinked components as described later in this section.

60. The project's incremental value lies in demonstrating the application of integrated R2R interventions to conserve the biological resources and ecosystem services of the marine sites and its sustainable resource use applying a community-based resource governance and management approach.

Component 1. Conservation of Critical Lagoon Ecosystems and Management of the Catchment to Improve Biodiversity and Ecological Services of the Fanga'uta Lagoon and Replication in Priority Areas in Vava'u

(Total Cost: USD 9,773,000; GEF project grant requested: USD 2,473,000; Co-financing: USD 7,300,000)

61. Component 1 will address the barriers of the limited technical knowledge, lack of appropriate models and insufficient demonstration of the benefit of ecosystem-based approaches to conserve biodiversity and adopt sustainable management practices It would build on the experience and learning from the R2R Phase I project to mainstream biodiversity into implementation of integrated on-the-ground measures for conservation and sustainable use of the resources of the Fanga'uta Lagoon and for upscaling in other vulnerable areas including the Vaipua Channel making effective use of the available manuals, policy documents and trained government staff and community members

Outcome 1. improved management of the Fanga'uta Lagoon marine reserve for biodiversity conservation and its replication in Vava'u

62. Under this outcome, the project will build and demonstrate effective models such as capacity enhancement of central and local government and local communities, employ various measures for awareness and communication of project activities (through quarterly newsletters, social media and dedicated website), implement management measures including habitat restoration, management of waste and sanitation, soil erosion control, tree nursery management, etc. that were piloted in R2R Phase I project. The Fanga'uta Stewardship Plan (2017-2021) (FSP) that was developed based on the Environment Management Plan prepared for the Fanga'uta Lagoon established regular monitoring of Fanga'uta and conducted studies of soil, water, bird etc. The FSP was developed based on the following principles: (i) promoting governance through partnerships, information sharing, transparency and accountability of actions; (ii) recognizing the value of collective action; (iii) involving communities living around the lagoon in decision-making processes; and (iv) respecting the land, water and living organisms as drivers for integrated management approaches. These models were demonstrated successfully and other organizations have replicated the lessons in other areas within the Fanga'uta lagoon districts.

63. One of the benefits of the effective capacity building delivered to local communities and government staff is that they become champions of integrated management of ecosystems. Their expertise and experience can be used to assist other districts in their efforts of mainstreaming ecosystem management in their district development planning processes. Tools such as training materials, planning approaches provided at the district and local levels for building local capacity for replicating and adapting the new community participatory management models of extension service will be useful for nation-wide dissemination. The livelihood components of the plan were designed to demonstrate how sustainable livelihoods and various income generating activities can be utilized to communities' lives and livelihoods. Scaling up and replication of viable techniques were facilitated through organized and informal farmer-to-farmer interactions. Success stories were shared through various platforms including the Ministry's website, UNDP and project websites as well as various electronic media to disseminate lessons to a wide audience.

Output 1.1. Updating the Fanga'uta Stewardship Plan building on lessons and best practices generated from its implementation under the R2R Phase I project

64. The Tonga R2R Phase I project was successful in establishing the FSP and the governance structure for stewardship of the lagoon. The FSP was developed through a process of broad consultation with all stakeholder groups under the Phase I project with the intent of ensuring joint responsibility for the area, recognizing the interconnection between land, water and people. The 5-year FSP Action Plan (2017-2021) established the framework to organize and prioritize actions to achieve FSP targets and objectives. The Phase II project will evaluate the actions undertaken during the implementation of the FSP Action Plan (2017-2021) to identify key gaps and constraints for the effective implementation of the FSP, resulting in a new action plan for the period 2024-2034 to address these remaining gaps and constraints to fully achieve the objective and targets of the FSP. This output will enhance the inclusive management and development planning of the Fanga'uta Lagoon reflecting on the integrated nature of terrestrial, coastal, freshwater and marine ecosystems and the activities of people and communities within them and thereby strengthen the commitment of all stakeholders towards the stewardship of the Fanga'uta Lagoon and the catchment area. An indicative list of activities proposed include the following:

    Activity 1.1.1: In collaboration with the FSP Steering Committee and Technical Committee, recruit a national consultant to undertake an evaluation of the status of implementation of the FSP Action Plan (2017-2021) to assess effectiveness, gaps and barriers to its implementation.

    Activity 1.1.2: Based on this evaluation, undertake consultation meetings with relevant sector agencies, such as fisheries, environment, tourism, lands, agriculture, infrastructure and others, stakeholders and community groups to identify priority activities for implementation under the Phase II project.

    Activity 1.1.3.. Based on the evaluation findings and consultations, develop a revised Fanga'uta Lagoon Stewardship Action Plan (2024-2034), initial implementation of which will be supported under the Phase II project. The revised plan will prioritize investments in zoning, fisheries management, biodiversity conservation, waste and pollution management, mangrove, seagrass and coral restoration, erosion control and tourism and livelihood improvement. The plan will strengthen institutional arrangements, clarify roles and enhance monitoring and enforcement. In addition the plan will include timelines for capacity building, coordination needs and monitoring and reporting of priority actions, GESI mainstreaming together with corresponding assigned budgets. Annual reviews will guide amendments to reflect new knowledge and change in priorities.

    Activity 1.1.4. Government approval of the Fanga'uta Lagoon Stewardship plan, along with reporting and monitoring requirements, feedback loops and adaptive management mechanisms.

    Activity 1.1.5. Agree on roles and responsibilities for specific activities under the Plan to guide individual sectors to undertake specific activities, such as catchment wide agricultural support to environmentally and climate smart agriculture, catchment wide prevention and management of invasive alien species, sewage, solid waste and agricultural pollution control and management; promotion of livelihood development, including tourism for local communities and mangrove conservation, restoration and sustainable use and others as deemed relevant.

    Activity 1.1.6 Review the existing FSP monitoring and evaluation system that consists of ad-hoc agencies to create an effective monitoring system for measuring the impacts/effectiveness of the activities using SAAD (sex, area, age and disability) disaggregated data. Monitoring is currently conducted by the FSP inter-sectoral monitoring teams under the Technical Committee. The Marine, Coastal and Socio-economic conduct monitoring according to the FSP Monitoring Manual. Monitoring covers water quality, soil contamination, mangrove and coastal vegetation density, fish creel, erosion, etc. The Monitoring manual will be reviewed midway and at the end of the project to identify additional needs, improvements and sustainability measures.

65. The Fanga'uta Lagoon Action Plan will serve inform the further elaboration of Outputs 1.2 onwards.

Output 1.2. Natural ecosystems within the Fanga'uta Lagoon Marine Reserve are rehabilitated to preserve biodiversity and ecosystem services

66. The Fanga'uta lagoon is a vital ecosystem that sustains communities living around it, providing essential coastal, marine and intertidal services. These communities, including men, women and youth rely on the lagoon for their livelihoods and well-being. . However, the lagoon has been exploited, with areas reclaimed and mangroves depleted, making it necessary to implement activities that help maintain and improve the lagoon's ecosystem. To do so, the following activities are planned:

    Activity 1.2.1: To implement the FSP action plan, additional mapping of the lagoon will be conducted to identify and map vulnerable habitats requiring conservation or rehabilitation. Restoration plans will be developed with technical specifications for: (i) improving coral cover at the mouth of the lagoon (around 20 hectares); (ii) rehabilitation of degraded mangrove stands (around 80 hectares) with fencing to protect seedlings from pigs; and (iii) rehabilitation of seagrass beds (20 hectares) . To select areas for restoration, agreed criteria such as past occurrences, topography, water balance, sedimentation rates, community interests, and potential to keep pigs away from mangrove restoration sites must be considered. Seagrass restoration sites should have low human pressure, adequate light, and past occurrences. Criteria for coral restoration should include water quality, local risks, coral health, and absence of invasive algae. .

    Activity 1.2.2: Implementation of restoration plans developed in Activity 1.2.1 with community participation supported by written agreements with land-owners and community management committees for protecting rehabilitated sites, including from pigs and other threats;

    Activity 1.2.3: Mapping of the lagoon will identify mangrove areas for sustainable use by local communities.. Guidelines, rules and regulations with clear roles and responsibilities for conservation, sustainable use and harvesting, monitoring, reporting and enforcements of Memorandum of Agreements (MOAs) with communities will be developed;

    Activity 1.2.4: Provide training and skills development to local communities (women and man) for nursery development, mangrove, coral and seagrass planting, management, protection and monitoring

    Activity 1.2.5. Provide support to local institute or NGO to assess causes of mangrove die-off and identify remedies to prevent/reduce die-back. Pilot remedial actions to test and validate solutions.

Output 1.3. Existing Special Managed Areas within the Fanga'uta Lagoon evaluated and lessons identified to provide guidance for replication in other parts of the country

66. The Fisheries Act of 2002 allows for the declaration Special Management Area (SMA) for conservation and management, of fisheries resources. The SMAs in turn allow , local communities to manage the fishing and marine resources with regulations in place to limit over harvesting such as limits on fishing gear, catch and also support conservation measures. The creation of a SMAs makes open-access system for fishing inappropriate. Regulations for SMAs are also contained in the Fisheries Management (Conservation) Regulations of 2008 and Fisheries (Coastal Communities) Regulations of 2009.

67. As part of R2R Phase I, six SMAs have been created in Fanga'uta Lagoon to cover the communities of Lapaha, Nukuleka, Holonga, Makaunga, Talafo'ou, and Navutoka. Requests have been made to establish six more FMAs in Fanga'uta Lagoon, covering the communities of Tofoa, Havelulota, Siesia/'Oneata, Hoi, Pea, and Patangate. Additionally, the communities of Taoa and Vaipua have expressed interest in forming SMAs in the Vaipua Channel. Currently, there are 59 SMAs throughout Tonga, but the goal is to establish SMAs to cover the entire coastal space in the country in the long term.

68. The current situation regarding SMAs in the country involve the government granting exclusive use rights to a community and thereby becomes a valuable asset for the community. There is hence huge enthusiasm among participating communities supported by the fisheries management tool, which allows banning fishing by outsiders.. However, a major concern is whether the process should be solely focused on improving the management of marine resources or whether it should contribute towards the larger goal village development. The SMA concept originally intended enable greater community control over fishing activities in nearby waters but it has later expanded to include alternative livelihood activities both within and outside the fisheries sector (e.g. promotion of pandanus culture), including in some cases, development of infrastructure such as community buildings. The SMA process can be improved by: (i) streamlining and improving the process for establishment of the SMAs; (ii) enhancing the capacity of the Ministry of Fisheries to support the SMA program; (iii) improving the collection, analysis and monitoring of the biological, ecological and social aspects of the SMAs to inform management efforts and (iv) addressing the effects of SMAs on the food supply and livelihoods of landlocked communities. Discussions in the country suggest that establishing a single SMA for a specified area could be more beneficial than the current practice of several community-level SMAs. The project should consider this, including potential revisions to the fisheries legislation, policies and monitoring procedures to ensure the program's success and effectiveness.

69. This Output will be achieved through the following indicative activities:

Activity 1.3.1: Support the on-going evaluation (building on the FAO Review of the SMA Program in 2016) to enhance the effectiveness of the SMA for fisheries within Fanga'uta Lagoon. The on-going work includes the update of the SMA manual and a national SMA workshop that was conducted recently to identify gaps, challenges and monitoring effectiveness and scaling of the SMA program. The project will support the development of the SMA strategy to address gaps and challenges, based on which the project will provide support to capacity building of staff within the SMA Unit of the Ministry of Fisheries to cover all communities within the lagoon, improve data management and monitoring and implement measures to support landlocked communities. This activity will also explore options for enhancing the coverage of SMAs to go beyond fisheries taking an integrated community-based natural resource management approach (including livelihood improvements).

Activity 1.3.2. Based on the outcome of Activity 1.3.1 project will provide support to: (i) streamline the establishment of SMAs; (ii) provide training and equipment to improve capacity of Ministry of Fisheries SMA staff in enabling integrated and gender-responsive community-based natural resources management approach to the SMAs; and (iii) support enhancement of information sharing and management, GESI inclusion, reporting, monitoring of the effectiveness of the SMA program and compliance.

Activity 1.3.3. The SMA Unit (Ministry of Fisheries) The SMA Unit (Ministry of Fisheries) should partner or coordinate with non-fisheries agencies, such as the Ministry of Internal Affairs, to promote gender equality and social inclusion. This will support integrated community-based natural resources management approach for the SMA program, including agriculture, tourism, waste management, and industry. Identifying alternative activities that reduce unsustainable exploitation of marine species and habitats is crucial.. The goal is to improve coordination, collaboration and communication between communities and government including nominating a communication officer from each SMA community with direct communication facilities for proving correct and timely information. Partnerships should address both fisheries and non-fisheries related activities, such as sand mining, pollution, littering, toxic substances disposal, and climate change impacts.

Activity 1.3.4. Review SMA regulations to enhance shared management of marine and coastal ecosystems to cover all communities dependent these ecosystems, including adjacent land-locked communities. The review will inform recommendations for the need of regulations to support the Birds and Fish Preservation Act and Parks and Reserves Act to govern the Fanga'uta lagoon and reinforce measures

to address illegal activities, improve enforcement of current SMA activities including punishments for violations and better management planning for fisheries activities.

Activity 1.3.5 Conduct baseline surveys for each SMA, covering biological, social and environmental impacts, gender equality and social inclusion. This survey will also assist with the zonation of the SMA and inform clear guidelines for sustainable use, monitoring and enforcement. The proposed biological surveys will study mangrove, fish, and invertebrate species to identify ecologically important areas, as well as cultural or historical sites based on community feedback. Social studies will involve surveys to determine community reliance on Fanga'uta Lagoon, identify hotspots for traditional activities, and map out the use of marine resources within and between communities. This baseline information will inform control measures and management plans to minimize conflicts and environmental impacts from proposed SMA activities.

Activity 1.3.6. Improve the monitoring and evaluation system for SMAs with use of appropriate indicators that allow communities to assess the effectiveness of their SMA actions. Indicators may be related to abundance and sizes of fishes, catch volumes, mangrove quantity and quality, volume of waste and litter, etc. The current M&E system involves quarterly meetings with SMA communities that follow an agreed agenda on reporting and the progress on how they are managing their SMAs and enforcement. Common issues are identified and data is analyzed and used for further improvements. FAO is also assisting to develop a database system for all SMAs officers to record and access information. The project will support specific actions to facilitate the use of the FAO funded database. The SMA officers based in outer islands send through reports for further analysis.

Activity 1.3.7. Conduct training for CMCs to improve community management of SMAs on planning,, compliance monitoring, enforcement and implementation of restocking and alternative livelihood development (reference Output 1.4 below). Training will include the use of GPS and SMA catch data, compliance, and boundary markers. Additional national and regional workshops will be supported with co-funding as needed to enable effective assessment and application of lessons learned in other areas.

Output 1.4 Alternative livelihoods identified and implemented for women, men and youth in close consultation with communities to reduce exploitation of lagoon resources

70. Output 1.4 will demonstrate how diversification into blue/green (nature-based) livelihoods can support the emergence of new business opportunities (e.g. sustainable agriculture, fisheries, ecotourism, circular economy, etc.), while at the same time contribute to ecosystem services provision and species and habitat recovery. During the PPG opportunities for accelerating new blue and green-based businesses and resilient livelihood options were discussed with communities, based on the framework, guidance and lessons learned under the USAID's Conservation Enterprise approach[16]. These will be prioritized for implementation in Fanga'uta Lagoon and Vaipua Channel , considering feasibility and resilience given the impacts of the COVID-19 pandemic and volcanic eruption. The project will prioritize empowering women and youth to drive community participation and development through leadership and influencing roles. Sustainable financing mechanisms, including blended financing solutions such as women's and youth saving clubs, partnership with Tonga Development Bank, and local funds supported via public-private partnerships, will be established to incentivize green/blue livelihoods. Market assessments, training, capacity building, and support for green/blue business development will be provided, engaging multiple stakeholders such as government ministries, private sector, and civil society organizations. Technical training will also be provided to partners, including CMCs, to ensure they have the necessary skills and processes to implement activities effectively.
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71. In each of the project site, multiple value chains with potential for new or scaled-up products and services have been identified. The project will support the design and implementation of interventions to pilot and scale these products

[16] https://rmportal.net/biodiversityconservation-gateway/learning-groups/conservation-enterprises/ce-documents

and services.. Specialized agencies including line departments, CSOs, research institutions and experts will be engaged as partners. As needed, community-based organizations (CBOs) and village level entrepreneurs will be strengthened to address value chain gaps.. New and improved value chain products and services will be implemented by local communities will increase incomes and reduce unsustainable resource uses. A preliminary list of potential blue/green economic activities in the project target sites is provided below.

72. The following activities are planned under this output:

Activity 1.4.1. Review on-going livelihood-based activities in the two project sites to assess constraints, barriers and opportunities for promotion of improved and inclusive alternative livelihood programs

Activity 1.4.2 Identify potential biodiversity-friendly enterprises and value chains. Two sets of criteria will be considered when undertaking a preliminary value chain selection, namely: (i) value chain growth potential (current/potential unmet market demand, competitive advantages etc.) and (ii) livelihood development potential (e.g. percentage of the village that can be engaged in the value chain, and additional income that can be generated from value chain).

Activity 1.4.3 During early project implementation, value chain mapping and analysis will be conducted for preselected value chains, with a focus on market potential, customer requirements, and challenges faced by marketers/customers. Gaps in the value chain will be assessed to identify opportunities for sustainable livelihoods for rural producers and service providers. Interventions will be designed and implemented to complement ongoing interventions by other stakeholders.

Activity 1.4.4. Project implementation support will focus on the following areas:

- Capacity building of stakeholders, including women, youth, PWDs and men in the value chain: Training and skill development will be provided to producers and service providers to (a) help them understand customer requirements, (b) increase productivity, (c) learn necessary business skills and (d) other specific needs as per the value chain, including developing new products and services. Systems and processes will be developed to capture adequate data and monitor the functioning of the value chain;
- Infrastructure: the project will work with relevant stakeholders and national, state and private sector institutions to provide producers and service providers with both technical and infrastructure (small processing, storage and marketing facilities). In particular, support will be provided for women's group hall for weaving and handicraft making..
- Marketing: A marketing strategy will be developed and implemented to help male and female producers and service providers gain maximum value for their goods and services. This will include building communication material, developing a communication strategy, identifying distribution channels, and partnering with relevant stakeholders..
- Establishing a GESI responsive blue/green livelihood program at the national level. A network that involve all the relevant stakeholders working at the rural areas and at island level will be put in place serving as a platform to share information, learn from each other and play the role as frontier for business endeavors.. This will contribute to enhancing the economic empowerment of women and youth in rural areas.
- Promote Public-Private Partnerships to support blue/green businesses. Develop the relevant regulations and policies for such partnerships ensuring GESI perspective.
- Identify and support sustainability financing mechanisms as incentives for promoting blue/green enterprises. The project will explore financing mechanisms suitable for the Tongan Islands, such as levies and admission fees for recreational areas and applying the "polluter pays" principle. Seedling production and aquaculture activities will be reviewed for production costs, and pricing for selling seedlings will be considered to generate sustainable income. Opportunities for partnerships with the private sector to promote green and blue economy will also be explored..

73. The interventions will be designed and implemented to ensure self-sustainability of the value chain by the end of the project period. Primary and secondary level informal or formal organizations/collectives will be encouraged to participate in livelihood activities. As feasible, the project will link new investments to national, private and public sector programs.

74. Alternate livelihood options may include, but are not limited to organic and value added agricultural businesses, seedling nurseries, the production and sale of handmade crafts that use local plant species, and the production and sale of pandanus leaf woven containers/bags to replace the use of single use plastics and environmentally sensitive tourism operations. Potential agroforestry species to provide fruit, medicinal supplies and cultural materials include citrus, hibiscus, Garcinia, breadfruit, coconut and sandalwood. Potential NGO partners for seedling nurseries include the Tonga Community Development Trust and the Civil Society Forum of Tonga. the Tonga National Youth Congress, disability people's organizations (DPOs) etc.

75. The project will assess the feasibility of improving the existing eco-tourism site at Vaini to showcase the values of mangrove and lagoon ecosystem values, as well as identify additional sites on Tongatapu for eco-tourism activities within the lagoon, especially those that offer flexible employment for youth, women and people with disabilities. The project will promote the participation of the private sector, NGOs and other stakeholders where appropriate. Potential ecotourism options include support for canoe tours and sea kayaking tours on lagoon (e.g. slipway for launching boats), agro-forestry planting at the Ancient Tonga site in Vaini and construction of a mangrove trail for visitors with information and signage highlighting mangrove ecosystem values. The project will also support community led clean-ups of coastal environment near the eco-tourism sites.

Output 1.5. Lessons learned from Tonga R2R Phase 1 project replicated in Vava'u to support marine biodiversity conservation

76. This output aims to apply the lessons and knowledge gained from the R2R Phase I project to the Vava'u Archipelago. It will focus on promoting the creation and management of SMAs (Output 1.3), creation of alternative and sustainable livelihoods for local communities (Output 1.4) and implementing measures for improved management of protected areas (Output 1.5). The project will support the designation of a new marine protected area within the Vava'u Channel covering 373 hectares and expanding the existing Lualoli, Taula and Maninita Islands Protected Area to 1,352 hectares. This will be done to conserve biodiversity, building on the recommendations of the BIORAP assessment (2014). The Vaipua Channel is an important fish spawning grounds with shallow reefs and extensive mangroves areas that provide firewood and other services to local villages living adjacent to it. Lualoli, Taula and Maninita Islands serve as important nesting habitat for seabirds.. Maninita is ranked high in reef fish species richness with 63 hard coral species diversity and Taula having 70 species of hard coral [17]. Sea turtles, hawksbill (*Eretmochelys imbricata*) and green (*Chelonia mydas*) have been recorded nesting on Maninita and Taula indicating the importance of ensuring connectivity.. This Output will include the following indicative activities:

Activity 1.5.1 The Ministry of Fisheries (SMA officers), DOE marine monitoring team, and VEPA will conduct baseline surveys in Vaipua Channel and support the establishment/expansion of Lualoli, Taula, and Maninita Islands as Marine Protected Areas. The surveys will assess coral reef health, biodiversity, and current threats. They will build on previous surveys in 2014 and 2019 and support the development of proposed SMAs, including one at Taoa.

Activity 1.5.2. Consultations with key stakeholders to establishment of the protected areas, demarcation of boundaries and establishing GPS coordinates for the protected areas.

Activity 1.5.3. A cabinet submission prepared providing background details, reports and recommendations to approve the designation of new and expanded protected areas, followed by Cabinet approval, final gazette issuance and Royal assent

[17] 2014 – SPREP Rapid Assessment of the Biodiversity of the Vava'u.

Activity 1.5.4 Establish a participatory and consultative process to develop management plans for the new Vaipua Channel and expanded Lualoli, Taula and Maninita Islands Marine Protected Areas. Consult with relevant government departments, eco-tourism businesses and local communities to assess their use of the area for recreation and fishing practices, and explore conservation and sustainable use options.

Activity 1.5.5. Provide technical support, equipment and financial support for initiating priority conservation measures identified in the respective management plans. In terms of the Vaipua Channel Protected Area the project will support the rehabilitation of existing mangroves, fisheries management and monitoring of water quality parameters, bird and marine species, and mangrove and benthic cover. In terms of the expanded Lualoli, Taula and Maninita Islands Protected Area, the project will support priority biodiversity conservation measures of the management plan including water quality, benthic cover and fish, turtles and bird species monitoring.

Activity 1.5.6 Replication of lessons learned on SMAs in Fanga'uta Lagoon to Vava'u towards integrated management of the MPAs, in particular the proposed Vaipua Channel Marine Reserve, through establishing SMAs, training and capacity building to strengthen active whole-of-community engagement and participation in the SMA program, the establishment of institutional coordination structures, technical support from Ministry of Fisheries and other inter-connected sector institutions, monitoring, enforcement and compliance (as reflected in Activities 1.3.2 through 1.3.6)

Activity 1.5.7. Establishment a Community Management Committee (CMC) for the Vaipua Channel protected area with balanced gender/age representation to oversee the implementation of the management plan developed under Output 1.5 (Activity 1.5.4). The CMC will engage and represent all community interest groups. Project will consider replicating the institutional structure developed for the Fanga'uta Lagoon depending on cost constrains (Activity 1.1.3).

Component 2. Governance: Policies, Institutions and Capacity Building for Sustainable and Adaptive Management and Biodiversity Conservation

(Total Cost: 2,047,160; GEF project grant requested: USD 507,160; Co-financing: USD 1,540,000)

77. Component 2 aims to overcome the fragmented legal and policy framework and limited knowledge of sustainable marine resource management An integrated and inclusive ecosystem management approach for the Fanga'uta Lagoon and other marine ecosystems will be developed, recognizing the inter-linked interactions within this marine ecosystem. This component will address the current barriers related to fragmented legal and policy instruments, lack of coordination across sectors, and limited focus on gender equality and social inclusion.

Outcome 2. Strengthened integrated management through streamlined policies, active and functional community institutions and improved human capacity

78. This Outcome aims to improve the management of the Fanga'uta Lagoon, Vaipua Channel, and other marine ecosystems in the country by addressing inconsistencies and deficiencies in legal and policy instruments, as well as competing sector-based priorities. To achieve this, a review of policies and laws will be conducted to identify inconsistencies with conservation and protection of marine biodiversity and ecosystem services as envisaged through the implementation of the FSP. The Outcome will be achieved through four Outputs, described below..

Output 2.1. Strengthened institutional arrangement for the Fanga'uta Lagoon that builds on the Community Management Committees and is inclusive of gender and social diversity

79. Under the R2R Phase I project, the Fanga'uta Stewardship Plan (FSP) was developed to support sustainable development through partnership-based decision-making. Three Committees, representing all stakeholder groups, were established to make decisions in collaboration. These Committees were the Community Management Committee, Technical Committee, and Steering Committee, supported by the FSP Secretariat. The Secretariat,

comprising the Director of DOE, Head of Biodiversity Division, and Head of EIA Division, facilitates coordination and provides the committees with the necessary information to make well-informed decisions. They act as a liaison between stakeholder groups, support the development of new initiatives, and oversee monitoring and evaluation. The FSP management structure provides a mechanism for equitable, gender-sensitive decision-making on priority issues. This output will revitalize the institutional structures, knowledge, and capacity developed under the R2R Phase I project, which have not been fully operational during the interim period following its closure..

80. This Output will support the following indicative activities:

Activity 2.1.1. Providing additional technical expertise and staffing to the FSP Secretariat which serves as effective function for the management and decision-making system and oversight of the three Committees for the implementation of the planned FSP action plan. The project will support the FSP secretariat to improve coordination, collaboration and reinforce communication between the CMCs and the government and support it with technical oversight for evaluation and action planning and monitoring and evaluation.

Activity 2.1.2. The project aims to strengthen the R2R Phase 1 Fanga'uta Management Framework, including the FLC Steering Committee, Community management committees, and various district and community action groups through training, capacity development, and improved coordination. The project will enhance the skills of District and Town Officers to improve their interaction with local communities and provide guidance on decision-making and planning for sustainable development. Community and district level committees and action groups will also be strengthened to ensure effective communication of community participation and interests and improve the organization and management of actions at the ground level.

Activity 2.1.3 Reactivate and reinforce the Technical Committee to provide strategic guidance and technical support to the CMCs for ensuring stewardship of the Fanga'uta Lagoon. Capacity building and training will help the Technical Committee oversee the Fanga'uta Lagoon monitoring teams and provide guidance to help them undertake effective monitoring as well as reactivate committee meetings to discussion and analysis of monitoring and evaluation of the effectiveness of on-the-ground initiatives, so as to enable timely and collective actions to be taken for resource management and achievement of proposed action plan targets and outcomes

Activity 2.1.4. Assess and promote alternative arrangements to ensure the existing Community Management Committee is inclusive of gender and social diversity including representation from the private sector. This can be achieved through CMC regulations that require a quorum of each group being represented (youth, private sector, men, women and PWD, where possible) in decision making. In addition, major decisions on development within their SMA management plans will require statement of agreement and reasons in support or in opposition of the proposed development or change from each group member representation prior to decision making.

Output 2.2 Review of policy and legislative framework to stakeholder engagement, safeguards and GESI gaps and overlaps in institutional mandates and policy frameworks to support the strengthened implementation of the FSP

81. The implementation of the FSP is intended to manage the Fanga'uta Lagoon using an integrated approach that considers the diverse and inter-linked interactions within it. This output focusses on streamlining policy and legislation to create coherence among the diverse sector interventions operating within the lagoon ecosystem. Specifically, it aims to align the Fisheries Management Act, Environment Management Act, National Spatial Planning Act and Environmental Impact Assessment Act and their corresponding regulations. It also seeks to address overlapping ministry mandates such as those of the Department of Climate Change, Ministry of Lands and Natural Resources, DOE and MAFFF. The policy and legal review will ensure consistency in laws, policies and practices related to sectors such as sewage disposal, fertilizer and chemical usage and leakage, water usage, run off, soil

contamination, land reclamation and mangrove protection and other sectors in line with conservation and protection of marine biodiversity and ecosystem services envisaged under the FSP. The Technical Working Group and the National Environment Committee comprising members from various ministries support the process of resolving conflicting and overlapping issues, including monitoring and evaluation functions.

82. This Output will support the following indicative activities

Activity 2.2.1 The project will support a team of national consultants to review the policy and legislative framework, identify gaps and overlaps, and recommend a streamlined framework to support FSP objectives. This includes addressing gaps in mangrove rehabilitation work mandates and coordinating activities between DCC and DOE. Development consent permits for proposed projects around the Fanga'uta lagoon area also need to be coordinated between PUMA under MLNR and EIA Act and Regulations under DOE to avoid conflicts and overlaps. Additionally, there are discrepancies and inconsistencies between SMA and MPAs that require coordination between the Ministry of Fisheries and DOE. The Technical Working Group will provide oversight to the project.

Activity 2.2.2 Draft amendments to policy frameworks to strengthen the implementation of the FSP, action plans and other national plans related to the management of the Fanga'uta Lagoon. These amendments may include joint SMA policies for the Fanga'uta Lagoon management, regulations for benefit sharing arrangements and monitoring and enforcement policies. Additionally, the project will seek to develop regulations for management of the Fanga'uta Lagoon Marine Reserve, using appropriate policy and legal mechanisms (e.g. Environment Management Act or Birds Act) to strengthen enforcement.

Activity 2.2.3 Review district development plans and propose changes to mainstream biodiversity actions and align them with the updated FSP Action Plan and Vaipua Channel Management Plan to avoid overlaps and contradictions. This includes reviewing existing plans within the fisheries sector and any existing SMA plans within the Fanga'uta Lagoon and Vaipua Channel. Collaboration with the MOF is crucial to identify lessons learned to improve processes for updating or formulating new management plans aligned with the FSP and proposed Vaipua Channel Management Plan.

Activity 2.2.4 Recommend streamlined monitoring and evaluation of project sites in the Fanga'uta Lagoon and Vaipua Channel, with defined roles and responsibilities, standardized methods for monitoring and for data collection, information sharing and adaptive management.

Activity 2.2.5 Recommend measures for protection of mangroves and other wetland vegetation, including strengthening enforcement and compliance under various legislations such as the Land (Timber) Regulations, National Forestry Policy, Bird Preservation Act. EIA Act and Environment Management Litter and Waste Management Act. Preventing destruction and degradation of mangroves and wetland areas will be a key focus of this activity.

Activity 2.2.6. Train Environment Enforcement Officers to oversee enforcement of the FSP and relevant legislation, and coordinate with other relevant sectors. Additional staff is needed to support the implementation of R2R phase 2, but government operations are currently constrained, so the project will explore ways to recruit and finance additional personnel. DOE will in turn make efforts to retain the project staff after the project for continued implementation of the Fanga'uta lagoon and Vaipua Channel activities.

Activity 2.2.7 Evaluate sustainable financing mechanisms for post-project sustainability, including accessing the Climate Change Trust Fund and other measures such as imposing tourism levies and payment for eco-tourism services. Such financing should consider future funding for seedling production services.. The project will assess the ecosystem services to determine the pricing levels for local and international markets.

83. The resolution of the above inconsistencies and deficiencies in legal and policy instruments and their enforcement will facilitate better coordination and align competing sector-based priorities with that of the overall objectives of the FSP.

Output 2.3 Capacity of government staff and communities and key stakeholders strengthened on integrated approaches for biodiversity conservation and enforcement procedures.

84. Output 2.3 aims to enhance the capacity of government and other key stakeholders at national and local levels to enforce key mandates related to marine species conservation, prevention and management of invasive alien species (IAS), sustainable agriculture and mariculture, management of SMAs and livelihood development. To ensure sustainability post-project, training will be provided to key staff in environment, fisheries, agriculture, and infrastructure development, as well as town and district officers, CSOs, community leaders, TWG staff, and CMCs. The training will focus on priority areas such as species conservation, IAS management, and sustainable marine resource management, including sustainable mariculture, fisheries management, climate-smart agriculture, and mangrove conservation..

85. The following are the indicative list of activities under this output:

Activity 2.3.1 A consultant with regional experience in integrated R2R approaches will be recruited to conduct a capacity needs assessment. The assessment will identify existing gaps and needs in the environment, fisheries, agriculture, tourism, and infrastructure development sectors, as well as among town and district officers, key NGOs, community leaders, TWG staff, and CMCs. It will also make recommendations for training, resource needs for integrated R2R approaches.

Activity 2.3.2. Organize meetings with key stakeholders to integrate strategic planning, wetland resource-use methods, marine habitat degradation, and climate change into internal training programs. Develop a GESI-responsive five-year capacity development plan covering techniques and mechanisms for integrated marine resource planning, effective planning and implementation of management plans, and improving monitoring, evaluation, and enforcement..

Activity 2.3.3 Implement the five-year capacity building training plan on integrated approaches for biodiversity conservation (see 2.3.1) focusing on the TWG and members of the Fanga'uta Lagoon CMC.. TWG training will cover ecosystem-based and sustainable development approaches, GESI and outcome-based monitoring techniques and approaches, data analysis and adaptive management, reporting and communication tools. . The CMC training will include communication and consensus building, collective decision-making, monitoring and evaluation, cooperation with private sector and enforcement of rules.

Activity 2.3.4 Deploy training programs at Vaipua Channel to build CMC and district and town officers' capacity for applying integrated approaches to marine ecosystem planning and management. Training will be tailored to the needs of youth, women, and men, including those with disabilities, to enhance their roles in Vaipua Channel management. For example, men can train youth in traditional fishing practices, while older women can teach younger women sustainable harvesting practices for tapa production and medicinal uses. The project aims to integrate scientific knowledge with traditional knowledge to support the sustainability of marine resources in the Vaipua Channel..

Activity 2.3.5. Establish a confidential mechanism for reporting on breaches of the law. A consultant will be hired to develop an appropriate mechanism which may consist of a website, design format and procedures for reporting, identify feedback loops and response actions. The project will establish a Grievance Redress Mechanism (GRM) and Consultation and Communication Plan (CCP) to address community concerns. This will include a landline for older people and an online system for younger generations to provide feedback. Complaints will be documented, and actions will be taken until a resolution is reached. The CCP will include registration and complaint forms. The GRM will address serious

and sensitive matters, including GBV, VAC, SEA/H, human trafficking, and drug trafficking, with referral pathways.

Component 3. Awareness raising and knowledge management of the ecosystem functions and services of the Fanga'uta Lagoon and the priority Vava'u biodiversity sites

(Total Cost: USD 2,790,500; GEF project grant requested: USD 700,500; Co-financing: USD 2,090,000)

86. Component 3 will address barriers related to inadequate awareness, knowledge and mainstreaming of women, youth and PWD to conserve biodiversity and achieve integrated management of marine ecosystems, as well as limited opportunities for south-south cooperation and exchanges. Component 3 activities will foster sharing of knowledge and information in user-friendly formats regarding management of marine ecosystems and causes of its degradation, the effects of such degradation and the implication on water and hygiene (WASH), community health and livelihoods. Activities will result in a set of visual and written knowledge materials that serve as a collation of best practices and lessons learned by local marine resource uses, government ministries (Fisheries, Environment, Tourism, Agriculture and Forestry) and from regional institutions such as SPREP and SPC and jointly defined and implemented monitoring activities and tools for key authorities and marine resource users. These d information materials will be produced to reach a wide audience of men, women and youth in Tonga and the Pacific Region as well as other maritime communities.

Outcome 3. Upscaled awareness and information management program to enhance appreciation of GESI sensitive biodiversity values of the Fanga'uta Lagoon and priority sites in Vava'u

87. This Outcome will support the development of an usable information management system on the extent, location, condition and threats on wetland resources and species, initially for the Fanga'uta Lagoon to enhance capacity for stewardship. It will also support programs to enhance awareness and knowledge of marine ecosystems, their values and threats that undermine these values. This Outcome will also promote an improved knowledge and awareness among the local community, of the value of marine biodiversity and natural ecosystems in providing critical services (including mitigation of climate change impacts) to those dependent on these. This Outcome has four inter-related Outputs.

Output 3.1 GESI responsive and accessible information system developed in the context of existing national systems, to facilitate informed decision making.

88. While the FSP articulate the need for ecosystem-based planning and management, this Output will seek to address the lack of critical baseline data on the extent, location, condition and threats on wetland resources and species. It will support a concerted and committed effort, with adequate manpower, skills and funding to monitor the condition of the resource, distribute data, and build the institutional, technical, human and infrastructural capacity needed to support on-going biodiversity monitoring and decision-making. Consequently, the country's knowledge base on biodiversity and natural resources, and capacity for stewardship will be increased. Drivers of, and vulnerabilities to climate change would be better articulated and understood along with solutions to address these vulnerabilities. The project will aim to obtain adequate information on key parameters to inform management decision making. This will be achieved through: (i) development of new, or strengthening of existing national information systems to provide for a simplified, standardized and dedicated information management system and operationalization; (ii) strengthening information support system for consortium of government, regional, private and other stakeholders for sharing good practices; (iii) setting up of standardized information collection standards; and (vi) cross-agency and cross-sector efforts to collect and digitally catalog existing information to support replication. The following are key indicative activities:

Activity 3.1.1 This Output will seek to assess trends, drivers and hotspots of marine degradation. A team of national consultants would be recruited to evaluate and assess the functionality of existing information platforms or systems retained by different government departments and authorities and ascertain to what extent these can be brought together into an accessible information system pertaining to the Fanga'uta Lagoon for all relevant staff to access. This information management system also needs to be expanded to include data relating to at least the priority sites in Vava'u (Vaipua Channel and Lualoli, Taula and Maninita Islands). An example is the Excel based information system that the Waste Authority Limited use to record the location and volume of septage emptied from septic tanks and transported for discharge to the septage lagoon on Tongatapu.

Activity 3.1.2 Based on the assessment undertaken in Activity 3.1.1, the project will aim to update its existing website to include a simplified, standardized and dedicated information management system (including website and social media platforms) either within an existing national information platform (preferred) or create a new system for agreed parameters related to the marine wetland, based on outcomes from Outputs 1.1 and 1.3, including standards for information collection and sharing. This will entail transferring all existing information from the Fanga'uta Lagoon and Vava'u sites into a digital format as well as regular updating. This database will support the collection and documentation of detailed information on species, habitats, threats, water quality and conservation actions, ultimately improving the overall national and sub-national capacity and the ability to effectively target threats and risks. Relevant information and knowledge will also be made available to existing key information systems of the Department of Environment to enhance opportunities for collaboration and cooperation in conservation efforts.

Activity 3.1.3 Wetland Information Management System/platform operationalized, including data collection, input, on-line website and dissemination. This will entail efforts to work collaboratively between the ministries responsible for environment, fisheries, forestry, agriculture and others, including NGOs and conservation organizations (national and regional). A national Information Technology consultant will be hired to establish the information system and input available data.

Activity 3.1.4. Establish information collection standards, formats and procedures that are gender, age and ability aware and environmentally and socially inclusive, facilitate standardized inputting and recording of information; and provide for digital access and sharing, including compatibility with existing databases to the extent feasible

Activity 3.1.5. Support a cross-agency and cross-sector effort to collect and digitally catalog existing information on marine resource planning, biodiversity and marine resources management best practices, resulting in a highly accessible, usable, and catalogued bibliography of available resources in support of replication and upscaling.

Output 3.2 Education and awareness programs using a range of media expanded to support marine conservation

89. Output 3.2 will develop, test and implement an education and communications strategy and action plan, based on an analysis of lessons learned from other GEF projects in the country to raise public awareness of the crucial importance of marine biodiversity and ecosystem services, the risks and impacts from unsustainable resource use and degradation and the broad benefits of ecosystem-based management. The plan will be developed in Year 1 for testing and implementation in coordination with the relevant sector entities and NGOs/CBO partners on the ground, as well as news media, radio and local newsprint media and social media. Effectiveness of the strategy and plan will be evaluated internally at the end of Year 2, and adaptive measures/lessons incorporated. Specific approaches, tools and materials will be needed in the local language, low levels of literacy in rural areas and challenges with absence of electricity, thus internet and mobile access (e.g. by working through local shortwave radio, extension services and face to face-meetings supported by local teachers, church leaders or nurses, women, youth and PWD in the target areas. Communication products and approaches included in the strategy might include posters or videos of

threatened and endemic marine species, pollution and unsustainable use risks and the benefits of community based integrated ecosystem conservation approaches along with supported technologies which contribute to halting and reversing marine species and ecosystem degradation, as well as targeted campaigns for iconic species conservation or to address particular threats. Community chiefs and church leaders will be engaged as important advocates in the demonstration communities. Sustainability mechanisms will be explored to ensure that MEIDECC and Ministry of Fisheries can maintain a communications function beyond the end of the project.

90. The education and communications strategy and action plan is intended to ensure that the Project is well understood, accepted, and implemented effectively and equitably; knowledge management products are shared and used; understanding of integrated R2R planning is increased; understanding and implementation of best practices is improved; and the public has an increased understanding of marine issues, support for marine ecosystem and species conservation and its management actions. Ultimately the public and communities should champion the unique marine biodiversity of the Tongan Islands at both national and local levels, implementation of the Gender Mainstreaming Action Plan (and other Vulnerable Populations) so that a gender and socially inclusive perspective is applied to every set of activities; research on gender and social roles in the marine space informs resulting plans and ensures equitable distribution of benefits; and information is collected and shared across gender and social lines. Specific topics of learning and success that might evolve from the project sites might include the participatory sustainable fisheries or sustainable tourism, livelihood improvement, waste management, outcomes or impacts of sector specific actions, resilient mariculture development, and participatory monitoring, as well integration of livelihood development planning, soil, land and water management, etc. The initial documentation of these lessons will be included as part of the participatory monitoring process, that would be complemented by additional national technical support to distil and document lessons and experiences. The project will support regular workshops at the national and local level (Year 3 onwards) to share lessons and experiences and a national workshop at the end of Year 6 to facilitate the sharing of lessons more widely and enable replication nationally.

91. This Output would support through the following indicative activities:

    Activity 3.2.1 Develop a GESI-sensitive national communication program/plan to expand and continue that education and awareness established under the R2R Phase I project for promoting lagoon ecosystem services and marine litter reduction using a range of media including church and school education programs; school curriculum; video, radio and television; social media, annual Fanga'uta Lagoon festival, annual information outreach for Vava'u priority areas during Environment week (potentially in collaboration with existing/on-going events) and support for project website. This will also include activities aimed at increasing awareness of marine biodiversity and biodiversity and sustainable resource use among young people, via youth groups in the demonstration wetlands and through formal and informal education / churches nation-wide. The effectiveness of the communication plan will be periodically monitored through household and youth surveys to enable adaptive management. The education and awareness communication plan will assess the effectiveness of the R2R Phase I actions to ensure that the public (and in particular local communities) has an increased understanding of marine biodiversity and ecosystem functions, support community-based marine resources conservation and management through promotion of sustainable resource use, management of fisheries activities and actions to reduce threats to these ecosystems, including control and management of waste, pollution, marine litter and plastic reduction, over exploitation of fisheries resources and mangroves and the prevention and management of invasive alien species. Ultimately, the public (at the national level), in particular the local communities (at the site levels) should champion the unique marine biodiversity of the Tongan Islands and be strongly engaged through personal actions, preventing and reporting unsustainable and illegal and activities and localized management of marine habitats through both personal actions and community-based activities.

    Activity 3.2.2 Implementation of the GESI Mainstreaming Action Plan so that 1) a gender equality and social inclusion perspective is applied to all activities; 2) research on gender and social roles in the marine wetlands informs project plans and ensures equitable distribution of benefits; 3) SAAD data is routinely collected and shared across gender and social lines; 4) specific investments are aimed at women, youth

and PWDs, and 5) capacity for GESI mainstreaming is increased within communities and districts and with project partner organizations.

Activity 3.2.3. National and site-specific workshops organized to facilitate dissemination of field lessons and help inform legal and policy reform relevant to marine conservation practice. Specific topics of learning and success that might evolve from the pilot sites might include the participatory sustainable fisheries or agriculture, sustainable tourism, livelihood improvement, planning, outcomes or impacts of sector specific actions, resilient agriculture development, and participatory monitoring, as well as integration of livelihood development planning, land and water management, etc. The initial documentation of these lessons will be included as part of the participatory monitoring process, that would be complemented by additional national technical support to distil and document lessons and experiences. The project will support regular workshops at the national and site level (Year 3 onwards) to share lessons and experiences and a national workshop at the end of Year 5 to facilitate the sharing of lessons more widely and enable replication nationally. As part of this activity, the project will support lessons sharing forums in Tongatapu to share lessons in relation to the Fanga'uta Stewardship Plan and produce video documentaries in both the English and Tongan language to be aired nationally and regionally in knowledge sharing platforms.

Activity 3.2.4 In concert with Activity 3.3.3 above, this Output will support the development of a low-cost interactive learning facility in Tongatapu on the multiple benefits provided by the Fanga'uta Lagoon and its wetland ecosystem. The project will support the re-establishment of the Environment Resources Information Centre (ERIC) through the provision of information and media awareness materials and storage of all information and data from both project sites (including survey reports, data analysis etc.) that will be maintained by DOE and made accessible to students and researchers interested in marine resource and sustainability projects.

Activity 3.2.5. Establishment of an annual awards and recognition scheme for local action on Tongatapu and Vava'u to conserve and improve the lagoon environment for Fanga'uta Lagoon and Vaipua Channel, including recognition of women, youth and people with disabilities in conservation. This could tie in with the annual Environment week outreach. This would require establishing a set of criteria for the awards, selecting a team of judges and securing sponsors from the private sector or bilateral agencies to provide annual prizes that will motivate and encourage community participation and engagement in conservation activities around the Fanga'uta lagoon and Vaipua channel.

Activity 3.2.6 Support the citizen science program for locals including youth focused on environmental issues, monitoring and marine conservation good practices. This can include activities such as site visits, short trainings on mangrove planting, coral reef surveying and monitoring with the youth, conducted on a quarterly basis by district around the VC and FL. In addition, a science fair or exhibition day to showcase projects and recycling of waste found in the Fanga'uta lagoon and Vaipua Channel can also be established to further enhance scientific interest in biological, chemical and physical processes that take place within these ecosystems.

Output 3.3 South-South cooperation and exchanges implemented in the area of integrated management of lagoon ecosystems that is most applicable in Pacific SIDS and beyond.

92. To bring the voice of the Kingdom of Tonga to global and regional fora, the project will explore opportunities for meaningful participation in specific events where UNDP could support engagement with the global development discourse on marine conservation issues. The project will furthermore provide opportunities for regional cooperation with countries and other regional partners that are implementing initiatives on integrated marine conservation and management in geopolitical, social and environmental contexts relevant to the proposed project in Tonga. In particular, this would include close collaboration, knowledge sharing and exchange visits with Pacific Small Island Development States (PSIDS) that are implementing similar projects. The GEF 7 project will seek opportunities for collaboration with SPREP, SPC, Global Coral Reef Monitoring Network (GCRMN), Pacific Climate

Change Centre (PCIC), Global Ocean Acidification Observing Network (GOA-ON), Pacific Islands Blue Foundation (PIBF), Pacific Island Development Forum (PIDF), International Maritime Organization (IMO), Locally Managed Marine Area (LMMA) Networks and others in the region. This Output would support through the following indicative activities:

Activity 3.3.1 Host South-South cooperation and exchanges in the area of integrated management of lagoon ecosystems that is most applicable in Pacific SIDS and beyond. Visitation between countries to support dialogue and Knowledge Sharing platforms on lessons learnt and best practices to support transfer of knowledge for improved implementation of relevant project activities.

Activity 3.3.2. Participate in relevant regional and global events for information and lessons sharing and learning. The project will explore options for financial support to allow women and men from project communities to attend regional meetings or COP events to share grassroots level experiences at these high level meetings to highlight vulnerabilities of communities to climate change impacts to strengthen ecosystem-based adaptation and opportunities for sustainable financing to implement FSP and Vaipua Channel Management plan once completed.

Activity 3.3.3 Promote knowledge sharing and best practices through formal and informal networks, study visits and improved communication channels. Collaboration between Pacific Island countries that implement similar SMAs or LMMAs is paramount in establishing partnerships to promote these knowledge exchange programs. Initial activities can include the identification of a regional body such as SPREP or FAO that can support and collaborate with UNDP in delivering and championing this as an annual program depending on success of previous study visits.

Output 3.4 M&E system supports project impact including GESI mainstreaming

93. Output 3.4 will deliver a M&E system that supports project impact including gender and youth mainstreaming and adherence to social and environmental safeguards, building on baseline best practices and lessons from other projects in the Tongan Islands and across the Pacific. As part of this effort, Output 3.4 will support: (i) the development and implementation of monitoring framework, based on the Results Framework Agreement to validate baselines and monitor progress in achieving project outcomes and impacts will be undertaken; (ii) a review and regular update of M&E plan, including results framework baselines, tracking tools, Theory of Change to subsequently adopt these findings to implement all aspects of the project; and (iii) a mid-term and terminal evaluation will be conducted in line with UNDP/GEF requirements and incorporate and adapt recommendations of MTR to revised project plans and monitor their implementation.

Activity 3.4.1 Development and implementation of monitoring framework, based on the Results Framework Agreement to validate baselines and monitor progress in achieving project outcomes and impacts on an annual basis to be in line with corporate plans, annual management plans and annual reporting.

Activity 3.4.2 Review and regular update of M&E plan, including results framework baselines, tracking tools, Theory of Change to subsequently adopt these findings to implement all aspects of the project.. Implement a quarterly meeting schedule for the TWG, Steering committee and CMC and circulation of newsletter to update on activities and track progress of the project as well as identify urgent follow up actions to ensure the negative project impacts are mitigated; and

Activity 3.4.3 Conduct mid-term and terminal evaluation in line with UNDP/GEF requirements and incorporate and adapt recommendations of MTR to revised project plans and monitor their implementation. This will be complemented by an effective fortnightly or monthly reporting system to be

developed in order to facilitate evaluation periods of the project and allow easy identification of outstanding issues that require follow up and urgent actions to address project challenges.

Partnerships:

94 The success of a project of this nature hinges on dynamic, strategic and multi-sector partnerships across a number of government ministries, agencies, NGOs and local communities. Hence, at the core of the project's strategy is to identify and engage all relevant actors who will play key roles of providing technical support and extension, undertake management planning and interventions and ensure that adequate measures are in place to reduce the risk of the wetland degradation and unsustainable exploitation of wetland resources. The project will employ an approach of constant engagement and information sharing among the various partners, in particular local communities through their CMCs. Government agencies at the national local levels (e.g. MEIDECC, MAF, MAFFF, MT, MLSNR, Waste Authority etc.) are critical to the development and implementation of the practices for protection and management of the wetlands, including in particular pollution and waste reduction, sustainable fisheries practices, ecologically-friendly tourism, catchment protection and erosion control and management of IAS. At the local level, and District and Town Officers and communities and fisheries and agriculture staff are important to facilitate the infusion of best conservation and management considerations at the ground level. The work of academia is essential for research, technical advice and innovation. Private sector is critical as possible partners for enhancing livelihood opportunities for local community members and thus can play salient roles in the success of the project. With its global knowledge networks and expertise, the technical guidance and advice from the wider UNDP (including UNDP Regional Center) will be essential. Regional and national institutions and experts will also be called upon when necessary to provide capacity strengthening and technical advice.

95 In addition, the project will ensure close linkages with existing and past national and regional projects to build on experiences, learning and best practices and seek efforts for sharing of knowledge management products and expertise. These are reflected in the Table 4 below:

Table 4: Partnerships and Complementarity with Other Initiatives

Projects	Complementarities with the new proposed project
Tonga Climate Resilience Sector Project	The project is relevant in mainstreaming climate resilience into development planning and addressing country priorities focusing on the most vulnerable sectors and communities. It will be closely linked to the GEF project in that it is promotion the establishment of SMAs, sustainable fishing and management of corals reefs that will benefit the local community and support local livelihoods and strengthen ability of the ecosystem to recover after climate events. It is complementary in support to mangrove planting and providing best practice guidelines and support field demonstrations on the use of mangroves as natural infrastructure
Integrated Urban Resilience Sector Project (IURSP) (ADB grant)	This project will complement the R2R Phase II project through a number of ways, namely in improving urban services (water, wastes, drainage, and infrastructure plus building resilience to extreme natural events and climate change), facilitate capacity building and technical knowledge for land use planning, this will contribute to the Phase II project's objective to establish a land-use spatial plan
Tonga Pathway to Sustainable Oceans Project	This project has direct relevance to the GEF 7 project in terms of updating SMA management plans, improving SMA establishment procedures and training SMA staff and CMCs as well as address landlocked communities. The GEF 7 project will directly build on these World Bank project activities
GEF Regional Project: Ocean Health for Ocean Wealth - The Voyage to a Blue Economy for the Blue Pacific Continent	This proposed project is important in that is supporting the development of Sustainable Blue Economy (SBE) Frameworks and Implementation Plans for 14 countries, including Tonga that is to be incorporated into government planning and budgetary processes (e.g. National Medium-Term Development Plans). In addition it would support sustainable blue economy pilot projects resulting in "success templates" for replication and upscaling. Knowledge products and support services, would also be available through an SBE Regional Knowledge Platform and Decision Support Framework.
GEF Regional Project: Mainstreaming climate change and ecosystem-based approaches into the sustainable	The project brings a number of key aspects that are relevant to the GEF Phase II project through the promotion of a proactive and adaptive ecosystem-based approach to regional fisheries management. It will support improved capacity and expertise for overall fisheries management at both the national (including Tonga) and regional level as well as to expand opportunities for PICs engagement in fisheries markets. It will also promote innovative technology development and implementation to support the adaptive ecosystem-based approach and a Regional Program to improve/expand the knowledge base and to identify changes in the ecosystem

management of living marine resources	
Regional GEF project: Strengthening national and regional capacities to reduce impact of IAS on globally significant biodiversity	Tonga is one of the four Pacific countries participating in this project which aims to strengthening institutional frameworks and capacities for IAS management and national systems for prioritizing IAS management. It will also implement programs for IAS risk reduction, support the establishment of an Early Detection and Rapid Response (EDRR), eradication, control and restoration program. The establishment of a Pacific islands regional support framework for IAS management will help knowledge and best practice exchange, share technical expertise and training opportunities that will benefit the Tonga R2R Program
GEF Small Grants Program (SGP)	The SGP supports complementary activities such as nursery development, address land degradation, biodiversity projects (honey bee keeping, mulberry farming, manioke and tapioca farming, vegetable gardens and native species revival), biogas projects, support for SMA establishment and Green Management Areas (GMA) in watersheds. The SGP can support activities to complement SMA and GMA activities
Vava'u Ocean Initiative	The Vava'u Ocean Initiative (VOI) is a partnership between the Government of Tonga namely MEIDECC, MOF, MLSNR, Waitt Institute and VEPA that can support spatial marine planning , SMA planning and alternative livelihood options as well as support marine biological surveys
Fanga'uta Lagoon Crossing Bridge	This project could contribute to the objectives of the R2R Phase II project through support for mangrove rehabilitation and the underlying investigations required for the proposed land-use spatial plan. The project will contribute co-financing through financing complementary activities to mitigate any potential impacts of the proposed bridge on the ecology of the lagoon.
Pacific-European Union Marine Partnership program (PEUMP)	The PEUMP program will enable sharing of information on sustainable management and development of fisheries for food security and economic growth, climate change resilience and conservation of marine biodiversity as well as fisheries development; coastal resources and livelihoods; ecosystem-based management; biodiversity conservation; and capacity building at the national and community level
BIOPAMA project - $118,000 (2021-2022)	Enhanced management and governance of priority protected areas, support for local communities to enhance livelihood and contribute to PA management and enable assessment of selected PAs. This is relevant to the GEF 7 project in that it will also seek at improving PA management effectiveness in particular in relation to management of IAS
USAID's Pacific Climate Ready project	The USAID Climate Ready project support partner governments and stakeholders to draft and implement policies to achieve national adaptation goals; access and manage international sources of financing for resilience projects; and, improve capacity and systems to better manage and monitor resilience projects. It supports governments to develop and implement environmental and disaster mitigation policies and strategies. The GEF project will benefit from support to: (i) incorporate climate change adaptation goals and measures into national policy; (ii) improving access to international, multilateral climate change funds; and (iii) building professional capacity and management system to manage, monitor and report on adaptation aspects
Regional Initiatives	
SIDS Accelerated Modalities of Action (SAMOA) Pathway	The program makes a commitment to sustainable development in SID countries through cooperation, enhancing public and private investment, fostering entrepreneurship and innovation, ensuring gender equality, establishing regulatory and policy frameworks, enhancing sustainable tourism, taking leadership in management of climate and disaster risks, conserving oceans etc. The project will benefit from knowledge sharing, learning and exchanges to build on experiences from other SIDs
2050 Blue Pacific Strategy	The strategy focuses on regional cooperation and collective actions for (i) Increased political attention on the role of oceans in development; (ii) Increased political attention on the climate change crisis; (iii) Advances technology that can enable to overcome limitations of distance; (iv) A set of agreed values that underpin Pacific regionalism, including the cultural values that help guide the region; (v) New global frameworks and methodologies for valuing the ecosystems and biodiversity of the Pacific; (vi) Shifts in the global power and globalization; and (vii) Significant increased investment by multilateral development institutions in the Pacific.
Global Coral Reef Monitoring Network (GCRMN)	The Global Coral Reef Monitoring Network, a network of scientists, managers and organizations that monitor the condition of coral reefs to provide the best available scientific information on the status and trends of coral reef ecosystems for their conservation and management. It supports evidence-based decisions on management and policy responses to coral reef biophysical, social and economic trends, assessments and reporting progress towards internationally adopted goals and targets, in relation to environmental, social and economic targets, supports and promote exchange of information and sharing of knowledge about reef status, trends and responses and contribute to and operationalize innovations and their application in coral reef monitoring, research and modelling.
Pacific Climate Change Centre (PCIC),	A regional center of excellence for climate change information, research and innovation, hosted at SPREP. The PCIC delivers capacity development in adaptation, mitigation, climate services and project development. It promotes applied research and innovation, helps to improve the flow of practical information between met services, climate practitioners, policy makers, researchers, scientists and those implementing policies, programs

	and projects. It also hosts visiting researchers and experts to work from the PCCC and work directly in providing support to and for the benefit of Pacific island countries and territories. And brings together partners to find innovative solutions to the challenges that climate change present
Global Ocean Acidification Observing Network (GOA-ON)	GOA-ON as a collaborative international network is designed to improve understanding of global OA conditions; to improve understanding of ecosystem response to OA; and to acquire and exchange data and knowledge necessary to optimize modelling for OA and its impacts.
Pacific Islands Blue Foundation (PIBF)	PBF partners with community, government, other non-for-profit organizations, academia and the private sector to achieve sustainable socioeconomic development while preserving biological diversity and traditional culture. The programs tries to integrate sustainable development, cultural integrity, education and marine and coastal conservation to achieve ecosystem integrity.
Pacific Island Development Forum (PIDF)	In terms of Tonga, the PIDF is useful in that it promotes exchange in terms of understanding the significance of climate change for the lives and livelihoods of people, Pacific Islands and Pacific Islanders; implementing policies for sustainable development and especially poverty eradication that respond to the challenges posed by climate change and facilitate the use of tools, approaches and innovations such as Green-Blue Pacific economy, leadership and genuine partnerships to stimulate robust debate while fostering an inclusive change agenda.
Locally Managed Marine Area (LMMA) Networks	The LMMA International network dedicated to advancing locally-led natural resource management. It is a unique and diverse tapestry of communities, NGOs, government agencies and researchers all working together to promote food security and livelihoods through cost-effective, inclusive, and socially just, bottom-up approaches. It helps build practical capacity, cost-effective and culturally-appropriate engagement tools to promote locally-led dialogues and management. Assists communities in managing their resources, utilizing a revival of cultural traditions strengthened by contemporary science. Supports resiliency, confidence, and innovation through lesson sharing. for communities at the national, regional, and international levels, for fair partnerships, policies, and support. Most countries in the Pacific have LMMA programs that will be useful for Tonga to draw lessons, experiences, best practices and training opportunities
Pacific Invasives Learning Network (PILN)	PILN is a peer network of cross-sectoral invasive species practitioners in the Pacific with the aim to build cooperation between Pacific countries and territories on invasive species issues to empower effective invasive species management through a participant-driven network that meets priority needs, rapidly shares skills and resources, provides links to technical expertise, increases information exchange, and accelerates on-the-ground action" The project will coordinate and share lessons with PILN Teams of Pacific-island agencies responsible for invasive management, including agencies responsible for agriculture and natural resource management, international trade and border control, as well as environment and conservation.
Pacific Invasive Partnership (PIP)	PIP is the Invasive Species Working Group of the Roundtable for Nature Conservation in the Pacific Islands that serves as an umbrella regional coordinating body for agencies working on invasive species (pests, weeds, and diseases introduced from other places) in more than one country of the Pacific. The project will work closely with PIPs to share expertise on IAS prevention and management, biosecurity and related aspects
Pacific Small Island Development States (PSIDS)	A partnership with 14 Pacific Island countries for development of renewable energy sources and adopting measures for adaptation to the adverse effects of climate change with funding from four donor sources. As path of the SAMOA pathway, the partnership focuses particular reference to: (i) developing conservation measures for coastal and marine areas affected by the negative impacts of climate change, especially areas with significant biodiversity and for providing ecosystem services; (ii) developing protected areas; (iii) developing programs and projects to enhance ecosystem resilience and increase contribution of biodiversity to carbon stocks through conservation and restoration measures and (iv) development measures to minimize and redress the impacts of ocean acidification. The GEF project can benefit from learning and experiences for improved management of marine and coastal areas, increase community resilience and restoration efforts
Pacific Community (SPC)	The GEF project will avail of the scientific and technical expertise available with SPC, in particular because of the multi-disciplinary approach in addressing complex regional challenges including climate change, disasters, gender equality, youth employment, food and water security, and biosecurity for trade.
Island Conservation	IC works closely with local communities, government institutions and conservation organizations for prevention of the extinction of threatened species through expertise in removal of IAS and conduct of research to improve understanding on methods for removal of IAS to inform future conservation actions. The project will draw on experiences from IC in its plans to demonstrate IAS removal from natural areas.

SPREP	A regional organization established by the Governments and Administrations of the Pacific charged with protecting and managing the environment and natural resources of the Pacific. SPREP provides capacity building and training, technical support and research on matters relation to Climate Change Resilience, Island and Ocean Ecosystems, Effective Waste Management and Pollution Control and Environmental Governance, all of which are relevant to the R2R Phase II project. The project will benefit from through Capacity Building related to multilateral environmental agreements in Pacific Countries); Building national capacity to implement multilateral environment agreements by strengthening planning and state environmental assessments and reporting in the Pacific (INFORM); Biodiversity and Protected Area Management Project (BIOPAMA) Phase 2 that contributes to improving the long-term conservation and sustainable use of biodiversity and natural resources in the Pacific ACP region in protected areas and surrounding communities through better use and monitoring of information and capacity development on management and governance.
Pacific Community (SPC)	The principal scientific and technical organization supporting development in the Pacific region. SPC collaborates on technical and scientific work across different sectors and on key cross-cutting issues such as climate change mitigation and adaptation, disaster risk resilience, sustainable oceans management, education, sustainable tourism and culture preservation. SPC provides competitive grants in the above mentioned areas.
BirdLife International	BirdLife International manages a database of bird species and locations critical for species conservation that will serve as a valuable tool for planning priority conservation actions in Tonga

The implementation of the Phase II project will be support through the following co-financed activities as described in the Table 5 below:

Table 5: Co-financing Arrangements

Co-financing source	Co-financing type	Co-financing amount USD	Included in project results?	If yes, list the relevant outputs
Department of Environment, MEIDECC	In-Kind	300,000	N	
	Investment Mobilized	500,000	N	
Ministry of Finance	In-Kind	500,000	N	
	Public Investment	4,000,000	N	
Ministry of Lands and Survey	In-Kind	300,000	N	
	Public Investment	5,000,000	N	
Ministry of Fisheries	In-kind	300,000	N	
	Investment mobilized	200,000	N	
Vava'u Environmental Protection Association (VEPA)	In-kind	110,000	N	
	Investment mobilized	500,000	N	
Ministry of Tourism	In-Kind	150,000	N	
Tonga Development Bank (TDA)	In-Kind	500,000	N	
UNDP	Grant	25,000	N	

Department of Environment, MEIDECC (USD 800,000) of which (i) USD 300,000 covers staff time for updating FSP action plan, participating in mangrove restoration, M&E and undertaking stakeholder and community consultations and (ii) USD 200,000 as Investment mobilized through Tonga Climate Resilience Sector Project for mainstreaming

climate resilience into development planning, focusing on most vulnerable sectors and communities, promoting SMA establishment, sustainable fishing and management of coral reefs., supporting mangrove planting and development of best practices and supporting field demonstrations on the use of mangroves as natural infrastructure in areas identified for investment; (ii) USD 200,000 through Pacific Climate Resilience Sector Project to cover incorporate climate change adaptation into national policy and improving professional capacity to manage and monitor adaptation actions and USD 100,000 through the Marine Partnership program to share and establish information on sustainable management and development of fisheries for food security and economic growth.

Ministry of Finance (USD 4,500,000): This includes in-kind contribution of $500,000 in the form of staff salaries and associated expenditures of related government agencies to support the project. A total of USD 4,000,000 is in the form of Public Investment, of which USD 3,500,000 is for the promotion of accessibility to population living on Tongapatu in event of major climatic events (storms surges, flooding, etc.) and includes land compensation costs, civil works and other related activities and USD 500,000 for a floating solar project in Tongapatu and includes costs of environmental and social assessments, land compensation, etc.

Ministry of Lands and Natural Resources (USD 5,300,000) covers USD 5,000,000 or part of the USD 21,320,000 program to strengthen resilience to natural events and threat from Climate Change. The co-financing would specially address flood risk management to communities living around the lagoon, waste management, drainage, improve public and environmental health through septage and solid waste management and strengthen community resilience to natural and climate impacts. It will also improve capacity building and technical knowledge for land use planning. The $300,000 in-kind contribution will be in the form of staff time for GIS mapping, developing master plan and demarcation of PAs and mangrove conservation areas and enforcing Parks and reserves Act in Fanga'uta Lagoon.

Ministry of Fisheries (USD 500,000) of which (i) USD 300,000 in-kind contribution in the form of staff time to assist in establishing SMAs, drafting coastal community development plans and M&E; and (ii) USD 200,000 through Tonga sustainable Oceans Project for updating SMA management plans, improving SMA establishment, training SMA staff and CMCs as well as addressing landlocked communities.

Vava'u Environmental Protection Association (VEPA) (USD 610,000) of which (i) USD 110,000 is for Staff time in assisting SMA establishment in Vaipua Channel, assisting in drafting CMC management plans, M&E of coral reef systems and marine biodiversity in Vava'u and supporting community and private sector engagement in coastal resource engagement, and (ii) $USD 500,000 in the form of Investment mobilized from the Vava'u Ocean Initiative to support marine spatial planning, SMA planning and alternative livelihood improvements and marine biological surveys

Ministry of Tourism (USD 150,000) as in-kind contribution in the form of staff time for supporting infrastructure, legislation and policies to support tourist activities such as snorkeling and diving, providing training and support to communities and businesses for obtaining license for eco-tourism activities.

Tonga Development Bank (USD 500,000) as follows, with USD 500,000 from TDB in terms of staff time and resources for delivery of final support to local communities

UNDP: Grant of USD 25,000 to cover part costs of PMU staff

Risks*:*

96 Risks will be monitored by the PMU with oversight from UNDP CO. Since the risks are not directly related to achievement of results, the risks innate to the co-financing relates largely to availability of staff time, office space and utilities and in terms of the 'Parallel Financing' these are existing commitments from international development agencies or NGOs that have limited risks and likely will not affect the implementation of the project. The key project risks, including social and environmental risks and measures for management and mitigation of these risks are presented in Table 6 below:

Table 6: Risks and Risk Mitigation

Risk	Rating	Mitigation Strategy
General Risks		
Competing mandates and poor coordination between government agencies/line ministries and district authorities might interfere with the effective implementation of project activities	Moderate	Coordination between government agencies will be strengthened through existing FSP coordination arrangements established under the auspices of the R2R Phase I project, to improve planning, implementation, reporting and monitoring. This will also include improving the functionality and capacity of the existing FLC s Steering Committee, Technical Committee, District and Community Actions Groups, CMCs and District and Town Offices through additional training, technical support, equipment and financial resources
Political support for legal, governance and institutional framework for management of wetlands might be lacking	Moderate	Improved coordination mechanism across sectoral agencies and between national and district entities, improved information management systems, and development of sector specific sub-management plans will follow on the successful measures employed under the phase 1 project
The developed capacities of governmental (particularly agencies that would be responsible for resource planning and management) and supporting collaboration, coordination and technologies are not sufficient to create a viable and effective means to prevent marine resource degradation and its unsustainable use	Moderate	In line with the above, there is an increasing realization that there is a need for a national capacity development plan (based on a capacity needs assessment) for strengthening the management of marine ecosystems in the country. To support this, a critical aspect of the project is to ensure that there is a national strategy for improving capacity of all stakeholders in the planning, management, monitoring and enforcement related to the marine environment
Limited capacities of local stakeholders, including fishers, farmers, and other natural resource dependents ensure sustainable and appropriate use and management of natural resources that results in reduction of threat to endemic species and ecosystems	Moderate	The project will benefit from best practices of R2R planning and the testing of innovative approaches for community management of coastal and marine areas under local community governance mechanisms. These approaches will be innovative and build on existing tested practices as well as best practices available from other parts of the country or regionally. The support for improved blue/green livelihood measures will build adequate incentives to enhance local community participation in ensuring conservation outcomes. The lessons learned including the feedback on R2R planning will be channeled back into the collective knowledge base and will be used in other areas in the country.
Limited awareness and knowledge might result in limited political support for biodiversity and ecosystem conservation and management within the country	Moderate	Awareness and knowledge management activities will aim to promote a better understanding and acceptance of supporting natural resource management and its sustainable use
Instability in the economic and political global environment might impact on co-financing, government priority shift away from conservation goals	Moderate	This impact would be addressed to an adaptive management approach to adjust and revise project implementation activities to take global concerns, including climate and Covid manifested impacts

The overall feasibility and likelihood of the long-term sustainability of the project might be constrained by the varied activities leading to the fragmentation of resources and impacts	Moderate	The design of project activities was made following an extensive review (and consultation) of institutional capacity, resources and skills to determine realistic targets and activities for project investment. On the basis of this, project design entailed (i) selection and focus of demonstration activities to ensure impacts and benefits to communities; (ii) planning at site level will be made in consultation with local communities and other stakeholders to ensure that these are meaningful and manageable within the community capacity; (iii) planning and implementation of on-the-ground activities to be made through existing community organizations (CMCs) rather than create new institutions; (iv) planning and implementation will be undertaken in consonance with efforts at enhancing community capacity and skills, demonstration and extension provided to enable uptake, with the support of the fisheries, district and town officers in cooperation with local agricultural, tourism, waste management and forestry staff; (v) enhanced coordination along key line agencies to ensure that activities in the 2 sites are planned and implemented taking into consideration the human, time and financial resources at the disposal of each site); (vi) ensure that activities and expectations were realistic given the capacity and institutional structures within the country; (vii) building on the work already done under the R2R Phase I project ensure that efforts are directed at investments that are cost-effective, likely to succeed and provide direct economic benefits to local communities, avoid overlap and enhance collaboration with sector activities and build on what has already been done; (viii) regular monitoring investments on the ground to enable adaptive management, as and when necessary; etc. The project design includes significant level of technical oversight, extensive training and extension services to build capacity within the country.
Social and Environmental Risks[18]		
The restriction of access to specific areas for rehabilitation and planting of mangroves, seagrass beds and coral reefs could impinge on traditional livelihoods and potentially restrict access to some resources.	Substantial	The development of restoration plans will follow community consultations, and ensure written agreements are achieved with land owners and community management committees. A participatory approach detailed in the Stakeholder Engagement Plan will be applied to ensure that the project will avoid producing inequitable or discriminatory adverse impacts on affected populations, especially the most vulnerable, among them, women, those living in poverty and/or marginalized. To compensate for any restrictions imposed on traditional mangrove use, the project proposes to designate Specially Managed Mangrove Areas across the Fanga'uta Lagoon catchment and establishes Community Management Committees inclusive of gender and social diversity to oversee restrictions on use and participate on decision making. Additionally, a Grievance Redress Mechanism for the Project will be established.
The project risks reinforcing current gender-inequalities and social exclusion related to access to natural resources and benefits	Moderate	Implementation of the Project GESI Action Plan that identifies strategies to promote equality and inclusion and address existing barriers. For instance, SMA governance committees will have representation from women and youth who will comprise at least one third of members. GESI targets will be established for activities and mainstreaming capacity will be built at national, sector, district and community level. These efforts will assist with closing equity and exclusion gaps in access to and control over the natural resources of fisheries.
The implementation of the restoration plans and the alternative livelihoods that will be identified during the implementation phase may have an adverse impact on the local ecosystems, as well as pose occupational and community safety risks.	Moderate	The scoped ESIAs to be conducted upon definition of the restoration plans will inform the assessment of impacts and risks and the definition of management measures. Alternative livelihoods will be identified and implemented in close consultation with communities and informed by a Livelihoods Action Plan and consultant livelihoods reports. The implementation of the restoration plans will follow an Environmental and Social Management Plan (ESMP) to avoid, mitigate and compensate impacts and risks.
Capacities of implementing agency and local stakeholders, competing mandates and poor coordination between government agencies/line ministries and	Moderate	The project will ensure tailored training and capacity building in SES and environmental and social management, through capacity assessment at the beginning of the project implementation period to strengthen functionality and capability of existing institutional structures.

[18] Social and Environmental Risks are rated as per the SESP: low, moderate, substantial or high.

district authorities, and weak overall governance systems might interfere with the effective environmental and social management of project activities.		
Exposure of the country to the impacts of climate change including extreme weather events / climate anomalies may affect the success of mangrove and seagrass planting in coastal sites.	Moderate	A climate change risk screening has been conducted during the project preparation stage, to ensure that the project sufficiently considers risks associated with climate change impacts that may affect project planning and implementation. **:** Project activities have been developed in line with national climate plans/frameworks/actions/agendas. Activities have been designed with a climate lens applied. Ensuring increased cover of healthy mangroves is a risk reduction effort for storm surges. Climate risk will be factored in the planning process so that project level risk reduction activities will be emphasized. The project will carry out planting activities at the appropriate timing to allow for seedlings to get established before cyclone season.
The project may not effectively engage and ensure participation of all stakeholders, including women, youth and vulnerable community members during the project design and the implementation phases. Due to existing inequalities, rights holders may not have the capacity to claim their rights..	Moderate	The project uses a participatory approach for the definition of key activities and conservation areas, included in the Stakeholder Engagement Plan. The ESMF includes the details of the Grievance Redress Mechanism to be implemented, which will ensure access to all affected parties.
The project could contribute to cumulative environmental or social impacts in the area through unintended negative consequences from policy or legislative changes, such as those proposed under Output 2.2, or derived from upstream works, such as the proposed Fanga'uta Lagoon Crossing bridge project by ADB	Substantial	A Strategic Environmental and Social Assessment (SESA) will be conducted to evaluate potential cumulative environmental or social impacts derived from upstream works or from the implementation of policy or legislative changes.

97. During project development, the project was reviewed using UNDP's social and environmental screening procedure (SESP). The analysis identified a range of potential social and environmental impacts associated with the project activities. The SESP report (Annex 5) details the specific environmental and social risks that apply. The significance of each risk, based on its probability of occurrence and extent of impact, has been estimated as being Low, Moderate, Substantial or High. Where a risk is identified and assessed as being of Moderate, Substantial or High risk, it triggers the relevant standard or principle.

98. The UNDP's Social and Environmental Screening Procedure (SESP) has resulted in an overall "substantial" risk rating for the project. According to the 2019 SESP guidelines, a project is considered to have "substantial" social and environmental risk when it "includes activities with potential adverse social and environmental risks and impacts that are more varied or complex than those of Moderate Risk projects but remain limited in scale and are of lesser magnitude than those of High Risk projects (e.g. reversible, predictable, smaller footprint, less risk of cumulative impacts)".

99. The Project's design has integrated the requirements triggered by the UNDP Social and Environmental Standards (SES) in order to ensure that any potentially adverse effects can be avoided or mitigated during implementation, and that the anticipated positive social and environmental outcomes are achieved. Nevertheless, there are some specific project activities and locations that will not be fully defined until the Project is initiated. Therefore, the project's ESMF (Annex 9) establishes a framework that guides the screening and categorization, level of impact assessment, required institutional arrangements, and processes to be followed for components or activities of the project that will be further specified during project implementation.

100. A summary of the risk significance under each SES principle and standard, and the project-level safeguard standards triggered by the relevant project interventions/activities, are shown in Table 7 below.

Table 7: Summary of safeguard standards triggered based on screening conducted during project preparation

Overarching Principle / Project-level Standard	
Principle 1: Leave No One Behind	✓ Moderate
Principle 2: Human rights	✓ Moderate
Principle 3: Gender Equality and Women's Empowerment	✓ Moderate
Principle 4: Sustainability and resilience	✓ Substantial
Principle 5: Accountability	✓ Moderate
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management	✓ Substantial
Standard 2: Climate Change and Disaster Risks	✓ Moderate
Standard 3: Community Health, Safety and Security	✓ Moderate
Standard 4: Cultural Heritage	
Standard 5: Displacement and Resettlement	✓ Substantial
Standard 6: Indigenous Peoples	
Standard 7: Labor and Working Conditions	✓ Moderate
Standard 8: Pollution Prevention and Resource Efficiency	✓ Moderate
Number of risks in each risk rating category	
High	0
Substantial	2
Moderate	5
Low	0
Total number of project risks	7
Overall Project Risk Categorization	Substantial
Number of safeguard standards triggered	11

101. In line with the initial project SES categorisation, an ESMF was developed (Annex 9) during project preparation. The ESMF identifies the steps required for detailed assessment of the project's potential social and environmental risks, and for preparing and approving the required management plans for avoiding, and where avoidance is not possible, reducing, mitigating and managing identified adverse impacts. It also sets out the additional safeguards measures that apply to the project during the inception phase, including but not limited to:

i. Developing a **Strategic Environmental and Social Assessment (SESA)** assess impacts and risks from policy advice and reform, and from risks derived by upstream works;
ii. Screening of project activities and specific interventions/outputs not yet fully specified, using the SESP, to ensure that associated impacts are adequately managed;
iii. Developing scoped Environmental and Social Impact Assessments (SE, with their respective **Environmental and Social Management Plans (ESMP)** for implementation of restoration plans**;**
iv. Ensuring adequate consultation and consensus with affected stakeholders; and,
v. Livelihood's assessment to assess the project's impact on the socio-economic and livelihoods conditions of project affected peoples at the demonstration sites as outlined in Component 1 and 2 (to be incorporated into the **Livelihood Action Plans** – part of the ESMPs to be developed in Year 1).

102. The relevance of the identified risks may vary across sites, and the significance or likelihood of the risks or impacts identified by the current SESP will not be uniform across all locations. Further screening is required to identify site-specific risk significance, and to effectively target any required further impact assessment or management.

Stakeholder engagement and south-south cooperation:

103. During the PPG phase, the project objectives, and potential activities/interventions were introduced to identified stakeholders, including CMC communities, district and national agencies, and private sector representatives. In addition, extensive field consultations were undertaken within the two marine sites which involved 700 people, 57% of who were female, who would potentially be affected persons/stakeholders. A consultation report has been developed and results are also summarized in the GESI Mainstreaming Action Plan (GAP), which is contained in Annex 10 of the ProDoc. A full list of stakeholders consulted during project design has been recorded via attendance lists.[19]

104. The project also developed a preliminary Stakeholder Engagement Plan (SEP) (see Annex 8 of the ProDoc), to ensure that all groups of people, including those who are marginalized and underrepresented, participate in and benefit from the Project , including their contributions to assess potential social and environmental impacts and the development of adequate management measures. As necessary, the Stakeholder Engagement Plan will be updated during Project implementation based on project experience and lessons learned.

105. The project will develop a Communication and Knowledge Management Plan in the early part of project implementation. The objective of this plan will be: (a) to reach out to the project's main stakeholders, including in particular local communities to inform them about the project and the expectation of their basic roles and responsibilities; (b) to take advantage of their experience and skills; and (c) to secure and safeguard their active participation in different project activities to reduce obstacles in its implementation and in its sustainability post-completion. The approach is based on the principles of fairness and transparency in selection of relevant stakeholders and, through consultation, engagement and empowerment, ensure: (i) better coordination between them from planning to monitoring and assessment of project interventions; (ii) access to relevant information and results; accountability; (iii) application of the grievance redress mechanism as required; and (iv) sustainability of project interventions after its completion.

Identification, Roles and Responsibilities of Stakeholders:

106. Stakeholders are identified in Annex 8 of the UNDP Project Document**,** along with their potential roles and responsibilities. The Communication and Knowledge Management Plan will identify goals and guiding principles, target audiences, community needs, tools and key messages. The following initiatives below will be taken to ensure participation of stakeholders in project activities.

Project inception workshop:

107. Project stakeholders will participate in the multi-stakeholder inception workshop within three months of the start of the project. The purpose of this workshop will be to create awareness amongst stakeholders of the objectives of the project and to define their individual roles and responsibilities in project planning, implementation and monitoring. The workshop will be the first step in the process to build partnership with the range of project stakeholders and ensure that they have ownership of the project. It will also establish a basis for further consultation as project implementation commences. The inception workshop will address a number of key issues including: assisting all partners to fully understand and take ownership of the project; detail the roles, support services and complementary responsibilities of project partners in terms of implementation of R2R planning and management; discussion of gender equity and social inclusion principles and have they will be applied during implementation, and discussion of the roles, functions, and responsibilities within the project structure, including reporting and communication lines, monitoring and conflict resolution mechanisms.

Awareness and Engagement Strategy and Action Plan:

[19] See Annex 8 of the ProDoc, (Stakeholder Engagement Plan)

108. This Plan will facilitate improved awareness and engagement of stakeholders (in particular local communities) of the project and its contents; and it includes details on best practices to use with particular stakeholder groups. The project will regularly review and update the Plan to ensure that all stakeholders are informed on an ongoing basis about the project's objectives, activities, progress, and opportunities for involvement. The project will develop and maintain public pages and other locally adaptable communication means (Output 3.2) for sharing and disseminating information on marine biodiversity and ecosystem conservation, good fisheries, marine resource use and agricultural and waste management practices, IAS prevention and management. Activities in the Communication and Knowledge Management Strategy to engage stakeholders and stakeholder groups include:

- **Quarterly meetings with key stakeholders.** On a quarterly basis, the Project Board will hold meetings that involve key stakeholders to discuss achievements, challenges faced, corrective steps taken, and future corrective actions needed for the implementation of planned activities. Results-based management and reporting will be informed by stakeholder inputs during such meetings.
- **Sharing progress reports and work-plans.** Copies of annual and quarterly progress reports and work plans will be circulated to stakeholders to inform them about project planning, implementation and outcomes, as well as through public forums, including web based.
- **Participatory approach for involving local communities.** Such an approach will be adopted to facilitate the active participation of local communities, either as a group or through their CMCs, including men women, and youth group representatives as well as people's disability organizations (DPOs) in the planning, implementation and monitoring of project activities. Facilitation training for state planning teams will be supported. To ensure participation of local communities, the project will develop Memorandum of Understanding (MOU) with CMCs before implementing key project activities.
- **Stakeholder consultation and participation in project implementation.** The national awareness and engagement plan will be developed and implemented immediately and reviewed at quarterly meetings with stakeholders to assess its effectiveness.

Table 8: Stakeholder Engagement Plan

Stakeholder	Roles and Responsibilities / Mandate	Engagement During Implementation
Government Entities		
[Executing Agency] Department of Environment, MEIDECC	The MEIDECC, through the DOE is mandated with overseeing environmental management including the administration of the Environment Act and the objectives of CBD (1992). The DOE's responsibilities include the conservation and management of: (i) the environment and biodiversity; (ii) the protected areas network. The MEIDECC supports synergy between biodiversity, climate change, and disaster risk management. A project coordination office supports synergies between donor-funded projects.	The DOE is responsibility for project execution and will be involved in all aspects of governance and implementation as well as potentially hosting the project management office Lead the FSP Secretariat which is the central point of contract for all initiatives in the FLC area. CEO of MEIDECC will be the Chair of the Project Board
Ministry of Fisheries	Responsible entity for the Sustainable management of Tonga's fisheries; establishment of community based SMAs; foster sustainable and profitable commercial fisheries and aquaculture. Coordination of co-financing project for Tonga Pathway to Sustainable Oceans	Part of the Project Board Directly participates in the Technical working Group Coordinates the planning and implementation of the SMA program Participates actively in the development of the FSP action plan and in policy and legal reviews
Department of Agriculture, Ministry of Agriculture, Food and	Coordination of development activities to maximize the contribution of the agriculture sector towards sustainable economic growth and food security with sustainable livelihoods.	Participates in the Technical Working Group Supports moving to sustainable agriculture and agricultural related livelihood programs under the project

Forestry and Fisheries (MAFFF)		Develops and support pesticide and chemical application program in agricultural lands. They also provide chicks for communities to establish and manage chicken coups for small scale commercial use within the communities.
Department of Forestry/MAFFF	Promotion of sustainable management and efficient use of forestry resources including mangroves.	Participates in the Technical Working Group Supports the mangrove restoration program in the project sites and providing seedlings for terrestrial replanting programs. With the focus on Green managed areas (GMA) this department would play a key role in regulating and supporting green growth for food security and alternative livelihoods.
Ministry of Lands, Survey and Natural Resources	Ensure that the laws of the Kingdom of Tonga relating to the management and protection of lands and natural resources are implemented, enforced and reviewed, in accordance with national and international obligations to global conventions and laws. Prepare plans, policies and legislations to ensure efficient service delivery to the people and effectively carry out the monitoring of impacts on the lands, and natural resources and devise protection measures.	A member of the Project Steering Committee and directly participates in the Technical working Group. MLNR plays a key role and works closely with DOE in establishing marine protected areas and SMAs. This includes support for cabinet approval, GIS support for providing GPS coordinates and demarcating MPA and SMA boundaries. The Ministry holds the mandate for zoning and drafting master plans for PAs and would be key in developing the Popua Master plan Participates actively in the revision and implementation of the FSP action plan and in policy and legal reviews
Ministry of Infrastructure	The mandate of MOI is specifically determined by their existing parliamentary acts, regulations and all international commitments under different conventions relating to transport and infrastructure. This includes the TSDF2, National Infrastructure Investment plan to improve infrastructure (roads in communities), building standards etc. Ensures that community infrastructural needs are not left out and helps ensure that plans are integrated and aligned at the community level.	Member of the Project Technical Committee .Specifically, MOI will collaborate with the project to manage support infrastructural plans for the community and their maintenance. MOI will also provide support in identifying future infrastructural development in the Fanga'uta lagoon area that may affect the implementation of phase 2 project.
Waste Authority	A Government owned Public Enterprise mandated with managing the safe disposal of waste throughout the country	Will support the project in finding suitable solution to solid and liquid waste disposal and management. Will support community clean ups and provide advise
Prime Minister's Office National Planning Division	Responsible for TSDF II project. SDG and Samoa Pathway alignment Responsible for corporate planning and budget processes in consultation with the Ministry of Finance	Part of the Project Board Will enable the strengthening of coherence to sector plans, oversight and review of corporate plans to ensure synergies
Department of Women's Affairs, Ministry of Internal Affairs	Promotes GESI policies and stakeholder coordination with women, youth and disability development groups and ensuring whole of society approach to achieving equity and inclusion.	Participate in the Technical Working Group. Facilitate GESI mainstreaming, coordination, reporting and coherence. Will provide oversight to ensure GESI Action Plan is implemented and results are achieved. MIA could also assist with training and capacity development of project staff and partners.
Ministry of Tourism	The Ministry of Tourism in coordination with the Ministry of Trade and Economic Development issue licenses to private entities for tourist development in the Kingdom for accommodation, restaurants, travel agencies, tour guide licenses (certificate), transportation (taxis, shuttle, buses for visitors particularly from Cruise ships).	A major opportunity for supporting eco-tourism activities in communities is to cater to Cruise ship visitors requests for site tours in the villages and also promoting handicraft for sale and traditional dancing through floor shows at village sites. Most often these are hosted by resorts (Oholei), however communities can be supported in establishing sites within their communities to host visitors.

Tonga Development Bank	A significant provider of banking finance in Tonga to promote Tonga's economic and social advancement. TDB is a member of the Regional Development committee as it is a key partner for integrating community resilience approach to society whole approach, prioritizing plans and finance.	Member of the Project Technical Committee. Partner for Financing of plans and activities for women and youth, sector plans for agriculture, fisheries, ocean and handicraft. It will help with financing strategies for community activities for women and youth, and men participation for mutual benefits and equity assurance. TDB will help as delivery partner for UNDP and Environment Department in ensuring that implementation will have no room for delay due to administrative/financial/procurement processes of UNDP. TDB is willing to support MEIDECC Environment Department with an effective banking and delivery financial services for efficient financial disbursement and delivery.
Tonga Tourism Authority	The main mandate is marketing and promoting Tonga as a tourism destination. At the moment, they are looking for opportunities to support infrastructural development and boost eco-tourism with communities particularly exploring snorkeling in SMA sites, developing villages for cultural tours, pearl farming which will focus on strengthening engagement with interested communities to promote their villages as an eco-tourism destination.	Since local communities do not see tourism as a reliable source of income TTA can provide training and support by the government to promote community-based tourist activities as well as providing co-financing for training, assets and market support. Possible ecotourism options include support for canoe tours and sea kayaking tours on lagoon (e.g. slipway for launching boats) etc.
Tonga Chamber of Commerce	Business interest and oversight of promoting local development	Support the establishment of community business ventures in conservation enterprises and alternative livelihood programs
Prime Minister's Office District Officers and Town Officers	Responsible for Local development coordination and local actions on mainstreaming of biodiversity in development activities District and town ide interests in the Fanga'uta Lagoon and Vaipua Channel	Participate in the FSP Steering Committee Member of the Community Management Committees and will support community related activities in the project sites
Government Regional Development Committees	Local area/island management units helping to ensure a) that community wide interests are effectively represented by Town and District Officers in the CMC; b) that discussions and decisions made at CMC meetings are effectively communicated back to individuals within communities and c) the organization and management of action on the ground at community and district levels.	Participate in project steering committee and member of the Vava'u Island Development Committee Supports coordination, coherence, functional partnerships of stakeholders for improving livelihoods and promotion of impactful project interventions
Non-Government Organizations		
Vava'u Environmental Protection Association (VEPA)	Group of local leaders concerned about environmental issues in Vava'u with focus on biodiversity and conservation, knowledge exchange and promotion of sustainable livelihoods.	VEPA will support conservation actions in coral reefs, mangroves and other natural habitats. Facilitate environmental awareness and educational activities
Waitt Institute	Creates and implements sustainable ocean plans in partnership with governments, local stakeholders and communities, facilitates policy making and helps build long-term success by providing expertise, funding and tools for spatial planning, development of blue economy, sustainable fisheries and marine protection	Could provide expertise for marine spatial planning, capacity building, assessment of potential for blue economy planning, enforcement planning, monitoring, communication and funding
Civil Society Forum of Tonga (CSFT)	The Civil Society Forum of Tonga (CSFT) is the overarching organization that coordinates NGOs and other NGOs are members of the CSFT. Each NGO has their area of specialty dealing with either environmental, social or humanitarian issues.	The CFST can help facilitate coordination with NGOs in the country and in identifying key NGOs that can supports specific project related activities, including participation of women, youth and people with disabilities, support livelihood activities, mangrove conservation, ecotourism, etc.
Tonga National Crisis Center	Lead agency for addressing GBV in the country	Can facilitate promotion of GESI for the project, capacity building training, decision-making skills, etc.

and the Women Crisis Center		
National Council for Women	Lead agency for handicraft training and marketing, cultural and heritage promotion, gender mainstreaming through traditional governance	Promotion of GESI through handicrafts in Tongapatu and potential for expansion to Vava'u to support women's development
Women and Children Crisis Center	One of the lead agencies for gender mainstreaming in the country	Can facilitate promotion of GESI, capacity building for women and youth, particularly in decision-making and empowerment
Leiti Association	Deals with LGBT and people with disabilities	Key agency that can support the project to identify and address measures (including training, capacity development, empowerment and participation) of people with disabilities
Women's Council for Tonga (WCT)	NGO for women's that support business of women, including for handicrafts and tourism development. WCT is under umbrella of Ministry of Internal Affairs and CSFT.	Potential member of the CMCs Support community business development opportunities, training and enhancement of role of women in planning and decision-making
Tonga National Center for Handicrafts	Supports women's membership in small business development and loans for weaving and handicrafts	Can provide training and skills development in handicraft making as well as marketing within the country and overseas
Tonga National Youth Congress (TNYC)	Promotion of youth leadership and participation in mangrove conservation and restoration, soil conservation, waste management etc.	Potential partner for mobilization of youth groups to support conservation and restoration activities in the project areas, ecotourism promotion and organic farming. Can also support in accessing small grants from other financial sources to support conservation action
Tonga Community Development Trust	Tonga Community Development Trust has been the lead NGO agency on environmental issues and management with communities until recently as the staff numbers are considerably lacking. Involved in projects that support community mangrove nurseries	Directly partner with CMCs for mangrove planning and restoration
Nobles Fono	Traditional noble estate holders that can support EIA recommendations and monitoring for land use, mangrove conservation and use, and supporting community initiatives	Provides a mechanism for discussion on land allocation and private investments
Community Groups		
Community Management Committees/FMA Committees	CMCs are local community institutions that have been engaged in community actions	Key players in the planning and management of SMAs
Private Sector		
Ancient Tonga	This is a family run business offering personalized interactive cultural tours. An informative in-depth tour on Tongan traditions, livelihoods and way of living in a community. With lush Tongan gardens it has the amenities to cater for tours: cultural individual, group tours catering to cruise ship visitors. They also host events: buffet and Friday night functions	Agro-forestry planting at the Ancient Tonga site in Vaini and constructing a mangrove trail for visitors with information signage highlighting mangrove ecosystem values and support community led clean-ups of coastal environment near the eco-tourism sites.

Gender equality and Women's Empowerment:

109. In Tonga, traditional gender roles and expectations have a significant impact in the participation of women and men in agriculture, fisheries, livelihoods and rural development. Men are typically viewed as primary 'bread winners' and decision-makers, while women are expected to take care of the household chores and provide care for the children and other family members. Farming and fishing are generally considered men's responsibilities, and contribution of

women farmers and fishers is often undervalued. However, recent sector policies acknowledge the crucial roles that women play in agriculture and fisheries, and also recognize the differential impacts that resource degradation and climate change can have on women. This traditional gender role is also reflected in the governance of natural resources including land ownership. The majority of land in Tonga is owned by the nobles and every male Tongan is entitled to access a town allotment and a bush allotment for farming once they reach the age of 16. Men can "rent" land from a noble can inherit land use rights. Tongan women have no rights over land, cannot own land and can only have temporary access to land. While women can legally lease land, it is often difficult to do so. In addition to women being excluded from certain realms of Tongan culture, other marginalized people, such as persons with disabilities and those with diverse sexual orientations, can also face discrimination and barriers to equal opportunities and full participation in society.

110. Decision-making mechanisms within the community and villages are largely dominated by men[20]. These mechanisms are reinforced by both cultural and social norms. Women are largely limited in their ability to participate in both informal and formal businesses despite the fact that they are actively engaged in the economy through subsistence production and in-kind and marine resource exploitation work. Barriers to women's participation in small businesses include time constraints due to reproductive and caregiving responsibilities, subsistence food production and community expectations that women will provide free labor to prepare and serve food at community and church events. Women's involvement in subsistence, rather than commercial fisheries, appears due to gender norms, access to transport and fishing gear, in that this is considered 'men's work'. Another factor is that women are not as likely to own assets, including transport. Additionally, women's levels of education and lack of business literacy make it more difficult for them to identify and respond to opportunities and understand requirements of formalized business development. Geographic isolation, poor financial services, weak transportation and telecommunication networks and lack of knowledge on quality assurance and marketing are all barriers to women's engagement in employment. Financial inclusion programs and savings clubs are working to increase women's financial literacy and opportunities to save and learn basic business skills. However, power differentials within households and systems of traditional obligation often make it difficult. Tongans use ferries, small private boats, a nationally-owned airlines and roads to travel around the country. Transportation costs are generally high relative to incomes. This limits mobility, especially for poor women who have few income generation opportunities. Service delivery and the quality and safety of services are negatively impacted by isolation of rural communities and lack of infrastructure. Despite these challenges, the Tonga R2R Phase I Terminal Evaluation found that the project gave priority from the project development phase to implementation and made efforts to include women in all activities to enhance their knowledge and capacity, build leadership capacity, improve their economic situation, increase food production and decrease drudgery. The project also helped in increasing equity regarding access to and control over production resources, equity in sharing benefits and reducing inequities in gender distribution of labor. Both women and men benefited from the activities of the project. Women were also highly represented in the community groups formed with the support from the project and several of them were also led by women. Through support to CBOs, both women and men's capacity to manage their own groups was built

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111. The Government of Tonga has committed itself to advancing gender equality and social inclusion of marginalized groups through the endorsement of a variety of international and regional conventions and agreements. It has also endorsed several major international development agreements, including "The Small Island Developing States" (SIDS) Accelerated Modalities of Action (SAMOA) Pathway (2014), the Sustainable Development Goals (2015), and to implementing a more inclusive sustainable and empowering human development outcome by strengthening its commitments to SDG 1 (No Poverty), 3 (Good Health and Wellbeing), 4 (Quality Education), 5 (Gender Equality), 8 (Decent work and economic growth), 10 (Reducing Inequalities), 11 (Sustainable Cities and Communities), 13 (Climate Action), and 17 (Partnership for Goals). Tonga has agreed to conclusions of the Commission on the Status of Women. However, Tonga is one of only two Pacific countries that have not yet ratified the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW). Its current women's policy and plan of action is *Women's Empowerment and Gender Equality Tonga (WEGET) 2019–2025* developed by the Ministry of Internal Affairs Social Protection and Disability (MIA), Women's Affairs Division (WAD). Tonga has endorsed key regional agreements on gender equality, more specifically, the Pacific Platform for Action (1994, 2004, 2017) and the Pacific

[20] Guttenbeil-Likiliki (2007) Advancing Women's Representation in Tonga

Leaders Gender Equality Declaration (2012). These regional agreements identify priorities for the region and provide guidance to countries in developing their own national gender policies, strategies, plans and programs. The MIA Youth Development Division oversees youth development. Tonga has ratified the Convention on the Rights of the Child (1995) and recently approved the Tonga National Youth Policy & Strategic Plan of Action 2021-2025. The GoT became a signatory to the United Nations Convention on the Rights of Persons with Disabilities (CRPD) in 2007 but has yet to ratify the Convention. Tonga has a national disability policy in place (Supreme Court of Tonga, 2020). The priorities are to eliminate discrimination, ensure realization of all human rights, including freedom from torture or cruelty, and access to opportunities for education and work, as well as providing the necessary services and public infrastructure to support people with different forms of disability to enjoy mobility and high quality of life. The National Disability Policy is silent on CCA and DRR, but in a recent analysis of disability in Tonga, the researchers recommended that GoT ensure appropriate enabling policies and guidelines to ensure the incorporation of relevant climate change and disaster risk management (in keeping with TSDF Organizational Outcome 5.4).

112. Tonga ranks 105 out of 189 countries in the 2021 Gender Inequality Index (GII—a composite measure reflecting inequality in achievement between women and men in reproductive health empowerment, and the labor market) with a score of 0.418 (2021). There are a number of underlying constraints to enhancing gender equality in the country. Overall, the legal and policy framework related to GESI is still weak and political will for mainstreaming GESI in agriculture and the rural sectors varies, but it is generally low. There is lack of recognition of the ways in which gender shapes diverse roles, needs and constraints of rural women and men and lack of acknowledgment that gender is a factor directly affecting people's agency. Progress on GESI mainstreaming is largely driven by externally-funded projects and overall, there is little to no collection of sex-disaggregated data by government staff, nor are information management systems in place to easily store and retrieve the required data. Technical capacity for GESI mainstreaming is limited across the government. While some technical support is being provided to the government, it is not sufficiently sustained to support consistent action between inputs. There is an urgent need for widespread GESI training of government staff at every level, as part of current non-performance can be attributed to lack of knowhow. Accordingly, there is an urgent need for sex, age, area, disability (SAAD) data collection, including the training required for best practices, to measure gains in GESI mainstreaming.

113. Overcoming GESI, in particular for rural women requires a number of actions, including improving the production and analysis of SAAD disaggregated data relevant to gender equality, strengthening the capacity to monitor on the impacts of policies, plans and services on rural population, strengthening GESI mainstreaming capacity in key natural resources agencies, providing training on GESI mainstreaming, strengthening monitoring and evaluation of policy implementation, supporting studies to identify economic opportunities for women in the context of blue and green economies, strengthening women's resilience to climate change impacts and their ability to sustain their natural resource based livelihoods, increasing access to extension and development support and enhance the quality of delivery of rural services.[21] In relation to the above, gender and social inclusion considerations have been integrated into the project design (under Output 3.2) in line with the GESI Mainstreaming Action Plan (Annex 10 of UNDP Project Document). As the project entails a multi-stakeholder approach in dealing with R2R planning, marine resource use and management and address of marine ecosystem degradation, integration of GESI concerns is critical to ensure equity and participation of both men and women. Rather than focus on women only, the project has adopted an approach that puts equality and inclusion at the center of planning, implementation and monitoring to ensure that "no one is left behind" regarding of gender, age, ability, social or economic status or place of residence. The R2R planning approach may have significant long-term impacts on both gender and social groups, and thus the GESI Mainstreaming Action Plan includes specific actions for applying a gender and socially inclusive lens to every decision, expanding representation, filling in gender and social-based research gaps, and investing in approaches to gather and share information among a wider audience. It is the intent of this project to become a model for improved GESI mainstreaming for replication and expansion in government and community planning processes. GESI mainstreaming in the project will be addressed (refer Annex 10 of UNDP Project Document) through the following actions:

[21] Country Gender Assessment of Agriculture and Rural Sector in Tonga, FAO 2019

- Reducing the burden and drudgery of work on women and improving their livelihood opportunities through improved access to resources and services.
- Ensuring gender equality and social inclusion in opportunities for education, skill building, training and capacity building.
- Promoting the voice, participation and empowerment of women and are accessible to a range of abilities and reducing opportunities for elite misuse of benefits and leaders' sole decision making
- Ensuring that project materials, including meeting agendas, reporting templates, communications materials, and all written policies include gender and social mainstreaming and are accessible to a range of abilities;
- Creating and requiring minimum standards for community planning teams, including representation from multiple gender and social groups and/or tasking of planning team members to speak for vulnerable peoples;
- Capacity building and training for project staff and planning team facilitators to include the input of multiple groups into resulting plans;
- Investing in staff to enable adequate connections with multiple groups. Instead of general community meetings, meetings with (i) women's groups; (ii) men's groups; (iii) youth groups; (iv) PWD groups; and (v) individuals with access to or influence over vulnerable people (e.g., landowners or village leaders);
- Applying a gender and socially inclusive lens to every meeting, report, plan, and activity;
- Diversifying sustainable livelihood opportunities, specifically for women, youth and PWDs
- Implementing the Communications and awareness plan, including holding multiple, targeted meetings by disaggregated groups;
- Making better use of oral/audio content, with less emphasis on writing to better communicate with women and youth; and
- Incorporating gender and socially sensitive indicators and collect gender and age disability-disaggregated data for monitoring and evaluating project results.

Innovativeness, Sustainability and Potential for Scaling Up:

114. Tonga R2R Phase II is a follow-up project upon the request of the Tongan government. This request is due to the success of the participatory process of the first phase and the desire to continue and replicate the project and scale up the initiatives to biodiversity priority areas on Vava'u.

Innovation

115. The project will build on and try to replicate proven "best practices" from the R2R Phase 1 project and other examples from the Pacific region to support an integrated ecosystem-based focus on conserving the endemic and globally threatened wetland biodiversity of Tonga, on addressing watershed degradation, unsustainable marine resource use and on the addressing the impacts of IAS across the marine ecosystem – in a way that also supports blue-green economy opportunities for local communities that is linked to the government's broader development strategy and longer-term COVID-19 recovery potential. While, the proposed integrated landscape/seascape approach will benefit greatly from increased and high levels of ownership of existing community managed SMAs and establishment and improved management of marine protected areas, it will further try to integrate non-fisheries activities into a broader and holistic integrated resource management approach through innovative coordination mechanisms and platforms that involve a wider range of government, non-governmental and community partnerships. This move from a local fisheries planning approach to a more holistic integrated multi-sector resource management approach is an innovative and modern approach to mainstreaming marine biodiversity into economic and sectoral planning. The strengthening and improved functionality of existing innovative FSP governance and institutional structures will provide an enhanced national multi-stakeholder and multi-sector coordination mechanism for marine biodiversity conservation, threat management and promotion of best practices will ensure that resources and capacity are being used as effectively as possible. This governance structure will be extended during Phase II to be more inclusive of women and youth through connecting with additional established women's groups such as the Tonga Community Development Trust and the Women's Council for Tonga, and through involving the country's aspiring young leaders from the Tongan Youth Parliament in addition to the Tonga National Youth Congress. be which is Innovative. The project is also innovative in that it will develop the first land-use spatial plan in Tonga. Innovative modelling approaches are proposed: an integrated water quality assessment of the lagoon

catchment using a groundwater numerical model to improve understanding of the behaviour of lagoon side aquifers and transport of pollutants through groundwater; and assessment of rehabilitation options through a coupled hydrodynamic-ecological model. There is also potential for innovation in establishing alternative blue/green livelihoods to mitigate the impact of the fishing restrictions in the SMAs and the protection of mangroves which might otherwise be used for firewood or dye for tapa cloth. Innovative examples of alternative livelihoods include urban agriculture initiatives and woven pandanus leaf containers to provide an alternative to single use plastics (recent training has been provided in Tonga for weaving pandanus leaf containers through a Global Green Grant coordinated through the Civil Society Forum of Tonga). The proposed interactive learning facility to demonstrate the benefits of the mangroves and lagoon ecosystem services will be innovative and encourage more education visits from within Tonga and overseas. The project will actively seek to identify how citizen science data collection methods and techniques can be used to leverage additional data on species distribution and land condition (including traditional knowledge and information on species and resource condition), while also raising awareness and engagement of communities.

Sustainability

116. The long-term commitment of the Government of Tonga to protecting its natural marine and coastal endowments provides very positive signs for sustainability of project impact. The Tonga R2R Phase I project has already proven to be sustainable with the Angulate Lagoon governance framework established during Phase I continuing to the present including the regular meetings of the CMC. The Phase II project proposes to strengthen this institutional arrangement and provide capacity building to governance staff. The Phase I project manager was employed by the Department of Environment after the conclusion of Phase I and provides a key sustainability role in project coordination for Phase II. The public awareness programme, the project website and the community initiatives such as mangrove planting and coastal clean-ups have also proved to be sustainable beyond their implementation during Phase I. The estimated government budget allocated to support the continuing implementation of the FLSP will be a minimum of $250,000 per year to cover water quality monitoring and implementation of the land-use spatial plan. This will ensure the financial sustainability of the Tonga R2R Phase II project. VEPA are also providing co-financing to support the proposed activities in Vava'u.

117. To facilitate long-term sustainability of marine conservation activities, including in the Fanga'uta Lagoon and Vaipua Channel, the project will ensure the following: (i) support tailored training and capacity building through an capacity assessment at the beginning of the project implementation period to strengthen functionality and capability of existing institutional structures and CMCs; (ii) strengthened collaborations across sectors and stakeholders for improved management of marine systems; (iii) outreach and awareness programs delivered at national, district and village levels in parallel to build local community and stakeholder support for sustainable marine resource use and conservation; (iv) Identification of the best option for livelihood improvement to support alternative incomes for marine resource dependent communities; and (v) absorption of key contact positions supported by the project, including the project coordinator, technical coordinator (Vava'u), and Operations Support Officer into government service at the end of the project.

Potential for scaling up

118. The project is also designed to provide demonstration models for up-scaling in the country. In particular, the capacity building and the development of best practices to control and manage marine resource degradation, sustainable fisheries management, waste management and alternative livelihoods will strongly support up-scaling. Ensuring that activities, impacts and lessons learnt from the demonstration sites are disseminated widely helps generate a bottom-up demand for similar activities throughout the country. The project's investment component will seek to develop synergies among sector actors and programs with an objective of raising additional emphasis on marine conservation. The Tonga R2R Phase II project, in itself is an upscaling project by applying the lessons learned from Fanga'uta lagoon to Vava'u. As the approaches and tools in biodiversity conservation through participatory approaches are further refined in this project, the lessons learned may be replicated in other island groups within Tonga. It is noted that Output 3.3 will ensure that scaling up will not only happen nationally but also regionally in the Pacific and globally in SIDS in other parts of the world.

V. PROJECT RESULTS FRAMEWORK

This project will contribute to the following Sustainable Development Goal (s): SDG 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture, SDG 5: Gender equality, SDG 13: Climate action, SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development, and SDG 15: Protect, restore, and promote sustainable use of terrestrial ecosystems.				
This project will contribute to the following UNDP MCPD outcome (2023-2027): (Outcome 1) By 2027, people, communities and institutions are more empowered and resilient to face diverse shocks and stresses, especially related to climate variability impacts; and ecosystems and biodiversity are better protected, managed, and restored				
	Objective and Outcome Indicators	**Baseline**	**Mid-term Target**	**End of Project Target**
Objective: Effective implementation of the Fanga'uta Lagoon Stewardship Plan and replication of lessons learned from the Tonga R2R Phase I to priority area in Vava'u	**Indicator 1:** GEF Core Indicator 11 # direct project beneficiaries disaggregated by gender (individual people)[22]	400 people benefited from ecotourism-related activities in Phase 1. This will be further validated in Year 1	At least 10,000 people directly engaged in activities related to fisheries, tourism, waste management, livelihood and value addition, etc.,	At least 45,985 people benefiting from project activities, including 22,898 men and 23,087 women[23] .
	Indicator 2: GEF Core Indicators 2: Marine protected areas created or under improved management for conservation and sustainable use	METT baseline scores are follows: Fanga'uta Lagoon marine Reserve ---42 Proposed Vaipua Channel Marine Reserve - 22 Lualoli, Taula and Maninita Islands Marine Reserve --32 PA management plans do not exists for Lualoli, Taula and Maninita Islands Marine Reserve	At least 4,560 ha of marine protected area under improved management with 5 point increase from baseline values Vaipua Channel PA created (373 hectares) and Lualoli, Taula and Maninita Islands Marine Reserve expanded to 1,352 hectares Management plans for Vaipua Channel and Lualoli, Taula and	4,560 hectares of protected areas created or under improved management with 20 point increase from baseline values and reflected as follows: (a) Indicator 2.1: 1,530 hectares of new Protected Areas created, including the following: (i) 373 hectares Vaipua Channel PA and (ii) 1,157 hectares added to existing Lualoli, Taula and Maninita Islands Marine Reserve (b) Indicator 2.2: 3,030 hectares of marine PAs under improved management effectiveness , including the following: (i) existing Fanga'uta Lagoon Marine Reserve of 2,835

[23] Direct benefits will include awareness, outreach and solutions for sustainable marine and land resource use such as fisheries, agriculture, waste management, tourism, livelihood improvement and improved wetland water quality and indirect benefits of improved marine water quality and ecosystem services. This includes the people living in the 26 villages around the Fanga'uta lagoon and 4 villages around the Vaipua Channel, who will be part of the Community Management Committees that will provide a community mechanism for decision making on development and resource use priorities

			Maninita Islands Marine Reserve under preparation	hectares and (ii) existing Lualoli, Taula and Maninita Islands Marine Reserve of 195 hectares (c) Management Plans with priority conservation measures for Vaipua Channel and Lualoli, Taula and Maninita Islands Marine Reserve developed and approved
	Indicator 3: GEF Core Indicator 3: Area of wetlands restored (3.4)	About 20 hectares of mangrove planted in past, but most replanted areas destroyed due to weak design, damage by pigs, limited protection from erosion and weak community ownership	At least 20 ha of wetlands habitats restored and planning efforts underway at restoration of a further 80 hectares	120 hectares of wetlands restored, including 20 hectares of coral reefs, 20 hectares of sea grass and 80 hectares of mangroves
Project component 1. Conservation of Critical Lagoon Ecosystems and Management of the Catchment to Improve Biodiversity and Ecological Services of the Fanga'uta Lagoon and Replication in Priority Areas in Vava'u				
Project Outcome1 Fanga'uta Lagoon Stewardship Plan implemented with resulting improvement in the management of the Fanga'uta Lagoon Marine Reserve for biodiversity conservation	**Indicator 4**: Status of management of the Fanga'uta Lagoon Marine Reserve for biodiversity conservation	Although FSP has been implemented up to 2017 lack of resources meant limited achievement of on-the-ground activities	Updated FSP and f Fanga'uta Lagoon Action Plan (2023-2033) with strengthened institutional capacity for implementation. FSP Action Plan activities initiated, in particular operation of SMAs, habitat conservation and restoration, monitoring and enforcement	Improved management of Fanga'uta Lagoon as reflected in (i) functional FSP Steering Committee, FSP Secretariat and Working Group; (ii) Agreement reached on priorities for R2R Phase II project; (iii) formal approval of gender-sensitive FSP Action Plan (2024-2034); and (iv) at least 50% of priority activities in action plan completed and balance under implementation
	Indicator 5: Status of Special Management Areas in Fanga'uta Lagoon	Currently 6 SMAs cover around 900 hectares of Fanga'uta Lagoon	Additional 6 SMAs in Fanga'uta Lagoon identified and underway for conservation and sustainable use covering a total of approximately 900 hectares.	12 SMAs covering around at least 1,800 hectares of Fanga'uta Lagoon effectively managed as SMA(s) for conservation and sustainable use as measured by: (i) formation of CMCs; (ii) SMA management plan completed;' (iii) SMA management plan and regulations for enforcement approved and gazetted; (iv) priority actions identified; (v) surveillance and monitoring system developed; (vi) boundaries of SMAs established; (vii) communities trained and priority actions

				initiated; (viii) reporting and communication of effectiveness of SMA actions,
	Indicator 6: Status of GESI responsive sustainable community management and use of mangrove areas in Fanga'uta Lagoon	Around 200 hectares of mangrove strands along the Fanga'uta lagoon shoreline used by communities for fuel wood, resins and dyes, but management rules not enforced and practices are unsustainable	Mangrove areas for sustainable use mapped, CMCs established for management of these areas, rules of operation, engagement and enforcement agreed through MOUs covering around 200 hectares	Around 200 hectares of mangroves under sustainable harvest and use regimes by local communities as measured by: (i) improvement in mangrove condition and cover; (ii) monitoring of mangrove use; (iii) active engagement of CMCs in applying rules, regulations and ÷enforcement measure
	Indicator 7: Number of female and males in target communities involved in alternative livelihood activities in Fanga'uta Lagoon and Vaipua Channel	Baseline for participating households established in Year 1	At least 15% increase in number of participating households in alternative livelihoods	At least 50% increase in number of participating communities engaged in livelihood activities (tourism, organic agriculture, fisheries, mangrove products, permaculture, agro-forestry etc. At least 50% of beneficiaries are women
Outputs to achieve Outcome 1	*Output 1.1. Updated Fanga'uta Stewardship Plan building on lessons and best practices generated from its implementation under the R2R Phase I project* *Output 1.2. Natural ecosystems within the Fanga'uta Lagoon Marine Reserve rehabilitated to preserve biodiversity and ecosystem services;* *Output 1.3. Existing Special Managed Areas for fisheries within the Fanga'uta Lagoon evaluated and lessons learnt identified for replication* *Output 1.4 Alternative livelihoods options prioritized and implemented for women, men and youth with reduced threats to lagoon resources* *Output 1.5. Lessons learned from Tonga R2R Phase 1 in marine biodiversity conservation replicated in Vava'u*			
Project component 2 Governance: Policies, Institutions and Capacity Building for sustainable and adaptive management and biodiversity conservation				
Outcome 2: Strengthened and integrated management approach realized through streamlined policies, active and functional community institutions and improved human capacity	**Indicator 8**: Change in institutional capacity for Fanga'uta Lagoon and Vaipua Channel that builds on Community Management Committees and is inclusive of gender and social diversity as measured by UNDP capacity development scorecard	Capacity constraints in Fanga'uta Lagoon and Vaipua Channel as reflected in baseline capacity development score of 23	At least 5 point increase in institutional capacity for wetland conservation and sustainable use as measured by UNDP capacity development scorecard	At least 20 point increase in institutional capacity for wetland conservation and sustainable use as measured by UNDP capacity development scorecard
	Indicator 9: Multi-stakeholder Management Committee for Vaipua	There is no multi-stakeholder Management Committee for Vaipua	Vaipua Channel Community Management Committee established with members	Vaipua Channel Community Management Committee is functional as measured by: (i) at least 50% of membership include key multi-

	Channel functional and actively engaged in decision-making regarding management of Vaipua Channel	Channel which limits coordination across stakeholders and sectors	from various sectors; clear rules and regulations agreed for mainstreaming biodiversity across all key sectors	stakeholder groups, including gender and private sector represented in Committee; (ii) Management Committee governance structure is approved by Government with clear rules and responsibilities; and (iii) number of decisions taken by Management committee in terms of management of Vaipua Channel
	Indicator 10: Number of GESI sensitive policy instruments to support FSP implementation streamlined	Gaps and overlaps currently exists in key policy and legal instruments and gender gaps that constrain implementation of the FSP	Assessment and validation of measures necessary to ensure streamlining of identified existing policy and legal instruments and efforts underway to revise and update these instruments to facilitate implementation of the FSP	At least 3 instruments streamlined to facilitate implementation of FSP
Outputs to achieve Outcome 2	*Output 2.1. Strengthened institutional arrangement for the Fanga'uta Lagoon with strong emphasis on the Community Management Committees and inclusive of gender and social diversity* *Output 2.2 Policy and legislative framework reviewed to identify gaps and overlaps in institutional mandates for stakeholder engagement, safeguards and GESI based on which streamlined policy framework developed for FSP* *Output 2.3 Capacity of government staff, communities and key stakeholders strengthened to apply integrated approaches for biodiversity conservation and enforcement*			
Project component 3 Awareness raising and knowledge management of the ecosystem functions and services of the Fanga'uta Lagoon and priority Vava'u biodiversity sites				
Outcome 3 Awareness program to enhance appreciation of GESI sensitive biodiversity values of the Fanga'uta Lagoon and the priority sites in Vava'u	**Indicator 11.** Percentage of sampled female and male aware of conservation threats and adverse impacts on wetland management in Fanga'uta Lagoon and Vaipua Channel as measured by Knowledge, Aptitudes and Practices (KAP) surveys	Little coordinated outreach on conservation threats and limited awareness on the impact of unsustainable practices and resource uses among the general public. Baseline KAP surveys to be undertaken in Year 1.	At least 25% of sampled project stakeholders (50:50 men and women) aware of conservation benefits and threats and adverse impacts. [KAP survey at mid-term]	At least 50% of sampled project stakeholders (50:50 men and women) aware of conservation benefits and threats and adverse impacts [KAP survey at end of project]
	Indicator 12: Number of best practices and lessons (including on gender and youth mainstreaming and socio-cultural benefits) accessed and applied throughout Tonga	Limited best practices and lessons available, with limited to no replication	At least 3 best practices and lessons (including on gender and youth mainstreaming and socio-cultural benefits) are documented and accessed	At least 10 best practices and lessons (including on gender and youth mainstreaming and socio-cultural benefits) are accessed and applied throughout Tonga

	Indicator 13. Number of initiatives of GESI responsive knowledge exchanges in Pacific biodiversity and SID platforms	Very limited participation and knowledge exchanges in Pacific platforms.	Linkages for participation and knowledge exchange established in at least three Pacific wetland and special area management platforms established	At least 10 GESI responsive initiatives of information exchange and sharing of knowledge in Pacific on wetland biodiversity conservation and special area management platforms
Outputs to achieve Outcome 3	*Output 3.1 GESI responsive information system developed and being accessed to facilitate informed decision making.* *Output 3.2 Expanded education and awareness programs conducted to support marine conservation* *Output 3.3 South-South cooperation and exchanges supported among Pacific countries in integrated management of lagoon ecosystems* *Output 3.4 Effective M&E system supporting assessment and monitoring of project impacts including GESI mainstreaming*			

VI. MONITORING AND EVALUATION (M&E) PLAN

119. The monitoring and evaluation (M&E) scheme will be applied in accordance with the established UNDP procedures throughout the project lifetime. As an implementing partner, MEIDECC, together with the UNDP Multi-Country office in Fiji will ensure the timeliness and quality of the project implementation. The M&E plan will be implemented as proposed in Table 9. Technical guidance and oversight will be also provided from the UNDP's Regional Bureau for Asia Pacific, as well as the Project Steering Committee (PSC).

120. Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the UNDP POPP (including guidance on GEF project revisions) and UNDP Evaluation Policy . **The UNDP Country Office is responsible for ensuring full compliance with all UNDP project M&E requirements including project monitoring, UNDP quality assurance requirements, quarterly risk management, and evaluation requirements.**

121. Additional mandatory GEF-specific M&E requirements will be undertaken in accordance with the GEF Monitoring Policy and the GEF Evaluation Policy and other relevant GEF policies[24]. The M&E plan and budget included below will guide the GEF-specific M&E activities to be undertaken by this project.

122. In addition to these mandatory UNDP and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed – including during the Project Inception Workshop - and will be detailed in the Inception Report.

123. **Project start**: A Project Inception Workshop (IW) will be held within the first 2 months of project start with those with assigned roles in the project management, UNDP MCO and where appropriate/feasible, regional technical advisors as well as other stakeholders.

124. Inception Workshop and Report: A project inception workshop will be held within 2 months from the First disbursement date, with the aim to:
    a. Familiarize key stakeholders with the detailed project strategy and discuss any changes that may have taken place in the overall context since the project idea was initially conceptualized that may influence its strategy and implementation.
    b. Discuss the roles and responsibilities of the project team, including reporting lines, stakeholder engagement strategies and conflict resolution mechanisms.
    c. Review the results framework and monitoring plan.
    d. Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GEF OFP and other stakeholders in project-level M&E.
    e. Update and review responsibilities for monitoring project strategies, including the risk log; SESP report, Social and Environmental Management Framework (where relevant) and other safeguard requirements; project grievance mechanisms; gender strategy; knowledge management strategy, and other relevant management strategies.
    f. Review financial reporting procedures and budget monitoring and other mandatory requirements and agree on the arrangements for the annual audit.
    g. Plan and schedule Project Board meetings and finalize the first-year annual work plan. Finalize the TOR of the Project Board.
    h. Formally launch the Project.

125. **GEF Project Implementation Report (PIR):**
The annual GEF PIR covering the reporting period July (previous year) to June (current year) will be completed for each year of project implementation. UNDP will undertake quality assurance of the PIR before submission to the

[24] See https://www.thegef.org/gef/policies_guidelines

GEF. The PIR submitted to the GEF will be shared with the Project Board. UNDP will conduct a quality review of the PIR, and this quality review and feedback will be used to inform the preparation of the subsequent annual PIR.

126. **GEF Core Indicators**:
The GEF Core indicators included as Annex will be used to monitor global environmental benefits and will be updated for reporting to the GEF prior to MTR and TE. Note that the project team is responsible for updating the core indicator status. The updated monitoring data must be shared with MTR/TE consultants prior to required evaluation missions, so these can be used for subsequent ground truthing. The methodologies to be used in data collection have been defined by the GEF and are available on the GEF website. The required Protected Area Management Effectiveness Tracking Tool (METTs) have been prepared and the scores included in the GEF Core Indicators.

127. **Independent Mid-term Review (MTR):**
An independent mid-term review (MTR) will be completed by the mid-point of the project. The terms of reference, the MTR process and the final MTR report will follow the standard templates and MTR guidance for UNDP-supported GEF-financed projects available on the UNDP Evaluation Resource Center. The MTR must be submitted to the GEF by the mid-point of the project but no later than 48 months after CEO Endorsement. To meet the submission deadline, final MTR reports must be completed and submitted to BPPS NCE team no later than 2 months in advance of the submission deadline to allow sufficient time for internal review/clearance that is required prior to submission.

Provisions must be taken to complete and submit the MTR within the submission deadline. Therefore, the MTR process must start no later than 8 months before the expected date of submission of the MTR.

The MTR will be 'independent, impartial and rigorous'. The evaluator(s) that UNDP will hire to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be reviewed. Equally, the evaluators should not be in a position where there may be the possibility of future contracts regarding the project under review.

The GEF Operational Focal Point and other stakeholders will be actively involved and consulted during the MTR process. Additional quality assurance support is available from BPPS/NCE.

The final MTR report will be publicly available in English and will be posted on the UNDP ERC by the MTR submission date included on cover page of this project document. A management response to MTR recommendations will be posted in the ERC within six weeks of the MTR report's submission to the GEF.

128. **Terminal Evaluation (TE):**
An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terms of reference, the evaluation process and the final TE report will follow the standard templates and TE guidance for UNDP-supported GEF-financed projects available on the UNDP Evaluation Resource Center. TE must be submitted to the GEF no later than 6 months after the Completion Date. This is a hard deadline that, if not met, can only be extended through a formal extension request.

129. Provisions must be taken to complete and submit the TE within the submission deadline. Therefore, TE must start no later than 8 months before the expected date of submission of the TE (or 11 months prior to the estimated operational closure date).

130. The evaluation will be 'independent, impartial and rigorous'. The evaluator(s) that UNDP will hire to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Equally, the evaluators should not be in a position where there may be the possibility of future contracts regarding the project being evaluated.

131. The GEF Operational Focal Point and other stakeholders will be actively involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the BPPS NCE.

132. The final TE report will be publicly available in English and posted on the UNDP ERC by the TE submission date included on cover page of this project document. A management response to the TE recommendations will be posted to the ERC within six weeks of the TE report submission to the GEF.

133. Per the GEF Terminal Evaluation requirements, for cancelled full-sized projects, Terminal Evaluations are required if the GEF grant expenditure exceeds more than US$ 2 million.

Project Final Report:

134. During the last three months of the project, the Project Coordinator /PMU will prepare the Project Terminal Report. This comprehensive report will summarize all activities, achievements and outputs of the Project, lessons learnt, objectives met and missed, structures and systems implemented, etc. and will be the definitive statement of the Project's activities over the three-and-a-half-year duration. 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 activities. The project's terminal GEF PIR along with the terminal evaluation (TE) report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.

Agreement on intellectual property rights and use of logo on the project's deliverables and disclosure of information:

135. To accord proper acknowledgement to the GEF for providing grant funding, the GEF logo will appear together with the UNDP logo on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the GEF will also accord proper acknowledgement to the GEF. Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy[25] and the GEF policy on public involvement[26].

136. The budgeted M&E plan is as follows

Table 9: Monitoring and Evaluation Plan

Monitoring and Evaluation Budget for project execution:		
GEF M&E requirements to be undertaken by Project Management Unit (PMU)	Indicative costs (US$)	Time frame
Inception Workshop and Report	5,000	Inception Workshop within 2 months of the First Disbursement (at national and target site levels)
Preparation/Update and Monitoring of [SESP, ESMP GAP, SEP,]	30,000	Preparation of ESMP and management plans continuously as an on-going activity.
M&E activities	97,500	M&E full time consultant ($75,000) to monitor Results framework SESP, ESMP GAP, SEP etc. Quarterly and regular consultation meetings to address M&E issues Community consultation meetings on ESMP and M&E framework Travel costs associated with M&E
GEF Project Implementation Report (PIR)	NA	Annually typically between June-August
Supervision/learning missions	NA	Annually

[25] See http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/
[26] See https://www.thegef.org/gef/policies_guidelines

Monitoring and Evaluation Budget for project execution:		
GEF M&E requirements to be undertaken by Project Management Unit (PMU)	Indicative costs (US$)	Time frame
Independent Mid-term Review (MTR):	30,000	Includes international and national consultants and travel costs Date: November 30, 2026
Independent Terminal Evaluation (TE):	40,000	Includes international and national consultants and travel costs Date: October 30, 2028
TOTAL indicative COST	202,500	Equivalent to TBWP component (M&E)

Table 10: Monitoring Plan:

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/ Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
Project objective: Implementation of the Fanga'uta Lagoon Stewardship Plan and replication of lessons learned from the Tonga R2R Phase I to priority area in Vava'u	**Indicator 1** **Mandatory** GEF Core Indicator 11 # direct project beneficiaries disaggregated by gender (individual people)[27] as co-benefits of GEF project	MTR: At least 10,000 people directly participating in project activities (fisheries, tourism, waste management, etc.) with 50:%) ratio men: women TE: At least 45,985 people benefiting from project activities, including 22,898 men and 23,087 women	Direct benefits from awareness, outreach and solutions for sustainable marine and land resource use such as fisheries, agriculture, waste management, tourism, livelihood improvement and improved wetland water quality	Consultations with CMCs, SMAs, communities, KPA surveys, etc.	Annually Reported in DO tab of the GEF PIR	PMU, DOE MOF and consultants	Progress reports of benefit sharing, KAP surveys, Consultant livelihood survey reports	Assumptions: - Comprehensive training program designed and implemented and national capacity exists to conduct training effectively -Government agencies consider it their priority and staff and communities willing to participate -The local administrations, CBOs, private sector and communities would work in close collaboration Risks: -Lack of capacity in government, private sector and communities to meet obligations related to project. - Lack of involvement from resource users with continued unsustainable practices
	Indicator 2; **Mandatory** GEF Core Indicators 2: Marine protected areas created or under improved management for conservation and sustainable use	MTR: At least 4,560 ha of marine protected area under improved management with 5 point increase from baseline values TE: 4,560 hectares of protected areas created or under improved management with 20 point increase in METT score and as follows: Indicator 2.1: 1,530 ha of new PAs created, Indicator 2.2: 3,030 hectares of marine PAs	New Vaipua Channel PA (373 hectares) and Laualoli, Taula and Maninita Islands Marine Reserve expended by 1,157 hectares AND Improved management of existing PAs Fanga'uta Lagoon Marine Reserve of 2,835 hectares and (ii) existing Laualoli, Taula and Maninita Islands Marine	Increase measured through (i) improved management practices; (ii) integration of IAS prevention and management actions; and (ii) enhanced capacity and skills as measured by METT scorecards	MTR and TE Reported in DO tab of the GEF PIR	PMU and DOE	GEF METT Scorecard, Management Plans, Government notifications Progress reports	Assumptions - Government and sector agencies consider it priority to support integrated planning of its R2R approach -Community and government willingness to create PAs -Communities organized to manage PAs based on sustainable use principles -Technical support, knowledge and capacity exists for undertaking restoration Risks: -Demonstration of impacts of conservation and sustainable management measures time consuming and costly and hence uptake uncertain -Lack of financial resources for ensuring sustainability of investments

[27] Provide total number of all direct project beneficiaries expected to benefit from all project activities until project closure. Separate the total number by female and male. This indicator captures the number of individual people who receive targeted support from a given GEF project and/or who use the specific resources that the project maintains or enhances. Support is defined as direct assistance from the project. Direct beneficiaries are all individuals receiving targeted support from a given project. Targeted support is the intentional and direct assistance of a project to individuals or groups of individuals who are aware that they are receiving that support and/or who use the specific resources.

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/ Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		under improved management Management Plans for Vaipua Channel and Laualoli, Taula and Maninita Islands Marine Reserve developed and approved	Reserve of 373 hectares Baseline METT scores are: Fanga'uta Lagoon – 43 Vaipua Channel – 22 Maninta PA complex - 32					-Communities might not see immediate benefits from collective actions and might not readily support sustainable actions -State sector agencies might not invest time and resources to support community activities
	Indicator 3; GEF Core Indicator 3: Area of wetlands restored (3.4)	MTR: At least 20 ha of wetlands habitats restored and planning efforts underway at restoration of a further 80 hectares TE: 120 hectares of wetlands restored, including 20 hectares of coral reefs, 20 hectares of sea grass and 80 ha of mangroves	Indicators include: -survival/cover rates of established areas - growth rates' -health of rehabilitated areas	Field surveys and observations of restoration activities such as plant survival rates, cover density, damage assessment, etc.,	Annual Reported in DO tab of the GEF PIR	PMU and DOE	Survey reports of status of wetland restoration effectiveness Progress reports	Assumptions -Technical support, knowledge and capacity exists for undertaking restoration - Government and sector agencies consider it priority to support restoration activities _Communities might not directly see benefits from restoration activities Risks: Community short-term needs over-ride interests in restoration and protection -Inability to keep pigs out of new plantations might negatively affect efforts at restoration
Project Outcome 1 improved management of the Fanga'uta Lagoon Marine Reserve for biodiversity conservation	**Indicator 4:** Status of management of the Fanga'uta Lagoon Marine Reserve for biodiversity conservation	MTR: Update of FSP and preparation of Fanga'uta Lagoon Action Plan (2023-2027) with strengthen institutional capacity for its implementation. Action Plan activities initiated, TE: Improved management of Fanga'uta Lagoon	Reflected in (i) strengthened functionality of FSP Steering Committee, FSP Secretariat and Working Group; (ii) Agreement on priorities among all stakeholders; (iii) Formal approval of gender-sensitive FSP Action Plan (2023-2027); and (iv) at least 50% of priority activities in FSP action plan completed	Monitoring of implementation status as defined in column on 'target'	Annual Reported in DO tab of the GEF PIR	PMU and DOE	Monitoring reports of progress in indicators and targets and functionality of institutions	Assumption: -The agencies, including MEIDECC and MAFFF will develop institutional and technical measures that facilitate integrated conservation planning and management in a timely manner. Risks: -Priorities of agencies and smallholders might shift if gestation period for realization of benefits take too long - Plans are developed by not used
	Indicator 5:	MTR:	As measured by follows: (i) CMCs	Consultations with SMA Committees	Annually	Ministry of Fisheries	MOF progress reports	Assumptions:

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/ Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	Status of Special Management Areas in Fanga'uta Lagoon	30 % of Fanga'uta Lagoon managed as SMA(s) for conservation and sustainable use TE: 100% of Fanga'uta Lagoon effectively managed as SMA(s) for conservation and sustainable use	established with gender related allocation; (ii) CMCs plan (for management of SMA developed and approved by; (iii) CMCPs translated into regulations and rules; (iv) SMAs gazetted; (v) SMAs zoned based on management plans; and (vi) at least 50% of SMCP activities implemented and balance under active implementation	Monitoring information on community participation rates, monitoring regulations and indicators established and number of plan actions implemented		District and Town Officers Consultants	Consultant survey reports of sustainable use practices, protection status and impacts Project Progress Reports SMA management plans and progress reports	- Communities see direct benefit in supporting improved SMA plans -Willingness of communities to engage in sustainable activities Government entities willing to invest time and efforts to support community SMA programs <u>Risks:</u> -Benefits of biodiversity conservation and management requires hard labor and continued efforts thus limited uptake -Communities might not see any direct economic benefits to engage in sustainable resource management if gestation periods for benefit access is lengthy
	Indicator 6 Status of GESI responsive and sustainable community management and use of mangrove areas in Fanga'uta Lagoon**:**	MTR Mangrove areas for sustainable use mapped, CMCs established and rules of operation, engagement and enforcement agreed through MOUs covering 200 hectares TE 200 -ha of mangroves under sustainable harvest and use regimes by local communities	Indicators will be based on evolutionary changes from current practices in terms of improved mangrove management, erosion control and condition of mangroves	Consultations with local communities, Field observations, etc.	Annual Reported in DO tab of the GEF PIR	PMU and DOE and consultants	Monitoring reports reflecting achievement of sustainable resource use, impact reduction and community responsiveness Project progress reports	<u>Assumptions;</u> -Communities recognize the value and benefits that they can derive from mangroves -Technical support and expertise readily available at local level <u>Risks:</u> -Plans are developed by not used, particularly by resource users
	Indicator 7: Percentage in number of participating households in alternative livelihood activities in Fanga'uta	MTR At least 15% increase in participating households in alternative livelihood activities TE At least 50% increase in participating households in	As measured by increase in participating communities in alternative livelihood activities (tourism, organic agriculture, fisheries, mangrove products,	Consultations with local communities, Field observations, livelihood surveys, etc.	Annual Reported in DO tab of the GEF PIR	PMU and DOE and consultants	livelihood surveys and monitoring reports Project progress reports	<u>Assumptions;</u> -Communities recognize and willing to undertake alternate livelihood activities -Technical support, marketing and training available to support enterprises <u>Risks:</u> -Plans are developed by not used

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/ Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	Lagoon and Vaipua Channel	alternative livelihood activities	permaculture, agro-forestry, etc.)					
Project Outcome 2 Strengthened integrated management through streamlined policies, active and functional community institutions and improved human capacity	**Indicator 8** Change in institutional capacity for Fanga'uta Lagoon and Vaipua Channel that builds on Community Management Committees and is inclusive of gender and social diversity	MTR: At least 5 point increase in institutional capacity for wetland conservation and sustainable use TE: At least 20 point increase in institutional capacity for wetland conservation and sustainable use	Baseline value for capacity assessment of 23 points	Capacity and skills assessments with relevant institutions and staff and CMCs	MTR and TE Reported in DO tab of the GEF PIR	PMU and DOE	UNDP capacity development scorecards	Assumptions -The national and local administration will develop institutional and technical measures that facilitate integrated wetland management in a timely manner. -The key sector agencies will take active part in developing the strategies and implementation using new knowledge and skills provided by the project -Local communities are convinced mainstreaming biodiversity is in their long-term interests Risks: -Priorities of local communities might shift if development benefits take long to manifest - Plans are developed by not used, particularly by resource users - Planning bodies that build capacity are not effective in implementation
	Indicator 9 Multi-stakeholder Management Committee for Vaipua Channel functional and actively engaged in decision-making regarding management of Vaipua Channel	MTR: Vaipua Channel Community Management Committee established with members, rules and regulations agreed to for mainstreaming biodiversity across all key sectors TE: Vaipua Channel Community Management Committee functional	Measured by: (i) number of key multi-stakeholder groups, including gender and private sector represented in Committee; ii) Management Committee governance structure approved by Government with defined rules and responsibilities; and (iii) number of decisions taken by Management committee in terms of management of Vaipua Channel	Consultations with CMCs, community committees, district and town officers	MTR and TE Reported in DO tab of the GEF PIR	PMU and DOE	Project Progress Reports in terms of functionality and effectiveness of committees Survey Reports Consultation Reports	
	Indicator 10: Indicator 10: Number of GESI sensitive policy instruments for support FSP	MTR: Assessment and validation of means to streamline policy and legal instruments agreed to	This will include transfer lessons of lessons learned into recommendations for policy, including, but not limited to	Policy and legal review	Once in Year 1	PMU and DOE with consultant support	Review Report Government decisions	Assumption: -Political commitment to change -Key agency willingness to support and use new tools and protocols Risks:

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/ Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	implementation streamlined	TE: At least 3 instruments streamlined to facilitate implementation of FSP	SMA management, sustainable community use of mangroves, sustainable fisheries, waste management, etc.					-Long delays in Government approval of revised policy and legislation might stifle progress
Project Outcome 3 Upscaled awareness program to enhance appreciation of the biodiversity values of the Fanga'uta Lagoon and the priority sites in Vava'u	**Indicator 11** Percentage of male and female sampled project stakeholders aware of potential conservation threats and adverse impacts on wetland management in Fanga'uta Lagoon and Vaipua Channel as measured by Knowledge, Aptitudes and Practices (KAP) surveys	MTR: At least 25% of sampled project stakeholders (50:50 men and women) aware. TE: At least 50% of sampled project stakeholders (50:50 men and women) aware.	Percentage of sampled project stakeholders aware of potential conservation threats and adverse impacts of IAS and unsustainable land management practices, disaggregated by gender as measured by Knowledge, Aptitudes and Practices (KAP) surveys	Community KPA surveys	MTR and TE Reported in DO tab of the GEF PIR	PMU	KAP survey reports	Assumption: - Gender and Social Inclusion Mainstreaming Plan followed and benefits distributed equitably. -Stakeholders willing to actively participate in the review process. -Project management will be able to identify, document and disseminate the best practices -Mid Term Review and End of Project Evaluation of the project will also contribute to identifying the best practices -Best practices on sustainable resource management readily available to resource users Risks: -Government priorities may change from due to political pressure from resource users -Actions among the assorted agencies, private sector and CSOs remain uncoordinated
	Indicator 12 Number of project best practices and lessons (including on gender and youth mainstreaming and socio-cultural benefits) are accessed and applied throughout Tonga	MTR At least 3 project best practices and lessons (including on gender and youth mainstreaming and socio-cultural benefits) being accessed and documented TE: At least 10 project best practices and lessons (including on gender and youth mainstreaming and socio-cultural benefits)	Best practices will cover project success in fisheries, marine conservation, waste management, ecotourism, wetland ecosystems, community decision-making by both genders and multiple social groups.	Consultations with all stakeholders and field visits	Last 2 years Reported in DO tab of the GEF PIR	PMU	Document reports Best practice reports	

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/ Collection Methods	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		are accessed and applied throughout the country						
	Indicator 13 Number of initiatives that demonstrate participation and GESI responsive knowledge exchanges in Pacific biodiversity and SID platforms	MTR: Linkages for participation and knowledge exchange established in at least three Pacific platforms established TE: At least 10 initiatives GESI responsive initiatives of information exchange and sharing of knowledge in Pacific on wetland biodiversity and SPA management	This will include use of on-line webinars, workshops and forums, social media networks, sharing of best practice materials, exchange visits, etc.	Consultations with key regional institutions	MTR and TE Reported in DO tab of the GEF PIR	PMU	Document reports Best practice reports Regional use reporting	
Mid-term GEF Tracking Tool		Completed in timely fashion	Standard GEF Tracking Tool available at www.thegef.org Baseline GEF Tracking Tool included in Annex 15	After 2nd PIR submitted to GEF	MTR and TE	Project Manager and UNDP CO	Mid-term GEF Tracking Tool	Assumption: -National and local administration commitments to assessment - Information available to enable appropriate level of evaluations - Adequate expertise available for update of tracking tool and reviews Risks -Willingness of government and communities to take corrective actions following evaluations might not be forthcoming Assumption: National and local administration recognize and committed to manage social and environmental risks
Terminal GEF Tracking Tool		Completed in timely fashion	Standard GEF Tracking Tool available at www.thegef.org Baseline GEF Tracking Tool included in Annex 15.	After final PIR submitted to GEF	MTR and TE	Project Manager and UNDP CO	Terminal GEF Tracking Tool	
Mid-term Review		Completed in timely fashion	To be outlined in MTR inception report	Submitted to GEF same year as 3rd PIR	MTR	Project Manager and UNDP CO	Mid-term Review report	
Terminal Review		Completed in timely fashion	To be outlined in MTR inception report	Submitted to GEF at end of project	TE	Project Manager and UNDP CO	Terminal Review report	
Environmental and Social risks and management plans, as relevant.		Completed in timely and diligent manner	Updated SESP and management plans	Annually	Regular	Project Manager UNDP CO	Environmental and Social risks and management plans, as relevant.	

VII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

Section 1: General roles and responsibilities in the projects' governance mechanism

137. Implementing Partner: The Implementing Partner for this project is Department of Environment, Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC). The Implementing Partner is the entity to which the UNDP Administrator has entrusted the implementation of UNDP assistance specified in this signed project document along with the assumption of full responsibility and accountability for the effective use of UNDP resources and the delivery of outputs, as set forth in this document.

138. The Implementing Partner is responsible for executing this project. Specific tasks include:
    - Project planning, coordination, management, monitoring, evaluation and reporting. This includes providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes and is aligned with national systems so that the data used and generated by the project supports national systems.
    - Overseeing the management of project risks as included in this project document and new risks that may emerge during project implementation.
    - Procurement of goods and services (below the $5,000 threshold value)
    - Financial management of project advances including overseeing financial expenditures against project budgets.
    - Approving and signing the multiyear workplan.
    - Approving and signing the combined delivery report at the end of the year; and,
    - Signing the financial report or the funding authorization and certificate of expenditures.

Responsible Parties: The Responsible Partners for the project would be the following

- Ministry of Fisheries

139. The Ministry of Fisheries will provide technical and extension support, training and logistical support towards sustainable fisheries management and planning, implementation and monitoring the SMA program

Project stakeholders and target groups:

140. The key beneficiaries, namely the local marine resource dependents in the 2 sites that will be directly involved through their respective community institutions in all aspects of the project, namely in the integrated R2R planning process, in the planning and management of conservation, habitat restoration, sustainable marine resource use, livelihood and small-scale enterprise development activities, as well as overseeing and supporting the monitoring of the condition of the wetlands through their individual community committees. The project will invest in technical and capacity development support to strengthen existing CMCs and their community organizations, support training and capacity development of these institutions, provide extension support in relation to fisheries and marine resource conservation and sustainable use, income generation, and other livelihood improvement activities. Other beneficiaries will include the population living around the two project sites that will benefit from the improved quality of the wetland systems, the management of pollution and erosion as well as provide safe and pleasant recreation and tourism experiences.

141. UNDP: UNDP is accountable to the GEF for the implementation of this project. This includes overseeing project execution undertaken by the Implementing Partner to ensure that the project is being carried out in accordance with UNDP and GEF policies and procedures and the standards and provisions outlined in the Delegation of Authority (DOA) letter for this project. **The UNDP GEF Executive Coordinator, in consultation with UNDP Bureaus**

and the Implementing Partner, retains the right to revoke the project DOA, suspend or cancel this GEF project. UNDP is responsible for the Project Assurance function in the project governance structure and presents to the Project Board and attends Project Board meetings as a non-voting member.

A firewall will be maintained between the delivery of project oversight and quality assurance performed by UNDP and charged to the GEF Fee and any support to project execution performed by UNDP (as requested by and agreed to by both the Implementing Partner and GEF) and may be charged to the GEF project management costs (only if approved by GEF). The segregation of functions and firewall provisions for UNDP in this case is described in the next section.

Section 2: Project governance structure

142. The governance structure for the project will continue with the same arrangements that was in place for the earlier GEF R2R Phase I project, except that it will also now be extended to include the Vava'u activities, in addition to the Fang'uta lagoon activities. The FSP Secretariat (referred to the 'Secretariat') will be the management and decision making body related to both the Fanga'uta Lagoon and Vava'u activities. The Secretariat is based in the Department of Environment (DOE), and comprises the Director of DOE, Head of the Biodiversity Division and Head of the EIA Division. The Secretariat will act as liaison between stakeholder groups, support the development of new initiatives, and coordination between ongoing initiatives and oversee monitoring and evaluation process and provide core information and support to the various committees that operate in the target sites. The Community Management Committees (CMCs) brings together the communities living in the Fanga'uta and Vaipua catchment areas and provides a forum to enable communities across the area to share information, discuss issues and achieve consensus in decision making on development and resource use priorities. Each community is represented through their Town Officer. District wide interests are also represented through the District Officers. The Town and District Officers bring the views and interests of their communities to the table for consideration in decision making on issues relating to the stewardship and sustainable development of the FLC and Vaipua Channel areas. The CMC also has representation from NGOs through the Civil Society Forum of Tonga (CSFT), National Youth Congress and Women's Council for Tonga (Langafonua a Fafine). As national level organizations, these NGOs support grassroots organizations and also share experience, ideas and lessons learnt from other initiatives across Tonga. In bringing together representatives from all of the communities in the project areas, the CMC plays an important oversight and coordination role. It works to build partnerships within and between communities to ensure that community interests are brought to the attention of the Technical and Steering Committees, and that community recommendations are included and respected within decision making.

143. The Town and District Officers are responsible for calling community meetings to discuss community matters at the community or district level. Specific interest groups such as fishers, farmers, women or youth are represented through dedicated committees or action groups. District level committees and action groups provide fora for discussion, collaboration and coordination of action across districts within the target areas. Community and District level committees are key local area management units, helping to ensure that (i) community wide interests are effectively represented by Town and District Officers in the CMC; (ii) discussions and decisions made at CMC meetings are effectively communicated back to individuals within communities and (iii) the organization and management of action on the ground at community and district levels.

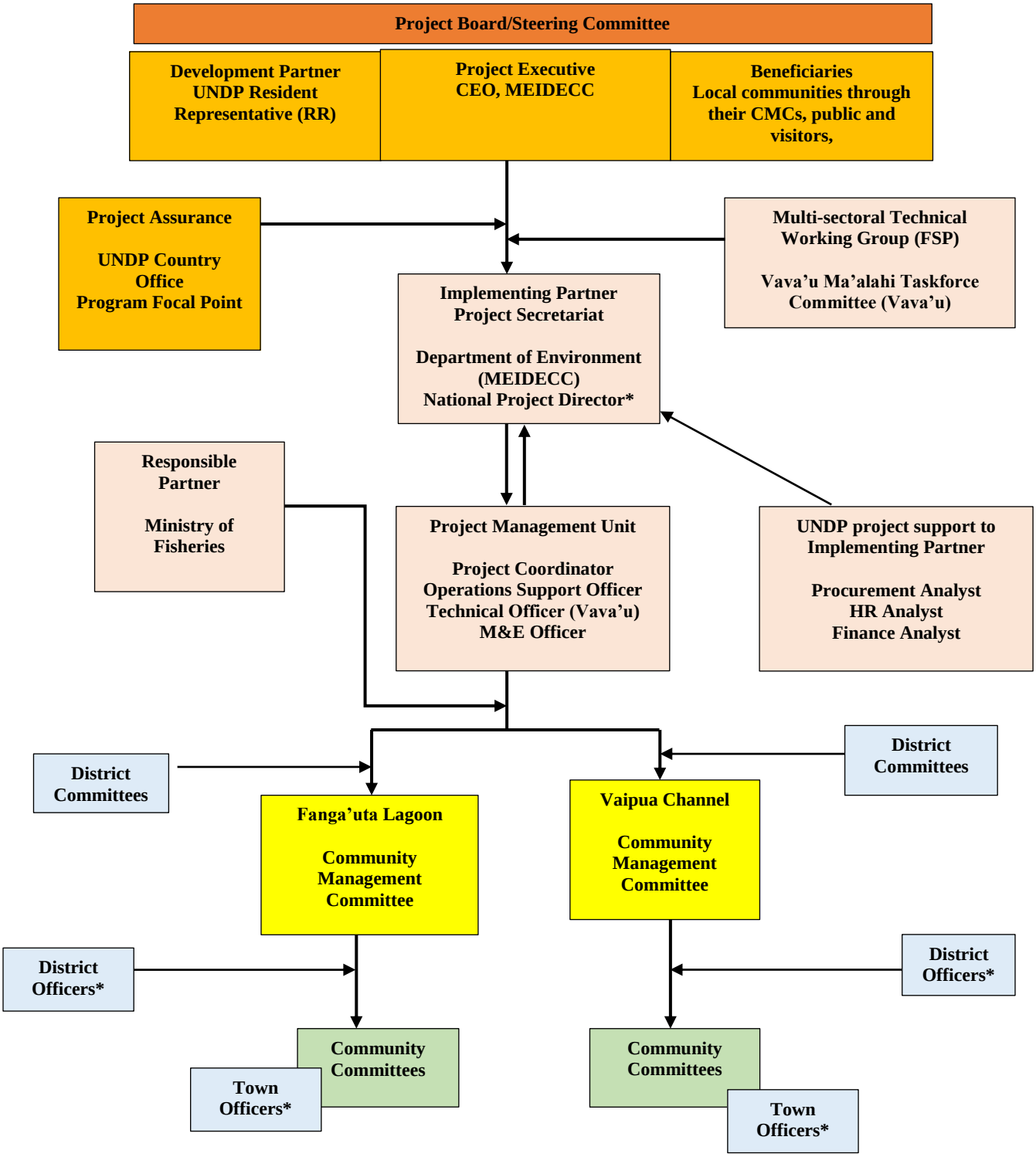
144. The project will supported by two technical committees, the Multi-sectoral technial working group for the Fanga'uta Lagoon and the Vava'u Ma'alahi Taskforce Committee for activities in Vava'u. These Committees will provide strategic guidance and technical support to the CMCs and the Steering Committee for effective stewardship of the target areas in Fanga'uta Lagoon and Vava'u. The knowledge and experience of its members is key in the assessment of issues affecting ecosystem based management and sustainable development across the target areas, and for the identification of opportunities to address issues and achieve targets and objectives. The Committees will also oversee monitoring teams, ensuring that they have the resources and guidance necessary to

undertake effective monitoring. Committee meetings will provide an important forum for discussion and analysis of data from monitoring, to support evaluation of the effectiveness of initiatives, the identification and prioritization of issues, and of mechanisms to address them. In the case of the FSP, the Chair of the Technical Committee is the CEO of the Ministry of Meteorology, Energy Information, Disaster Management, Environment, Climate Change and Communication (MEIDECC). Public sector representation on the Technical Committee is by the Directors of Departments whose remit covers areas relevant to the FLC area. This includes Departments of Environment; Climate Change; Agriculture; Fisheries; Forestry; Tourism; Public Health and Sanitation; Land Use Planning; Surveys; GIS; Education and Training; Community Development and Local Governance; Natural Resources; Urban Management; and the Waste Authority. The private sector is represented through the Tonga Chamber of Commerce, and NGO interests and expertise are represented through the Civil Society Forum of Tonga. Committee In terms of the Vava'u Ma'alahi Taskforce Committee includes four members (MEIDECC, Ministry of Police, Waste Authority Limited and Ministry of Health) as well as other members from NGOs, Church groups, private sector etc. The governor for Vava'u is the chairperson for this committee and their mandate includes environmental, health, waste and other projects and issues. R2R Phase 2 project will be integrated into workplan of the Vava'u Ma'alahi Taskforce Committee and the membership may be expanded to include other necessary stakeholders to manage the Vaipua channel project.

145. The Project Steering Committee will provide high level policy, strategic and regulatory guidance to the Technical and Community Management Committees, and support for cross-sectoral coordination and partnership in stewardship of the target areas. Membership of the Steering Committee is identical to membership of the National Environment and Climate Change Committee (NECC), except that the Steering Committee also has representation by the FLC and Vava'u communities, through their District Officers; the Noble land owners in the area; NGOs, through the Civil Society Forum of Tonga; the Private Sector through the Tonga Chamber of Commerce; and the Waste Authority. The FSP Secretariat also sits on the Steering Committee. The Steering Committee is chaired by the Minister of MEIDECC. It meets once a year and is responsible for calling the meeting, preparing the agenda and a meeting information package that includes: the Annual Evaluation Report; recommendations from the Technical and Community Management Committees; details on any major proposals (projects, initiatives or infrastructure developments); and the Action Plan proposed for the following year. The Steering Committee discusses progress towards the achievement of Targets and Objectives, based on the monitoring and evaluation information provided by the Secretariat, and the recommendations from the CMC and Technical Committees. They review any major projects put forward for submission to external funding agencies and endorse, or propose amendments to, those initiatives.

Governance Structure for Project (* denotes position covered by co-financing)

Project Governance Arrangements



First line of defense: UNDP oversight of project support to IP cannot be UNDP staff providing project assurance or providing programmatic oversight support to the RR.

Second line of Defense: Regional Bureau oversees RR and Country Office compliance at Portfolio level; BPPS NCE RTA overseas technical quality assurance, and GEF compliance. BBPS NCE PTA overseas RTA functions.

UNDP NCE Executive Coordinator and Regional Bureau Deputy Director can revoke DOA/cancel/suspend project or provide enhanced oversight.

The UNDP Resident Representative assumes full responsibility and accountability for oversight and quality assurance of this Project and ensures its timely implementation in compliance with the GEF-specific requirements and UNDP's Program and Operations Policies and Procedures (POPP), its Financial Regulations and Rules and Internal Control Framework. A representative of the UNDP Country Office will assume the assurance role and will present assurance findings to the Project Board, and therefore attends Project Board meetings as a non-voting member.

UNDP project support : The Implementing Partner and GEF OFP have requested UNDP to provide support services in the amount of USD$ 49,105 for the full duration of the project, and the GEF has agreed for UNDP to provide such execution support services and for the cost of these services to be charged to the project budget. The execution support services – whether financed from the project budget or other sources - have been set out in detail and agreed between UNDP Country Office and the Implementing Partner in a Letter of Agreement (LOA). This LOA is attached to this Project Document.

To ensure the strict independence required by the GEF and in accordance with the UNDP Internal Control Framework, these execution services will be delivered independent from the GEF-specific oversight and quality assurance services.

Section 3: Segregation of duties and firewalls vis-à-vis UNDP representation on the project board:

As noted in the Minimum Fiduciary Standards for GEF Partner Agencies, in cases where a GEF Partner Agency (i.e. UNDP) carries out both implementation oversight and execution of a project, the GEF Partner Agency (i.e. UNDP) must separate its project implementation oversight and execution duties, and describe in the relevant project document : 1) Satisfactory institutional arrangement for the separation of implementation oversight and executing functions in different departments of the GEF Partner Agency; and 2) Clear lines of responsibility, reporting and accountability within the GEF Partner Agency between the project implementation oversight and execution functions.

146. In this case, UNDP's implementation oversight role in the project – as represented in the project board and via the project assurance function – is performed by UNDP Resident Representative and may be delegated to Country Manager/Deputy Resident Representative, and Team leader, Resilience and Sustainable Development or his/her delegation. UNDP's execution support role in the project (as requested by the implementing partner and approved by the GEF) is performed by UNDP Operations -finance, procurement, and human resources, who will report to UNDP Operations Manager.

Section 4: Roles and Responsiblities of the Project Organization Strucutre:

a) Project Board: All UNDP projects must be governed by a multi-stakeholder board or committee established to review performance based on monitoring and evaluation, and implementation issues to ensure quality delivery

of results. The Project Board (also called the Project Steering Committee) is the most senior, dedicated oversight body for a project.

147. The two main (mandatory) roles of the project board are as follows:

1) **High-level oversight of the execution of the project by the Implementing Partner** (as explained in the "Provide Oversight" section of the POPP). This is the primary function of the project board and includes annual (and as-needed) assessments of any major risks to the project, and decisions/agreements on any management actions or remedial measures to address them effectively. The Project Board reviews evidence of project performance based on monitoring, evaluation and reporting, including progress reports, evaluations, risk logs and the combined delivery report. The Project Board is responsible for taking corrective action as needed to ensure the project achieves the desired results.
2) **Approval of strategic project execution decisions of the Implementing Partner** with a view to assess and manage risks, monitor and ensure the overall achievement of projected results and impacts and ensure long term sustainability of project execution decisions of the Implementing Partner (as explained in the "Manage Change" section of the POPP).

Requirements to serve on the Project Board:

- ✓ Agree to the Terms of Reference of the Board and the rules on protocols, quorum and minuting.
- ✓ Meet annually; at least once.
- ✓ Disclose any conflict of interest in performing the functions of a Project Board member and take all measures to avoid any real or perceived conflicts of interest. This disclosure must be documented and kept on record by UNDP.
- ✓ Discharge the functions of the Project Board in accordance with UNDP policies and procedures.
- ✓ Ensure highest levels of transparency and ensure Project Board meeting minutes are recorded and shared with project stakeholders.

Responsibilities of the Project Board:

- ✓ Consensus decision making:
  - The project board provides overall guidance and direction to the project, ensuring it remains within any specified constraints, and providing overall oversight of the project implementation.
  - Review project performance based on monitoring, evaluation and reporting, including progress reports, risk logs and the combined delivery report;
  - The project board is responsible for making management decisions by consensus.
  - In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition.
  - In case consensus cannot be reached within the Board, the UNDP representative on the board will mediate to find consensus and, if this cannot be found, will take the final decision to ensure project implementation is not unduly delayed.
- ✓ Oversee project execution:
  - Agree on project manager's tolerances as required, within the parameters outlined in the project document, and provide direction and advice for exceptional situations when the project manager's tolerances are exceeded.
  - Appraise annual work plans prepared by the Implementing Partner for the Project; review combined delivery reports prior to certification by the implementing partner.
  - Address any high-level project issues as raised by the project manager and project assurance;
  - Advise on major and minor amendments to the project within the parameters set by UNDP and the donor and refer such proposed major and minor amendments to the UNDP BPPS Nature, Climate and Energy Executive Coordinator (and the GEF, as required by GEF policies);
  - Provide high-level direction and recommendations to the project management unit to ensure that the agreed deliverables are produced satisfactorily and according to plans.
  - Track and monitor co-financed activities and realisation of co-financing amounts of this project.

- Approve the Inception Report, GEF annual project implementation reports, mid-term review and terminal evaluation reports.
- Ensure commitment of human resources to support project implementation, arbitrating any issues within the project.

✓ Risk Management:
- Provide guidance on evolving or materialized project risks and agree on possible mitigation and management actions to address specific risks.
- Review and update the project risk register and associated management plans based on the information prepared by the Implementing Partner. This includes risks related that can be directly managed by this project, as well as contextual risks that may affect project delivery or continued UNDP compliance and reputation but are outside of the control of the project. For example, social and environmental risks associated with co-financed activities or activities taking place in the project's area of influence that have implications for the project.
- Address project-level grievances.

✓ Coordination:
- Ensure coordination between various donor and government-funded projects and programmes.
- Ensure coordination with various government agencies and their participation in project activities.

148. **Composition of the Project Board**: The composition of the Project Board must include individuals assigned to the following three roles:

1. **Project Executive:** This is an individual who represents ownership of the project and chairs (or co-chairs) the Project Board. The Executive usually is the senior national counterpart for nationally implemented projects (typically from the same entity as the Implementing Partner), and it must be UNDP for projects that are direct implementation (DIM). In exceptional cases, two individuals from different entities can co-share this role and/or co-chair the Project Board. If the project executive co-chairs the project board with representatives of another category, it typically does so with a development partner representative. The Chair would be the Implementing Agency (Minister for MEIDECC, or in his absence, it would be the CEO for MEIDECC); and the Secretariat would be the Department of Environment (PMU Staff).
2. **Beneficiary Representative(s):** Individuals or groups representing the interests of those groups of stakeholders who will ultimately benefit from the project. Their primary function within the board is to ensure the realization of project results from the perspective of project beneficiaries. Often representatives from civil society, industry associations, or other government entities benefiting from the project can fulfil this role. There can be multiple beneficiary representatives in a Project Board. The Beneficiary representatives are local marine resource dependents in the two sites.
3. **Development Partner(s):** Individuals or groups representing the interests of the parties concerned that provide funding, strategic guidance and/or technical expertise to the project. The Development Partner(s) is/are: UNDP Resident Representative or Deputy Resident Representative

b) **Project Assurance:** Project assurance is the responsibility of each project board member; however, UNDP has a distinct assurance role for all UNDP projects in carrying out objective and independent project oversight and monitoring functions. UNDP performs quality assurance and supports the Project Board (and Project Management Unit) by carrying out objective and independent project oversight and monitoring functions, including compliance with the risk management and social and environmental standards of UNDP. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. Project assurance is totally independent of project execution.

149. A designated representative of UNDP playing the project assurance role is expected to attend all board meetings and support board processes as a non-voting representative. It should be noted that while in certain cases UNDP's project assurance role across the project may encompass activities happening at several levels (e.g. global, regional), at least one UNDP representative playing that function must, as part of their duties, specifically attend board meeting and provide board members with the required documentation required to perform their duties. The UNDP representative playing the main project assurance function is CO Programme Officer.

c) **Project Management – Execution of the Project:** The Project Coordinator (PC) is the senior most representative of the Project Management Unit (PMU) and is responsible for the overall day-to-day management of the project on behalf of the Implementing Partner (50% of the time), including the mobilization of all project inputs, supervision over project staff, responsible parties, consultants and sub-contractors. The project coordinator typically presents key deliverables and documents to the board for their review and approval, including progress reports, annual work plans, adjustments to tolerance levels and risk registers. In addition, the PC would provide the balance 50% of the time for oversee specific techincal aspects of the project. The PMU will also include a Operations Support Officer, M&E Officer, and a Technical Officer to be stationed and oversee the technical work in Vava'u. Terms of Reference for staff of the PMU are provided in Annex 7. The government intends considering the absorption of key contact positions supported by the project, including the project coordinator, technical coordinator (Vava'u), and Operations Support Officer into government service at the end of the project.

A designated representative of the PMU is expected to attend all board meetings and support board processes as a non-voting representative.

The primary PMU representative attending board meetings is: National Project Coordinator

VIII. FINANCIAL PLANNING AND MANAGEMENT

150. The total cost of the project is USD 16,249,685. This is financed through a GEF grant of USD 3,864,685 administered by UNDP, USD 25,000 in cash co-financing to be administered by UNDP and additional support of USD 12,360,000. UNDP, as the GEF Implementing Agency, is responsible for the oversight of the GEF resources and the cash co-financing transferred to UNDP bank account only.

151. **Co-financing**: The actual realization of project co-financing amounts will be monitored by the UNDP Country Office and the PMU on an annual basis in the GEF PIF and will be reported to the GEF during the mid-term review and terminal evaluation process as follows:

Co-financing source	Co-financing type	Co-financing amount
MEIDECC	In-Kind	300,000
	Investment Mobilized	500,000
Ministry of Finance	In-Kind	500,000
	Public Investment	4,000,000
Ministry of Lands and Survey	In-Kind	300,000
	Public Investment	5,000,000
Ministry of Fisheries	In-kind	300,000
	Investment mobilized	200,000
Ministry of Tourism	In-kind	150,000
Tonga Development Bank	In-Kind	500,000
Vava'u Environmental Protection Association	In-kind	110,000
	Investment mobilized	500,000
UNDP	Cash	25,000

152. Budget Revision and Tolerance: As per UNDP POPP, the project board may agree with the project manager on a tolerance level for each detailed plan under the overall multi-year workplan. The agreed tolerance should be written in the project document or approved project board meeting minutes. It should normally not exceed 10 percent of the agreed annual budget at the activity level, but within the overall approved multi-year workplan at the activity level. Within the agreed tolerances, the project manager can operate without intervention from the project board. Restrictions apply as follows:

153. Should the following deviations occur, the Project Manager/IP through UNDP Country Office will seek the approval of the BPPS/NCE-VF team to ensure accurate reporting to the GEF. It is **strongly encouraged** to maintain the expenditures within the approved budget at the budgetary account and at the component level:

a) Budget reallocations must prove that the suggested changes in the budget will not lead to material changes in the results to be achieved by the project. A strong justification is required and will be approved on an exceptional basis. Budget re-allocations among the components (including PMC) of the approved Total Budget and Work Plans (TBWP) that represent a value greater than 10% of the total GEF grant.
b) Introduction of new outputs/activities (i.e. budget items) that were not part of the agreed project document and TBWP that represent a value greater than 5% of the total GEF grant. The new budget items must be eligible as per the GEF and UNDP policies.
c) Project management cost (PMC): budget under PMC component is capped and cannot be increased.

154. UNDP is not in a position to increase the total budget above the amount approved by the donor, therefore any over- expenditure would have to be absorbed from non-GEF resources by the Implementing Partner (GEF Executing Entity)

155. **Project extensions:**

The UNDP-BPPS-NCE team Executive Coordinator must approve all requests for extension of the Project Completion Date and for other milestone extensions with hard deadlines. All extensions impose additional time and cost burdens at all levels and the GEF project budget cannot be increased beyond its originally approved amount. A single extension may be granted on an exceptional basis and subject to the conditions and maximum durations set out in the UNDP POPP. The project management costs during the extension period must remain within the originally approved amount, and any increase in PMC costs shall be covered by non-GEF resources; the additional UNDP oversight costs during the extension period must be covered by non-GEF resources, in accordance with UNDP's policy as set out in UNDP POPP.

For any extension request, UNDP CO and IP will consult and jointly present a clear plan indicating how and from which specific sources the additional oversight costs that will be incurred by UNDP will be covered during the extended period. The BPPS-NCE Executive Coordinator will consult the Regional Bureaux (RBX) and may reject the extension request if no (external co-financing by the IP or internal UNDP CO resources) can be identified.

All extension requests, along with all supporting documentation, shall be submitted by the IP to the UNDP CO in line with the requirements and within the deadlines set out in the UNDP SOPs and policies in UNDP POPP.

156. Audit:

The project will be audited as per UNDP Financial Regulations and Rules and applicable audit policies. Audit cycle and process must be discussed during the Inception workshop. If the Implementing Partner is an UN Agency, the project will be audited according to that Agencies applicable audit policies.

Transfer or disposal of assets: In consultation with the Implementing Partner and other parties of the project, UNDP is responsible for deciding on the transfer or other disposal of assets. Transfer or disposal of assets is recommended to be reviewed and endorsed by the project board following UNDP rules and regulations. Assets may be transferred to the government for project activities managed by a national institution at any time during the life of a project, however **must be done before the operational closure date**. In all cases of transfer, a transfer document must be prepared and kept on file[28]. The transfer should be done before Project Management Unit complete their assignments.

Completion Date: The project completion date is the date of Project Document Signature plus project duration. This date can only be extended through a formal extension request. Prior to completion date, all UNDP-financed inputs must be provided and related activities for the Project completed. No activities, except for the final clearance of the Terminal Evaluation Report and the corresponding management response and the end-of-project review Project Board Meeting should take place after the Completion Date.

Project Closure: Project closure will be conducted as per UNDP requirements outlined in the UNDP POPP. All costs incurred to close the project must be included in the project closure budget and reported as final project commitments presented to the Project Board during the final project review. The only costs a project may incur following the final project review are those included in the project closure budget.

- **Operational Closure**: **Operational closure must happen within 9 months from project completion date.** Prior to operational closure, the Terminal Evaluation must have been submitted and the corresponding TE

[28] See https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PPM_Project%20Management_Closing.docx&action=default.

management response and the end-of-project review Project Board meeting must have been completed. The Implementing Partner through a Project Board decision will notify the UNDP Country Office when operational closure has been completed. Before Operational Closure, the project must have completed the transfer or disposal of any equipment that is still the property of UNDP.

- **Financial Closure: Financial closure must happen within 6 months of operational closure or after the date of cancellation.** The project will be financially closed when the following conditions have been met: a) the project is operationally completed or has been cancelled; b) the Implementing Partner has reported all financial transactions to UNDP; c) UNDP has closed the accounts for the project; d) UNDP and the Implementing Partner have certified a final Combined Delivery Report (which serves as final budget revision).
  Between operational and financial closure, the implementing partner will identify and settle all financial obligations and prepare a final expenditure report. The UNDP Country Office will send the final signed closure documents including confirmation of final cumulative expenditure and unspent balance to BPPS/NCE for confirmation before the project will be financially closed in Quantum by the UNDP Country Office.

Cancellation and Suspension: All projects considering going through cancellation or suspension must follow UNDP and GEF requirements. Guidance can be found in the UNDP POPP (SOPs for management actions of Vertical Fund projects escalated to the Executive Coordinator and Guidance for GEF project revisions).

Refund to GEF: Should a refund of unspent funds to the GEF be necessary, this will be managed directly by the BPPS/NCE team Directorate in New York. No action is required by the UNDP Country Office on the actual refund from UNDP project to the GEF. Unspent project balance is not permitted to be transferred to any other projects.

IX. TOTAL BUDGET AND WORK PLAN

Total Budget and Work Plan			
Quantum Business Unit	UNDP-FJI		
Quantum Project ID:	01000322	Quantum Project Title:	*PIMS-6475 Tonga R2R Phase 2 Full Size*
Quantum Award ID:	1214259	Quantum Award Title:	*Tonga R2R Phase 2-GEF*
UNDP-GEF PIMS No.	6475		
Implementing Partner	Department of Environment, Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC)		

Quantum Outcome (GEF Component)	Quantum Output (GEF Outcome)	Quantum Activity (GEF Output)	Quantum Responsible Party (UNDP, IP, or Responsible Party)	Quantum Fund ID	Quantum Donor ID	Quantum Budgetary Account Code	Quantum Budget Account Description	Amount (USD) Year 1	Amount (USD) Year 2	Amount (USD) Year 3	Amount (USD) Year 4	Amount (USD) Year 5	Total (USD)	See Budget Note:
Component 1. *Conservation of Critical Lagoon Ecosystems and Management of the Catchment to Improve Biodiversity and Ecological Services of the Fanga'uta Lagoon and Replication in Priority Areas in Vava'u*	***Outcome 1.*** ***I****mproved management of the Fanga'uta Lagoon marine reserve for biodiversity conservation and its replication in Vava'u*	***Output 1.1.*** *Updating the Fanga'uta Stewardship Plan building on lessons and best practices generated from its implementation under the R2R Phase I project*	*MEIDECC*	*62000*	*010003*	*71300*	*Local Consultants*	31,000	5,000	10,000	5,000	10,000	61,000	1
						71800	*Contractual Services - Imp Partners*	15,000	15,000	-	-	-	30,000	2
						75700	*Training, workshops, consultations*	15,000	14,000	13,000	9,000	11,000	62,000	3
						71600	*Travel*	8,000	8,500	8,500	-	-	25,000	4
						72300	*Materials & Goods*	2,000	2,000	4,000	4,000	4,000	16,000	5
		Total Output 1.1						**71,000**	**44,500**	**35,500**	**18,000**	**25,000**	**194,000**	
		Output 1.2: *Natural ecosystems within the Fanga'uta Lagoon Marine Reserve rehabilitated to preserve biodiversity and ecosystem services*	*MEIDECC*	*62000*	*010003*	*72100*	*Contractual Services - Companies*	62,000	144,000	178,000	153,000	103,000	640,000	6
						75700	*Training, workshops and conferences*	43,000	58,000	25,000	10,000	9,000	145,000	7
						71600	*Travel*	8,000	8,500	8,500	10,000	10,000	45,000	8
						72300	*Materials & Goods*	2,000	4,000	4,000	2,000	2,000	14,000	9
			Total MEIDECC					**115,000**	**214,500**	**215,500**	**175,000**	**124,000**	**844,000**	
			UNDP	*62000*	*010003*	*72200*	*Equipment*	30,000	20,000	-	-	-	50,000	10
			Total UNDP					**30,000**	**20,000**	**-**	**-**	**-**	**50,000**	
		Total Output 1.2						**145,000**	**234,500**	**215,500**	**175,000**	**124,000**	**894,000**	
			MEIDECC	*62000*	*010003*	*71300*	*Local Consultants*	-	25,000	10,000	-	-	35,000	11

		Output 1.3. *Existing Special Managed Areas within the Fanga'uta Lagoon evaluated and lessons learnt identified to provide guidance for replication in other parts of the country following the community-based natural resource management approach*				*72100*	*Contractual Services - Companies*	-	30,000	30,000	-	-	60,000	12
						71800	*Contractual Services- Ind*	10,000	26,000	11,000	5,000	5,000	57,000	13
						75700	*Training, workshops and conferences*	5,000	22,500	27,500	3,500	8,500	67,000	14
						72300	*Materials & Goods*	-	5,000	3,000	5,000	3,000	16,000	15
						71600	*Travel*	-	9,000	9,000	11,000	11,000	40,000	16
		Total Output 1.3						**15,000**	**117,500**	**90,500**	**24,500**	**27,500**	**275,000**	
		Output 1.4 *Alternative livelihoods identified and implemented in close consultation with communities towards to reduce exploitation of lagoon resources*	*MEIDECC*	*62000*	*010003*	*71300*	*Local Consultants*	15,000	24,000	15,000	-	-	54,000	17
						72100	*Contractual Services - Companies*	30,000	100,000	100,000	100,000	20,000	350,000	18
						75700	*Training, workshops and conferences*	11,000	45,000	46,000	46,000	5,000	153,000	19
						72300	*Materials & Goods*	2,000	2,000	4,000	4,000	6,000	18,000	20
						71600	*Travel*	12,000	12,000	12,000	12,000	12,000	60,000	21
		Total Output 1.4						**70,000**	**183,000**	**177,000**	**162,000**	**43,000**	**635,000**	
		Output 1.5*. Lessons learned from Tonga R2R Phase 1 project replicated in Vava'u to support marine biodiversity conservation*	*MEIDECC*	*62000*	*010003*	*71300*	*Local Consultants*	-	18,000	-	-	-	18,000	22
						71800	*Contractual Services - Imp Partners*	12,000	12,000	12,000	12,000	12,000	60,000	23
						72100	*Contractual Services - Companies*	20,000	75,000	70,000	60,000	30,000	255,000	24
						72300	*Materials & Goods*	2,000	2,000	4,000	4,000	4,000	16,000	25
						75700	*Training, workshops and conferences*	22,000	32,000	17,000	-	-	71,000	26
						71600	*Travel*	7,000	7,000	7,000	7,000	7,000	35,000	27
			Total MEIDECC					**63,000**	**146,000**	**110,000**	**83,000**	**53,000**	**455,000**	
			UNDP	*62000*	*010003*	*72200*	*Equipment*	10,000	10,000	-	-	-	20,000	28
			Total UNDP					**10,000**	**10,000**	**-**	**-**	**-**	**20,000**	
		Total Output 1.5						**73,000**	**156,000**	**110,000**	**83,000**	**53,000**	**475,000**	
	Total Outcome 1							**374,000**	**735,500**	**628,500**	**462,500**	**272,500**	**2,473,000**	
Total Component 1								**374,000**	**735,500**	**628,500**	**462,500**	**272,500**	**2,473,000**	

Component 2. *Governance: Policies, Institutions and Capacity Building for Sustainable and Adaptive Management and Biodiversity Conservation*	***Outcome 2.*** *Strengthened integrated management through streamlined policies, active and functional community institutions and improved human capacity*	***Output 2.1.*** *Strengthened institutional arrangement for the Fanga'uta Lagoon that builds on the Community Management Committees and is inclusive of gender and social diversity*	*MEIDECC*	*62000*	*010003*	*71800*	*Contractual Services - Imp Partners*	3,000	3,000	3,000	3,000	3,000	15,000	29
						75700	*Training, workshops and conferences*	43,000	17,000	15,000	7,000	8,000	90,000	30
						71600	*Travel*	6,000	6,000	6,000	6,000	6,000	30,000	31
		Total Output 2.1						**52,000**	**26,000**	**24,000**	**16,000**	**17,000**	**135,000**	
		Output 2.2 *Review of policy and legislative framework to identify gaps and overlaps in institutional mandates; streamlined policy framework to effectively support the strengthened implementation of the FSP*	*MEIDECC*	*62000*	*010003*	*71800*	*Contractual Services - Imp Partners*	3,000	3,000	3,000	3,000	3,000	15,000	32
						71300	*Local Consultants*	42,000	42,000	-	-	-	84,000	33
						75700	*Training, workshops and conferences*	11,000	11,000	11,000	-	-	33,000	34
						71600	*Travel*	5,000	5,000	5,000	5,000	-	20,000	35
		Total Output 2.2						**61,000**	**61,000**	**19,000**	**8,000**	**3,000**	**152,000**	
		Output 2.3 *Capacity of government staff and communities and key stakeholders strengthened on integrated approaches for biodiversity conservation and enforcement procedures.*	*MEIDECC*	*62000*	*010003*	*71300*	*Local Consultants*	-	28,500	-	-	-	28,500	36
						75700	*Training, workshops and conferences*	15,000	19,000	19,000	19,000	-	72,000	37
						72500	*Materials & Goods*	6,000	8,000	8,000	4,000	-	26,000	38
						71600	*Travel*	19,000	24,000	24,000	19,000	7,660	93,660	39
		Total Output 2.3						**40,000**	**79,500**	**51,000**	**42,000**	**7,660**	**220,160**	
	Total Outcome 2							**153,000**	**166,500**	**94,000**	**66,000**	**27,660**	**507,160**	
Total Component 2								**153,000**	**166,500**	**94,000**	**66,000**	**27,660**	**507,160**	
Component 3. *Awareness raising and knowledge management of the ecosystem functions and*	***Outcome 3.*** *Upscaled awareness and information management program to enhance*	***Output 3.1*** *GESI responsive and accessible information system developed in the context of existing national systems, to*	*MEIDECC*	*62000*	*010003*	*72100*	*Contractual Services*	14,000	10,000	-	-	-	24,000	40
						75700	*Training, workshops and conferences*	5,000	9,000	4,000	4,000	-	22,000	41
						72300	*Materials & Goods*	2,000	2,000	2,000	2,000	-	8,000	42
						71600	*Travel*	4,000	6,000	-	-	-	10,000	43

services of the Fanga'uta Lagoon and the priority Vava'u biodiversity sites	*appreciation of GESI sensitive biodiversity values of the Fanga'uta Lagoon and priority sites in Vava'u*	*facilitate informed decision making.*												
		Total Output 3.1						**25,000**	**27,000**	**6,000**	**6,000**	**-**	**64,000**	
		Output 3.2 *Education and awareness programs using a range of media expanded to support marine conservation*	*MEIDECC*	*62000*	*010003*	*71800*	*Contractual Services - Imp Partners*	3,000	3,000	3,000	3,000	3,000	15,000	44
						72100	*Contractual Services -Firm*	20,000	44,000	42,000	22,000	22,000	150,000	45
						75700	*Training, workshops and conferences*	4,000	2,000	6,000	4,000	5,000	21,000	46
						72300	*Materials & Goods*	2,000	2,000	2,000	2,000	2,000	10,000	47
						71600	*Travel*	-	3,000	9,000	4,000	4,000	20,000	48
		Total output 3.2						**29,000**	**54,000**	**62,000**	**35,000**	**36,000**	**216,000**	
		Output 3.3 *South-South cooperation and exchanges implemented in the area of integrated management of lagoon ecosystems that is most applicable in Pacific SIDS and beyond.*	*MEIDECC*	*62000*	*010003*	*71800*	*Contractual Services - Imp Partners*	23,000	-	3,000	3,000	3,000	32,000	49
						75700	*Training, workshops and conferences*	-	-	50,000	64,000	64,000	178,000	50
						72300	*Materials & Goods*	-	-	-	4,000	4,000	8,000	51
		Total output 3.3						**23,000**	**-**	**53,000**	**71,000**	**71,000**	**218,000**	
		Output 3.4 *M&E system supports project impact including gender and youth mainstreaming*	*UNDP*	*62000*	*010003*	*71200*	*International Consultants*	-	-	20,000	-	25,000	45,000	52
						71300	*Local Consultants*	-	-	6,000	-	8,000	14,000	53
			Total UNDP					**-**	**-**	**26,000**	**-**	**33,000**	**59,000**	
			MEIDECC	*62000*	*010003*	*71800*	*Contractual Services - Imp Partners*	33,000	15,000	21,000	15,000	21,000	105,000	54
						75700	*Training, workshops and conferences*	13,000	3,000	3,000	3,000	3,000	25,000	55
						71600	*Travel*	500	500	4,500	500	7,500	13,500	56
			Total MEIDEC					**46,500**	**18,500**	**28,500**	**18,500**	**31,500**	**143,500**	
		Total Output 3.4						**46,500**	**18,500**	**54,500**	**18,500**	**64,500**	**202,500**	
	Total Outcome 3							**123,500**	**99,500**	**175,500**	**130,500**	**171,500**	**700,500**	
Total Component 3								**123,500**	**99,500**	**175,500**	**130,500**	**171,500**	**700,500**	
Project Management Cost	***PMC***	***PMC***	*MEIDECC*	*62000*	*010003*	*71800*	*Contractual Services - Imp Partners*	21,000	21,000	21,000	21,000	21,000	105,000	57
						75700	*Training and workshops*	700	-	700	-	-	1,400	58
						72500	*Office Materials & Goods*	1,125	1,000	1,000	1,000	1,000	5,125	59
						72200	*Equipment*	5,000	-	-	-	-	5,000	60

						73100	*Utilities*	1,000	1,000	1,000	1,000	1,000	5,000	61
				04000	*000012*	*71800*	*Contractual Services - Imp Partners*	5,000	5,000	5,000	5,000	5,000	25,000	62
			Total MEIDEC					**33,825**	**28,000**	**28,700**	**28,000**	**28,000**	**146,525**	
			UNDP	*62000*	*010003*	*74100*	*Professional services*	2,500	2,500	2,500	2,500	3,395	13,395	63
						74596	*Services to Projects - GOE for CO*	16,301	8,231	8,423	6,414	9,736	49,105	64
			Total UNDP					**18,801**	**10,731**	**10,923**	**8,914**	**13,131**	**62,500**	
Total Project Management Cost (GEF)								**47,626**	**33,731**	**34,623**	**31,914**	**36,131**	**184,025**	
Total Project Management Cost (GEF + UNDP)								**52,626**	**38,731**	**39,623**	**36,914**	**41,131**	**209,025**	
Total Project Grant (GEF)								**698,126**	**1,035,231**	**932,623**	**690,914**	**507,791**	**3,864,685**	
Total Project Grant (GEF + UNDP)								**703,126**	**1,040,231**	**937,623**	**695,914**	**512,791**	**3,889,685**	

Budget Note

Budget Note No.	Budget Note (Description)
Component 1: Conservation of Critical Lagoon Ecosystems and Management of the Catchment to Improve Biodiversity and Ecological Services of the Fanga'uta Lagoon and Replication in Priority Areas in Vava'u	
1	Local Consultants: Total $ 61,000 1. Evaluation of implementation of FSP to identify gaps and actions to develop revised FSP Action Plan (2024-2034) in YR 1 – 60 days @350/day = $21,000 (Output 1.1) 2. Conduct annual review of FSP Action plan implementation (YRs 2-5) at 20 days/year @ $250 = $5,000 x 4 = $20,000 (Output 1.1) 3. Review of FSP monitoring and evaluation system to develop revised M&E system in YR 1 at 40 days @$250 and implementation review in YRs 3 and 5) at 20 days@250 in YRs 3 and 5 = $20,000 (Output 1.1)
2	Contractual services-Imp: Total $30,000 Partial costs for Project Coordinator provide technical input and oversight to the preparation of the updated FSP, ensuring that lessons from R2R Phase 1 are integrated, as well as arrangements for coordination across sectors in Year 1 and 2 - $30,000 (Output 1.1)
3	Training, workshops and conferences – Total $62,000 1. Annual/bi-annual Environment Advisory Committee meetings and Technical working group Y1- Y5 at $2,000/year = $25,000 (Output 1.1) 2. Consultation meetings with sector agencies to identify priority activities and responsibilities for phase 2 project Y1 and review Y1-Y5 - $24,000 (Output 1.1) 3. Consultation meetings to approval process of FSP Action Plan in YRs 1 and 2 - $5,000 (Output 1.1) 4. Consultations for update of FSP monitoring and evaluation Y1, Y3 and Y5 - $8,000 (Output 1.1)
4	Travel - Total $25,000 Travel related to evaluation of FSP status and update and development of revised FSP Action Plan YR 1-3 -$25,000 (Output 1.1)
5	Materials & goods – Total $16,000 (lump sum) Aerial and satellite maps and photographs, media support, banners and signage for all Outputs in Component 1

6	Consultancy Services – Firm – Total $ 640,000 1. Part costs for MLNR (GIS) and TWG led by PMU to conduct mapping of vulnerable habitats and zoning of the coral, seagrass beds etc. Y1 $20,000 (Output 1.2) 2. Part costs for TWG led by PMU for development of Investment plan and criteria for site selection for restoration in collaboration with TWG, CMC and land owners: part costs and transportation costs for CMC and TWG Year2 - $20,000 (Output 1.2) 3. Services associated with mangrove (80 ha), seagrass bed (20 ha) and coral restoration (20 ha) and maintenance – YRs 1-5 -$600,000 (Output 1.2). In terms of mangroves restoration this entail costs such as nursery development (land levelling, sheds, fencing, water supply, drainage etc.), raising of seedlings (labor, materials), preparation of ins-situ planting sites (leveling, weed removal, land preparation, plant bed preparation and labor for planting), fencing of planted areas, signage, fencing to keep pigs out, maintenance labor and replanting failed out areas), For seagrass restoration this will involve: undertaking assessment of status of seagrass beds and feasibility for restoration, identify habitat suitable location of restoration, species selection, source transplant materials or seeds, seed processing, establish nurseries of required, ensure/develop adequate sediment base for seed growth, reseeding/planting, enforce biosecurity and damage prevention measures in replanting sites (signboards, floating barriers, etc.), maintenance of sites, monitoring regrowth, etc. Significant labor costs will be associated with the above activities. For coral restoration this will involve: identification, prioritization and selection of restoration sites (this will involve assessing risks, ability of site to regenerate, tide levels, historical presence, ecological resilience, consultations, etc.), select appropriate restoration interventions (coral propagation and out planting, seed planting, managed relocation, etc.) and design restoration plan, substrate stabilization, coral predator removal/management, seagrass meadow management, establish evaluation criteria and performance matrices, protection of restoration sites (sign boarding, demarcation buoys, etc.).
7	Training, workshops and conferences – Total $145,000 1. Conduct training with NGOs Y2 and assist PMU to conduct mangrove nursery development trainings with 10 selected communities in Y2 and Y3 - $30,000 (Output 1.2) 2. Training and skills development for local communities for restoration, nursery development: 3 selected communities @$2000/community per day for 3days Y2 and Y3 and monitoring activities $5000 (Y2-Y5) - $60,000 (Output 1.2) 3. Training to support NGOs and conduct of local researchers/ students to assess causes of mangrove die-off: 2NGOs and tertiary students: $2,000 per day including materials and equipment and catering x3days Y2 and Y3and monitoring support $5000 for Y2-Y5 - $55,000 (Output 1.2)
8	Travel - Total $45,000 Travel related to mapping of Fanga'uta lagoon and restoration activities in YR 1-5 -$45,000 (Output 1.2)
9	Materials & goods – Total $14,000 (lump sum) Aerial and satellite maps and photographs, media support, banners and signage for all Outputs in Component 1
10	Equipment – Total 50,000 1. Laptops, (3) printers and workstations and drones for Tongatapu Drone for GIS mapping (including one hard drive for data storage and backup for field work in YR 1) - $30,000 (Output 1.2) 3. Mobile communication devices (8 sets) for field- $20,000
11	Local Consultants: Total $ 35,000 1. Review of M&E system for SMAs and support development of M&E system and specific actions for development of database for all SMA officers to share data and updates on SMA management in Fanga'uta and Vaipua Channel: YR 2 50days @$300 per day = $15,000 (Output 1.3) 2. Support the review of SMA regulations in alignment with Parks and Reserves Management Act and Birds and Fish preservation Act for amendments to include sharing SMAs in Fanga'uta Lagoon including identification of Regulations and enforcement needs in YRs 2 and 3 = 80 days@$250/day = $20,000 (Output 1.3)
12	Consultancy Services – Firm – Total $ 60,000 Undertake baseline surveys, consultations to establish 4 new SMA sites as per community request in YR 2 and 3 - $60,000: (Output 1.3)
13	Contractual services-Imp - Total $57,000 1. Conduct training to support establishment of SMAs in Fanga'uta lagoon in YR 2 and 3 at 3days @$1000 per day for 2 proposed SMA sites $12,000 (Output 1.3) 2. Costs for FSP Secretariat to support the development of SMA strategy to ensure Fanga'uta lagoon and Vaipua are effectively represented in SMA strategy and support MoF in SMA oversight for SMAs in Fanga'uta YRs 1-5 : $45,000 for the entire 5 years (YR=$10,000, Y2= $20,000 Y3-5 @ $5K(Output 1.3)

14	Training, workshops and conferences – Total $67,000 1. Training to support staff training for DOE and MOF (8 staff) to enhance collaboration for streamlining SMA establishment in Fanga'uta lagoon and sharing information to coincide with establishment of new SMAs in YRs 2 and 3$3,000 per day for 5 days includes equipment hire, fuel, catering, transportation etc. - $30,000 (Output 1.3) 2. Training for CMCs to improve community management of SMAs at $2,000 per training for 2days and monitoring support $3,500 Y2-Y5 - $22,000 (Output 1.3) 3. Support for national and regional SMA workshops– YR 1, 3 and 5 - $15,000 (Output 1.3)
15	Materials & goods – Total $16,000 (lump sum) Aerial and satellite maps and photographs, media support, banners and signage for all Outputs in Component 1
16	Travel - Total $40,000 Travel related to outer islands SMA support officers for involvement in SMA related work -$YR 2-5 -$40,000 (Output 1.3)
17	Local Consultants: Total $54,000 1. National economist/ marketing consultant to conduct review of alternative livelihoods and eco-tourism potential in communities and develop marketing strategy for promoting goods and services at community level including sustainable financing mechanisms in YR 1 and 2 -60 days @$250/day =$15,000 (Output 1.4) 2. Marketing/production services expertise to conduct training on skills development to producers and service providers: $39,000 (Output 1.4)
18	Consultancy Services – Firm – Total $ 350,000 1. Support for ecotourism development including signage, trail improvements, education displays and information center programs, hire of canoes, training of small ecotourism business development, development of ecotourism products etc.) – Yrs 1-5 - $150,000 2. Contractual services for small-business, value chain and livelihood improvement, including assessment of viability, training communities for skills development, facilitating market linkages and product development (including provision of small equipment at household level such as grinders, processors, harvesting tools, storage equipment, small farm equipment, etc.) and support to communities for value chain and livelihood development including technical support, training and market access support) YRs 2-5 - $200,000 (Output 1.4).
19	Training, workshops and conferences – Total $153,000 1. Capacity building workshops for women and youth for 3 communities over the course of the project in relation to livelihood improvements: 3 days training@ $2,000 per day per group ($6,000x2) x 3 in YRD 2-4 - $108,000 (Output 1.4) 2. Support for establishing or strengthening Blue/ Green Livelihood program/dialogue (if already in place) YRs 1-5 - $45,000 (Output 1.4)
20	Materials & goods – Total $18,000 (lump sum) Aerial and satellite maps and photographs, media support, banners and signage for all Outputs in Component 1
21	Travel - Total $60,000 Travel related to promotion of income generation activities in YRs 1-5 - $$60,000
22	Local Consultants: Total $ 18,000 Consultant to support development of in YR 2 Vaipua Stewardship/ Management Plan and Vava'u PA plans: 60days@$300/day = $18,000 (Output 1.5)
23	Contractual services-Imp - Total $60,000 Technical Officer services for Vava'u at $1,000/month for 5 years - $60,000 (Output 1.5)
24	Consultancy Services – Firm – Total $ 255,000 1. Contractual support to PMU, Vava'u Technical committee in consultation with communities and stakeholders to support the development of Vaipua Stewardship plan and Action plan YRs 2-4 - $30,000 (Output 1.5) 2. Support to assist VEPA in baseline surveys at Vaipua Channel and technical support to identify conservation measures YRs 2 and 3 - $15,000 (Output 1.5) 3. GIS support to assist in demarcation of boundaries and GPS coordinates of proposed MPAs and SMAs in Vaipua – YRs 2 and 3 - $10,000 (Output 1.5) 4. Support for implementation of management activities in Vaipua Channel and 3 Vava'u PAs in YRs 1-4 - $200,000 (Output 1.5). This would involve baseline studies, management plan preparation, consultation with stakeholders, support for park management activities (signages, interpretation support, bird and ecological surveys, vegetation surveys, fisheries surveys, boundary demarcation, support for community training, hiring of canoes, mangrove stabilization, small works for coast stabilization, waste management, etc.

25	Materials & goods – Total$16,000 (lump sum) Aerial and satellite maps and photographs, media support, banners and signage for all Outputs in Component 1
26	Training, workshops and conferences – Total $71,000 1. Consultation costs for developing Vaipua Channel Management plan and PA plans (Year 3) and reviewing district development plans (Year 2 for FL and Year 3 for VC) - $20,000 (Output 1.5) 2. Consultations meetings to obtain MPA approval and gazette in YRs 1-3 $3,000 (Output 1.5) 3. Consultations with communities and key stakeholders (NGOs, private sector) on resource use, development of management plans and boundaries, development of consultation and Communication plan in line with Stakeholder engagement plan to include grievance redress mechanism in YRs 1-3 - $18,000 (Output 1.5) 4. Consultations for establishing governance structure (CMC, Vava'u Ma'alahi Taskforce) and regular quarterly update meetings and monitoring activities in YR 1 and 2 - $25,000 5. Training for drone applications and GIS mapping - $5,000
27	Travel - Total $35,000 Travel related to support for the Vaipua Channel management planning and implementation process and preparation of PA management plans in YR 1-5 - $35,000 (Output 1.5)
28	Equipment – Total 20,000 1. Camera for documentation, printer and laptop and hard drive for data storage and backup, desk, office chair and filing cabinet for technical officer Vavau in YR $15,000 (Output 1.5) 2. Desk, chairs and cabinets for technical Officer Vava'u - $5,000
Component 2: Governance: Policies, Institutions and Capacity Building for Sustainable and Adaptive Management and Biodiversity Conservation	
29	Contractual services-Imp 1. Partial costs for National Project Coordinator to provide technical expertise and advise to enhance the functionality of the FSP Secretariat and improving TORs and provision of technical guidance to FLC Steering Committee, and CMCs and district and community committees to enhance their functionality, reporting and monitoring – YRs 1-5 - $15,000(Output 2.1)
30	Training, workshops and conferences – Total $90,000 1. Training and skills development for District and town officers (CMC) in YRs 1-3 - $30,000 (Output 2.1) 2. Training to revive the technical committee and steering committee with regular monthly/quarterly meetings in YRs 1-5 - $40,000 (Output 2.1) 3. Consultations to establish CMC regulations to ensure membership of CMC contains representation of all stakeholder groups (women, youth, men, church denominations etc.,) in YR 1 - $20,000 (Output 2.1)
31	Travel – Total $30,000 1. Travel costs associated with improving institutional arrangement for the Fanga'uta Lagoon in Yrs. 1-5 - $30,000 (Output 2.1)
32	Contractual services-Imp 1. Partial costs for National Project Coordinator to provide oversight and technical guidance for the policy and legislative review, drafting amendments, review of district development plans and enforcement mechanisms for YRs 1-5 $15,000 (Output 2.2)
33	Local consultants – Total $84,000 1. Consultant to review policies and legislation on managing Fanga'uta lagoon and Vaipua Channel and drafting amendments and recommendations for strengthening enforcement and support PMU in conducting training for enforcement: 60days@$350/day. Fanga'uta lagoon Year 2, Vaipua Channel Year 3 - $42,000 (Output 2.2) 2. Review district development plans to mainstream and align to FSP Action Plan (Year 2) and Vaipua Channel Management Plan (Year 4) including recommendations for M&E alignment: 60days@$350/day - $42,000 (Output 2.2)
34	Training, workshops and conferences – Total $33,000 1. Training of DOE, Ministry of Fisheries and other enforcement staff in the management of Fanga'uta lagoon and Vaipua Channel in YRs 1-3 - $15,000 (Output 2.2) 2. Workshops and Consultation costs associated with policy and legislative review in YR 1-3 - $18,000 (Output 2.2)
35	Travel – Total $20,000 1. Travel costs for policy and legislative review and district plan review and district development planning in YRs 1-4 - $20,000 (Output 2.2)

36	Local consultants – Total $28,500 1. Consultant to conduct capacity needs assessment of sectors and communities involved in managing the lagoon and develop a gender-sensitive five year capacity development plan for the project in YR 1: 60days @$350 per day -$21,000 (Output 2.3) 2. IT/ Communications specialist to update website and develop data management, reporting and grievance redress procedures for communities and sectors in YR 2 30days@$250per day - $7,500 (Output 2.3)
37	Training, workshops and conferences – Total $72,000 1. Consultations for developing and updating website with key stakeholders and how to use the software and procedures following completion of the GRM process in YR 2-4 - $12,000. (Output 2.3) 2. Capacity building training workshops for TWG on ecosystem-based and sustainable development approaches in YRs 1-4 - $20,000 (Output 2.3) 3. Capacity building training for CMC at Fanga'uta Lagoon on communication and consensus building, collective decision making, M&E etc. in YRs 1-4 - $20,000 (Output 2.3) 4. Capacity building training for CMC at Vaipua Channel on communication and consensus building, collective decision making, M&E etc. in YRs 1-4 - 20,000 (Output 2.3)
38	Supplies – Total $26,000 1. Supplies to support capacity building trainings and workshops for YRs 1-4 - $26,000 (Output 2.3)
39	Travel – Total $93,660 1. Travel costs associated with undertaking capacity building trainings in YRs 1-4 - $93,660 (Output 2.3)
Component 3: Awareness raising and knowledge management of the ecosystem functions and services of the Fanga'uta Lagoon and the priority Vava'u biodiversity sites	
40	Contractual services – Firm -Total $24,000 1. Assessment of information sharing platforms pertaining to FL and develop a centralized system for all stakeholders to access including updating website and social media and knowledge sharing platforms in YR 1 and 2-$24,000 (Output 3.1)
41	Training, workshops and conferences – Total $22,000 1. Consultation meeting costs for assessing knowledge and information platforms and data in YR 1 and 2 $10,000 (Output 3.1) 2. Training on information and data access and sharing that are gender focused and appropriate in YRs 3-5 $12,000 (Output 3.1)
42	Materials & goods – Total $8,000 1. Materials to support IT capacity building trainings , data access, storage and management, media awareness , inc. materials for national dialogue in YRs 1-5 $26,000 (Outputs 3.1, 3.2 and 3.3)
43	Travel – Total $10,000 1. Travel associated with developing IT knowledge management and sharing platforms and training in YRs 1-3 $10,000 (Output 3.1)
44	Contractual services – Imp partner Partial costs of Project Coordinator to participate in communication and Knowledge Management events and campaigns for decision-makers in YRs 1-5 $15,000 (Output 3.2)
45	Contractual services – Firm -Total $150,000 1. Contractual services for publicity and knowledge management materials for equipping Environment Resources Information Centre in YR 2-3 $50,000 (Output 3.2) 2. Support for citizen science program, science fair and annual awards scheme for active involvement of women and youth in YR1-5 $50,000 (Output 3.2) 3. Contractual services to design education and national communication plan and materials (press release, newsletters, awareness materials, etc.) and conduct awareness activities - $50,000
46	Training, workshops and conferences – Total $21,000 1. Workshops for training on gender aspects and implementing gender action plan in YRs 1-3 $8,000 (Output 3.2) 2. Conduct annual workshops and National end of project workshop to share lessons experiences with views to replicate in Vava'u in YRs 3-5 $13,000 (Output 3.2)
47	Materials & goods – Total $10,000 1. Materials to support IT capacity building trainings , data access, storage and management, media awareness , inc. materials for national dialogue in YRs 1-5 $26,000 (Outputs 3.1, 3.2 and 3.3)

48	Travel – Total $20,000 1. Travel associated with gender action plan implementation production of awareness materials and documentaries in YRs 2-5 $20,000 (Output 3.2)
49	Contractual services – Imp partner Total $ 32,000 1.Media consultant to develop documentation videos of best practices for knowledge sharing in South-South meetings– 4 communities per year @$1000 per community in YRs 3-5 $12,000 (Output 3.3) 2. Communication specialist to develop communication and KM strategy to guide project implementation in YR 1 - $20,000
50	Training, workshops and conferences – Total $178,000 1. Hosting national dialogue and workshops for dissemination of best practices and sharing lessons learned in YRs 4 and 5 $20,000 (Output 3.3) 2. Consultations for development of video documentaries in YRs 4 and 5 $8,000 (Output 3.3) 3. Support for participation in regional and global events on coastal marine knowledge sharing and convening national dialogue in YRs 3-5 $150,000 (Output 3.3)
51	Materials & goods – Total $8,000 1. Materials to support IT capacity building trainings , data access, storage and management, media awareness , inc. materials for national dialogue in YRs 1-5 $26,000 (Outputs 3.1, 3.2 and 3.3)
52	International Consultants – Total $45,000 1. Consultant for MTR in YR 2/3 $20,000 (Output 3.4) 2. Consultant for terminal evaluation in YR 5 $25,000 (Output 3.4)
53	Local Consultants – Total $14,000 1. Consultant for MTR in YR 2/3 $6,000 (Output 3.4) 2. Consultant for terminal evaluation in YR 5 $8,000 (Output 3.4)
54	Contractual services – Imp partner - Total $ 105,000 1. Consultancy to develop ESMF and M&E framework in Year 1 and thereafter review and update ME plan: 60days @$300 per day in Year 1 and 20days @$300/day in year 3 and year 5 at end of project $30,000 (Output 3.4) 2. M&E Officer to oversee and manage and implement M&E framework including regular quarterly meetings for monitoring SESP, ESMP GAP, SEP in YRS 1-5 $75,000 (Output 3.4)
55	Training, workshops and conferences – Total $25,000 1. Inception workshop in YR 1 $5,000 (Output 3.4) 2. Monthly and quarterly update meetings to monitor project activities and address M&E issues as they arise in YRs 1-5 $15,000 (Output 3.4) 3. Sector and community consultation meetings for ESMF and M&E framework development in YR1 $5,000 (Output 3.4)
56	Travel – Total $13,500 1. Travel associated with M&E related work in YRs 1-5 $2,500 (Output 3.4) 2. Travel associated with MTR in YR2/3 $4,000 (Output 3.4) 3. Travel associated with TE in YR5 $7,000 (Output 3.4)
Project Management Cost	
57	Contractual services – Imp partner - Total $ 105,000 1. Operations Support Officer at $11,000/year for 5 years - $55,000 (of which $30,000 from project and $25,000 covered by UNDP co-financing) 2. 50% costs of Project Coordinator salary@$2,500 per month for 60 months $75,000
58	Training, workshops and conferences – Total $1,400 1. Training of PMU staff in financial management, project management and procurement management - $1,400
59	Supplies – Total $5,125 1. Office supplies for PMU
60	Equipment and Furniture – Total $5,000 PMU office furniture - desks, chairs, filing cabinets and equipment storage in YR1 -$5,000

61	Utilities – Total $5,000 1. Electricity, internet and other utilities at $1,000/year for 5 years = $5,000
62	Contractual services – Imp partner Operations Support Officer at $11,000/year for 5 years - $55,000 (of which $30,000 from project and $25,000 covered by UNDP co-financing)
63	Professional Services – Total 13,395 Annual audits for YR 1-5
64	Services to Project - $49,105 for UNDP' s execution support: facilitate procurement of PMU staff and international consultants, technical experts/specialists and procurement of equipment and furniture and conduct of audits, as listed in the draft LOA, Annex 12 (Contract issuance and management to be done by the IP and UNDP support to be provided in the recruitment process to ensure transparent and compliant process.)

X. LEGAL CONTEXT

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of Tonga and UNDP, signed on 28 January 2013. All references in the SBAA to "Executing Agency" shall be deemed to refer to "Implementing Partner."

This project will be implemented by Department of Environment, Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC) ("Implementing Partner") in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

XI. RISK MANAGEMENT

1. Consistent with the Article III of the SBAA *[or the Supplemental Provisions to the Project Document]*, the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:
   a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
   b) assume all risks and liabilities related to the Implementing Partner's security, and the full implementation of the security plan.

2. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner's obligations under this Project Document.

3. The Implementing Partner agrees to undertake all reasonable efforts to ensure that no UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the United Nations Security Council Consolidated Sanctions List, and that no UNDP funds received pursuant to the Project Document are used for money laundering activities. The United Nations Security Council Consolidated Sanctions List can be accessed via https://www.un.org/securitycouncil/content/un-sc-consolidated-list.

4. The Implementing Partner acknowledges and agrees that UNDP will not tolerate sexual harassment and sexual exploitation and abuse of anyone by the Implementing Partner, and each of its responsible parties, their respective sub-recipients and other entities involved in Project implementation, either as contractors or subcontractors and their personnel, and any individuals performing services for them under the Project Document.

   (a) In the implementation of the activities under this Project Document, the Implementing Partner, and each of its sub-parties referred to above, shall comply with the standards of conduct set forth in the Secretary General's Bulletin ST/SGB/2003/13 of 9 October 2003, concerning "Special measures for protection from sexual exploitation and sexual abuse" ("SEA").

   (b) Moreover, and without limitation to the application of other regulations, rules, policies and procedures bearing upon the performance of the activities under this Project Document, in the implementation of activities, the Implementing Partner, and each of its sub-parties referred to above, shall not engage in any form of sexual harassment ("SH"). SH is defined as any unwelcome conduct of a sexual nature that might reasonably be expected or be perceived to cause offense or humiliation, when such conduct interferes with work, is made a condition of employment or creates an intimidating, hostile or offensive work environment. SH may occur in the workplace or in connection with work. While typically involving a pattern of conduct, SH may take the form of a single incident. In assessing the reasonableness of expectations or perceptions, the perspective of the person who is the target of the conduct shall be considered.

5. a) In the performance of the activities under this Project Document, the Implementing Partner shall (with respect to its own activities), and shall require from its sub-parties referred to in paragraph 4 (with respect to their activities) that they, have minimum standards and procedures in place, or a plan to develop and/or improve such standards and procedures in order to be able to take effective preventive and investigative action. These should include: policies on sexual harassment and sexual exploitation and abuse; policies on whistleblowing/protection against retaliation; and complaints, disciplinary and investigative mechanisms. In line with this, the Implementing Partner will and will require that such sub-parties will take all appropriate measures to:

      i. Prevent its employees, agents or any other persons engaged to perform any services under this Project Document, from engaging in SH or SEA;

ii. Offer employees and associated personnel training on prevention and response to SH and SEA, where the Implementing Partner and its sub-parties referred to in paragraph 4 have not put in place its own training regarding the prevention of SH and SEA, the Implementing Partner and its sub-parties may use the training material available at UNDP;

iii. Report and monitor allegations of SH and SEA of which the Implementing Partner and its sub-parties referred to in paragraph 4 have been informed or have otherwise become aware, and status thereof;

iv. Refer victims/survivors of SH and SEA to safe and confidential victim assistance; and

v. Promptly and confidentially record and investigate any allegations credible enough to warrant an investigation of SH or SEA. The Implementing Partner shall advise UNDP of any such allegations received and investigations being conducted by itself or any of its sub-parties referred to in paragraph 4 with respect to their activities under the Project Document, and shall keep UNDP informed during the investigation by it or any of such sub-parties, to the extent that such notification (i) does not jeopardize the conduct of the investigation, including but not limited to the safety or security of persons, and/or (ii) is not in contravention of any laws applicable to it. Following the investigation, the Implementing Partner shall advise UNDP of any actions taken by it or any of the other entities further to the investigation.

b) The Implementing Partner shall establish that it has complied with the foregoing, to the satisfaction of UNDP, when requested by UNDP or any party acting on its behalf to provide such confirmation. Failure of the Implementing Partner, and each of its sub-parties referred to in paragraph 4, to comply of the foregoing, as determined by UNDP, shall be considered grounds for suspension or termination of the Project.

6. Social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (http://www.undp.org/ses) and related Accountability Mechanism (http://www.undp.org/secu-srm).

7. The Implementing Partner shall: (a) conduct project and program-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or program to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.

8. All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any program or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.

9. The Implementing Partner will take appropriate steps to prevent misuse of funds, fraud or corruption, by its officials, consultants, responsible parties, subcontractors and sub-recipients in implementing the project or using UNDP funds.

10. In the implementation of the activities under this Project Document, UNDP places reasonable reliance upon the Implementing Partner for it to apply its laws, regulations and processes, and applicable international laws regarding anti money laundering and countering the financing of terrorism, to ensure consistency with the principles of then in force the UNDP Anti-Money Laundering and Countering the Financing of Terrorism Policy.

11. The Implementing Partner will ensure that its financial management, anti-corruption and anti-fraud policies are in place and enforced for all funding received from or through UNDP.

12. The requirements of the following documents, then in force at the time of signature of the Project Document, apply to the Implementing Partner: (a) UNDP Policy on Fraud and other Corrupt Practices and (b) UNDP Office of Audit and Investigations Investigation Guidelines. The Implementing Partner agrees to the requirements of the above documents, which are an integral part of this Project Document and are available online at www.undp.org.

13. In the event that an investigation is required, UNDP has the obligation to conduct investigations relating to any aspect of UNDP projects and program in accordance with UNDP's regulations, rules, policies and procedures. The Implementing Partner shall provide its full cooperation, including making available personnel, relevant documentation, and granting access to the Implementing Partner's (and its consultants', responsible parties', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with the Implementing Partner to find a solution.

14. The signatories to this Project Document will promptly inform one another in case of any incidence of inappropriate use of funds, or credible allegation of fraud or corruption with due confidentiality.

    Where the Implementing Partner becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, the Implementing Partner will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's Office of Audit and Investigations (OAI). The Implementing Partner shall provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.

15. UNDP shall be entitled to a refund from the Implementing Partner of any funds provided that have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the Implementing Partner under this or any other agreement. Recovery of such amount by UNDP shall not diminish or curtail the Implementing Partner's obligations under this Project Document.

    Where such funds have not been refunded to UNDP, the Implementing Partner agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to the Implementing Partner for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

    Note: The term "Project Document" as used in this clause shall be deemed to include any relevant subsidiary agreement further to the Project Document, including those with responsible parties, subcontractors and sub-recipients.

16. Each contract issued by the Implementing Partner in connection with this Project Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the proposal, have been given, received, or promised in connection with the selection process or in contract execution, and that the recipient of funds from the Implementing Partner shall cooperate with any and all investigations and post-payment audits.

17. Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project, the Government will ensure that the relevant national authorities shall actively investigate the same and take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.

18. The Implementing Partner shall ensure that all of its obligations set forth under this section entitled "Risk Management" are passed on to each responsible party, subcontractor and sub-recipient and that all the clauses under this section entitled "Risk Management Standard Clauses" are included, *mutatis mutandis*, in all sub-contracts or sub-agreements entered into further to this Project Document.

XII. MANDATORY ANNEXES

Annex 1: GEF Budget Template (available from BPPS NCE-VF)

Annex 2: GEF Execution Support Letter

Annex 3: Project Map and geospatial coordinates of the project area

Annex 4: Multiyear Workplan

Annex 5: Social and Environmental Screening Procedure (SESP)

Annex 6: UNDP Risk Register

Annex 7: Overview of Key Staff and Technical consultancies/subcontracts

Annex 8: Stakeholder Engagement Plan

Annex 9: Environmental Social Management Framework (ESMF) or other SES frameworks/plans

Annex 10: GESI Analysis and Action Plan

Annex 11: Procurement Plan – for first year of implementation

Annex 12: Draft LOA between UNDP and IP requesting UNDP Support Services

Annex 13: Climate Risk Analysis

Annex 14: GEF Core indicators

Annex 15: GEF Taxonomy

Annex 16: Capacity Development Scorecard

Annex 17: METT scorecards

Annex 18: Partners Capacity Assessment Tool and HACT assessment & HACT

Annex 19: UNDP Project Quality Assurance Report

Annex 20: PPG consultations report

Annex 21: Co-financing letters

Annex 22: GEF Audit checklist

Annex 1: GEF Budget Template

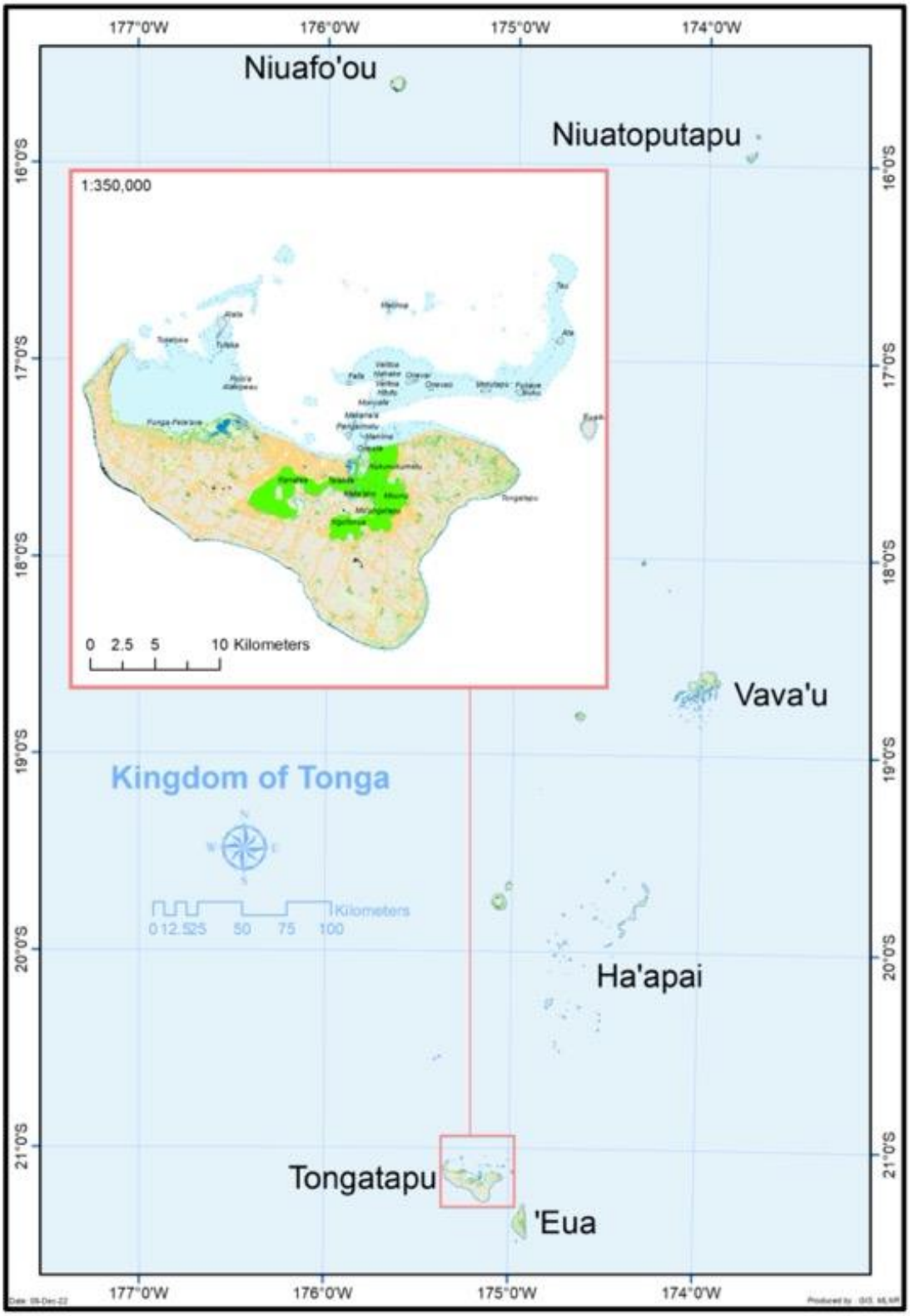
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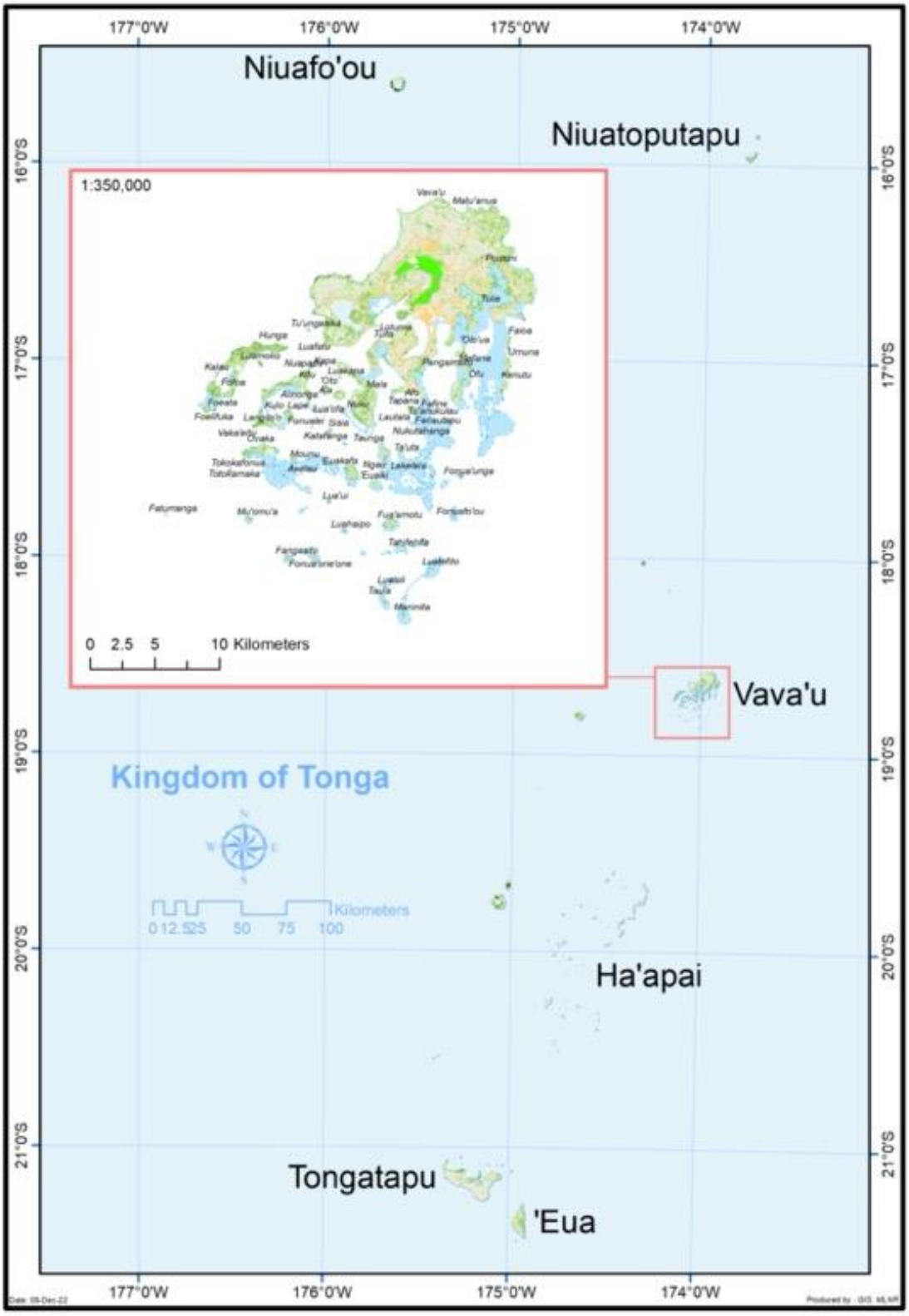
Annex 2: GEF Execution Support Letter

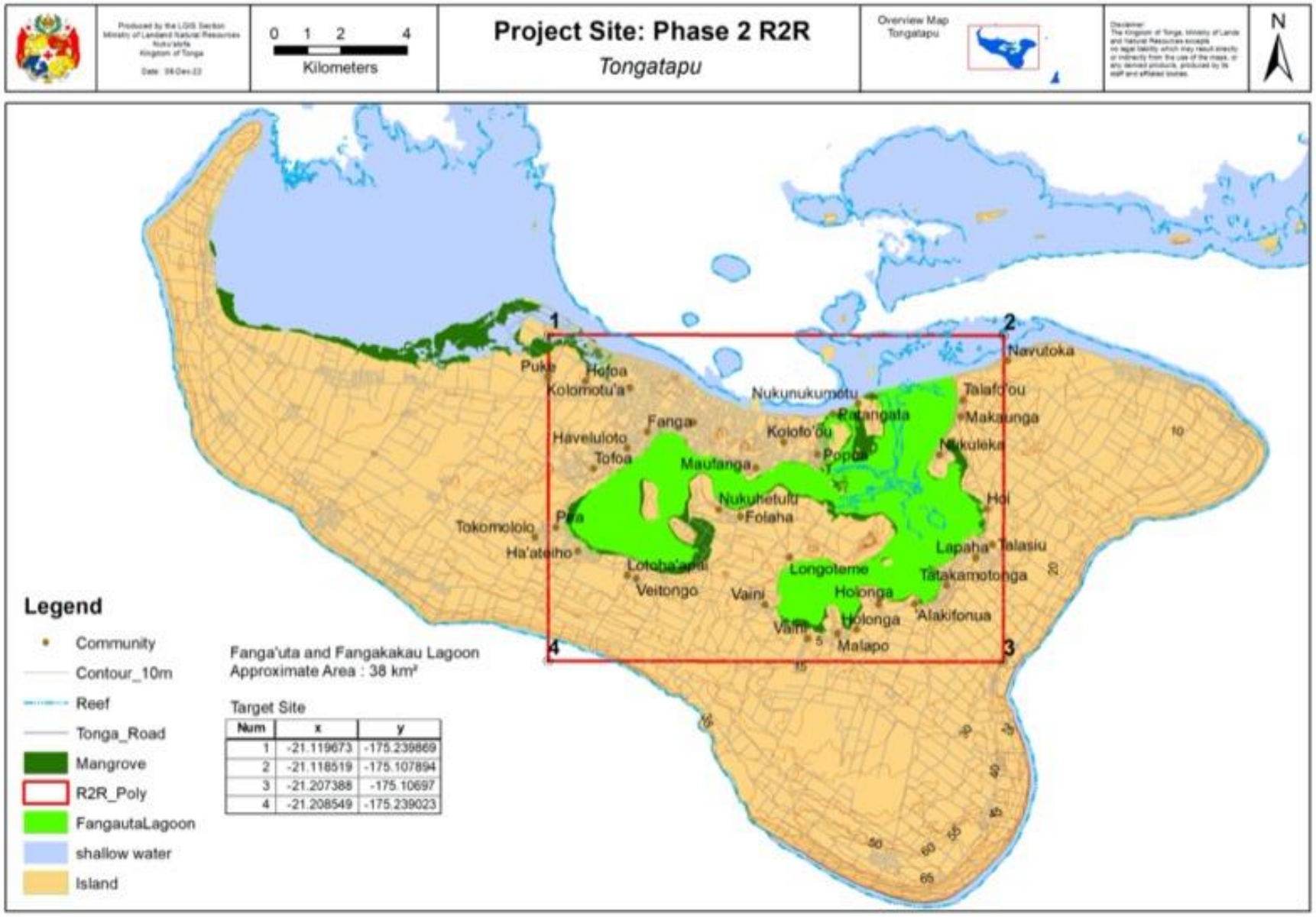
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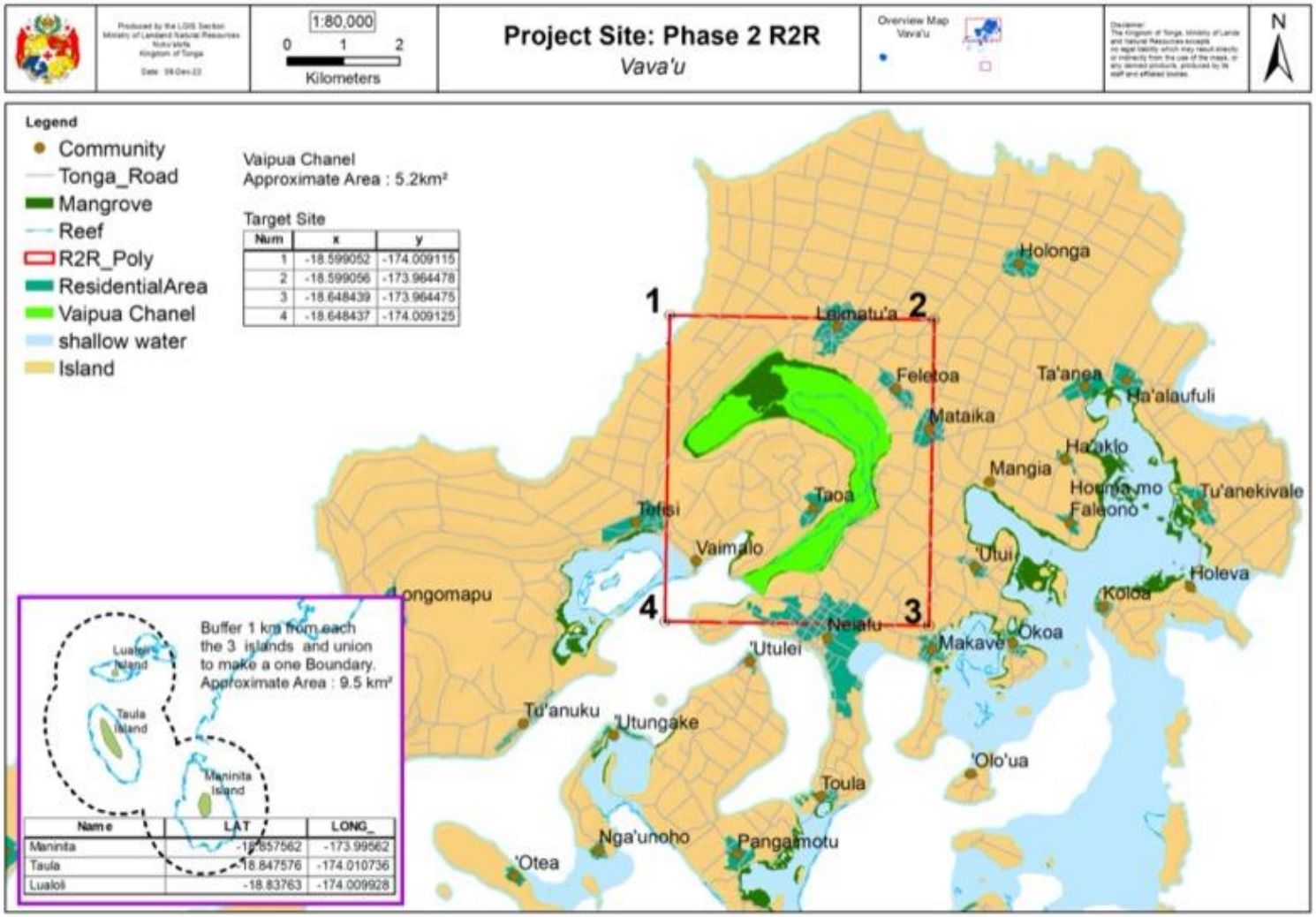
Annex 3: Project map and Geospatial Coordinates of project sites




177°0'W
176°0'W
175°0'W
174°0'W
Niuafo'ou
Niuatoputapu
16°0'S
17°0'S
18°0'S
19°0'S
20°0'S
21°0'S
1:350,000
0 2.5 5 10 Kilometers
Vava'u
Kingdom of Tonga
Kilometers
0 12.525 50 75 100
Ha'apai
Tongatapu
'Eua


177°0'W
176°0'W
175°0'W
174°0'W
16°0'S
17°0'S
18°0'S
19°0'S
20°0'S
21°0'S
Niuafo'ou
Niuatoputapu
1:350,000
0 2.5 5 10 Kilometers
Vava'u
Kingdom of Tonga
Kilometers
0 12.5 25 50 75 100
Ha'apai
Tongatapu
'Eua


Project Site: Phase 2 R2R
Tongatapu
Overview Map
Tongatapu
0 1 2 4
Kilometers
N
Produced by the LGIS Section
Ministry of Lands& Natural Resources
Nuku'alofa
Kingdom of Tonga
Date: 04-Dec-23
Disclaimer:
The Kingdom of Tonga, Ministry of Lands and Natural Resources accepts no legal liability which may result directly or indirectly from the use of the maps, or any derived products, produced by its staff and affiliated bodies.
1
2
3
4
Navutoka
Talafo'ou
Makaunga
Nukuleka
Hoi
Talasiu
Tatakamotonga
Lapaha
Longoteme
Holonga
'Alakifonua
Vaini
Malapo
Veitongo
Lotoba'anau
Ha'ateiho
Tokomololo
Pea
Fotaha
Nukuhetulu
Maufanga
Popua
Kolofo'ou
Ratangata
Nukunukumotu
Fanga
Haveluloto
Tofoa
Kolomotu'a
Hofoa
Puke
Legend
Community
Contour_10m
Reef
Tonga_Road
Mangrove
R2R_Poly
FangautaLagoon
shallow water
Island
Fanga'uta and Fangakakau Lagoon
Approximate Area : 38 km²
Target Site
Num x y
1 -21.119673 -175.239869
2 -21.118519 -175.107894
3 -21.207388 -175.10697
4 -21.208549 -175.239023


1:80,000
0 1 2
Kilometers
Project Site: Phase 2 R2R
Vava'u
Overview Map
Vava'u
N
Legend
Community
Tonga_Road
Mangrove
Reef
R2R_Poly
ResidentialArea
Vaipua Chanel
shallow water
Island
Vaipua Chanel
Approximate Area : 5.2km²
Target Site
Num x y
1 -18.599052 -174.009115
2 -18.599056 -173.964478
3 -18.648439 -173.964475
4 -18.648437 -174.009125
Buffer 1 km from each the 3 islands and union to make a one Boundary.
Approximate Area : 9.5 km²
Lualoi Island
Taula Island
Maninita Island
Name LAT LONG_
Maninita -18.857562 -173.99562
Taula -18.847576 -174.010736
Lualoi -18.83763 -174.009928
Holonga
Leimatu'a
Feletoa
Ta'anea
Ha'alaufuli
Mataika
Ha'aklo
Mangia
Hoomo mo Faleono
Tu'anekivale
Taoa
Tefisi
Vaimalo
'Utui
Holeva
Koloa
Ongomapu
Nesafu
Okoa
Makave
'Utulei
Tu'anuku
'Utungake
'Olo'ua
Toula
Nga'unoho
Pangaimotu
'Otea

Annex 4: Multi Year Work Plan

Task	Responsible Party(ies)	YR 0	Year 1				Year 2				Year 3				Year 4				Year 5			
			Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
Pre-Planning Phase (PPG Phase)																						
Constituting of Project Board	UNDP, GOT																					
Hiring of Contractual Staff	UNDP/MEIDECC																					
Establishment of Project Special Accounts and Fund Flow Arrangements	UNDP and GOT																					
Planning and Implementation Phase																						
Component 1: Conservation of Critical Lagoon Ecosystems and Management of the Catchment to Improve Biodiversity and Ecological Services of the Fanga'uta Lagoon and Replication in Priority Areas in Vava'u																						
Outcome 1: . improved management of the Fanga'uta Lagoon marine reserve for biodiversity conservation and its replication in Vava'u																						
Output 1.1: Updating the Fanga'uta Stewardship Plan building on lessons and best practices generated from its implementation under the R2R Phase I project																						
Activity 1.1.1. Recruit a national consultant to undertake an evaluation of the status of implementation of the FSP Action Plan (2017-2021)	MEIDECC																					
Activity 1.1.2. undertake consultation meetings with relevant sector agencies, such as fisheries, environment, tourism, lands, agriculture, infrastructure and others, stakeholders and community groups to identify priority activities for implementation under the Phase II project.	MEIDECC																					
Activity 1.1.3. develop a revised Fanga'uta Lagoon Stewardship Plan (2024-2034)	MEIDECC																					
Activity 1.1.4. Government approval of the Fanga'uta Lagoon Stewardship plan, along with reporting and monitoring requirements, feedback loops and adaptive management mechanisms	MEIDECC																					
Activity 1.1.5. Based on the plan, agree on roles and responsibilities for specific activities to guide individual sectors to undertake specific activities	MEIDECC																					
Activity 1.1.6. Review the existing FSP monitoring and evaluation system that currently consists of ad-hoc agencies so as to help create an effective monitoring system to measure the impacts/effectiveness of the activities conducted so far	MEIDECC																					
Output 1.2: Natural ecosystems within the Fanga'uta Lagoon Marine Reserve rehabilitated to preserve biodiversity and ecosystem service																						
Activity 1.2.1. Technical support to undertake additional mapping of the lagoon to identify and map vulnerable habitats within the lagoon that need to be conserved or	MEIDECC																					

rehabilitated. Based on the mapping, develop restoration plans and works																							
Activity 1.2.2. Implementation of restoration plans developed in Activity 1.2.1 with community participation and written agreements with land owners and community management committees	MEIDECC																						
Activity 1.2.3. Based on the mapping under Activity 1.2.1 above, designate mangrove areas across the lagoon for sustainable use by local communities for local medicine and traditional uses and provide technical and financial support for establishment and strengthening of community mangrove nurseries. Develop guidelines, rules and regulations and responsibilities for conservation, sustainable use and harvesting, monitoring, reporting and enforcements of Memorandum of Agreements (MOAs) with communities;	MEIDECC																						
Activity 1.2.4. Provide training and skills development to local communities for nursery development, mangrove, coral and seagrass planting, management, protection and monitoring	MEIDECC																						
Activity 1.2.5. Provide support to local institute or NGO to assess causes of mangrove die-off and identify remedies to prevent/reduce die-back. Pilot remedial actions to test and validate solutions	MEIDECC																						
Output 1.3: Existing Special Managed Areas within the Fanga'uta Lagoon evaluated and lessons learnt identified to provide guidance for replication in other parts of the country																							
Activity 1.3.1 Support the on-going evaluation (building on the FAO Review of the SMA Program in 2016) to enhance the effectiveness of the Special Managed Areas for fisheries within Fanga'uta Lagoon	MEIDECC and MOF																						
Activity 1.3.2, Based on the outcome of Activity 1.3.1 above, provide technical support an integrated community-based natural resources management approach to the SMA program; and provide technical support to enhance information sharing and management, GESI inclusion, reporting, monitoring of the effectiveness of the SMA program and compliance.	MEIDECC and MOF																						
Activity 1.3.3. Facilitate the establishment of partnerships or coordination arrangements between the SMA Unit (Ministry of Fisheries) with non-fisheries related sectors to support the integrated community-based natural resources management approach to the SMA program such as agriculture, tourism, waste management, industry and other relevant sectors.	MEIDECC and MOF																						
Activity 1.3.4. Support the review of SMA regulations to enhance opportunities for shared management of marine and coastal ecosystems to include all	MEIDECC and MOF																						

communities dependent or impacting these ecosystems, including adjacent land-locked communities.																							
Activity 1.3.5 Undertake baseline surveys for each SMA, that will include biological, social and impacts to assist with the zonation of the SMA and defining guidelines for sustainable use, monitoring and enforcement.	MEIDECC and MOF																						
Activity 1.3.6. Update the current monitoring and evaluation system for SMAs to ensure that there are appropriate indicators to enable communities to assess the effectiveness of their SMA actions	MEIDECC and MOF																						
Activity 1.3.7. Enhancing training for CMCs to improve community management of SMAs, including improve planning and implementation of plans, compliance monitoring training, strengthening procedures for enforcement, restocking activities and support for development of alternative livelihoods	MEIDECC and MOF																						
Output 1.4 Alternative livelihoods identified and implemented in close consultation with communities towards to reduce exploitation of lagoon resources																							
Activity 1.4.1. Review of on-going livelihood-based activities in the two project sites to assess constraints, barriers and opportunities for promotion of improved alternative livelihood programs	MEIDECC																						
Activity 1.4.1.2Identification of biodiversity-friendly enterprises and Analysis of Value Chains based on market potential, economic and environmental feasibility.	MEIDECC																						
Activity 1.4.3. Mapping and Analysis of Value Chains	MEIDECC																						
Activity 1.4.4. Project implementation support for value chain development	MEIDECC																						
Output 1.5. Lessons learned from Tonga R2R Phase 1 project replicated in Vava'u to support marine biodiversity conservation																							
Activity 1.5.1 Baseline surveys in both Vaipua Channel and support the completion of the establishment/ expansion of Lualoli, Taula and Maninita Islands as Marine Protected Areas.	MEIDECC																						
Activity 1.5.2. Consultations with key stakeholders to establishment of the protected areas, demarcation of boundaries and establishing GPS coordinates for the protected areas.	MEIDECC																						
Activity 1.5.3. A cabinet submission prepared providing background details, reports and recommendations to approve the designation of new and expanded protected areas, followed by Cabinet approval, final gazette issuance and Royal assent	MEIDECC																						
Activity 1.5.4 Establish a participatory and consultative process to develop management or stewardship plans or action plans for the new Vaipua Channel and expanded Lualoli, Taula and Maninita Islands Marine Protected Area.	MEIDECC																						

Activity 1.5.5. Technical support, equipment and financial support for initiating priority conservation measures identified in the respective management plans.	MEIDECC																						
Activity 1.5.6 Replication of lessons learned on SMAs in Fanga'uta Lagoon to Vava'u towards integrated management of the MPAs, in particular the proposed Vaipua Channel Marine Reserve,	MEIDECC and MOF																						
Activity 1.5.7. Promote measures to fully engage the Vaipua Channel communities in lagoon ecosystem management including establishment of a multi-stakeholder Community Management Committee for governance	MEIDECC																						
Component 2. Governance: Policies, Institutions and Capacity Building for Sustainable and Adaptive Management and Biodiversity Conservation																							
Outcome 2. Strengthened integrated management through streamlined policies, proactive institutions and improved human capacity																							
Output 2.1. Strengthened institutional arrangement for the Fanga'uta Lagoon that builds on the Community Management Committees and is inclusive of gender and social diversity																							
Activity 2.1.1. Providing additional technical expertise and staffing to the FSP Secretariat which serves as effective function for the management and decision-making system and oversight of the three Committees for the implementation of the planned FSP action plan.	MEIDECC																						
Activity 2.1.2. Strengthening functionality of existing R2R Phase 1 Fanga'uta Management Framework, including the FLC Steering Committee, Community management committees, district and town officers and the various district and community action groups and committees that were initially established and supported under the R2R Phase I project through training and capacity development, improved TORs and coordination and reporting.	MEIDECC																						
Activity 2.1.3. Reactivate and reinforce the Technical Committee to provide strategic guidance and technical support to the CMCs for ensuring stewardship of the Fanga'uta Lagoon.	MEIDECC																						
Activity 2.1.4. Assess and promote alternative arrangements to ensure the existing Community Management Committee is inclusive of gender and social diversity including representation from the private sector.	MEIDECC																						
Output 2.2: Review of policy and legislative framework to identify gaps and overlaps in institutional mandates; streamlined policy framework to effectively support the strengthened implementation of the FSP																							
Activity 2.2.1. A team of national consultants to review the overall policy and legislative framework to identify gaps and overlaps in institutional mandates and recommend a streamlined policy framework to effectively support the FSP objectives.	MEIDECC																						
Activity 2.2.2 Based on the above review, draft amendments to policy frameworks to strengthen the	MEIDECC																						

implementation of the FSP, action plans and other relational national plans that contribute to the overall management of the Fanga'uta Lagoon.																							
Activity 2.2.3 Review of the district development plans and proposed changes to ensure that biodiversity actions and needs are mainstreamed and aligned to the updated FSP Action Plan and Vaipua Channel Management Plan and to avoid overlaps and contradictions	MEIDECC																						
Activity 2.2.4 Make recommendations for streamlined monitoring and evaluation of project site outcomes (Fanga'uta Lagoon and Vaipua Channel) with defined roles and responsibilities for agencies	MEIDECC																						
Activity 2.2.5 Make recommendations for strengthening enforcement, in particular for ensuring adequate compliance under various Acts that operate in the Fanga'uta Lagoon and other wetland areas,	MEIDECC																						
Activity 2.2.6. Train existing or new Environment Enforcement Officers to oversee enforcement of the FSP and relevant legislation, including coordination of enforcement with relevant sectors.	MEIDECC																						
Activity 2.2.7 Evaluate sustainable financing mechanisms to promote post-project sustainability, including access to Climate Change Trust Funds and other appropriate options	MEIDECC																						
Output 2.3 Capacity of government staff and communities and key stakeholders strengthened on integrated approaches for biodiversity conservation and enforcement procedures.																							
Activity 2.3.1 Conduct a capacity needs assessment for integrated R2R approaches inclusive of existing and future capacity, training, resource needs, protocols, regulations and legal drivers to support sustainable activities.	MEIDECC																						
Activity 2.3.2. Hold informative meetings with key sector entities, central and local administrative and strategic planners, other government stakeholders, private sector, CMCs and NGOs, on the links between strategic planning, wetland resource-use methods, marine habitat degradation and climate change to ensure that these issues are owned and integrated into internal training programs.	MEIDECC																						
Activity 2.3.3 On the basis of the five-year capacity building training plan, conduct capacity building on integrated approaches for biodiversity conservation focusing on the TWG and members of the Fanga'uta Lagoon CMC towards more effective coordination in the implementation of the FSP. The	MEIDECC																						
Activity 2.3.4 Training programs replicated at Vaipua Channel to build the CMC capacity and skills and support district and town officers in terms of applying integrated	MEIDECC																						

approaches to marine ecosystem planning and management.																							
Activity 2.3.5. Establish a confidential reporting mechanism to enable concerned citizens to report breaches of the law. This will include a consultant to develop a website, format and procedures for reporting, feedback loops and response actions.	MEIDECC																						
Component 3. Awareness raising and knowledge management of the ecosystem functions and services of the Fanga'uta Lagoon and the priority Vava'u biodiversity sites																							
Outcome 3. Upscaled awareness and information management program to enhance appreciation of the biodiversity values of the Fanga'uta Lagoon and priority sites in Vava'u																							
Output 3.1 Accessible information system developed in the context of existing national systems, to facilitate informed decision making.																							
Activity 3.1.1 A national consultant team to assess trends, drivers and hotspots of marine degradation and assess the functionality of existing information platforms or systems	MEIDECC																						
Activity 3.1.2 Based on the assessment undertaken in Activity 3.1.1, the project will aim to update its existing website to include a simplified, standardized and dedicated information management system (including website and social media platforms) either within an existing national information platform	MEIDECC																						
Activity 3.1.3 Wetland Information Management System/ platform operationalized, including data collection, input, on-line website and dissemination.	MEIDECC																						
Activity 3.1.4. Establish information collection standards, formats and procedures that are: gender and socially inclusive; environmentally and socially inclusive, facilitate standardized inputting and recording of information;	MEIDECC																						
Activity 3.1.5. Support a cross-agency and cross-sector effort to collect and digitally catalog existing information on marine resource planning, biodiversity and marine resources management best practices,	MEIDECC																						
Output 3.2 Education and awareness programs using a range of media expanded to support marine conservation																							
Activity 3.2.1 Develop a 'GESI-sensitive' national communication program/plan to expand and continue that education and awareness established under the R2R Phase I project	MEIDECC																						
Activity 3.2.2 Implementation of the GESI mainstreaming Action Plan	MEIDECC																						
Activity 3.2.3. National and site-specific workshops organized to facilitate dissemination of field lessons and help inform legal and policy reform relevant to marine conservation practice.	MEIDECC																						
Activity 3.2.4 In concert with Activity 3.3.3 above, this Output will support the development of a low-cost interactive learning facility in Tongatapu on the multiple benefits provided by the Fanga'uta Lagoon and its wetland ecosystem.	MEIDECC																						

Activity 3.2.5. Establishment of an annual awards and recognition scheme for local action on Tongatapu and Vava'u to conserve and improve the lagoon environment for Fanga'uta Lagoon and Vaipua Channel,	MEIDECC																						
Activity 3.2.6 Support the citizen science program for locals including youth focused on environmental issues, monitoring and marine conservation good practices.	MEIDECC																						
Output 3.3 South-South cooperation and exchanges implemented in the area of integrated management of lagoon ecosystems that is most applicable in Pacific SIDS and beyond.																							
Activity 3.3.1 Host South-South cooperation and exchanges in the area of integrated management of lagoon ecosystems that is most applicable in Pacific SIDS and beyond	MEIDECC																						
Activity 3.3.2. Participate in relevant regional and global events for information and lessons sharing and learning.	MEIDECC																						
Activity 3.3.3 Promote knowledge sharing and best practices through formal and informal networks, study visits and improved communication channels.	MEIDECC																						
Output 3.4: M&E system supports project impact including GESI mainstreaming																							
Activity 3.4.1 Development and implementation of monitoring framework, based on the Results Framework Agreement to validate baselines and monitor progress in achieving project outcomes	MEIDECC																						
Activity 3.4.2 Review and regular update of M&E plan, including results framework baselines, tracking tools, Theory of Change to subsequently adopt these findings to implement all aspects of the project..	MEIDECC																						
Activity 3.4.3 Conduct mid-term and terminal evaluation in line with UNDP/GEF requirements and incorporate and adapt recommendations of MTR to revised project plans and monitor their implementation.	MEIDECC																						
Other Activities																							
Monitoring social and environmental risks	MEIDECC																						
Oversight	UNDP and MEIDECC																						
Tracking tool update	MEIDECC																						
Audits	GOT																						
Final Project Review	UNDP and MEIDECC																						

Annex 5 UNDP Social and Environmental Screening Procedure (SESP)

(here **)**

Annex 6: UNDP Risk Register

(here)

Annex 7 Overview of Project Staff and Technical Consultancies

A) Summary of TORs for Key Staff

Project Director

The Project Director (PD) will be a senior officer from MEIDECC and financed through co-financing. He/she will have overall responsibility for managing the organization, work plans, programs and activities, as well as progress and financial reporting to Project Board and UNDP. The Project Director will be the head of the Project Management Unit. The PMU will have operational and financial autonomy, including the authority to select and sub-contract specific project activities or components to local consultants and local institutions. The PD will perform a liaison role with government, UNDP and stakeholders. Terms of reference for this position include the following:

The roles and responsibilities of the PD are:

- Establishment of the staffing and operational functions of the Project Management Unit;
- Guiding the preparation of annual work plans, monitoring and evaluation plans, etc.;
- Overseeing the drafting/reviewing of terms of reference key staff;
- Guiding and overseeing funds requisition, six-monthly progress and financial reporting and monitoring of outputs and outcomes as per GEF standards;
- Coordination with regional and local authorities and stakeholders in implementing project activities;
- Ensuring the disbursement of funds as per operational procedures consistent with financial management standards of the Government and GEF;
- Providing secretariat services to the Project Board;
- Reporting to the Project Board and UNDP-GEF Program Manager on the progress and issues in project implementation; and
- Facilitation of monitoring and evaluation missions by UNDP or designated consultants to UNDP.

Project Coordinator

The Project Coordinator's chief role is to provide support to the Project Director on project management aspects. Covering two-thirds of the time. The balance one-third of the time will be spent on providing technical support for key aspects of the project as described below:

In terms of project management (50% of the time), the specific tasks would be the following:

The PC will be responsible for the day-to-day management of project activities and the delivery of its outputs, under the direct guidance of the Project Director. The PC will support and coordinate the activities of all partners, staff, and consultants as they relate to the implementation of the project. This will entail working closely with staff of the MEIDECC, MAFFF, Ministry of Fisheries, District and Town Officers and the Multi-sectoral Technical Working Group (for FSP) and **Vava'u** Ma'alahi Taskforce Committee to guide the implementation of project activities at the landscape level. The PC will be responsible for the following specific tasks:

- Prepare detailed work plan and budget under the guidance of the Project Director and UNDP;
- Make recommendations for modifications to the project budget and, where relevant, submit proposals for budget revisions to the Steering Committee/PB, and UNDP;
- Facilitate project planning and decision-making sessions;
- Facilitate relevant agreements with stakeholders and the day-to-day liaison with them
- Organize the contracting of consultants and experts for the project, including preparing TORs for all technical assistance required, preparation of an action plan for each consultant and expert, supervising their work, and reporting to the UNDP Project Officer;
- Provide technical guidance and oversight for all project activities;
- Oversee the progress of the project components conducted by local and international experts, consultants, and cooperating partners;
- Coordinate and oversee the preparation of all outputs of the project;

- Foster, establish, and maintain links with other related national and international programs and national projects, including information dissemination through media such as web page actualization, etc.;
- Organize Steering Committee/PB and other meetings as well as annual and final review meetings as required by UNDP, and act as the secretary of the Steering Committee/PB;
- Coordinate and report the work of all stakeholders under the guidance of UNDP;
- Prepare PIRs/APRs in the language required by the GEF and the UNDP´s CO and attend annual review meetings;
- Ensure that all relevant information is made available in a timely fashion to UNDP regarding activities carried out nationally;
- Prepare and submit quarterly progress and financial reports to UNDP as required, following all UNDP quality management system and internal administrative process;
- Responsible for track and monitor co-financing contributions;Coordinate and participate in M&E exercises to appraise project success and make recommendations for modifications to the project;
- Prepare and submit technical concepts and requirements about the project requested by UNDP, or other external entities;
- Perform other duties related to the project in order to achieve its strategic objectives;
- Ensure the project utilizes best practices and experiences from similar projects;
- Ensure the project utilizes the available financial resources in an efficient and transparent manner;
- Ensure that all project activities are carried out on schedule and within budget to achieve the project outputs;
- Solve all scientific and administrative issues that might arise during the project.

Outputs:

- Detailed work plans indicating dates for deliverables and budget;
- Documents required by the control management system of UNDP;
- TORs and action plan of the staff and monitoring reports;
- Quarterly reports and financial reports on the consultant's activities, all stakeholders' work, and progress of the project to be presented to UNDP (in the format specified by UNDP);
- A final report that summarizes the work carried out by consultants and stakeholders during the period of the project, as well as the status of the project outputs at the end of the project;
- Minutes of meetings and/or consultation processes;
- Yearly PIRs/APRs;
- Adaptive management of project.

In terms of technical support to the project (50% of the time), the key activities are the following:

- Manage the overall coordination and guidance of the technical aspects of the project
- Lead the preparation of the FSP and Vaipua Channel management/action plans, develop the monitoring plans and oversee the implementation of technical aspects related to FSP and SMA planning and management, conservation and restoration practices, training of field staff, community co-management of wetland resources and community protocols (Output 1.1)
- Technical expertise and responsibility to enhance the functionality of the FSP Secretariat and preparation of TORs and provision of technical guidance to FLC Steering Committee, and CMCs and district and community committees to enhance their functionality, reporting and monitoring (Output 2.1)
- Coordinate and guide the capacity building and training programs for all stakeholders, including in particular to coordinate and ensure complementarity of training curriculum, training methods and review of training impacts and revision, if deemed necessary
- Technical oversight and technical guidance for the policy and legislative review, support the drafting of amendments, review of district development plans and streamlining monitoring and enforcement mechanisms (Output 2.2)
- Guide and manage the preparation of the ESMP, ensure that it meets the UNEP SES guidance (Output 3.4)
- Overall responsible for the development of information management platform (3.1)
- Develop plans and protocols for inter-agency coordination during the preparation and implementation of the FSP and other management plans for Vava'u (Output 2.1)
- Monitor progress and watch for plan deviations and make course corrections when needed within project board-agreed tolerances to achieve results.
- Prepare revisions to the multi-year work plan, as needed, as well as annual and quarterly plans if required.

- Prepare the inception report no later than one month after the inception workshop.
- Assess major and minor amendments to the project within the parameters set by UNDP-GEF;
- Support the Mid-term and Terminal Evaluation process

Qualifications (indicative):

- At least bachelor's degree in environment, natural sciences, and other related fields;
- Minimum 10 year's work experience in project management; or Master's degree with 7 year's work experience in project management
- Experience on biodiversity conservation, marine and fisheries conservation and management, sustainable resource management, and related subjects;
- Experience facilitating consultative processes, preferably in the field of wetland conservation and resource management;
- Proven ability to promote cooperation between and negotiate with a range of stakeholders, and to organize and coordinate multi-disciplinary teams;
- Strong leadership and team-building skills;
- Self-motivated and ability to work under the pressure;
- Demonstrable ability to organize, facilitate, and mediate technical teams to achieve stated project objectives;
- Familiarity with logical frameworks and strategic planning;
- Strong computer skills;
- Flexible and willing to travel as required;
- Excellent communication and writing skills in English and local languages;
- Previous experience working with a GEF-supported project is considered an asset.
- Tongan National
- Will be based full time at the Department of Environment, Ministry of MEIDECC

Monitoring and Evaluation Officer (MEO)

The Monitoring and Evaluation Officer will be responsible for all monitoring and evaluation activities related to the project in terms of the RFA, SEP, SESP, ESMF, GESI and GAP, GRM, METTs, KAP, etc. as well as ensuring that corrective actions are defined, monitored, reported and enforced. The following are duties and responsibilities:

- Develop and strengthen monitoring, inspection and evaluation procedures for the project
- Monitor all project activities, expenditures and progress towards achieving the project output;
- Recommend further improvement of the logical frame work;
- Develop monitoring and impact indicator for the project success;
- Monitor and evaluate overall progress on achievement of results;
- Monitor the implementation of the RFA, SEP, SESP, ESMF, GESI and GAP, GRM, METTs, KAP, etc.
- Monitor the sustainability of the project's results;
- Provide feedback to the Project Coordinator on project strategies and activities;
- Suggest strategies to the Project Management for improving the efficiency and effectiveness of the project by identifying bottlenecks in completing project activities and developing plans to minimize or eliminate such bottlenecks;
- Report monthly, quarterly, half-yearly and annual progress on all project activities to the National Project Director/ Project Coordinator
- Support the MEIDECC in establishing a function M&E system for the FSP and Vaipua Channel MPA
- Update METTs, KPA, Capacity Scorecards and other relevant tools to access project effectiveness
- Support the MTR and TE evaluation teams
- Conduct capacity assessment on existing monitoring and evaluation system Develop indicators and a monitoring strategy for the project;
- Provide inputs, information and statistics for quarterly, annual and other reports to Project Management Team and UNDP;
- Participate in annual project reviews and planning workshops and assist the Project Coordinator in preparing relevant reports;
- Support monitoring and evaluation of the effects and impact of the project;

- Assist in coordinating across the available components of the Project to ensure effective implementation of M&E/MIS;
- Assist the project personnel with M&E tools and training and in supporting them in their use.
- Perform other duties as required;

Qualifications (indicative)

- At least a Bachelor's Degree
- At least 5 years of experience in the design and implementation of M&E/MIS in development projects implemented by national/international NGOs/UN bodies/ Government;
- Experience in designing tools and strategies for data collection, analysis and production of reports;
- Proven ICT skills, especially in the development of MIS software using database software;
- Expertise in analyzing data using statistical software;
- Strong training & facilitation skills.
- Preference for monitoring expertise in safeguard, gender and stakeholder monitoring
- Fluency in written and spoken Tongan and English
- Tongan National
- Will be based full time at the Department of Environment, Ministry of MEIDECC

Technical Officer (Vava'u)

The Technical Officer's chief role is to provide technical support for all components of the project for the Vava'u activities of the project., including in particular for overseeing the regulatory and institutional framework for marine conservation, fisheries, SMA and community related aspects, capacity building, knowledge management, gender mainstreaming and M&E. He/she will also be responsible for ensuring project quality and the provision of technical oversight for all project activities and the delivery of its outputs. The TO will support and coordinate the activities of all partners, staff, and consultants as they relate to the implementation of the project in the Vava'u region. The TO will be responsible for the following specific tasks:
Specific responsibilities include:

- Manage the overall coordination and guidance of the technical aspects of the project, in particular oversee and guide the preparation/update of management plans, SMA planning, management and monitoring
- Oversee and coordination of the technical inputs from the Vava'u Ma'alahi Taskforce Committee and national consultants
- Oversee and support a capacity building and training programs for all relevant local agencies, special interest groups and local communities
- Support/oversee and guide the conduct of technical consultations and workshops to develop the Vaipua Channel management plan and PA management plans, strategies for SMA, including mapping and zoning , CMC planning and knowledge management and M&E planning and implementation of related guidelines, tool kits and manuals and regulations, etc.
- Support and guide the development and organization of awareness and publicity programs and materials
- Support plans and protocols for inter-agency coordination during the preparation of management planning, SMA and livelihood activities
- Monitor events as determined in the project monitoring plan, and facilitate update the plan as required.
- Perform regular progress reporting to the project board as agreed with the board, including measures to address challenges and opportunities.
- Oversee progress related to project risks – including social and environmental risks;
- Capture lessons learned during project implementation.
- Facilitate preparation of revisions to the multi-year work plan, as needed, as well as annual and quarterly plans if required.
- Assess major and minor amendments to the project within the parameters set by UNDP-GEF;
- Monitor implementation plans including the SESP, gender action plan, stakeholder engagement plan, restoration plans, potential land and waste management plans and any environmental and social management plans;
- Monitor and track progress against the GEF Core indicators.
- Support the MTR and Terminal Evaluation process

Qualifications

- At least a Bachelor's degree in Biodiversity Management, wetland conservation, fisheries and coastal management or related fields
- At least 5 years of Project technical experience, showing a progressive increase in scope and responsibilities;
- Demonstrated coordination and project leadership skills, and ability to multi-task;
- Demonstrated experience on legal, institutional and policy matters, and technical knowledge on aspects relating to marine biodiversity conservation and fisheries management;
- Familiarity with the goals and procedures of government institutions, including those of UNDP and GEF as it relates to the Project goals and objectives;
- Availability for extensive domestic travel;
- Strong leadership and team-building skills;
- Self-motivated and ability to work under the pressure;
- Demonstrable ability to organize, facilitate, and mediate technical teams to achieve stated project objectives;
- Familiarity with logical frameworks and strategic planning;
- Strong computer skills;
- Flexible and willing to travel as required;
- Excellent communication and writing skills in English;
- Previous experience working with a GEF-supported project is considered an asset
- Tongan National
- Will be based full time at the Department of Environment, Ministry of MEIDECC (in Vava'u).

Operations Support Officer

The Operations Support Officer (OSO) will be responsible for the financial and administrative management of the project activities and assists in the preparation of quarterly and annual work plans and progress reports for review and monitoring by the Project Director and UNDP.
The OSO will have the following responsibilities:

- Responsible for providing general financial support to the project;
- Take own initiative and perform daily work in compliance with annual work schedules;
- Assist project management in performing budget cycle: planning, preparation, revisions, and budget execution;
- Provide assistance to partner agencies involved in project activities, performing and monitoring financial aspects to ensure compliance with budgeted costs in line with UNDP policies and procedures;
- Monitor project expenditures, ensuring that no expenditure is incurred before it has been authorized;
- Prepare reports and updates on the status of co-financing contributions
- Assist project team in drafting quarterly and yearly project progress reports concerning financial issues;
- Ensure that UNDP procurement rules are followed during procurement activities that are carried out by the project and maintain responsibility for the inventory of the project assets;
- Perform preparatory work for mandatory and general budget revisions, annual physical inventory and auditing, and assist external evaluators in fulfilling their mission;
- Prepare all outputs in accordance with the UNDP administrative and financial office guidance;
- Ensure the project utilizes the available financial resources in an efficient and transparent manner;
- Ensure that all project financial activities are carried out on schedule and within budget to achieve the project outputs;
- Perform all other financial related duties, upon request
- Will be based full time at the Department of Environment, Ministry of MEIDECC

Qualifications and Skills:

- Minimum 7 years' experience related to project implementation;
- A demonstrated ability in the financial management of development projects and in liaising and cooperating with government officials, NGOs, etc.;
- Self-motivated and ability to work under the pressure;
- Team-oriented, possesses a positive attitude, and works well with others;
- Flexible and willing to travel as required;

- Excellent interpersonal skills;
- Excellent verbal and writing communication skills in English and local languages;
- Good knowledge of Word, Outlook, Excel, and Internet browsers is required;
- Previous experience working with a GEF-supported project is considered an asset
- Tongan National

Consultants and Contractual Services

Consultant	Time Input	Tasks, Inputs and Outputs
International Consultants		
MTR Evaluation Expert	25 days ($20,000)	Conduct the formal Mid-Term Evaluation (MTE) according to UNDP and GEF templates and requirements. The overall objective of the MTE is to review for categories of project progress – project design, progress towards the project'sobjectives and outcomes, adaptive management, and sustainability. The MTE will identify strengths and weaknesses in implementation, and identifyrisks and counter-measures. Specifically, the MTE IC assessment will be based on document review (i.e. PIF, UNDP Initiation Plan, Project Document, SESP, Project Inception Report, PPRs, MTE Tracking Tools, Project Appraisal Committee meeting minutes, financial and administration guidelines, project operational guidelines, Project Steering Committee minutes, etc.), as provided by the Project Team, followed by targeted interviews and site visits. An important aspect of the evaluation is to assess the likelihoodof the project achieving its objectives and delivering its intended outputs, and to providerecommendations and lessons to help the project design and modifications to increase thelikelihood of success, as appropriate.
TE Evaluation Expert	30 days ($25,000)	Produce formal Terminal Evaluation according to UNDP and GEF templates and requirements. The objectives of the evaluation are to assess (i) the achievement of project results, against expectations set out in the Project Logical Framework/Results Framework; (ii) the key financial aspects of the project, including the extent of co-financing planned and realized; (iii) to draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming. The evaluation must provide evidence-based information that is credible, reliable and useful. Following a participatory and consultative approach ensuring close engagement with government counterparts, in particular the GEF operational focal point, UNDP Country Office, project team, UNDP GEF Technical Adviser and other key stakeholders, the evaluator will review all relevant sources of information, such as the project document, project reports – including Annual APR/PIR, project budget revisions, midterm review, progress reports, GEF focal area tracking tools, project files, national strategic and legal documents, and any other materials that the evaluator considers useful for this evidence-based assessment.
Local / National contracting		
Outcome 1		
Strategic Program Development Specialist (Output 1.1)	60 days at $350/day Total -$21,000	Undertake the following tasks: -Evaluation of implementation of FSP, track record, and constraints to identify gaps -Support consultations and priority setting to identify to actions to enhance the conservation and sustainable management of the Fanga'uta Lagoon -Based on above analysis develop an revised FSP Action Plan (2023-2027) that identifies priority actions and targets, institutional and governance arrangements for plan implementation and monitoring and budgets
Evaluation Specialist (Output 1.1)	20 days/year from YR 2-5 at $250/day Total - $20,000	-Undertake annual review of status of implementation of revised FSP Action Plan (2023-2027) - Identify key constraints and issues related to plan implementation - Provide recommendation for adaptive management to ensure that FSP activities and targets are achieved
Monitoring specialist (Output 1.1)	40 days in YR 1 and 20 days/year in YR 3 and 5 at $250/day Total $20,000	-Review of existing FSP monitoring and evaluation system to assess effectiveness in relation to data collection, analysis and interpretation - Based on review assess gaps and weaknesses in system -Develop a revised M&E system to address gaps and weaknesses - Evaluate implementation progress in terms of revised M&E system to assess effectiveness and impact on adaptative actions in YRs 3 and 5

Consultant	Time Input	Tasks, Inputs and Outputs
SMA Specialist (Output 1.3)	50 days at $300/day Total -$15,000	-Undertake review of current SMA program to assess functionality, effectiveness and adaptative management -Identify current gaps and weaknesses (building of FAO's review of SMA program) in ensuring sustainable management and harvest of fisheries and marine resources - Revise SMA monitoring and evaluation system to ensure that there is effective feedback and impact of program -Identify specific actions for development of database for all SMA officers to share data and updates on SMA management in Fanga'uta and Vaipua Channel:
Legal Specialist (Output 1.3)	80 days at $$250/day Total - $20,000	-Consultant to review of SMA regulations to identify gaps, overlaps and synergies with the Parks and Reserves Management Act and Birds and Fish preservation Act f -Based on the review, identify gaps to ensure support for a 'shared' SMA Fanga'uta Lagoon -Proposed amendments to SMA regulations to promote 'shared' SMA -Assess mechanisms to ensure effective enforcement of regulations and enforcement
Economist/marketing specialist (Output 1.4)	60 days at $250/day Total -$15,000	-Consultant to conduct review of alternative livelihoods and eco-tourism potential in communities in Fanga'uta lagoon -Identify priority and potential livelihood and ecotourism potentials - Develop a marketing strategy for promoting goods and services at community level including sustainable financing mechanisms
Marine planning specialist (Output 1.5)	60 days at $300/day Total-$18,000	-based on extensive stakeholder consultation identifies key resources, threats and management actions needed for Vaipua Channel and Vava'u marine PAs -Based on consultation, identify priority actions needed to conserve the Vaipua Channel and Vava'u marine PAs -Support development of Vaipua Stewardship/ Management Plan and Vava'u PA plans, including priority actions, institutional and governance arrangements, monitoring and enforcement mechanisms
Outcome 2		
Policy and legal specialist (Output 2.2)	120 days at $350/day Total $42,000	_Consultants to review the overall policy and legislative framework to identify gaps and overlaps in institutional mandates -Based on review recommend a streamlined policy framework to effectively support the FSP objectives, including assessment of Also there are discrepancies and inconsistencies between SMA and MPAs in terms of terminology and coordination. - draft amendments to policy frameworks to strengthen the implementation of the FSP, action plans and other relational national plans that contribute to the overall management of the Fanga'uta Lagoon and Vaipua Channel -Suggest regulations for management of the Fanga'uta Lagoon Marine Reserve under an appropriate policy and legal mechanisms (e.g. Environment Management Act or Birds Act) to strengthen enforcement
Development Planning Specialist (Output 2.2)	120 days at $350/day Total $42,000	-Review of the district development plans and proposed changes to ensure that biodiversity actions and needs are mainstreamed and aligned to the updated FSP Action Plan and Vaipua Channel Management Plan and to avoid overlaps and contradictions. -Specific sectors might include the fisheries sector and any existing SMA plans within the Fanga'uta Lagoon and Vaipua Channel. -Propose collaboration with the MOF to review existing plans and identify lessons learnt to improve processes in updating or formulating new management plans that are well aligned with the overarching FSP and proposed Vaipua Channel Management Plan.
Capacity Development Specialist (Output 2.3)	60 days at $350/day Total $21,000	-Conduct a capacity needs assessment for integrated R2R approaches inclusive of existing and future capacity, training, resource needs, protocols, regulations and legal drivers to support sustainable activities. - The consultant will identify existing capacity gaps and needs, in particular in terms of the environment, fisheries, agriculture, tourism and infrastructure development sectors as well as town and district officers and key NGOs and community leaders, as well as the TWG staff and CMCs. -Develop a 5-year capacity development plan that covers (i) techniques and mechanisms that can be strengthened or created to support nationwide integrated marine resource planning and management; (ii) support the effective planning and implementation of the updated

Consultant	Time Input	Tasks, Inputs and Outputs
		Fanga'uta Lagoon Action Plan and the Vaipua Channel management plan; (iii) implementation of the management plan for the expanded Lualoli, Taula and Maninita Islands Protected Area; and (iv) improving reporting, monitoring and enforcements of such plans.
IT Communication Specialist (Output 2.3)	30 days at $250/day Total $7,500	-The IT/ Communications specialist will help update website and develop data management, reporting and grievance redress procedures for communities and sectors -The consultant will develop a website, format and procedures for reporting, feedback loops and response actions, including the GRM system, including a landline to allow older people to call and present their concerns and also an online system to receive feedback from younger generations that have access to internet, mobile phones, computers etc.
Outcome 3		
MTR evaluation consultant	20 days at $300/day -Total $6,000	-To support the international consultant in conduct of the midterm review including updating of GEF tracking tools - Recommend project design modifications, work program in Year 3
TE evaluation Consultant	26 days at $300/day -Total $8,000	-To support the international consultant in conduct of the terminal review including accomplishment of GEF tracking tools -Review sustainability plans and advice modifications and post project impact surveys as needed Year 5
Contractual Services - Firms		
Mapping Expertise (Output 1.2)	$20,000	Undertake additional mapping of the Fanga'uta lagoon to identify and map vulnerable habitats within the lagoon that need to be conserved or rehabilitated. (DOE)
Restoration Plans (Output 1.2)	$20,000	Based on the mapping, develop restoration plans (with technical specifications) for (i) improving coral cover at the mouth of the lagoon; (ii) rehabilitation of degraded mangrove stands and (iii) rehabilitation of seagrass beds. Areas selected for restoration would be based on a set of agreed criteria including specifically locations where these historically occurred, topography and bathymetry, climate water balance, rates of sedimentation and community interests and consensus, and potential for keeping pigs away from restoration sites for mangrove restoration. In terms of seagrass restoration this would include areas where seagrass historically occurred, light availability and low boat activity or other human pressures. In terms of coral restoration, criteria for site selection could include water quality (temperature, pH, salinity, dissolved oxygen, etc.), local anthropogenic (mooring buoy pits, diving and snorkeling sites) sand climate change risks and areas with reasonable coral cover and health and absence of invasive algae. (DOE)
Restoration Activities (Output 1.2)	$600,000	Implementation of restoration plans with community participation and written agreements with land owners and community management committees for protecting rehabilitated sites, including from pigs and other threats and its overall protection and maintenance. This includes 80 ha of mangroves, 20 ha of coral restoration and 20 ha of seagrass bed restoration (DOE)
Baseline surveys (Output 1.3)	$60,000	Baseline surveys for each SMA, that will include biological, social and impacts to assist with the zonation of the SMA and defining guidelines for sustainable use, monitoring and enforcement. Specific biological surveys will include a study of mangrove species, fish species and invertebrates and to identify areas of ecological importance and cultural or historical sites based on feedback from the communities on their use of their marine resources. Social surveys will involve surveys within communities to determine their reliance on the Fanga'uta Lagoon and to identify hotspots for traditional methods of soaking pandanus, recreational activities and map out the use and distribution of marine resources within and between communities. This baseline information will help to inform the control measures and management plan to minimize social conflicts and environmental impacts from the proposed project activities in establishing control measures for SMAs. (Ministry of Fisheries)
Marketing support (Output 1.4)	$39,000	Contractual services to: (i) Review of on-going livelihood-based activities in the two project sites to assess constraints, barriers and opportunities for promotion of improved alternative livelihood programs; (ii) Identification of biodiversity-friendly enterprises and Analysis of Value Chains based on market potential, economic and environmental feasibility; (iii) Mapping and Analysis of suitable Value Chains

Consultant	Time Input	Tasks, Inputs and Outputs
Ecotourism development (Output 1.4)	$150,000	Implementation support for community ecotourism and marketing of selected products and services. This will include: (i) Capacity building of stakeholders, including women, youth, PWDs and men in the value chain, (ii) provision of small scale infrastructure and equipment for ecotourism development; (iii) marketing support; (iv) identification and promotion of public-private partnerships to support ecotourism ventures; (v) capacity building of communities for ecotourism planning and management (DOE)
Community value chain and livelihood development	$250,000	Contractual support to provide implementation support for planning and implementation of value-chain processing, storage and marketing of selected products and services. This will include: (i) Capacity building of stakeholders, including women, youth, PWDs and men in the value chain, (ii) provision of small scale infrastructure and equipment to community producers and service providers; (iii) marketing support; (iv) identification and promotion of public-private partnerships to support small-scale community businesses and identification of financial sustainability resources
Conservation Planning (Output 1.5)	$21,000	VEPA to assist baseline surveys in both Vaipua Channel and support the completion of the establishment/expansion of Lualoli, Taula and Maninita Islands as Marine Protected Areas. The baseline data will assess coral reef health, marine species and terrestrial biodiversity in the case of the Islands Protected Area that will build on the BIORAP work in 2014 and baseline surveys of mangroves, corals, benthos cover, marine invertebrates and reef fish species in the Vaipua Channel, the latter to build on the previous surveys done by VOI in 2019 around Taoa. The survey will also assess current use of the area, current threats and pressures. The marine surveys will build on those undertaken in 2019 for the VOI to support the development of proposed SMAs in Vava'u including one at Taoa in the Vaipua Channel. The surveys created a baseline of benthos (habitat) cover, marine invertebrates and reef fish populations at two sites near Taoa
Management Plan activities (Output 1.5)	$140,000	Technical support, equipment and financial support for initiating priority conservation measures identified in the respective management plans. In terms of the Vaipua Channel Protected Area the project will support the rehabilitation of existing mangroves, fisheries management and monitoring of water quality parameters, bird and marine species, and mangrove and benthic cover. In terms of the expanded Lualoli, Taula and Maninita Islands Protected Area, the project will support priority biodiversity conservation measures of the management plan including water quality, benthic cover and fish, turtles and bird species monitoring. (DOE)

Annex 8: Stakeholder Engagement Plan
(here)

Annex 9 Environmental Social Management Framework (ESMF) or other SES frameworks/plans

(here)

Annex 10: GESI Analysis and Action Plan

(here)

Annex 11: Procurement Plan here

Annex 12: Draft LOA between UNDP and IP requesting UNDP Support Services

(here)

Annex 13: Climate Risk Screening Report

The following climate change risk screening has been completed to ensure that the project sufficiently considers risks associated with climate change impacts that may affect project planning and implementation. It is intended that the project will be prepared for, and resilient to, potential impacts of climate change, thus enabling more effective and impactful contributions towards national and global environmental benefits, despite ongoing and inevitable climate change effects.

The Tonga Government has committed to proactive mitigation and adaptation responses to address climate change, including high level policy and institutional changes. The Department of Environment, Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC) is the lead government department for climate issues, and has implemented an over-arching policy - the National Climate Change : A Resilient Tonga by 2035. The climate change policy focus towards building a Resilient Tonga by 2035. In establishing this goal the country recognizes that it is ambitious as the true cost to build resilience will involve billions of dollars and this is without considering loss and damage. While the goal of a Resilient Tonga by 2035 is ambitious, the Policy Objectives presented in this policy towards this goal are achievable within the next five years. To ensure that these Objectives will be met, a revised Joint National Action Plan on Climate Change and Disaster Risk Management (JNAP 2) will be developed aiming at their implementation. The intent of both this revised policy and the revised JNAP is that they provide the overarching framework for development of a Resilient Tonga. It is therefore anticipated that all relevant sector policies and plans, as well as community development plans and island strategic development plans, will be aligned with this policy and the revised JNAP. Of particular importance is that they are all aligned with the goal of a Resilient Tonga by 2035 and the targets for achieving this.

The Policy is based on a multi-faceted, cross-sectoral, gender inclusive and equitable approach and with a strong emphasis on community ownership supported by strong governance. The overall focus is towards the goal of 'A Resilient Tonga', aimed at achieving outcomes that are realized more widely than can be achieved through a more conventional, compartmentalized approach. Rather than address climate change adaptation, mitigation and disaster risk reduction in a fragmented manner, a holistic approach is taken to build resilience. The emphasis is on re-imagining and re-designing the future of Tonga to ensure that its' people are able to respond as proactively as possible to the unfolding effects of climate change and other related global and local changes. The strategy has three strategic goals, namely:

1. Strengthened integrated risk management to enhance climate and disaster resilience
2. Low carbon development
3. Strengthened disaster preparedness, response and recovery

Current Climate Trends and Predictions

Due to a combination of political, geographic, and social factors, Tonga is recognized as vulnerable to climate change impacts, ranked 130th out of 182 countries in the 2020 ND-GAIN Index.[29]

The World Bank's Climate Risk profile for Tonga notes the following **current trends** evidenced from climate science for the country:

- **Temperature:** While mean annual temperatures vary according to latitude, and are generally lower in the southern islands, climatologically, the largest average annual temperature change took place on Tongatapu (in the south), where an increase of 1.8°C was reported using data from 1949–2007. This estimate is unusually high, and is different from rise estimated by the Berkeley Earth Dataset, which puts the rise in the region of 0.4°C–0.6°C over the same period. Annual and November–April mean temperatures have increased at Nuku'alofa since 1949, with trends in Nuku'alofa annual maximum temperature and November–April maximum and minimum temperature also positive — this is consistent with global warming. On average for the island groups, mean temperatures have increased by 0.4°C–0.8°C since 1970, with warming most rapid in the warmest season(November–April) and in the early 21st century.1 As well, the frequency of hot days and hot nights has increased significantly across the Pacific.

[29] https://climateknowledgeportal.worldbank.org/sites/default/files/country-profiles/15823-WB_Tonga%20Country%20Profile-WEB.pdf

- **Rainfall:** Due to the spatial distribution of the islands of Tonga, there is a disparity in the nature of rainfall in the country. Tonga's Third National Communication to the UNFCCC reports the annual mean rainfall at the five meteorological stations in Tonga between 1971–2007: Tongatapu reported an average of 1,721 mm, Vava'u an average of 2,150 mm, Ha'apai an average of 1,619 mm, Niua Fo'ou an average of 2,453 mm and Niua Toputapu an average of 2,374 mm. All of the islands in the Tongan archipelago therefore receive very significant annual rainfall. The report also highlights that the Ha'apai island group receives the lowest rainfall of all the island groups in Tonga and Niua Fo'ou the highest. Variation in annual rainfall averages relate particularly to each island's proximity to the South Pacific Convergence Zone (SPCZ) and the wet tropics. Changes over-time in the annual rainfall seen at a number of Tongan islands, for example an increasing trend of 16 mm per year reported at Niuafo'ou and a decreasing trend of 6 mm per year at Ha'apai, but it is unclear the extent to which these trends represent a climate change influence or natural variation. Notable interannual variability associated with the ENSO is evident in Tonga, influencing the onset of drought conditions over the islands.
- **Extreme events:** The Tongan Islands has significant vulnerability to extreme events and in the context of uncertainty. These include: (i) extreme seismic activity with earthquakes and tsunamis, (ii) frequent tropical cyclones with damaging winds, rain and storm surges, and coastal flooding, (iii) drought, and (iv) high exposure to sea-level rise, which can result in coastal erosion and salination of freshwater systems. Tonga's economy includes important agriculture, tourism, and fishery sectors, and sea-level rise, alongside increases in temperature and extreme weather, have the potential to significantly lower output and increase vulnerability. Despite many improvements, climate-resilient critical infrastructure and services are generally lacking, and the population is highly exposed to longer-term climate and natural disaster risks (access to fresh water, non-communicable diseases, food security, etc.). All these factors amplify the socioeconomic costs of extreme weather conditions, temperature changes, and sea-level rise.
- **Sea level rise and ocean acidification:** The sea level has risen near Tonga by about 6mm per year since 1993, much larger than the global average of 2.8 – 3.6 mm. Sea level projections from Tonga Meteorological Service (TMS) suggest that under high emissions scenarios, the further rise by 2030 could be in the range of 0.03 to 0.17m. However, some scientists warn that larger rises than are currently predicted are possible. The IPCC in 2019 updated predictions to suggest that the median and upper bounds of global sea level rise are likely to be greater than previously expected, and calculations for Tonga suggest that the mean SLR for the second half of the 21st century under RCP8.5 is 0.41-0.88m. Additionally, since the 18th century, the level of ocean acidification has been slowly increasing in Tonga's waters. Ocean acidification is expected to continue, with a higher risk of coral bleaching. The latter will have adverse effects on fisheries and coastal community livelihoods.
- **Coastal environment:** In recent time, there have been increased human settlements on marginal low-lying and flood-prone areas, reclamation of environmentally sensitive coastal areas, increasing fishing pressure adjacent to urban areas, removal of coastal vegetation and mangroves causing soil loss and coastal erosion and a general long-term loss of marine habitats and species. This threatens homes and livelihoods of communities in the coastal areas. Sea-level rise due to the projected increase in the frequency of extreme sea-level events is further exacerbated by the threat due to long-term encroachment on coastal areas. There turn period of exceptionally high sea-levels, driven by climate circulations, is expected to reduce and low-lying Pacific Island nations are particularly at risk. Processes such as the loss of naturally occurring mangroves have been identified as amplifying disaster risk in regions of the Tongan islands.

- **Coral Reefs:** Having some of the world's richest marine diversity, the Tongan reefs face a very serious climate change threat. Increased sedimentation from erosion and increased sea surface temperatures unfavorably affect coral reefs. Coral reef mortality results in loss of habitat for reef species and a reduction in diversity of fish species. Consequently the damage to coral reefs, reduces their effectiveness at reducing the energy pf storm waves approaching the coast. Intense fishing pressure in these shallow waters further exacerbate the risk of long-term impacts on coastal ecosystems and fisheries. In terms of offshore fisheries, which is a lucrative fisheries to Tonga, but this is vulnerable to over-fishing and trend of warming seas and changing of ocean currents. For example, in 003, catches of tuna declined due to the effects of El Nino.

- **Habitat destruction:** Increased human pressure threatens ecosystem integrity. Climate change and variability may compound these pressures. Sea-level rise, for instance, threatens the unique ecosystem

functions and ecology. Past seismic activity provides insights into the potential long-term impacts of sea-level rise., in particular the rapid subsidence and hence 'relative' sea-level rise, highlighted the vulnerability of the Tongan Islands' mangrove forests to climate change that might result in the inundation of low-lying islands and have the potential to remove important refuges for migrating birds. As climate changes so the suitable range for species to inhabit shifts, typically either upslope or away from the equator. Major concerns have been raised for the terrestrial ecology of low lying Pacific islands, for example endemic lizards, which may become trapped in a shrinking habitat. Compounding the direct impacts of climate change on species' viable ranges, concerns have also been raised about the potential for climate change to drive introduction of new weeds, pests, and diseases in Pacific habitats which threaten the productivity of forests and other ecosystems.

- **Agriculture and Food:** Agriculture forms an integral part of Tonga's economy and culture. It is primarily a subsistence activity. Tonga's agriculture remains vulnerable to impacts of climate change and natural disasters. Increased weather variability makes farming less predictable, while increasing trends in storm frequency and intensity threatens crops and the intensification of agriculture production in the country is exacerbated this vulnerability. Additionally agricultural lands in Tonga have slopes greater than 15^{o}. and are therefore prone to soil erosion caused by rain and wind. Erosion is exacerbated by extreme events such as cyclones, storm surges and intensive rainfall. Reportedly, agriculture sustains 85% of the country's rural economy and 96% of rural households grow at least some of their own food. Climate change could influence food production via direct and indirect effects on crop growth processes. Direct effects include alterations to carbon dioxide availability, precipitation and temperatures. Indirect effects include through impacts on water resource availability and seasonality, soil organic matter transformation, soil erosion, changes in pest and disease profiles, the arrival of invasive species, and decline in arable areas due to the submergence of coastal lands. Droughts also affect agriculture. The extent of agricultural land vulnerable to drought is estimated to be 208 km^2 or 39%. Climate change has also increased the spread of pests, diseases and weeds, placing pressure on crop production.

- **Fisheries**: The fisheries sector (offshore and inshore) in Tonga contributes significantly to Tonga's economy and contribute to food security, sustenance and livelihood of local communities and the country. Coastal fisheries are at risk to climate change. The recent trend in sea temperature warming have caused wide spread coral bleaching and increased algal blooms, both which impact on fishery species and, and more importantly, the complex ecosystems of bays, inlets and coral reefs. Runoff laden with sediments from steep lands smother and poison intertidal and subtidal areas, affecting ecosystem health, fisheries productivity and threaten important food sources, especially for people residing around these areas.

- **Tourism**: Although levels of tourism are modest in Tonga, in the long-term, the dual threats of rising sea levels and coastal erosion could reduce the quantity and quality of available beach space without significant adaptation measures and could therefore reduce the attractiveness of the country as a tourist destination. Another area of vulnerability is the valuable recreational diving sector, which is threatened by environmental degradation, loss of reeds, and coastal erosion.

- **Water resources:** Most islands of Tonga rely on ground water lenses for their fresh water supply. Development issues such as over pumping groundwater, and other forms of contamination from agricultural and urban activities in watersheds place additional pressures to climate change and natural disasters on these fragile, and finite resources. A rise in sea levels can additionally cause seawater intrusion, particularly in low lying coastal areas.
  - **Communities:** Many of the climate changes projected are likely to disproportionately affect the poorest groups in society. For instance, heavy manual labor jobs are commonly among the lowest paid whilst also being most at risk of productivity losses due to heat stress. Poorer farmers and communities are least able to afford local water storage, irrigation infrastructure, and technologies for adaptation.

  - **Gender**: Climate-related disasters have impacted human populations in many areas including agricultural production, food security, water management and public health. The level of impacts and coping strategies of populations depends heavily on their socio-economic status, socio-cultural norms, access to resources, poverty as well as gender. Key factors that account for the differences between women's and men's vulnerability to climate change risks include: gender-based differences in time use; access to assets and

credit, treatment by formal institutions, which can constrain women's opportunities, limited access to policy discussions and decision making, and a lack of sex-disaggregated data for policy change.

- **Infrastructure:** Tonga's infrastructure (airports, road networks and majority of public and private buildings, hospitals, schools, power distribution systems, wharves and jetties, coastal protection works, bridges and causeways largely occur in vulnerable, low lying coastal areas that are at risk to climate change.

As a Pacific Island Country (PIC), the Tongan Islands, is particularly vulnerable to the effects and impacts of a changing climate, and the islands will face increasing threats to sustainable development. Sectors likely to be most affected include human health, infrastructure, coastal resources, disaster management, freshwater availability, agriculture, fisheries, forestry, marine ecosystems and tourism. These same sectors (as well as others) are also likely to be further impacted by Invasive Alien Species or IAS.

Both climate change (or modification) and IAS are on-going impacts both of which can be expected to worsen unless appropriately addressed. Because climate change is an ongoing process and due to lack of data on climate and impacts, there is much in terms of specifics that is currently unknown. However, it is to be expected that these stressors combined will have worse impacts on natural systems and human communities than either one individually would have. The cumulative effects of the above-mentioned impacts will cause significant challenges for human health and stability in terms of food and water security (availability, quality and affordability), infrastructure, agriculture, fisheries and other livelihoods such as tourism, all of which have socio-economic impacts and reduce the resilience of communities. They will also impact biodiversity due to effects on habitats, restricted ranges, changes to food webs (loss/introduction of prey/predators) and increase vulnerability to catastrophic events such as invasive alien species incursions, including introduced diseases. This will further impact ecosystems and ecosystem services that rely on the interrelated functions of biodiversity and relatively stable climate conditions.

Climate Change Projections

A summary of climate change and disaster risks and their likely impacts on Tonga is provided in the sections below[30]:

Temperature: Across the Pacific, temperature are projected to increase between 1.4°C and 3.1°C, with localized temperature increases expected across Tonga. However, future temperature rises in Tonga may likely be below the global average – the mean annual surface air temperature under the highest emissions pathway is projected to reach around 2.6°C by the 2090s, compared to around 3.7°C globally. This difference may reflect the moderating effects of the large amounts of nearby ocean. In addition, it is projected that the temperature on extremely hot days is likely to increase in tandem with average temperature increases – projected temperature increase of the 1-in-20-year hot day by the 2090s is 0.7°C for RCP2.6 and 3°C for RCP8.5.It is also expected that there will be an increase in the frequency and intensity of extremely hot days and a decrease in the frequency and intensity of cool days in Tonga, although the magnitude of the projected changes is less certain.

Rainfall: While Tonga experienced an increase in mean precipitation over the 1979–2006 period, rainfall projection estimates vary from an increase to a decrease, with a slight increase expected on average. It is possible, then, that the historical increase could be due in part to natural variability, rather than purely driven by global warming. Further, the range of the future projections vary by scenario, and the estimates under RCP8.5 show the largest range of uncertainty. Since there is no strong agreement as to the direction of change in the models, and it is uncertain how SPCZ will affect rainfall over Tonga, this lowers the confidence of the projected changes, and makes the likely direction of change difficult to determine. Confidence in the model average rainfall change is also challenged by the usual complexity of simulating precipitation as well as understanding the influence of the SPCZ and ENSO.5. In terms of extreme rainfall events, a warmer atmosphere is likely to lead to an increase in their frequency and intensity. However, the magnitude of such changes in extreme rainfall is not as certain due to possible underestimation and difficulty to capture certain process related to extreme rainfall events, the influence of the SPCZ over the islands, as well as the general coarse spatial resolution of GCMs.

Heatwaves: Heatwaves are defined as a period of 3 or more days when the daily temperature remains above the 95th percentile. The projected change in heat wave probability under RCP8.5 (compared to 1986–2005),

[30] World Bank Climate Country Risk Profile 2021

highlighting the daily probability of a sudden heat wave in subsequent time periods. For Tonga, this probability steadily increases in the long term. This is held within the global context in which the probability is expected to increase. It is noted that the tropics are particularly where systematic warming might lead to the largest increases in heat wave probability, simply because the historic (baseline) day-to-day and month-to-month variability is small.

Droughts: For Tonga, it is expected that likely that the percent of time spent in drought may decrease, and this is generally shown across emissions scenarios. However, it should be noted that complex processes relating to rainfall projections, including the limited consensus of future ENSO influence for the region, hinder the confidence of these projections of drought frequency and duration, as well as magnitude of change.

Floods, Cyclones and Storm Surge:

Analysis from the World Bank's Climate Change Knowledge Portal highlights that the most extreme rainfall episodes have the danger of leading to significant floods. Individual daily rainfall is often linked to flash-floods of limited spatial extent, but multi-day rainfall generally has a broader spatial footprint and thus more extensive flooding can be explained. Rare precipitation events are often referred to as events of a certain return level, and the 5-day cumulative rainfall indicator focuses on the maximum rainfall amount over any 5-day period that can be expected once in an average 25-year period. Changes in this indicator may have potentially significant impacts on infrastructure and endanger life and property through direct physical effects and perhaps through water quality issues. As such, any significant changes in their magnitudes would need to be understood.

How the climate scenarios are likely to affect the project

The project has been screened using the World Bank Climate and Disaster Risk Screening Tool, which provides high-level screening to help consider short- and long-term climate and disaster risks at an early stage of project design. The tool applies an Exposure–Impact–Adaptive capacity framework to characterize risks. Potential risks are identified by connecting information on climate and geophysical hazards with users' subject matter expertise of project components (both physical and non-physical) and understanding of the broader sector and development context. It is worth noting that the Climate and Disaster Risk Screening Tool does not provide a detailed risk analysis. The tool informs on the need for further consultations and analytical work to strengthen resilience measures in the course of project design.

Summary of climate and disaster hazards in the project landscapes

Based on the information summarized in the World Bank disaster risk reduction online tool Think Hazard (https://thinkhazard.org), the climate and disaster hazards at the locations where the project landscapes are located are summarized below.

Hazard levels at project landscapes		
Hazard	**Fangu'ata**	**Vava'u**
Wildfire	Low	Low
Cyclone	High	High
Flood	High	High
Landslide	Medium	Medium
Urban flood	Medium	Medium
Extreme heat	Medium	Medium
Water scarcity	Medium	Medium

Notes:

- **Cyclone hazard**. High hazard level defined as: there is more than 20% chance of potentially damaging wind speeds in the project area in the next 10 years.

- **Flood hazard**. High hazard level defined as: potentially damaging and life-threatening floods are expected to occur at least once in the next 10 years.
- **Landslide hazard**. High hazard level defined as: this area has rainfall patterns, terrain slope, geology, soil, land cover and (potentially) earthquakes that make localized landslides a frequent hazard phenomenon.
- **Urban flood hazard**. High hazard level defined as: potentially damaging and life-threatening urban floods are expected to occur at least once in the next 10 years.
- **Extreme heat hazard**. High hazard level defined as: prolonged exposure to heat, resulting in heat stress, is expected to occur at least once in the next five years.
- **Water scarcity hazard**. Medium hazard level defined as: there is up to a 20% chance droughts will occur in the coming 10 years.

The project objective is predicated on strengthening the resilience of marine ecosystems within Tonga with specific focus on the identified demonstration sites and the ability to strengthen and engage support from communities within these same areas. The biodiversity of Tonga and the associated systems are closely linked to communities and their production systems including agriculture, fisheries and tourism. In the context of the project, strengthening community systems through reducing both risks and impacts associated with unsustainable resource use and related threats at national and local levels in turn provides capacity building, incentives and engagement as well as direct support through implementation of actions for strengthening the resilience of both natural and community production systems. Actions can include, but are not limited to, improve risk assessment for proposed implementation of best management practices (BMPs), etc. The exposure rating is considered High as these assets may be impacted by more than one of the climate hazards relevant to the project landscapes including sea level rise, increases in floods and sea level rise, elevated temperatures, and saltwater flooding of low-lying production areas.

Project resources will add incremental value to the Tonga's Climate Policy by strengthening resilience to climate change in demonstration sites. Tonga's Climate Policy provides strategies for strengthening Tonga's climate change resilience through the following three strategic goals:

1. Strengthened integrated risk management to enhance climate and disaster resilience
2. Low carbon development
3. Strengthened disaster preparedness, response and recovery

The following are the 20 targets for a Resilience Tonga:

- Every coastal community has a special management area and protected coastal environment
- Redesigned, resilient, roads, coastal areas, buildings, and other infrastructure
- Resilient homes, schools, and community halls (i.e. incorporating design for Category 5 cyclones, a minimum of 30,000 liter water storage capacity for homes, solar power and hot water, bio-digesters for biogas production, organic gardens, food preservation)
- A transport system that is not reliant on fossil fuels
- 100 percent renewable energy
- Resilient low chemical input or organic farming systems
- 30 percent of land in Tonga utilized for agro-forestry or forestry
- Native biodiversity is fully protected and enhanced
- The capacity for food self-sufficiency in times of crisis, and significantly reduced reliance on imported food
- Well managed water resources and sufficient water for all in times of shortage
- Development and full implementation of a zero waste policy
- All families and communities understand climate change and the need for disaster preparedness and have taken action to be resilient
- Strengthened parliamentary and institutional capacities working towards achieving resilience targets
- Resilience measures are mainstreamed into applicable laws and are integral to all public Environmental Social Economic and private sector policies, plans and development programs and projects
- Resilient agriculture with enhanced crop production and food security

- Education for resilience is incorporated into curricula at all levels of primary, secondary and tertiary education
- A gender responsive and equitable society
- An innovative and proactive private sector that is a model for resilience
- An economy that works harmoniously with the needs for a resilient environment and society
- Sustainable funding for climate change and resilience building needs

Over the short to medium terms, the marine ecosystems undergoing restoration across the 2 target marine sites would be susceptible to climate and geophysical hazards. These risks will be mitigated through a combination of hard and soft measures. Indigenous mangrove species that are resistant to climate variability will be selected for planting, for instance. Participation of local communities will further mitigate risks associated with climate and geophysical hazards. Community management of Special Management Areas (SMAs) are anticipated as part of the conservation, restoration and sustainable resource use approaches demonstrated through the project. These SMA systems will provide sustainable livelihood opportunities for local communities, resulting in higher income security compared to depending only on outputs from marine related operations and strengthened resilience to climate hazards and variability.

The multi-level, multi-stakeholder dimension of the conservation and restoration approach is another important risk mitigation measure. Through collaborating with local government entities and communities, the demonstration and management plans will link up with existing disaster management systems and structures in the target marine areas, including early warning systems (e.g., automatic weather stations operated by village, district and national disaster management entities) and disasters insurance policies and programs.

Participation of local communities will be voluntary. The local beneficiaries who do participate will benefit from involvement in the multi-level, multi-stakeholder mechanisms, which are expected to facilitate increased awareness and new and strengthened partnerships. Moreover, the project will build upon ongoing government initiatives, including existing government initiatives in the two marine sites.

The project design does not “lock in” certain decisions for the future. The restoration approach is an adaptive management approach, with adjustments implemented as information becomes available from the field.

Climate and Disaster Risk Screening Report[31]

Project Information

Project Title:	Implementation of the Fanga'uta Lagoon Stewardship Plan (Tonga R2R Phase II) and replication of lessons learned from the Tonga R2R Phase I to priority areas in Vava'u
Project Number:	6475
Project TTL:	
Assessment completed by:	PPG Team with input from MEIDECC
Estimated timeline for PCN Year:	2022
Screening Tool Used:	Rapid Screening Assessment (Natural Resource Projects)

Summary of Climate and Disaster Screening Report for Samoa (2021)

1. Exposure of the project location: This step assesses the current and future exposure of the project location to relevant climate and geophysical hazards as an aggregate.

Exposure Rating

High

Climate and geophysical hazards that are likely to be relevant to the project location both in present and in the future

- Coastal Flooding, Sea Level, Storm Surge.
- Drought
- Extreme temperature
- More intense storms

2. Impacts on the project's physical infrastructure and assets: This step assesses the current and future impacts of identified climate and geophysical hazards on the project's physical infrastructure and assets as currently designed.

Impact Rating

High

Relevant project subsectors

- Marine
- Biodiversity
- Agriculture and Fisheries (including aquaculture).

3. Modulation of risks by the project's soft components and development context: This step assesses how the project's soft components as currently designed, together with the project's broader development context, modulate the risk from climate and geophysical hazards. This step also considers particularly vulnerable groups, namely women, migrants and displaced

[31] This is the output report from applying the World Bank Group's Climate and Disaster Risk Screening Project Level Tool (Global website: climatescreeningtools.worldbank.org). The findings, interpretations, and conclusions expressed from applying this tool are those of the individual that applied the tool and should be in no way attributed to the World Bank, to its affiliated institutions, to the Executive Directors of The World Bank or the governments they represent. The World Bank does not guarantee the accuracy of the information included in the screening and this associated output report and accepts no liability for any consequence of its use.

Modulation of risks by the project's soft components

Reduce Risk

Selected soft components

- Policy Development
- Long-term Integrated Planning
- Capacity Building-Training-Outreach At National & Local Levels
- Maintenance and Operations
- Restoration of degraded marine habitats

Modulation of the risks by the project's development context

Reduce Risk associated with loss of marine habitats, supporting CC resilience

Components designed to help alleviate the risks to women from climate and geophysical hazards

Component 2 and 3

4. Risk to the outcome/service delivery of the project: This step assesses the level of risk to the outcome/service delivery that the project is aiming to provide based on the previous ratings.

Outcome / Service Delivery Rating

Moderate

Notes from the Screening Process

1. Exposure of the Project Location

Exposure Rating	High

This step provides information on exposure to climate and geophysical hazards at the project location. **The Exposure rating is High. The project location has experienced climate and geophysical hazards in the past and is expected to experience these in the future with high intensity, frequency, or duration.** The rating is based on climate information drawing on global, quality controlled data sets from the Climate Change Knowledge Portal. It is useful, for example to understand the temperature range and the rate of annual or decadal increase in a region; or precipitation patterns for historical and future time frames and seasonality shifts. Understanding the trends of hazards is important as they act individually and collectively on project components/subsectors.

The following guiding questions are used to assess exposure:

- What have been the historical trends in temperature, precipitation and drought conditions?
- How are these trends projected to change in the future in terms of intensity, frequency and duration?
- Has the location experienced strong winds, seal level rise, storm surge, and/or geophysical hazards in the past that may occur again in the future?

User Notes: No notes added

2. Modulation of risks by the project's soft components and development context

This step provides information on how the potential impact on key components/subsectors due to exposure from hazards is modulated by the project's soft components and broader development context. This step also takes into account particularly vulnerable groups including women, migrants and displaced populations.

Modulation of risks by the project's soft components



This rating reflects how the project's soft components (enabling and capacity building activities) can modulate risks. The right kind of capacity building measures could increase preparedness and long-term resilience and reduce risk.

User Notes: No notes added

Modulation of risks by the project's development context



This rating reflects how the larger development context, including sector context and other social, economic and political factors can modulate risks.

User Notes: No notes added

3. Risk to the outcome/service delivery of the project

Outcome/Service Delivery Rating	Moderate

This step provides an indication of the level of risk to the outcome/service delivery that the project is aiming to provide. ***The risk to the outcome/service delivery of your project is Moderate.*** *This rating is derived from hazard information, subject matter expertise, contextual understanding of the project, and modulated on the basis of the project's soft components and broader development context. Keep in mind that in considering resilience measures for risk management, each element of risk should be taken into account, not just the collective risk rating at the outcome/service delivery level.*

User Notes: No notes added

Guidance on Managing Climate Risks through Enhanced Project Design

By understanding which of your project components are most at risk from climate change and other natural hazards through initial screening, you can begin to take measures to avoid impacts by:

- Enhancing the consideration of climate and disaster risks early in project design.
- Using your risk screening analysis to inform follow-up feasibility studies and technical assessments.
- Encouraging local stakeholder consultations and dialogue to enhance resilience measures and overall success of the project.

Table 1 provides some general guidance based on the risk ratings for Outcome/Service Delivery, and Table 2 lists some climate risk management measures for your consideration. Visit the "Screening Resources" page of the tool for additional guidance and a list of useful resources

Note: Please recall that that this is a high-level screening tool, and that the characterization of risks should be complemented with more detailed work.

Table 1: General Guidance Based on Risk Ratings for Outcome/Service Delivery

Insufficient Understanding	Gather more information to improve your understanding of climate and geophysical hazards and their relationship to your project.
No/Low Risk	If you are confident that climate and geophysical hazards pose no or low risk to the project, continue with project development. However, keep in mind that this is a high- level risk screening at an early stage of project development. Therefore, you are encouraged to monitor the level of climate and geophysical risks to the project as it is developed and implemented.
Moderate Risk	For areas of Moderate Risk, you are encouraged to build on this screening through additional studies, consultation, and dialogue. This initial screening may be supplemented with a more detailed risk assessment to better understand the nature of the risk to the project.
High Risk	For areas of High Risk, you are strongly encouraged to conduct a more detailed risk assessment and to explore measures to manage or reduce those risks.

Table 2: Types of Climate Risk Management Measures for Typical Natural Resources Projects

OBJECTIVE	EXAMPLES
Support new livelihood opportunities	• Develop alternative livelihoods where existing climate-sensitive livelihoods may no longer be viable. • Ensure new livelihood opportunities are available for women and other marginalized populations, and look out for unintended consequences, such as increasing women's unpaid work burden and/or increasing the length of their work day. • Encourage fishing communities to take advantage of fish species that are becoming more abundant due to climate change. • Explore opportunities for payment for ecosystem services that support the conservation or restoration of areas that provide key services. • Ensure that women-led businesses have access to financing opportunities.

Promote ecosystem-based approaches to adaptation	• Reduce the vulnerability of related sectors, such as agriculture and water, to climate impacts through support for conservation efforts, which provide co-benefits for ecosystems and their services. • Protect ecosystems that buffer or mitigate climate impacts for stakeholders in related sectors. • Promote climate-smart agricultural practices, including agro-forestry systems. • Support the use of green infrastructure for flood management or coastal protection. • Explore opportunities to increase water security through protecting and restoring watersheds. • Maintain and expand large intact landscapes and seascapes. • Protect key, representative habitats within landscapes and seascapes. • Conserve biodiversity and manage natural resources in ways that maintain their long- term viability. • Increase connectivity between protected areas. • Increase conservation outside of protected areas, and incorporate mixed natural systems (e.g. agroforests). • Protect areas that are likely to become refugia as temperatures increase and sea levels rise. • Achieve co-benefits for ecosystems and climate change mitigation through sustainable land and forest management.
Build information collection and management systems	• Support research that assesses future potential impacts of climate change on biodiversity. • Incorporate climate information into landscape-level conservation, land-use planning, and protected area management. • Seek information from women, indigenous peoples, and other marginalized populations who are often the custodians of local knowledge about wild plants, seeds, and other elements of biodiversity.
Reduce Other Human Stressors that Exacerbate Climate Change Impacts	• Reduce the effects of non-climate stressors, such as pollution, overexploitation, land use change, urbanization, and invasive species. • Account for predicted changes in demand for ecosystem services that may exacerbate climate impacts. • Consider whether human adaptation to climate risks is going to increase or create new stresses on ecosystems and biodiversity.
Strengthen policies, planning and systems	• Strengthen institutions that are responsible for conservation and management of ecosystems and natural resources, including their ability to incorporate climate change into their activities. • Support conservation efforts in related sectors, such as agriculture and water. • Support the use of carbon finance to monetize future cash flows from the advanced sale of carbon credits, as means to finance conservation costs. • Encourage partnerships between governments and private business to protect forests and promote climate change mitigation (e.g., manufacture and distribute fuel-efficient cook stoves, which reduce emissions while also providing an alternative to burning fuel wood). • Promote zoning restrictions on coastal development to allow coastal wetlands to migrate inland as sea levels rise, protecting the goods and services they provide. • Support REDD+ to help achieve climate change mitigation goals while also providing conservation-based, income-generating opportunities. • Work with governments to design gender-informed policies that address climate impacts that affect women and men differently, encourage women's participation and leadership, leverage women's knowledge and perspectives, and reduce risk of further gender inequality caused by climate change.

Sources: USAID Climate Risk Screening and Management Tools: Annex; IPCC on Climate Change and Biodiversity

3. Modulation of risks by the project's soft components and development context

This step provides information on how the potential impact on key components/subsectors due to exposure from hazards is modulated by the project's soft components and broader development context. This step also takes into account particularly vulnerable groups including women, migrants and displaced populations.

Modulation of risks by the project's soft components	**Modulation of risks by the projects development context**
Reduce Risk	Reduce Risk
This rating reflects how the project's soft components (enabling and capacity building activities) can modulate risks. The right kind of capacity building measures could increase preparedness and long-term resilience and reduce risk.	*This rating reflects how the larger development context, including the sector context and other social, economic and political factors can modulate risk.*
User Notes: The soft components on the project contribute towards achievement of increased preparedness and long-term resilience to climate and geophysical hazards. Substantive project resources are allocated for institutional strengthening, including amendments to the policy framework for enabling and incentivizing restoration approaches, and capacity building through learning-by-doing in the field, targeted training, and learning exchanges domestically and internationally. Institutional strengthening will also be delivered through the implementation of the multi-level, multi-stakeholder restoration approaches in the target landscapes. Facilitating collaboration across sectors will result in strengthened resilience, shifting from the business-as-usual compartmentalized practices that involve limited cooperation and joint planning across production (e.g., forestry, agriculture, water resources, tourism, etc.), conservation sectors, and community development sectors. Under Component 3, opportunities for improving ecological compensation mechanisms will be explored. Strengthened partnerships between governments, business enterprise and communities will also be promoted, to broaden stakeholder involvement and financing of sustainable forest management initiatives.	**User Notes:** The cyclone-prone, flood-prone and drought-prone areas across Tonga pose significant risks to both property and life. Strengthened resilience of the project marine spaces to climate and geophysical hazards will generate mutually supportive co-benefits for ecosystems and their services, including supporting sustainable livelihoods for local, marine resource-dependent communities. The gender mainstreaming strategy of the project has a strong emphasis on facilitating new and strengthened livelihood opportunities for women. Livelihood options for women and other marginalized groups, will avoid unintended consequences, e.g., increasing women's unpaid work burden, climate maladaptation, limiting access to marine resources, etc. Strengthening linkages with governmental programs and initiatives and partnerships with business enterprises will help ensure women-led sustainable livelihood models have access to financing. Knowledge of women, and other marginalized groups will be recognized and reflected, through free, prior and informed consent, into the restoration demonstration and SMA plans for the target marine areas and the sustainable livelihood business models.

4. Risk to the outcome/service delivery of the project	**Outcome/Service Delivery Rating**	**Moderate**

This step provides an indication of the level of risk to the outcome/service delivery that the project is aiming to provide. The Outcome/Service Delivery rating is Moderate. This rating is derived from hazard information, subject matter expertise, contextual

understanding of the project, and modulated on the basis of the project's soft components and broader development context. Keep in mind that in considering resilience measures for risk management, each element of risk should be taken into account, not just the collective risk rating at the outcome/service delivery level.

User Notes:
The project interventions are designed to strengthen national mechanisms and equip and empower local communities to safeguard Tonga's marine species, natural ecosystems and food production systems from unsustainable resource use practices. In turn, these interventions will support resilience building of natural and food production systems, as well as the adaptive capacity of local actors, to the threat of climate change.

The overall risk to the outcome / service delivery of the project is considered **MODERATE**.

The project will implement a series of measures to mitigate the risks associated with climate and disaster hazards on outcome/service delivery. The project will undertake a multi-stakeholder approach, inclusive of high-level policy makers as well as NGOs and community groups, advocating for the mainstreaming of more sustainable and resilient practices to improve the management marine areas and biodiversity. To this end, it will generate co-benefits for ecosystems and their services, including strengthening resilience to events such as flooding, cyclones, and other negative impacts to indigenous species, natural ecosystems and food production systems.

The project will work to facilitate sustainable livelihood options that provide good return on investment through the demonstration of sustainable marine management practices, ensuring that qualified professionals are engaged and provide supervisory and advisory support and coordination throughout. Knowledge generated from the demonstrations will be disseminated among key stakeholder groups, facilitating mainstreaming and upscaling in other regions in the country.

Climate Risk Assessment and Mitigation Measures to Protect GEBs:

RISK	RATING	MITIGATION MEASURES
Project outcomes are at risk because of climate change.	Moderate	Project activities have been developed in line with national climate plans/frameworks/ actions/agendas, ensuring they are cognizant of and resilient against climate threats, thereby supporting Tonga's efforts in enhancing the abilities to adapt to such risks. Activities have been designed with a climate lens applied and will be conducted with readiness to adapt management should unforeseen impacts arise that affect project implementation. Project activities will be planned and executed efficiently to ensure that issues are mitigated, and experienced options remain for adaptive strategies.
Climate sensitivity has not been adequately addressed.	Low	Climate sensitivity is applied to all activities to varying degrees. This document has been developed in collaboration and consultation with key stakeholders who hold significant knowledge/experience relating to climate/disaster action and mitigation. Hence, climate sensitivity is believed to have been applied comprehensively. Furthermore, project activities aim to enhance the country's ability to respond to climate risks and mitigate its vulnerability and sensitivity to climate threats.
Resilience practices and measures do not address projected climate risks and impacts adequately.	Moderate	Strong consultation and collaboration between various stakeholders, including Government agencies, CSOs and the general public will ensure that project activities adequately address national goals and interests, including mitigation against climate risks and impacts. This collaborative and inclusive approach is already underway with inclusion of the key stakeholders contributing to the development of the project. This support will continue throughout project implementation.
There is inadequate technical and institutional capacity and information to address climate change impacts.	Moderate	Capacity building forms a core part of project activities, and it will include a climate lens throughout to ensure these considerations are sufficiently included.. Strong collaboration with national and regional partners will also ensure the collective intellectual and technical capacities of Tonga and the Pacific region are harnessed and maximized in response to climate threats and impacts.

Annex 14: GEF Core indicators

[GEF-8 Core Indicator: here]

GEF 7 Core Indicator Worksheet

Core Indicator 1	**Terrestrial protected areas created or under improved management for conservation and sustainable use**						***(Hectares)***
			Hectares (1.1+1.2)				
			Expected		Achieved		
			PIF stage	Endorsement	MTR	TE	
Indicator 1.1	Terrestrial protected areas newly created						
Name of Protected Area	WDPA ID	IUCN category	Hectares				
			Expected		Achieved		
			PIF stage	Endorsement	MTR	TE	
		Sum					
Indicator 1.2	Terrestrial protected areas under improved management effectiveness						
Name of Protected Area	WDPA ID	IUCN category	Hectares	METT Score			
				Baseline		Achieved	
				PIF stage	Endorsement	MTR	TE

Core Indicator 2	**Marine protected areas created or under improved management for conservation and sustainable use**				***(Hectares)***
		Hectares (2.1+2.2)			
		Expected		Achieved	
		PIF stage	Endorsement	MTR	*TE*
2.1	Marine PAs created	1,530	1,530		
2.2	Marine PAs under improved management	3,030	3,030		
	Sum	4,560	4,560		

Indicator 2.1	Marine protected areas newly created					
Name of Protected Area	WDPA ID	IUCN category	Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Vaipua Channel	Proposed		373	373		
Lualoli, Taula and Maninita Islands MPA expansion	555645256	Not reported	1,157	1,157		
		Sum	1,530	1,530		

Indicator 2.2	Marine protected areas under improved management effectiveness						
Name of Protected Area	WDPA ID	IUCN category	Hectares	METT Score			
				Baseline		Achieved	
				PIF stage	Endorsement	MTR	TE
Fanga'uta Lagoon MPA	4241	VI	2,835	42	43		
Existing Lualoli, Taula and Maninita Islands MPA	555645256	Not reported	195	32	32		
Proposed Vaipua Channel	Proposed		See under 2.1	22	22		
		Sum	3,030				

Core Indicator 3	**Area of land restored**					***(Hectares)***
		Hectares (3.1+3.2+3.3+3.4)				
		Expected		Achieved		
		PIF stage	Endorsement	MTR	TE	
3.3	Area of Wetland Restored		120			
	Sum		120			
Indicator 3.1	Area of degraded agricultural land restored					
		Hectares				
		Expected		Achieved		
		PIF stage	Endorsement	MTR	TE	
Indicator 3.2	Area of forest and forest land restored					
		Hectares				
		Expected		Achieved		
		PIF stage	Endorsement	MTR	TE	
Indicator 3.3	Area of natural grass and shrublands restored					
		Hectares				
		Expected		Achieved		
		PIF stage	Endorsement	MTR	TE	
Indicator 3.4	Area of wetlands (including estuaries, mangroves) restored					
		Hectares				
		Expected		Achieved		
		PIF stage	Endorsement	MTR	TE	
	Area of mangrove (80 ha); coral reefs (20 ha) and Seagrass (20 ha) restored	120	120			
	Sum	120	120			
Core Indicator 4	**Area of landscapes under improved practices (hectares; excluding protected areas)**					***(Hectares)***
		Hectares (4.1+4.2+4.3+4.4)				
		Expected		Expected		
		PIF stage	Endorsement	MTR	TE	
Indicator 4.1	Area of landscapes under improved management to benefit biodiversity					
		Hectares				
		Expected		Achieved		
		PIF stage	Endorsement	MTR	TE	
Indicator 4.2	Area of landscapes that meet national or international third-party certification that incorporates biodiversity considerations					
Third party certification(s):		Hectares				
		Expected		Achieved		
		PIF stage	Endorsement	MTR	TE	
Indicator 4.3	Area of landscapes under sustainable land management in production systems					
		Hectares				
		Expected		Achieved		
		PIF stage	Endorsement	MTR	TE	

Indicator 4.4	Area of High Conservation Value Forest (HCVF) loss avoided				
		Hectares			
		Expected		Achieved	
		PIF stage	Endorsement	MTR	TE

Core Indicator 5	**Area of marine habitat under improved practices to benefit biodiversity**				***(Hectares)***
Indicator 5.1	Number of fisheries that meet national or international third-party certification that incorporates biodiversity considerations				
Third party certification(s):		Number			
		Expected		Achieved	
		PIF stage	Endorsement	MTR	TE

Indicator 5.2	Number of large marine ecosystems (LMEs) with reduced pollution and hypoxial					
			Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE

Indicator 5.3	Amount of Marine Litter Avoided					
			Metric Tons			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE

Core Indicator 6	**Greenhouse gas emission mitigated**				***(Metric tons of CO_2e)***
		Expected metric tons of CO_2e (6.1+6.2)			
		PIF stage	Endorsement	MTR	TE
	Expected CO2e (direct)				
	Expected CO2e (indirect)				

Indicator 6.1	Carbon sequestered or emissions avoided in the AFOLU sector					
			Expected metric tons of CO_2e			
			PIF stage	Endorsement	MTR	TE
	Expected CO2e (direct) over 20-year period					
	Expected CO2e (indirect)					
	Anticipated start year of accounting					
	Duration of accounting					

Indicator 6.2	Emissions avoided Outside AFOLU					
			Expected metric tons of CO_2e			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
	Expected CO2e (direct)					
	Expected CO2e (indirect)					
	Anticipated start year of accounting					
	Duration of accounting					

Indicator 6.3	Energy saved					
			MJ			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE

Indicator 6.4	Increase in installed renewable energy capacity per technology					
		Technology	Capacity (MW)			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
		(select)				
		(select)				

Core Indicator 7	**Number of shared water ecosystems (fresh or marine) under new or improved cooperative management**					***(Number)***
Indicator 7.1	Level of Transboundary Diagnostic Analysis and Strategic Action Program (TDA/SAP) formulation and implementation					
		Shared water ecosystem	Rating (scale 1-4)			
			PIF stage	Endorsement	MTR	TE
Indicator 7.2	Level of Regional Legal Agreements and Regional Management Institutions to support its implementation					
		Shared water ecosystem	Rating (scale 1-4)			
			PIF stage	Endorsement	MTR	TE
Indicator 7.3	Level of National/Local reforms and active participation of Inter-Ministerial Committees					
		Shared water ecosystem	Rating (scale 1-4)			
			PIF stage	Endorsement	MTR	TE
Indicator 7.4	Level of engagement in IWLEARN through participation and delivery of key products					
		Shared water ecosystem	Rating (scale 1-4)			
			Rating		Rating	
			PIF stage	Endorsement	MTR	TE
Core Indicator 8	**Globally over-exploited fisheries Moved to more sustainable levels**					***(Metric Tons)***
Fishery Details			Metric Tons			
			PIF stage	Endorsement	MTR	TE
Core Indicator 9	**Reduction, disposal/destruction, phase out, elimination and avoidance of chemicals of global concern and their waste in the environment and in processes, materials and products**					***(Metric Tons)***
			Metric Tons (9.1+9.2+9.3)			
			Expected		Achieved	
			PIF stage	PIF stage	MTR	TE
Indicator 9.1	Solid and liquid Persistent Organic Pollutants (POPs) removed or disposed (POPs type)					
POPs type			Metric Tons			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
(select)	(select)	(select)				
(select)	(select)	(select)				
(select)	(select)	(select)				
Indicator 9.2	Quantity of mercury reduced					
			Metric Tons			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 9.3	Hydrochloroflurocarbons (HCFC) Reduced/Phased out					
			Metric Tons			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 9.4	Number of countries with legislation and policy implemented to control chemicals and waste					
			Number of Countries			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 9.5	Number of low-chemical/non-chemical systems implemented particularly in food production, manufacturing and cities					

		Technology	Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 9.6	Quantity of POPs/Mercury containing materials and products directly avoided					
			Metric Tons			
			Expected		Achieved	
			PIF stage	Endorsement	PIF stage	Endorsement
Core Indicator 10	**Reduction, avoidance of emissions of POPs to air from point and non-point sources**					***(grams of toxic equivalent gTEQ)***
Indicator 10.1	Number of countries with legislation and policy implemented to control emissions of POPs to air					
			Number of Countries			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 10.2	Number of emission control technologies/practices implemented					
			Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Core Indicator 11	**Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment**					***(Number)***
			Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
		Female	23,087	23,087		
		Male	22,898	22,898		
		Total	45,985	45,985		

Annex 15: GEF 7

Level 1	Level 2	Level 3	Level 4
X Influencing models			
	☐ **Transform policy and regulatory environments**		
	X **Strengthen institutional capacity and decision-making**		
	X Convene multi-stakeholder alliances		
	X Demonstrate innovative approaches		
	☐ **Deploy innovative financial instruments**		
X Stakeholders			
	☐ **Indigenous Peoples**		
	X Private Sector		
		☐ Capital providers	
		☐ Financial intermediaries and market facilitators	
		☐ Large corporations	
		X SMEs	
		☐ Individuals/Entrepreneurs	
		☐ Non-Grant Pilot	
		☐ Project Reflow	
	X Beneficiaries		
	X Local Communities		
	X Civil Society		
		X Community Based Organization	
		X Non-Governmental Organization	
		X Academia	
		☐ Trade Unions and Workers Unions	
	X Type of Engagement		
		X Information Dissemination	
		X Partnership	
		X Consultation	
		X Participation	
	X Communications		
		X Awareness Raising	
		X Education	
		X Public Campaigns	
		X Behavior Change	
X Capacity, Knowledge and Research			
	☐ **Enabling Activities**		
	X Capacity Development		
	X Knowledge Generation and Exchange		
	☐ **Targeted Research**		
	X Learning		
		X Theory of Change	
		X Adaptive Management	
		X Indicators to Measure Change	
	☐ **Innovation**		
	X Knowledge and Learning		
		X Knowledge Management	
		X Innovation	
		X Capacity Development	
		X Learning	
	X Stakeholder Engagement Plan		
X Gender Equality			
	X Gender Mainstreaming		
		X Beneficiaries	
		X Women groups	
		X Sex-disaggregated indicators	
		X Gender-sensitive indicators	
	X Gender results areas		

		☐ Access and control over natural resources	
		X Participation and leadership	
		X Access to benefits and services	
		X Capacity development	
		X Awareness raising	
		X Knowledge generation	
X Focal Areas/Theme			
	X Integrated Programs		
		☐Commodity Supply Chains (Good Growth Partnership)	
			☐Sustainable Commodities Production
			☐Deforestation-free Sourcing
			☐Financial Screening Tools
			☐High Conservation Value Forests
			☐High Carbon Stocks Forests
			☐Soybean Supply Chain
			☐Oil Palm Supply Chain
			☐Beef Supply Chain
			☐Smallholder Farmers
			☐Adaptive Management
		☐Food Security in Sub-Sahara Africa	
			☐Resilience (climate and shocks)
			☐Sustainable Production Systems
			☐Agroecosystems
			☐Land and Soil Health
			☐Diversified Farming
			☐Integrated Land and Water Management
			☐Smallholder Farming
			☐Small and Medium Enterprises
			☐Crop Genetic Diversity
			☐Food Value Chains
			☐Gender Dimensions
			☐Multi-stakeholder Platforms
		X Food Systems, Land Use and Restoration	
			X Sustainable Food Systems
			☐Landscape Restoration
			☐Sustainable Commodity Production
			☐Comprehensive Land Use Planning
			X Integrated Landscapes
			X Food Value Chains
			☐Deforestation-free Sourcing
			X Smallholder Farmers
		☐Sustainable Cities	
			☐Integrated urban planning
			☐Urban sustainability framework
			☐Transport and Mobility
			☐Buildings
			☐Municipal waste management
			☐Green space
			☐Urban Biodiversity
			☐Urban Food Systems
			☐Energy efficiency
			☐Municipal Financing
			☐Global Platform for Sustainable Cities
			☐Urban Resilience
	X Biodiversity		
		X Protected Areas and Landscapes	
			☐Terrestrial Protected Areas
			X Coastal and Marine Protected Areas
			☐Productive Landscapes
			X Productive Seascapes

			X Community Based Natural Resource Management
		X Mainstreaming	
			☐ Extractive Industries (oil, gas, mining)
			☐ Forestry (Including HCVF and REDD+)
			X Tourism
			X Agriculture & agrobiodiversity
			X Fisheries
			☐ Infrastructure
			☐ Certification (National Standards)
			☐ Certification (International Standards)
		☐ Species	
			☐ Illegal Wildlife Trade
			☐ Threatened Species
			☐ Wildlife for Sustainable Development
			☐ Crop Wild Relatives
			☐ Plant Genetic Resources
			☐ Animal Genetic Resources
			☐ Livestock Wild Relatives
			☐ Invasive Alien Species (IAS)
		X Biomes	
			X Mangroves
			X Coral Reefs
			X Sea Grasses
			X Wetlands
			☐ Rivers
			☐ Lakes
			☐ Tropical Rain Forests
			☐ Tropical Dry Forests
			☐ Temperate Forests
			☐ Grasslands
			☐ Paramo
			☐ Desert
		☐ Financial and Accounting	
			☐ Payment for Ecosystem Services
			☐ Natural Capital Assessment and Accounting
			☐ Conservation Trust Funds
			☐ Conservation Finance
		☐ Supplementary Protocol to the CBD	
			☐ Biosafety
			☐ Access to Genetic Resources Benefit Sharing
	☐ **Forests**		
		☐ Forest and Landscape Restoration	
			☐ REDD/REDD+
		☐ Forest	
			☐ Amazon
			☐ Congo
			☐ Drylands
	☐ **Land Degradation**		
		☐ Sustainable Land Management	
			☐ Restoration and Rehabilitation of Degraded Lands
			☐ Ecosystem Approach
			☐ Integrated and Cross-sectoral approach
			☐ Community-Based NRM
			☐ Sustainable Livelihoods
			☐ Income Generating Activities
			☐ Sustainable Agriculture
			☐ Sustainable Pasture Management

			☐Sustainable Forest/Woodland Management
			☐Improved Soil and Water Management Techniques
			☐Sustainable Fire Management
			☐Drought Mitigation/Early Warning
		☐Land Degradation Neutrality	
			☐Land Productivity
			☐Land Cover and Land cover change
			☐Carbon stocks above or below ground
		☐Food Security	
	☐**International Waters**		
		☐Ship	
		☐Coastal	
		☐Freshwater	
			☐Aquifer
			☐River Basin
			☐Lake Basin
		☐Learning	
		☐Fisheries	
		☐Persistent toxic substances	
		☐SIDS : Small Island Dev States	
		☐Targeted Research	
		☐Pollution	
			☐Persistent toxic substances
			☐Plastics
			☐Nutrient pollution from all sectors except wastewater
			☐Nutrient pollution from Wastewater
		☐Transboundary Diagnostic Analysis and Strategic Action Plan preparation	
		☐Strategic Action Plan Implementation	
		☐Areas Beyond National Jurisdiction	
		☐Large Marine Ecosystems	
		☐Private Sector	
		☐Aquaculture	
		☐Marine Protected Area	
		☐Biomes	
			☐Mangrove
			☐Coral Reefs
			☐Seagrasses
			☐Polar Ecosystems
			☐Constructed Wetlands
	X Chemicals and Waste		
		☐Mercury	
		☐Artisanal and Scale Gold Mining	
		☐Coal Fired Power Plants	
		☐Coal Fired Industrial Boilers	
		☐Cement	
		☐Non-Ferrous Metals Production	
		☐Ozone	
		☐Persistent Organic Pollutants	
		☐Unintentional Persistent Organic Pollutants	
		☐Sound Management of chemicals and Waste	
		X Waste Management	
			☐Hazardous Waste Management
			☐Industrial Waste
			☐e-Waste
		☐Emissions	
		☐Disposal	

		☐New Persistent Organic Pollutants	
		☐Polychlorinated Biphenyls	
		☐Plastics	
		☐Eco-Efficiency	
		☐Pesticides	
		☐DDT - Vector Management	
		☐DDT - Other	
		☐Industrial Emissions	
		☐Open Burning	
		☐Best Available Technology / Best Environmental Practices	
		☐Green Chemistry	
	X Climate Change		
		X Climate Change Adaptation	
			☐Climate Finance
			☐Least Developed Countries
			X Small Island Developing States
			☐Disaster Risk Management
			☐Sea-level rise
			X Climate Resilience
			X Climate information
			X Ecosystem-based Adaptation
			☐Adaptation Tech Transfer
			☐National Adaptation Programme of Action
			☐National Adaptation Plan
			☐Mainstreaming Adaptation
			☐Private Sector
			☐Innovation
			☐Complementarity
			X Community-based Adaptation
			X Livelihoods
		☐**Climate Change Mitigation**	
			☐Agriculture, Forestry, and other Land Use
			☐Energy Efficiency
			☐Sustainable Urban Systems and Transport
			☐Technology Transfer
			☐Renewable Energy
			☐Financing
			☐Enabling Activities
		☐**Technology Transfer**	
			☐Poznan Strategic Programme on Technology Transfer
			☐Climate Technology Centre & Network (CTCN)
			☐Endogenous technology
			☐Technology Needs Assessment
			☐Adaptation Tech Transfer
		☐**United Nations Framework on Climate Change**	☐Nationally Determined Contribution
	X Rio Markers		
		☐Paris Agreement	
		☐Sustainable Development Goals	
		☐Climate Change Mitigation 0	
		X Climate Change Mitigation 1	
		☐Climate Change Mitigation 2	
		☐Climate Change Adaptation 0	
		X Climate Change Adaptation 1	
		☐Climate Change Adaptation 2	

Annex 16: Capacity Development Scorecard

here

Annex 17: METT scorecards

(here)

Annex 18: Partners Capacity Assessment Tool and HACT assessment

(available upon request)

Annex19: UNDP Project Quality Assurance Report

(available upon request)

Annex 20: PPG consultations report

(here)

Annex 21: Co-financing letters

(here)

Annex 22: UNDP-GEF Audit Checklist (see separate folder)