United Nations Development Programme

Project Document template for directly implemented projects financed by the Green Climate Fund (GCF)

Project title: Tuvalu Coastal Adaptation Project (TCAP)	
Country: Tuvalu	
Implementing Partner: United Nations Development Programme	**Management Arrangements :** Direct Implementation Modality (DIM)
UNDAF/Country Programme*: Outcome Area 1: Environmental management climate change and disaster risk management*	
UNDP Strategic Plan Output: *Output 1.4: Scaled up action on climate change adaptation and mitigation cross sectors which is funded and implemented.*	
UNDP Social and Environmental Screening Category: *Moderate*	**UNDP Gender Marker for each project output:** *2*
Atlas Project ID/Award ID number: 00100068	**Atlas Output ID number:** 00103205
UNDP-GEF PIMS ID number: 5699	**GCF ID number:** *FP-UNDP-5699*
Planned start date: 1 October 2016	**Planned end date:** 30 September 2023
LPAC date: 15th February 2017	
Brief project description: The proposed GCF project will enable the Government of Tuvalu (GoT) to implement measures that are urgently required to reduce the impact of increasingly intensive wave action on key infrastructure as a result of climate change induced sea-level rise and intensifying extreme events. Financial and capacity constraints at all levels – from technical to community awareness – that have prevented a sustainable coastal protection solution will be addressed. With GCF financing, it is expected that 35% of high-value vulnerable coasts (2,780m in length) will be made more resilient to withstand the effects of increased wave intensity, compared with the baseline of 7% (570m). The targeted GCF investments will occur at locations that have high concentration of settlements. Expected direct benefits are significant with 3,100 people or 29% of the total population in Tuvalu benefiting from	

the mitigated impact of future wave overtopping events. The project will also strengthen institutional and community capacities for sustaining and replicating project results.

Building coastal resilience is an urgent national priority. The formulation of this project has been led at the highest political level by a Technical Working Group comprising key Government departments and NGO associations, representing vulnerable communities.

The proposed project leverages domestic financing (USD 2.86 million) and is a non-revenue generating public good. Grant funding is therefore requested. The Prime Minister of Tuvalu, who is the NDA to the GCF, has issued a letter of no-objection for the proposed project. It is very much a country-driven process, with significant inputs being provided by the PM's office and other stakeholders during formative stages of proposal writing.

FINANCING PLAN	
GCF grant	USD 36,010,000
UNDP TRAC resources	USD
Cash co-financing to be administered by UNDP	USD
(1) Total Budget administered by UNDP	**USD 36,010,000**
PARALLEL CO-FINANCING (*all other co-financing (cash and in-kind) administered by other entities, non-cash co-financing administered by UNDP)*	
UNDP	USD
Government	USD 2,860,000
(2) Total co-financing	**USD 2,860,000**
(3) Grand-Total Project Financing (1)+(2)	**USD 38,870,000**

SIGNATURES		
Signature: print name below	**Agreed by Government**	**Date/Month/Year:**
Signature: print name below	**Agreed by Implementing Partner**	**Date/Month/Year:**
Signature: print name below	**Agreed by UNDP**	**Date/Month/Year:**

Disbursement:
Annex I forms an integral part of this Project Document and to this end the Government hereby acknowledges that it has read and agrees to be bound, mutatis mutandis, by the obligations and agreements set forth in the Funding Activity Agreement (FAA) to the extent that they relate to actions of the Government, including, but not limited to, those set forth in Clauses 8 and 9.02 of the FAA. For the avoidance of doubt, the Government shall ensure that all conditions that relate to its actions are met and there is continuing compliance, and

understands that availability of GCF funding is contingent on meeting such requirements and such compliance.

I. TABLE OF CONTENTS

II. DEVELOPMENT CHALLENGE

1. **Development:** Tuvalu is the fourth smallest nation in the world. It comprises nine inhabited islands with a population of 10,640. The total land area is 26 km^2. Funafuti atoll, where the national capital is located, is home to about half of the population. With the average elevation of 1.83m, Tuvalu is one of the most vulnerable countries in the world to the impacts of climate change, particularly to projected sea-level rise and increases in the severity of cyclones. When combined with considerable development challenges, a narrow resource base economy and chronic capacity constraints, the high levels of vulnerability to climate change impacts are likely to have severe long term effects on sustainable development of the country.

2. Despite the minimal contributions to global greenhouse gas emissions, Tuvalu is disproportionately burdened with the significant impacts from climate change risks. The root cause of this adverse condition is its high exposure and vulnerability to climate hazards, combined with limited adaptive capacity. A number of environmental, economic, and socio-political factors contribute to its vulnerabilities, and leads to increased risks of climate change impacts in Tuvalu including the following:

- ***Small and low-lying islands***:
- ***High coastal length ratio****:*
- ***Geographic and economic isolation***:
- ***Narrow economic base***:

3. Climate change impacts are putting additional strains on Tuvalu's efforts towards attaining sustainable development. Available climate change projections suggest that Tuvalu will face rising sea-levels higher than the global average and less frequent but more intense tropical cyclone events. These two projections would pose a significant threat to the country where average elevation is barely above 4 m and damages from wave overtopping are already reported during king tides and tropical cyclones.

4. Despite the level of exposure and vulnerability of the country with vulnerable coasts extending for about 8km, the country currently does not have a single coastal protection structure that withstands the future combined impact of sea-level rise and intensifying cyclones (except for two structures that are currently under design for 570m of the coastlines). Once extreme events strike, as seen during Cyclone Pam, the country faces considerable setbacks in terms of economic growth, livelihoods and general well-being of the citizens. Due to the smallness of the country, a single shock can have a cascading effect in various sectors; and, due to the remoteness of the country, disaster recovery is slow and costly.

5. This project is in line with all of the key government strategies and policies. Te Kakeega II 2005-2015 is Tuvalu's national development strategy, which recognizes that climate change poses significant threats to the achievement of the national development goals. Te Kaniva, the Tuvalu Climate Change Policy, with its vision *"To protect Tuvalu's status as a nation and its cultural identity and to build its capacity to ensure a safe, resilient and prosperous future"* guides the country's efforts in both adaptation and mitigation. Goal 4 of the policy specifically focuses on developing and maintaining Tuvalu's infrastructure to withstand climate change impacts and aims to deliver coastal protection following best practices appropriate for Tuvalu's situation. Tuvalu also launched its national gender and youth policy in 2013 and 2015, respectively, which aim to bolster participation of women and youth in decision-making and promote their economic empowerment, among others. The women and youth engagement approach adopted in this project is fully in alignment with this view.

Key Barriers

6. Despite Tuvalu's aspiration to reduce its vulnerability to climate change and ongoing international support in this regard, there are several barriers that need to be removed in order to bring about transformational impact that is both effective and sustainable.

7. ***Limited national financial resources and dependency on fragmented external financing:*** Coastal protection and site-specific assessment to finalize the design of the protection is expensive. Tuvalu's narrow economic base makes it extremely difficult for national budgets to be invested in for this purpose. As a result, past coastal protection investments have been financed through the small discretionary budgets available for outer island administration, private financing, or donor funding. All of these sources are often too small and fragmented to provide a comprehensive, lasting solution. Lack of finance often leads to a design that is not based on detailed site-specific hydrodynamic modelling that enable the final structure to be perfectly aligned with the coastal processes (for improved performance and longevity of the structure) and enable future climate conditions to be incorporated into the design. "Best Practices from the Pacific" (USP, 2015) highlights that poor seawall designs in the Pacific have in the past resulted in maladaptation. Both the WB and JICA assessment reports revealed that many (if not most) privately or communally financed attempts in Tuvalu to armour the foreshore have failed or are failing due to insufficient or complete lack of site-specific assessments. Similarly, an LDCF assessment report points out that concrete blocks that were supplied by a development partner 25 years ago were not robust enough to withstand the immediate wave energy forces[1]. Without GCF investments, it is likely that the GoT will continue to rely on unpredictable donor financing and/or small community-level financing to build ad hoc structures (e.g gabion baskets, concrete blocks, stone pitch seawall) that repeatedly fail to withstand the increasing intensity of tropical cyclones and sea-level rise (More details are found in Annex II of GCF TCAP Proposal).

8. ***Ineffective use of small, but available domestic (outer island level) financing for coastal protection:*** There are several sources of discretionary grants that are available for outer island administrations. While there is a growing recognition among the island administrations and local populations that the local development plan, called the Island Strategic Plan (ISP), should govern the use of such grants, the current ISPs still have the characteristics of a development wish list and are not constrained by the available financing or skillsets to execute priority actions. Ecosystem-based approaches, for example, would be potentially an effective option for coastal protection that utilizes locally available materials and skillsets, but outer island communities are currently constrained by limited knowledge about such an approach and weak planning capacity.

9. ***High staff turnover and a limited number of qualified professionals:*** Although 69% of the workforce in Tuvalu work for the public or semi-public sectors[2], the small total population size makes the core group of climate change professionals to a handful of staff and the impact of staff turnover is significant once a qualified professional leaves the country. For Tuvalu to attain sufficient capacity to tackle the consequences of climate change in an effective and sustainable manner, technical skillsets needed for effective coastal monitoring, protection and O&M need to be developed within relevant Ministries and Departments. At the same time, the Climate Change Policy Unit, a newly established entity whose mandate is to provide inter-ministerial coordination support and lead climate change policy formulation, requires capacity building support to effectively fulfill their mandate.

10. ***Exclusive focus on short-term capacity building:*** Despite the high level of coastal vulnerability, Tuvalu does not have a support system for building long-term national capacity for coastal management professionals. External development projects almost always focus on building short-term capacities by focusing solely on *existing* government officials; little attention is paid to building the long-term technical/professional capacity by targeting those currently outside of the government system such as youth, some of whom are expected to move into the Government system in the near future. Regional mobility is high among skilled professionals in the Pacific, and in the absence of conscious investments in long-term capacity building of the nation, the departure of one technical officer from the government could leave a significant gap in responding to urgent issues in the country. To ensure that Tuvalu maintains a consistent level of technical capacity for coastal protection, it is imperative that the conventional capacity building strategy is altered: A support system needs to be established to build the long-term capacity in the specific areas that the country considers their national development priority, such as coastal protection.

[1] At the time of production of the report, it pointed out the risk of collapse in the next high-wind/wave event, and in fact, it was destroyed during Cyclone Pam in March 2015.

[2] ILO. (2010). Decent Work Country Programme: Tuvalu

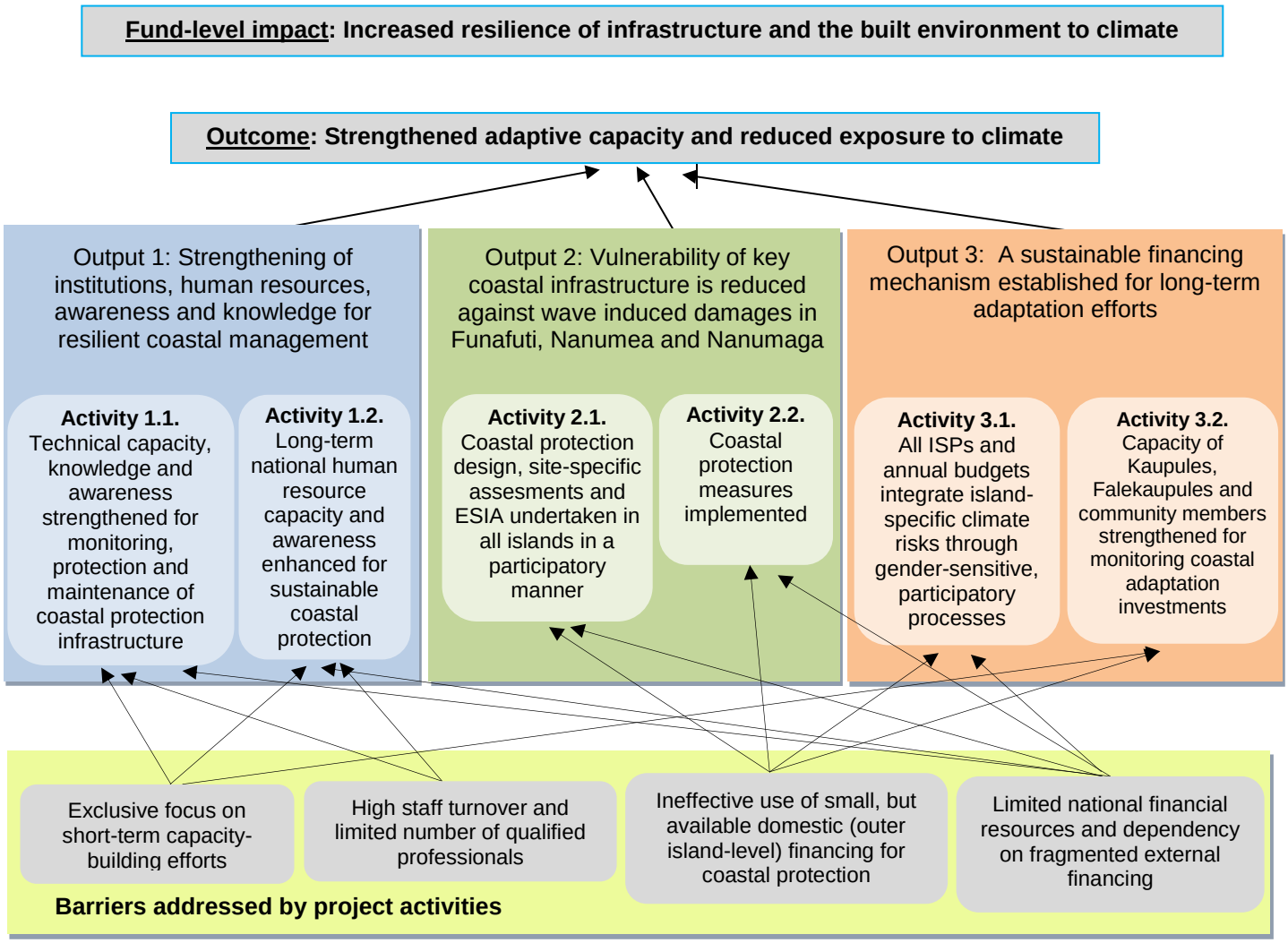
III. STRATEGY

The **Project Objective** is to reduce the vulnerability of three islands of Tuvalu to coastal inundation and erosion.

11. The proposed project has three inter-related outputs that not only aim to achieve impact potential as described in Figure 1 below, but also to create enabling conditions for scaling up and replicating the project impact beyond the immediate target areas. Each of these outputs comprises a set of activities, which in turn have been designed to remove specific barriers that impede the achievement of the climate change vulnerability reduction objective. *The theory of change* for this project described below demonstrates how the implementation of project activities lead to short-term outputs of the project. These outputs lead to longer-term outcomes which include reduced vulnerability of Tuvalu to future impact of climate change, reduced loss from potential natural disasters, enhanced livelihoods and food and water security. All of these outcomes contribute to strengthening climate-resilient sustainable development of the country.

12. Output 1 of the project will improve the enabling environment for reducing coastal vulnerability in the country. To achieve this output, two activities will be implemented including technical capacity building within the government departments whose mandate includes the protection and monitoring of coastal areas, engagement of youth in coastal protection technical trainings with the intention to build long-term national capacity for resilient coastal management. It is important to emphasize that this Output also includes technical capacity building for EBA coastal protection options that are within the technical and financial capability of implementation for the central or outer-island governments (see more below under Output 3). One of the outcomes that emerges from the achievement of this output is that the technical departments possess a sufficient level of technical expertise to monitor and assess high risk coastlines and possible causes of climate and/or non-climate risks and identify practical coastal protection solutions. Another outcome is continuous engagement of youth and women over time in coastal protection work. This includes both community-level monitoring of the effectiveness of the GCF investments as well as simple repairs that may be needed. Improved knowledge about and data on dynamic coastal formation process is also an expected outcome, including the availability of coastal inundation models. None of these conditions currently exists in the country, resulting in reactive, piecemeal, myopic investments in coastal protection. Leveraging improved skills and knowledge of youth and women, the project will generate income earning opportunities for these groups, which will contribute to their empowerment in society. As discussed below, Output 3 improves island-level financing mechanisms for adaptation actions through improvement of an adaptation planning and budgeting process and strengthening of iterative monitoring of adaptation actions. However, the outcomes expected from Output 3 would not be sustained unless Output 1 leads to the outcomes illustrated above.

Figure 1: Theory of Change



13. Output 2 will seek to reduce coastal vulnerability of Tuvalu to climate change induced hazards. Underlying activities include detailed island-level assessments to finalize the coastal design, which also contributes to enhancing the currently limited body of knowledge about coastal dynamics and island formation process in the country. While the proposed GCF project will put in place coastal protection measures in three islands, the assessments will be carried out in all the islands of the country. As described in the barrier section, detailed data on coastal conditions are simply not available because of the costs involved in this type of assessment. The lack of data on coastal conditions, in turn, affect the GoT's ability to attract international financing for vulnerability reduction investments. Thus, this Output is expected to equip the country with a prerequisite often required by donors for funding. The process of the assessments, design and construction will provide opportunities for technical department staff to obtain hands-on skills and procedures for replicating the GCF investments beyond the project lifecycle. Removal of coastal vulnerability is a prerequisite for a small island nation of Tuvalu to attain the outcomes of resilient livelihood options, reduced economic loss and damage from sea-level rise and coastal inundation events, and protection of the highly vulnerable groundwater resources.

14. Output 3 will strengthen a sustainable domestic financial mechanism to sustain, replicate and scale GCF investments. This output will be supported through two activities: First is technical assistance for reflecting climate change adaptation concerns into the Island Strategic Plans (ISPs) and their budgets; and second is improving the iterative planning and budgeting process through proper monitoring (and reflection of the outcomes from the

continuous monitoring in the next ISPs in the following year). As discussed earlier, ISPs present an opportunity for all groups of the community, including women, youth and other vulnerable groups, to express their different climate change concerns in the design of the ISP. On the other hand, disbursements of Falakaupule Trust Fund (FTF) and Special Development Expenditures (SDEs) represent the primary sources of unconditional development grants to support the implementation of island priority actions. The improved use of ISPs as guidance for the effective use of FTF and SDEs, as well as transparent monitoring and verification of the performance of the ISP implementation, will catalyze a greater impact potential from sub-components 1 and 2. In other words, without Output 3 activities, the expected impact from the other two Outputs is unlikely to be sustained as the maintenance needs and/or replication/up-scaling needs would have to be financed by another foreign aid. Moreover, technical capacities for coastal protection obtained within relevant government institutions would not be immediately put to use. The expected result from this output will help leverage the current annual distributions of approximately US$39,000 and US$64,000 per island for FTF and SEDs, respectively, for the achievement of climate resilient development in the country. The implementation of EBA coastal protection measures, such as coastal vegetation, storm ridge and dune restoration, and small-scale beach nourishment, is the type of investments that could potentially be supported using the island-level development budget and leveraging the capacity building exercises specifically focusing on these techniques (under Output 1). GCF investments along 2,210m of vulnerable coastlines, out of the 21,300m of total vulnerable coastlines in the country, means that the potential for scale up, in theory, is about nine times the length of the coastlines targeted in the project (after taking into considerations the baseline of 570m of existing coastal protection measures financed by JICA and UNDP/LDCF/GoT).

15. GCF resources will also be used to enhance the Government's capacity for early response and recovery when the country is struck by a natural disaster. This will be done by making GCF resources available to cover the procurement costs of urgent response and recovery needs. Due to severe limitation in available national budgets, the country is often dependent upon international assistance when they embark on early response and recovery from natural disasters, limiting the speed and flexibility in their response. Recognizing that no coastal defense is capable of eliminating the future damage from intensifying cyclones and other wave overtopping events, it is extremely important that the capacity for early recovery is also strengthened.

16. Lastly, the knowledge accumulation and lessons sharing activity under Output 1 is expected to extend the project's replication potential beyond Tuvalu. Many Pacific SIDS face similar constraints in terms of accessing the needed finance for their coastal protection requirements and obtaining the needed data on coastal dynamics to even plan for such investments. Tuvalu's experience in a comprehensive barrier removal approach through GCF support will be shared in regional fora and other information outlets.

17. The linkage between the expected results from this project and the achievement of the Sustainable Development Goals should also be highlighted. In addition to directly addressing the goal related to climate actions (Goal 13), the project is expected to contribute to the achievement of goals, inter alia, related to poverty (through vulnerability reduction: 1.5), gender equality (through a target approach to increase participation of women in island level decision making: 5.5) and inequality (through channeling climate finance to Tuvalu, which is a small island developing state: 10b).

IV. RESULTS AND PARTNERSHIPS

18. Expected *Results:* The project contributes towards UNDP Strategic Plan Output 1.4 "Scaled up action on climate change adaptation and mitigation across sectors." The design of the proposed GCF project incorporates lessons and best practices from several other projects to bring about transformative impact that is effective, efficient and sustainable. These lessons include a) the use of locally-appropriate technologies based on information available that are expected to be most cost-effective; b) the effectiveness of comprehensive barrier removal strategy; c) an innovative approach for capacity development in the Tuvalu context; and d) the critical importance of leveraging available local resources for promoting longer-term autonomous adaptation. These lessons have been derived from

experiences from the first LDCF-financed project in Tuvalu, and community-based adaptation initiatives in other SIDS from the region.

19. Comparable efforts in the region and elsewhere have shown effective impacts related to saving lives and protecting assets with an appropriate mix of hard and soft solutions that are locally suitable. For examples, in Australia, the Gold Coast Beach Protection Strategy included large-scale beach nourishment to widen sand starved beaches, dune rehabilitation efforts, and a large, submerged offshore reef together provided a buffer against future storm events and improved the habitat for marine flora and fauna (Jackson et al., 1997, Jackson et al., 2012). In Tonga, a combination of hard and soft measures including permeable gryones and beach nourishment will build the resilience of about 3,000 people in low-lying communities.[3]

20. The proposed project will contribute to the achievement of climate-resilient sustainable development in Tuvalu. Construction of coastal protection measures in the most vulnerable coastlines of the country along high value zones will reduce the vulnerability of Tuvaluans to future impact of climate change including tropical cyclones and heightened wave actions that have caused significant damages to lives, livelihoods and economic assets in the past. The proposed measures will enable communities living in the vicinity to not have to bear the brunt of unabated coastal inundation and damages. This will ensure that businesses/livelihoods face lower disruptions, communities themselves do not incur the heavy economic losses, not to mention the cost of disruptions to people through forced relocations. 2,210m of vulnerable coastlines will be protected by coastal defenses to minimize risks from wave over-topping events. Moreover, if large scale wave over-topping events occur which result in a national state of emergency, the support structure for community-based disaster early response and recovery will help the affected restore their livelihoods and other economic assets as soon as possible. Overall, the project will contribute to Fund level impact of increased resilience of infrastructure and the built environment to climate change.

21. The project outcome will strengthen the adaptive capacity and reduce exposure to climate risks through strengthening of institutions, human resources, awareness and knowledge for resilient coastal management, protection of vulnerable coasts in high-value asset areas, and establishment of a sustainable financing mechanism for long-term adaptation efforts. *The project will establish at least 3 coastal defence measures along vulnerable coastal lines in three target islands.*

22. The project will result in strengthened institutions, human resources, awareness and knowledge for resilient coastal management. Local capacities will be enhanced through on-the-job training and experience building in monitoring and data collection of very dynamic coastal processes and design of coastal adaptation measures. The project will build and improve technical capacity of nationals to lead and take ownership in further development, implementation, and sustenance of coastal protection measures through the project, as well in the future. It will also Increase knowledge of targeted government officials and community members including women, youth and children, in order to broaden the awareness on the impacts of climate change on coastal vulnerability. *The project will enhance the technical capacity of at least 12 government staff and support at least 24 students to obtain professional opportunities related to climate change adaptation.*

23. The project will reduce exposure of vulnerable populations to climate risks by reducing the vulnerability of key coastal infrastructure including homes, schools, hospitals, and other assets to wave over-topping events (See Annex X showing assets to be protected). It will support participatory design, implementation, and monitoring of coastal measures in Funafuti, Nanumeae, and Nanumaga. *The project will result in reduced vulnerability of coastal assets along 2,210 m of high-value coast lines in the three target islands.*

24. The project will establish a sustainable financing mechanism for long-term adaptation efforts so that adaptation actions are financed and implemented through island level plans. It will empower community members, including men, women, youth, children, and the elderly to participate in a climate resilient planning process of the ISPs, taking into consideration climate change impacts and integrated coastal, land, and marine

[3]http://www.pacificclimatechange.net/components/com_booklibrary/ebooks/Tonga%20factsheet%20final.pdf

resource management principles. It will also result in enhanced capacities of communities to monitor, evaluate and communicate results and impacts of coastal protection adaptation investments. *The project will support financing and execution of at least 16 adaptation priority actions (two each in 8 of the country's islands), outlined in ISPs.*

25. Partnerships: The jurisdiction of coastal protection is shared across the Department of Lands and Survey (DoLS), Public Works Department (PWD) and Department of Environment (DoE). However, none of these departments currently have the technical capacity to monitor the dynamic processes of coastal change over time nor the capacity to design potential coastal interventions. Nor is there sufficient capacity within the Climate Change Policy Unit (CCPU) to coordinate the work of these departments for effective coastal protection. Due to this limitation, the Government is not able to carry out vulnerability assessments, site assessments and coastal design, make informed decisions about pragmatic solutions for coastal protection, and identify potential funding sources for implementation. Instead, they generally have to wait for a donor, often with particular areas of financing priority, to approach them. This lack of ability to carry out a preliminary technical assessment contributes to an increasing sense that the issue is out of their control and eventually to limited ownership. Further, although the CCPU was newly established in 2015 to coordinate government's actions for climate change adaptation and mitigation, medium- to long-term capacity building efforts are needed in the technical areas of climate change, coordination, project design and management, financial management, knowledge management and reporting.

26. Development of technical capacities for coastal vulnerability assessments and technical assessments will require that technical officers in the three departments play mutually-reinforcing, and yet distinct, roles. In particular, the role of DoLS technical staff is monitoring and assessment; PWD is responsible for preliminary design of interventions; and DoE is responsible for overseeing the environmental and social impact assessment (ESIA) process while the CCPU plays a coordinating role. The GoT will use the project resources to train staff members from each of these departments through hands-on trainings offered by international-level experts, including regional institutions like SPC (Secretariat of the Pacific Community) Geoscience Division and SPREP (the Secretariat of the Pacific Regional Environment Programme). The same staff members will also join site-specific assessments (conducted by an international contractor) and implementation of coastal protection measures (under Output 2) so that they are exposed to new techniques and knowledge. It is important to note that the training on coastal protection design will cover both hard-engineering and ecosystem-based adaptation (EBA) approaches such as coastal vegetation, ridge and dune restoration, coral transplantation or seagrass plantation. This is to maximize the replication potential of GCF investments beyond the project to the remaining high-value vulnerable coastlines in the country.

27. Stakeholder engagement*:* A wide range of stakeholders will be involved in the project, tailored to the specific needs of the three project. A stakeholder engagement strategy is found in Annex 16. Outputs. Key stakeholders to be engaged include a range of government line ministries to support the project implementation, NGOs, island-specific Kaupules and Falekaupules and local communities including some of their interest/community groups. In general, stakeholder engagement in the project implementation begins at the inception workshop which will be held at the capital. Government departments, Funafuti-based representatives from island Kaupules, NGOs/CSOs and citizens will be invited to the workshop and the focus of the project, the timing of island visits and stakeholder consultations, types and nature of adaptation investments, and expectations from stakeholders engaged will be presented. During the first island visit, island-level inception workshop will be organized in each island covering the sametopics.

28. Each Output of the project has its own stakeholder groups:

(i) Output 1 will be delivered in partnership with the Climate Change Policy Unit (CCPU) with assistance from the project-funded staff in the Project Management Unit (PMU). The CCPU/PMU will closely work with regional agencies such as SPC Geoscience Division and SPREP for delivering targeted skill building trainings for technical officers in DoLS, PWD, DoE and CCPU. The Ministry of Education (MoE) will be

invited as a Responsible Party for managing the project activities and finance related to the scholarship program targeting high school and university students. The Ministry of Finance (MoF) will also participate in the discussions related to the scholarship program in relation to the financial administration of the scholarship program (following the practice for the other scholarship programs that exist in the country). MoE will also be engaged for activities related to curriculum development. The Department of Rural Development (DRD) is the focal agency for any work involving outer islands, and therefore, they will be a critical partner in all activities of the project. Awareness raising activities that take place in outer islands will be designed in partnership with DRD. In outer islands, the main stakeholders include kaupule, falekaupule, youth group, women's group, fisher's group and other CSOs (See more below on the specific strategy for community engagement)

(ii) Output 2 will be delivered in partnership with PWD and DoLS. Since a majority of relevant project activities will take place in outer islands, DRD will be invited to all key discussions for this Output.

(iii) Output 3 will be delivered in partnership with DRD. On the outer islands, the project will work closely with Kaupules to enhance their strategic planning and budgeting processes to ensure adaptation can be built into island-level planning in addition to community groups. This will necessarily include regular consultations with communities through community meetings to seek views and ensure clear dialogue.

29. Informal stakeholder engagement may take place at any time and any location within the operational terms and guidelines set out by the project at start of implementation.

30. All activities on the outer islands will be carried out through the assistance of DRD within the Ministry of Home Affairs and Development (MHARD) and the island representatives on Funafuti. These are the official conduits for all outer islands activities and working through these channels will ensure smooth implementation and cooperation from island leaders.

31. On the outer islands, the Kaupule staff are the executives of each island's Falekaupule (governing council) and will be integral to all interventions. The Kaupule will need to give approval for all activities, use of land, funding arrangements and involvement. The communities, and particularly the local community groups of women, youth and elders will be involved in all decision-making through regular meetings in the community hall (maneapa).

32. The project intends to run regular meetings incorporating educational videos, the outcomes of the participatory monitoring videos (under Output 3) and other mechanisms to stimulate discussions and derive steering for the project. This will ensure that the interventions remain in touch with community stakeholder aspirations at all stages of the project that will be enhanced through the scheduled outer island visits (see below). In addition, events that are designed to promote information sharing about the adaptation effectiveness of investments in Output 2, such as annual national consultations inviting some representatives from the islands, are expected to provide additional stakeholder engagement benefit.

33. Full details on the proposed Stakeholder, Community, and Youth Engagement Strategies can be found in Annex 16.

34. Mainstreaming gender: A full gender assessment and action plan have been prepared for this project. They can be found in Annex 7 . Gender considerations were identified during the project's design by:

- Engaging women and key government and civil society groups focusing on women and gender empowerment in Tuvalu during rounds of consultations;
- Reviewing and aligning with Tuvalu's national polices and strategies on gender; and
- Assessments of conditions in Tuvalu that affect gender-responsive project design

- Integrating gender considerations in the project indicators, targets and activities

35. The Project is expected to bring a range of gender-responsive development impacts. First, women along with youth will receive targeted training on monitoring of coastal change, basic maintenance of coastal infrastructure, and implantation of ecosystem-based solutions to coastal protection (Output 1). Not only will enhanced skillsets contribute to general empowerment of women, but this will directly be linked with increasing employment opportunities. Because the project will generate both demand for such services by the island administrations (*kaupule*) (through Output 3 activities using available island-level unconditional grants) and supply (skilled labour for maintaining and expanding coastal protection), it is likely that the impact will be long-lasting.

36. In addition, women's group members will be trained in participatory video production, which will be a tool to monitor the transparent and effective use of island-level development finance by *kaupules* in accordance with the Island Strategic Plan. Such a responsibility, which is recognized by community members and *kaupules*, is likely to have impact on general empowerment of women.

37. There are also other indirect benefits that women will receive from the project interventions. According to UNWomen (2015), women account for 78% of the population involved in informal subsistence economy, most importantly agriculture. The agriculture sector is currently extremely vulnerable to cyclones, king tides and other threats coming from the ocean. During TC Pam, for example, up to 90% of the crops were affected in Nui and Nukufetau (OCHA, 2015). By reducing coastal vulnerability, and reducing the potential impact of wave actions on agricultural activities, the viability of women's livelihoods is expected to be maintained even under a changing climate. This assertion will be explicitly verified through a technical review that will be conducted at the end of the project implementation and it is included as one of the project indicators presented in Section H.

38. South-South and Triangular Cooperation (SSC/TrC): In particular, under Output 1, two regional conferences will be organized toward the end of the project implementation to disseminate lessons to other countries in the region.

39. Knowledge: Support for facilitating learning and building knowledge including for generation, dissemination and use, is envisaged in four areas of project activities.

40. The first will target government officials from DLS, PWD and DoE who will receive trainings on synthesis and analysis of beach profile data, coastal protection feasibility assessments, basic maintenance of coastal protection infrastructure, and ecosystem-based coastal protection approaches. This will not only involve the in-class type of pedagogy, but also outposted-assignments in institutions such as UNDP, SPREP and SPC Geoscience Division as well as hands-on trainings during the actual execution of Output 2 activities. CCPU will also be exposed to various learning opportunities as an entity responsible for coordinating and overseeing climate change initiatives in the country. In total, at least 12 officers are expected to be trained.

41. The second area targets students who are currently in a high school or university program so that they will obtain a higher degree in disciplines related to coastal protection such as civic/coastal engineering and oceanography. This programme will be supported only in the first 4 years of the project implementation so that, during the lifecycle of the GCF project, the students supported will have graduated and, as per the scholarship arrangement, come back to Tuvalu to work on the project to apply their knowledge and skills gained. The university partnership will also allow learning and knowledge-generation to be disseminated within and beyond Tuvalu, where academics and students will be invited to conduct research and or field-based studies. Not only will this allow young academics and experts in Tuvalu and in the region to interact with global experts in the field, but also, the knowledge and learning from Tuvalu regarding coastal resilience building can then be shared throughout the world.

42. The third area of knowledge sharing and learning will take place in the communities targeting both the

administrators (the *Kaupules* and the *Falekaupules*) and community members. The administrators will gain better understanding about the process for participatory, gender-responsive development planning, budgeting and execution while community members will enhance their awareness about the importance of independent monitoring of the performance of the administrators, judged against the ISP. Officers from the Department of Rural Development will also enhance their knowledge of facilitating community dialogue for development planning as an independent facilitator of the process. In addition, this development dialogue platform will also be used to improve learning among community members about climate risks, the notion of island formulation process and the ecosystem-based adaptation approaches, data collection for coastal monitoring, coastal design options, maintenance responsibilities, and costs. This provides an important opportunity to make their own decisions regarding their future. Training of trainers approach will also be used, as this will be an effective, efficient, and sustainable way to reach out, train, and empower a large number of beneficiaries that are located in remote atolls.

43. Lastly, the overall experience in project implementation and results from monitoring of the impact of the investments on vulnerability reduction (gauged in terms of wave overtopping events or sediment transport at the island level) will be shared at regional/international fora. The empirical evidence of the impact of climate resilient coastal protection is limited in the Pacific, especially from SIDS. Lessons learned and best practices will be proactively shared and the project will make direct contributions towards the buildup of the regional body of knowledge in coastal protection, a development priority shared by many other SIDS in the region. The project will also support sharing of lessons learned and best practices through the continuous monitoring and evaluation of the project. The M&E plan (Section H.2 in the GCF TCAP Proposal) will include provision for generation of lessons learned and best practices (reports, publications, and other communication and knowledge products for various media) to not only support adaptive project management but also to inform learning across national/sub-national/community levels within the country and the region.

V. FEASIBILITY

i. Cost efficiency and effectiveness*:*

44. The proposed project will reduce the vulnerability of three islands of Funafuti, Nanumea and Nanumaga to coastal inundation and erosion. It is expected that this objective will be achieved in a cost-effective manner through the following considerations that have been reflected in the design of the project.

45. In this project, the use of a mix of options, both soft and hard, for coastal protection will be explored and will improve the cost-effectiveness of the coastal protection solutions considered. While 2,210m of high-value vulnerable coast will be equipped with hard-engineered solutions, the project also places emphasis on introducing EBA-based coastal protection measures in less high-value zones. During the implementation of the project, advantages and disadvantages of options such as geo-textile container revetments, dune restoration, or hybrid of the two, or even the possibility of relocating the boat access channel, will be fully discussed so that community acceptance to a range of options increases and optimal solutions can be obtained from the perspectives of society, economics and engineering integrity.

46. Second, as discussed in detail in the barrier section, the proposed project will address a range of issues that arise from the piecemeal approach to coastal protection in the past that have prevented effective solutions from emerging. Due, largely, to financial constraints, the limited number of support that did exist in Tuvalu focusing on building coastal resilience, focused on removing a barrier or two at a time. The proposed project, on the other hand, will remove a range of barriers under a single project framework, namely, the capacity barrier not only among the current but also future generations, financial constraints, and the local governance and domestic climate finance bottleneck. If addressed simultaneously, the development and transformational impact from the project are expected to be greater.

Adequacy of financing structure

47. The proposed investments in the areas of coastal protection, capacity building, and support in establishing a sustainable financing mechanism for continuous monitoring, maintenance and expansion of coastal protection, are considered a public good. Furthermore, this is an area for which the GoT has struggled to date to attract even international development finance because of the large capital investments required.

48. However, this project has been designed to crowd in potential public finance once the existing barriers are sufficiently removed. Output 1 and 3 have been consciously designed to leverage limited, but available domestic financing at the outer island level for the maintenance and expansion of coastal protection. The detailed island-level coastal assessments, which are envisaged to be carried out in all inhabited islands of Tuvalu, and successful demonstration of coastal protection investments through this project, will remove an entry barrier for other donors to finance similar needs in the remaining islands.

ii. Risk Management:

49. A UNDP Risk Log has been prepared and can be found in Annex 14 As per standard UNDP requirements, the National Project Manager will monitor risks quarterly and report on the status of risks to the UNDP Country Office. The UNDP Country Office will record progress in the UNDP ATLAS risk log. Risks will be reported as critical when the impact and probablity are high (i.e. when impact is rated as 5 and probablity is 1,2,3,4, 5 or when impact is rated as 4 and probability is rated at 3 or higher). Management responses to critical risks will also be reported in the Annual Project.

Environmental Risks

50. The project has a number of low to moderate environmental and social risks associated primarily with the coastal protection infrastructure which will be temporally restricted except for any potential changes in fine scale hydrodynamic processes. There are also potential risks on marine ecosystems and fishing grounds associated with dredging areas although these are significantly reduced by using a backhoe dredge. The earth works will move sediment that, if not properly contained, may enter the marine environment.

51. The risks associated with acid sulfate soils are considered minimum as there is no known mangrove habitats along the proposed coastlines. Prior to any excavation, however, sediments will be tested for their presence of acid sulfate soils and/or potential acid sulfate soils. If the analysis proves positive, the sediment can be treated by a range of techniques including but not limited to liming the sediment. Reference should be made to appropriate standards and guidelines[4]. Every effort should be made to ensure there is no direct or residual impact following treatment.

52. Overall, it is expected that the project will have some environmental impacts although these can be mitigated effectively through appropriate management measures. The project will have significant environmental benefits in the short to long term through the improvement of water quality, provision of new habitat, coastal protection, and most importantly, through providing communities with areas to live that will not be inundated during king tides and during cyclone events

Social risks

53. There are limited social risks associated with the project. Importantly, no people will be displaced or relocated. There will potentially be an impact on fishers if the location of dredging or coastal protection is an important fishing ground. Coastal protection measures may also alter the way local communities interact with the coast.

Other Risks

54. Several other categories of risks have also been identified during the project design. Under the technical and operational risks, there are two main risk factors that could affect the achievement of the expected results and outcomes of the project.

- Currently, there are two passenger boats that make scheduled trips to outer islands, in addition to one research boat owned by the Fisheries Department and one patrol boat in the country. These boats are always on high demand and the Tuvaluan seas often make these boats unnavigable. This can potentially limit the mobility of project staff traveling to target islands.
- Another operational risk is the high staff turnover and the difficulty in identifying suitable candidates for project positions.

55. Political risks are another risk category.

- In Tuvalu, changes of government, often through the parliamentary vote of no confidence, are frequent. While the change of government does not necessarily mean changes in policy directions, it poses a risk of delays in project decision making process.

iii. Social and environmental safeguards*:*

56. This project has completed the UNDP social and environmental screening procedure (see SESP attached as Annex 5 a. the overall social and environmental risk category for this project is **Moderate**. It is highly unlikely that the project will have any medium to long term and/or irreversible impacts, and potentially moderate risks associated with the proposed construction of coastal protection structures and dredging of materials can be sufficiently

[4] For example, refer to Ahern, C.R., Ahern, M.R. and Powell, B. (1998) *Guidelines for Sampling and Analysis of Lowland Acid Sulfate Soils (ASS) in Queensland* QASSIT, Department of Natural Resources, Resource Sciences Centre, Indooroopilly; Ahern, C.R., McElnea, A.E. and Sullivan, L.A. (2004) *Acid Sulfate Soils Laboratory Methods Guidelines*. In Queensland Acid Sulfate Soils Manual. Department of Natural Resources, Mines and Energy, Indooroopilly, Queensland, Australia; and Dear, S.E., Moore, N.G., Dobos, S.K., Watling, K.M. and Ahern, C.R. (2002). *Soil Management Guidelines. In Queensland Acid Sulfate Soil Technical Manual*. Department of Natural Resources and Mines, Indooroopilly, Queensland, Australia.

managed. There are three key factors that determine that this project is classified as a Category B (or Moderate Risk) project:

a) The proposed project will not be undertaken in pristine or protected areas where the construction of a built structure could potentially cause irreversible changes to the biological, ecological and physical environment. The project will be undertaken in areas that have been impacted by both anthropogenic and natural processes (e.g. Cyclone Pam in March 2015) in the past and that have ever changing environmental conditions through hydrodynamic and coastal processes as an example.

b) The coastal protection measures that are considered in the project (i.e. igneous rock armour revetment, geo-textile container revetment, and pre-cast concrete revetment (Seabee)) will be parallel to the existing beach profile and coast line. These structures, in comparison with those that extend out to sea (e.g. through the construction of a groyne, revetment or breakwater as constructed to protect port infrastructure as an example), are expected to have much less significant impact on coastal hydrodynamic processes as they will follow the existing coastal profile. Similar projects of this nature in the Pacific Islands have been considered as Category B projects and have been approved by international organisations following the preparation of an Initial Environmental Examination (IEE) rather than a full ESIA (e.g. CIF-Funded ADB project in Tonga for coastal protection works as discussed above that the specialist was involved in and wrote the IEE). The beach profiling proposed as part of the project (see E.3 above) will also be undertaken pre and post construction to provide a definitive baseline that will be used in the engineering design to avoid adverse environmental and social impacts. This is a consistent approach used throughout the Pacific.

c) Dredging will be extremely limited (approximately 30,000m^3) in contrast to large dredging projects that are considered to be of greater risk based on international practices (for example, the specialist has recently completed a Public Environment Report – a lower level assessment than an ESIA for a 3 million m^3 capital dredging campaign within the Great Barrier Reef World Heritage Area). Further, the amount of sediment being dredge is significantly less than normal maintenance dredging undertaken at many ports throughout the Pacific which do not require an environmental impact assessment but are undertaken consistent with an ESMP. Importantly, the type of dredge proposed (backhoe) to undertake dredging will have significantly less impact on the marine environment as there is no overflow that can impact water quality.

57. The investment is expected to deliver the following economic, environmental and social benefits across the project area:

- Reduced loss of assets including houses and property, which will raise environmental and social wellbeing and economic productivity;
- Reduced sea flood damages through improved coastal protection;
- The development of new habitat for marine fauna;
- Increasing capacity of the government and community through education programs on climate change

Social assessment

58. There are limited social impacts associated with the coastal protection infrastructure. Importantly, no people will be displaced or relocated. Careful planning and stakeholder consultation will be undertaken prior to determining the specific locations of the coastal protection infrastructure which will ensure communities are not negatively impacted. Further, stakeholder consultations will be undertaken when assessing the sites that might be utilized for the supply of sediment. There may potentially be an impact on fishers currently utilizing areas in proximity to the coastal protection infrastructure and or dredging locations. This risk could potentially materialize in two ways: First is through the impediment of pedestrian access to the coast caused by a coastal protection structure; second is through the disruption of fishing grounds during the sourcing of sand materials or construction of a coastal protection structure. To ensure there is limited impact on people, community consultation will be undertaken to ensure the infrastructure and dredging are not located in important fisheries areas. Where available, local people

will be employed to undertake construction and maintenance of the coastal protection infrastructure, thereby providing a social benefit to the community

Gender considerations

59. Acknowledging that men and women derive benefits differently from access to ocean (i.e. collection of shellfish, crustacean, shrimps in the nearshore area is typically a responsibility of women and children while men tend to engage more in pelagic or coastal fishing) and are impacted differently at the time of extreme events, the project has been designed with a special to gender considerations. Women and women's association have been separately engaged during consultations; Tuvalu's relevant policies and strategies on gender have been reviewed; information and lessons from past studies and assessments have been incorporated into the design of the GCF project; and gender considerations have been integrated into the project indicators, targets and activities. At the end of the project implementation, the project will specifically look into gender-differentiated impact of the project by engaging a technical specialist. Results from this assessment will be widely disseminated at a regional or national workshop, contributing to heightened awareness and understanding about the impact of coastal protection on gender equality or empowerment.

60. Apart from the gender impact of coastal protection, the project will also contribute to women's empowerment through two additional avenues: enhanced participation and increased responsibilities. One of the fundamental principles of ISP support is participatory development planning, budgeting, execution and monitoring. Unlike the conventional communal decision making process in Tuvalu, where the island assembly is open only to men over the age of 50, the ISP formulation process opens the door to all in the society, including women and youth. The project will build on the community mobilization platform being used in the baseline UNDP projects and provide an opportunity for women to raise and reflect their concerns, in relation to climate change and coastal vulnerability, into their own island development plan.

61. Moreover, the project's gender-responsive strategy will go beyond promoting women's token participation. As an integral part of the ISP process, women's group members will be given specific responsibilities to monitor the execution of ISP priorities and island budget through the participatory video tool.

62. General awareness raising about climate change and coastal processes will be mainly delivered through engagement of school teachers. This is likely to have a positive gender spillover effect as 83 percent of teacher positions in the country is held by women, and the additional knowledge, information, and skills that teachers will learn through this GCF project will contribute to empowering female teachers.

63. In addition, the project will create a condition where some of the additional responsibilities that women will take on will be financially rewarded. More specifically, women members of society, in addition to youth groups, will receive skill trainings on beach profile survey, basic monitoring and maintenance of the coastal protection structures, and execution of simple 'soft' coastal protection measures, and these responsibilities will be financially rewarded, initially through the project budget during the implementation, but through the island-level development grants after the project closure. It is expected that 36 people will be newly recruited and trained for beach profiling and at least half of them will be women. There is one Land Clerk in each island (total of nine) who will also be trained on beach profiling. Four out of nine of them are currently women. The scholarship programme will target 24 students to obtain higher degrees in disciplines that are specifically relevant for coastal protection, and the minimum 50 percent target will be adhered to. Through these efforts, the project will ensure significant gender benefits (See Section E.3.1). During consultations, those that were directly linked to expanded economic opportunities (such as the recruitment of women for beach profiling and monitoring and maintenance of the coastal infrastructure) were particularly welcomed by women. The Gender Assessment and Action Plan for this project is presented in Annex 7.

iv. Sustainability and Scaling Up

64. The proposed project has been designed through extensive consultations and involvement of government, NGOs, and CSOs to ensure ownership of the interventions and effectiveness of their impact. Relevant government departments and local communities have been involved in the proposed design and will be leading on implementation of project interventions. The project builds on this commitment and ownership to ensure that the investments and impacts are sustained for the long-term through the following:

65. **Selection of long-lived coastal protection measures with an ex-post Operation and Maintenance plan:** First, the selection of the coastal protection measures have been done so to achieve the minimum design life of 25 years for geo-textile revetment (in outer islands only); and with the appropriate selection of vandal resistant bags for the top layer walls, the life expectancy is expected to be considerably longer. For rock armour and pre-cast concrete revetments, the design life of 50 years will be adopted following the standards for normal maritime structures. This means that the coastal protection options that will be employed in the GCF project will not require a major structural overhaul during their product life.

66. However, for the minimal maintenance that may be required, such as the repair of wave return walls, monitoring of vandalism, visual observation of wear and tear, patrolling for preventing sand/gravel removal at the site or in adjacent sites, application of repair patches for geo-textile sand containers, planting and recovery of coastal vegetation, it is critical that there is secured sources of financing. To this end, the GoT has agreed to allocate approximately US$2.3 million for the duration of the project (or approximately US$128,713/year for 15 years) to be used for this purpose. This comes from the Infrastructure Maintenance Budget. In addition, additional measures are supported by the project including training of government staff and communities to ensure ownership and capacity for post-project monitoring and maintenance. (See O&M plan, Annex 16)

67. **Developing outer island level conditions for exit strategy**: Due to the remoteness of outer islands from the capital, public service delivery has been one of major development challenges in Tuvalu. To sustain the adaptation results achieved through the GCF project, it becomes critical that roles and responsibilities between the central government and island administration (*kaupule*) are clearly delineated and understood among all stakeholders. The proposed activities under Output 3 are geared towards strengthening the foundation for improved execution of public service delivery at the outer island level, the work currently supported by UNDP. This work will enhance the effective use of unconditional grants available at the outer island level towards general environmental conservation, climate change adaptation and maintenance of the GCF-financed infrastructure. Two sources of grants – Falekaupule Trust Fund (FTF) and Special Development Expenditure (SDE)[5] – currently have annual distributions of approximately US$39,000 and US$64,000 per island, respectively, and the GCF project will provide additional incentive through performance-based top-up grants. In partnership with the two UNDP-supported projects, GCF resources will be used to strengthen the capacity of administrations for participatory ISP formulation, raise awareness about coastal processes and ecosystem-based coastal protection approach, and transparent execution and monitoring of the grants. Through this support, it is expected that the periodic monitoring and maintenance needs, which do not require technical assistance from the central government, will be financed out of the FTF and SDE.

68. **Targeted capacity building at the central and outer island levels**: Support on the ISP process will be complemented by capacity building activities at two levels. At the outer island level, community groups, including youth and women's groups and other CSOs will receive technical training on multiple areas including the following:

- Collection of beach profile data by training 45 individuals in all the islands (at least half of them women)
- Execution of simple ecosystem-based coastal protection work such as coastal vegetation, ridge and dune restoration and the use of native trees to construct wave breaker structures and groynes
- Coastal protection maintenance work
- Monitoring and the basic repair of the geo-textile sand retainer revetment

[5] SDE expenditures include other block grants

69. Long-term monitoring of coastlines through beach profiling will enable the Government to respond more effectively, complemented by technical capacity building for implementing ecosystem-based coastal protection work. To assist timely and effective maintenance of geo-textile revetment, basic repair kits sufficient for 4-5 years will be procured and youth and women's groups will be trained for the application of the kit. After the project closure, the trained groups are expected to be employed by *kaupules* once such repair work needs arise and will be paid out of the FTF and/or SDE (which is the focus of Output 3 of the project). Not only will this approach contribute to building local capacities, it will also open a cash employment opportunity in outer islands which is currently highly limited.

70. At the central government level, technical officers at PWD and DoLS, will receive special training. DoLS officers will build capacity for collecting, synthesizing and analyzing beach profile data collected by community members as described above. This will enable them to obtain periodic information on coastal processes. PWD officers will be engaged during the design stage of coastal protection measures in Funafuti, Nanumea and Nanumaga, and they will gain hands-on experience in the maintenance of the system as well as implementation of EBA coastal protection work.

71. **Building a body of knowledge, facilitate learning**: It is important to emphasize that building climate resilient coastal protection structures is a new field in Tuvalu and many parts of the Pacific. Information and awareness gaps are still significant in the country in terms of coastal dynamics and locally appropriate solutions. Through monitoring of the effectiveness of the proposed GCF investments, awareness raising support, targeting all the islands, exchange visits (bringing island representatives from non-target islands), collection of beach profile data by communities and synthesis by DoLS, and organization of regional knowledge sharing events, the project builds national and regional knowledge on coastal processes and climate resilient coastal protection options. Moreover, in the final year of the project, a technical assessment will be carried out by an expert to review the effectiveness of the coastal protection measures put in place in the project.

72. This GCF project will become one of the first projects in the Pacific that deliver engineered coastal protection solutions in remote outer islands where landing facilities are non-existent and basic data are limited. The overall experience from the implementation of this project, therefore, will contribute tremendously to the national and regional body of knowledge. Accumulation of such knowledge in turn becomes critical to effectively expand and maintain coastal protection works in the region.

v. *Economic and/or Financial Analysis*

73. An economic cost-benefit analysis of the project was carried out in accordance with the Guidelines for the Economic Analysis of Projects of United Nations Development Program (UNDP 2015). The feasibility of the investments was determined by computing the net present value of the proposed project using a 10% discount rate. The period of analysis covers 40 years.

74. The expected benefits of the proposed project were estimated using the Country Risk Profile for Tuvalu prepared by the Pacific Catastrophe Risk Assessment and Financing Initiative in September 2011 (Annex 16). This is the most recent assessment that has credible estimates of expected future losses in Tuvalu. Table 2 of the Profile presents "Estimated Losses and Casualties Caused by Natural Perils" for cyclones and tsunamis with mean return period of 50, 100, and 250 years. Damages therefore were estimated for a return period of 50, 100, and 250 years. While a more complete damage curve should also include a return period of 1 year, 5 year, 10 year, and 25 year, in the absence of estimates of damages for these shorter return periods, estimates of damages used in the analysis are solely for 1/50, 1/100 and 1/250. The losses presented in Table 2 of the Profile include the cost of repairing or replacing damaged assets as well as emergency costs. It is important to note that the estimated losses presented in the Tuvalu Country Risk Profile do not include any other losses such as contents losses, cost of displacement, loss of environmental assets in terrestrial and marine areas, business interruption losses, and losses to primary industries other than agriculture.

75. Based on the numbers presented in Table 2, we estimate an annual expected loss of $53.18 per capita in 2010. Once adjusted for inflation, this value becomes $59.42 in 2015. This annual expected loss is then assumed to remain constant in real terms over the period of analysis. Hence, in the absence of any adaptation, expected annual losses amount to $59.42 per capita per year in Tuvalu. This number includes estimates of the value of statistical life which is an intrinsic part of cost-benefit analysis (and does not and should not be interpreted to reflect the "value of life").

76. Given the above numbers, and assumptions underpinning the analysis including frequency of return periods of extreme events and the estimated cost of the project, the net present value of the project is negative and amounts to approximately $15 million upon using a 10% discount rate. The overall NPV remains to be negative even with a 0% discount rate. Table 2 also presents estimates of casualties as a result of these events. It should also be noted that in estimating the net present value of the proposed project, it has also been assumed that Tuvalu's population remains constant over the period 2015-2055. In doing so, the true expected benefits of the proposed project are thus under-estimated.

77. Consequently, the negative NPV for this project should be treated with a significant amount of caution. First, not all benefits that ought to have been included in the analysis are accounted for; only those for which reliable estimates of damages exist have been used. The absence of reliable damage estimates for a number of important impacts is a major constraint in accurately reflecting the benefits of the proposed intervention. Second, there are social and cultural reasons for the proposed investment. The fact of the matter is that short of relocating Tuvalu's population and assets away from Tuvalu no other solution is going to have any meaningful impact on reducing the current and future impacts of increased wave intensity that is affecting Tuvalu's coastline. However, moving people and assets from outer islands to Funafuti is not an option for so many cultural, ethical and practical reasons. Nor is it feasible to move people and assets within Funafuti. Moving people and assets away from Funafuti to outer islands is also not an option. Moreover, "cheaper" solutions including soft solutions such as mangrove plantations will not be possible in some locations because some of the islands are coral islands and the soils are not conducive for mangroves to take root. Moreover, ecosystem based solutions alone will not be effective to safeguard people and assets that are already highly exposed to the elements. Nor will building concrete seawalls around each island be economically possibly nor practical. Through this process of elimination, the only remaining options are a combination of engineered ('hard') coastal protection as proposed complimented with some ecosystem based solutions. These options still warrant a high expenditure given Tuvalu's geographic remoteness and capacity limitations.

78. On the above basis, the proposed project is deemed to be justifiable on social reasons. The people and assets of Funafuti, Nanumea and Nanumaga simply do not have any other alternatives to protect themselves from the wave actions that are adversely impacting the coastline on an increasingly regular and intensive basis.

VI. PROJECT RESULTS FRAMEWORK

This project will contribute to the following Sustainable Development Goal (s): *13, 1 and 5*					
This project will contribute to the following country outcome included in the UNDAF/Country Programme Document: *Outcome Area 1: Environmental management climate change and disaster risk management*					
This project will be linked to the following output of the UNDP Strategic Plan: Output 1.4: Scaled up action on climate change adaptation and mitigation cross sectors which is funded and implemented.					
GCF Paradigm shift objectives: Increased climate-resilient sustainable development					
	Objective and Outcome Indicators	**Baseline**	**Mid-term Target**	**End of Project Target**	**Assumptions**
SDG indicators	13.3.1 Number of countries that have integrated mitigation, adaptation, impact reduction and early warning into primary, secondary and tertiary curricula	Tuvalu has not integrated adaptation into primary school curricula	National level consultations have started for a curricula change	The primary school curricula has integrated climate change adaptation and coastal protection	Assumption: Decision makers in Gov't value curriculum change to integrate CCA and coastal protection related topic Risk: The decision making process takes time and/or is politically influenced, and the change in the curriculum does not receive parliamentary approval
UNDP Strategic Plan Indicators	UNDP Strategic Plan Output 1.4 indicator: Number of countries with systems in place to access, deliver, monitor, report on and verify use of climate finance # direct project beneficiaries: 3,100	Tuvalu's Climate change and policy department is new and without sufficient capacity to access, deliver, monitor, report on and verify use of climate finance	[Measurable target will be determined after a capacity assessment is conducted]	[Measurable target will be determined after a capacity assessment is conducted]	Assumption: the staff turnover is sufficiently low to ensure that obtained capacity remains in the Unit; absence from high frequency of staff travel does not hamper effectiveness of trainings
FUND LEVEL IMPACT:					
Fund level Impact: ***A3.0 Increased resilience of infrastructure and the built environment to climate change***	*3.2 Number of new infrastructure constructed to withstand condition from climate variability and change*	*No single engineered coastal protection solution exists in the country*	*N/A*	*3 coastal protection measures have been put in place in 3 islands*	*Environmental and social impact assessment is completed and approved without delay; There is a land-use agreement with the landowners*
PROJECT OUTCOMES:					

Project Outcomes ***A5.0 Strengthened institutional and regulatory systems for climate-responsive planning and development***	*5.1 Institutional systems that improve incentive for climate resilience and their effective action*	*Only one round of ISPs has been produced and they neither are climate sensitive nor govern budget use*	*At least two cycles of ISP production*	*ISP production, execution of priority actions, and community review have become an annual event*	*Domestic unconditional grants (FTF/SDE) which currently finance island-level activities remain at similar volume*
Project Outcomes ***A7.0 Strengthened adaptive capacity and reduced exposure to climate risks***	*7.2 Number of males and females benefiting from climate risk reduction measures*	*Currently, no Tuvaluans benefit from hard-engineered coastal protection measures*	*Coastal protection design and implementation started to have at least 3,100 individuals (50% women) who are in inundation areas protected by coastal protection*	*At least 3,100 individuals (50% women) who are in inundation areas protected by a coastal defense*	*There is a land-use agreement with the landowners;* *Environmental and social impact assessment confirms that the proposed measures have minimum risks*
PROJECT OUTPUTS:					
Project Outputs ***1. Strengthening of institutions, human resources, awareness and knowledge for resilient coastal management***	*Number of technical officers trained on:* - *Monitoring / data synthesis on dynamic coastal processes* - *Designing of coastal protection (both hard and soft) measures* - *Environmental social impact assessment* - *Project management, V&A assessment, CBA*	*Currently, there is no institutional arrangement where technical officers can gain technical skills.*	*N/A*	*At least 12 technical government staff (50% women) exposed to hands-on trainings on the three areas.*	*Skill building trainings do not result in accelerated turnover of staff.* *The host departments allow their staff to be away for skill building for sustained period of time.*
	Number of students that are supported at higher-level studies (tertiary level or higher) on disciplines related to coastal protection work	*Tuvalu sponsored students in tertiary education totaled to 163[6]. DFAT (24 awards in 2012[7]) and NZAID (NZD 11million[8]) awarded a total of 20-30 scholarships each per year.*	*At least 24 students (50% women) are supported for at higher level studies AND obtain a CCA-related position in the country.*	*At least 24 students (50% women) are supported for at higher level studies AND obtain a CCA-related position in the country.*	*The scholarship arrangement in which students are required to come back to the country after completing studies is properly enforced.*

[6] Figures released by Tuvalu High Commission in Suva, 21st July 2015.
[7] http://fiji.embassy.gov.au/files/suva/120912%20-%20AusAID%20Tuvalu%20awards%20-%20FINAL.DOC
[8] Aid budgeted for scholarships and others http://www.aid.govt.nz/where-we-work/pacific/tuvalu

Project Outputs ***2. Vulnerability of key coastal infrastructure including homes, schools, hospitals and other assets is reduced against wave induced damages in Funafuti, Nanumea and Nanumaga***	*Island-level coastal assessment report produced*	*No island-level reports containing assessment results such as local hydrodynamic processes are currently available.*	*All 9 islands of Tuvalu has a coastal assessment report.*	*N/A*	*There is a land-use agreement with the landowners; Environmental and social impact assessment confirms minimum risks.*
	The length of vulnerable coastlines protected	*In the proposed locations, there is no structural measures to mitigate the risk of wave over-topping or coastal inundation events.*	*Construction of coastal protection commenced.*	*2,210m of vulnerable coastlines are protected by a coastal defense measure.*	
	Knowledge about gender-differentiated impact of coastal protection enhanced	*Awareness about gender-differentiated impact of coastal protection is low.*	*Island-level social impact assessment includes a section on gender.*	*The final technical assessment report includes gender-differentiated impact and the results are shared at a regional/national forum.*	*The technical assessment takes place sufficiently before the closure of the project so that a regional/national forum can be organized after the assessment.*
Project Outputs ***3. A sustainable financing mechanism established for long-term adaptation efforts***	*Adaptation actions financed and implemented from island level plans (no. and type)*	*To date, no adaptation action has been implemented based on Island Strategic Plans.*	*All islands have an ISP with specific budgets for development priorities.*	*At least 16 adaptation priority actions (two in each island), outlined in ISPs, are financed by either domestic or external resources and executed.*	*There is high level commitment and buy-in from officials in the central government and kaupule to revise ISPs and use domestic funds for adaptation purposes;* *Available domestic funds to outer islands remain viable sources; the role of women's group as a checks-and-balances function is not diluted in the small island setting.*
	Women's distinct role in the context of island decision making established	*Women are only "consulted"*		*Women's group recognized by both*	

		during the island decision making process, but no distinct roles are established	*The use of scorecards and participatory video has started*	*men and women as an important interest group in the evaluation of kaupules*	
DO NOT INCLUDE ACTIVITIES OR INPUTS IN THIS PROJECT RESULTS FRAMEWORK					

In keeping with UNDP guidelines issued for this project document, no activities have been presented here. A list can be found in Annex 11 which presents a time table of activities

VII. MANAGEMENT ARRANGEMENTS

i. Roles and responsibilities of the project's governance mechanism:

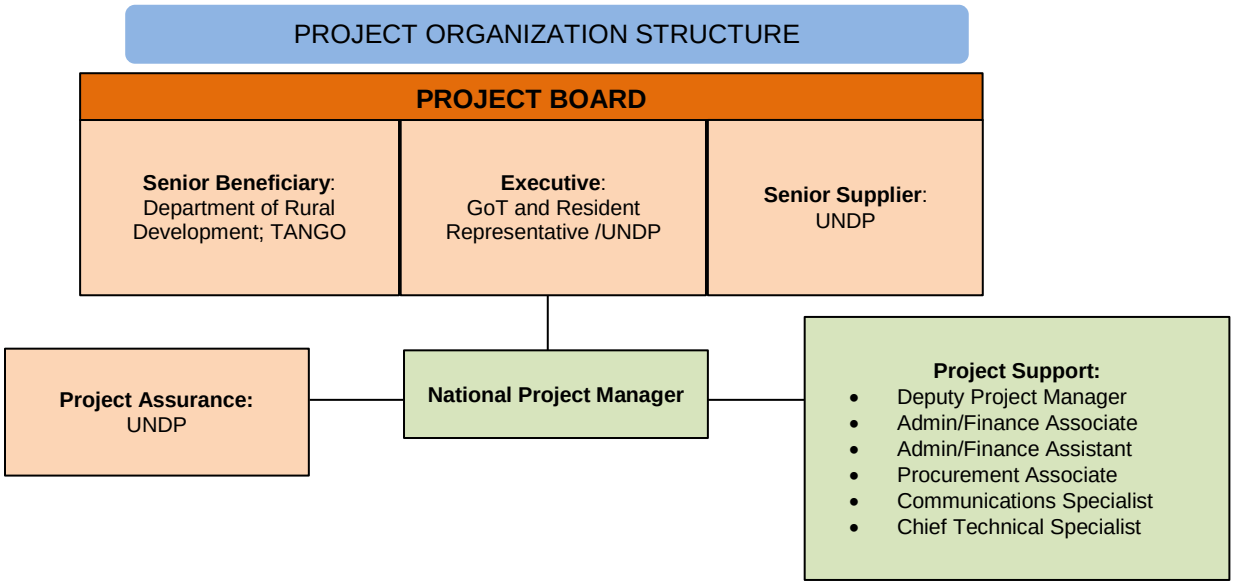
79. The project will be implemented following UNDP's direct implementation modality at the request from the Government of Tuvalu and the GCF National Designated Authority.

80. The **Implementing Partner** for this project is *UNDP.* The Implementing Partner is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of UNDP resources. The Implementing Partner is responsible for:

- 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.

81. In view of the national ownership and buildign the national capacity, these responsibilities will be fulfilled by UNDP in close collaboration with the Government of Tuvalu.

82. The project organisation structure is as follows:



83. **Project Board:** The Project Board (also called Project Steering Committee) is responsible for making by consensus, management decisions when guidance is required by the National Project Manager, including recommendations for UNDP/Implementing Partner approval of project plans and revisions. The Project Board will be co-chared by UNDP's Resident Representative or his/her deputy and the National Designated Authority. The PB is comprised of the OPM, DoE, PWD, DLS, DRD, MoE and a representative from the NGO association (TANGO) and Tuvalu Council of Women. 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 a consensus cannot be reached within the Board, final decision shall rest with the UNDP Resident Representative.

84. Specific responsibilities of the Project Board include:

- Meet twice a year to provide overall guidance and direction to the project, ensuring it remains within any specified constraints;

- Address project issues as raised by the National Project Manager;
- Provide guidance on new project risks, and agree on possible countermeasures and management actions to address specific risks;
- Agree on National Project Manager's tolerances as required;
- Review the project progress, and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;
- Appraise the annual project implementation report, including the quality assessment rating report; make recommendations for the workplan;
- Provide ad hoc direction and advice for exceptional situations when the National Project Manager's tolerances are exceeded; and
- Assess and decide to proceed on project changes through appropriate revisions.

85. The composition of the Project Board must include the following roles:

1) Executive: The Executive is an individual who represents ownership of the project who will chair the Project Board. This role can be held by a representative from the Government Cooperating Agency or UNDP. The Executive is: the National Designated Authority of Tuvalu and the UNDP Resident Representative.

   The Executive is ultimately responsible for the project, supported by the Senior Beneficiary and Senior Supplier. The Executive's role is to ensure that the project is focused throughout its life cycle on achieving its objectives and delivering outputs that will contribute to higher level outcomes. The executive has to ensure that the project gives value for money, ensuring cost-conscious approach to the project, balancing the demands of beneficiary and suppler.

Specific Responsibilities: (as part of the above responsibilities for the Project Board)

- Ensure that there is a coherent project organisation structure and logical set of plans;
- Set tolerances in the AWP and other plans as required for the National Project Manager;
- Monitor and control the progress of the project at a strategic level;
- Ensure that risks are being tracked and mitigated as effectively as possible;
- Brief relevant stakeholders about project progress;
- Organise and chair Project Board meetings.

2) Senior Supplier: The Senior Supplier is an individual or group representing the interests of the parties concerned which provide funding and/or technical expertise to the project (designing, developing, facilitating, procuring, implementing). The Senior Supplier's primary function within the Board is to provide guidance regarding the technical feasibility of the project. The Senior Supplier role must have the authority to commit or acquire supplier resources required. If necessary, more than one person may be required for this role. Typically, the implementing partner, UNDP and/or donor(s) would be represented under this role. The Senior Suppler is: UNDP.

Specific Responsibilities (as part of the above responsibilities for the Project Board)

- Make sure that progress towards the outputs remains consistent from the supplier perspective;
- Promote and maintain focus on the expected project output(s) from the point of view of supplier management;
- Ensure that the supplier resources required for the project are made available;
- Contribute supplier opinions on Project Board decisions on whether to implement recommendations on proposed changes;
- Arbitrate on, and ensure resolution of, any supplier priority or resource conflicts.

3) Senior Beneficiary: The Senior Beneficiary is an individual or group of individuals representing the interests of those who will ultimately benefit from the project. The Senior Beneficiary's primary function within the Board is to ensure the realization of project results from the perspective of project beneficiaries. The Senior Beneficiary

role is held by a representative of the government or civil society. The Senior Beneficiary is: the Department of Rural Development (DRD) and TANGO.

The Senior Beneficiary is responsible for validating the needs and for monitoring that the solution will meet those needs within the constraints of the project. The Senior Beneficiary role monitors progress against targets and quality criteria. This role may require more than one person to cover all the beneficiary interests. For the sake of effectiveness, the role should not be split between too many people.

Specific Responsibilities (as part of the above responsibilities for the Project Board)

- Prioritize and contribute beneficiaries' opinions on Project Board decisions on whether to implement recommendations on proposed changes;
- Specification of the Beneficiary's needs is accurate, complete and unambiguous;
- Implementation of activities at all stages is monitored to ensure that they will meet the beneficiary's needs and are progressing towards that target;
- Impact of potential changes is evaluated from the beneficiary point of view;
- Risks to the beneficiaries are frequently monitored.

86. **National Project Manager**: The National Project Manager (NPM) has the authority to run the project on a day-to-day basis on behalf of the Project Board within the constraints laid down by the Board. The NPM is responsible for day-to-day management and decision-making for the project. The NPM's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost.

87. The Implementing Partner appoints the NPM, who should be different from the Implementing Partner's representative in the Project Board.

88. Specific responsibilities include:

- Provide direction and guidance to project team(s)/ responsible party (ies);
- Liaise with the Project Board to assure the overall direction and integrity of the project;
- Identify and obtain any support and advice required for the management, planning and control of the project;
- Responsible for project administration;
- Plan the activities of the project and monitor progress against the project results framework and the approved annual workplan;
- Mobilize personnel, goods and services, training and micro-capital grants to initiative activities, including drafting terms of reference and work specifications, and overseeing all contractors' work;
- Monitor events as determined in the project monitoring schedule plan/timetable, and update the plan as required;
- Manage requests for the provision of financial resources by UNDP, through advance of funds, direct payments or reimbursement using the fund authorization and certificate of expenditures;
- Monitor financial resources and accounting to ensure the accuracy and reliability of financial reports;
- Be responsible for preparing and submitting financial reports to UNDP on a quarterly basis;
- Manage and monitor the project risks initially identified and submit new risks to the project board for consideration and decision on possible actions if required; update the status of these risks by maintaining the project risks log;
- Capture lessons learned during project implementation;
- Prepare the annual workplan for the following year; and update the Atlas Project Management module if external access is made available.
- Prepare the Annual Project Report and submit the final report to the Project Board;
- Based on the Annual Project Report and the Project Board review, prepare the AWP for the following year.

- Ensure the mid-term review process is undertaken as per the UNDP guidance, and submit the final MTR report to the Project Board.
- Identify follow-on actions and submit them for consideration to the Project Board;
- Ensure the terminal evaluation process is undertaken as per the UNDP guidance, and submit the final TE report to the Project Board;

89. **Project Assurance**: UNDP provides a three-tier oversight and quality assurance role involving UNDP Country Offices, regional and headquarters levels. The project assurance role supports the Project Board by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed. Project Assurance has to be independent of the Project Manager; therefore the Project Board cannot delegate any of its assurance responsibilities to the National Project Manager.

90. *GCF-specific oversight and quality assurance services:* As an Accredited Entity to the GCF, UNDP is required to deliver GCF-specific oversight and quality assurance services. The GCF Board expects their accredited partners to manage recipient country projects according to the due diligence standards of the GCF, and to perform certain governance functions. The GCF is therefore not a donor to UNDP. As an accredited partner to the GCF, UNDP has agreed to serve as an 'operational arm' of the GCF and is accountable to the GCF Board. This relationship is enshrined in the Accreditation Master Agreement, the legal agreement between the GCF and UNDP.

91. GCF-specific services generally cover two main areas: first, **project cycle management services** that cover due diligence activities each funded activity (i.e. project) is expected to undertake; and second, **corporate services** that cover portfolio management, reporting, and UNDP's role in the governance of the GCF. These services are decided by the GCF Board, are specific to each project and are covered by a GCF fee.

92. The GCF Board decides the level of fee it will provide to cover the costs associated with the delivery of the GCF-specific services for each project. The GCF allocates the entire fee once the project is approved, and the fee is expected to cover the full cost of delivering the GCF-specific services for the full lifetime/duration of the project. If the project is extended beyond the original planned duration, the services must still be delivered for each additional year of implementation. If the fees have already been fully allocated, non-GCF resources must be used to deliver the services. If a project is cancelled, the fees must be returned to the Fund. The Accreditation Master Agreement states that the GCF resources can only be used for the purpose for which it was provided and cannot be diverted for other purposes. For this project the approved fee US$ 3,240,900 at 9%.

93. The services UNDP is required to deliver to the GCF are undertaken by different Units in UNDP as follows:

<u>UNDP – Global Environmental Finance Unit (Regional and HQ levels)</u>

I. Trust Fund Management: As per the requirements in the UNDP POPP and the GCF AMA and Funded Activity Agreement (FAA), the UNDP-GEF Unit undertakes trust fund management activities including:
    - Manage UNDP's relationship with the GCF;
    - Represent UNDP in the governance arrangements of the GCF (including policy development; outreach and knowledge management);
    - Receipt of contributions and allocation of trust fund resources;
    - Financial management of trust fund resources;
    - Fulfill all GCF monitoring, reporting and evaluation requirements;
    - Monitor GCF milestones and due diligence requirements.

II. Project design and development: in close consultation with governments and country offices, the UNDP-GEF Unit is responsible for preparing GCF-eligible projects that meet the technical and due diligence criteria of the GCF. The activities include:
    - Prepare project concepts for review/approval by GCF;
    - Screen project concepts for social and environmental risks;

- Prepare all necessary due diligence studies/assessments during project development;
- Prepare full funding proposals;
- Undertake internal technical and financial due diligence;
- Address GCF secretariat and ITAP comments to the proposals;
- Secure GCF approvals.

III. Project implementation and closure: in close consultation with the Country Office, the UNDP-GEF Unit is responsible for providing final quality assurance of all Fund-specific reports to ensure they are prepared in a timely fashion, and meet the quality standards of the Fund. This includes:
    - Quality assurance of annual work plans according to the GCF disbursement schedule;
    - Quality assurance of the GCF annual project report;
    - Participate in and support in-country GCF visits/learning mission/site visits;
    - Quality assurance of the project mid-term review and management response;
    - Quality assurance of any other GCF-required project reports;
    - Prepare and submit fund specific financial reports;
    - Quality assurance of project budget and financial transactions according to GCF policies;
    - Troubleshooting project missions as and when necessary (i.e. high risk, slow performing projects);
    - Quality assurance of terminal evaluation report and management response;
    - Return of un-spent GCF resources to the GCF.

<u>UNDP Country Office</u>

The UNDP Country Office will deliver GCF-specific services over the planned lifetime/duration of the project as follows:

I. Project development:
    - Coordinate and participate in GCF country driven project design consultations;
    - Support the identification and confirmation of GCF project co-financing;
    - Provide input to the GCF concept note and UNDP GCF project document.

II. Project start:
    - Ensure quick project start and first disbursement;
    - Coordinate/prepare the project inception workshop;
    - Oversee finalization of the project inception workshop report.

III. Project implementation and closure: first-tier of UNDPs three-tier quality control system
    - Coordinate/prepare annual Project Board Meetings;
    - Undertake UNDP-required project monitoring and quality assurance;
    - Issue annual work plan, strict monitoring of the implementation of the work plan and the project timetable;
    - Monitor the implementation of the project procurement plan;
    - Prepare GCF annual project report: review input provided by National Project Manager/team; complete required sections;
    - Support to GCF visits/learning mission/site visits;
    - Initiate, coordinate, finalize the project mid-term review and management response;
    - Preparation of any other GCF project reports;
    - Conduct annual supervision/oversight site missions;
    - Ensure that risks are properly managed, and that the risk log in Atlas is regularly;
    - Initiate, coordinate, finalize the project terminal evaluation and management response.

<u>UNDP Regional and Central Bureau</u>

UNDP Regional and Central Bureau will deliver the following services:

- Overall fiduciary and financial policies, accountability and oversight on all UNDP projects including those financed by the GCF;
- Treasury Functions including banking information and arrangements and cash management;
- Preparation and certification of UNDP annual financial statements and donor reports;
- Travel services, asset management, and procurement policies and support;
- Management and oversight of the audit exercise for all GCF projects;
- Information Systems and Technology provision, maintenance and support;
- Legal advice and contracting/procurement support services;
- Strategic Human Resources Management and related entitlement administration;
- Office of Audit and Investigations oversight/investigations into allegations of misconduct, corruption, wrongdoing and fraud; and social and environmental compliance unit and grievance mechanism.
- Independent Evaluation Office assessment of terminal evaluation reports; evaluation guidance and standard setting.

ii. Project Management Unit:

94. The Project Management Unit (PMU) will comprise of a group of project-financed staff. The PMU will be located in Funafuti, Tuvalu and Suva, Fiji within the UNDP Pacific Office. The PMU will be responsible for supporting the PM in carrying out day-to-day activities of the project, the overall operational and financial management, and liaison with relevant stakeholders for the project. The PMU in Tuvalu will be located within the Climate Change and Policy Unit. The PMU comprises of the following positions:

Funafuti-based

- National Project Manager: See above for its key functions.
- Admin/Finance Assistant: The Admin/Finance Assistant will assist the PM in carrying out day-to-day activities of the project as per the approved work plan, coordinating with stakeholders at the national level, managing project budget and expenditures, and liaising with UNDP Country Office in preparing necessary reports. The Admin/Finance Assistant is also responsible for working closely together the Admin/Finance Associate based in the Suva PMU Office in maintaining the project accounting system.

Pacific Office-based

- Deputy Project Manager: The Deputy Project Manager supports the NPM for day-to-day management of the project. At the same time, he/she supervises the PMU staff members based in Suva and becomes the main interface with the UNDP Pacific Office in Fiji.
- Admin/Finance Associate: The Admin/Finance Associate is responsible for setting up and maintaining the project accounting system, monitor quarterly and activity-wise expenditures vis-à-vis Annual Work Plan, prepare budget revision, process payment requests, update financial plans, and prepare status reports and other financial reports. The Admin/Finance Associate is also responsible for the financial management of the project including the overall budget expenditures according to the Project Document, advising the Government, PMU and UNDP on the need for budget revision and/or off-track activities, and presenting financial analysis at Project Board meetings.
- Procurement Associate: The Procurement Officer will oversee every procurement that takes place in the project including individual contracts and institutional contracts.
- Communications Specialist: The Communications Specialist is responsible for internal and external communications for the project including periodic update and dissemination of results achieved, synthesis and analysis of lessons learned, and production of various communication materials such as videos, photo stories, blog articles, etc.

  Chief Technical Advisor: The CTA is responsible for bringing in international best practices to the implementation of the project and train the technical personnel in the PMU. The CTA will be an international staff under UNDP contract. CTA will be hired for the duration of the project. While the CTA will be based in Fiji, he/she is expected to spend 70-75% of time in Funafuti.

iii. Agreement on intellectual property rights and use of logo on the project's deliverables

95. In order to accord proper acknowledgement to the GCF for providing grant funding, the GCF 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 GCF will also accord proper acknowledgement to the GCF as per the GCF branding guidelines.

iv. Disclosure of information

96. Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy[9] and the GCF Disclosure Policy[10].

97. **Environmental and Social Management Framework (ESMF)**: Social and environmental complaints by communities and people affected by the project can be submitted to UNDP's Social and Environmental Compliance Unit (SECU). SECU will respond to claims that UNDP is not in compliance with applicable environmental and social policies. Complaints can be submitted by e-mail to project.concerns@undp.org or the UNDP website. Project-affected stakeholders can also request the UNDP Country Office for access to appropriate grievance resolution procedures for hearing and addressing project-related social and enviornmental complaints and disputes. Environmental and social grievances will be monitored and reported in the Annual Project Report.

v. Carbon offsets or units

98. As outlined in the AMA agreement between UNDP and the GCF, to the extent permitted by applicable laws and regulations, the Implementing Partner will ensure that any greenhouse gas emission reductions (e.g. in emissions by sources or an enhancement of removal by sinks) achieved by this project shall not be converted into any offset credits or units generated thereby, or if so converted, will be retired without allowing any other emissions of greenhouse gases to be offset.

VIII. MONITORING AND EVALUATION (M&E) PLAN

99. The project results as outlined in the project results framework will be monitored and reported annually and evaluated periodically during project implementation to ensure the project effectively achieves these results.

100. Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the UNDP POPP and UNDP Evaluation Policy. While these UNDP requirements are not outlined in this project document, the UNDP Country Office will work with the relevant project stakeholders to ensure UNDP M&E requirements are met in a timely fashion and to high quality standards. Additional mandatory GCF-specific M&E requirements will be undertaken in accordance with relevant GCF policies.

101. In addition to these mandatory UNDP and GCF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed during the Project Inception Workshop and will be detailed in the Inception Workshop Report. This will include the exact role of project target groups and other stakeholders in project M&E activities including national/regional institutes assigned to undertake project monitoring.

[9] See http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/
[10] See https://www.greenclimate.fund/documents/20182/184476/GCF_B.12_24_-_Comprehensive_Information_Disclosure_Policy_of_the_Fund.pdf/f551e954-baa9-4e0d-bec7-352194b49bcb

i. M&E oversight and monitoring responsibilities:

102. **National Project Manager**: The National Project Manager is responsible for day-to-day project management and regular monitoring of project results and risks, including social and environmental risks. The National Project Manager will ensure that all project staff maintain a high level of transparency, responsibility and accountability in M&E and reporting of project results. The National Project Manager will inform the Project Board, the UNDP Country Office and the UNDP-GEF Regional Technical Advisor of any delays or difficulties as they arise during implementation so that appropriate support and corrective measures can be adopted.

103. The National Project Manager will develop annual work plans to support the efficient implementation of the project. The National Project Manager will ensure that the standard UNDP and GCF M&E requirements are fulfilled to the highest quality. This includes, but is not limited to, ensuring the results framework indicators are monitored annually in time for evidence-based reporting in the Annual Project Report, and that the monitoring of risks and the various plans/strategies developed to support project implementation (e.g. Environmental and social management plan, gender action plan etc.) occur on a regular basis.

104. **Project Board:** The Project Board will take corrective action as needed to ensure the project achieves the desired results. The Project Board will hold project reviews to assess the performance of the project and appraise the Annual Work Plan for the following year. In the project's final year, the Project Board will hold an end-of-project review to capture lessons learned and discuss opportunities for scaling up and to highlight project results and lessons learned with relevant audiences. This final review meeting will also discuss the findings outlined in the project terminal evaluation report and the management response.

105. **Project Implementing Partner:** The Implementing Partner is responsible for providing any and all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary and appropriate. 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 by and generated by the project supports national systems.

106. **UNDP Country Office:** The UNDP Country Office will support the National Project Manager as needed, including through annual supervision missions. The annual supervision missions will take place according to the schedule outlined in the annual work plan. Supervision mission reports will be circulated to the project team and Project Board within one month of the mission. The UNDP Country Office will initiate and organize key M&E activities including the Annual Project Report, the independent mid-term review and the independent terminal evaluation. The UNDP Country Office will also ensure that the standard UNDP and GCF M&E requirements are fulfilled to the highest quality.

107. The UNDP Country Office is responsible for complying with all UNDP project-level M&E requirements as outlined in the UNDP POPP. This includes ensuring the UNDP Quality Assurance Assessment during implementation is undertaken annually; the regular updating of the ATLAS risk log; and, the updating of the UNDP gender marker on an annual basis based on gender mainstreaming progress reported in the Annual Project Report and the UNDP ROAR. Any quality concerns flagged during these M&E activities (e.g. Annual Project Report quality assessment ratings) must be addressed by the UNDP Country Office and the National Project Manager.

108. The UNDP Country Office will support GCF staff (or their designate) during any missions undertaken in the country, and support any ad-hoc checks or ex post evaluations that may be required by the GCF.

109. The UNDP Country Office will retain all project records for this project for up to seven years after project financial closure in order to support any ex-post reviews and evaluations undertaken by the UNDP Independent Evaluation Office (IEO) and/or the GCF.

110. **UNDP-Global Environmental Finance Unit (UNDP-GEF):** Additional M&E and implementation oversight, quality assurance and troubleshooting support will be provided by the UNDP-GEF Regional Technical Advisor and the UNDP-GEF Directorate as outlined in the management arrangement section above.

ii. Audit:

111. The project will be audited according to UNDP Financial Regulations and Rules and applicable audit policies.[11] Additional audits may be undertaken at the request of the GCF.

iii. Additional monitoring and reporting requirements:

112. **Inception Workshop and Report**: A project inception workshop will be held within three months from the first disbursement has been signed by all relevant parties to, amongst others:

a) Re-orient project stakeholders to the project strategy and discuss any changes in the overall context that influence project strategy and implementation;
b) Discuss the roles and responsibilities of the project team, including reporting and communication lines and conflict resolution mechanisms;
c) Review the results framework and finalize the indicators, means of verification 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;
e) Identify how project M&E can support national monitoring of SDG indicators as relevant;
f) Update and review responsibilities for monitoring the various project plans and strategies, including the risk log; Environmental and Social Management Plan and other safeguard requirements; the gender action plan; and other relevant strategies;
g) Review financial reporting procedures and mandatory requirements, and agree on the arrangements for the annual audit; and
h) Plan and schedule Project Board meetings and finalize the first year annual work plan.

113. The National Project Manager will prepare the inception workshop report no later than one month after the inception workshop. The inception workshop report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Board.

114. **Annual Project Report:** The National Project Manager, the UNDP Country Office, and the UNDP-GEF Regional Technical Advisor will provide objective input to the annual project report covering the calendar year for each year of project implementation. The National Project Manager will ensure that the indicators included in the project results framework are monitored annually in advance so that progress can be included in the report. Any environmental and social risks and related management plans will be monitored regularly, and progress will be included in the report.

115. The Annual Project Report will be shared with the Project Board. The UNDP Country Office will coordinate the input of other stakeholders to the report as appropriate. The quality rating of the previous year's report will be used to inform the preparation of the subsequent report.

116. **Lessons learned and knowledge generation:** Results from the project will be disseminated within and beyond the project intervention area through existing information sharing networks and forums. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to the project. The project will identify, analyse and share lessons learned that might be beneficial to the design and implementation of similar projects and disseminate these lessons widely. There will be continuous

[11] See guidance here: https://info.undp.org/global/popp/frm/pages/financial-management-and-execution-modalities.aspx

information exchange between this project and other projects of similar focus in the same country, region and globally.

117. **Independent Mid-term Review (MTR):** An independent mid-term review process will begin after the second Annual Project Report has been submitted to the GCF. This is expected to be *April 2020.* The MTR findings and responses outlined in the management response will be incorporated as recommendations for enhanced implementation during the final half of the project's duration. The terms of reference, the review process and the MTR report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the UNDP Evaluation Resource Center (ERC). As noted in this guidance, the evaluation will be 'independent, impartial and rigorous'. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Other stakeholders will be involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the UNDP-GEF Directorate. The final MTR report will be available in English and will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and approved by the Project Board.

118. **Terminal Evaluation (TE):** An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terminal evaluation process will begin at least three months before operational closure of the project allowing the evaluation mission to proceed while the project team is still in place, yet ensuring the project is close enough to completion for the evaluation team to reach conclusions on key aspects such as project sustainability. This is expected to be *July 2023.*

119. The National Project Manager will remain on contract until the TE report and management response have been finalized. The terms of reference, the evaluation process and the final TE report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the UNDP Evaluation Resource Center. As noted in this guidance, the evaluation will be 'independent, impartial and rigorous'. The consultants that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Additional quality assurance support is available from the UNDP-GEF Directorate. The final TE report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Board. The TE report will be publically available in English on the UNDP ERC.

120. The UNDP Country Office will include the planned project terminal evaluation in the UNDP Country Office evaluation plan, and will upload the final terminal evaluation report in English and the corresponding management response to the UNDP Evaluation Resource Centre (ERC).

121. **Final Report:** The project's final Annual Project Report 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.

Mandatory GCF M&E Requirements and M&E Budget:

GCF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget[12] (US$)		Time frame
		GCF grant	Co-financing	
Inception Workshop	UNDP Country Office	USD 11,000	USD 5,000	*3 months from the first disbursement*
Inception Workshop Report and baseline assessments	National Project Manager	None	None	*IW Report: 1 month after IW* *Baseline assessments: 5 months after IW*
Standard UNDP monitoring and reporting requirements as outlined in the UNDP POPP	UNDP Country Office	None	None	Quarterly, annually
Monitoring of indicators in project results framework ***(including hiring of external experts, project surveys, data analysis etc…)***	National Project Manager	Per year: USD 10,000	None	Annually
Annual Project Report	National Project Manager and UNDP Country Office and UNDP-GEF team	None	None	Annually
Project Audit as per UNDP audit policies	UNDP Country Office	Per year: USD 3,000 – 5,000	None	Annually or other frequency as per UNDP Audit policies
Lessons learned, case studies, and knowledge generation	National Project Manager	Per year: USD 15,000 USD30,000 (Y7)	None	Annually
Monitoring of environmental and social risks, and corresponding management plans as relevant	National Project Manager UNDP CO	Per year: USD 5,000	None	On-going
Monitoring of gender action plan	National Project Manager UNDP CO	Per year: USD 4,000	None	On-going
Monitoring of stakeholder engagement plan	National Project Manager UNDP CO	Per year: USD 4,000	None	On-going
Addressing environmental and social grievances	National Project Manager UNDP Country Office BPPS as needed	USD 3,000	USD 10,000	*Costs associated with missions, workshops, BPPS expertise etc. can be charged to the project budget.*
Project Board meetings	Project Board UNDP Country Office	Per year: USD 6,000	Per year: USD 15,000	At minimum annually

[12] Excluding project team staff time and UNDP staff time and travel expenses.

GCF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget[12] (US$)		Time frame
		GCF grant	Co-financing	
	National Project Manager			
Supervision missions	UNDP Country Office	None[13]	None	Two per year
Oversight missions	UNDP-GEF team	None[13]	None	Troubleshooting as needed
GCF learning missions/site visits	UNDP Country Office and National Project Manager and UNDP-GEF team	None	None	To be determined.
Independent Mid-term Review (MTR) and management response	UNDP Country Office and Project team and UNDP-GEF team	USD 50,000 - 80,000	None	
Independent Terminal Evaluation (TE) included in UNDP evaluation plan, and management response	UNDP Country Office and Project team and UNDP-GEF team	USD 50,000 - 80,000	None	At least three months before operational closure
TOTAL indicative COST Excluding project team staff time, and UNDP staff and travel expenses		*1-2% of Total GCF grant*	USD 120,000	

[13] The costs of UNDP Country Office and UNDP-GEF Unit's participation and time are charged to the GCF Agency Fee.

IX. FINANCIAL PLANNING AND MANAGEMENT

122. The total cost of the project is *USD 38,870,000.* This is financed through a GCF grant of *USD* 36,010,000 and *USD 2,860,000* in parallel co-financing. UNDP, as the GCF Accredited Agency, is responsible for the oversight and quality assurance of the execution of GCF resources and the cash co-financing transferred to UNDP bank account only.

i. Project Financing

Component	Outputs	Financing institution			Total (US$)
		GCF	Government	UNDP	
		Grant	Grant	Grant	
Component 1. Increased resilience of Tuvaluan coast	Strengthening of institutions, human resources, awareness and knowledge for resilient coastal management	2,700,000	2,608,000		35,758,000
	Vulnerability of key coastal infrastructure including homes, schools, hospitals and other assets is reduced against wave induced damages in Funafuti, Nanumea and Nanumaga	25,600,000			
	A sustainable financing mechanism established for long-term adaptation efforts	4,850,000			
	Project Management	2,860,000	252,000		3,112,000
Total		**36,010,000**	**2,860,000**		**38,870,000**

ii. GCF Disbursement schedule

123. GCF grant funds will be disbursed according to the GCF disbursement schedule. The Country Office will submit an annual work plan to the UNDP-GEF Unit and comply with the GCF milestones in order for the next tranche of project funds to be released. All efforts must be made to achieve 80% delivery annually.

Description	Indicative Scheduled date	(USD million)	Milestones
For Year 1 Activities	Within 4 weeks after the date of effectiveness of the FAA	2,013,841	Fulfilment of conditions for the first disbursement have been met.
For Year 2 Activities	12 month after the previous disbursement	4,693,133	Submission of annual progress reports and financial reports in form and substance satisfactory to the Fund.
For Year 3 Activities	12 month after the previous disbursement	6,618,903	Submission of annual progress reports and financial reports in form and substance satisfactory to the Fund.
For Year 4 Activities	12 month after the previous disbursement	8,489,990	Submission of annual progress reports and financial reports in form and substance satisfactory to the Fund.

For Year 5 Activities	12 month after the previous disbursement	8,848,100	Submission of annual progress reports and financial reports in form and substance satisfactory to the Fund.
For Year 6 Activities	12 month after the previous disbursement	4,161,306	Submission of annual progress reports and financial reports in form and substance satisfactory to the Fund.
For Year 6 Activities	12 month after the previous disbursement	1,184,727	Submission of annual progress reports and financial reports in form and substance satisfactory to the Fund.
Total :		**36,010,000**	

iii. Budget Revision and Tolerance:

124. GCF requirement: 10% of the total projected costs per year can be reallocated among the budget account categories within the same project output. Any budget reallocation involving a major change in the project's scope, structure, design or objectives or any other change that substantially alters the purpose or benefit of the project requires the GCF's prior written consent.

125. UNDP requirement: As outlined in the UNDP POPP, the project board will agree on a budget tolerance level for each plan under the overall annual work plan allowing the National Project Manager to expend up to the tolerance level beyond the approved project budget amount for the year without requiring a revision from the Project Board (within the GCF requirements noted above). Should such deviation occur, the National Project Manager and UNDP Country office will seek the approval of the UNDP-GEF team.

126. Any over expenditure incurred beyond the available GCF grant amount will be absorbed by non-GCF resources (e.g. UNDP TRAC or cash co-financing).

iv. Refund to GCF:

127. Unspent GCF resources must be returned to the GCF. Should a refund of unspent funds to the GCF be necessary, this will be managed directly by the UNDP-GEF Unit in New York.

v. Project Closure:

128. Project closure will be conducted as per UNDP requirements outlined in the UNDP POPP.[14] On an exceptional basis only, a no-cost extension beyond the initial duration of the project will be sought from in-country UNDP colleagues and then the UNDP-GEF Executive Coordinator.

vi. Operational completion:

129. The project will be operationally completed when the last UNDP-financed inputs have been provided and the related activities have been completed. This includes the final clearance of the Terminal Evaluation Report (that will be available in English) and the corresponding management response, and the end-of-project review Project Board meeting. The Implementing Partner through a Project Board decision will notify the UNDP Country Office when operational closure has been completed.

130. UNDP and the Implementing Partner agree that any durable assets or equipment purchased during the implementation of the project (such as vehicles or office equipment) will upon operational completion of the project be transferred to the Implementing Partner. Any funds or proceeds received from the sale of such assets will be transferred to the GCF.

[14] see https://info.undp.org/global/popp/ppm/Pages/Closing-a-Project.aspx

i. Financial completion:

131. 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).

132. The project is required to be financially completed within 12 months of operational closure or after the date of cancellation. 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 the UNDP-GEF Unit for confirmation before the project will be financially closed in Atlas by the UNDP Country Office.

X. TOTAL BUDGET AND WORK PLAN

TOTAL BUDGET AND WORK PLAN			
Atlas[15] Proposal or Award ID:	000100068	Atlas Primary Output Project ID:	00103205
Atlas Proposal or Award Title:	Tuvalu Coastal Adaptation Project (TCAP)		
Atlas Business Unit	FJI10		
Atlas Primary Output Project Title	Tuvalu Coastal Adaptation Project (TCAP)		
UNDP-GEF PIMS No.	5699		
Implementing Partner	UNDP		

GCF Output/Atlas Activity	Responsible Party/[16] (Atlas Implementing Agent)	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Amount Year 6 (USD)	Amount Year 7 (USD)	Total (USD)	See Budget Note:
OUTPUT 1: Strengthening of institutions, human resources, awareness and knowledge for resilient coastal management	**UNDP**	**TBD**	**GCF**	71200	International Consultants	-	151,795	21,381	25,808	21,708	25,808	21,381	**267,882**	1a
				71300	Local Consultants	29,107	29,107	121,025	166,984	166,984	166,984	121,025	**801,213**	1b
				72100	Contractual services	-	56,396	56,396	-	56,396	25,000	31,396	**225,583**	1c
				72600	Grants	220,500	220,500	220,500	220,500	108,000	-	-	**990,000**	1d
				71600	Travel	14,328	85,079	20,671	40,801	12,891	40,801	20,671	**235,241**	1e
				72200	Equipment and Furniture	33,000	-	-	-	-	-	-	**33,000**	1f
				74200	Audio Visual & Print Prod Costs	6,719	6,719	6,719	6,719	5,719	5,719	5,719	**44,030**	1g
				74500	Miscellaneous Expenses	8,365	8,367	8,367	8,367	8,367	8,367	8,367	**58,567**	1h
				75700	Training, Workshops and Conference	500	500	400	-	15,146	500	15,146	**32,191**	1j
				72800	Information Technology Equipment	3,219	-	-	9,073	-	-	-	**12,291**	1k

[15] See separate guidance on how to enter the TBWP into Atlas

[16] Only the responsible parties to be created as Atlas Implementing Agent as part of the COAs should be entered here. Sub-level responsible parties reporting directly to NIM Implementing Partners should not entered here. For example, if under NIM, UNOPS signs LOA with the IP to manage component 2, and a department of Ministry X will manage component 3, this means that UNOPS will be listed as the responsible party under component 2. The rest of the components will list the IP as the responsible party.

GCF Output/Atlas Activity	Responsible Party/[16] (Atlas Implementing Agent)	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Amount Year 6 (USD)	Amount Year 7 (USD)	Total (USD)	See Budget Note:
					Total Output 1	**313,737**	**558,462**	**455,458**	**478,251**	**395,210**	**273,179**	**223,703**	**2,700,000**	
GCF OUTPUT 2: Vulnerability of key coastal infrastructure including homes, schools, hospitals and other assets is reduced against wave induced damages in Funafuti, Nanumea and Nanumaga	**UNDP**	**TBD**	**GCF**	71200	International Consultants	25,904	172,999	283,460	283,460	283,460	34,364	142,052	**1,225,698**	2a
				72100	Contractual Services-Companies	1,000,692	2,564,159	4,551,862	6,357,789	6,750,759	2,381,364	-	**23,606,624**	2b
				71600	Travel	9,625	57,156	106,561	106,561	86,631	27,681	56,106	**450,322**	2c
				72200	Equipment and Furniture	22,573	22,573	-	-	-	-	-	**45,146**	2d
				75700	Training, Workshops and Conference	15,219	17,364	22,437	17,364	15,219	5,073	5,073	**97,749**	2e
				72500	Supplies	-	-	-	-	100,000	-	-	**100,000**	2f
				74500	Miscellaneous Expenses	10,639	10,637	10,637	10,637	10,637	10,637	10,637	**74,461**	2g
					Total Output 2	**1,084,651**	**2,844,888**	**4,974,957**	**6,775,811**	**7,246,705**	**2,459,120**	**213,868**	**25,600,000**	
GCF OUTPUT 3: A sustainable financing mechanism established for long-term adaptation efforts	**UNDP**	**TBD**	**GCF**	71200	International Consultants	-	7,619	-	6,546	6,219	6,219	111,683	**138,285**	3a
				71300	Local Consultants	23,371	22,477	26,230	26,230	26,230	26,230	26,230	**177,000**	3b
				72600	Grants	-	68,583	68,583	68,583	68,583	68,583	68,583	**411,498**	3c
				72100	Contractual Services-Companies	-	700,073	700,073	700,073	700,073	700,073	-	**3,500,364**	3d
				71600	Travel	11,537	99,412	31,338	28,818	43,742	25,187	64,443	**304,477**	3e
				74200	Audio Visual & Print Prod Costs	3,146	4,791	3,146	4,791	3,146	4,791	3,146	**26,957**	3f
				75700	Training, Workshops and Conference	-	64,219	36,656	11,146	26,510	11,146	26,510	**176,186**	3g
				74500	Miscellaneous Expenses	16,472	16,471	16,471	16,471	16,471	16,471	16,405	**115,232**	3h
					Total Output 3	**54,526**	**983,645**	**882,497**	**862,658**	**890,974**	**858,700**	**317,000**	**4,850,000**	
		TBD	**GCF**	71200	International Consultants	222,611	-	-	48,788	-	223,366	84,171	**578,936**	0a

GCF Output/Atlas Activity	Responsible Party/[16] (Atlas Implementing Agent)	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Amount Year 6 (USD)	Amount Year 7 (USD)	Total (USD)	See Budget Note:
PROJECT MANAGEMENT UNIT[17]	**UNDP**			71300	Local Consultants	223,636	222,403	222,403	232,191	222,403	222,403	232,191	**1,577,628**	0b
				71600	Travel	52,391	52,391	52,391	61,092	52,391	93,341	82,596	**446,594**	0c
				72200	Equipment and Furniture*	15,729	-	-	-	-	-	-	**15,729**	0d
				72500	Supplies	10,291	10,291	10,291	10,291	10,291	10,291	10,291	**72,040**	0e
				74100	Professional Services	3,146	3,146	3,146	3,146	3,146	3,146	3,146	**22,020**	0f
				74500	Miscellaneous Expenses	11,760	11,760	11,615	11,615	11,615	11,615	11,615	**81,595**	0g
				72800	Information Technology Equipment	9,219	-	-	-	9,219	-	-	**18,437**	0h
				75700	Training, Workshops and Conference	10,146	6,146	6,146	6,146	6,146	6,146	6,146	**47,020**	0i
					Total Management	**558,928**	**306,137**	**305,992**	**373,269**	**315,211**	**570,308**	**430,156**	**2,860,000**	
												PROJECT TOTAL	**2,013,841**	**4,693,133**	**6,618,903**	**8,489,990**	**8,848,100**	**4,161,306**	**1,184,727**	**36,010,000**	

Summary of Funds: [18]

	Amount Year 1	Amount Year 2	Amount Year 3	Amount Year 4	Amount Year 5	Amount Year 6	Amount Year 7	Total

[17]. PMU costs will be used for the following activities: Full time or part time project manager (and or coordinator); Full time or part time project administrative/finance assistant; Travel cost of the PMU project staff; Other General Operating Expenses such as rent, computer, equipment, supplies, etc. to support the PMU; UNDP Direct Project Costs if requested by Government Implementing Partner; ; Any other projected PMU cost as appropriate. Audit should be funded under Outcome 4 on KM and M&E or under project outcomes.

[18] Summary table should include all financing of all kinds: GCF financing, cofinancing, cash, in-kind, etc... and must match the total project financing table in the GCF term sheet

GCF	$2,013,841	$4,693,133	$6,618,903	$8,489,990	$8,848,100	$4,161,306	$1,184,727	$36,010,000
Government of Tuvalu (cash and in-kind)	$80,000	$80,000	$80,000	$655,000	$655,000	$655,000	$655,000	$2,860,000
TOTAL	$2,093,841	$4,773,133	$6,698,903	$9,144,990	$9,503,100	$4,816,306	$1,839,727	$38,870,000

Budget notes:

Note	Description of cost item
1a	1. Output 1 contributions towards CTA: 6 months 2. GIS expert: @$700/day for 7 days in Y2, Y3, Y5 and Y7 3. V&A expert: @$800/day for 20 days in Y2 and Y5 4. Data and KM expert: @$800/day for 20 days in Y3 and Y6 5. CBA expert: @$800/day for 20 days in Y4 and Y7 6. School curricula change expert: @$600/day; 30 days in Y2, 15 days in Y4 and Y6
1b	1. Island-level beach profilers: @$200/quarter; 36 people 2. Employment opportunities for current master level students: @$1,200/month for 72 person-month per year
1c	1. Training on coastal monitoring: Lump sum $125,000, delivered in Y2, Y3, Y5 and Y7 2. Training on EBA coastal protection: Lump sum $100,000, delivered in Y2, Y3, Y5 and Y6
1d	1. For undergraduate: $45,000/year for 3 students for 4 years 2. For graduate: $50,000/year for 3 students for 3 years
1e	Domestic travel (boat fares); International travel for ICs; DSA for domestic and international travel
1f	1. Survey total stations (digital) for Funafuti: @$15,000, 2 pieces 2. Survey total stations (optical) for outer islands: @$1,000, 3 pieces
1g	Training materials; advertisement for scholarship programs
1h	Approximately 2% of the total Output 1 budget during Y1-Y4 is allocated for contingencies related to inflation, currency exchange fluctuations and other external shocks and contingencies, which would increase the cost of travel and materials
1i	1. Workshops on scholarship programs: @$500 in Y1, Y2, Y3 and Y6 2. Two regional workshop on lessons learned: @$15,000 in Y5 and Y7
1j	Computers at DoLS; Computers for national consultants (master level students)
2a	1. Output 2 contributions towards CTA: 48 months 2. IC for coastal construction/assessment TOR writing, tender and assessment quality support: @$850/day for 30 days in Y1-Y5 3. IC for construction technical oversight: @$850/day for 40 days in Y2-6 4. IC for technical evaluation of the coastal infrastructure: @$850/day for 35 days in Y7
2b	1. Coastal assessment: Lump sum @$2,000,000 spread across Y1-3 2. Coastal protection construction: Lump sum @$21,500,000 spread across Y2-6
2c	Domestic travel (boat fares); International travel for ICs; DSA for domestic and international travel
2d	Survey benchmark: @$5,000/island
2e	National and island-level workshops during coastal assessments, post construction, and EBA coastal protection measures
2f	Repair kits for geo-textile containers
2g	Approximately 0.3% of the total Output 2 budget during Y1-Y4 is allocated for contingencies related to inflation, currency exchange fluctuations and other external shocks and contingencies, which would increase the cost of travel and materials. The contingencies buffer for this Output is kept small as the budget for assessments and construction, which takes up more than 90% of the Output budget, already include sufficient buffer in the estimate.
3a	1. Output 3 contributions towards CTA: 6 months 2. CCA Mainstreaming expert: @$700/day for 10 days in Y2

	3. Participatory video expert: @$600/day for 10 days in Y4-6
3b	1. ISP Officer: @$1,800/month for 7 years 2. Translator: @$150/day for 24 days in Y3-7
3c	Performance-based grants for advancing climate change adaptation actions at the island level
3d	Contractual services to oversee and execute the grant into the Tuvalu Survival Fund
3e	Domestic travel (boat fares); International travel for ICs; DSA for domestic and international travel
3f	1. ISP training materials: @$3,000/year for Y1-7 2. Participatory video training: @$1,500/year for Y2, 4 and 6
3g	1. ISP national level workshop: @$10,000 in Y2 and Y3 2. Island-level initial workshop:@$5,000/island in 9 islands in Y2 3. ISP release workshop: @$1,000/island in 9 islands in Y2-7 4. ISP review workshop: @$15,000 in Y3, 5 and 7 5. Participatory video training workshop: @$2,000/year in Y2-7
3h	Approximately 2% of the total Output 3 budget during Y1-Y4 is allocated for contingencies related to inflation, currency exchange fluctuations and other external shocks and contingencies, which would increase the cost of travel and materials.
0a	1. Project Management contributions towards CTA: 24 months 2. IC for a mid-term and terminal evaluation: @$800/day for 60 days per assignment
0b	1. National Project Manager (Tuvalu-based): @$33,010/year for Y1-7 2. Deputy Project Manager (Suva-based): @$28,505/year for Y1-7 3. Project Admin/Finance Associate (Suva-based): @$40,512 for Y1-7 4. Project Procurement Associate (Suva-based): @$40,512 for Y1-7 5. Project Admin/Finance Assistant (Tuvalu-based): G6-equivalent 6. Communications Specialist (Suva-based): @$34,089 for Y1-7 7. Local consultant for a mid-term and terminal evaluation: @$150/day for 60 days per assignment
0c	Domestic travel (boat fares); International travel for ICs; DSA for domestic and international travel
0d	Office printer, furniture, etc.
0e	Stationary and office supplies: @$10,000/year
0f	Audit costs: @$3,000/year
0g	Approximately 3% of the total PMU budget during Y1-Y4 is allocated for contingencies related to inflation, currency exchange fluctuations and other external shocks and contingencies, which would increase the cost of travel and materials.
0h	Office computers to be procured twice in the lifecycle of the project
0i	Inception workshop and Board meeting related costs

XI. LEGAL CONTEXT

i. Additional legal conditions

Any designations on maps or other references employed in this project document do not imply the expression of any opinion whatsoever on the part of UNDP concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries.

By signing this UNDP GCF project document, the Implementing Partner also agrees to the terms and conditions of the GCF Funded Activity Agreement (FAA) included in Annex and to use the GCF funds for the purposes for which they were provided. UNDP has the right to terminate this project should the Implementing Partner breach the terms of the GCF FFA.

ii. Legal Context Standard Clauses

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of Tuvalu and UNDP, signed on 16 January 1979. All references in the SBAA to "Executing Agency" shall be deemed to refer to "Implementing Partner."

iii. Risk Management Standard Clauses

1. UNDP as the Implementing Partner shall comply with the policies, procedures and practices of the United Nations Security Management System (UNSMS.)
2. UNDP agrees to undertake all reasonable efforts to ensure that none of the project funds[19] 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 list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via hthttp://www.un.org/sc/committees/1267/aq_sanctions_list.shtml. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.
3. Consistent with UNDP's Programme and Operations Policies and Procedures, 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).
4. The Implementing Partner shall: (a) conduct project and programme-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 programme 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.
5. All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme 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.

[19] To be used where UNDP is the Implementing Partner

XII. MANDATORY ANNEXES

The following documents are mandatory annexes and must be included as part of the final project document package. These documents must be posted to open.undp.org, and can also be posted to the UNDP County Office website as appropriate.

1. GCF Term sheet and Funding Activity Agreement
2. Direct project cost letter of agreement
3. Letter of agreement between the Implementing Partner and Responsible Parties
4. Letters of co-financing
5. Results of Social and Environmental Screening Procedure
6. Environmental & Social Management Plan
7. Gender analysis and action plan
8. Map of project location
9. Monitoring Plan
10. Evaluation Plan
11. Timetable of project implementation
12. Procurement plan
13. Terms of reference for Project staff
14. UNDP Risk Log
15. UNDP Project Quality Assurance Report
16. Results of the capacity assessment of the project implementing partner and HACT micro assessment (being completed by UNDP Pacific Office)
17. Additional Background Details
    (a) Operation and Maintenance (O&M) Plan
    (b) Stakeholder Engagement Plan
    (c) Community Engagement Strategy
    (d) Youth Engagement Strategy
    (e) Country Risk Profile – Tuvalu
    (f) Climate Change and Disaster Survival Fund Act
    (g) Government Request for Direct Implementation
    (h) Information on the Grants Provided in the Project
    (i) Government of Tuvalu In-Service Training & Scholarship Policy
    (j) Authorization Letter from the Minister of Natural Resources

A complete list of project documents can be found on the gefpims database

Annex 1: GCF Term sheet and Funding Activity Agreement

ANNEX 2: DIRECT PROJECT COST LETTER OF AGREEMENT

Annex 3: Letter of agreement between the Implementing Partner and Responsible Parties

Annex 4: Letters of co-financing

ANNEX 5: SOCIAL & ENVIRONMENTAL SCREENING PROCEDURE

Project Information

Project Information	
1. Project Title	Tuvalu Coastal Adaptation Project
2. Project Number	NA
3. Location (Global/Region/Country)	Tuvalu

Part A. Integrating Overarching Principles to Strengthen Social and Environmental Sustainability

QUESTION 1: How Does the Project Integrate the Overarching Principles in order to Strengthen Social and Environmental Sustainability?
Briefly describe in the space below how the Project mainstreams the human-rights based approach
The project will ensure social equity and equality. The programme will provide the community with improved information to allow them to make decision prior to, during and post events. It will also provide valuable data that will allow for future planning as well as how communities need to adapt their current activities to meet the increasing threat of climate change. With this information, it is highly likely that lives will be saved and it will improve two-way communication mechanisms and inclusion of resilience building projects in the socio-economic planning process. The programme will increase the safety of people and their houses, particularly in high risk, low elevation households which is very common in Tuvalu. More importantly, individuals can feel safer and stay in their homes during events, and therefore this will save lives. Further, the programme will increase community resilience by providing structural engineering standards for coastal protection infrastructure, therefore enhancing the lives of vulnerable groups including those with disabilities, minority groups, youth and the elderly.
Briefly describe in the space below how the Project is likely to improve gender equality and women's empowerment
The project does not directly have a focus on gender sensitive planning and implementation, nor does it provide women's empowerment. However, many of the project beneficiaries will be women. Women often bear the brunt of the vagaries of the weather and disrupted livelihoods. By focusing on tailored products that include gender-sensitive adoption strategies, the project will ensure that women are empowered to benefit from improved coastal protection, which will allow them to cope with climate change impacts. Many women will benefit from increased awareness and support on climate change risks and how to incorporate the information in their trades thereby protecting their livelihoods and enhancing adaptive capacities.
Briefly describe in the space below how the Project mainstreams environmental sustainability
The project is expected to have some short term fine scale environmental impacts but significant environmental benefits. Accordingly, the project will ensure risk assessments and hydrodynamic studies and potential acid sulfate soil investigations are undertaken, and results and mitigation measures integrated into final design. By increasing the areas with coastal protection infrastructure, this will allow for the protection of communities and the coastal zone, the project will yield environmental benefits through strengthened ecosystem resilience, increase biodiversity and improved water quality through reduced sediment movement.

Part B. Identifying and Managing Social and Environmental Risks

QUESTION 2: What are the Potential Social and Environmental Risks? *Note: Describe briefly potential social and environmental risks identified in Attachment 1 – Risk Screening Checklist (based on any "Yes" responses). If no risks have been identified in Attachment 1 then note "No Risks Identified" and skip to Question 4 and Select "Low Risk". Questions 5 and 6 not required for Low Risk Projects.*	**QUESTION 3: What is the level of significance of the potential social and environmental risks?** *Note: Respond to Questions 4 and 5 below before proceeding to Question 6*			**QUESTION 6: What social and environmental assessment and management measures have been conducted and/or are required to address potential risks (for Risks with Moderate and High Significance)?**
Risk Description	***Impact and Probability (1-5)***	***Significance (Low, Moderate, High)***	***Comments***	***Description of assessment and management measures as reflected in the Project design. If ESIA or SESA is required note that the assessment should consider all potential impacts and risks.***
Risk 1: Sediment movement during the installation of coastal protection infrastructure	I = 3 P = 2	**Moderate**	During the installation of coastal protection infrastructure, it may be necessary to undertake very small scale earth works to level areas where the coastal protection infrastructure will be placed to ensure it has adequate footings. The earth works will move marine sediment that, if not properly contained, may enter important marine habitats.	To ensure that the sediment is not mobilised through current movement that will result in any significant impacts, it will be necessary to prepare an erosion control sediment plan and install silt curtains to restrict sediment movement within the marine environment. Further, any earthworks should be undertaken at low tide to reduce sediment movement. The plan should contain aspects including but not limited to the installation of sediment curtains to reduce sediment movement and the quick placement of footing material. These impacts will be spatially and temporally restricted to construction periods. In the design of coastal structures, appropriate toe protection will be included to prevent scour at the
				front end of the structure. Beach material will be excavated down to solid foundations on either substantial beach rock or the reef platform (estimated to be 2.0m LAT under the beach) for preventing scour.

Risk 2: Impacts on the marine environment through the construction of coastal protection infrastructure	I = 1 P = 3	**Low**	There are a range of small scale environmental impacts associated with the installation of the coastal protection infrastructure. Potential impacts include the impacts on the marine environment through the loss of habitat, changes in hydrodynamic processes, potential increases in erosion in locations that may be impacted through secondary impacts etc.	Significant information about the existing environment is contacted within the following reports: a. AECOM (June 2015), Tuvalu Coastal Protection Scope Definition; report prepared for the World Bank; b. Japan International Cooperation Agency, Kokusai Kogyo Co., Ltd and Fisheries Engineering Co., Ltd (Jan 2011), *The Study for Assessment of Ecosystem, Coastal Erosion and Protection/Rehabilitation of Damaged Area in Tuvalu*, report prepared for the Government of Tuvalu's Ministry of Foreign Affairs, Environment, Trade, Labour and Tourism; and c. McCue, J (May 2014), Increasing Resilience of Coastal Areas and Community Settlements to Climate Change: Coastal Options and Feasibility Report – Nukufetau and Nanumea, report prepared for Sustainable Sea, Australian Aid, NAPA Tuvalu, United Nations Development Programme and the Government of Tuvalu. Prior to final design and site selection of the coastal protection infrastructure, a number of environmental and social studies should be undertaken including: 1. Chemical, ecological and physical assessments (and associated modelling) that consider the adjacent marine ecosystems including but not limited to, marine water quality within the areas of influence, potential contamination from marine sediments that may currently be contaminated, disturbance to

				habitats through the placement of infrastructure, noise, and vibration impacts, impact on benthic, planktonic and pelagic biota, and entrainment and entrapment of marine organisms. All these studies should consider spatial and temporal characteristics; 2. Hydrodynamic modelling to ensure the coastal protection infrastructure does not result in the change to coastal processes within natural variables respectively. The study should evaluate various coastal infrastructure types and design. To mitigate environmental impacts, it is critical to ensure that the proposed coastal protection infrastructure is away from sensitive habitats and is designed to minimize entrapment and entrainment of marine species although this is unlikely given the types of infrastructure being constructed. Further, the infrastructure should avoid impacts on marine species and specifically important habitats such as coral reefs etc. The information from the studies will be used to inform the environmental and social management plan for the project along with providing fine scale information for the design of the coastal protection infrastructure. The plan should ensure it includes water quality monitoring

Risk 3: Impacts on the marine and coastal environments from dredging and/or sediment collection	I = 2 P = 2	**Low**	There are a range of low environmental associated with the dredging of material for the construction of the coastal protection infrastructure. Potential impacts include the impacts on the marine environment through the	It is anticipated that a backhoe dredge will be used to collect sand etc for the coastal protection infrastructure. The benefits of using a backhoe dredge are that they can work in shallow water environments, are easily manoeuvrable, and are able to dredge harder and/or larger sediments (e.g. sand and gravel as are found within the coastal areas of Tuvalu) in comparison to the dredging of fine clays which are usually dredged with a trailing

			loss of habitat although benthic invertebrates quickly recolonise disturbed environments and very short term changes in water quality.	suction hopper dredge or cutter suction dredge. These types of dredges have been used consistent in the Pacific for small scale dredging for ports and coastal protection infrastructure projects and have proved to be highly effective both operationally and environmentally. Further, a backhoe dredge has no overflow as a result of only removing sediment and therefore no impacts will be observed other than the removal of the sediment unlike trailing suction hopper dredge or cutter suction dredge which can cause significant turbidity which has impacts on water quality. Prior to site selection for dredging and/or collection of sediment to construct the coastal protection infrastructure, a number of environmental and social studies should be undertaken including: 1. An rapid assessment of proposed locations where dredging and/or sediment collection will take place; and 2. An assessment of existing water quality; marine habitats and species utilization and any important use of this area by species or humans (eg fishing grounds). The studies should consider spatial and temporal characteristics; To mitigate environmental impacts, it is critical to ensure that the proposed dredging and/or other sediment collection is away from sensitive habitats and is designed to minimize impacts during dredging. Further, the dredging should avoid impacts on marine species and specifically important habitats such as coral reefs etc. The information from the studies will be used to inform the environmental and social management plan for the project.

Risk 4: Exposure of Acid Sulfate Soils	I = 3 P = 1	**Low**	Any sediment movement may also expose acid sulfate soils within the mangrove areas. Acid sulfate soils and/or potential acid sulfate soils occur in areas of mangrove (there are no known mangroves in proximity to the project footprint). The earth works will move sediment that, if not properly contained, may enter the marine environment.	There is the very limited potential that acid sulfate soils occur within the project footprints as no mangroves have been previously observed in these locations. It will be necessary to prepare an acid sulfate management plan consistent with international good practice. Prior to any excavation, sediments will be tested for their presence of acid sulfate soils and/or potential acid sulfate soils. If the analysis proves positive, the sediment can be treated by a range of techniques including but not limited to liming the sediment. Reference will be made to appropriate standards and guidelines. Every effort will be made to ensure there is no direct or residual impact following treatment.
Risk 5: Entrainment and impingement/entrapment of marine organisms	I = 2 P = 1	**Low**	During the construction of the coastal protection infrastructure, marine organisms could be entrainment and impingement/entrapment. This could result in the death of the specific marine organisms.	The construction of coastal protection infrastructure is known to impact on lower order marine organisms including phytoplankton, zooplankton and marine invertebrates. They can also impact on juvenile fishes if place in an inappropriate location. To avoid impacts, the placement of the coastal protection infrastructure will rely on the studies identified above. Further, spotters should be used during construction to mitigate the risk of capture of important species thus totally reducing potential
Risk 5: Impact on important fishing grounds	I = 2 P = 1	**Low**	There is the potential, if not managed correctly, that important fishing grounds could be impacted as a result of ill- informed positioning of the coastal protection infrastructure.	An assessment of the location of any important fishing grounds will be undertaken including consultation with local community that may be impacted by either the placement of coastal protection infrastructure. This will ensure the project does not impact any important fishing grounds.
Risk 6: Terrestrial and Marine Noise	I = 2 P = 2	**Low**	Terrestrial and marine noise including through the use of construction	An assessment of the terrestrial habitat where the coastal protection infrastructure is to be located should consider any sensitive receptors including

			equipment and rock dumping will occur as a result of the projects. This can impact on local communities and marine and terrestrial fauna using the adjacent area.	communities. Further, noise shields should be constructed to reduce the potential for noise to reach these communities if an impact occurs. The noise will predominantly relate to the dumping of rock, which will have very limited temporal scales. With respect to the marine environment, the studies that will be undertaken will provide input into the final location of coastal protection infrastructure to ensure underwater noise does not impact marine organisms and sensitive receptors. As above, the noise will predominantly relate to the dumping of rock, which will have very limited temporal scales.
Risk 7: Production of waste	I = 1 P = 1	**Low**	The waste associated with the construction of the coastal protection infrastructure, particularly if sand bags etc will have a limited impact on the environment is disposed of properly	All damaged sand bags and any other waste should be managed and placed in an appropriate waste facility. Thus reducing any impact.

	QUESTION 4: What is the overall Project risk categorization?		
	Select one (see SESP for guidance)		**Comments**
	Low Risk	☐	
	Moderate Risk	X	**If the appropriate mitigation measures are put in place during the project, the project will have a low risk over the short to medium term impacts.**
	High Risk	☐	
	QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are relevant?		
	Check all that apply		**Comments**
	Principle 1: Human Rights	☐	The project has no impact on human rights.
	Principle 2: Gender Equality and Women's Empowerment	☐	The project is gender neutral.

	1. Biodiversity Conservation and Natural Resource Management	**X**	The project will have an overall benefit on natural resource management through the reduction in erosion of existing areas and reduce sea flooding through inundation during high/king tides and from storm surge during cyclone events. There is the potential for the project to have fine scale negative impacts on biodiversity through the placement of the coastal protection although the infrastructure will provide a three dimensional habitat in comparison to the existing two dimensional habitat. There is also the potential for small temporal changes in marine water quality when dredging is undertaken. A number of studies are recommended prior to site selection and final design of both the coastal protection infrastructure and also the dredging that will provide guidance to ensure the vast majority of negative impacts are mitigated. There will be a temporal impact through for example, the loss of marine invertebrate biodiversity; changes in water quality; however benthic animals are known to be both resilience and moreover, quickly inhabit new ecosystems.
	2. Climate Change Mitigation and Adaptation	**X**	The project is designed to provide the community with coastal protection infrastructure that will act as a buffer during high/king tides and from storm surge during cyclone events that are exacerbated by climate change and sea level rise.
	3. Community Health, Safety and Working Conditions	☐	The project has a positive benefit of increasing the communities' health and safety through improved coastal protection and therefore improving the longevity of peoples' houses, therefore providing valuable resources to both the environment and community.
	4. Cultural Heritage	☐	The project has no impact on cultural heritage.
	5. Displacement and Resettlement	☐	The project will have no issues of displacement or resettlement.
	6. Indigenous Peoples	☐	The project has no impact on indigenous peoples.

	7. Pollution Prevention and Resource Efficiency	☐	The project will not result in increased pollution

Final Sign Off

Signature	***Date***	***Description***
QA Assessor		UNDP staff member responsible for the Project, typically a UNDP Programme Officer. Final signature confirms they have "checked" to ensure that the SESP is adequately conducted.
QA Approver		UNDP senior manager, typically the UNDP Deputy Country Director (DCD), Country Director (CD), Deputy Resident Representative (DRR), or Resident Representative (RR). The QA Approver cannot also be the QA Assessor. Final signature confirms they have "cleared" the SESP prior to submittal to the PAC.
PAC Chair		UNDP chair of the PAC. In some cases PAC Chair may also be the QA Approver. Final signature confirms that the SESP was considered as part of the project appraisal and considered in recommendations of the PAC.

SESP Attachment 1. Social and Environmental Risk Screening Checklist

Checklist Potential Social and Environmental Risks	
Principles 1: Human Rights	**Answer (Yes/No)**
1. Could the Project lead to adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?	No
2. Is there a likelihood that the Project would have inequitable or discriminatory adverse impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups?[20]	No
3. Could the Project potentially restrict availability, quality of and access to resources or basic services, in particular to marginalized individuals or groups?	No
4. Is there a likelihood that the Project would exclude any potentially affected stakeholders, in particular marginalized groups, from fully participating in decisions that may affect them?	No
5. Is there a risk that duty-bearers do not have the capacity to meet their obligations in the Project?	No
6. Is there a risk that rights-holders do not have the capacity to claim their rights?	No
7. Have local communities or individuals, given the opportunity, raised human rights concerns regarding the Project during the stakeholder engagement process?	No
8. Is there a risk that the Project would exacerbate conflicts among and/or the risk of violence to project-affected communities and individuals?	No
Principle 2: Gender Equality and Women's Empowerment	
1. Is there a likelihood that the proposed Project would have adverse impacts on gender equality and/or the situation of women and girls?	No
2. Would the Project potentially reproduce discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	No
3. Have women's groups/leaders raised gender equality concerns regarding the Project during the stakeholder engagement process and has this been included in the overall Project proposal and in the risk assessment?	No
4. Would the Project potentially limit women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services?	No
Principle 3: Environmental Sustainability: Screening questions regarding environmental risks are encompassed by the specific Standard-related questions below	
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management	

[20] Prohibited grounds of discrimination include race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. References to "women and men" or similar is understood to include women and men, boys and girls, and other groups discriminated against based on their gender identities, such as transgender people and transsexuals.

Checklist Potential Social and Environmental Risks	
Principles 1: Human Rights	**Answer (Yes/No)**
1.1 Would the Project potentially cause adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services?	Yes – only if mitigation measures we not included
1.2 Are any Project activities proposed within or adjacent to critical habitats and/or environmentally sensitive areas, including legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?	No
1.3 Does the Project involve changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (Note: if restrictions and/or limitations of access to lands would apply, refer to Standard 5)	No
1.4 Would Project activities pose risks to endangered species?	No
1.5 Would the Project pose a risk of introducing invasive alien species?	No
1.6 Does the Project involve harvesting of natural forests, plantation development, or reforestation?	No
1.7 Does the Project involve the production and/or harvesting of fish populations or other aquatic species?	No
1.8 Does the Project involve significant extraction, diversion or containment of surface or ground water? *For example, construction of dams, reservoirs, river basin developments, groundwater extraction*	No
1.9 Does the Project involve utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)	No
1.10 Would the Project generate potential adverse transboundary or global environmental concerns?	No
1.11 Would the Project result in secondary or consequential development activities which could lead to adverse social and environmental effects, or would it generate cumulative impacts with other known existing or planned activities in the area? *For example, a new road through forested lands will generate direct environmental and social impacts (e.g. felling of trees, earthworks, potential relocation of inhabitants). The new road may also facilitate encroachment on lands by illegal settlers or generate unplanned commercial development along the route, potentially in sensitive areas. These are indirect, secondary, or induced impacts that need to be considered. Also, if similar developments in the same forested area are planned, then cumulative impacts of multiple activities (even if not part of the same Project) need to be considered.*	No
Standard 2: Climate Change Mitigation and Adaptation	
2.1 Will the proposed Project result in significant[21] greenhouse gas emissions or may exacerbate climate change?	No

[21] In regards to CO_2, 'significant emissions' corresponds generally to more than 25,000 tons per year (from both direct and indirect sources). [The Guidance Note on Climate Change Mitigation and Adaptation provides additional information on GHG emissions.]

Checklist Potential Social and Environmental Risks		
Principles 1: Human Rights		**Answer (Yes/No)**
2.2	Would the potential outcomes of the Project be sensitive or vulnerable to potential impacts of climate change?	Yes – seawater ingress over coastal infrastructure over time or as a result of an extreme event if not properly designed considering future sea level rise and cyclone projections
2.3	Is the proposed Project likely to directly or indirectly increase social and environmental vulnerability to climate change now or in the future (also known as maladaptive practices)? *For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding*	No
Standard 3: Community Health, Safety and Working Conditions		
3.1	Would elements of Project construction, operation, or decommissioning pose potential safety risks to local communities?	No
3.2	Would the Project pose potential risks to community health and safety due to the transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	No
3.3	Does the Project involve large-scale infrastructure development (e.g. dams, roads, buildings)?	Yes – depending on the final design and size of coastal protection infrastructure
3.4	Would failure of structural elements of the Project pose risks to communities? (e.g. collapse of buildings or infrastructure)	No – if engineering design meets international good practice
3.5	Would the proposed Project be susceptible to or lead to increased vulnerability to earthquakes, subsidence, landslides, erosion, flooding or extreme climatic conditions?	No
3.6	Would the Project result in potential increased health risks (e.g. from water-borne or other vector-borne diseases or communicable infections such as HIV/AIDS)?	No
3.7	Does the Project pose potential risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during Project construction, operation, or decommissioning?	No
3.8	Does the Project involve support for employment or livelihoods that may fail to comply with national and international labor standards (i.e. principles and standards of ILO fundamental conventions)?	No
3.9	Does the Project engage security personnel that may pose a potential risk to health and safety of communities and/or individuals (e.g. due to a lack of adequate training or accountability)?	No

Checklist Potential Social and Environmental Risks		
Principles 1: Human Rights		**Answer (Yes/No)**
Standard 4: Cultural Heritage		
4.1	Will the proposed Project result in interventions that would potentially adversely impact sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: Projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	No
4.2	Does the Project propose utilizing tangible and/or intangible forms of cultural heritage for commercial or other purposes?	No
Standard 5: Displacement and Resettlement		
5.1	Would the Project potentially involve temporary or permanent and full or partial physical displacement?	No
5.2	Would the Project possibly result in economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	No
5.3	Is there a risk that the Project would lead to forced evictions?[22]	No
5.4	Would the proposed Project possibly affect land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	No
Standard 6: Indigenous Peoples		
6.1	Are indigenous peoples present in the Project area (including Project area of influence)?	No
6.2	Is it likely that the Project or portions of the Project will be located on lands and territories claimed by indigenous peoples?	No
6.3	Would the proposed Project potentially affect the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples (regardless of whether indigenous peoples possess the legal titles to such areas, whether the Project is located within or outside of the lands and territories inhabited by the affected peoples, or whether the indigenous peoples are recognized as indigenous peoples by the country in question)?	No
	If the answer to the screening question 6.3 is "yes" the potential risk impacts are considered potentially severe and/or critical and the Project would be categorized as either Moderate or High Risk.	
6.4	Has there been an absence of culturally appropriate consultations carried out with the objective of achieving FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	No
6.5	Does the proposed Project involve the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	No

[22] Forced evictions include acts and/or omissions involving the coerced or involuntary displacement of individuals, groups, or communities from homes and/or lands and common property resources that were occupied or depended upon, thus eliminating the ability of an individual, group, or community to reside or work in a particular dwelling, residence, or location without the provision of, and access to, appropriate forms of legal or other protections.

Checklist Potential Social and Environmental Risks		
Principles 1: Human Rights		**Answer (Yes/No)**
6.6	Is there a potential for forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources?	No
6.7	Would the Project adversely affect the development priorities of indigenous peoples as defined by them?	No
6.8	Would the Project potentially affect the physical and cultural survival of indigenous peoples?	No
6.9	Would the Project potentially affect the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices?	No
Standard 7: Pollution Prevention and Resource Efficiency		
7.1	Would the Project potentially result in the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	No
7.2	Would the proposed Project potentially result in the generation of waste (both hazardous and non-hazardous)?	No – limited in quantity but negligible if material for construction is prefabricated and/or bought to specific size
7.3	Will the proposed Project potentially involve the manufacture, trade, release, and/or use of hazardous chemicals and/or materials? Does the Project propose use of chemicals or materials subject to international bans or phase-outs? *For example, DDT, PCBs and other chemicals listed in international conventions such as the Stockholm Conventions on Persistent Organic Pollutants or the Montreal Protocol*	No
7.4	Will the proposed Project involve the application of pesticides that may have a negative effect on the environment or human health?	No
7.5	Does the Project include activities that require significant consumption of raw materials, energy, and/or water?	No

ANNEX 6: TUVALU COASTAL ADAPTATION PLAN: ENVIRONMENTAL & SOCIAL MANAGEMENT PLAN

Disclaimer

This Environmental and Social Management Plan has been prepared for the submission of the proposal to the Green Climate Fund for the purposes of assisting in the assessment of the potential environmental and social impacts of the proposal. This Environmental and Social Management Plan has been prepared prior to undertaking an Environmental and Social Impact Assessment. Normally, an Environmental and Social Management Plan would be prepared following baseline studies and then the subsequent impact assessment contained within the Environmental and Social Impact Assessment (or commonly known as an Environmental Impact Assessment (EIA)) and would form the basis for the construction and operational environmental and social management plans.

As no Environmental and Social Impact Assessment have been undertaken for the projects, this Environmental and Social Management Plan has been prepared solely on the author's experience with projects of this nature and in consideration of international good practice for these types of projects. Accordingly, the Environmental and Social Management Plan will be subject to change following the preparation of the Environmental and Social Impact Assessment/s.

Assumptions

The following assumptions have been made in the preparation of this Environmental and Social Management Plan:

1. all components of the proposal will have an Environmental and Social Impact Assessment/s prepared prior to the construction and operation of the specific project components;
2. none of the projects will require the displacement of people;
3. the information contained in the relevant reports relied on to prepare this Environmental and Social Management Plan are correct and accurate in their information, which include:
    a. AECOM (June 2015), Tuvalu Coastal Protection Scope Definition; report prepared for the World Bank;
    b. Japan International Cooperation Agency, Kokusai Kogyo Co., Ltd and Fisheries Engineering Co., Ltd (Jan 2011), *The Study for Assessment of Ecosystem, Coastal Erosion and Protection/Rehabilitation of Damaged Area in Tuvalu*, report prepared for the Government of Tuvalu's Ministry of Foreign Affairs, Environment, Trade, Labour and Tourism; and
    c. McCue, J (May 2014), Increasing Resilience of Coastal Areas and Community Settlements to Climate Change: Coastal Options and Feasibility Report – Nukufetau and Nanumea, report prepared for Sustainable Sea, Australian Aid, NAPA Tuvalu, United Nations Development Programme and the Government of Tuvalu
4. none of the projects will be conducted in sensitive locations including coral reef systems and seagrass areas;
5. the dredging will not result in changes to hydrodynamic processes, increased erosion and deposition and/or water quality;
6. appropriate modelling will be conducted prior to the final design of any hard coastal protection infrastructure to ensure the infrastructure will not have significant impacts on coastal hydrodynamics and processes;
7. appropriate erosion and sediment control will be undertaken during all stages of the projects;
8. acid sulfate soils will be managed effectively if found during construction; and
9. there will be no release of pollution and/or chemicals as a result of the projects

Environmental and Social Management Plan for Tuvalu Coastal Adaptation Project

This document is an Environmental and Social Management Plan (ESMP) for the "Tuvalu Coastal Adaptation Project" submitted to the Green Climate Fund for funding. The project will provide highly needed coastal protection infrastructure, both in the form of hard and soft infrastructure to protect the people of Tuvalu in the face of climate change, increasing sea level rise and impacts from more severe cyclones.

Governing Legislation

The legislative and policy basis for the provision of the coastal protection infrastructure projects comes under a number of piece of legislation (in alphabetical order only rather than by importance) including but not limited to the:

a) *Conservation Areas Act 1999*;
b) *Constitution of Tuvalu 1986* (Cap 1);
c) *Crown Acquisition of Land Act* (Cap 24);
d) *Environmental Protection Act 2008* (Cap 30.25);
e) *Falekaupule Act 1997*;
f) *Foreshore and Land Reclamation Act* (Cap 26);
g) *Marine Resources Act 2006*;
h) *Marine Zones Act 1983* (Cap 24A);
i) *Native Lands Act* (Cap 22); and
j) *Wildlife Conservation Act* (Cap 47).

Environment Protection Act

Environmental management and the requirement for an environmental impact assessment are controlled by the *Environment Protection Act 2008.* The Department of Environment (DoE) administers the Act and Regulations. Specifically, Part 5 of the Act (sections 17 and 18) sets out the process and procedures for the undertaking of an Environmental Impact Assessment (EIA).

The *Environmental Protection Regulations 2014* provides the regulatory management of EIA in the Tuvalu. It provides for the undertaking of preliminary environmental assessment report (PEAR) or EIA. All projects must comply with the legislation and regulations. Under Regulation 4, the Minister determines what projects should have either a PEAR or EIA. Pursuant to Schedule 1 (9) public works that require either a PEAR or EIA include (d) soil erosion, beach erosion and siltation control; and (k), seawalls/land reclamation. Regulation 5 exempts *routine maintenance* of for example, seawalls; however this project involves the construction of for example, seawalls, which is not routine maintenance.

Overview - Institutional Requirements for the Environmental and Social Management Plan

As the project will be funded by the Green Climate Fund through the UNDP, all works (including but not limited to civil and construction contractors) must adhere to the outcomes of the ESIA (once prepared) and this or a modified ESMP (following an ESIA) including complying with the appropriate avoidance and mitigation measures. The ESIA and this or a modified ESMP will be assessed for each project by the DoE and UNDP prior to any works being undertaken. The ESMP identifies potential risks to the environment and social matters from the projects and outlines strategies for managing those risks and minimising undesirable environmental and social impacts.

The DoE will be responsible for the supervision of the ESMP. The UNDP with gain the endorsement of the DoE and will ensure the ESMP is adequate and followed. The supervising engineer will ensure timely remedial actions are taken by the contractor where necessary.

Objectives of the Environmental and Social Management Plan

An ESMP is a management tool used to assist in minimizing the impact to the environment and reach a set of environmental objectives. To ensure the environmental objectives of the projects are met, this ESMP will be used by the contractor to structure and control the environmental management safeguards that are required to avoid or mitigate adverse effects on the environment.

The environmental and social objectives of the projects are to:

a) Construct hard and soft coastal protection infrastructure that
   i) reduces coastal erosion;
   ii) increases resilience against storm surge during cyclone events;
   iii) increases resilience against sea flooding during king tides usually in February and March annually;
   iv) provide safety against sea level rise;
b) provide training to local staff;
c) provide scholarships for students wishing to undertake graduate and postgraduate studies in environmental science/management and climate change;
d) encourage good management practices through planning, commitment and continuous improvement of environmental practices;
e) comply with all applicable laws, regulations and standards for the protection of the environment; and
f) adopt the best practicable means available to prevent or minimise environmental impact.
g) describe all monitoring procedures required to identify impacts on the environment; and
h) provide an overview of the obligations of DoE and UNDP staff and contractors in regard to environmental obligations.

The ESMP will be updated from time to time by the contractor in consultation with the UNDP staff and DoE to incorporate changes in the detailed design phase of the projects.

General Management Structure and Responsibilities

The UNDP and DoE are accountable for the provision of specialist advice on environmental issues to the contractor and for environmental monitoring and reporting. The DoE will assess the environmental performance of the contractor in charge of construction throughout the project and ensure compliance with the ESMP.

The DoE will be responsible for monitoring the implementation of the ESMP by relevant supervisory staff during construction. During operations the contractor will be accountable for implementation of the ESMP. Contractors working on the projects have accountability for preventing or minimising environmental and social impacts.

Administration

The DoE will be responsible for the revision or updates of this document during the course of work. It is the responsibility of the person to whom the document is issued to ensure it is updated.

The site supervisor will be responsible for daily environmental inspections of the construction site. The DoE will cross check these inspections by undertaking monthly audits.

The contractor will maintain and keep all administrative and environmental records which would include a log of complaints together with records of any measures taken to mitigate the cause of the complaints.

The contractor will be responsible for the day to day compliance of the ESMP.

DoE will be the implementing agency and will be responsible for the implementation and compliance with the ESMP via the contractor. The ESMP will be part of any tender documentation.

The Supervising Engineer/Project Manager will supervise the contractor, while the DoE will be responsible for environment and social issues.

Public Consultation and Environmental and Social Disclosure

The projects are designed to improve protection from sea level rise and cyclonic events. A number of proposed coastal protection areas have been established; however, during site selection, the project will ensure there are no resettlement issues. The ESIAs will also include public consultation as part of their stakeholder engagement plan and this information will be included in any modified ESMP.

The projects were discussed with DoE and the Office of the Prime Minister's staff. While no on ground consultation has been undertaken at this time, it is expected that consultation with affected communities will be undertaken when the detail design of the projects are available by DoE. It is anticipated that based on the communities' needs, the projects will be fully accepted.

The UNDP and DoE will develop and release Community Flyers on a regular basis to provide interested stakeholders with an update on the construction status of the projects. A publicised telephone number will be maintained throughout the construction of all projects to serve as a point of contact for enquiries, concerns and complaints. All enquiries, concerns and complaints will be recorded on a register and the appropriate manager will be informed. All material must be published in both Tuvaluan and English.

Where there is a community issue raised, the following information will be recorded:

a) time, date and nature of enquiry, complaint or concern;

b) type of communication (eg telephone, letter, personal contact);

c) name, contact address and contact number;

d) response and investigation undertaken as a result of the enquiry, complaint or concern; and

e) actions taken and name of the person taking action.

Some enquiries, complaints and concerns may require an extended period to address. The complainant(s) will be kept informed of progress towards rectifying the concern. All enquiries, complaints and concerns will be investigated and a response given to the complainant in a timely manner.

A nominated contractor staff will be responsible for undertaking a review of all enquiries, complaints and concerns and ensuring progress toward resolution of each matter.

Site Supervisor

The site supervisor is responsible for ensuring compliance with the ESMP. The site supervisor will provide advice on effective environmental management of the project to the UNDP Staff, DoE and engineers and all construction site personnel. The site supervisor is to also ensure the environmental awareness of project personnel is maintained through appropriate training. A compliance report on mitigation measures will be submitted by the UNDP to DOE for the civil contractor. An independent review of the compliance may be undertaken during construction and post construction where deemed necessary.

Environmental Procedures and Site and Activity-Specific Work Plans/Instructions

Environmental procedures provide a written method describing how the management objectives for a particular environmental element are to be obtained. They contain the necessary detail to be site or activity-specific and are required to be followed for all construction works. Site and activity-specific work plans and instructions are to be issued through the following methods:

Environmental and Incident Reporting

Any incidents, including non-conformances to the procedures of the ESMP are to be recorded using an Incident Record and the details entered into a register. For any incident that causes or has the potential to cause material or serious environmental harm, the site supervisor shall notify DoE as soon as possible. The contractor must cease work until remediation has been completed as per the approval of DoE.

Daily and Weekly Environmental Inspection Checklists

A daily environmental checklist is to be completed at each work site by the relevant site supervisor and maintained within a register. The completed checklist is forwarded to DoE for review and follow-up if any issues are identified. A weekly environmental checklist is to be completed and will include reference to any

issues identified in the daily checklists completed by the Site Supervisors.

Corrective Actions

Any non-conformances to the ESMP are to be noted in weekly environmental inspections and logged into the register. Depending on the severity of the non- conformance, the site supervisor may specify a corrective action on the weekly site inspection report. The progress of all corrective actions will be tracked using the register. Any non-conformances and the issue of corrective actions are to be advised to DoE.

Complaints Register

A complaints register will be established to record any concerns raised by the community during construction. Any complaint will be advised to the UNDP and DoE within 24 hours of receiving the complaint. The complaint will be investigated and following the investigation, if it relates to a significant incident, the matter will be referred to the UNDP for commentary and/or advice.

Review and Auditing

The ESMP and its procedures are to be reviewed at least two month by UNDP staff and DoE. The objective of the review is to update the document to reflect knowledge gained during the course of construction operations and to reflect new knowledge and changed community standards (values). Any changes are to be developed and implemented in consultation with UNDP Staff and DoE. When an update is made, all site personnel are to be made aware of the revision immediately through a tool box meeting.

Training of Contractors

The main contractor has the responsibility for ensuring systems are in place so that relevant employees, contractors and sub-contractors are aware of the environmental and social requirements for construction, including the ESMP.

All construction personnel will attend an induction which covers health, safety, environment and cultural requirements.

All staff and contractors engaged in any activity with the potential to cause serious environmental harm (e.g. handling of hazardous materials) will receive task specific environmental training.

Key Environmental and Social Indicators

This section identifies the Key Environmental and Social Indicators identified for the project and outlines respective management objectives, potential impacts, control activities and the environmental performance criteria against which these indicators will be judged (i.e. auditable). This section further addresses the need for monitoring and reporting of environmental performance with the aim of communicating the success and failures of control procedures, distinguish issues which require rectification and identify measures which will provide continuous improvement in the processes by which the projects are managed.

Water Quality

The projects involve the construction of coastal protection infrastructure to reduce inundation of the islands of Tuvalu as well as reducing coastal erosion.

On Funafuti, the domestic sewage (fecal and non-fecal wastewater) is currently seeping into the groundwater, either untreated or only after simple treatment or being moved into coastal waters. The JICA study found that nitrogen and phosphorous concentrations are higher than water quality criteria and threshold values of eutrophication near the coast on lagoon side, raising concerns about the influence of eutrophication, although the chlorophyll-a concentration was ≤0.05µg/l or 0.1 to 0.2µg/l in the overall for the area, suggesting that eutrophication has not reached a level where it influences the growth of coral. .

The coastal protection infrastructure will result in the movement of sediment during construction into the marine environment. While it is assumed that none of the coastal protection infrastructure will be constructed

in protected and/or pristine environments, there is a necessity to maintain appropriate water quality standards within these environments when undertaking the construction of the coastal protection infrastructure.

The construction of coastal protection infrastructure could also result in changes to small and medium scale hydrodynamic processes that could result in changes to water quality within specific locations. Prior to final design and construction, it will be necessary to undertake modelling to ensure that any impacts are mitigated.

Separately, there is the potential for the release of acid sulfate soils into the marine environment should they be disturbed during the construction of coastal protection infrastructure.

Performance Criteria

The following performance criteria are set for the construction of the projects:

a) no significant decrease in water quality of the coastal marine environment as a result of construction activities;

b) no significant decrease in water quality as a result of dredging activities;

c) no overflow during dredging activities;

d) no significant decrease in the quality and quantity of surface water as a result of construction activities in proximity to the projects;

e) water quality shall conform to any approval conditions stipulated by UNDP, DoE and/or other government departments, or in the absence of such conditions follow a 'no worsening' methodology;

f) no offsite impact will occur through the release of sediment into the marine environment; and

g) effective implementation of site-specific Erosion, Drainage and Sediment Control Plan (EDSCP) following the management measures set out in the ESMP, the construction of coastal protection infrastructure will not have a significant impact on water quality across the broader area.

Monitoring

A standardised water quality monitoring program has been developed for the projects. The program is subject to review and update at least every two months from the date of issue. The site supervisor will be required to conduct a daily visual inspection for acid sulfate soil release and turbidity within or adjacent to their work area as a part of the daily site inspection checklist.

Reporting

All water quality monitoring results and/or incidents will be tabulated and reported as outlined in the ESMP. The DoE must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to water quality is exceeded.

1: Water Quality Management Measures

Issue	Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
W1: Elevated turbidity in coastal environments.	W1.1: Develop and implement a site specific Erosion, Drainage and Sediment Control Plan (EDSCP) to address drainage control, sediment and erosion controls and stockpiling of materials including soil during construction of all components of the project. EDSCP measures to be inspected regularly to ensure all devices are functioning effectively.	Pre Earthworks	Site Supervisor	Initial set up and then as required with reporting to DoE and UNDP
	W1.2: Designated areas for storage of fuels, oils, chemicals or other hazardous liquids should have compacted impermeable bases and be surrounded by a bund to contain any spillage.	Entire construction phase	All Personnel	Weekly with reporting to DoE and UNDP
	W1.3: Conduct regular surface water quality monitoring in location where the groundwater is likely to be impacted including assessing the changes to marine water quality in terms of salinity, nitrates, phosphate and other potential pollutants.	Entire construction phase	Site Supervisor	Twice weekly with reporting to DoE and UNDP
	W1.4: Schedule works in stages to ensure that disturbed terrestrial and littoral zone areas are revegetated and stabilised progressively and as soon as practicable after completion of works.	No works during wet season	Site Supervisor and DoE	Maintain records
	W1.5: Construction materials will not be stockpiled in proximity to the recharge locations and or the coastal environment that may allow for release into the marine environment. Construction equipment will be removed from in proximity to the coastal environment at the end of each working day or if heavy rainfall is predicted.	Entire construction phase	Site Supervisor	Maintain daily records
	W1.6 Minimise the release of clays and very fine silts into the coastal environment through the installation of sediment basins, rock checks and sediment fences in appropriate places as outlined in the EDSCPs.	Entire construction phase	Site Supervisor	Maintain daily records
	W1.7 Disturbance of vegetation to be limited to that required for construction works	Entire construction phase	All Personnel	Weekly with reporting to DoE and UNDP
W2: Increase of gross pollutants, hydrocarbons, metals and other chemical pollutants into the marine environment.	W2.1: Reuse suitable water runoff from site to supplement construction water supply.	All phases	All Personnel	Weekly with reporting to DoE and UNDP
	W2.2: Designated areas for storage of fuels, oils, chemicals or other hazardous liquids should: 1. Have compacted impermeable bases; and 2. Surrounded by a bund to contain any spillage.	All phases	All Personnel	Weekly with reporting to DoE and UNDP
	W2.3: Check all vehicles, equipment and material storage areas daily for possible fuel, oil and chemical leaks.	All phases	All Personnel	Daily and maintain records

Issue	Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
	W2.4: Rubbish and waste materials to be placed in suitable facilities to ensure that they do not enter the coastal environment. Ensure all absorbent material is placed in contaminant bags prior to removal.	All phases	All Personnel	Weekly reporting to DoE and UNDP
	W2.5: Minimise the use of herbicides and use only biodegradable herbicides that have minimal impact on water quality and fauna.	All phases	All personnel	Maintain records
W3: Elevated turbidity in marine environments	W3.1 Conduct dredging with no overflow to ensure limited impacts from turbidity from dredging	All dredging phase	All Personnel	Weekly with reporting to DoE and UNDP
	W3.2 Conduct water quality monitoring (based on appropriate baseline data) and monitor immediately prior to, during and following the dredging campaign. Monitoring should include pH, turbidity, light, sediment deposition, total suspended solids, Chlorophyll *a*, total and dissolved metals across the depth profile	All dredging phase	All Personnel	Daily and maintain records
	W3.3 Conduct dredging during periods when corals are not spawning, seagrasses (if present) are not growing and propagating, and during nesting seasons for turtles (if present)	All dredging phase	All Personnel	Maintain records

Erosion, Drainage and Sediment Control

Tuvalu consists of three reef islands and six true atolls, whose highest point above the sea is five metres. Early geological investigations of the Tuvalu were driven by the debate over concepts relating to the long-term development of mid-ocean coral atolls and Dawin's subsidence theory. Drilling exploration at Funafuti from 1896 to 1898 resulted in 340 m long cores comprising shallow-water carbonates (over 500 metres deep) over a basement volcanic material. Phosphatic limestones have also been observed in Tuvalu.

The geology of Funafuti, including its lagoonal sediments, reefs, submarine topography, stratigraphy and deep structure and composition were described in some detail following three coral reef boring expeditions mounted by the Royal Society in 1896, 1897 and 1898, and a fourth visit by Professor Agassiz of Harvard in 1899.

Numerous climate change reports have discussed the growing of mangroves on Tuvalu including an FAO report that indicated that Funafuti has got a small mangrove swamp inside the main islet; some other inland mangroves also occur on Niutao and Nanumanga. Mangroves in Vaitupu which are cut off from the sea reach six metres in height. The total area of mangroves is estimated at 40 hectares. The main true mangrove species found in this archipelago are *Lumnitzera littorea* and *Rhizophora stylosa*.

While no mangroves have been observed previously in locations where the projects are to be undertaken (mangroves grow in other locations in Tuvalu), there is the limited potential that acid sulfate soils occur. To ensure that acid sulfate soils are not exposed, it is prudent to assume there is the potential (albeit unlikely) for acid sulfate soils and/or potential acid sulfate soils to occur as would normally be observed in areas of mangrove.

Deposits of acid sulfate soils are commonly found less than five metres ASL, particularly in low-lying coastal areas which is where all the projects will occur. Mangroves, salt marshes, floodplains, swamps, wetlands, estuaries and brackish or tidal lakes are ideal areas for ASS formation and therefore there is the potential for it to observe in the two project locations.

Mitigative controls could potentially be required for the management of acid sulfate soils and/or potential acid sulfate soils during any excavation works due to their locations close to coastal areas. Acid sulfate soils are naturally occurring soils, sediments or organic substrates that are formed under waterlogged conditions. Deposits of acid sulfate soils are commonly found in less than five metres ASL, particularly in low-lying coastal areas. Mangroves, salt marshes, floodplains, swamps, wetlands, estuaries and brackish or tidal lakes are ideal areas for acid sulfate soil formation. The presence of acid sulfate soils may not be obvious on the soil surface as they are often buried beneath layers of more recently deposited soils and sediments of alluvial or aeolian origin. These soils contain iron sulfide minerals (predominantly as the mineral pyrite) or their oxidation products. In an undisturbed state below the water table, acid sulfate soils are benign. However if the soils are drained, excavated or exposed to air by a lowering of the water table, the sulfides react with oxygen to form sulfuric acid. The release of this sulfuric acid from the soil can in turn release iron, aluminium and other heavy metals (particularly arsenic) within the soil. Once mobilised, the acid and metals can create a variety of adverse impacts including killing vegetation, seeping into and acidifying groundwater and water bodies, killing fish and other aquatic organisms and degrading concrete and steel structures to the point of failure.

Prior to any excavation, sediments should be tested for their presence of ASS or PASS using a simple acid test analysis. Sampling should be undertaken consistent with that proposed by the Queensland Acid Sulfate Soils Investigation Team as described in Ahern *et al* (1998) and laboratory analysis consistent with Ahern *et al* (2004). If the analysis proves positive, the sediment can be treated by a range of techniques including but not limited to liming the sediment. The contractor should refer to management measures provided by for example by Dear *et al* (2002) to mitigate the impacts. Of critical importance for ground water quality especially as this is one of the sources of water in Tuvalu, one of the most significant impacts is via infiltration into the water table from an acid sulfate soils stockpiling/treatment area. To reduce this impact, a compacted clay liner should be developed including where possible limed clay although this may reduce the efficiency of compaction and hence increase the permeability of the liner. Every effort should be made to ensure there is no direct or residual impact following treatment.

Performance Criteria

The following performance criteria are set for the construction of the projects:

a. no build-up of sediment in the coastal marine environment and or groundwater as a result of construction activities;

b. no degradation of water quality on or off site of all projects;

c. all water exiting the project area and/or into groundwater systems is to have passed through best practice erosion, drainage and sediment controls;

d. no changes to coastal and marine processes from dredging;

e. no changes to existing erosion or sediment deposition regimes from the taking of sediment from the coastal zone;

f. ensure no release of acid sulfate soils if they are present; and

g. effective implementation of site-specific EDSCP.

By following the management measures set out in the ESMP, construction activities of the projects will not have a significant impact as a result of sedimentation across the broader area.

Monitoring

A standardised sediment control monitoring program has been developed for the projects. The program is subject to review and update at least every two months from the date of issue. The site supervisor will be required to:

a. conduct site inspections on a weekly basis or after rainfall events exceeding 20mm in a 24 hour period;

b. develop a site-specific checklist to document non-conformances to this ESMP or any applicable EDSCPs; and

c. communicate the results of inspections and/or water quality testing to the Site Supervisor and ensure that any issues associated with control failures are rapidly rectified and processes are put in place to ensure that similar failures are not repeated.

It is the responsibility of the site supervisor to:

a. conduct daily inspections of EDS control measures as part of the Daily Check Procedure; and

b. consult DoE and UNDP staff when a non-conformance is suspected and amend accordingly.

Reporting

All sediment and erosion control monitoring results and/or incidents will be tabulated and reported as outlined in the ESMP. The DoE must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to erosion and sediment control is exceeded.

Table 2: Erosion, Drainage, Sediment Control Measures

Issue	Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
E1: Loss of soil material and sedimentation to the marine environment and/or groundwater systems from site due to earthwork activities	E1.1: Develop and implement an EDSCP for any surface works, embankments and excavation work, water crossings and stormwater pathways.	Entire construction phase	All Personnel	Maintain records
	E1.2: Ensure that erosion and sediment control devices are installed, inspected and maintained as required.	Entire construction phase	All Personnel	Maintain records
	E1.3: Schedule/stage works to minimise cleared areas and exposed soils at all times.	Pre and during construction	Site Supervisor	Maintain records
	E1.4: Incorporate the design and location of temporary and permanent EDSC measures for all exposed areas and along the littoral zone. These shall be implemented prior to pre-construction activities and shall remain onsite during work	Pre and during construction	Site Supervisor	Maintain records
	E1.5: Schedule/stage proposed works to ensure that major vegetation disturbance and earthworks are carried out during periods of lower rainfall and wind speeds.	Pre and during construction	Site Supervisor	Maintain records
	E1.6: Strip and stockpile topsoil for use during revegetation.	Pre and during construction	Site Supervisor	Maintain records
	E1.7: Schedule/stage works to minimise the duration of stockpiling topsoil material	During construction	All Personnel	Maintain records
	E1.8: Locate stockpile areas away from sensitive locations.	Pre and during construction	Site Supervisor	Maintain records
	E1.9: Design stormwater management measures to reduce flow velocities and avoid concentrating runoff.	Pre and during construction	Site Supervisor	Maintain records
	E1.10: Include check dams in drainage lines where necessary to reduce flow velocities and provide some filtration of sediment.	Pre and during construction	Site Supervisor	Maintain records
	E1.11: Mulching shall be used as a form of erosion and sediment control (dependent on site selection), include extra sediment fencing during high rainfall.	During construction	All Personnel	Maintain records
	E1.12: Bunding shall be used around sensitive/dangerous goods as necessary.	During construction	All Personnel	Maintain records
	E1.14: Grassed buffer strips shall be incorporated where necessary during construction to reduce water velocity were applicable.	During construction	Site Supervisor	Maintain records

Issue	Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
	E1.15: Silt curtain to be installed to protect from increased sediment loads.	During construction	Contractors	Maintain records
	E1.16: Excess sediment in all erosion and sediment control structures (eg. Sediment basins, check dams) shall be removed when necessary to allow for adequate holding capacity.	During construction	Contractors	Maintain records
E2: Soil contamination	E2.1: If contamination such as acid sulfate soils is uncovered or suspected (outside of the project footprints), undertake a Stage 1 preliminary site contamination investigation. The contractor should cease work if previously unidentified contamination is encountered and activate management procedures and obtain advice/permits/approval (as required).	Entire construction phase	All Personnel	Daily and maintain records
	E2.2: Adherence to best practice for the removal and disposal of contaminated soil/ material from site (if required), including contaminated soil within the project footprints.	Entire construction phase	All Personnel	Daily and maintain records
	E2.3: Drainage control measures to ensure runoff does not contact contaminated areas (including contaminated material within the project foot prints) and is directed/diverted to stable areas for release.	Entire construction phase	All Personnel	Daily and maintain records
	E2.4: Avoid importing fill that may result in site contamination and lacks accompanying certification/documentation. Where fill is not available through on site cut, it must be tested in accordance with geotechnical specifications.	Entire construction phase	All Personnel	Daily and maintain records
E3 Changes in hydrodynamic processes as a result of dredging	E3.1 Ensure no increased erosion of deposition occurs as a result of dredging	All dredging phase	All Personnel	Weekly with reporting to DoE and UNDP
	E3.1 Ensure no long term changes in hydrodynamic processes as a result of dredging	All dredging phase	All Personnel	Weekly with reporting to DoE and UNDP

Noise and Vibration

All construction activities have the potential to cause noise nuisance. Vibration disturbance to nearby residents and sensitive habitats is likely to be caused through the use of vibrating equipment. Blasting is not required to be undertaken as part of this project. Further, the dumping of rock for the coastal protection infrastructure will be excessive both terrestrially and more so in the marine environment.

It is assumed that there are no sensitive receptors in proximity to the projects.

Contractors involved in construction activities should be familiar with methods of controlling noisy machines and alternative construction procedures as contained within specific Tuvalu legislation or in its absence, international good practice may be used if the legislation has not been enacted*.*

The detail, typical equipment sound power levels, provides advice on project supervision and gives guidance noise reduction. Potential noise sources during dredging and construction may include:

a. excavation equipment for all aspects of the projects;

b. dredging noise;

c. dumping of rock or the filling of sand bags;

d. delivery vehicles; and

e. power tools and compressors.

Performance Criteria

The following performance criteria are set for the construction of the projects:

a. noise from construction activities must not cause an environmental nuisance at any noise sensitive place;

b. undertake measures at all times to assist in minimising the noise associated with construction activities;

c. no damage to off-site property caused by vibration from construction and operation activities;

d. no impact to marine species as a result of dredging and/or the construction of the coastal protection infrastructure; and

e. corrective action to respond to complaints is to occur within 48 hours.

Monitoring

A standardised noise monitoring program has been developed for the projects. The program is subject to review and update at least every two months from the date of issue. Importantly, the site supervisor will:

a. ensure equipment and machinery is regularly maintained and appropriately operated; and

b. carry out potentially noisy construction activities during daylight hours only; i.e. 7am -5pm.

Reporting

All noise monitoring results and/or incidents will be tabulated and reported as outlined in the ESMP. The DoE must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to noise is exceeded.

Table 3: Noise and Vibration Management Measures

Issue	Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
N1: Increased noise levels	N1.1: Select plant and equipment and specific design work practices to ensure that noise emissions are minimised during construction and operation including all pumping equipment.	All phases	Contractor	Maintain records
	N1.2: Specific noise reduction devices such as silencers, mufflers and/or acoustic rock breaking heads shall be installed as appropriate to site plant and equipment.	Pre and during construction	Contractor	Maintain records
	N1.3 Minimise the need for and limit the emissions as far as practicable if noise generating construction works are to be carried out outside of the hours: 7am-5pm (Mon - Fri).	Construction phase	All Personnel	Daily and maintain records
	N1.4: Consultation with nearby residents in advance of construction activities particularly if noise generating construction activities are to be carried out outside of the hours: 7am-5pm (Mon - Fri) and 7am-3pm (Sat).	Construction phase	All Personnel	Daily and maintain records
	N1.5 The use of substitution control strategies shall be implemented, whereby excessive noise generating equipment items onsite are replaced with other alternatives.	Construction phase	All Personnel	Daily and maintain records
	N1.6 Provide temporary construction noise barriers in the form of solid hoardings where there may be an impact on specific residents.	Construction phase	Site Supervisor	Daily and maintain records
	N1.7 All incidents complaints and non-compliances related to noise shall be reported in accordance with the site incident reporting procedures and summarised in the register.	Construction phase	Site Supervisor	Maintain records
	N1.8 The contractor should conduct employee and operator training to improve awareness of the need to minimise excessive noise in work practices through implementation of measures.	Pre and during construction	Contractor	Maintain records
N2. Vibration due to construction	N2.1: Identify properties, structures and habitat locations that will be sensitive to vibration impacts resulting from construction and operation of the projects.	Pre and during construction	Contractor	Maintain records
	N2.2: Design to give due regard to temporary and permanent mitigation measures for noise and vibration from construction and operational vibration impacts.	Pre-construction	Contractor	Maintain records
	N2.3: All incidents, complaints and con-compliances related to vibration shall be reported in accordance with the site incident reporting procedures and summarised in the register.	Construction phase	Site Supervisor	Maintain records
	N2.4: During construction, standard measure shall be taken to locate and protect underground services from construction and operational vibration impacts	Construction phase	Site Supervisor	Maintain records

Air Quality

All construction activities have the potential to cause air quality nuisance, particularly when dumping rock on soft sediments.

Vibration disturbance to nearby residents is likely to be caused through the use of vibrating rollers, graders and construction traffic. Blasting is not required to be undertaken as part of this project.

It is assumed that there are no sensitive receptors in proximity to the projects.

Contractors involved in construction and operation activities should be familiar with methods minimising the impacts of deleterious air quality and alternative construction procedures as contained in the Tuvalu legislation.

Performance Criteria

The following performance criteria are set for the construction of the projects:

a. release of dust/particle matter must not cause an environmental nuisance;

b. undertake measures at all times to assist in minimising the air quality impacts associated with construction and operation activities; and

c. corrective action to respond to complaints is to occur within 48 hours.

Monitoring

A standardised air monitoring program has been developed for the projects. The program is subject to review and update at least every two months from the date of issue. Importantly, the site supervisor will:

a. ensure all stockpiles are covered so as to not allow dust to generate; and

b. the requirement for dust suppression will be visually observed by all personnel daily and by DoE and UNDP staff when undertaking routine site inspections (minimum frequency of once per week).

Reporting

All air quality monitoring results and/or incidents will be tabulated and reported as outlined in the ESMP. The DoE must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to air quality is exceeded.

Table 4: Air Quality Management Measures

Issue	Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
A1: Increase in dust levels at sensitive locations	A1.1: Implement effective dust management measures in all areas during design, construction and operation.	Pre and during construction	All Personnel	Daily and maintain records
	A1.2: Install dust gauges at locations identified for construction lay down and stockpiling within the project footprints.	During construction	Site Supervisor	Daily and Weekly Reports
	A1.3: Manage dust/particulate matter generating activities to ensure that emissions do not cause an environmental nuisance at any sensitive locations	During construction	Site Supervisor	Daily and maintain records
	A1.4: Construction activities should minimising risks associated with climatic events.	During construction	Site Supervisor	Daily and maintain records
	A1.5: Implement scheduling/staging of proposed works to ensure major vegetation disturbance and earthworks are minimised.	Entire construction	Contractor	Daily and maintain records
	A1.6: Ensure that materials to be stockpiled onsite are not ordered and/or purchased until they are required for works.	Entire construction	Contractor	Daily and maintain records
	A1.7: Locate material stockpile areas as far as practicable from sensitive receptors.	During construction	Site Supervisor	Daily and maintain records
	A1.8: Source sufficient water of a suitable quality for dust suppression activities complying with any water restrictions.	During construction	Site Supervisor	Daily and maintain records
	A1.9: Schedule revegetation activities to ensure optimum survival of vegetation species.	During construction	Site Supervisor	Maintain records
	A1.10: Ensure an air quality management plan is developed and implemented.	Pre and during construction	Contractor	Maintain records
	A1.11: Rubbish skips and receptacles should be covered and located as far as practicable from sensitive locations.	During construction	Site Supervisor	Maintain records
	A1.12: Restrict speeds on access tracks.	During construction	Site Supervisor	Daily and maintain records
	A1.13: Cover loads of haul trucks and equipment and plant when not in use and in transit.	During construction	Site Supervisor	Daily and maintain records

Issue	Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
A2. Increase in vehicle emissions (including odours and fumes)	A2.1 Ensure construction vehicles are switched off when not in use.	During construction	Site Supervisor	Daily and maintain records
	A2.2 Ensure only vehicles required to undertake works are operated onsite.	During construction	Site Supervisor	Daily and maintain records
	A2.3 Ensure all construction vehicles, plant and machinery are maintained and operated in accordance with design standards and specifications.	During construction	Site Supervisor	Daily and maintain records
	A2.4 Develop and implement an induction program for all site personnel, which includes as a minimum an outline of the minimum requirements for environmental management relating to the site.	Pre and during construction	Contractor	Daily and maintain records
	A2.5 Locate construction car park and vehicle/plant/equipment storage areas as far as practicable from sensitive locations.	During construction	Site Supervisor	Daily and maintain records
	A2.6 Direct exhaust emissions of mobile plant away from the ground.	During construction	Site Supervisor	Daily and maintain records
	A2.7 Rubbish skips and receptacles should be covered and located as far as practicable from sensitive locations.	During construction	Site Supervisor	Daily and maintain records

Flora and Fauna

It is assumed that the majority of the project areas have been previously disturbed although vegetation may still exist. Further, it is assumed that the coastal protection infrastructure will be located in areas that do not contain important marine habitats.

There are a number of important marine programs that exist in Tuvalu including the Pacific Oceanscape Framework.

Of the 442 marine species found in Tuvalu, 83 are listed to be threatened (one of which is endangered and 79 listed as vulnerable species). The JICA report indicated that there is approximately 50% coral cover within the area. These coral reefs provide coastal protection thru reducing wave fetch as well as supply sand to the region. The JICA report did not identify any specifically important habitats that are not consistently found across the whole of Tuvalu.

Contractors involved in construction activities should be familiar with methods minimising the impacts of clearing vegetation to minimise the footprints of all projects to that essential for the works and rehabilitate disturbed areas. By doing these activities, the projects should minimise the impact upon terrestrial and marine flora and fauna where ever practical.

Performance Criteria

The following performance criteria are set for the construction of the projects:

a. no clearance of vegetation outside of the designated clearing boundaries;

b. no death to native fauna as a result of clearing activities;

c. no loss of important seagrass meadows;

d. no deleterious impacts on marine habitats;

e. no loss of important fisheries habitats;

f. no impacts to important marine species during dredging;

g. installation of a turtle exclusion device on the dredge;

h. no introduction of *new* weed species as a result of construction activities;

i. no increase in *existing* weed proliferation within or outside of the corridor as a result of construction activities; and

j. successful establishment of rehabilitation works incorporating species native to the local area.

Monitoring

A flora and fauna monitoring program has been developed for the projects. The program is subject to review and update at least every two months from the date of issue. Importantly, the site supervisor will when undertaking clearing works, will compile a weekly report to DoE and UNDP staff outlining:

a. any non-conformances to this ESMP;

b. the areas that have been rehabilitated during the preceding week; and

c. details of the corrective action undertaken.

Reporting

All flora and fauna monitoring results and/or incidents will be tabulated and reported as outlined in the ESMP. The DoE must be notified immediately in the event of any suspected instances of death to fauna and where vegetation if detrimental impacted.

Table 5: Flora and Fauna Management Measures

Issue	Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
FF1. Marine habitat loss and disturbance of fauna	FF1.1 Limit vegetation clearing and minimise habitat disturbance through adequate protection and management of retained vegetation.	During construction	Site Supervisor	Daily and maintain records
	FF1.2: Minimise noise levels and lighting intrusion throughout construction in the vicinity of any sensitive locations.	During construction	Site Supervisor	Daily and maintain records
	FF1.3: Ensure that all site personnel are made aware of sensitive fauna/habitat areas and the requirements for the protection of these areas.	During construction	Contractor	Daily and maintain records
	FF1.4 Minimise disturbance to onsite fauna and recover and rescue any injured or orphaned fauna during construction.	During construction	Contractor	Daily and maintain records, report to DoE
	FF1.5 Conduct visual checks to inform of any megafauna in the path of vessel movement – alter speed and/or direction of travel to avoid interaction	All dredging phase	All Personnel	Weekly with reporting to DoE and UNDP
	FF1.6 Implement a marine megafauna exclusion zone (100 metres from dredge)	All dredging phase	All Personnel	Weekly with reporting to DoE and UNDP
	FF1.7 No dredging during for example, nesting seasons or during whale migration	All dredging phase	All Personnel	Weekly with reporting to DoE and UNDP
	FF1.8 Use a turtle exclusion device on dredge suction head	All dredging phase	All Personnel	Daily and maintain records
	FF 1.9 Conduct dredging during periods when corals are not spawning, seagrasses (if present) are not growing and propagating, and during nesting seasons for turtles (if present)	All dredging phase	All Personnel	Weekly with reporting to DoE and UNDP
	FF2.1: Implement an EDSCP to reduce the spread of weeds through erosion and sediment entering any waterways and therefore spreading.	Pre and during construction	Contractor	Maintain records
FF2. Introduced flora and weed species	FF2.2: Revegetate disturbed areas using native and locally endemic species that have high habitat value.	During construction	Site Supervisor	As required and maintain records
	FF2.3: Minimise disturbance to mature remnant vegetation, particularly canopy trees.	During construction	Site Supervisor	Daily and maintain records

Issue	Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
	FF2.4: The removal of regrowth native trees should be minimised particularly where the width of a forest is narrow.	During construction	Site Supervisor	Daily and maintain records
	FF2.5: Small trees and shrubs shall be removed in preference to large trees.	During construction	Site Supervisor	Daily and maintain records
	FF2.6: Vegetation to be removed shall be clearly marked using paint or flagging tape.	During construction	Site Supervisor	Daily and maintain records
	FF2.7: Environmental weeds and noxious weeds within the project footprints shall be controlled.	During and post construction	Site Supervisor	Weekly and maintain records

Waste Management

The DoE advocate good waste management practice. The preferred waste management hierarchy and principles for achieving good waste management is as follows:

a. waste avoidance(avoid using unnecessary material on the projects) ;

b. waste re-use (re-use material and reduce disposing);

c. waste recycling(recycle material such as cans, bottles, etc.; and

d. waste disposal (all petruscible to be dumped at approved landfills).

The key waste streams generated during construction are likely to include additional rock, damaged sand bags although this is anticipated to be minimal. The wastes to be generated will mostly be vegetation-based and also include:

a. the excavation wastes unsuitable for reuse during earthworks;

b. wastes from construction equipment maintenance. Various heavy vehicles and construction equipment will be utilised for the duration of the construction phase. Liquid hazardous wastes from cleaning, repairing and maintenance of this equipment may be generated. Likewise leakage or spillage of fuels/oils within the site needs to be managed and disposed of appropriately;

c. non-hazardous liquid wastes will be generated through the use of workers' facilities such as toilets; and

d. general wastes including scrap materials and biodegradable wastes

Contractors involved in construction and operational activities should be familiar with methods minimising the impacts of clearing vegetation to minimise the footprint to that essential for the works and rehabilitate disturbed areas. By doing these activities, the projects should minimise the impact of waste generated by the project.

Performance Criteria

The following performance criteria are set for the construction of the projects:

a. waste generation is minimised through the implementation of the waste hierarchy (avoidance, reduce, reuse, recycle);

b. no litter will be observed within the project footprint or surrounds as a result of activities by site personnel;

c. no waste to be disposed at sea during dredging activities;

d. no complaints received regarding waste generation and management;

e. any waste from on-site portable sanitary facilities will be sent off site for disposal by a waste licensed contractor; and

f. waste oils obtained from the oil separator will be collected and disposed or recycled off-site, local oil companies or shipped for recycling.

Monitoring

A waste management monitoring program has been developed for the projects. The program is subject to review and update at least every two months from the date of issue.

Reporting

The DoE must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level with respect to waste is exceeded.

Table 6: Waste Management Measures

Issue	Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
WT1: Production of wastes and excessive use of resources	WT1.1: Preference shall be given to materials that can be used to construct the project that would reduce the direct and indirect waste generated.	Pre and during construction	Contractor	Maintain records
	WT1.2: Consideration shall be given to the use of recycled aggregates and fly-ash cement mixes for construction of the coastal protection infrastructure.	Pre and during construction	Contractor	Maintain records
	WT1.3: Daily waste practices shall be carried out unless these are delegated to the activities of external waste management bodies.	During construction	Site Supervisor	Daily and maintain records
	WT1.4: The use of construction materials shall be optimised and where possible a recycling policy adopted.	During construction	Site Supervisor	Weekly and maintain records
	WT1.5: Separate waste streams shall be maintained at all times i.e. general domestic waste, construction waste and contaminated waste. Specific areas on site shall be designated for the temporary management of the various waste streams. Adequate signage and colour coded bins will be used for each waste streams.	During construction	Site Supervisor	Weekly and maintain records
	WT1.6: Any contaminated waste shall be disposed of at an approved landfill.	During construction	Site Supervisor	Weekly and maintain records
	WT1.7: Recyclable waste (including oil and some construction waste) shall be collected separately and disposed of correctly.	During construction	Site Supervisor	Weekly and maintain records
	WT1.8: Waste sites shall be sufficiently covered daily to ensure that wildlife does not have access.	During construction	Site Supervisor	Daily
	WT1.9: Disposal of waste including all filters shall be carried out in accordance with the Government of Tuvalu requirements.	During construction	Site Supervisor	Weekly and maintain records
	WT1.10: Fuel and lubricant leakages from vehicles and plant shall be immediately rectified.	During construction	Site Supervisor	Daily and maintain records
	WT1.11: Where possible, concrete batching plants shall be centrally located to minimise the occurrence of concrete batching at individual construction locations.	Pre and during construction	Contractor	Maintain records
	WT1.12: Major maintenance and repairs shall be carried out off-site whenever practicable.	During construction	Site Supervisor	Weekly and maintain records

Issue	Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
	WT1.13: Remnants of concrete shall not be left at any location along the corridor.	During Construction	Site Supervisor	Weekly and maintain records
	WT1.14: Disposal of trees shall be undertaken in accordance with one or more of the following methods: a. Left in place; b. Chipped and mulched; and c. Large trunk sections may be sold/passed on to a commercial mill.	During Construction	Site Supervisor	Weekly and maintain records
	WT1.15: Hydrocarbon wastes shall be stored in colour coded and labelled drums placed around fuelling depots.	During Construction	Site Supervisor	Daily and maintain records
	WT1.16: Where possible, fuel and chemical storage and handling shall be undertaken at central fuel and chemical storage facilities, such as petrol stations.	During Construction	Site Supervisor	Daily and maintain records
	WT1.17: On-site storage of fuel and chemicals shall be kept to a minimum.	During Construction	Contractor	Daily, maintain records and report any incidents
	WT1.18: Any waste oils and lubricants are to be collected and transported to recyclers or designated disposal sites as soon as possible.	During Construction	Site Supervisor	Daily and maintain records
	WT1.19: Any dangerous goods stored on site shall be stored in accordance with Tuvalu regulations.	During Construction	Contractor	Daily and maintain records

Chemical and Fuel Management

The key types of chemicals and fuels likely to be stored on-site during construction include but are not limited to diesel and unleaded petrol for the refuelling of plant equipment and generators.

If not handled, stored or used appropriately, contamination of land and the coastal marine environment and groundwater systems could occur. The accidental discharge of hazardous materials during construction activities is a potential risk to the local environment. Accordingly, all oil, grease, diesel, petrol and chemicals should be stored off site within a bunded area.

Potential activities which could result in spills are:

a. use of machinery and vehicles – potential for fuels, oils and lubricant spills;

b. transport, storage and handling of fuels, machinery oils, grease;

c. transport, storage and handling of cement/asphalt(bitumen) and other construction materials; and

d. Impacts associated with hazardous materials will primarily be associated with the storage and handling during the construction and operation phase.

Performance Criteria

The following performance criteria are set for the construction of the projects:

a. ensure a Material Safety Data Sheet (MSDS) Register should be developed for all chemicals and fuels retained on site;

b. handling and storage of hazardous material is in accordance with the relevant legislation and best management practices;

c. all spills are reported to DoE within ***one hour*** of occurrence; and

d. no spills enter the local estuarine and/or coastal environment; and

e. prevent the uncontrolled release of oil, grease and diesel to the environment;

f. no spills of hazardous materials;

g. no chemical spills into the groundwater aquifers; and

h. no contamination of land due to spills of hazardous materials.

Monitoring

A chemical and fuel management program has been developed for the projects. The program is subject to review and update at least every two months from the date of issue. Importantly, the site supervisor should:

a. conducted daily chemical and fuel assessments as part of their daily check procedure;

b. manage the selection, purchase, storage, handling and disposal of chemicals to ensure minimal environmental impact;

c. regularly inspect equipment that uses fuel, lubricants and/or hydraulic fluid;

d. develop procedures and install equipment to contain, minimise and recover spills; and

e. provide staff with procedures and training in spill prevention and clean up.

Reporting

The DoE must be notified immediately in the event of any suspected instances of material or serious environmental harm, or if a determined level as a result of a chemical or fuel leak or spil

Table 7: Chemical and Fuels Management Measures

Issue	Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
C1 Poor management of chemicals and fuels	C1.1: Prepare spill management plan addressing measures	Pre-construction	Contractor	Maintain records and weekly reporting
	C1.2: Store and handle all chemicals, fuels, oils and potentially hazardous materials as specified in relevant standards and guidelines. All hazardous materials to be approved for use onsite. All hazardous materials and construction fuel will be stored in appropriate storage facilities (e.g. fuel and chemicals will be stored in a bunded area).	During Construction	Site Supervisor	Daily and maintain records
	C1.3: Hydrocarbon wastes shall be stored in colour coded and labelled drums placed around fuelling depots and disposed of.	During Construction	Site Supervisor	Daily and maintain records
	C1.4: Where possible, fuel and chemical storage and handling shall be undertaken at central fuel and chemical storage facilities, such as petrol stations/site depot.	During Construction	Site Supervisor	Daily and maintain records
	C1.5: Onsite storage of fuel and chemicals shall be kept to a minimum.	During Construction	Site Supervisor	Daily and maintain records
	C1.6: Emergency clean up kits for oil and chemical spills will be available onsite and in all large vehicles.	During Construction	Site Supervisor	Daily and maintain records
	C1.7: Refuelling activities to preferentially occur off site however if required onsite ensure refuelling activities occur in designated areas of the site where appropriate temporary protection measures have been designed/located and are no less than 20 metres from surface waters and drainage lines.	During Construction	Site Supervisor	Daily and maintain records

Emergency Response Plan

In the event of actions occurring, which may result in serious health, safety and environmental (catastrophic) damage, emergency response or contingency actions will be implemented as soon as possible to limit the extent of environmental damage.

It is assumed that there are residences located near the construction activities.

The contractor will need to incorporate construction emergency responses into the projects complying with the requirements under the Occupational, Health and Safety Policy of the contractor or the work related Government of Tuvalu legislation.

Performance Criteria

The following performance criteria are set for the construction of the projects:

a. no incident of fire outbreak during construction;

b. reduce the risk of fire by undertaking hot works within cleared locations;

c. provide an immediate and effective response to incidents that represent a risk to public health, safety or the environment; and

d. minimize environmental harm due to unforeseen incidents.

Monitoring

An emergency response monitoring program has been developed for the projects. The program is subject to review and update at least every two months from the date of issue. Importantly, visual inspections will be conducted by site supervisor daily with reporting to DoE and UNDP staff on a weekly basis (minimum) noting any non-conformances to this ESMP.

Reporting

The DoE and UNDP staff must be notified immediately in the event of any emergency, including fire or health related matter including those that have resulted in serious environmental harm.

Table 8: Emergency Management Measures

Issue	Control Activity (and Source)	Action Timing	Responsibility	Monitoring and Reporting
E1. Fire and Emergency management and prevention strategies implemented	E1.1: Flammable and combustible liquids bunding/storage areas to be designed in accordance with appropriate international standards	Pre and during construction	Contractor	Daily and maintain records
	E1.2: Fire extinguishers are to be available within all site vehicle	During construction	Contractor	Daily and maintain records
	E1.3: No open fires are permitted within the project area	During construction	Site Supervisor	Daily and maintain records
	E1.4: No cigarette butts are to be disposed of onto the ground throughout the project area, all smokers must carry a portable disposal bin to reduce the risk of a spot fire starting and general litter	During construction	All Personnel	Daily and maintain records
	E1.5: Any stockpiles of mulch are not to exceed two metres in height and width and must be turned regularly.	During construction	All Personnel	Daily and maintain records
	E1.6: Train all staff in emergency preparedness and response (cover health and safety at the work site)	During construction	Site Supervisor	Daily and maintain records
	E1.7: Check and replenish First Aid Kits	During construction	Site Supervisor	Daily and maintain records
	E1.8: Use of Personal Protection Equipment	During construction	All Personnel	Daily and maintain records

References

AECOM (June 2015), *Tuvalu Coastal Protection Scope Definitio*n; report prepared for the World Bank

Ahern, C.R., Ahern, M.R. and Powell, B. (1998) *Guidelines for Sampling and Analysis of Lowland Acid Sulfate Soils (ASS) in Queensland* QASSIT, Department of Natural Resources, Resource Sciences Centre, Indooroopilly.

Ahern, C.R., McElnea, A.E. and Sullivan, L.A. (2004) *Acid Sulfate Soils Laboratory Methods Guidelines*. In Queensland Acid Sulfate Soils Manual. Department of Natural Resources, Mines and Energy, Indooroopilly, Queensland, Australia.

Dear, S.E., Moore, N.G., Dobos, S.K., Watling, K.M. and Ahern, C.R. (2002). *Soil Management Guidelines. In Queensland Acid Sulfate Soil Technical Manual*. Department of Natural Resources and Mines, Indooroopilly, Queensland, Australia.

Japan International Cooperation Agency, Kokusai Kogyo Co., Ltd and Fisheries Engineering Co., Ltd (Jan 2011), The Study for Assessment of Ecosystem, Coastal Erosion and Protection/Rehabilitation of Damaged Area in Tuvalu, report prepared for the Government of Tuvalu's Ministry of Foreign Affairs, Environment, Trade, Labour and Tourism,

McCue, J (May 2014), Increasing Resilience of Coastal Areas and Community Settlements to Climate Change: Coastal Options and Feasibility Report – Nukufetau and Nanumea, report prepared for Sustainable Sea, Australian Aid

Annex 7: Gender Assessment and Action Plan

Considerations: In Project Design Process

During the proposal design, the project incorporated gender considerations through:

1. Engaging women and key government and civil society groups focusing on women and gender empowerment in Tuvalu during rounds of consultations;
2. Reviewing and aligning with Tuvalu's national polices and strategies on gender; and
3. Assessments of conditions in Tuvalu that affect gender-responsive project design
4. Integrating gender considerations in the project indicators, targets and activities

Engagement of women and key government and civil society groups focusing on women and gender empowerment in Tuvalu

Most importantly, during the formulation process for the current GCF proposal, several rounds of discussions dedicated for the project were organized in June and September 2015 and February 2016. In the former two meetings, the Office of the Prime Minister's Gender Affairs Department and Tuvalu National Council of Women were part of the consultations. Furthermore, 12 out of 40 (30 percent) government or civil society leaders who participated in these consultation meetings were women.

In February 2016, meetings were organized in Funafuti with women representatives from the two target islands of Nanumea and Nanumaga. They were women's group members from these islands who were presently residing in Funafuti. These meetings verified the rationale for gender empowerment approaches used in the GCF project. In particular, the women representatives referred to the additional hardship that women typically shoulder at the time of natural disasters. Women's social responsibility as a caretaker of the household becomes pronounced at the time of natural disasters, especially if the household is internally displaced, as was the case for many families during Tropical Cyclone Pam. The proposed project will affect women through reducing the risks of and/or magnitude of wave overtopping events which often result in disproportionate burden and welfare impact on women.

These representatives also pointed out the lack of economic opportunities for women, and thus, the proposed activities that specifically target women to be trained to carry out beach profiling and periodic monitoring/repair of coastal infrastructure were particularly considered relevant.

1. Reviewing and aligning with Tuvalu government's gender policies

The approach to addressing men and women's adaptation needs separately in the proposed GCF project is broadly guided by the following two national framework and policy.

National Strategic Framework, the Te Kakeega II (TKII) 2005–2015, which includes promotion of gender equity and expansion of women's role in development as one of its key national priorities. In doing so, TKII indicated the need to:

- Lessen the burden of traditional chores;
- Develop proper marketplaces to sell products including handicrafts;
- Improve representation of women in community decision-making; and
- Revise laws governing the distribution of lands and unfair custodial rights.

Tuvalu National Gender Policy, 2013, which emerged out of the review and enhancement of Tuvalu's National Women's Policy, focuses on five key policy measures:

- Institutional strengthening;
- Capacity building,
- Women's economic empowerment,
- Women in decision-making; and
- Ending violence against women.

The proposed GCF project will make direct contributions to improving representation of women in community decision-making and capacity building and make indirect, but relevant, contributions towards women's economic empowerment through engaging women in technical, income earning opportunities.

2. Assessments of conditions in Tuvalu that affect gender-responsive project design

In preparation of the GCF proposal, an assessment of social, environmental, institutional and economic conditions that affect women's participation in livelihood and civic activities, and thus affect the design of the project, was conducted.

In terms of island-level governance, the stark gender baseline difference about their awareness about the community decision making process became clear in the assessment. Based on a nation-wide survey, women's group representatives were more unaware about whether the current island budget reflects climate change and disaster concerns; yet it was the same women's groups and youth groups who felt most strongly about the needs for these issues to be reflected in island-level plans and budgets. This highlights the current mismatch and tremendous opportunities for future: The participation of those who feel most strongly about climate change and disaster issues have been inadequate. But conversely, a greater participation of women and youth in island decision-making can bring a significant change in the way the existing financial resources are used.

In the same survey, women and youth expressed their willingness to be engaged in project activities more actively. This resulted in a particular set of activities and approach to project implementation that can be observed in the current GCF proposal. For example, women and youth will be engaged specifically for beach profiling activities, monitoring and minor repair of coastal protection, island-level decision making, and monitoring of the progress of the Island Strategic Plan.

Other assessment results include the following:

- The time use study confirmed conventional notion of the differences in the roles men and women play in society and household: Women spend considerably more amount of time (about 5 times more) than men on caring household and household members; men, on the other hand, are the primary "breadwinner" in the household spending more time on fishing and pulaka (submerged taro) farming. These differences are likely to have a far-reaching welfare implication on women especially during and/or in the aftermath of natural disaster incidents as they are expected to provide necessary care to the family and household to minimize the disruption.
- In the islands that were selected for the study, only 1 out of 24 (4.2%) technical positions is held by a woman whereas 25 out of 30 (83 percent) teacher positions are held by women. This was considered an important entry point for empowering women through building skills in new areas where women are less well-represented and strengthening their existing role by providing more responsibilities.
- Separate consultations with young women from the islands confirmed limited economic opportunities for young women as their main income opportunities are limited to crafts making. They highly welcomed any additional income generation opportunities that the project may be able to provide.

In this assessment, information from several rounds of past consultations and studies has been reviewed and analyzed. They include a nation-wide survey in 2013 that involved a total of 214 people (94 women; 44 percent) across eight of the nine total island communities; another assessment, specifically focusing on gender, was conducted in April 2013 in the island of Funafuti, Nanumea and Niutao. Part of this assessment included a "time use study" in which 101 people (51 women and 50 men) aged between 18 and 82 year were interviewed and record their activities by a 30-minute interval. This study highlighted differences in social and private responsibilities between men and women.

Gender Considerations: In Project Proposal

Based on the project design process as well as assessment results described above, gender considerations were incorporated within the various aspects of the proposal to ensure that the project contributes to the empowerment of women in Tuvalu. The underlying principle that in the project is: participation and responsibilities. Awareness and skill building are two key elements that enable meaningful participation and fulfilment of responsibilities. It is also important that the participation in some of the project activities and taking on additional responsibilities will directly lead to increased economic opportunities (such as paid work on beach profiling and monitoring and maintenance of coastal infrastructure), which is an important condition for gender equality. The following project activities, in particular, have been designed which integrate the principle of gender empowerment.

***Empowering women to become an active agent for island governance / Economic* empowerment opportunities for women through coastal protection work**

- Women community members as an agent for collecting beach profile information (five people per island will be selected for this purpose and youth and women's groups will be mobilized for this purpose), which provides an additional income source for them;
- Women community members with an additional responsibility of monitoring status of coastal protection infrastructure and undertaking basic repairs, which provides an additional income source for them; and
- Women's group as a checks-and-balances function in a more transparent, accountable island-level governance. Under Output 3, where climate resilient development planning process will be introduced/strengthened, women's group will take on an additional responsibility of monitoring the performance of the island council through the participatory video tool and community scorecard. Women's engagement in this area is expected to result in not only a more balanced power structure between men and women in the island-level decision making process, but also empowerment of women as they establish a more concrete status in the island decision making process. The performance-based top-up grant that will be introduced under this Output will reinforce this status further because to be eligible for top-up, the evaluation of island administration (*kaupule*) by women's group on various performance indicators is an important criterion.

Facilitating women's participation in areas women are underrepresented

- Scholarship program that aims to enhance Tuvalu's long-term technical capacity for coastal protection and management will target half of the participating students to be women. This will create opportunities for women in technical positions in and outside of the government that have been dominated by men such as engineer and designer positions in the Public Works Department and technical position in the Department of Lands and Surveys; and
- The process of strengthening ISPs by integrating climate change concerns will follow the gender- sensitive approach that is currently adopted in the ongoing second LDCF project. Discussions in which climate-related risks, concerns and community action priorities are identified will be organized by community sub-groups such as women and youth. While women's participation in island-level decision making has been encouraged for some time, consultations with both men and women suggest that it still takes years before women feel comfortable in speaking out in these settings and male domination in decision making

– the past practice that continued for many generations – is genuinely replaced by equal participation. The gender-sensitive facilitation of community dialogues will contribute to the gradual transition into more participatory decision making process.

In addition to these activities that present opportunities and/or assign new responsibilities specifically women, there are other project activities that are likely to have positive impacts on women's status in society. First and foremost, the investment in coastal protection is likely to mitigate the effects of natural calamities that women disproportionately bear compared to their male counterparts. The GCF investment in coastal protection is expected to reduce the magnitude of impact or frequency of wave over-topping events, therefore, contributing to the negative welfare impact on women. Second, as revealed in the gender assessment conducted in the first LDCF project in 2013, school teacher positions in Tuvalu are predominantly filled by women, and the GCF project will use these women as an agent of change for raising awareness among children about coastal processes and climate impact on coastal erosion. Working closely with school teachers and disseminating new knowledge through them is expected to contribute to raising their status in the society, increasing their empowerment and their visibility.

Lastly, the island-level assessments of oceanographic and coastal environment which will be carried out in the first project of the project implementation will include environmental and social impact assessment. This assessment will look into different ways in which men, women and other vulnerable groups will interact with the sea. For example, men typically engage in near-shore or pelagic fishing while women glean fish and shells on reef flat immediately beyond the shoreline. This could mean that the design of coastal protection could have a larger impact on women's activity. These gender-differentiated interactions with the sea will be reflected in the design of the coastal protection.

Gender-responsive project implementation strategy

Effectiveness of the measures aiming at promoting gender empowerment will also be ensured through certain implementation protocols and strategies. For example, not only will some types of community consultations be carried out by separating men and women in different locations, the project-financed ISP officer, who will be the main liaison with local communities, will likely be selected from female candidates. In the second LDCF project, also supported by UNDP, has recruited female officers who are responsible for community engagement and ISP support, and this approach has been effective to date in psychologically lowering participation barrier among women.

Outer island visits also require careful planning to make the project implementation process as gender-responsive as possible. The GCF project will adopt the "Metronome" approach [23], first devised for the implementation of the second LDCF project, to enable community members to plan ahead for participating in project activities. The Metronome approach is important not only for timely implementation of the project, but also for effective participation of both men and women in project activities. The timing of availability for men and women are different depending on their responsibilities in the society and households. The Metronome approach, which establishes a strict outer island visit schedule, while allowing the project to spend as much time in the island required to complete the task (as long as it is agreed by the island community in advance), enables the project team to dedicate time needed to ensure that men, women and other groups' views and concerns are fully reflected in the project implementation.

NEXT STEPS

[23] See Annex XIII, Section D ("Community Engagement Strategy") for more details about the Metronome approach. It is made possible by the dedicated vessel that was purchased for the project implementation of the second LDCF project (and shared by a few others). The proposed GCF project will establish a partnership with the LDCF project to ensure that the Metronome approach is applied.

These considerations will be formally translated into a Gender Strategy and Action Plan during the inception phase of the project. The Plan will lay out the operational process for ensuring the approach to women's empowerment and achieving the targets presented above. The Plan will also outline a schedule, methods, and tools to monitor and evaluate progress of how the project's investments on outer island resilience is strengthening Tuvalu's women's empowerment and gender equity.

Furthermore, potential risks of differentiated social and environmental impacts of project activities to men and women will be examined thoroughly during the site-specific assessment process. Certain aspects of coastal protection design will reflect, to the extent possible, the ways in which different groups interact with the sea; and measures to mitigate any potential negative effects on women, children and/or vulnerable groups will be incorporated into the construction work plan and implementation design.

The table below summarizes gender considerations that have been incorporated within the project Indicators and Targets. See in particular an indicator under Output 3, where a dedicated gender indicator has been added:

Expected Results	Indicators	Target Mid-term	Final	Participation	Responsibility
Project/ programme outcomes					
A7.0 Strengthened adaptive capacity and reduced exposure to climate risks	7.2 Number of males and females benefiting from climate risk reduction measures	Coastal protection design and implementation started to have at least 3,100 individuals (50% women) who are in inundation areas protected by coastal protection	At least 3,100 individuals (50% women) who are in inundation areas protected by a coastal defense	✓	
Project/ programme outputs					
1. Strengthening of institutions, human resources, awareness and knowledge for resilient coastal management	Number of technical officers trained on: - Monitoring / data synthesis on dynamic coastal processes - Designing of coastal protection (both hard and soft) measures - Environmental social impact assessment	N/A	At least 12 technical government staff (50% women) exposed to hands-on trainings on the three areas		✓
	Number of students that are supported at higher-level studies (tertiary level or higher) on disciplines related to coastal protection work on CCA-related positions in the country	At least 24 students (50% women) are supported for at higher level studies AND obtain a CCA-related position in the country	At least 24 students (50% women) are supported for at higher level studies AND obtain a CCA-related position in the country	✓	

Expected Results	Indicators	Target Mid-term	Final	Participation	Responsibility
2. Vulnerability of key coastal infrastructure including homes, schools, hospitals and other assets is reduced against wave induced damages in Funafuti, Nanumea and Nanumaga	Knowledge about gender-differentiated impact of coastal protection enhanced	Island-level social impact assessment includes a section on gender	The final technical assessment report includes gender-differentiated impact and the results are shared at a regional/national forum		
3. A sustainable financing mechanism established for long-term adaptation efforts	Adaptation actions financed and implemented from island level plans (no. and type) Women's distinct role in the context of island decision making established	All islands have an ISP with specific budgets for development priorities The use of scorecards and participatory video has started	At least 16 adaptation priority actions (two in each island), outlined in ISPs, are financed by either domestic or external resources and executed Women's group recognized by both men and women as an important interest group in the evaluation of kaupules	✓	✓

Below table summarizes gender considerations incorporated within the project Activities

Activities	Description	Gender Considerations	Participation	Responsibility
1.1. Technical capacity, knowledge and awareness of the Government and community strengthened for coastal monitoring, protection and maintenance of coastal protection infrastructure.	Strengthened and improved local capacity and inter-sectoral partnership/coordination in identifying, collecting and analyzing data in various aspects of coastal vulnerability.	Training and capacity building opportunities for government and regional agencies will ensure that it targets both women and male staff equally. Island level coastal monitoring workers will be selected from women and youth groups providing them additional income opportunities.	✓	 ✓
1.2. Long-term national human resource capacity and awareness enhanced for sustainable coastal protection.	Capacity building of youth in technical areas that are relevant for coastal protection.	Girls and boys will be given equal opportunity to apply for scholarship program through ensuring that both girls and boys have the information and support to apply for the scholarship program. Achieving equal gender balance among participants is targeted. Awareness raising of young children will be done through primary school teachers, more than 80% of whom are women	✓	✓ ✓

Activities	Description	Gender Considerations	Participation	Responsibility
2.1. Coastal protection design, feasibility studies and Environmental and Social Impact Assessments undertaken in each of the nine islands to identify suitable and sustainable structures in a participatory manner.	Site-specific assessments in all islands of Tuvalu to inform coastal protection options.	Community and national level consultation processes will ensure that information gathering, sharing, and participatory design session takes place in the appropriate time, location, and context where men, women, children and vulnerable groups can equally participate and be engaged. Gender balance of assessment teams / facilitators will be actively promoted.	✓	 ✓
2.2. Coastal protection measures implemented.	Coastal protection measures constructed and monitored in identified sites.	Gender balance of both national and international technical experts, consultants, and contractors will be actively promoted. Technical assessment at the end of the project will investigate gender-differentiated impact of coastal protection		✓
3.1. All outer islands Strategic Plans and annual budgets integrate island-specific climate risks through existing gender sensitive, participatory processes.	Community members, including men, women, children, and the elderly, empowered to participate in climate resilient planning process of the ISPs, taking into consideration climate change impacts and integrated coastal, land, and marine resource management principles.	Participants of the ISP planning process will represent women and men equally (aim at having more than 50% of total participants to be women, children and/or from vulnerable groups). ISP Officer recruited in the project will be a woman to facilitate greater engagement of women Promote ways to increase / establish women's leadership in island level governance.	✓	 ✓ ✓
3.2. Capacity of Kaupules, Falekaupules and community members strengthened for monitoring coastal adaptation investments.	Community capacities to monitor, evaluate and communicate results and impacts of coastal protection adaptation investments enhanced.	Women will take on responsibilities to use tools to monitor and assess the performance of island councils such as community scorecards and participatory video.	✓	✓

Annex 8: Map of Project Location

(a). MAP of Tuvalu

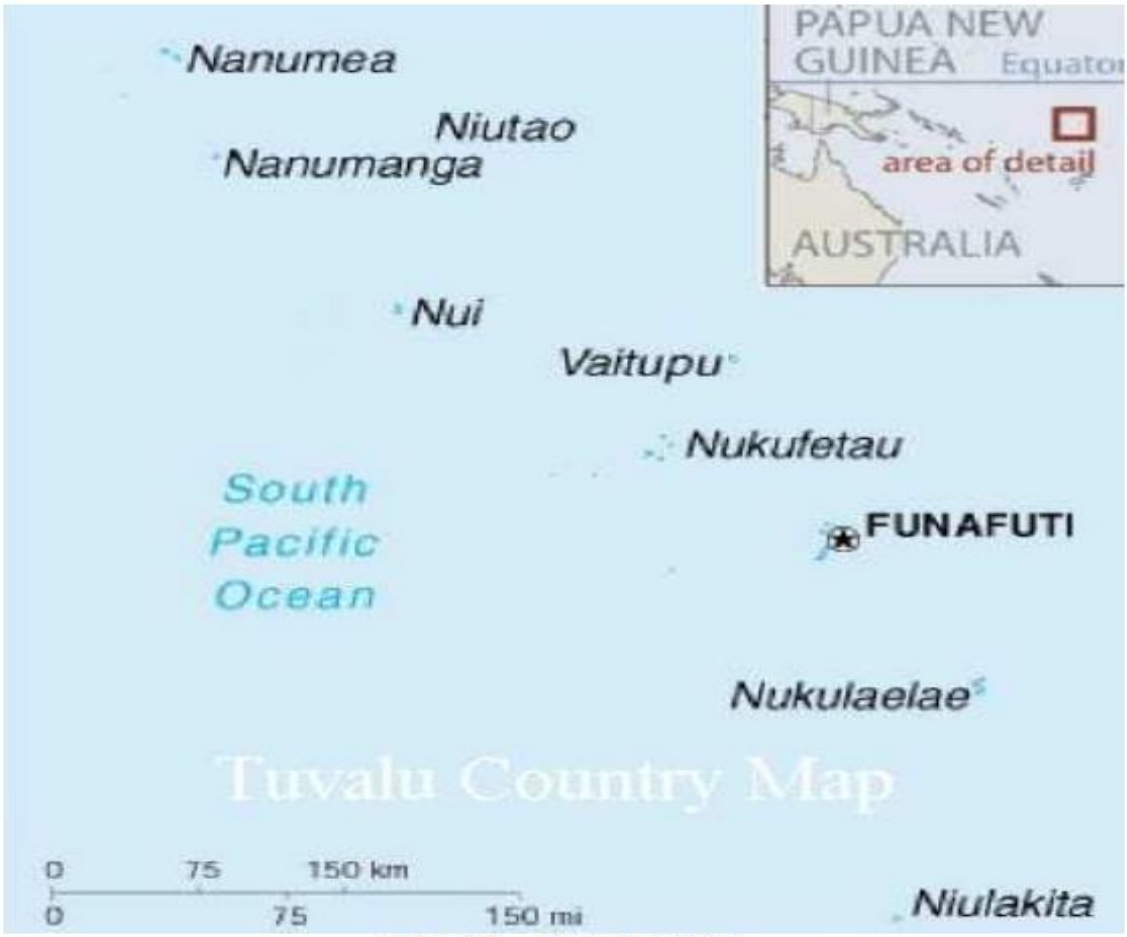


Figure 1 – Map of Tuvalu.
Intervention are proposed in all 9 inhabited islands of Tuvalu incuding: Nanumea, Niutao, Nanumanga, Nui, Vaitupu, Nukufetau, Funafuti, Nukulaelae, Niulakita

(b). MAPS indicating project location

Figure 2 – Nanumea: Proposed Project Location

Source: World Bank/AECOM, (2015) Pre-feasibility assessment "Tuvalu Coastal Protection Scope Definition Cyclone Pam Recovery".
— Red Lines: High Vulnerability Coastal Areas
— Orange Lines: Mid- Vulnerability Coastal Areas
* Current cost estimates in the proposal is based on proposed coastal protection measures on High Vulnerability Coastal Areas.

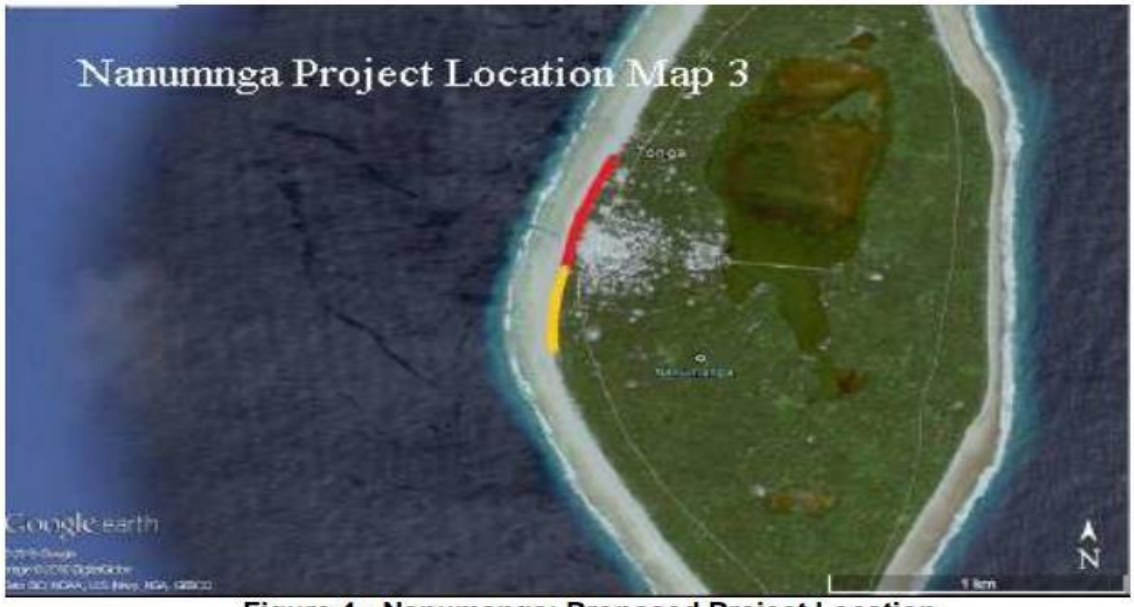


Figure 4 - Nanumanga: Proposed Project Location

Source: World Bank/AECOM, (2015) Pre-feasibility assessment "Tuvalu Coastal Protection Scope Definition Cyclone Pam Recovery".
— Red Lines: High Vulnerability Coastal Areas
— Orange Lines: Mid- Vulnerability Coastal Areas
* Current cost estimates in the proposal is based on proposed coastal protection measures on High Vulnerability Coastal Areas.

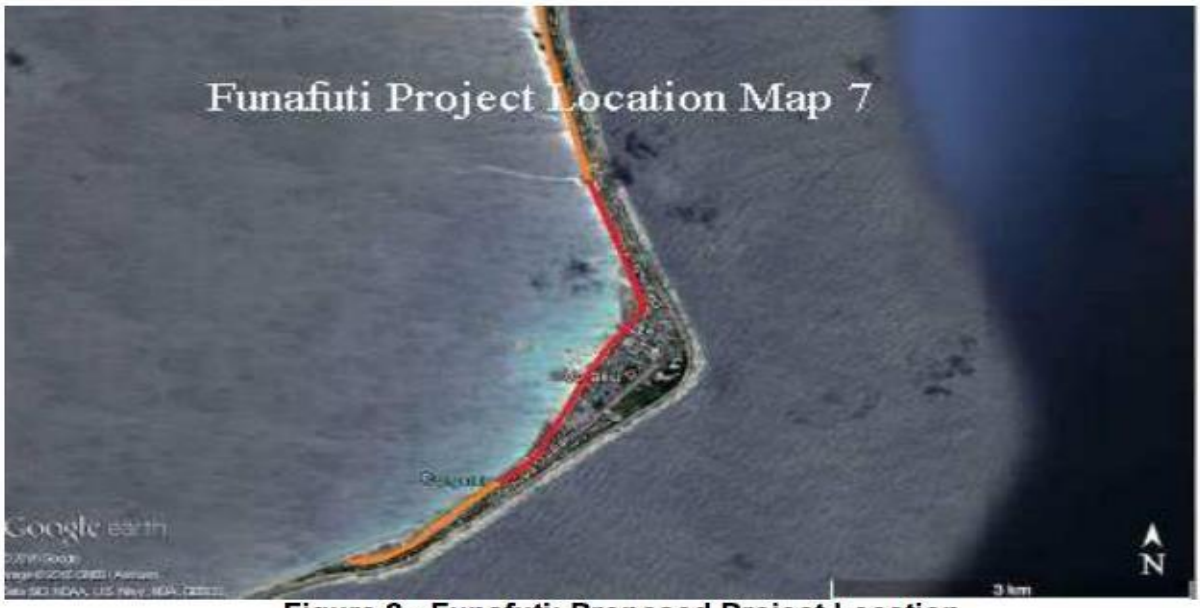


Figure 8 - Funafuti: Proposed Project Location

Source: World Bank/AECOM, (2015) Pre-feasibility assessment "Tuvalu Coastal Protection Scope Definition Cyclone Pam Recovery".

— Red Lines: High Vulnerability Coastal Areas

— Orange Lines: Mid- Vulnerability Coastal Areas

* Current cost estimates in the proposal is based on proposed coastal protection measures on High Vulnerability Coastal Areas.

Annex 9: Monitoring Plan

The National Project Manager will collect results data according to the following monitoring plan.

Monitoring	Indicators	Description	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Assumptions and Risks
SDG indicator	**13.3.1**	Number of countries that that have integrated mitigation, adaptation, impact reduction and early warning into primary, secondary and tertiary curricula	The information will be collected as part of an annual performance review exercise.	Annually Reported in DO tab of the Annual Project Report	National Project Manger	Annual Performance Review Training materials for teachers for the new topic on climate change adaptation in the primary school curriculum	Assumption: Decision makers in Gov't value curriculum change to integrate CCA and coastal protection related topic Risk: The decision making process takes time and/or is politically influenced, and the change in the curriculum does not receive parliamentary approval
UNDP Strategic Plan IRRF Indicators	**1.4.1**	Number of countries with systems in place to access, deliver, monitor, report on and verify use of climate finance	Capacity assessments of the CCPU will be conducted at an agreed interval, which is expected to offer measurable indicators of progress towards the achievement of the indicator	Year 1, mid-term, and 7	National Project Manager with support from a service provider procured for capacity assessment	An assessment report produced in the capacity assessment	Assumption: the staff turnover is sufficiently low to ensure that obtained capacity remains in the Unit; absence from high frequency of staff travel does not hamper effectiveness of trainings
Fund Level Impact **A3.0 Increased resilience of infrastructure and the built environment to climate change**	***3.2***	Number of new infrastructure constructed to withstand condition from climate variability and change	Information on project implementation progress reported in the annual performance report	Annual	National project manager	Annual progress report; mid-term review; terminal evaluation	Environmental and social impact assessment is completed and approved without delay; There is a land-use agreement with the landowners.
Project Outcome	***5.1***	Institutional systems that improve incentive	Quality of the island-level ISP planning reports,	Quarterly /Annually	National Project Manager assisted by an ISP Officer	Climate change related budget and expenditure report	Domestic unconditional grants (FTF/SDE) which currently

Monitoring	Indicators	Description	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Assumptions and Risks
A5.0 Strengthened institutional and regulatory systems for climate-responsive planning and development		for climate resilience and their effective action	budget and expenditure reports; Meeting minutes of ISP-related meetings at the island level; information captured in the participatory video			from island councils; Annual progress report	finance island-level activities remain at similar volume
Project Outcome **A7.0 Strengthened adaptive capacity and reduced exposure to climate risks**	***7.2***	Number of males and females benefiting from climate risk reduction measures	Simulation-based estimate produced at the time of the coastal assessment; field verification after the construction	Twice in the lifecycle of the project	National Project Manager with inputs from firms 1) conducting coastal assessments; and 2) constructing coastal protection	Implementation reports by assessment vendor and construction vendor; Annual progress report; mid-term review; terminal evaluation	There is a land-use agreement with the landowners; Environmental and social impact assessment confirms that the proposed measures have minimum risks
Project Output 1 **Strengthening of institutions, human resources, awareness and knowledge for resilient coastal management**	***1.1***	# of technical officers trained on: - Monitoring / data synthesis on dynamic coastal processes - Designing of coastal protection (both hard and soft) measures - ESIA - Project management, V&A assessment, CBA	Attendance sheet from training sessions; End-of-course questionnaires	Ad hoc (Every time a course is offered)	National Project Manager	Annual progress report; questionnaires; mid-term review; terminal evaluation	Skill building trainings do not result in accelerated turnover of staff. The host departments allow their staff to be away for skill building for sustained period of time.
	1.2	Number of students that are supported at higher-level	Progress report submitted by the	Annually	National Project Manager	Annual progress report; questionnaires; mid-	The scholarship arrangement in which students are required to come back to the country

Monitoring	Indicators	Description	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Assumptions and Risks
		studies (tertiary level or higher) on disciplines related to coastal protection work	Ministry of Education			term review; terminal evaluation	after completing studies is properly enforced.
Project Output 2 **Vulnerability of key coastal infrastructure including homes, schools, hospitals and other assets is reduced against wave induced damages in Funafuti, Nanumea and Nanumaga**	***2.1***	Island-level coastal assessment report produced	Physical verification of the report	Once	National Project Manager	Implementation report by assessment/ construction vendor; Annual progress report; mid-term review; terminal evaluation	There is a land-use agreement with the landowners; Environmental and social impact assessment confirms minimum risks.
	2.2	The length of vulnerable coastlines protected	Physical verification as reported in the construction progress report	As per the ToR for construction work	National Project Manager based on input from the service provider	Implementation report by assessment/ construction vendor; Annual progress report; mid-term review; terminal evaluation	The technical assessment takes place sufficiently before the closure of the project so that a regional/national forum can be organized after the assessment.
	2.3	Knowledge about gender-differentiated impact of coastal protection enhanced	Consultations with community members during the construction, mid-term and terminal evaluation	Ad hoc	National Project Manager	Implementation report by assessment/ construction vendor; Annual progress report; mid-term review; terminal evaluation	As above
Project Output 3 **A sustainable financing mechanism established for long-term adaptation efforts**	***3.1***	Adaptation actions financed and implemented from island level plans (no. and type)	Verification through a third-party audit of island accounts; physical verification of the investment (if relevant)	Annually	National Project Manager with support from an ISP Officer	Audited Island accounts Compiled report produced by the ISP officer on the consolidated island-level budgets and use	There is high level commitment and buy-in from officials in the central government and kaupule to revise ISPs and use domestic funds for adaptation purposes; Available domestic funds to outer islands remain viable sources.

Monitoring	Indicators	Description	Data source/Collection Methods	Frequency	Responsible for data collection	Means of verification	Assumptions and Risks
	3.2	Women's distinct role in the context of island decision making established	Focus group discussions conducted by an ISP Officer; consultations during the mid-term and terminal evaluation; verification of the participatory video	Ad hoc	National Project Manager with support from an ISP Officer	Focus group discussions; key informant interviews	The role of women's group as a checks-and-balances function is not diluted in the small island setting
Mid-term Review	N/A	N/A	To be outlined in MTR inception report		*Independent evaluator*	Completed MTR	
Environmental and Social risks and management plans, as relevant.	N/A	N/A	Updated SESP and management plans	Annually	Project Manager UNDP CO	Updated SESP	
Gender action plan as relevant		Production of a Gender Strategy and Action Plan during the inception phase of the project	Based on the submission and approval of the Action Plan by UNDP Pacific Office and Bangkok Regional Hub	Once	Project Manager UNDP CO	Completed Action Plan	

Annex 10: Evaluation Plan

Evaluation Title	Planned start date Month/year	Planned end date Month/year	Included in the Country Office Evaluation Plan	Budget for consultants[24]	Other budget (i.e. travel, site visits etc…)	Budget for translation
Terminal Evaluation	*July 2023* *3 months before operation closure*	*September 2023* *To be submitted to GCF within three months of operational closure*	Yes/No *Mandatory*	*USD 50,000 – 60,000*	*8,500*	*n/a*
			Total evaluation budget	USD 58,500-68,500		

[24] The budget will vary depending on the number of consultants required (for full size projects should be two consultants); the number of project sites to be visited; and other travel related costs. Average # total working days per consultant not including travel is between 22-25 working days.

Annex 11: Timetable of Project/Programme Implementation

Blue = In progress, **Green** = Completed

	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6				Year 7			
Output 1. Strengthening of institutions, human resources, awareness and knowledge for resilient coastal management																												
Activity 1.1. Technical capacity, knowledge and awareness strengthened for monitoring, protection and technical maintenance of coastal protection infrastructure																												
Activity 1.2. Long-term national human resource capacity and awareness enhanced for sustainable coastal protection																												
Output 2. Vulnerable coasts are protected in high-value asset areas																												
Activity 2.1. Coastal protection design, site-specific assessments and ESIA undertaken in a participatory manner																												
Activity 2.2. Coastal protection measures implemented																												
Output 3. A sustainable financing mechanism established for long-term adaptation efforts																												
Activity 3.1. All outer Islands Strategic Plans and annual budgets integrate island-specific climate risks through gender sensitive, participatory processes																												
Activity 3.2. Capacity of Kaupules, Falekaupules and community members for monitoring coastal adaptation investments strengthened																												
Monitoring & Evaluation																												
Mid term and final review																												
Project implementation reports																												

Annex 12: Procurement Plan (By Year)

Estimated prices presented here do not include any possible cost recovery charged by UNDP based on local/universal price lists which have been pre-agreed by the Government

Year 1:

Type of Supply	ATLAS Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Services	Travel - Domestic	Initial island visits	17,400	CCPU, PWD, DoLS, DoE, DRD, Communities
Services	Travel - International	Flights for CCPU staff for training	5,000	CCPU
Individual contractor	IC - National consultants	Island-level employment for coastal survey	28,800	DRD, Communities, CSOs
Goods	Equipment and Furniture	Survey total station (both optical and digital) for local monitoring of coastal dynamics	33,000	DoLS, Communities
Goods	Audio Visual&Print Prod Costs	Training and awareness raising materials; advertisement for scholarship program	6,500	PWD, DoLS, DoE, DRD, Communities, Parliamentarians
Services	Training, workshops and conference	Initial meeting with Ministries of Education and Finance on scholarship program	500	MoE, MoF
Grants	Grants	Scholarship programme for high school and university students	220,500	Communities
Goods	Information Technology Equipmt	Computers at DoLS for synthesis of island-level survey data	3,000	DoLS
Others	Miscellaneous Expenses	Contingencies	8,365	CCPU, PWD, DoLS, DoE, DRD, Communities

Type of Supply	ATLAS Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Individual contractor	IC - International consultants	Consultant for writing TOR for coastal assessment, provide technical assistance in the review of the tender document and technical backstopping on oversight and quality review of the assessment report during the assessment period	25,500	DoLS, PWD, DRD, Communities
Services	Contractual services - Companies	Coastal assessment	1,000,000	DoLS, PWD, DRD,
Goods	Equipment and Furniture	Permanent benchmark for survey	22,500	DoLS, DRD, Communities
Services	Training, workshops and conference	Training/awareness workshop in outer islands	15,000	DoLS, PWD, DRD, Communities
Others	Miscellaneous Expenses	Contingencies	10,639	DoLS, PWD, DRD,
Individual contractor	IC - National consultants	ISP Officer – Full-time officer based at DRD to support the implementation of Output 3	21,600	DRD, Communities, NGOs, CSOs
Services	Travel - Domestic	Inter-island travel	9,360	DRD, Communities, NGOs, CSOs
Goods	Audio Visual&Print Prod Costs	Training materials for ISPs and participatory video	3,000	DRD, Communities, NGOs, CSOs
Others	Miscellaneous Expenses	Contingencies	16,472	DRD, Communities, NGOs, CSOs
Individual contractor	IC - International consultants	CTA	222,611	PMU
Individual contractor	IC - National consultants	Project Management Unit staff - 6 contracts: Project Manager, Admin Officer, Deputy Project Manager, Finance Officer, Procurement Officer, Communications Specialist	217,140	PMU

Type of Supply	ATLAS Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Services	Travel - International	Flights for PMU staff to visit UNDP's office in Fiji to receive training and engage in discussions to comply with oversight requirement: One trip for 3 members	37,672	PMU
Services	Travel - Domestic	Inter-island travel	12,000	PMU
Goods	Equipment and Furniture	Initial office setup – Printer/scanner, office furniture	15,000	PMU
Goods	Supplies	Office supplies (consumables) – Printing papers, stationary, flip chart papers, business cards, etc.	10,000	PMU
Goods	Information Technology Equipmt	Computers for PMU staff - 6 items	9,000	PMU
Services	Professional services	Project audit	3,000	PMU
Others	Miscellaneous Expenses	Contingencies	11,760	PMU
Services	Training, workshops and conference	Inception workshop; Board meeting	10,000	CCPU, PWD, DoLS, DoE, DRD, Communities, NGOs, CSOs
Total Estimated Procurement Plan for Year 1			**1,995,319**	

Year 2:

Type of Supply	Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Individual contractor	IC - International consultants	Chief Technical Advisor (CTA); Specialist for education curriculum; GIS expert; V&A expert;	150,205	CCPU, PWD, DoLS, DoE, MoE

Type of Supply	Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Individual contractor	IC - National consultants	Island-level employment for coastal survey	28,800	DRD, Communities, CSOs
Services	Travel - Domestic	Inter-island travel	25,700	DoLS, PWD, DoE, DRD, Communities, CSOs
Services	Travel - International	Oversea travel for trainees; IC airfares and per diem	53,841	CCPU, PWD, DoLS, DoE, MoE
Services	Contractual services - Companies	Training on coastal monitoring; Training on EBA coastal protection design; EIA	56,250	PWD, DoLS, DRD, Communities, CSOs
Grants	Grants	Scholarship programme for high school and university students	220,500	Communities
Goods	Audio Visual&Print Prod Costs	Training and awareness raising materials; advertisement for scholarship program	6,500	PWD, DoLS, DoE, DRD, Communities, Parliamentarians
Services	Training, workshops and conference	Meetings with Ministries of Education and Finance on scholarshop program	500	MoE, MoF
Others	Miscellaneous Expenses	Contingencies	8,367	CCPU, PWD, DoLS, DoE, DRD, Communities
Individual contractor	IC - International consultants	CTA; Consultant for coastal assessment support (carried over from previous year); Coastal engineering specialist	170,805	DoLS, PWD, DRD, Communities
Services	Travel - International	Oversea travel for trainees; Consultant airfares and per diem;	41,375	DoLS; PWD
Services	Travel - Domestic	Inter-island travel; per diem for training participants in Funafuti	15,300	DoLS, PWD, DRD, Communities
Services	Contractual services - Companies	Coastal assessment; Construction of coastal protection measures	2,488,030	DoLS, PWD, DRD, Communities

Type of Supply	Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Goods	Equipment and Furniture	Permanent benchmark for survey; demonstration materials for EBA	97,500	DoLS, DRD, Communities
Services	Training, workshops and conference	Training/awareness workshop in outer islands	17,000	DoLS, PWD, DRD, Communities
Others	Miscellaneous Expenses	Contingencies	10,637	DoLS, PWD, DRD, Communities
Individual contractor	IC - International consultants	Local planning consultant who supports climate-responsive, participatory ISP formulation	7,000	DRD, Communities, NGOs, CSOs
Individual contractor	IC - National consultants	ISP Officer – Full-time officer based at DRD to support the implementation of Output 3 (carried over from last year)	21,600	DRD, Communities, NGOs, CSOs
Services	Travel - Domestic	Inter-island travel	83,160	DRD, Communities, NGOs, CSOs
Services	Travel - International	Oversea travel for trainees; Consultant airfares and per diem	4,970	DRD, Communities, NGOs, CSOs
Goods	Audio Visual&Print Prod Costs	Training materials for ISPs and participatory video	4,500	DRD, Communities, NGOs, CSOs
Grants	Grants	Performance-based resources as a financial incentive for more participatory, gender-responsive, pro-poor and climate- smart ISP planning, budgeting and execution	68,000	DRD, Communities, NGOs, CSOs
Services	Contractual services - Companies	Management of funds required for early response and recovery from extreme events such as housing materials, agriculture products and equipment, etc.	700,000	DRD, Communities, NGOs, CSOs

Type of Supply	Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Services	Training, workshops and conference	ISP-related trainings in Funafuti and outer islands	64,000	DRD, Communities, NGOs, CSOs
Others	Miscellaneous Expenses	Contingencies	16,471	DRD, Communities, NGOs, CSOs
Individual contractor	IC - National consultants	Project Management Unit staff - 6 contracts: Project Manager, Admin Officer, Deputy Project Manager, Finance Officer, Procurement Officer, Communications Specialist	217,140	PMU
Services	Travel - Domestic	Project staff travel to outer islands	12,000	PMU
Services	Travel - International	Flights for PMU staff to visit UNDP Fiji: Two visits for all 6 staff members	37,672	PMU
Goods	Supplies	Office supplies (consumables) – Printing papers, stationary, flip chart papers, business cards, etc.	10,000	PMU
Services	Professional services	Project audit	3,000	PMU
Others	Miscellaneous Expenses	Contingencies	11,760	PMU
Services	Training, workshops and conference	Board meeting	6,000	CCPU, PWD, DoLS, DoE, DRD, Communities, NGOs, CSOs
Total Estimated Procurement Plan for Year 2			**4,658,583**	

Year 3:

Type of Supply	Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Individual contractor	IC - International consultants	GIS expert; Data & KM expert	20,900	CCPU, PWD, DoLS, DoE, MoE
Individual contractor	IC - National consultants	Island-level employment for coastal survey; Project employment of students graduating from relevant disciplines	115,200	DRD, Communities, CSOs
Services	Travel - International	Oversea travel for trainees	11,660	CCPU, PWD, DoLS, DoE, MoE
Services	Travel - Domestic	Inter-island travel	5,900	DoLS, PWD, DoE, DRD, Communities, CSOs
Services	Contractual services - Companies	Training on coastal monitoring; Training on EBA coastal protection design	56,250	PWD, DoLS, DRD, Communities, CSOs
Grants	Grants	Scholarship programme for high school and university students	220,500	Communities
Goods	Audio Visual&Print Prod Costs	Training and awareness raising materials; advertisement for scholarship program	6,500	PWD, DoLS, DoE, DRD, Communities, Parliamentarians
Services	Training, workshops and conference	Meetings with Ministries of Education and Finance on scholarship program	400	MoE, MoF
Others	Miscellaneous Expenses	Contingencies	8,367	CCPU, PWD, DoLS, DoE, DRD, Communities
Individual contractor	IC - International consultants	CTA; Consultant for coastal assessment support (carried over from previous year); Coastal engineering specialist (carried over from previous year)	282,111	DoLS, PWD, DRD, Communities
Services	Travel - International	Oversea travel for trainees; Consultant airfares and per diem	70,850	DoLS; PWD

Type of Supply	Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Services	Travel - Domestic	Inter-island travel; per diem for training participants in Funafuti	33,300	DoLS, PWD, DRD, Communities
Services	Contractual services - Companies	Coastal assessment; Construction of coastal protection measures	4,476,060	DoLS, PWD, DRD, Communities
Goods	Equipment and Furniture	Permanent benchmark for survey; demonstration materials for EBA	75,000	DoLS, DRD, Communities
Services	Training, workshops and conference	Training/awareness workshop in outer islands and Funafuti	22,000	DoLS, PWD, DRD, Communities
Others	Miscellaneous Expenses	Contingencies	10,637	DoLS, PWD, DRD,
Individual contractor	IC - National consultants	ISP Officer – Full-time officer based at DRD to support the implementation of Output 3 (carried over from last year); ISP translator	25,200	DRD, Communities, NGOs, CSOs
Services	Travel - Domestic	Inter-island travel; per diem for training participants in Funafuti	28,680	DRD, Communities, NGOs, CSOs
Services	Contractual services - Companies	Management of funds required for early response and recovery from extreme events such as housing materials, agriculture products and equipment, etc.	700,000	Ministry of Finance
Grants	Grants	Performance-based resources as a financial incentive for more participatory, gender-responsive, pro-poor and climate- smart ISP planning, budgeting and execution	68,000	DRD, Communities, NGOs, CSOs
Goods	Audio Visual&Print Prod Costs	Training materials for ISPs and participatory video	3,000	DRD, Communities, NGOs, CSOs
Services	Training, workshops and conference	ISP-related trainings in Funafuti and outer islands; participatory video training	36,000	DRD, Communities, NGOs, CSOs

Type of Supply	Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Others	Miscellaneous Expenses	Contingencies	16,471	DRD, Communities, NGOs, CSOs
Services	Travel - Domestic	Project staff travel to outer islands	12,000	PMU
Services	Travel - International	Flights for PMU staff to visit UNDP Fiji: Two visits for all 6 staff members	37,672	PMU
Goods	Supplies	Office supplies (consumables) – Printing papers, stationary, flip chart papers, business cards, etc.	10,000	PMU
Services	Professional services	Project audit	3,000	PMU
Others	Miscellaneous Expenses	Contingencies	11,615	PMU
Services	Training, workshops and conference	Board meeting	6,000	CCPU, PWD, DoLS, DoE, DRD, Communities, NGOs, CSOs
Total Estimated Procurement Plan for Year 3			**6,590,413**	
Individual contractor	IC - National consultants	Project Management Unit staff - 6 contracts: Project Manager, Admin Officer, Deputy Project Manager, Finance Officer, Procurement Officer, Communications Specialist	217,140	PMU

Year 4:

Type of Supply	Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Individual contractor	IC - International consultants	Specialist for education curriculum; CBA Expert	25,000	MoE, CCPU, Communities

Type of Supply	Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Individual contractor	IC - National consultants	Island-level employment for coastal survey; Project employment of students graduating from relevant desciplines	158,400	DRD, Communities, CSOs
Services	Travel - International	Consultant airfares and per diem	17,815	DoE, Communities
Services	Travel - Domestic	Inter-island travel	17,600	DoLS, PWD, DoE, DRD,
Grants	Grants	Scholarship programme for high school and university students	220,500	Communities
Goods	Information Technology Equipment	Computers for student employment	9,000	Communities
Goods	Audio Visual&Print Prod Costs	Training and awareness raising materials; advertisement for scholarship program	6,500	PWD, DoLS, DoE, DRD, Communities, Parliamentarians
Others	Miscellaneous Expenses	Contingencies	8,367	CCPU, PWD, DoLS, DoE,
Individual contractor	IC - International consultants	CTA; Consultant for coastal assessment support (carried over from previous year); Coastal engineering specialist (carried over from previous year)	282,111	DoLS, PWD, DRD, Communities
Services	Travel - International	Oversea travel for trainees; Consultant airfares and per diem	70,850	DoLS; PWD
Services	Travel - Domestic	Inter-island travel; per diem for training participants in Funafuti	33,300	DoLS, PWD, DRD, Communities
Services	Contractual services - Companies	Construction of coastal protection measures	6,357,060	DoLS, PWD, DRD,
Services	Training, workshops and conference	Training/awareness workshop in outer islands and Funafuti	17,000	DoLS, PWD, DRD, Communities
Others	Miscellaneous Expenses	Contingencies	10,637	DoLS, PWD, DRD,

Type of Supply	Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Individual contractor	IC - International consultants	Participatory video specialist	6,000	DRD, Communities, NGOs, CSOs
Individual contractor	IC - National consultants	ISP Officer – Full-time officer based at DRD to support the implementation of Output 3 (carried over from last year); ISP translator	25,200	DRD, Communities, NGOs, CSOs
Services	Travel - Domestic	Inter-island travel; per diem for training participants in Funafuti	21,960	DRD, Communities, NGOs, CSOs
Services	Travel - International	Consultant airfares and per diem	4,970	DRD, Communities, NGOs, CSOs
Services	Contractual services - Companies	Management of funds required for early response and recovery from extreme events such as housing materials, agriculture products and equipment, etc.	700,000	Ministry of Finance
Grants	Grants	Performance-based resources as a financial incentive for more participatory, gender-responsive, pro-poor and climate-smart ISP planning, budgeting and execution	68,000	DRD, Communities, NGOs, CSOs
Goods	Audio Visual&Print Prod Costs	Training materials for ISPs and participatory video	4,500	DRD, Communities, NGOs, CSOs
Services	Training, workshops and conference	ISP-related trainings in Funafuti and outer islands; participatory video training	11,000	DRD, Communities, NGOs, CSOs
Others	Miscellaneous Expenses	Contingencies	16,471	DRD, Communities, NGOs, CSOs
Individual contractor	IC - International consultants	Mid-term review specialist	48,000	PMU, UNDP
Individual contractor	IC - National consultants	Project Management Unit staff - 6 contracts: Project Manager, Admin Officer, Deputy Project Manager,	226,140	PMU, UNDP

Type of Supply	Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
		Finance Officer, Procurement Officer, Communications Specialist; MTR		
Services	Travel - Domestic	Project staff travel to outer islands	12,600	PMU
Services	Travel - International	Flights for PMU staff to visit UNDP Fiji: Two visits for all 6 staff members; MTR travel	45,212	PMU
Goods	Supplies	Office supplies (consumables) – Printing papers, stationary, flip chart papers, business cards, etc.	10,000	PMU
Services	Professional services	Project audit	3,000	PMU
Others	Miscellaneous Expenses	Contingencies	11,615	PMU
Services	Training, workshops and conference	Board meeting	6,000	CCPU, PWD, DoLS, DoE, DRD, Communities, NGOs, CSOs
Total Estimated Procurement Plan for Year 4			**8,454,808**	

Year 5:

Type of Supply	Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Individual contractor	IC - International consultants	Survey digitization; V&A expert	20,900	MoE, CCPU, Communities
Individual contractor	IC - National consultants	Island-level employment for coastal survey; Project employment of students graduating from relevant disciplines	158,400	DRD, Communities, CSOs
Services	Travel - International	Consultant airfares and per diem	11,660	DoE, Communities
Services	Travel - Domestic	Inter-island travel	500	DoLS, PWD, DoE, DRD, Communities, CSOs
Services	Contractual services - Companies	Training on coastal monitoring; Training on EBA coastal protection design	56,250	PWD, DoLS, DRD, Communities, CSOs
Grants	Grants	Scholarship programme for high school and university students	108,000	Communities
Goods	Audio Visual&Print Prod Costs	Training and awareness raising materials; advertisement for scholarship program	5,500	PWD, DoLS, DoE, DRD, Communities, Parliamentarians
Services	Training, workshops and conference	Regional/international conference for lessons dissemination	15,000	CCPU, PWD, DoLS, DoE, DRD, Communities, NGOs, CSOs
Others	Miscellaneous Expenses	Contingencies	8,367	CCPU, PWD, DoLS, DoE, DRD, Communities

Type of Supply	Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Individual contractor	IC - International consultants	CTA; Consultant for coastal assessment support (carried over from previous year); Coastal engineering specialist (carried over from previous year)	282,111	DoLS, PWD, DRD, Communities
Services	Travel - International	Oversea travel for trainees; Consultant airfares and per diem	70,850	DoLS; PWD, CCPU
Services	Travel - Domestic	Inter-island travel; per diem for training participants in Funafuti	15,300	DoLS, PWD, DRD, Communities
Services	Contractual services - Companies	Construction of coastal protection measures	6,750,030	DoLS, PWD, DRD, Communities
Goods	Equipment and Furniture	Repair kits for geo-textile retainers	100,000	DoLS, PWD, DRD, Communities
Services	Training, workshops and conference	Training/awareness workshop in outer islands and Funafuti	15,000	DoLS, PWD, DRD, Communities
Others	Miscellaneous Expenses	Contingencies	10,637	DoLS, PWD, DRD, Communities
Individual contractor	IC - International consultants	Participatory video specialist (carried over from previous year)	6,000	DRD, Communities, NGOs, CSOs
Individual contractor	IC - National consultants	ISP Officer – Full-time officer based at DRD to support the implementation of Output 3 (carried over from last year); ISP translator	25,200	DRD, Communities, NGOs, CSOs
Services	Travel - Domestic	Inter-island travel; per diem for training participants in Funafuti	35,880	DRD, Communities, NGOs, CSOs
Services	Travel - International	Consultant airfares and per diem	4,970	DRD, Communities, NGOs, CSOs

Type of Supply	Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Services	Contractual services - Companies	Management of funds required for early response and recovery from extreme events such as housing materials, agriculture products and equipment, etc.	700,000	Ministry of Finance
Grants	Grants	Performance-based resources as a financial incentive for more participatory, gender-responsive, pro-poor and climate-smart ISP planning, budgeting and execution	68,000	DRD, Communities, NGOs, CSOs
Goods	Audio Visual&Print Prod Costs	Training materials for ISPs and participatory video	3,000	DRD, Communities, NGOs, CSOs
Services	Training, workshops and conference	ISP-related trainings in Funafuti and outer islands; participatory video training	26,000	DRD, Communities, NGOs, CSOs
Others	Miscellaneous Expenses	Contingencies	16,471	DRD, Communities, NGOs, CSOs
Individual contractor	IC - National consultants	Project Management Unit staff - 6 contracts: Project Manager, Admin Officer, Deputy Project Manager, Finance Officer, Procurement Officer, Communications Specialist	217,140	PMU
Services	Travel - Domestic	Project staff travel to outer islands	12,000	PMU
Services	Travel - International	Flights for PMU staff to visit UNDP Fiji: Two visits for all 6 staff members	37,672	PMU
Goods	Supplies	Office supplies (consumables) – Printing papers, stationary, flip chart papers, business cards, etc.	10,000	PMU
Goods	Information Technology Equipmt	Computers for PMU staff - 6 items	9,000	PMU
Services	Professional services	Project audit	3,000	PMU
Others	Miscellaneous Expenses	Contingencies	11,615	PMU

Type of Supply	Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Services	Training, workshops and conference	Board meeting	6,000	CCPU, PWD, DoLS, DoE, DRD, Communities, NGOs, CSOs
Total Estimated Procurement Plan for Year 5			**8,820,453**	

Year 6:

Type of Supply	Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Individual contractor	IC - International consultants	Specialist for education curriculum; data and KM experts	25,000	MoE, CCPU, Communities
Individual contractor	IC - National consultants	Island-level employment for coastal survey; Project employment of students graduating from relevant disciplines	158,400	DRD, Communities, CSOs
Services	Travel - International	Consultant airfares and per diem	17,815	DoE, Communities
Services	Travel - Domestic	Inter-island travel	17,600	DoLS, PWD, DoE, DRD, Communities, CSOs
Services	Contractual services - Companies	Training on EBA coastal protection design	25,000	PWD, DRD, Communities, CSOs
Goods	Audio Visual&Print Prod Costs	Training and awareness raising materials; advertisement for scholarship program	5,500	PWD, DoLS, DoE, DRD, Communities, Parliamentarians

Type of Supply	Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Services	Training, workshops and conference	Meetings with Ministries of Education and Finance on scholarship program	500	CCPU, PWD, DoLS, DoE, DRD, Communities, NGOs, CSOs
Others	Miscellaneous Expenses	Contingencies	8,367	CCPU, PWD, DoLS, DoE, DRD,
Individual contractor	IC - International consultants	Coastal engineering specialist (carried over from previous year)	34,000	DoLS, PWD, DRD, Communities
Services	Travel - International	Oversea travel for trainees; Consultant airfares and per diem	11,900	DoLS; PWD, CCPU
Services	Travel - Domestic	Inter-island travel; per diem for training participants in Funafuti	15,300	DoLS, PWD, DRD, Communities
Services	Contractual services - Companies	Construction of coastal protection measures	2,381,000	DoLS, PWD, DRD, Communities
Services	Training, workshops and conference	Training/awareness workshop in outer islands and Funafuti	5,000	DoLS, PWD, DRD, Communities
Others	Miscellaneous Expenses	Contingencies	10,637	DoLS, PWD, DRD,
Individual contractor	IC - International consultants	Participatory video specialist (carried over from previous year)	6,000	DRD, Communities, NGOs, CSOs
Individual contractor	IC - National consultants	ISP Officer – Full-time officer based at DRD to support the implementation of Output 3 (carried over from last year); ISP translator	25,200	DRD, Communities, NGOs, CSOs
Services	Travel - Domestic	Inter-island travel; per diem for training participants in Funafuti	18,360	DRD, Communities, NGOs, CSOs

Type of Supply	Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Services	Travel - International	Consultant airfares and per diem	4,970	DRD, Communities, NGOs, CSOs
Services	Contractual services - Companies	Management of funds required for early response and recovery from extreme events such as housing materials, agriculture products and equipment, etc.	700,000	Ministry of Finance
Grants	Grants	Performance-based resources as a financial incentive for more participatory, gender-responsive, pro-poor and climate-smart ISP planning, budgeting and execution	68,000	DRD, Communities, NGOs, CSOs
Goods	Audio Visual&Print Prod Costs	Training materials for ISPs and participatory video	4,500	DRD, Communities, NGOs, CSOs
Services	Training, workshops and conference	ISP-related trainings in Funafuti and outer islands; participatory video training	11,000	DRD, Communities, NGOs, CSOs
Others	Miscellaneous Expenses	Contingencies	16,471	DRD, Communities, NGOs, CSOs
Individual contractor	IC - International consultants	CTA	222,611	PMU
Individual contractor	IC - National consultants	Project Management Unit staff - 6 contracts: Project Manager, Admin Officer, Deputy Project Manager, Finance Officer,	217,140	PMU
		Procurement Officer, Communications Specialist		
Services	Travel - Domestic	Project staff travel to outer islands	12,000	PMU
Services	Travel - International	Flights for PMU staff to visit UNDP Fiji: Two visits for all 6 staff members	78,622	PMU
Goods	Supplies	Office supplies (consumables) – Printing papers, stationary, flip chart papers, business cards, etc.	10,000	PMU

Type of Supply	Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Services	Professional services	Project audit	3,000	PMU
Others	Miscellaneous Expenses	Contingencies	11,615	PMU
Services	Training, workshops and conference	Board meeting	6,000	CCPU, PWD, DoLS, DoE, DRD, Communities, NGOs, CSOs
Total Estimated Procurement Plan for Year 6			**4,131,508**	

Year 7:

Type of Supply	Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Individual contractor	IC - International consultants	Survey digitization; CBA expert	20,900	MoE, CCPU, Communities
Individual contractor	IC - National consultants	Island-level employment for coastal survey; Project employment of students graduating from relevant disciplines	115,200	DRD, Communities, CSOs
Services	Travel - International	Consultant airfares and per diem	11,660	DoE, Communities
Services	Travel - Domestic	Inter-island travel	5,900	DoLS, PWD, DoE, DRD, Communities, CSOs
Services	Contractual services - Companies	Training on coastal monitoring	31,250	DoLS, DRD, Communities, CSOs
Goods	Audio Visual&Print Prod Costs	Training and awareness raising materials; advertisement for scholarship program	5,500	PWD, DoLS, DoE, DRD, Communities, Parliamentarians
Services	Training, workshops and conference	Regional/international conference for lessons dissemination	15,000	CCPU, PWD, DoLS, DoE, DRD, Communities, NGOs, CSOs
Others	Miscellaneous Expenses	Contingencies	8,367	CCPU, PWD, DoLS, DoE, DRD, …
Individual contractor	IC - International consultants	CTA; Coastal engineering specialist (carried over from previous year)	141,056	DoLS, PWD, DRD, Communities

Type of Supply	Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Services	Travel - International	Oversea travel for trainees; Consultant airfares and per diem	40,325	DoLS; PWD, CCPU
Services	Travel - Domestic	Inter-island travel; per diem for training participants in Funafuti	15,300	DoLS, PWD, DRD, Communities
Services	Training, workshops and conference	Training/awareness workshop in outer islands and Funafuti	5,000	DoLS, PWD, DRD, Communities
Others	Miscellaneous Expenses	Contingencies	10,637	DoLS, PWD, DRD, Communities
Individual contractor	IC - International consultants	CTA	111,306	DRD, Communities, NGOs, CSOs
Individual contractor	IC - National consultants	ISP Officer – Full-time officer based at DRD to support the implementation of Output 3 (carried over from last year); ISP translator	25,200	DRD, Communities, NGOs, CSOs
Services	Travel - International	CTA airfares and per diem	29,475	DRD, Communities, NGOs, CSOs
Services	Travel - Domestic	Inter-island travel; per diem for training participants in Funafuti	32,280	DRD, Communities, NGOs, CSOs
Grants	Grants	Performance-based resources as a financial incentive for more participatory, gender-responsive, pro-poor and climate-smart ISP planning, budgeting and execution	68,000	DRD, Communities, NGOs, CSOs
Goods	Audio Visual&Print Prod Costs	Training materials for ISPs	3,000	DRD, Communities, NGOs, CSOs

Type of Supply	Category	Description of goods, services of works required	Estimated total price in USD	End user goods, services or works
Services	Training, workshops and conference	ISP-related trainings in Funafuti and outer islands; participatory video training	26,000	DRD, Communities, NGOs, CSOs
Others	Miscellaneous Expenses	Contingencies	16,405	DRD, Communities, NGOs, CSOs
Individual contractor	IC - International consultants	Terminal evaluation specialist; coastal monitoring specialist	83,000	PMU
Individual contractor	IC - National consultants	Project Management Unit staff - 6 contracts: Project Manager, Admin Officer, Deputy Project Manager, Finance Officer, Procurement Officer, Communications Specialist; terminal evaluation national consultant	226,140	PMU
Services	Travel - Domestic	Project staff travel to outer islands	34,600	PMU
Services	Travel - International	Flights for PMU staff to visit UNDP Fiji: Two visits for all 6 staff members; travel for terminal evaluation	45,212	PMU
Goods	Supplies	Office supplies (consumables) – Printing papers, stationary, flip chart papers, business cards, etc.	10,000	PMU
Services	Professional services	Project audit	3,000	PMU
Others	Miscellaneous Expenses	Contingencies	11,615	PMU
Services	Training, workshops and conference	Board meeting	6,000	CCPU, PWD, DoLS, DoE, DRD, Communities, NGOs, CSOs
Total Estimated Procurement Plan for Year 7			**1,157,327**	

Annex 13: Key Terms of Reference

UNITED NATIONS DEVELOPMENT PROGRAMME

JOB DESCRIPTION

I. Position Information

Job Code Title: **National Project Manager**

Proposed Grade: SC11/SB5

Supervisor: Deputy Team Lead, Resilience and Sustainable Development

Duration: One year, with a possibility of extension

Duty Station: Funafuti, Tuvalu

Project: **Tuvalu Coastal Adaptation Project (TCAP)**

II. Background Information

The island of Tuvalu, located in the South Pacific, is the fourth smallest nation in the world with a population of about 10,000. Due to its geographical remoteness and relatively limited size of the economy, it is one of the least developed countries. It is also one of the most vulnerable countries in the world to the impact of climate change induced sea-level rise and intensifying storm events. Recent cyclones have already shown large-scale population displacement, loss and damage of agriculture and infrastructure, contamination of water supplies, coastal erosion and scouring, impacting long term sustainable development of the country.

As such, in response to this climate challenge, the Government of Tuvalu and the Green Climate Fund (GCF) have jointly committed to US$ 38 million for the 'Tuvalu Coastal Adaptation Project' towards building coastal resilience which is an urgent national priority. This project will address the financial and capacity constraints at all levels – from technical to community awareness. With GCF financing, the project is expected to

- Make at least 35% of the high value vulnerable coastlines more resilient to withstand the effects of increased wave intensity compared to the baseline of 7%. The GCF investment will be in the islands of Funafuti, Nanumea and Nanumaga, and directed along areas with high concentration of residences and social and economic assets.
- Directly and significantly benefit at least 29% or 3,100 people and indirectly 33% or 3,400 of the total Tuvalu population by mitigating impact of future wave overtopping events.
- Strengthen institutional and community capacities for sustaining and replicating project results.

This GCF project will be executed by UNDP, in close partnership with the Government of Tuvalu, given its extensive experience in implementing climate change adaptation projects globally. The project implementation will be led by a team based in Tuvalu and Suva, Fiji.

III. Duties and Responsibilities

Under the direct supervision of Deputy Team Lead for the Resilience and Sustainable Development Team, the National Project Manager is responsible for, jointly with the Chief Technical Advisor, the implementation and project management of the TCAP. S/he provides the direction of project activities, ensures the achievement of project targets and results, plans project activities and inputs, and manages the day-to-day implementation of the project and supervises project experts and personnel.

The Project Manager will be a Management Specialist, supervising a team. S/he works in close collaboration with the Government of Tuvalu and keeps them abreast of project progress and issues. S/he also liaises closely with UNDP CO Programme and Operations Teams and maintains effective working relationships with project donors and other partners.

Summary of key functions:

- Ensure direction of project activities and achievement of project targets and results;
- Ensure day-to-day management of the project;
- Ensure provision of high-quality technical advice and build partnerships;
- Ensure communications with the Government of Tuvalu about progress, future plans and issues of the project;
- Facilitate knowledge building and management;

Ensures the direction of project activities and the achievement of project targets and results, by focusing on the following results:

- Develop project Annual Work Plans (AWPs) and establish Annual Targets in accordance with the Project Document and in close coordination with the Government of Tuvalu and other members of the Project Management Unit;
- Develop and monitor project budget while ensuring the timely implementation of AWP activities and the achievement of the project result;
- Organize Project Board meetings twice a year to present progress, issues and risks of the project and to seek an approval from the Board for the Annual Work Plan; ensure timely preparation of agenda, background materials and minutes of the Board Meetings;
- Oversee and coordinate formulation and execution of detailed implementation plans, procurement and human resources, communication and risk management plans for the Project;
- Identify bottlenecks in project implementation and keep the Government and UNDP abreast of the issues and develop solutions;
- Establish adequate monitoring procedures and systems throughout project activities in close collaboration with the CO Team;
- Immediately escalate issues with potential to impact UNDP´s effectiveness, financial soundness or reputation to the UNDP CO Programme Team and Senior Management.

Ensures day-to-day management of the project, by focusing on the following results:

- Carry out the following elements of project management with support from other members of the PMU:
    - Annual work planning
    - Annual budgeting
    - Procurement of goods and services
    - Budget and expenditure monitor and analysis
    - Contractual management
    - Quarterly and annual progress reporting
    - Quarterly operational reporting
- Oversee the appropriate use of project funds as well as the consistent application of UNDP rules and regulations while carrying out the project management activities described above;
- Draft and review terms of references and work specifications for all contractors' work; monitor the work of consultants for local contractual management in coordination with the Procurement Associate and Admin/Finance Assistant based in Funafuti;
- Supervise and manage project personnel; establish performance objectives and standards, and ensure timely and appropriate feedback, guidance and support for optimum performance;
- Collect information on technical, financial, political, operational and management situations on the ground that affect the project implementation, and support the CTA in carrying out risk assessments;
- Monitor project risks and implement risk mitigation measures, jointly with the CTA; update the risk and mitigation measures at the Project Board meetings;

- Ensure that the Environmental and Social Management Plan and the Gender Action Plan are adhered to during the project implementation; If not, immediately inform UNDP and the Government and identify/discuss solutions;
- Provide inputs to audit management responses; implement audit recommendations for the project;
- Coordinate and prepare ad hoc thematic and substantive reports/analysis/briefs;
- Implement project communications activities in close collaboration with the Communications Specialist and UNDP;
- Oversee the Deputy Project Manager's work on maintaining the results-management systems including ATLAS project management module.

Ensures and coordinates provision of high quality technical advice and building of partnerships:

- Ensure, with support from the CTA, that technical outputs are produced according to plans and up to highest technical standards; review and clear technical outputs for quality;
- Establish, maintain and facilitate strategic dialogue between UNDP, project staff and Government officials at central and local levels, in project´s areas of work;
- Advocate UNDP with the partners and stakeholders;
- Provide inputs to UN coordination platforms and participate in meetings, as requested.

Ensure communications with the Government of Tuvalu and local communities about progress, future plans and issues of the Project

- Maintain communications with the Government and local communities about progress, future plans and issues of the Project;
- Organize formal or informal briefing sessions with the Government, as needed, to inform them of any minor changes in the implementation plan, needs for adaptive management, and emerging risks;
- Act as the window for any environmental or social grievances from local communities;
- At the request of the Government and other national partners, prepare ad hoc communication materials to inform the progress of the Project.

Facilitates knowledge building and management, focusing on achievement of the following results:

- Ensure that the Project systematically builds capacities of the Government through introduction of innovation and best practices, access to knowledge and expertise and promote their application to project implementation;
- Ensure capturing and disseminations of lessons learnt during project implementation and coordinate with the Suva-based team for wider dissemination;
- Facilitate the Project's representation and/or participation in international knowledge networks to draw on and share best practice and lessons learned

IV. Impact of Results

The key results have an impact on the effective and timely delivery of the Tuvalu Coastal Adaptation Project. As one of the largest climate change adaptation projects for the UNDP Pacific Office in Fiji, the successful delivery of the project will result in a stronger, more strategic position of the UNDP Pacific Office in Fiji.

V. Competencies

Competencies:

- Promotes ethics and integrity and creates organisational precedents;
- Builds support and political acumen;
- Builds staff competence and creates an environment of creativity and innovation;

- Builds and promotes effective teams;
- Creates and promotes environment for open communications;
- Leverages conflict in the interest of UNDP and sets standards;
- Shares knowledge across the organisation and builds a culture of knowledge sharing and learning.

Functional Competencies:

Job knowledge/technical expertise:

- Understands the general issues of climate change and coastal adaptation, especially in the low-lying island contexts;
- Continues to seek new and improved methods and systems for accomplishing the work of the unit;
- Keeps abreast of the new developments in the area of professional discipline and job knowledge and seeks to development him/herself professionally.

Accountability and results-based management:

- Provides inputs to the development of organisational standards for accountability and results-based management;
- Develops and applies tools and techniques in assessing the application of programmes/projects and administration of policies and procedures;
- Undertakes ad hoc analysis of issues emanating from policy application/reviews.

Client orientation:

- Anticipate Government needs;
- Works toward creating an enabling environment for a smooth relationship between the Government and UNDP;
- Keeps the Government informed of problems or delays in the provision of services;
- Solicits feedback on service provision and quality.

Building strategic partnerships:

- Effectively networks with partners seizing opportunities to build strategic alliance relevant to UNDP´s mandate and agenda;
- Identifies needs and interventions for capacity-building of the Government, potential partners and project staff;
- Sensitizes UN partners, donors and other international organizations to UNDP´s agenda identifying areas for joint efforts.

VI. Recruitment Qualifications	
Education:	• Advanced University Degree in Project Management, Business or Public Sector Administration, International Relations, Political Science, Development Studies, or other relevant discipline.
Experience:	• Minimum of 10 years of progressive experience in project development and management, with focus on planning, monitoring, reporting, and stakeholder and team coordination in international development organization; • Demonstrated experience of management of a project of similar size; • Excellent knowledge of project management principles and best practices. Project Management Certification, either Prince2 or PMP/PMI would be an advantage;

	• Extensive managerial experience including experience in leading multi-cultural teams; • Experience in working at the country level with a UN or International Organisation; • Good computer literacy – MS office applications, web-based management information systems.
Language Requirements:	• Proficiency in spoken and written English

UNITED NATIONS DEVELOPMENT PROGRAMME

JOB DESCRIPTION

I. Position Information

Job Code Title: Deputy Project Manager

Proposed Grade: SC9/SB4

Supervisor: National Project Manager, Resilience and Sustainable Development

Duration: One year, with a possibility of extension

Duty Station: Suva, Fiji

Project: Tuvalu Coastal Adaptation Project (TCAP)

II. Background Information

The island of Tuvalu, located in the South Pacific, is the fourth smallest nation in the world with a population of about 10,000. Due to its geographical remoteness and relatively limited size of the economy, it is one of the least developed countries. It is also one of the most vulnerable countries in the world to the impact of climate change induced sea-level rise and intensifying storm events. Recent cyclones have already shown large-scale population displacement, loss and damage of agriculture and infrastructure, contamination of water supplies, coastal erosion and scouring, impacting long term sustainable development of the country.

As such, in response to this climate challenge, the Government of Tuvalu and the Green Climate Fund (GCF) have jointly committed to US$ 38 million for the 'Tuvalu Coastal Adaptation Project' towards building coastal resilience which is an urgent national priority. This project will address the financial and capacity constraints at all levels – from technical to community awareness. With GCF financing, the project is expected to

Make at least 35% of the high value vulnerable coastlines more resilient to withstand the effects of increased wave intensity compared to the baseline of 7%. The GCF investment will be in the islands of Funafuti, Nanumea and Nanumaga, and directed along areas with high concentration of residences and social and economic assets.

Directly and significantly benefit at least 29% or 3,100 people and indirectly 33% or 3,400 of the total Tuvalu population by mitigating impact of future wave overtopping events.

Strengthen institutional and community capacities for sustaining and replicating project results.

This GCF project will be executed by UNDP, in close partnership with the Government of Tuvalu, given its extensive experience in implementing climate change adaptation projects globally. The project implementation will be led by a team based in Tuvalu and Suva, Fiji.

III. Duties and Responsibilities

Under the direct supervision of the National Project Manager, the Deputy Project Manager (DPM) will actively support the NPM and the Project Management Unit (PMU) in overseeing all project implementation activities. In particular, the DPM is responsible for overseeing the operational side of the project implementation including procurement and financial management as per the Annual Work Plan and procurement plan.

The Deputy Project Manager will be supervising the project operations team (Procurement Associate and Admin/Finance Associate) as well as the Communications Specialist based in Suva and will also liaise closely with the UNDP Pacific Office in Fiji, especially the Joint Operations Center.

Summary of key functions:

- Support implementation of project activities and achievement of project targets and results;
- Ensure day-to-day management of the project;
- Contribute towards provision of high-quality technical advice and maintaining partnerships;
- Provide input for communication with the Government of Tuvalu about progress, future plans and issues of the project;
- Facilitate knowledge building and management

Support implementation of project activities and the achievement of project targets and results

- Provide input in planning and development project Annual Work Plans (AWPs) and in establishment of Annual Targets in accordance with the Project Document and in close coordination with the Government of Tuvalu and other members of the Project Management Unit;
- Keep the NPM and other members of the PMU up to date by presenting project budget and expenditures vis-à-vis the AWP, with support from the Finance/Admin Associate;
- Assist the NPM with organizing Project Board meetings twice a year, especially through the timely preparation of agenda, background materials and minutes for the Board Meeting;
- Ensure that procurement of goods and services is on time and according to the agreed work plan and procurement plan, with support from the Procurement Associate;
- Assist the NPM and CTA with identifying bottlenecks in project implementation, keep the Government and UNDP abreast of the issues and develop solutions;
- Provide input in establishment of monitoring procedures and systems throughout project activities in close collaboration with the CO Team;
- Escalate issues with potential to impact UNDP´s effectiveness, financial soundness or reputation to the UNDP CO Programme Team and Senior Management.
- Ensures day-to-day management of the project, by focusing on the following results:

Assist the NPM with carrying out the following elements of project management:

- Annual work planning
- Annual budgeting
- Procurement of goods and services
- Budget and expenditure monitor and analysis
- Contractual management
- Quarterly and annual progress reporting
- Quarterly operational reporting
- Monitor the project expenditures and procurement information to help the NPM oversee the appropriate use of project funds as well as the consistent application of UNDP rules and regulations while carrying out the project management activities described above;
- Provide input to the NPM in drafting and reviewing of terms of references and work specifications for all contractors' work;
- Supervise the project personnel based in Suva and report to the NPM to ensure consistent quality of work performed by the PMU;
- Preparation of financial reports to UNDP, as required;
- Assist with collecting information on technical, financial, political, operational and management situations on the ground that affect the project implementation, and support the CTA in carrying out risk assessments;
- Assist the NPM and CTA with monitoring project risks by analyzing operational/financial bottlenecks and implement risk mitigation measures;
- Updating the status of project risks by maintaining a project risk log;
- Provide inputs to audit management responses; implement audit recommendations for the project;
- Assist with coordination and preparation of ad hoc thematic and substantive reports/analysis/briefs;
- Assist with Implementation of project communications activities in close collaboration with the Communications Specialist and UNDP;
- Ensure that UNDP´s results-management systems are kept updated for project results-information including ATLAS project management module;
- Initiate operational closure of the project.

- Contribute towards provision of high quality technical advice and building of partnerships:
- Support the NPM, CTA and PMU in ensuring that technical outputs are produced according to plans and up to highest technical standards. Review and clear technical outputs for quality;
- Under the leadership of the NPM, build partnerships with donors, technical agencies and other development partners based outside of Tuvalu;
- Provide inputs to UN coordination platforms and participate in meetings, as requested.
- Provide input for communication required for the Government of Tuvalu, local communities about progress, future plans and issues of the Project
- Provide input required for maintaining communications with the Government and local communities about progress, future plans and issues of the Project;
- Support with organizing formal or informal briefing sessions with the Government, as needed, to inform them of any minor changes in the implementation plan, needs for adaptive management, and emerging risks;
- Assist the NPM in preparation of any ad hoc communication materials for the Government or other national partners,
- Facilitates knowledge building and management, focusing on achievement of the following results:
- Ensure capturing and disseminations of lessons learnt during project implementation and coordinate with the Suva-based team for wider dissemination;
- Facilitate the Project's representation and/or participation in international knowledge networks to draw on and share best practice and lessons learned

IV. Impact of Results

The key results have an impact on the effective and timely delivery of the Tuvalu Coastal Adaptation Project. As one of the largest climate change adaptation projects for the UNDP Pacific Office in Fiji, the successful delivery of the project will result in a stronger, more strategic position of the UNDP Office.

V. Competencies

Core Competencies:

- Promotes ethics and integrity and creates organisational precedents;
- Builds support and political acumen;
- Builds staff competence and creates an environment of creativity and innovation;
- Builds and promotes effective teams;
- Creates and promotes environment for open communications;
- Leverages conflict in the interest of UNDP and sets standards;
- Shares knowledge across the organisation and builds a culture of knowledge sharing and learning.

Functional Competencies:

Job knowledge/technical expertise:

- Understands the general issues of climate change and coastal adaptation, especially in the low-lying island contexts;
- Continues to seek new and improved methods and systems for accomplishing the work of the unit;
- Keeps abreast of the new developments in the area of professional discipline and job knowledge and seeks to development him/herself professionally.

Accountability and results-based management:

- Provides inputs to the development of organisational standards for accountability and results-based management;
- Develops and applies tools and techniques in assessing the application of programmes/projects and administration of policies and procedures;
- Undertakes ad hoc analysis of issues emanating from policy application/reviews.

Client orientation:

- Anticipate Government needs;
- Works toward creating an enabling environment for a smooth relationship between the Government and UNDP;

• Keeps the Government informed of problems or delays in the provision of services; • Solicits feedback on service provision and quality. <u>Building strategic partnerships:</u> • Effectively networks with partners seizing opportunities to build strategic alliance relevant to UNDP´s mandate and agenda; • Identifies needs and interventions for capacity-building of the Government, potential partners and project staff; • Sensitizes UN partners, donors and other international organizations to UNDP´s agenda identifying areas for joint efforts.	
VI. Recruitment Qualifications	
Education:	Advanced University Degree in Project Management, Business or Public Sector Administration, International Relations, Political Science, Development Studies, or other relevant discipline.
Experience:	Minimum of 7 years of progressive experience in project development and management, with focus on planning, monitoring, reporting, and stakeholder and team coordination in international development organization; Demonstrated experience of management of a project of similar size; Excellent knowledge of project management principles and best practices. Project Management Certification, either Prince2 or PMP/PMI would be an advantage; Extensive managerial experience including experience in leading multi-cultural teams; Experience in working at the country level with a UN or International Organisation; Good computer literacy – MS office applications, web-based management information systems.
Language Requirements:	Proficiency in spoken and written English

UNITED NATIONS DEVELOPMENT PROGRAMME

JOB DESCRIPTION

I. Position Information

Job Code Title: Chief Technical Specialist

Proposed Grade: P4

Supervisor: Team Lead Resilience and Sustainable Development

Duration: One year, with a possibility of extension

Duty Station: Suva, Fiji (while the Specialist is expected to spend up to 75% of the time in Tuvalu)

Project: Tuvalu Coastal Adaptation Project

II. Background Information

Tuvalu is the fourth smallest nation in the world with a population of about 10,000. Due to its geographical remoteness and relatively limited size of the economy, it is one of the least developed countries. It is also one of the most vulnerable countries in the world to the impact of climate change induced sea-level rise and intensifying storm events. Recent cyclones have already shown large scale population displacement, loss and damage of agriculture and infrastructure, contamination of water supplies, coastal erosion and scouring, impacting long term sustainable development of the country.

As such, in response to this climate challenge, the Government of Tuvalu and the Green Climate Fund (GCF) have jointly committed to US$ 38 million for the 'Tuvalu Coastal Adaptation Project' towards building coastal resilience which is an urgent national priority. This project will address the financial and capacity constraints at all levels – from technical to community awareness. With GCF financing, the project is expected to

Make at least 35% of the high value vulnerable coastlines more resilient to withstand the effects of increased wave intensity compared to the baseline of 7%. The GCF investment will be in the islands of Funafuti, Nanumea and Nanumaga, and directed along areas with high concentration of residences and social and economic assets.

Directly and significantly benefit at least 29% or 3,100 people and indirectly 33% or 3,400 of the total Tuvalu population by mitigating impact of future wave overtopping events.

Strengthen institutional and community capacities for sustaining and replicating project results.

This GCF project will be executed by UNDP, in close partnership with the Government of Tuvalu, given its extensive experience in implementing climate change adaptation projects globally. The project implementation will be led by a team based in Tuvalu and Suva, Fiji.

The project is expected to run over a seven-year period.

III. Duties and Responsibilities

Under the direct supervision of Team Lead for the Resilience and Sustainable Development Team, the Chief Technical Specialist is responsible for, jointly with the National Project Manager, the implementation and project management of the TCAP. In so doing, the Chief Technical Specialist is expected to bring in international best practices to the implementation of the project and train the technical personnel in the Project Management Unit (PMU). While the Chief Technical Specialist will be based in Fiji, he/she is expected to spend 70-75% of time in Funafuti, Tuvalu.

Summary of key functions

- Technical oversight of project activities
- Policy advice and capacity building
- Effective project management
- Knowledge management
- Partnership development and advocacy

Technical Oversight and Expertise:

- Collaborate with the National Project Manager (NPM) in executing project activities and its implementation
- Serve as the chief technical advisor on adaptation options envisaged in the project document, identify needs for external technical support for effective implementation,
- Liaise with Government, UNDP and other development partners on progress and facilitate implementation of project activities;
- Provide technical supervision, backstopping and oversight of all aspects of project activites
- Is responsible, jointly with the NPM, for the implementation and monitoring of all risk mitigation measures during all project phases such as inception, implementation / construction; and operation
- Support the NPM in liaising with the Government of Tuvalu by providing high quality technical inputs
- Support the NPM in preparing/organizign the technical materials used in the Project Board Meeting
- Carry out assessments of the technical, financial, political, operational and management situations on the ground that affect the project implementation and keep the UNDP Pacific Office in Fiji and UNDP Regional Hub in Bangkok abreast of the situations
- Provide leadership in identifying solutions to address existing gaps arising out of assessements;
- Undertake a comprehensive overview of good international practices in the area of coastal adaptation projects and build similar practices within the project
- Build and maintain partnerships with technical partners and donors by reporting project progress and identifying opportunities for collaboration
- Ensure coordination between UNDP and all project stakeholders

Policy advice and capacity building;

- Identify strategic opportunities for the project to achieve greater development impact through partnerships building and adaptive management
- Strengthen capacities of the PMU and the Government of Tuvalu to plan, budget and deliver coastal protection related public services
- Build technical and managerial capacities within the PMU
- Provision of advice and support through technical assistance to the national counterparts, as required
- Provision of other advice as needed to UNDP concerning the evolution and role of the relevant Ministries/stakeholders
- Participate and actively contribute to the PMU in coordination with the NPM
- Provide policy advise to Government of Tuvalu on coastal protection measures and ensure coherence with the UNDP Pacific Office in Fiji portfolio

Effective Project Management in coordination with the NPM

- Strongly support project implementation and management under the overall guidance of the NPM
- Provide strategic input to technical, financial and managerial aspects of the project to ensure that activities are in accordance with the Project Document

- Provide input in joint collaboration with the NPM and other members of the PMU on the following elements of project management to ensure achievement of targets and results
- Annual work planning
- Annual budgeting
- Procurement of goods and services
- Budget and expenditure analysis
- Contractual management
- Quarterly and annual progress reporting
- Quarterly operational reporting
- Provide advice for the annual financial audit
- Monitoring and Evaluation of project activities, and identify and implement solutions to bring the project back on track, as needed
- Planning and providing strategic inputs into all aspects of project activities
- Coordinate with the Joint Operations Centre in the Pacific Office in Fiji to ensure that financial and operational procedures of the project are in line with UNDP rules and regulations
- Perform other duties as necessary to ensure effective and efficient implementation of the project

Knowledge management;

- Identify, analyse and communicate lessons learned that may be useful in design and implementation of similar projects. The duty of identifying and analyzing lessons learned is an on-going one, and the duty to communicate those lessons is on an as-needed basis;
- Share knowledge on the Project and its achievements. Promote identification and synthesis of best practices and lessons learned from Project implementation, for organizational sharing and learning. Promote a knowledge sharing and learning culture
- Produce materials with lessons learnt and best practices and participate in knowledge based tools
- Contribute to the analytical work of UNDP and ensure high quality knowledge products. Promote the substantive quality of all knowledge products, reports and services, and ensures effective integration thereof with other pillars

IV. Impact of Results

The key results have an impact on the effective and timely delivery of the Tuvalu Coastal Adaptation Project. As one of the largest climate change adaptation projects for the UNDP Pacific Office in Fiji, the successful delivery of the project will result in a stronger, more strategic position of the UNDP Office.

V. Competencies

Functional Competencies:

Building Partnerships

- Analyzes general information and selects materials in support of partnership building initiatives
- Tracks and reports on mobilized resources

Promoting Organizational Learning and Knowledge Sharing

- Researches best practices and poses new, more effective ways of doing things
- Identifies and communicates opportunities to promote learning and knowledge sharing

Job Knowledge/Technical Expertise

- Understands the general issues of climate change and coastal adaptation
- Possesses strong skills and experience in managing large-scale (over US$10 million) projects

- Possesses knowledge of organizational policies and procedures relating to the position and applies them consistently in work tasks (broad range of specialized knowledge related to financial resources management, including formulating budgets, maintaining Accounts Receivables and Accounts Payables, reporting).
- Identifies new and better approaches to work processes and incorporates same in own work
- Strives to keep job knowledge up-to-date through self-directed study and other means of learning
- Demonstrates good knowledge of information technology and applies it in work assignments

Promoting Organizational Change and Development

- Documents 'best practices' in organizational change and development within and outside the UN system
- Demonstrates ability to identify problems and proposes solutions

Design and Implementation of Management Systems

- Uses information/databases/other management systems
- Makes recommendations related to work procedures and implementation of management systems

Client Orientation

- Reports to internal and external clients in a timely and appropriate fashion
- Organizes and prioritizes work schedule to meet client needs and deadlines
- Establishes, builds and sustains effective relationships within the work unit and with internal and external clients
- Responds to client needs promptly

- Promoting Accountability and Results-Based Management
- Gathers and disseminates information on best practice in accountability and results-based management systems
- Maintains databases

Core Competencies:

- Demonstrate corporate knowledge and sound judgment
- Self-development, initiative-taking
- Acting as a team player and facilitating team work
- Facilitating and encouraging open communication in the team, communicating effectively
- Creating synergies through self-control
- Managing conflict
- Learning and sharing knowledge and encourage the learning of others. Promoting learning and knowledge management/sharing is the responsibility of each staff member.

VI. Recruitment Qualifications	
Education:	Masters or equivalent in any Natural Science, Environmental Management or Environmental Engineering or any other relevant field.
Experience:	At least 7 years of relevant experience in managing, overseeing, or being part of large-scale (over US$10 million) projects Team Leading experience Experience providing expert advice and implementing climate change actions Familiarity with climate change issues

	Ability to lead, conduct, facilitate and document discussions with stakeholders Experience working in institutional development, project development and management, budgeting Project management experience in climate change related projects would be an advantage Experience in the Pacific region would be an advantage. Experience working in atolls is desirable. Experience in utilizing both infrastructure and ecosystem based adaptation approaches is desirable
Language Requirements:	Fluency in English.

UNITED NATIONS DEVELOPMENT PROGRAMME

JOB DESCRIPTION

I. Position Information

Job Code Title: Communications Specialist

Proposed Grade: ICS9

Supervisor: Deputy Project Manager

Duration: One year

Duty Station: Suva, Fiji

Project: Tuvalu Coastal Adaptation Project

II. Background Information

The island of Tuvalu, located in the South Pacific, is the fourth smallest nation in the world with a population of about 10,000. Due to its geographical remoteness and relatively limited size of the economy, it is one of the least developed countries. It is also one of the most vulnerable countries in the world to the impact of climate change induced sea-level rise and intensifying storm events. Recent cyclones have already shown large scale population displacement, loss and damage of agriculture and infrastructure, contamination of water supplies, coastal erosion and scouring, impacting long term sustainable development of the country.

As such, in response to this climate challenge, the Government of Tuvalu and the Green Climate Fund (GCF) have jointly committed to US$ 38 million for the 'Tuvalu Coastal Adaptation Project' towards building coastal resilience which is an urgent national priority. This project will address the financial and capacity constraints at all levels – from technical to community awareness. With GCF financing, the project is expected to

Make at least 35% of the high value vulnerable coastlines more resilient to withstand the effects of increased wave intensity compared to the baseline of 7%. The GCF investment will be in the islands of Funafuti, Nanumea and Nanumaga, and directed along areas with high concentration of residences and social and economic assets.

Directly and significantly benefit at least 29% or 3,100 people and indirectly 33% or 3,400 of the total Tuvalu population by mitigating impact of future wave overtopping events.

Strengthen institutional and community capacities for sustaining and replicating project results.

This GCF project will be executed by UNDP, in close partnership with the Government of Tuvalu, given its extensive experience in implementing climate change adaptation projects globally. The project implementation will be led by a team based in Tuvalu and Suva, Fiji.

III. Duties and Responsibilities

Under the guidance and direct supervision of the Deputy Project Manager (DPM), the incumbent will be responsible for internal and external communications for the project including periodic updates and dissemination of results achieved, synthesis and analysis of lessons learned and production of various communication materials such as videos, photo series, blog articles etc.

Summary of functions

- Design and implementation of internal and external communications strategy and outreach
- Undertake systematic capacity development of project team and the Government of Tuvalu
- Work closely with UNDP Country Office Programme staff to ensure effective communication of the project activities to the relevant parties.

Design and implementation of internal and external communication strategy and outreach

- Preparation a Project Communication Strategy which includes the types and number of internal and external communication outreach in the first 24 months of the project implementation; at minimum, the Strategy should require the following Communication tools:
- A dedicated project website (either independently hosted or nested within the UNDP CCA platform http://adaptation-undp.org/)
- SNS accounts (Facebook, Twitter, Instagram, etc)
- Periodic project progress updates in English and Tuvaluan (paper and electronic-base)
- A video product that captures before and after the project intervention
- External outreach including local, regional and global media
- Event-based outreach such as side events at COP and other high level regional or global forums, meetings and events
- Provide inputs to the Annual Work Planning process to ensure that sufficient resources are secured to carry out activities to implement the Communication Strategy;
- Assist the Procurement Associate in procuring necessary human resource or material inputs for implementing the Communication Strategy;
- Establish a database of all internal and external communication materials with a corresponding file management system;
- Collaborate with national, regional and global media to feed in stories for wider outreach and advocacy of the project and UNDP;
- Make necessary arrangements, as needed, for national and foreign media visits to the country in close collaboration with the Government of Tuvalu;
- Acts as the media focal person for the project.

Undertake systematic capacity development of project team and the Government of Tuvalu

- Analysis of ongoing practices within the Government, especially within the Climate Change and Policy Department, for disseminating information on Government initiatives on climate change;
- Identify necessary capacity development activities targeting the Government and PMU staff

Work closely with UNDP Country Office, Regional Hub in Bangkok and the Headqarters in New York to ensure effective communication of the project activities to the relevant parties

- Ensure that the Project Communication Strategy and its implementation is aligned with the CO communication strategy and plan;
- Ensure that all print, digital and audio publications and communication materials are in alignment with UNDP publication guideline and that of GCF;
- Produce communication products, as required, to ensure maximum exposure of UNDP and, particularly, UNDP Pacific Office in Fiji;
- Coordination and management of CO publication activities, such as content management, norms for publishing, design, etc.;
- Produce communication materials that demonstrate the contributions of the project towards key development goals such as the SDGs, Tuvalu's INDC, NAPA, NAP, etc;
- Provide information about the project progress to UNDP Senior Management as needed.

IV. Impact of Results

The key results have an impact on the overall profile of the project and the UNDP Pacific Office in Fiji through timely dissemination of tangible project progress and achievements. As one of the largest climate change adaptation projects for the UNDP Pacific Office in Fiji, the successful delivery of the project, and positive profile of the project as perceived by internal and external partners, will result in a stronger, more strategic position of the UNDP Office.

V. Competencies

Functional Competencies:

Advocacy/Advancing a Policy-Oriented Agenda

- Identifies and communicates relevant information for a variety of audiences for advocating UNDP's mandate
- Maintains a functioning network of contacts with a variety of stakeholders to promote a better understanding of UNDP's mandate and to support advocacy efforts

Building Strategic Partnerships

- Maintains an established network of contacts for general information sharing and to remain up-to-date on partnership related issues
- Analyzes and selects materials for strengthening strategic alliances with partners and stakeholders
- Establishes and nurtures positive communication with partners

Promoting Organizational Learning and Knowledge Sharing

- Generates new ideas and approaches, researches best practices and proposes new, more effective ways of doing things
- Documents and analyses innovative strategies and new approaches

Job Knowledge/Technical Expertise

- Understands and applies fundamental concepts and principles of a professional discipline or technical specialty relating to the position
- Possesses basic knowledge of organizational policies and procedures relating to the position and applies them consistently in work tasks
- Analyzes the requirements and synthesizes proposals
- Strives to keep job knowledge up-to-date through self-directed study and other means of learning
- Demonstrates good knowledge of information technology and applies it in work assignments

Creating Visibility for UNDP/Supporting UNDP's Capacity to Advocate

- Promotes awareness of UNDP's centrally to development through dissemination of information and materials
- Maintains networks and knowledge assets for use in visibility and image activities

Global Leadership and Advocacy for UNDP's Goals

- Identifies and communicates relevant information for advocacy for UNDP's goals for a variety of audiences
- Maintains a functioning network of contacts in the media and civil society, to promote a better understanding of UNDP's mandate and to support advocacy efforts

Conceptual Innovation in the Provision of Technical Expertise

- Keeps updated in his/her area of substantive expertise
- Identifies opportunities for conceptual innovation

Client Orientation

- Researches potential solutions to internal and external client needs and reports back in a timely, succinct and appropriate fashion
- Organizes and prioritizes work schedule to meet client needs and deadlines
- Establishes, builds and sustains effective relationships within the work unit and with internal and external clients

Core Competencies:

- Demonstrating/safeguarding ethics and integrity
- Demonstrate corporate knowledge and sound judgment
- Self-development, initiative-taking
- Acting as a team player and facilitating team work
- Facilitating and encouraging open communication in the team, communicating effectively
- Creating synergies through self-control
- Managing conflict
- Learning and sharing knowledge and encourage the learning of others. Promoting learning and knowledge management/sharing is the responsibility of each staff member.
- Informed and transparent decision making

VI. Recruitment Qualifications	
Education:	At least a Master's degree (or its equivalent) in media studies, social science, political science, international relations or a related field.
Experience:	At least 4 years of relevant experience at the national or international level in public relations, communications or advocacy. Previous experience with a multilateral or international organization is helpful but not mandatory. Experience in the usage of computers and office software packages, good knowledge and experience in handling of web-based management systems.
Language Requirements:	Proficiency in spoken and written English

UNITED NATIONS DEVELOPMENT PROGRAMME

JOB DESCRIPTION

I. Position Information

Job Code Title: Project Finance/Admin Associate

Proposed Grade: SC7/SB3

Supervisor: Deputy Project Manager

Duration: One year, with a possibility of extension

Duty Station: Suva, Fiji

Project: Tuvalu Coastal Adaptation Project

II. Background Information

The island of Tuvalu, located in the South Pacific, is the fourth smallest nation in the world with a population of about 10,000. Due to its geographical remoteness and relatively limited size of the economy, it is one of the least developed countries. It is also one of the most vulnerable countries in the world to the impact of climate change induced sea-level rise and intensifying storm events. Recent cyclones have already shown large scale population displacement, loss and damage of agriculture and infrastructure, contamination of water supplies, coastal erosion and scouring, impacting long term sustainable development of the country.

As such, in response to this climate challenge, the Government of Tuvalu and the Green Climate Fund (GCF) have jointly committed to US$ 38 million for the 'Tuvalu Coastal Adaptation Project' towards building coastal resilience which is an urgent national priority. This project will address the financial and capacity constraints at all levels – from technical to community awareness. With GCF financing, the project is expected to

Make at least 35% of the high value vulnerable coastlines more resilient to withstand the effects of increased wave intensity compared to the baseline of 7%. The GCF investment will be in the islands of Funafuti, Nanumea and Nanumaga, and directed along areas with high concentration of residences and social and economic assets.

Directly and significantly benefit at least 29% or 3,100 people and indirectly 33% or 3,400 of the total Tuvalu population by mitigating impact of future wave overtopping events.

Strengthen institutional and community capacities for sustaining and replicating project results.

This GCF project will be executed by UNDP, in close partnership with the Government of Tuvalu, given its extensive experience in implementing climate change adaptation projects globally. The project implementation will be led by a team based in Tuvalu and Suva, Fiji.

III. Duties and Responsibilities

Under the guidance and direct supervision of the Deputy Project Manager (DPM), the incumbent is responsible for the financial management of the project including the overall budget expenditures according to the Project Document, advising the Government, PMU and UNDP on the need for budget revision and/or off-track activities, and presenting financial analysis at Project Board meetings.

- Summary of Key Functions:
- Administration and implementation of operational and financial services for the project
- Administrative support to the PMU

- Facilitation of knowledge building and knowledge sharing

Administration and implementation of operational and financial services for the project

- Assist the NPM with planning, formulating, tracking of the project budget;
- Ensure full compliance of the project with UNDP and GCF rules and regulations on financial processes, financial records, reports and audit as well as effective and the internal controls frameworks;
- Track project delivery through ATLAS and other tools;
- Maintain an Activity-based expenditure table to monitor expenditure on a real-time basis; ensure that the expenditures are in line with the approved Annual Work Plan;
- Carry out an analysis, as needed, on the expenditure projection based on the deviation of the actual expenditures from the AWP and keep the members of the PMU, Government and UNDP informed of the risk of under-delivery;
- Provide the information/reports on the financial/accounting situation of the project and propose solutions to improve the situation;
- Oversee that the financial/accounting data is accurate in Atlas and take timely corrective actions on erroneous data;
- Accuracy verification of Combined Delivery Reports;
- Provision of necessary financial reports and analyses for donor reporting;
- Verification and reconciliation of various expenditures reports from the Responsible Party(ies);
- Preparing payment requests and processes vouchers in Atlas as request of the NPM and DPM.

Provide administrative support for the PMU

- Maintain PMU documentation in electronic and/or hard copy format (including financial records such as supporting documents for vouchers and POs), according to UNDP policies and guidelines;
- Maintains and regularly updates project counterpart contacts database;
- Review and compile necessary documentations during procurement process, in support of the Procurement Associate;
- Review and verifies invoices and common services expenses charged to the PMU budget (rent, utilities, phone, miscellaneous);
- Organize project-related meetings outside of Tuvalu;
- Provide communication support (electronic and hard copy correspondence, etc) to all PMU staff.

Facilitation of knowledge building and knowledge sharing

- Advice to Project staff on UNDP administrative and reporting, in particular, on budgetary issues;
- Organize trainings for the Government of Tuvalu on financial management;
- Synthesize lessons learned and best practices in programme and project finance;
- Sound contributions to knowledge networks and communities of practice.

IV. Impact of Results

The key results have an impact on the overall efficiency in the administration and implementation of financial and operational strategies for the project. Accurate and timely analysis and presentation of financial conditions of the project mitigate the risk of budget overrun while facilitating the smooth adaptive management.

V. Competencies

Functional Competencies:

<u>Promoting Organizational Learning and Knowledge Sharing</u>

Researches best practices and poses new, more effective ways of doing things

Identifies and communicates opportunities to promote learning and knowledge sharing

Job Knowledge/Technical Expertise

Understands the main processes and methods of work regarding to the position

Possesses knowledge of organizational policies and procedures relating to the position and applies them consistently in work tasks (broad range of specialized knowledge related to financial resources management, including formulating budgets, maintaining Accounts Receivables and Accounts Payables, reporting).

Analyzes general information and selects materials in support of partnership building initiatives

Identifies new and better approaches to work processes and incorporates same in own work

Strives to keep job knowledge up-to-date through self-directed study and other means of learning

Demonstrates good knowledge of information technology and applies it in work assignments

Promoting Organizational Change and Development

- Documents 'best practices' in organizational change and development within and outside the UN system
- Demonstrates ability to identify problems and proposes solutions

Design and Implementation of Management Systems

- Uses information/databases/other management systems
- Makes recommendations related to work procedures and implementation of management systems

Client Orientation

- Reports to internal and external clients in a timely and appropriate fashion
- Organizes and prioritizes work schedule to meet client needs and deadlines
- Establishes, builds and sustains effective relationships within the work unit and with internal and external clients
- Responds to client needs promptly

Promoting Accountability and Results-Based Management

- Gathers and disseminates information on best practice in accountability and results-based management systems
- Maintains databases

Core Competencies:

- Demonstrate corporate knowledge and sound judgment
- Self-development, initiative-taking
- Acting as a team player and facilitating team work
- Facilitating and encouraging open communication in the team, communicating effectively
- Creating synergies through self-control
- Managing conflict
- Learning and sharing knowledge and encourage the learning of others. Promoting learning and knowledge management/sharing is the responsibility of each staff member.

VI. Recruitment Qualifications	
Education:	Secondary Education, with specialized certification in Accounting and Finance. University Degree in Finance, Business or Public Administration desirable, but it is not a requirement. Part-qualified accountants from an internationally recognized institute of accountancy will have a distinct advantage.
Experience:	5 years of progressively responsible financial management or accounting experience is required, with knowledge of programme or project finance desirable.

	Experience in the usage of computers and office software packages (MS Word, Excel, etc) and advance knowledge of spreadsheet and database packages, experience in handling of web based management systems. Knowledge of IPSAS and/or IFRS is a distinct advantage.
Language Requirements:	Proficiency in spoken and written English

UNITED NATIONS DEVELOPMENT PROGRAMME

JOB DESCRIPTION

I. Position Information

Job Code Title: Project Finance/Admin Assistant

Proposed Grade: SC/5 SB3

Supervisor: National Project Manager

Duration: One year, with a possibility of extension

Duty Station: Funafuti, Tuvalu

Project: Tuvalu Coastal Adaptation Project

II. Background Information

The island of Tuvalu, located in the South Pacific, is the fourth smallest nation in the world with a population of about 10,000. Due to its geographical remoteness and relatively limited size of the economy, it is one of the least developed countries. It is also one of the most vulnerable countries in the world to the impact of climate change induced sea-level rise and intensifying storm events. Recent cyclones have already shown large scale population displacement, loss and damage of agriculture and infrastructure, contamination of water supplies, coastal erosion and scouring, impacting long term sustainable development of the country.

As such, in response to this climate challenge, the Government of Tuvalu and the Green Climate Fund (GCF) have jointly committed to US$ 38 million for the 'Tuvalu Coastal Adaptation Project' towards building coastal resilience which is an urgent national priority. This project will address the financial and capacity constraints at all levels – from technical to community awareness. With GCF financing, the project is expected to

Make at least 35% of the high value vulnerable coastlines more resilient to withstand the effects of increased wave intensity compared to the baseline of 7%. The GCF investment will be in the islands of Funafuti, Nanumea and Nanumaga, and directed along areas with high concentration of residences and social and economic assets.

Directly and significantly benefit at least 29% or 3,100 people and indirectly 33% or 3,400 of the total Tuvalu population by mitigating impact of future wave overtopping events.

Strengthen institutional and community capacities for sustaining and replicating project results.

This GCF project will be executed by UNDP, in close partnership with the Government of Tuvalu, given its extensive experience in implementing climate change adaptation projects globally. The project implementation will be led by a team based in Tuvalu and Suva, Fiji.

III. Duties and Responsibilities

Under the guidance and direct supervision of the National Project Manager (NPM), the Project Finance/Admin Assistant is responsible for providing support to the Project Management Unit (PMU), especially the NPM and Project Admin/Finance Associate, in financial management of the project including project accounting system, overall budget expenditures according to the Project Document, advising the Government, PMU and UNDP on the need for budget revision and/or off-track activities, and presenting financial analysis at Project Board meetings.

Summary of Key Functions:

- Administration and implementation of operational and financial services for the project
- Administrative support to the PMU
- Facilitation of knowledge building and knowledge sharing

- Administration and implementation of operational and financial services for the project
- Maintain the office operations and budget for the PMU in Funafuti;
- Assist the Project Admin/Finance Associate with tracking project delivery through monitoring of local contracts in Tuvalu;
- Assist the Project Admin/Finance Associate with preparation of project budgets, budget revisions;
- Assist the NPM and Project Admin/Finance Associate with monitoring the project expenditures, the deviation from the approved AWP and the need for budget revision;
- Provide the information/reports on the financial/accounting situation of the project and propose solutions to improve the situation;
- Assist the Project Admin/Finance Associate with compilation of necessary financial data for donor reporting.

Administrative support to the PMU

- Is responsible for making logistical arrangements for project personnel, experts, Government and UNDP officers visiting or working in Tuvalu;
- Provide the necessary logistical and administrative support for the biannual Project Board Meetings;
- Under the leadership of the NPM, monitor the work and deliverables of project consultants and report to the Procurement Associate for high quality and timely contractual management;
- Assist with follow up of advances to Responsible Partner(s) and review their financial reports together with the NPM before the next advance is made;
- Serve as a custodian for PMU stationary supplies, distribution stationary among PMU members and project personnel keeping a log of distribution;
- Maintain financial documents filling system in the PMU in Funafuti;
- Perform other related duties, backstopping other project assistant as necessary.

Facilitation of knowledge building and knowledge sharing

- Assist with relevant input to Project staff on UNDP financial matters in particular, on budgetary issues;
- Assist with organising trainings for the Government of Tuvalu on financial management;
- Synthesis of lessons learned and best practices in programme and project finance;
- Sound contributions to knowledge networks and communities of practice.

IV. Impact of Results

The key results have an impact on the overall efficiency in administration and implementation of financial and operational strategies for the project. Accurate analysis and presentation of financial ensures proper financial processes towards effective delivery.

V. Competencies

Functional Competencies:

<u>Building Partnerships</u>

- Analyzes general information and selects materials in support of partnership building initiatives
- Tracks and reports on mobilized resources

<u>Promoting Organizational Learning And Knowledge Sharing</u>

- Researches best practices and poses new, more effective ways of doing things

- Identifies and communicates opportunities to promote learning and knowledge sharing

Job Knowledge/Technical Expertise

- Understands the main processes and methods of work regarding to the position
- Possesses knowledge of organizational policies and procedures relating to the position and applies them consistently in work tasks (broad range of specialized knowledge related to financial resources management, including formulating budgets, maintaining Accounts Receivables and Accounts Payables, reporting).
- Identifies new and better approaches to work processes and incorporates same in own work
- Strives to keep job knowledge up-to-date through self-directed study and other means of learning
- Demonstrates good knowledge of information technology and applies it in work assignments

Promoting Organizational Change and Development

- Documents 'best practices' in organizational change and development within and outside the UN system
- Demonstrates ability to identify problems and proposes solutions

Design and Implementation of Management Systems

- Uses information/databases/other management systems
- Makes recommendations related to work procedures and implementation of management systems

Client Orientation

- Reports to internal and external clients in a timely and appropriate fashion
- Organizes and prioritizes work schedule to meet client needs and deadlines
- Establishes, builds and sustains effective relationships within the work unit and with internal and external clients
- Responds to client needs promptly

Promoting Accountability and Results-Based Management

- Gathers and disseminates information on best practice in accountability and results-based management systems
- Maintains databases

Core Competencies:

- Demonstrate corporate knowledge and sound judgment
- Self-development, initiative-taking
- Acting as a team player and facilitating team work
- Facilitating and encouraging open communication in the team, communicating effectively
- Creating synergies through self-control
- Managing conflict
- Learning and sharing knowledge and encourage the learning of others. Promoting learning and knowledge management/sharing is the responsibility of each staff member.

VI. Recruitment Qualifications	
Education:	Secondary Education, with specialized certification in Accounting and Finance. University Degree in Finance, Business or Public Administration desirable, but it is not a requirement. Part-qualified accountants from an internationally recognized institute of accountancy will have a distinct advantage.

Experience:	4 years of progressively responsible financial management or accounting experience is required, with knowledge of programme or project finance desirable. Experience in the usage of computers and office software packages (MS Word, Excel, etc) and advance knowledge of spreadsheet and database packages, experience in handling of web based management systems. Knowledge of IPSAS and/or IFRS required.
Language Requirements:	Fluency in the UN and national language of the duty station

Annex 14: Offline UNDP Risk Log

To be entered into Atlas by UNDP Country Office

#	Description	Date Identified	Type (equivalent to GCF risk category)	Impact & Probability (equivalent to GCF level of impact + probability of risk occuring)	Countermeasures / Mngt response (equivalent to GCF mitigation measures)	Owner	Submitted, updated by	Last Update	Status
1	Exclusive reliance on government scheduled boat and chartered boat to outer islands limit the delivery of Outcomes in a timely manner.	When was the risk first identified	Technical and operational	Text: Describe the potential effect on the project if this risk were to occur P = (proposal said "Low") I = (proposal said "High (>20% of project value)"	The logistical issues will be addressed through two risk mitigation measures. First, for the transport of construction materials and machinery, one of the selection criteria for the vendor/construction company is the transportation capability so that the project will not rely on the existing boats in the country. Second, for transporting project personnel for carrying out activities in outer islands, the partnership with the UNDP-supported LDCF and GEF project will provide a full access to a boat dedicated for these projects. This will permit the project to reliably adhere to the original island visit schedule.	Who has been appointed to keep an eye on this risk *(in Atlas, use the Management Response box)*	Who submitted the risk *(In Atlas, automatically recorded)*	When was the status of the risk last checked *(In Atlas, automatically recorded)*	e.g. over, reducing, increasing, no change *(in Atlas, use the Management Response box)*

#	Description	Date Identified	Type (equivalent to GCF risk category)	Impact & Probability (equivalent to GCF level of impact + probability of risk occuring)	Countermeasures / Mngt response (equivalent to GCF mitigation measures)	Owner	Submitted, updated by	Last Update	Status
2	Complex land tenure in project locations can cause delays and limit the successful construction of coastal protection interventions.	Date	Social and environmental	Text P = (proposal said "Medium") I = (proposal said "High (>20% of project value)"	The project will be along the coastline which is owned partly by the crown (seabed) and the rest by private citzens (the Foreshore And Land Reclamation Act). It is expected that landowners will allow the contruction of coastal infrastructure. However, given the high number of private lands owners involved who all need to endorse the project, and this process could create delays in implementation. The project aims to work through kapuales to ensure that communities are part of the decision making process thus increasing ownership. The process of obtaining a community endorsement will start during the environmental and social impact assessment. Awareness campaigns on coastal protection will improve the understanding of	Text	Text	Text	Text

#	Description	Date Identified	Type (equivalent to GCF risk category)	Impact & Probability (equivalent to GCF level of impact + probability of risk occuring)	Countermeasures / Mngt response (equivalent to GCF mitigation measures)	Owner	Submitted, updated by	Last Update	Status
					the proposed interventions making sure they are supported and endorsed by the community.				
3	Extreme climate events such as cyclones will affect the progress of project and moreover, the design of the coastal protection infrastructure may not withstand climate change impacts including both sea level rise and increased intensity of cyclones.	Date	Social and environmental	Text P = (proposal said "Low") I = (proposal said "High (>20% of project value)"	Notwithstanding that the annual probability of severe cyclones affecting the country is relatively low, coastal protection infrastructure will be designed to ensure longevity based on methodologies that considers worst case scenarios. A state of emergency was declared in March 2015 due to Cyclone Pam and in 2010 due to a severe drought, and as a result, many government agencies were engaged in early response and recovery activities which caused delays in the implementation of the first LDCF project. In order to mitigate this risk, the constructions of the coastal protection interventions will be	Text	Text	Text	Text

#	Description	Date Identified	Type (equivalent to GCF risk category)	Impact & Probability (equivalent to GCF level of impact + probability of risk occuring)	Countermeasures / Mngt response (equivalent to GCF mitigation measures)	Owner	Submitted, updated by	Last Update	Status
					undertaken from April to November when the risk of cyclones is significantly lower. Also the duration of the project has been set to minimize the impact of delays.				
4	High staff turnover and limited local human resource base could compromise the project management unit and delay implementation	Date	Technical and operational	Text P = (proposal said "Medium") I = (proposal said "Low (<5% of project value)"	Project Management Unit will have some necessary "redundancies" in the functions of project personnel so that staff turnover would have minimum impact in terms of continuity of the project implementation. This is based on lessons from earliner projects. Moreover, there is an ongoing discussion between the Government and UNDP to create several positions that straddle multiple UNDP-supported projects. This will facilitate better coordination across these projects and a more flexible arrangement whereby a shortage of staff in one project can be	Text	Text	Text	Text

#	Description	Date Identified	Type (equivalent to GCF risk category)	Impact & Probability (equivalent to GCF level of impact + probability of risk occuring)	Countermeasures / Mngt response (equivalent to GCF mitigation measures)	Owner	Submitted, updated by	Last Update	Status
					supplemented, at least in the interim.				
5	Political Risks: Changing leadership at national and local level resulting in project delays or refocus and/or suspension	Date	Other	Text P = (proposal said "Medium") I = (proposal said "Low (<5% of project value)"	The probability of a leadership change resulting in refocus of the project is highly unlikely given that coastal protection is unequivocally a national priority. However, delays in project decision making is a likely consequnece. The project will work closely with the national advisory committee on climate change (NACCC) and island Kaupules to ensure that these key stakeholders are updated with progress and would be able to keep national and local leaders updated.	Text	Text	Text	Text
6	Spillage of construction materials. The transport and supply of material, barges, dredges, excavator, truck and any other machinery may have impacts that may arise from accidental spillage of	Date	Social and environmental	Text P = (proposal said "Low") I = (proposal said "Low (<5% of project value)"	Through compliance with the Environmental and Social Management Plan, these risks will be significantly reduced.	Text	Text	Text	Text

#	Description	Date Identified	Type (equivalent to GCF risk category)	Impact & Probability (equivalent to GCF level of impact + probability of risk occuring)	Countermeasures / Mngt response (equivalent to GCF mitigation measures)	Owner	Submitted, updated by	Last Update	Status
	construction materials (e.g. cement); oils and other chemical spills. Further, there may be the release of actual construction material.								
7	Changes in hydrodynamic processes and deleterious sediment movement as a result of the construction of the coastal protection infrastructure	Date	Social and environmental	Text P = (proposal said "Low") I = (proposal said "Medium (5.1-20% of project value)"	Prior to final design and site selection of the coastal protection infrastructure, a number of environmental and social studies should be undertaken including: a. Chemical, ecological and physical assessments (and associated modelling) that consider the adjacent marine ecosystems including but not limited to, marine water quality within the areas of influence, potential contamination from marine sediments that may currently be contaminated, disturbance to habitats through the placement of infrastructure, noise, and vibration impacts,	Text	Text	Text	Text

#	Description	Date Identified	Type (equivalent to GCF risk category)	Impact & Probability (equivalent to GCF level of impact + probability of risk occuring)	Countermeasures / Mngt response (equivalent to GCF mitigation measures)	Owner	Submitted, updated by	Last Update	Status
					and impact on benthic biota. All these studies should consider spatial and temporal characteristics; and b. Hydrodynamic modelling to ensure the coastal protection infrastructure does not result in the change to coastal processes within natural variables respectively. The study should evaluate various coastal infrastructure types and design. The information from the studies will be used to inform the environmental and social management plan for the project. The plan should ensure it includes water quality monitoring in the short to long term.				
8	Changes in coastal erosion and/or deposition as a result of the removal of sediment/gravel for the use in the coastal protection infrastructure	Date	Social and environmental	Text P = (proposal said "Low") I = (proposal said "Medium (5.1-20% of project value)"	Prior to the selection of sites where material might be obtained for use in the coastal protection infrastructure, environmental and social studies will be	Text	Text	Text	Text

#	Description	Date Identified	Type (equivalent to GCF risk category)	Impact & Probability (equivalent to GCF level of impact + probability of risk occuring)	Countermeasures / Mngt response (equivalent to GCF mitigation measures)	Owner	Submitted, updated by	Last Update	Status
					undertaken including chemical, ecological and physical assessments (and associated modelling) that consider factors such as existing sediment erosion and deposition, potential contamination, disturbance to terrestrial and littoral zone habitats through the removal of sediment, noise, and vibration impacts and impact on biota.				
9	Terrestrial and marine noise including through the use of construction equipment and rock dumping will occur as a result of the project. This can impact on local communities and marine and terrestrial fauna using the adjacent area.	Date	Social and environmental	Text P = (proposal said "Medium") I = (proposal said "Medium (5.1-20% of project value)"	An assessment of the terrestrial habitat where the coastal protection infrastructure is to be located should consider any sensitive receptors including communities. Further, noise shields should be constructed to reduce the potential for noise to reach these communities. With respect to the marine environment, the studies that will be undertaken will provide input into the final location of coastal	Text	Text	Text	Text

#	Description	Date Identified	Type (equivalent to GCF risk category)	Impact & Probability (equivalent to GCF level of impact + probability of risk occuring)	Countermeasures / Mngt response (equivalent to GCF mitigation measures)	Owner	Submitted, updated by	Last Update	Status
					protection infrastructure to ensure underwater noise does not impact marine organisms and sensitive receptors.				

Other Potential Risks in the Horizon

Potential risks in price determination

The coastal protection work proposed will likely involve minimum of two contractors: first to carry out island-level assessments in all islands; second to construct the coastal protection structures as per the detail drawings produced as a result of the assessment process. Due to this two-step process and limited experience of coastal protection in Tuvalu at the scale proposed in the project, there is a certain level of uncertainty in the pricing of the final work contracted. Although the project budget has been developed with the best available estimates using the industry standard and through consultations with experts who have worked in the region, the overall project budget must be carefully monitored.

Potential risks of community engagement

Coastal protection is undoubtedly an urgent priority shared by all levels of society. At the same time, there is a sense of "consultation fatigue" within Tuvaluan communities. This is because of some of past development assistance that had a series of consultations without concrete benefits on the ground. This could potentially create impatient demands to see the construction as soon as the project implementation starts. To manage expectations of the community, during the initial island visits, implementation schedule, expectations, and community engagement requirements will be clearly spelled out.

Annex 15: UNDP Project Quality Assurance Report (to be completed by UNDP Country Office)

Annex 16: Additional Background Details:

(a) Operation and Maintenance (O&M) Plan
(b) Stakeholder Engagement Plan
(c) Community Engagement Strategy
(d) Youth Engagement Strategy
(e) Country Risk Profile – Tuvalu
(f) Climate Change and Disaster Survival Fund Act
(g) Government Request for Direct Implementation
(h) Information on the Grants Provided in the Project
(i) Government of Tuvalu In-Service Training & Scholarship Policy
(j) Authorization Letter from the Minister of Natural Resources

(a) Operation and Maintenance (O&M) Plan

Maintenance of assets delivered through development projects is a persistent difficultly inherent to a small island nation of Tuvalu. Distance to global markets, costs of travel internationally and domestically, limited technical capacity, and limited financial resources all contribute to this difficulty. Spare parts and simple repair activities that can easily be done in other developing countries can be prohibitively expensive and it is not uncommon that expensive equipment and facilities are abandoned as soon as the project financing for the running costs closes. For this reason, the operation and maintenance (O&M) considerations have been of paramount importance in the design of the proposed GCF project, which involves a capital investment of about US$25 million in the form of engineered and ecosystem-based coastal defense structures. This section presents several approaches reflected in the design of the project that enhance the conditions for sustained O&M of the GCF coastal infrastructure. These approaches are related to addressing the financial and capacity needs as well as increasing the ownership of the community and the Government over the coastal protection infrastructure.

Government co-financing

Financial resource availability is a critical prerequisite that enables timely and adequate O&M support. Reflecting the commitment of the Government of Tuvalu for sustained O&M, co-financing of US$2.86 has been agreed upon. Approximately US$2.3 million has been earmarked, out of the government's Infrastructure Maintenance Budget, for the costs associated with the basic repair and maintenance of the coastal protection measures. This translates to, on average, $128,713/year over 15 years based on the following assumptions:

repair of wave return wall to be constructed at the crest of Seabee revetment (400m), every 5 years, 40% of the structure requires full replacement (or similar repair): approx.

$48,000/year

For repair/maintenance of wooden walkways over geo-textile revetment: $6,000/year for two islands

Purchasing of geo-textile repair kits after 5 years: $3,000/year

Engagement of local community members for monitoring of vandalism, visual observation of wear and tear, patrolling for preventing sand/gravel removal at the site or in adjacent sites, application of repair patches for geo-textile sand containers, maintenance of dune and beach ridge and other ecosystem-based coastal protection approach that will be introduced (40-50 community members paid $500 for this activity): $20,000-25,000/year

Capital required by PWD to support ecosystem-based approach: approx. $50,000

In the course of the project implementation, minor repair needs are likely to be addressed, financially and technically, by the construction contractor as per the overall agreement for construction. However, to increase the ownership of the GoT and the community over the coastal protection structure, it is possible that an arrangement can be developed for the GoT/kaupule to cover a fraction of the repair costs even during the implementation. During the necessary repair operations carried out by the contractor, during the project lifecycle, staff from PWD will be fully engaged to ensure that they receive sufficient experience to take over the responsibilities after the project closure.

Low maintenance requirement as a design element for construction

Acknowledging the practical difficulty for the GoT to carry out maintenance activities beyond simple repair, due to the absence of specialized heavy machinery in the country, due considerations were given during the identification of possible coastal protection options (see Feasibility Study in Annex II). All engineered and 'softer' solutions that will be implemented in Funafuti (i.e. rock armour and Seabee revetments) will require minimal structural overhaul during the product life of 50 years; the geo-textile revetment options that will be implemented in Nanumea and Nanumaga will require minimal structural overhaul during the expected product life of 25 years.

Targeted capacity building for different set of O&M responsibilities for outer island administration and the central government

Technical capacity building for O&M is also an integral element of the project. Under Activity 1.1, PWD officers will be provided with trainings specifically for the O&M of the selected intervention. The provision of technical training for O&M will be part of the contractual agreement with the construction contractor. At the outer island level, select community groups/CSOs such as youth and women's groups will receive different set of trainings that are simpler and more geared towards periodic monitoring of wear and tear of the coastal protection infrastructure. Geo-textile retainer revetments is the chosen option for intervention in outer islands (because of the logistical and constructional ease in locations where facilities are severely limited). Because geo-textile revetments have shorter product life (minimum 25 years) and they will be located facing the outer ocean (as opposed to a calmer lagoon) in Nanumea and Nanumaga, continuous monitoring of the structures, periodic maintenance through the use of repair patches (500 units will be procured with project resources) will become important. The project design has taken this into account and Government/kaupules will be responsible for the periodic maintenance over and beyond contractual obligations by the contractors.

It is also important to note that the O&M of the coastal defense structures should not be narrowly viewed to apply only to the structure itself. Because any built structures at the foreshore affect the sediment movements in adjacent areas, periodic monitoring of deposition and erosion at various shorelines needs to be undertaken so that the overall integrity of the coastal defense is maintained and it continues to perform expected functions. To this end, select members of youth and women's groups will be trained (and paid) to undertake periodic beach profiling survey. Continuous monitoring of the beach shape will enable the DoLS to identify the need for correctional measures and PWD to execute actions accordingly. Activities related to this have been included in the project design. Following the end of the project, kaupule and the Government will take over responsibility for continuous monitoring and repairing, respectively.

Improving the enabling environment for sustainable financing for O&M

In addition to the GoT's co-financing commitment of US$2.86 million, majority of which will be used for the O&M needs of the coastal protection infrastructure, it is also important to note that the project aims to improve the enabling environment so that available development funds at the island-level will be used for more minor, but periodic, monitoring and maintenance work at the site level. Periodic monitoring is an integral element of the O&M plan because detection of minor wear and tear early on through monitoring work and addressing it, will likely to prevent major maintenance needs, which may be beyond the capacity of the PWD/community to address.

Engagement of the island administrations (kaupule) and community members in the process of the ISP formulation and budgeting will be the opportunity to do so. This process provides a platform, in a participatory and transparent manner, to identify development priorities of the island and finance them through the available unconditional grants (FTF and SDEs). Seven years of continuous engagement of kaupule and communities, in addition to more years of support from other UNDP-supported project which this project builds on, are expected to result in allocation of these grants to finance the continuous monitoring requirements (performed by youth and women's groups).

In addition to these direct measures that aim at establishing a sustained O&M architecture, it is expected that sharing of lessons, especially impact, of the coastal protection infrastructure on reduced vulnerability will play an important role in strengthening the ownership of local communities and the Government over the GCF intervention. Throughout the course of the project, changes in the shape of coast will be monitored (through the beach profile surveys), analyzed and presented the target communities. This is expected to translate the value of the GCF intervention into a visible, digestible form of information and contribute to heightened ownership, a condition critical for sustained O&M.

Roles and responsibilities of various stakeholders related to O&M of the coastal protection infrastructure will be refined during the project implementation. This will involve segregating clearly the types of O&M activities to be financed by the Government's co-financing sources and kaupule's FTF/SDE (which is not presently counted as co-financing) and obtaining an official agreement from both parties in an MoU; setting the pricing scheme for

the services provided by community members for beach profile surveys and repair work; and potentially obtaining an official co-financing commitment from kaupules

(b) Stakeholder Engagement Plan

A wide range of stakeholders will be involved in the project, tailored to the specific needs of the three project Outputs. Key stakeholders to be engaged include a range of government line ministries to support the project implementation, NGOs, island-specific Kaupules and Falekaupules and local communities including some of their interest/community groups. In general, stakeholder engagement in the project implementation begins at the inception workshop which will be held at the capital. Government departments, Funafuti-based representatives from island Kaupules, NGOs/CSOs and citizens will be invited to the workshop and the focus of the project, the timing of island visits and stakeholder consultations, types and nature of adaptation investments, and expectations from stakeholders engaged will be presented. During the first island visit, island-level inception workshop will be organized in each island covering the same topics.

Each Output of the project has its own stakeholder groups:

Output 1 will be delivered in partnership with the Climate Change Policy Unit (CCPU) with assistance from the project-funded staff in the Project Management Unit (PMU). The CCPU/PMU will closely work with regional agencies such as SPC Geoscience Division and SPREP for delivering targeted skill building trainings for technical officers in DoLS, PWD, DoE and CCPU. The Ministry of Education (MoE) will be invited as a Responsible Party for managing the project activities and finance related to the scholarship program targeting high school and university students. The Ministry of Finance (MoF) will also participate in the discussions related to the scholarship program in relation to the financial administration of the scholarship program (following the practice for the other scholarship programs that exist in the country). MoE will also be engaged for activities related to curriculum development. The Department of Rural Development (DRD) is the focal agency for any work involving outer islands, and therefore, they will be a critical partner in all activities of the project. Awareness raising activities that take place in outer islands will be designed in partnership with DRD. In outer islands, the main stakeholders include *kaupule*, *falekaupule*, youth group, women's group, fisher's group and other CSOs (See more below on the specific strategy for community engagement)

Output 2 will be delivered in partnership with PWD and DoLS. Since a majority of relevant project activities will take place in outer islands, DRD will be invited to all key discussions for this Output.

Component 3 will be delivered in partnership with DRD. On the outer islands, the project will work closely with *Kaupules* to enhance their strategic planning and budgeting processes to ensure adaptation can be built into island-level planning in addition to community groups. This will necessarily include regular consultations with communities through community meetings to seek views and ensure clear dialogue.

Informal stakeholder engagement may take place at any time and any location within the operational terms and guidelines set out by the project at start of implementation.

All activities on the outer islands will be carried out through the assistance of DRD within the Ministry of Home Affairs and Development (MHARD) and the island representatives on Funafuti. These are the official conduits for all outer islands activities and working through these channels will ensure smooth implementation and cooperation from island leaders. On the outer islands, the Kaupule staff are the executives of each island's Falekaupule (governing council) and will be integral to all interventions. The Kaupule will need to give approval for all activities, use of land, funding arrangements and involvement. The communities, and particularly the local community groups of women, youth and elders will be involved in all decision-making through regular meetings in the community hall (maneapa). The project intends to run regular meetings incorporating educational videos, the outcomes of the participatory monitoring videos (under Output 3) and other mechanisms to stimulate discussions and derive steering for the project. This will ensure that the interventions remain in touch with community stakeholder aspirations at all stages of the project that will be enhanced through the scheduled outer island visits (see below). In addition, events that are designed to promote information sharing about the adaptation effectiveness of investments in Output 2, such as annual national consultations inviting some representatives from the islands, are expected to provide additional stakeholder engagement benefits.

In Tuvalu, due to its unique geographical circumstances, workshops and training activities in outer islands (or in Funafuti that bring outer island communities to the capital) are a vital opportunity not only for the sake of capacity building, but also for exchanging information across islands and maintaining the engagement throughout the course of the project. Those workshops and training activities that will be undertaken through the project lifetime are shown below in Table below. Inevitably, due to the logistical challenge, some of the workshops/trainings will be jointly organized with multiple objectives covering different elements of the three Components.

Activities	Title	Timing	Objective	Location	Target Participants
All	Initial formal meeting with Kaupule and community	Year 1 (Inception for the following 6 months)	Establishing the presence of the project on the island; Signing of an MoU with timelines about scheduled visits	Outer islands	All community, especially Kaupules
1.1	Coastal monitoring training	Year 2-7	Periodic technical skill building for island profile surveys	Outer islands / Funafuti	Youth and women's group members
1.1	EBA coastal protection approach	Year 2-7	Technical training and demonstration	Outer islands / Funafuti	Kaupules Youth and women's group members PWD
1.1	CCPU training	Year 1-7	Technical training on coordination for coastal actions, project management, evaluation, etc.	Funafuti or in the region	CCPU staff
1.1	Regional / International conference	Year 5, 7	Sharing of lessons and best practices	Funafuti or Fiji	CCPU, PWD, DoLS, island representatives
1.2	Scholarship design and progress reporting	Year 1-3, 6	Designing of scholarship program; progress report	Funafuti	MoE; MoF
1.2	Teachers training	Year 2, 4, 6	ToT on coastal dynamics and protection for school teachers	Funafuti	School teachers; MoE; CCPU
1.2	Awareness raising events	Year 2	(Jointly organized with skill building for coastal monitoring)	Outer islands	Youth and women's group members
2.1	Community consultations on coastal protection design	Year 1-3	Consultations as part of site-specific assessments	Outer islands	Kauples; falekaupules; all community; PWD; DoLS
2.1	National consultations	Year 2-4	Presentation of findings from site-specific assessments	Funafuti	PWD; DoLS; island representatives; CCPU; DRD
2.2	Community workshop	Year 3-7	Periodic monitoring; discussion on monitoring, O&M	Funafuti, Nanumea, Nanumaga	Kaupule; falekaupule; youth and women's group members; PWD; DRD
3.1	ISP training	Year 2,3	ToT on ISP planning, budgeting and monitoring	Funafuti	Kaupules; falekaupules; Youth and women's group members; ISP Officer; DRD

3.1	Annual ISP training andAnnual presentation session	Presentation of the revisedFunafuti ISP (with climate change integrated) Presentation of performance on annual budgeting, monitoring and execution	Kaupules; falekaupules; Youth and women's group members; ISP Officer; DRD
3.2	Participatory video Training ofYear 3, 5, 7 Trainers	Training in the technique ofFunafuti participatory video	Women's group members; DRD

NGOs, under the TANGO (Tuvalu Association of NGOs) umbrella, and Tuvalu Council of Women will be incorporated as collaborators in selected parts of the project to ensure that there is sufficient community support as well as that are windows through which community grievances, if any, can be expressed.

All project activities will be closely monitored by the Project Manager assisted by a group of project-funded officers. This will include detailed records of stakeholder engagement, the decisions made by communities and Kaupules and written and photographic/video records of the interventions themselves.

Effective stakeholder involvement of island communities requires an understanding that Tuvalu's clan- based social structure, and communal traditions are the key building blocks of Tuvaluan society. While these structures have traditionally sought to promote egalitarianism, it is recognised that women have taken a limited role in traditional community meetings in the past, their voices were usually heard through representation by the head of the household in village meetings. Even where those arrangements still exist, the project will use combinations of contact strategies in both outer islands and in Funafuti: with the now generally-accepted practice of calling specific meetings with women's and youth groups, the project will reach these segments of the community to ensure targeting of the specific needs for different community groups. In addition, special attention will be paid to ensure that potentially marginalized groups, such as the disabled and religious minorities, are integrated into all aspects of the project. These measures recognise the particular challenges of ensuring effective engagement with all segments of outer island communities with respect to climate change, and ensuring inclusion from the increasing numbers of people living in the informal settlements highlighted by the UN Special Rapporteur[252].

[25] Press Statement by the United Nations Special Rapporteur on the human right to safe drinking water and sanitation Ms. Catarina de Albuquerque - Mission to Tuvalu (19 July 2012) http://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=12372&LangID=E

(c) Community Engagement Strategy

One of the salient emerging features of community-based projects which have been implemented in the pacific Islands is the increasing disillusionment of the communities as project components are not delivered fully or on time, leading to a decline in their engagement and ultimate loss of project impacts. In simple terms this means that there is a lower return on project investments because of the failure of past or the present project to produce promised interventions.

As part of the project formulation exercise for the second LDCF-financed project, UNDP supported an extensive island consultations to better define the community engagement strategy for the project. The following is the lessons gleaned from the process and recommendations for a better community engagement strategy, which are extremely relevant in the design and implementation of the GCF project. During the consultations that took place between June 2012 and January 2013, the Project Design Team interviewed a total of 214 people in eight islands (except Niulakita which is affiliated with, and whose administration functions are also peformed by, Niutao). In that survey, a question on whether there are any other issues the project should consider as part of the design, the team was told that people were concerned about the speed and timing of implementation of the first LDCF Project[3]. They wanted to see action and soon, not just talk. This was mentioned in 19% of interviews (out of 77), so was not an isolated comment. Similar experiences have been recorded in projects in remote areas or outer islands in Papua New Guinea (PNG) (see below), Rodrigues, Maldives, Tonga and Vanuatu, and it is likely that this is a general issue.

The main, often interrelated, components of the complaints include:

- Failure of the project to keep to its timelines;
- Failure to deliver all promised aspects of the project;
- Confusion or misunderstandings of what the project has promised to deliver;
- Confusion or misunderstandings of what kinds of engagement are expected or needed by the communities themselves, and who should be involved; and
- Failure to share materials or outputs from the project with the communities.

Case Study: Community-based management of coastal fisheries in New Ireland Province, Papua New Guinea

The National Fisheries Authority (NFA) of PNG, with loan financing from the Asian Development Bank (ADB) undertook the Coastal Fisheries Management and Development Project (CFMDP) in 3 main provinces between 2003 and 2007. The project was designed to improve the fisheries management capacity at provincial and lower levels of government and enhance stakeholder participation. It also included components on socio-economic surveys to obtain feedback, and on community-based management of resources. In initial socio-economic surveys, people complained about past projects failing to deliver what they had promised and expressed a reluctance to engage with the CFMDP because it would be a waste of their time and effort. They also expressed disappointment that they had not been given copies of reports, plans and surveys in which they had been involved.*

To address these issues and improve the likelihood of successful interventions by the project, the CFMDP completely renovated its approach to working with the communities in the following ways:

1. *Instead of approaching communities and asking them for involvement, the project identified a total number of communities it could engage with (about 10% of those available in the first instance) and asked the communities to apply to the project if they wanted assistance with establishing*

community-based fisheries plans. The project made this a simple process, and provided support for communities to apply.

2. *For successful communities (i.e. those accepted into the program) the project drew up MOUs (memoranda of understanding) as non-legal agreements of what the project would deliver, the time frames, the nature of community involvements and the outputs that would be returned to the community by the project.*
3. *The project then organised regular trips to communities according to the agreements made with them and was careful not to miss or vary these except in extreme circumstances, and only then after contacting them to arrange alternatives.*
4. *All reports, pamphlets and comics produced under the project were delivered by the project team to communities as soon as they were available.*

This approach was an unqualified success. Communities knew when to expect the team months or years in advance, prepared themselves for participation at those times and engaged well with the project. They were very happy to receive copies of reports, most translated into Pidgin and presented as comics, booklets or other materials. By Year 2 of the community engagement part of the project, many other communities asked to join the programme, leading to its expansion.

** See:* www.bluesquid.net/CFMDP.html *to access the technical reports.*

Problems with working on Tuvalu's outer islands

Further compounding the issues perceived by the communities with which past projects have tried to engage, is the sheer difficulty in accessing the outer islands. Tuvalu has two vessels that provide outer islands passenger and freight services, the Nivaga II and the Manu Folau. These vessels operate on a changeable schedule, visiting the southern, middle and northern islands on a rotational basis, once per month for most islands, and somewhat more frequently visiting Vaitupu, usually to deliver / collect students attending the country's only high school. Their usual stay at any one island is a matter of hours, just enough to drop off or pick up passengers and freight. This is insufficient time for running significant meetings, consulting with communities or delivering project activities, and the wait for another vessel is usually too long to be efficient for project delivery. There are two additional vessels, the Mataili, which is the country's patrol boat and is not available for civilian use, and the Manuai, the fisheries Department research vessel. The Manuai is under heavy demand and carries out sporadic trips for a range of purposes. In general, it does not allow for good project planning as it is unreliable, and even when booked for a project trip, may cancel the voyage without notice if required for another purpose. Projects that have had to rely on Manaui for project delivery have found it difficult or impossible to operate, leading to the communities' comments listed above.

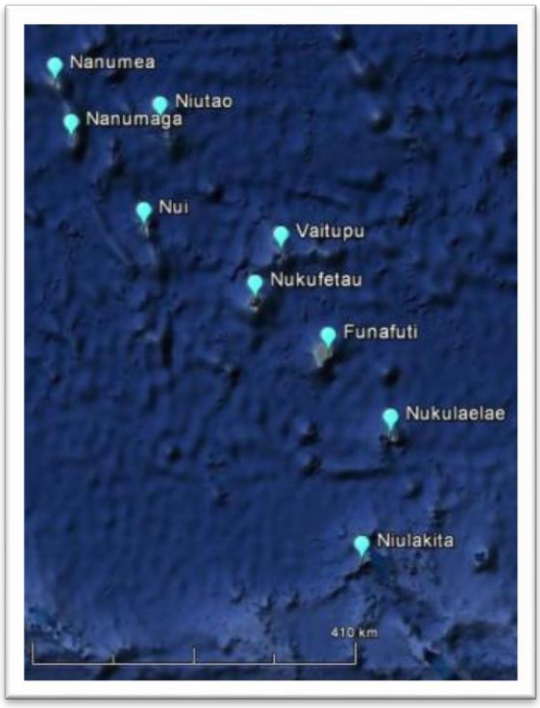
Two projects appear to have been able to operate effectively in Tuvalu's outer islands. These were:

1. A Save the Children Project of the late 80's; and
2. The New Zealand Aid Programme (NZAP) Ship to Shore project in 2011-12.

Both of these projects invested in purchasing a vessel to be able to deliver the project services efficiently and according to timelines. No other projects have been as successful as these because they were unable to travel as needed for project continuity and reliability.

	Southern islands			Middle islands			Northern islands		
Island	Funafuti	Niulakita	Nukulaelae	Nukufetau	Vaitupu	Nui	Nanumaga	Niutao	Nanumea
Funafuti	*	247	120	106	130	266	406	336	464
Niulakita		*	154	328	372	469	606	567	672
Nukulaelae			*	228	250	383	522	459	583
Nukufetau				*	65	159	298	241	358
Vaitupu					*	172	293	213	345
Nui						*	140	125	205
Nanumaga							*	115	74
Niutao								*	141
Nanumea									*

Approximate distances between the islands of Tuvalu (km)



Map of Tuvalu showing arrangement of islands (from Google Earth)

Recommendations made for the design of the 2nd LDCF project

To address these issues and significantly improve the likelihood of successful outcomes of development projects, five guiding principles were developed. These are intended to apply across all activities and ensure efficient implementation given the logistical challenges of operating in the outer islands of Tuvalu and the need for smooth transitions between activities. The general approach includes:

1. At the first visit on each of the project islands, the project team will carry out formal meetings and introductions with the Kaupule and community to establish presence of the project on the island, permissions and cooperation. This includes use of an MOU with timelines and agreed schedules of participation on both sides;
2. A central part of the approach is to establish 3 regular boat trips per year (the *'Metronome'*), each of 30 days duration, cycling through 3 islands at each trip (Northern, Middle or Southern islands during a single trip). This means that each island would be visited at least once every 9-12 months. By establishing this rhythm communities frustrated by past failures of projects to deliver will be able to expect project activities and visiting consultants, and equipment shipments and delivery of materials can be scheduled with a high of degree of certainty. Additional unscheduled trips may be run from time to time as needed;
3. An island level focal point is established to assist with local logistics as needed;
4. The project will specifically work with NGOs and local groups (such as Women's and Youth Groups) in all of its activities. Clear engagement patterns will be identified in the MOU;
5. The project will ensure that project materials are hand-delivered and formally presented to the communities at each visit to the island.

Following these recommendations, the GoT and UNDP agreed to purchase a vessel dedicated to project activities. Another UNDP-supported project, "Ridge-to-Reef", which was designed a few years after the second LDCF project, is also making a financial contribution to use the vessel.

*The proposed GCF project will follow the general guiding approach described above in the engagement of outer island community. Project activities that require outer island visits are mainly those related to Output 3, which are carried out in partnership with these two UNDP-supported projects (the second LDCF project and Ridge-to-Reef project). This will ensure coordination, not only substantively but also logistically, and the periodic visits to islands ('*Metronome*') can be adhered to.*

(d) Youth Engagement Strategy

The proposed GCF project considers youth and women's groups as a special target stakeholder. This is not only for the purpose of building the capacity across the nation, but also because they are considered a key change agent in the transformation that Tuvalu aspires to achieve in its fight against climate change. Tuvalu recently launched its national youth policy (August 2015) which provides policy underpinnings for youth engagement in decision making. UNDP also recently launched the first Youth Strategy "Empowered Youth, Sustainable Future" with the following three outcomes: (1) increased economic empowerment of youth, (2) enhanced youth civic engagement and participation in decision-making and political processes and institutions and (3) strengthened youth engagement in resilience building.

As it is evident from the scope of the project presented in the proposal document, the objective and proposed Outputs are in line with each of these outcomes set forth in both the Tuvalu Youth Policy and the UNDP Youth Strategy. The UNDP Strategy upholds 10 standard principles in youth engagement, of which the following three are most relevant for this project:

(1) Working by, with and for young people as initiators;

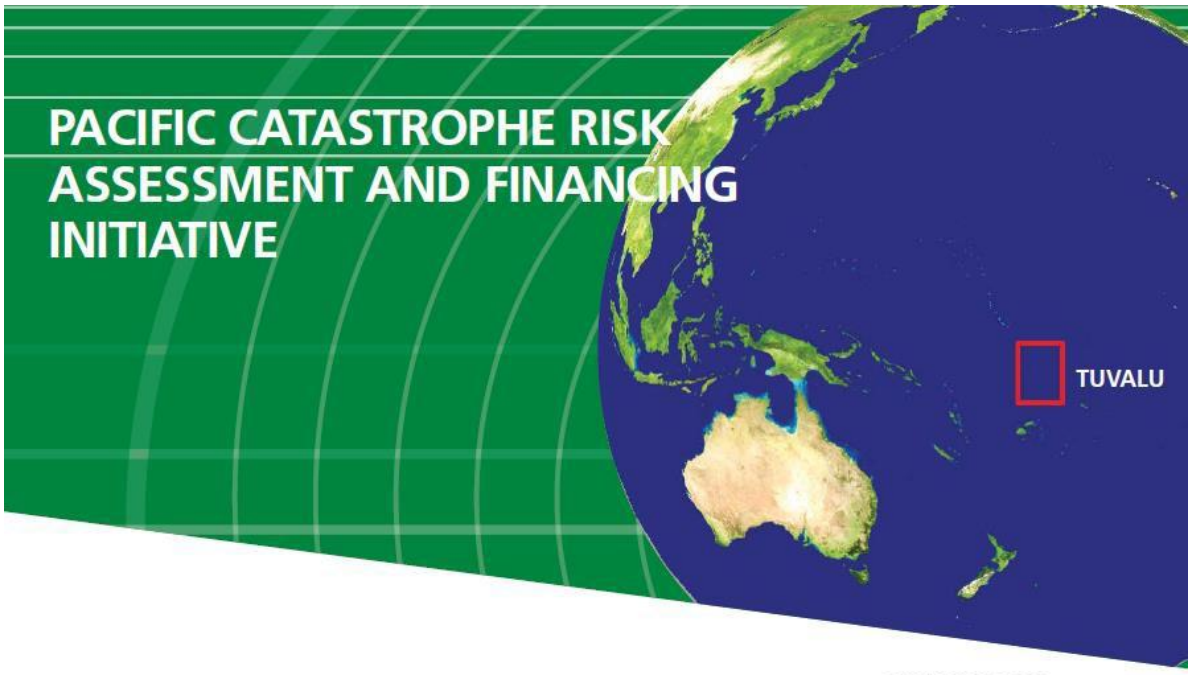
(3) Reflecting the pivotal significance of gender equality and empowering of young women; and

(6) Ensuring youth participation and voice

Targeting youth not only as a distinct beneficiary group but also a "responsible group" of the project is based on the underlying understanding that they will lead Tuvalu's endeavor to build climate resilience. Youth group members will be exposed to skill building trainings and supported to provide services to the community (i.e. the maintenance of coastal protection measures and beach profile surveys) for which they will be compensated. This will be directly linked with economic empowerment of youth. Moreover, the scholarship program designed and implemented in the project is expected to open a new horizon for Tuvaluan youth, many of whom make professional decisions to stay out of the country after graduating from higher studies due to the absence of opportunities in their home countries.

Engaging youth (and women) as a responsible agent in the context of ISP formulation and monitoring, through Output 3 activities of the project, is expected to contribute to further empowerment of youth. As described in the proposal, the ISP platform embodies Tuvaluan people's aspiration and commitment to make the communal decision making process more participatory, accessible and transparent, and yet, they require practical assistance to make a full transition into the new development paradigm. The proposed project will contribute to this transition while integrating climate change concerns into the process and putting youth and women as a key agent of change.

(e) Country Risk Profile - Tuvalu



SEPTEMBER 2011

COUNTRY RISK PROFILE: TUVALU

Tuvalu is expected to incur, on average, 0.2 million USD per year in losses due to earthquakes and tropical cyclones. In the next 50 years, Tuvalu has a 50% chance of experiencing a loss exceeding 4 million USD and casualties larger than 15 people, and a 10% chance of experiencing a loss exceeding 9 million USD and casualties larger than 50 people.

BETTER RISK INFORMATION FOR SMARTER INVESTMENTS

POPULATION, BUILDINGS, INFRASTRUCTURE AND CROPS EXPOSED TO NATURAL PERILS

An extensive study has been conducted to assemble a comprehensive inventory of population and properties at risk. Properties include residential, commercial, public and industrial buildings; infrastructure assets such as major ports, airports, power plants, bridges, and roads; and major crops, such as coconut, palm oil, taro, vanilla and many others.

TABLE 1:
Summary of Exposure in Tuvalu (2010)

General Information:	
Total Population:	9,960
GDP Per Capita (USD):	3,213
Total GDP (million USD):	32.0
Asset Counts:	
Residential Buildings:	2,621
Public Buildings:	179
Commercial, Industrial, and Other Buildings:	218
All Buildings:	3,018
Hectares of Major Crops:	1,914
Cost of Replacing Assets (million USD):	
Buildings:	229
Infrastructure:	38
Crops:	1
Total:	268
Government Revenue and Expenditure:	
Total Government Revenue	
(Million USD):	45.4
(% GDP):	141.9%
Total Government Expenditure	
(Million USD):	42.9
(% GDP):	134.1%

[1] Data assembled from various references including WB, ADB, IMF and The Secretariat of the Pacific Community (SPC).
[2] The projected 2010 population was trended from the 2006 census using estimated growth rates provided by SPC.

Table 1 summarizes population and the inventory of buildings, infrastructure assets, and major crops (or "exposure") at risk as well as key economic values for Tuvalu. It is estimated that the ***replacement value of all the assets in Tuvalu is 268 million USD,*** of which about 85% represents buildings and 14% represents infrastructure.

Figures 1 and 2 illustrate the building exposure location and replacement cost distribution, respectively. The footprints of about 2,200 of the approximately 3,000 buildings shown in Figure 1 were digitized from high-resolution satellite imagery. About 1,000 of such buildings, all on the main island of Funafuti, were also field surveyed and photographed by a team of inspectors deployed for this purpose. Figure 3 displays the land cover/land use map that includes the location of major crops. The data utilized for these exhibits was assembled, organized and, when unavailable, produced in this study.

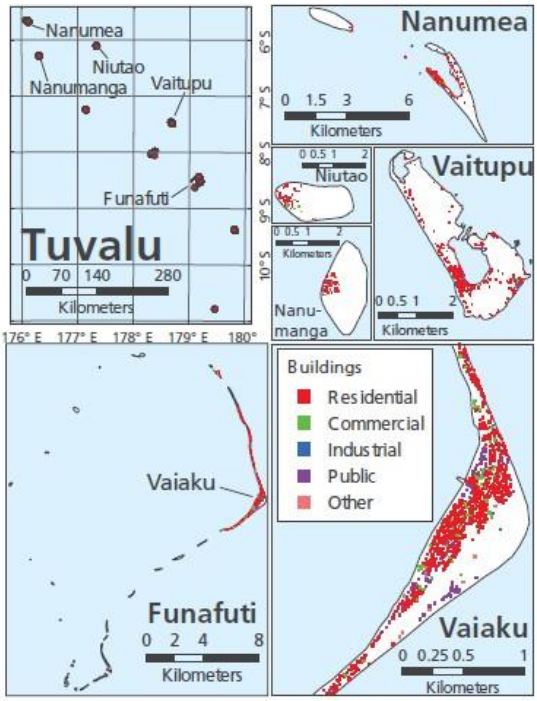


Figure 1: Building locations.

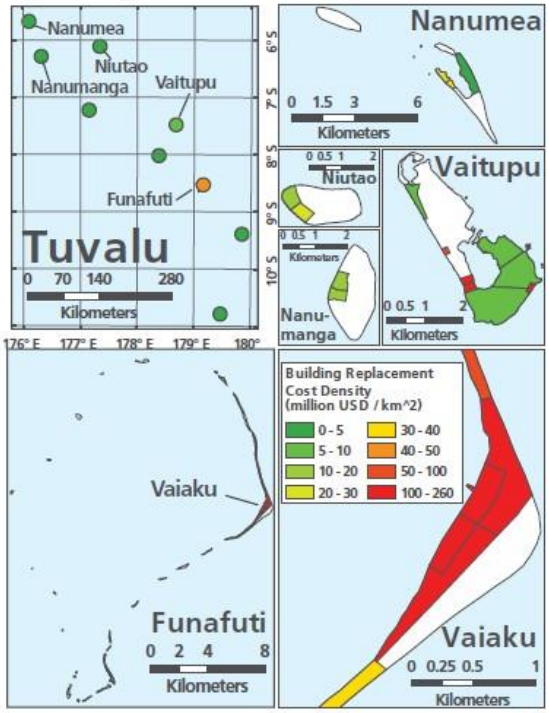


Figure 2: Building replacement cost density by village.

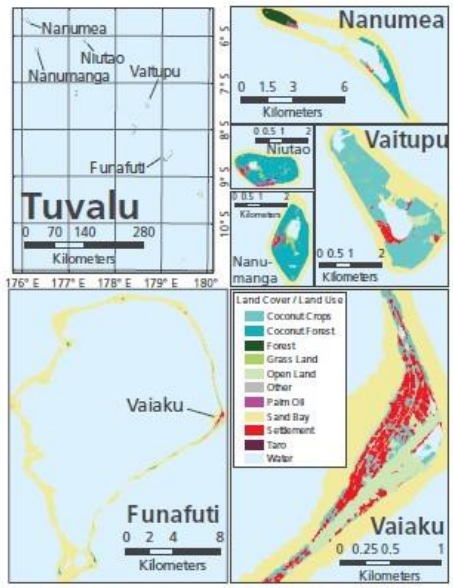


Figure 3: Land cover/land use map.

TROPICAL CYCLONE AND EARTHQUAKE HAZARDS IN TUVALU

The Pacific islands region is prone to natural hazards. Tuvalu is located south of the equator at the northern extremity of an area known for the frequent occurrence of tropical cyclones with damaging winds, rains and storm surge between the months of October and May. In the South Pacific region from the equator to New Zealand in latitude and from Indonesia to east of Hawaii in longitude, almost 1,000 tropical cyclones with hurricane-force winds spawned in the last 60 years, with an average of about 16 tropical storms per year. Tuvalu was affected by damaging cyclones multiple times in the last few decades. For example, in 1997 alone, Tuvalu was devastated by three tropical cyclones: Gavin, Hina, and Keli. Tropical cyclone Bebe in 1972 was one of Tuvalu's worst disasters in recent history and reportedly caused six fatalities. Figure 4 shows the levels of wind speed due to tropical cyclones that have about a 40% chance to be exceeded at least once in the next 50 years (100-year mean return period). These wind speeds, if they were to occur, are capable of generating moderate to severe damage to buildings, infrastructure and crops with consequent significant economic losses.

Tuvalu is situated in a relatively quiet seismic area but is surrounded by the Pacific "ring of fire," which aligns with the boundaries of the tectonic plates. These tectonic plate boundaries are extremely active seismic zones capable of generating large earthquakes and, in some cases, major tsunamis that can travel great distances. No significant earthquakes have been observed in recent history. However, in 1899, a large earthquake off the eastern coast of New Ireland, Papua New Guinea generated a large tsunami that

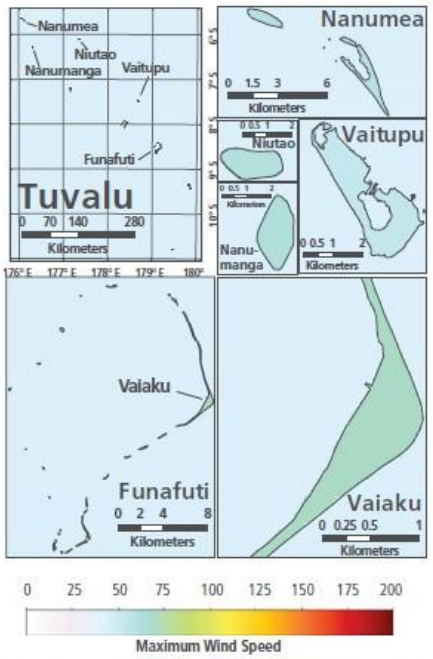
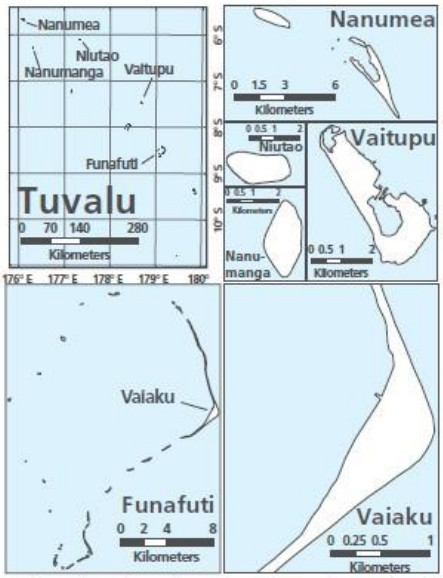


Figure 4: Maximum 1-minute sustained wind speed (in miles per hour) with a 40% chance to be exceeded at least once in the next 50 years (100-year mean return period).



Perceived Shaking	Not Felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
Potential Damage	none	none	none	Very light	light	Moderate	Moderate/ Heavy	Heavy	Very Heavy
Peak ACC. (%g)	<0.17	0.17-1.4	1.4-4.0	4.0-9	9-17	17-32	32-61	61-114	>114
Peak Vel. (cm/s)	<0.12	0.12-1.1	1.1-3.4	3.4-8	8-16	16-31	31-59	59-115	>115
Instrumental Intensity	I	II-III	IV	V	VI	VII	VIII	IX	X

Scale based upon Wald. et al: 1999

Figure 5: Peak horizontal acceleration of the ground (Note: 1g is equal to the acceleration of gravity) that has about a 40% chance to be exceeded at least once in the next 50 years (100-year mean return period).

resulted in destructive waves at Nukufetau atoll. Figure 5 shows that Tuvalu has a 40% chance in the next 50 years of experiencing, at least once, extremely weak levels of ground shaking. These levels of shaking are not expected to cause damage to well-engineered buildings and infrastructure assets.

RISK ANALYSIS RESULTS

To estimate the risk profile for Tuvalu posed by tropical cyclones and earthquakes, a simulation model of potential storms and earthquakes that may affect the country in the future was constructed. This model, based on historical data, simulates more than 400,000 tropical cyclones and about 7.6 million earthquakes, grouped in 10,000 potential realizations of the next year's activity in the entire Pacific Basin. The catalog of simulated earthquakes also includes large magnitude events in South and North America, Japan and the Philippines, which could generate tsunamis that may affect Tuvalu's shores.

The country's earthquake and tropical cyclone risk profiles are derived from an estimation of the direct losses to buildings, infrastructure assets and major crops caused by all the simulated potential future events. The direct losses include the cost of repairing or replacing the damaged assets but do not include other losses such as contents losses, business interruption losses and losses to primary industries other than agriculture. The direct losses for tropical cyclones are caused by wind and flooding due to rain and storm surge, while for earthquakes they are caused by ground shaking and tsunami inundation. After assessing the cost of repairing or rebuilding the damaged assets due to the impact of all the simulated potential future events, it is possible to estimate in a probabilistic sense the severity of losses for future catastrophes.

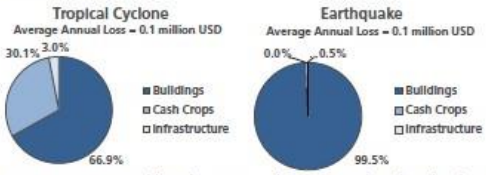


Figure 6: Average annual loss due to tropical cyclones and earthquakes (ground shaking and tsunami) and its contribution from the three types of assets.

The simulations of possible next-year tropical cyclone and earthquake activity show that some years will see no storms or earthquakes affecting Tuvalu, while other years may see one or more events affecting the islands, similar to what has happened historically. The annual losses averaged over the many realizations of next-year activity are shown in Figure 6 separately for tropical cyclone and for earthquake and tsunami, while the contributions to the average annual loss from the different islands are displayed in absolute terms in Figure 7 and normalized by the total asset values in each island in Figure 8. Figure 8 shows how the relative risk varies by island across the country.

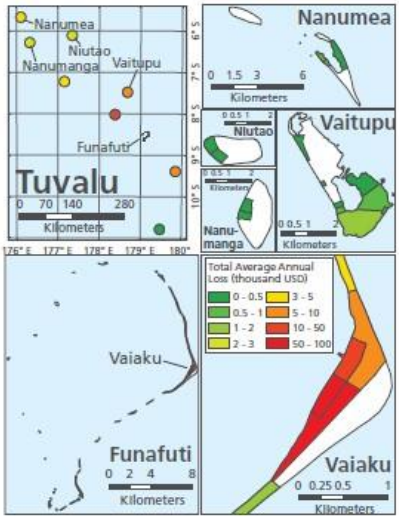


Figure 7: Contribution from the different islands to the average annual loss for tropical cyclone and earthquake (ground shaking and tsunami).

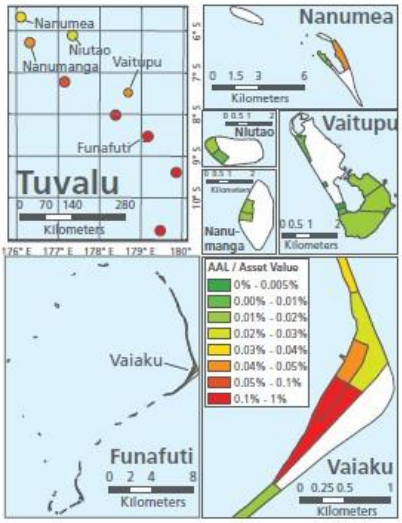


Figure 8: Contribution from the different islands to the tropical cyclone and earthquake (ground shaking and tsunami) average annual loss divided by the replacement cost of the assets in each island.

The same risk assessment carried out for Tuvalu was also performed for the 14 other Pacific Island countries. The values of the average annual loss of Tuvalu and of the other 14 countries are compared in Figure 9.

In addition to estimating average risk per calendar year, another way of assessing risk is to examine large and rather infrequent, but possible, future tropical cyclone and earthquake losses. Table 2 summarizes the risk profile for Tuvalu in terms of both direct losses and emergency losses. The

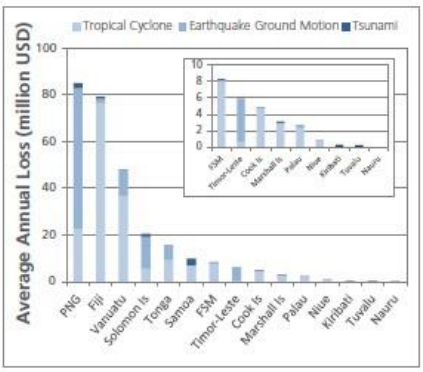


Figure 9: Average annual loss for all the 15 Pacific Island Countries considered in this study.

former are the expenditures needed to repair or replace the damaged assets while the latter are the expenditures that the Tuvaluan government may need to incur in the aftermath of a natural catastrophe to provide necessary relief and conduct activities such as debris removal, setting up shelters for homeless or supplying medicine and food. The emergency losses are estimated as a percentage of the direct losses.

Table 2 includes the losses that are expected to be exceeded, on average, once every 50, 100, and 250 years. For example, a ***tropical cyclone loss exceeding 1.4 million USD, which is equivalent to about 4% of Tuvalu's GDP, is to be expected, on average, once every 100 years.*** In Tuvalu, tropical cyclone and earthquake losses are comparable. Earthquake losses caused by tsunamis are more frequent and severe than losses due to earthquake ground shaking.

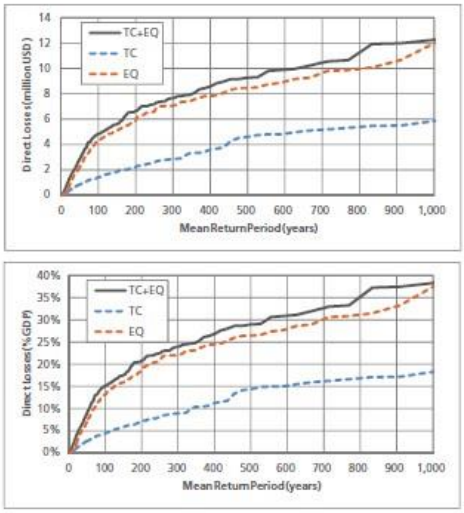


Figure 10: Direct losses caused by either tropical storms or earthquakes that are expected to be equaled or exceeded, on average, once in the time period indicated. Losses represented in absolute terms and normalized by GDP.

A more complete picture of the risk can be found in Figure 10, which shows the mean return period of direct losses in million USD generated by earthquake, tsunami and tropical cyclones combined. The 50-, 100-, and 250-year mean return period losses in Table 2 can also be determined from the curves in this figure. The direct losses are expressed both in absolute terms and as a percent of the national GDP.

In addition to causing damage and losses to the built environment and crops, future earthquakes and tropical cyclones will also have an impact on population. The same probabilistic procedure described above for losses has been adopted to estimate the likelihood that different levels of casualties (i.e., fatalities and injuries) may result from the future occurrence of these events. As shown in Table 2, our model estimates, for example, that there is a ***40% chance in the next fifty years (100-year mean return period) that one or more events in a calendar year will cause casualties exceeding 20 people in Tuvalu***. Events causing 50 or more casualties are also possible but have much lower likelihood of occurring.

TABLE 2: Estimated Losses and Casualties Caused by Natural Perils

Mean Return Period (years)	AAL	50	100	250
Risk Profile: Tropical Cyclone				
Direct Losses				
(Million USD)	0.1	0.8	1.4	2.6
(% GDP)	0.2%	2.7%	4.4%	8.1%
Emergency Losses				
(Million USD)	0.0	0.2	0.3	0.6
(% of total government expenditures)	0.0%	0.5%	0.7%	1.4%
Casualties	1	10	16	29
Risk Profile: Earthquake and Tsunami				
Direct Losses				
(Million USD)	0.2	2.2	4.2	6.6
(% GDP)	0.5%	7.0%	13.1%	20.6%
Emergency Losses				
(Million USD)	0.0	0.5	1.0	1.5
(% of total government expenditures)	0.0%	1.2%	2.3%	3.5%
Casualties	0	0	4	17
Risk Profile: Tropical Cyclone, Earthquake, and Tsunami				
Direct Losses				
(Million USD)	0.2	2.8	4.8	7.2
(% GDP)	0.8%	8.9%	15.1%	22.5%
Emergency Losses				
(Million USD)	0.1	0.7	1.1	1.7
(% of total government expenditures)	0.1%	1.5%	2.6%	3.9%
Casualties	1	13	20	32

[1]Casualties include fatalities and injuries.

APPLICATIONS

The country risk profiles can support multiple applications that benefit both public and private stakeholders. In ***urban and development planning,*** planners can use the risk profile information to identify the best location of new development areas, evaluate how natural hazards may shape their development, and to assess whether the benefits of reducing the risk of natural events justify the costs of implementing the risk mitigating measures. In addition, the risk profiles can inform the development of ***disaster risk financing and insurance solutions*** and ***ex ante budget planning*** options to increase the financial resilience of the countries against natural disasters while maintaining their fiscal balance. The earthquake and tropical cyclone hazard models also provide critical information for building codes in terms of country-specific seismic and wind loads that buildings should be designed for to ensure adequate shelter to the population. The risk information can also help identify existing vulnerable areas and communities located in or adjacent to these areas. This information can assist in supporting more targeted intervention in ***community-based disaster risk management and climate change adaptation*** actions. In the occurrence of a natural disaster the database also provides extremely useful baseline data and information for conducting timely and effective ***post-disaster damage assessments***.

SPC Secretariat of the Pacific Community
Applied Geoscience and Technology Division (SOPAC)

THE WORLD BANK

ADB

GFDRR
Global Facility for Disaster Reduction and Recovery

AIR WORLDWIDE

GNS SCIENCE TE PŪ AO

For information please visit
http://pacrisk.sopac.org/
or contact pcrafi@sopac.org

(f) Climate Change and Disaster Survival Fund Act

Tuvalu

CLIMATE CHANGE AND DISASTER SURVIVAL FUND ACT 2015

Tuvalu

CLIMATE CHANGE AND DISASTER SURVIVAL FUND ACT 2015

Arrangement of Sections

Section

Tuvalu

CLIMATE CHANGE AND DISASTER SURVIVAL FUND ACT 2015

Act No.11 of 2016

AN ACT TO PROVIDE FOR THE SECURITY OF THE PEOPLE OF TUVALU AGAINST THE IMPACTS OF CLIMATE CHANGE AND NATURAL DISASTERS

Commencement [1st January, 2016]

1 Short Title

This Act may be cited as the Climate Change and Disaster Survival Fund Act 2015.

2 Commencement

This Act shall come into force on such date as the Minister by notice appoints.

3 Purpose of Act

The purpose of this Act is to legalize the establishment of the Tuvalu Climate Change and Survival Fund with which the Government will provide vital services to the people, and as a measure of response to future climate change impacts and disasters in Tuvalu.

4 Interpretation

In this Act, unless the context otherwise requires:

"Act" means the Climate Change and Disaster Survival Fund Act 2015

"Account" means the Climate Change and Disaster Survival Fund Account established under Section 12.

"Board" means the Climate Change and Survival Fund Board established under Section 8.

"Climate Change" means a change of climate, which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.

"Committee" means the Climate Change and Survival Fund Committee established under Section 10.

"Minister" means the Minister for the time being responsible for Climate Change

"Natural Disaster" means the actual or imminent occurrence of an event which endangers or threatens the safety or health of any communities or persons in Tuvalu, or which destroys or damages, any property in Tuvalu, arising from:

(a) a cyclone;

(b) a flood;

(c) tsunami;

(d) a drought;

(e) an air disaster;

(f) a maritime disaster;

(g) a major civil accident (such as major fire or explosion);

(h) a plague or epidemic; or

(i) any other similar natural or man-made event,

5 Scope of Application

(1) This Act shall apply to the Government in providing financial assistance to its citizens to adapt, recover or rehabilitate them from the devastating impacts of climate change and natural disasters.

(2) The Minister responsible for Climate Change shall have the responsibility over the proper administration of this Act.

(3) Where any provision of this Act conflicts with climate change and natural disaster conventions, the application of which is mandatory on Tuvalu, those conventions shall prevail but in all other respects, climate change and natural disaster issues shall be governed by the provisions of this Act and any other relevant laws that are in place.

PART II - ESTABLISHMENT AND OBJECTIVES OF THE FUND

6 Establishment

There is hereby established a Climate Change and Disaster Survival Fund, which shall have an account, accredited as the Tuvalu Survival Fund account at the National Bank of Tuvalu for the purposes specified under this Act.

7 Objective

The objective of the Tuvalu Survival Fund is to:

(1) Provide immediate vital services to the people of Tuvalu in combating the devastating impact of climate change and natural disasters;

(2) Allow the Government and the people of Tuvalu to respond to future climate change impacts and natural disasters in a coordinated, effective and timely manner.

PART III - TUVALU CLIMATE CHANGE AND DISASTER SURVIVAL FUND BOARD AND COMMITTEE

8 Board

(1) There shall be a Board for the Fund which –

(a) is the governing body of the Fund with authority in the name of the Fund to perform and exercise the functions and powers of the Fund under this Act, and

(b) shall subject to this Act, be responsible for the policy, control and strategic direction and regulation of the Fund.

(2) Constitution of the Board

(a) Minister for Finance and Economic Development (Chairperson);

(b) General Secretary of Tuvalu Red Cross; and

(c) Permanent Secretary for Ministry of Home Affairs.

9 Functions and Powers of Board

(1) The Board shall be the governing body in granting approval to Assessment Reports that are submitted by the Committee for its consideration.

(2) If the Board does not approve the recommendations or suggestions of the Committee, it shall within 7 days of its decision provide in writing the reasons for such decision.

(3) The Board shall also submit a financial report to Cabinet on the utilization of the Fund on an annual basis.

10 Committee

(1) There is hereby established a Climate Change and Disaster Survival Fund Committee who shall be appointed by the Minister responsible for Climate Change after consultations with Cabinet.

(2) The Committee shall be comprised of the following:

(a) Secretary to Government (Chairperson)

(b) Director of Climate Change and Policy Unit

(c) Tuvalu National Council of Women

(d) Director of Public Works Department

(e) Disaster Coordinator

(f) Director of Rural Development

(g) Director of Health

(h) Director of Planning and Budget

(i) Attorney-General

11 Functions and Powers of Committee

(1) The Committee shall have the following functions and powers:

(a) Assess every application for 'Request for Assistance'

(b) Formulate a Strategic Framework on Climate Change and Natural Disaster to serve as the basis in carrying out assessments and evaluation of damages to properties, which shall include the rate for payouts depending on the severity of the damages to properties.

(c) Assess impacts on biodiversity and ecosystems and social wellbeing

(d) The Committee shall after assessing every application for 'Request for Assistance', submit an Assessment Report to the Board for approval, which shall include the expected payout amount.

(e) The Committee shall submit to the National Advisory Council on Climate Change (NACCC), Natural Disaster Committee (NDC) and Cabinet a financial report on the utilization of the Fund on an annual basis.

PART III - MANAGEMENT AND OPERATIONS OF THE FUND

12 The management and operation of the Fund shall be as follows:

(1) A bank account shall be created at the National Bank of Tuvalu namely the Tuvalu Survival Fund Account and shall be managed by 3 Trustees who shall be members of the Board.

(2) The Government shall contribute an initial amount of $5 million AUD into the Fund and will consider future contributions as and when it is necessary.

(3) Donations to assist Tuvalu in its recovery from Tropical Cyclone PAM including any funding from under the Global Environmental Facility (GEF), Adaptation Fund, Green Climate Fund (GCF) shall be channelled through the Tuvalu Climate Change and Disaster Survival Fund.

(4) The fund may be augmented by grants through Multilateral Environmental Agreements, Bilateral contributions, and donations from foreign governments, foreign organisations, Tuvaluan communities and other individual donations.

(5) All funds specified in subsection (2) and (4) shall not be used to fund personal services, expenditures and other operating expenses of the Committee or the Board.

(6) The balance of the climate change and disaster survival fund shall not revert to the general account.

13 Eligibility to use Fund

(1) The Fund shall be utilised to provide for the following:

(a) Support activities of response to the impacts of natural disasters or which a declaration of a 'state of emergency' has been declared in accordance with the laws of Tuvalu.

(b) Help ensure security to the people of Tuvalu against climate change and natural disasters by providing financial assistance in order to:

(i) Provide immediate emergency relief in times of natural disasters;

(ii) Assist the people to recover and adapt to adverse impacts of climate change;

(iii) Assist the people to build back and rehabilitate;

(iv) Enhance resilience and protection against climate change and natural disasters;

14 Access to Fund

Citizens of Tuvalu affected by the impacts of climate change and natural disasters shall have access to the Fund through submission of a 'Request for Assistance'.

PART IV - FINANCIAL PROVISIONS

15 Accounts and Audit

(1) The Ministry for Finance and Economic Development shall administer the Tuvalu Survival Fund Account and the Minister for Finance and Economic Development being the Chair of the Board shall be the accounting officer.

(2) Within a period of six months in a financial year, the Minister for Finance and Economic Development shall transmit to the Auditor-General the account showing fully the financial position of the Climate Change and Disaster Survival Fund.

16 Report on audit

(1) The Auditor General shall prepare a report on the audit conducted under section 16 including any observations or suggestions that require attention for the enhanced management of the account.

(2) The audit report shall be presented in Parliament for its consideration.

PART V - MISCELLANEOUS

17 Regulations

The Minister may make regulations not inconsistent with this Act prescribing all matters that are required or permitted by this Act to be prescribed in the regulations or that are necessary to be prescribed giving effect to this Act.

18 Immunity

No civil or criminal action shall lie against the Minister or any person appointed pursuant to this Act with respect to anything done or omitted to be done by him in pursuance or intended pursuance of the powers or functions conferred on him under this Act unless he has acted, or omitted to act, in bad faith and without reasonable cause.

(g) Government request for direct implementation

TUVALU GOVERNMENT

PRIME MINISTER

4 February, 2016

Ms. Osnat Lubrani
UN Resident Coordinator and UNDP Resident Representative
Level 8, Kadavu House Building
414 Victoria Parade, Private Mailbag, Suva

Subject: Implementation modality for the proposed Green Climate Fund "Tuvalu Coastal Adaptation Project".

As the National Designated Authority, I am requesting UNDP that the proposed GCF project "Tuvalu Coastal Adaptation Project" is implemented as per UNDP's Direct Implementation Modality (DIM). The project aims to reduce the vulnerability of Tuvalu's coastal areas in three targeted islands through the construction of locally-appropriate coastal defense.

Ideally, the project would be implemented by the Climate Change Unit, which was established to oversee all climate change actions in the country. However, this Unit was established only in 2015 and still requires building its capacity gradually for implementing and/or overseeing large-scale projects. The proposed GCF project has an expected budget of over US$30 million, nearly half of the Government's annual budget, and DIM is considered a suitable modality to ensure timely delivery of the project's intended results in a high-quality manner. We expect that during the implementation period, the Government will have an opportunity to build its capacities to manage projects of such scale in future.

I am also requesting UNDP that the project is implemented in a collaborative manner between the Government of Tuvalu and UNDP. We have established a strong partnership over the implementation of various climate change adaptation projects in the last five years and I wish the spirit of this partnership is fully reflected in the implementation of the proposed GCF project.

Warm regards,

Enele Sopoaga,
Prime Minister of Tuvalu
The National Designated Authority to GCF

(h) Information on the Grants Provided in the Project

Two types of grants will be used in the project. First is in relation to the scholarship program that is intended to build the required long-term capacity locally for sustainable and climate resilient coastal protection. Of US$990,000 that is earmarked as grants under Project Output 1, the tuition fee for the programme will be directly paid from the Ministry of Education to the host institution, which will be invited as a Responsible Party for this scholarship program. Transfer of cash to the beneficiaries will be limited to living expenses that will be paid as per the Government of Tuvalu In-Service Training and Scholarship Policy (2015). This policy spells out, among other things, the process for the selection of students. But for the managementof the scholarship in this GCF project, additional criteria will be added including, as described in the main Funding Proposal, the commitment of the student to come back to Tuvalu after the study and work in a climate change adaptation initiative. The selection will be jointly made by representatives from UNDP and the Government.

The use of the grants will be reported in the regular GCF project reporting tools, but also as part of the Government regular reporting, the Ministry of Finance and Economic Development prepares an annual report.

The Policy is included in Section K below.

Second type of grant is a performance-based fiscal transfer for island administrations. US$411,498 has been earmarked for this purpose with the assumption that a performance-based grant of up to $8,500 per island per year[26]. This grant aims at promoting not only climate risk mainstreaming, but also basic accountability, transparency, and gender-participation into the Island Strategic Planning process by providing an incentive to kaupules *(island councils). It is thereby complementary to the existing ISP process and the sub-national fiscal transfer (such as SDE and FTF) that finance the execution of the ISP.*

The grant, once the kaupule *is proven to meet the performance-based allocation criteria, will be channeled from UNDP to the National Treasury before it is transferred to each* kaupule*. This follows the same process as the existing sub-national fiscal transfer (SDE and FTF).*

The approval of the performance-based grant will be done by a committee that will comprise Government staff members from the Ministry of Home Affairs, Tuvalu Council of Women and the Project Management Unit (the actual membership will be confirmed during the inception phase of the project) based on the criteria that are made public. The criteria will include the following:

1) Equal participation of different interest groups including women and youth during the planning stage;
2) Result-orientation of the ISP;
3) ISP budgeting based on available resource constraints, and;
4) Execution as per the ISP;
5) Accountability framework.

Performance against these criteria will be objectively scored by the committee throughout the year, and the results of the assessment will be fully made public. In general, the assessment of performance will be conducted as follows:

[26] The actual value is subject to the formula that will be agreed upon.

- *Kaupule*'s performance is reviewed by a combination of field-assessments and review of available information from expenditure reports, audit reports, etc.
- Members of the said committee make the assessment that can be combined with the mid- year budget review of each year.
- Following the assessment recommendations are made to the decision making authority for endorsement
- The sequence of the introduction of the performance-based grant and its allocation system is as follows:
  (1) Finalisation of the draft performance measures and scoring system:
  (2) Baseline assessment of the performance on the indicators;
  (3) Subsequent finalisation of the indicators and scoring system;
  (4) Setting up of first fiscal year with the performance-based grant;
  (5) Assessment of the past performance providing input to the mid-year budget review;
  (6) Mid-year budget review – with implications for the remainder of the year;
  (7) Setting up of second fiscal year with allocations of the performance-based grant.

(i) Government of Tuvalu in-service training & scholarship policy

GOVERNMENT OF TUVALU
IN-SERVICE TRAINING & SCHOLARSHIP POLICY

Approved by Prime Minister
Effective 01 February, 2015
1

FOREWORD

TABLE OF CONTENTS

PREFACE

The development of Tuvalu"s most valuable natural asset, the people who constitute its human resources, has always been a national priority and is of vital importance for the future development of the nation. Within this broad objective the provision of tertiary education and training opportunities are open to all eligible citizens of Tuvalu.

Government recognizes that tertiary education not only improves Tuvalu's economic and social development by increasing the skill capacity of its workforce but that it promotes self-reliance among its people by reducing dependence on foreign technical assistance.

Being a small and relatively young country Tuvalu does not yet have the capacity to satisfy demand for post-secondary education and training. Consequently it continues to rely mainly on overseas institutions to provide tertiary and technical training, and on overseas governments for the funding of some of its students. Government is committed to providing scholarships through use of its own funds, and through the better use of foreign assistance. However, financial constraints will continue to limit the number of scholarship awards in a year.

Human resource is a valuable and scarce resource in Tuvalu which demands a very high level of proper and effective management. For this reason the following Policy has been compiled. It is intended that applying this policy will result in a fairer and more equitable system which will allow for the best opportunity for those who seek it and transparency and efficiency in the decision-making processes.

1 PRELIMINARY

1.1 This Policy should be read in conjunction with the Public Service Act,cap 97 and the General Administrative Orders (GAO).

1.2 This Policy applies to scholarship tenable overseas or locally that would lead to a formal academic qualification.

2 DEFINITION

2.1 The following words appeared in this policy document require to specifically define.

2.1.1 ***'In-service'*** means any person who is a permanent employee in the Tuvalu Civil Service, the Public and Private Sectors.

2.1.2 ***'Legal Dependent'*** means a lawfully wedded spouse and children of the awardee (includes step children and legally adopted children) under the age of 18 and is wholly dependent on the awardee.

2.1.3 ***'Long Term Training'*** refers to an approved course of training that is to be completed in more than 12 months.

2.1.4 ***'Maintenance allowance'*** refers to living allowance while on study.

2.1.5 ***'Private sector'*** refers to any entity that is engaged in a registered commercial venture other than government, corporation or non-government organisation.

2.1.6 ***'Public Sector'*** refers to any government agencies including Corporations and Non-Government Organisations.

2.1.7 ***'Public Service Advisory Committee'*** means the PSAC established under section 6 of the Public Service Act, (hereinafter refer to as "PSAC").

2.1.8 ***'Scholarship'*** means an award by the Minister under section 11.1.2 of the General Administrative Orders made under s.7 of the Public Service Act.

2.1.9 ***'Serious illness'*** refers to an illness that may affect the awardees study subject to confirm medical report from the recognised doctor.

2.1.10 ***'Short Term Training'*** refers to an approved course of training that must be completed in 12 months or less.

2.1.11 ***'Temporary'*** refers to officers who are not permanently employed.

2.1.12 ***'Tertiary'*** refers to institutions other than secondary schools

3 OBJECTIVES

3.1 The objectives of this Training and Scholarship Policy are:

3.1.1 to provide training opportunities to improve and increase the skill capability of the Tuvalu workforce in the government, public and private sectors;

3.1.2 to ensure that the public service or employment in general in Tuvalu is staffed with suitably qualified persons;

3.1.3 to promote self reliance by reducing dependence on foreign workers;

3.1.4 to provide a fair and non-bias selection based on merits and without discrimination; and

3.1.5 to improve the administration of approved scholarships.

4 AUTHORITY TO AWARD SCHOLARSHIPS

4.1 The Cabinet of Tuvalu may approve the number and types of scholarships to be offered on a yearly basis.

4.2 The Cabinet may take into consideration the views and recommendations of the PSAC at any time it considers sub paragraph **4.1**

4.3 The final endorsement of the recommended candidates (see 4.2) to fill the scholarship awards shall be that of the Prime Minister whom also the Minister for In-Service.

5 PUBLIC SERVICE ADVISORY COMMITTEE (PSAC)

5.1 The members of the Public Service Advisory Committee (PSAC) shall be appointed by the Minister responsible for in-service training.

5.2 The Public Service Advisory Committee (PSAC) shall comprises of a chairman and other two to four members either from the public servants or outside the public service as specified under section 6 sub section 3 of the Public Service Act.

5.3 The Training Officer for In-service shall be present in the PSAC meeting as Secretariat.

5.4 The PSAC shall meet only for training selection purposes..

5.5 The quorum is two thirds of the total membership of the Committee.

5.6 A member has one vote but the Chairman has an additional vote if the votes are equal.

6 AWARDS OFFERED

6.1 This policy applies to approve scholarships tenable for both short and long term trainings.

6.2 The allocation and processing of training awards of 12 months or less remain with each ministry, department, or office in collaboration with the Personnel and Training Department.

6.3 Training awards of 12 months or less are subject to the scrutiny of the PSAC.

6.4 Upgrading of senior common cadre officers are to be considered by the Secretary to Government after consultation with the Development Coordinating Committee (DCC).

7 ELIGIBILITY CRITERIA

An applicant for **a** scholarship must satisfy all the eligibility criteria listed in sub paragraphs 7.1-7.3 in order to be considered for a scholarship.

7.1 General Eligibility Criteria

7.1.1 must be a Tuvalu citizen;

7.1.2 must have resided in Tuvalu for at least three (3) consecutive years prior **to** the time of lodging their application;

7.1.3 must satisfy immigration requirement for the country of study;

7.1.4 must be medically fit (provide detail medical report from Director of Health;

7.1.5 must provide a clear police record;

7.1.6 A person who has had a scholarship for which this policy applies and had completed her/his course of study is not eligible to apply for a scholarship until two years have lapsed following completion of her/his previous course of study;

7.1.7 must be able to complete his/her course of study within the time allocated;

7.1.8 Any student expelled or terminated from any institution for whatever reasons (poor performance, disciplinary matters, and serious offence) will not be eligible for any award within the next three years.

7.2 Criteria for In-Service Scholarship

7.2.1 An applicant must be a permanent employee in the government, public and private sector and have worked at that current position for a minimum of three years;

7.2.2 Must meet the minimum entry requirement of the tertiary institution;

7.2.3 Applicants for under graduate courses or programs must be below the age of 40 Years;

7.2.4 Applicants for post graduate courses or programs must be below the age of 50 years.

7.2.5 Tuvalu Government will not provide funding for Phd programs. Applicants for Phd Programs, who have secured funding from other donors, need to get the approval from the government; and

7.2.6 Must fall within the definition for „in-service" as stated in clause 2.1.3.

8 THE NUMBER AND TYPE OF AWARDS

The PSAC will consider submissions from Ministries and make recommendation on the number and type of scholarship to be offered in a year, based on current and future manpower needs of the government and on the level of funding available, including donor funding, and to be submitted to Cabinet for endorsement.

8.1 The general principle guiding the allocation of scholarships between pre-service and in-service scholarships will be 60% for pre-service and 40% for in-service from which 10% should cater for the requirements of the public and *private sectors*.

8.2 The allocation of scholarships as in 8.1 shall be subject to the budget provision to be decided by Cabinet.

8.3 Once Cabinet has approved the number and type of scholarships, the responsibility to assess and recommend the suitability of candidates to fill those scholarships will be that of the PSAC.

9 TIMETABLE FOR CONSIDERATION OF IN-SERVICE SCHOLARSHIP

9.1 Submissions for In-service scholarships

9.1.1 The Secretary for Personnel and Training must not later than 1 March each year, send an invitation to every Ministry to submit to the Personnel & Training Department by the 31 March of the same year, their training requirement for the next academic year.

9.2 Applications for In-service Scholarships

9.2.1 All serving officers wishing to apply for in-service scholarships must apply through their respective Ministries and have the support of the ministry concerned. All

training requirements must be submitted to the Secretary for Personnel & Training (Office of the Prime Minister) by March 31 in the year immediately prior to the year of course commencement.

9.2.2 Selection and approval for in-service scholarship shall be made by the 10 July each year.

10 LATE APPLICATIONS

Late applications will not be accepted.

11 SELECTION PROCESS FOR IN-SERVICE SCHOLARSHIPS

The Ministry concerned must have the approval of the responsible Minister on their training requirements prior to their submission to the Secretary for Personnel & Training.

11.1 Awards will be made on the basis of:

11.1.1 Submissions of required documents by the applicants such as copies of certified transcripts and certificate, birth certificates and medical report;

11.1.2 Upgrading the skills of employees in the public and private sectors as determined by the PSAC;

11.1.3 Past academic performance, working experience and aptitude of the applicant; and

11.1.4 Permanent Secretaries of line Ministries and successful candidates will be notified of their awards by the Personnel & Training Department.

12 APPEALS PROCEDURES

Any person aggrieved by a decision of the PSAC must, in the first instance, appeal to the Minister for In-service. The appeal must be made in writing within 2 weeks of receipt of the decision in question. The decision of the Minister shall be final.

13 TERTIARY AWARDS ENTITLEMENTS

Tuvalu Government-sponsored scholarship awardees for tertiary training will be entitled to receive the following benefits:-

13.1 Domestic Travel

13.1.1 Each Ministry is responsible to bring its in-service awardees from the islands to Funafuti and vice versa.

13.1.2 The awardee is entitled to:

13.1.3 When in Funafuti:

(a) one paid trip from the wharf to his or her place of residence and vice versa; and/or

(b) one paid trip from his place of residence in Funafuti to the air port and vice versa.

13.2 International Travel

13.2.1 International air travel is by economy class at the most direct route:

(a) to the country of study at the beginning of the award and to Tuvalu at the end of the award; and

(b) to the country of study and to Tuvalu during Christmas holidays awardees.

13.2.2 The government must provide the student with per diem at approved rates during unavoidable stopover in transit between Tuvalu and the country of study.

13.2.3 The stopover transit is at the approved rate given in the Appendix 1 attached.

13.2.4 An awardee who successfully completes his/her course of study within the approved time frame, and immediately upon successful completion of that course returns to Tuvalu, is entitled to AU$400 of accompanied baggage allowance from his/her place of study to Tuvalu.

(a) An awardee who completes his/her course of study after the approved timeframe will be entitled to AU$300 of accompanied baggage allowance from his/her place of study to Tuvalu.

(b) Awardee terminated after their first year will receive AU$150 accompanied baggage allowance from his/her place of study to Tuvalu.

(c) Awardee terminated in their first year will not receive any accompanied baggage allowance.

13.2.5 An awardee who wish to take up his/her annual leave straight after completion of training must submit a request to the Secretary to Government through the Secretary of the Ministry concern not less than 6 weeks prior to the end of the course. Upon approval the awardee will not be entitled to receive any allowances for the period of leave except for leave entitlements as an employee.

13.2.6 An awardee may decide to travel to Fiji from Tuvalu or vice versa by boat but may

only do so if approved by the government. An awardee who is granted permission to travel by boat is entitled to saloon class.

13.2.7 In the sense that an awardee is accompanied by his/her dependants on study he/she is personally responsible for:

(a) arranging and paying the fares or associated costs for his/her accompanying family members to and from the country of study;

(b) any other cost incurred by his/her family „during the course of study" that is not the responsibility of the government under this policy or a cost for which the awardee is not entitled to under this policy.

13.2.8 An awardee shall return home for holiday at end of every academic year and will not be paid allowance once he or she leaves the country of study.

13.2.9 An awardee must get an approval from the government if he/she wants to spend a holiday in a country other than Tuvalu.

13.3 Establishment and Maintenance Allowance

An awardee is entitled to the following:

13.3.1 A one-off establishment allowance at the approved government rate is payable to the awardee only at the beginning of the award prior to departure;

13.3.2 Maintenance allowances as approved by the government.

13.3.3 A 100% of accompanied maintenance allowance when accompanied by any number of his or her legal dependants at the approved rates of the country of study provided if the awardee spouse is a civil servant and opt to accompany the spouse, he or she must resign from the civil servant.

13.4 The Government of Tuvalu will meet fares of students where it is necessary to do their research in Tuvalu (or other countries) only if it is a compulsory requirement of the student"s prescribed course of study.

13.5 The Government of Tuvalu will meet research costs and practical entitlement at the approved rate when undertaking practical or research.

13.6 Health coverage

The Government will meet the following costs for the awardee with the production of receipts from the recommended medical centre recognised by the government.

13.6.1 minimum health care services that may include:-

(a)doctors and specialist"s fees;

(b) 75% of physical exam fees, including x-rays, blood & urine test, etc;

(c)emergency ambulance transport;

(d)75% of costs for services and medicines provided in public hospital, including surgery & specialized medical treatment (excluding cosmetic surgery); and

(e) 50% of cost for services & medicines provided outside of public hospital.

13.6.2 Where the host country or institution requires that the student has health insurance coverage, then the Government will meet the minimum cost necessary for that student to fulfil that requirement.

13.6.3 An awardee who is required by the host country or institution to maintain a health insurance coverage, that student"s health entitlements will be limited to services provided for under the health insurance scheme.

13.6.4 The Ministry of Health shall approve specialized treatment including surgery upon receipt of a recommendation from the awardees" school doctor. The Ministry of Health shall also decide whether such treatment should be financed under the Medical Treatment Scheme.

13.6.5 It is the student"s responsibility to meet all other costs, including:

(a)dental & optical services, including dental and optical surgery;

(b)cost of prescribed medicine;

(c)25% of physical exam fees, including X-rays, blood & urine test, etc;

(d)25% of cost for services and medicine provided in public hospital, including surgery & specialised medical treatment;

(e)50% of costs for services and medicine provided outside of public hospital; and

(f) any costs associated with the student"s dependants.

13.7 Others

13.7.1 The government shall cover costs of academic (tuition), health coverage for students practical, research and field trips (within country of study) essential for training programmes, special tutorial assistance and other compulsory fees where appropriate.

13.7.2 The government shall pay for the costs involved if a student undertakes a compulsory fieldtrip, practical or research in a country other than the country of study only if the student produces to the government confirmation from the Institution that it is a must for him/her to undergo that fieldtrip, practical or research in another country.

13.7.3 Paragraph 13.6.1 only applies to government funded students and except for paragraph 13.6.2, will not in any circumstance apply to a student who is fully funded by another donor even if that donor declines to fund a compulsory fieldtrip, practical or research.

13.7.4 An awardee is entitled to a book allowance which will be paid directly to the student at the beginning of the semester at the approved rate of the government of Tuvalu.

13.7.5 An awardee is entitled to receive book allowances for both semesters only for institutions that runs their programs at the beginning of the year for 30 weeks.

14 OTHER SPONSORS AWARDEES

A Tuvalu government approved awardee whose scholarship is funded by another donor is not entitled to the benefits mentioned in clause 13 of this policy.

15 SALARIES OF IN-SERVICE SCHOLARSHIP AWARDEES

An in-service awardee will be entitled to receive 100% of his or her salary for the duration of his or her course of study.

16 PRE-DEPARTURE SEMINAR/ORIENTATION

16.1 An awardee must attend a two days pre-departure orientation seminar to be held on Funafuti in January.

16.2 It will be a condition of the award that all awardees must attend the two days of the orientation seminar.

16.3 The Personnel and Training Department shall organise the seminar and must ensure that the seminar covers important details of studying abroad that will assist the awardee in his/her preparation to studying abroad.

16.4 The organisers of the seminar may invite guest speakers they consider appropriate for the seminar.

17 TRAVEL ARRANGEMENTS

The Training Officer will arrange bookings for all in-service awardees. These travel arrangements will be scheduled in such a way as to ensure every first year awardee reaches his/her final destination at least 10 clear working days prior to institution orientation.Final year awardee is entitled to receive his/her allowance up to a maximum of 14 days from the date the institution officially closes for the academic year.

18 TERMINATION OF AWARDS

18.1 Each foreign donor will apply its own criteria for the early termination of funding of awards. Likewise, overseas academic institutions have their own procedures, which deal with suspension and expulsion.

18.2 Where a foreign donor terminates funding of an awardee"s scholarship, the government will automatically terminate the scholarship of that awardee.

18.3 The scholarship will be automatically terminated if:

(a)the awardee is convicted of a serious offence; or

(b)the awardee does not sit his/her exam(s) and has no valid reason for failing to sit the exam will have his award automatically terminated; or

(c) the awardee voluntarily quits his/her studies or alters the course of study that was initially approved at the time the scholarship was granted without prior approval from the government;

(d) the awardee is expelled from school or institution unless the awardee proves to the satisfaction of the Government that the grounds for the expulsion were wrongfully administered against her or him.

18.4(a) An awardee who fails to take the maximum number of units as required by the institutionper semester or per year, as applicable, which must be relevant to his/her course of study and as prescribed by the institution to maintain fulltime student status.

(b) Failure to pass 75% of the required number of units/subjects/credits every two semesters to maintain fulltime status.

18.5 Change of award is not allowed and will result in termination of award. A change of award includes upgrading or downgrading within a program, or a change of program.

18.6 A student who is suspended by an institution because of poor academic performance will have his or her award terminated automatically.

18.7 A student who during the course of his or her scholarship accepts citizenship of another country may have his or her award terminated.

18.8 Where an awardee opts to take up a partial funded scholarship and does not comply with the Training Department"s arrangements regarding his/her scholarship award, his/her scholarship award will be terminated.

18.9 An awardee whose award has been terminated is no longer eligible to study under the USP Tuition Waiver Scheme until three years have lapsed.

19 SPECIAL PROVISIONS

19.1 The award of the scholarship to a successful applicant will only take effect if the awardee signs a letter of acceptance declaring that he/she agrees to the terms and conditions of the award, and signs a bond as specified in Schedule 3 (regulation 5) of the 1979 Education Regulations (conditions of scholarships), Cap.38.

19.2 If the academic study course takes a shorter period than that shown in the Acceptance Offer letter and the Bond, the length of the scholarship will be shortened accordingly.

19.3 Under no circumstances will a person be granted a third scholarship where that person has failed to complete the previous two awards.

19.4 A PSAC member must not be involved in the selection process or committee deliberation on matters concerning an applicant who is a close relative (spouse, brother, sister, son and daughter) of that committee member.

19.5 Where a government in-service officer who rents a government house will be on training for a period of more than 12 months, that officer must give up possession of the house within 3 months of departure for studies unless his or her spouse is a permanent member of the civil service, is entitled to the same house and will not accompany the spouse for the duration of the spouse"s training program.

19.6 The number of scholarship awards for Assistant Secretaries, Senior Assistant Secretaries and Secretaries are determined by the DCC and approved by Cabinet.

19.7 An awardee must provide his/her academic results when requested by the Training Officers within the time specified in the request.

19.8 Failure to comply with the requirement in section 19.8 entitles the government to stop the student,,s entitlement under this policy.

19.9 An awardee who later satisfies the requirement of 19.8 would be granted entitlement under this policy but the awardee is not entitled to claim compensation for any loss suffered during that period.

20 SEMESTER EXTENSION

20.1 An extension of one semester only is not automatic but may be granted by the government in appropriate circumstances and only in the final semester of a student"s programme if the grant of the extension will guarantee the successful completion of the course.

20.2 A student who is granted a one semester extension will only given training entitlements for that semester extension.

20.3 A students on an approved semester extension who only need less than 50% of the units/subjects/credits required for full-time status, and where those courses can be taken through extension studies, those students shall return and complete their programs of study (i.e. one-semester extension) in Tuvalu. If the extension is taken through summer school attended in Tuvalu, the awardee should be paid a tuition-fee only.

20.4 A student who is fully or partially funded by another donor must notify and get the approval of the government if an extension is needed to complete his or her course

20.5 A student should submit an approval letter from institution regarding his/her extension stating the reason for seeking an extension and confirmation in writing that he/she will complete program within the semester extension.

20.6 Extension for an additional qualification is not accepted.

21 WITHDRAWAL OF UNIT (S) OR SUBJECT (S)

21.1 An awardee is not allowed to withdraw a unit or subject from any course without the approval of the Personnel & Training Department;

21.2 An awardee who wishes to withdraw any unit or subject, must provide a written application to the Training Officer justifying the reasons for the change.

22 DEFERRAL PERIOD FOR AN AWARD/SCHOLARSHIP

22.1 Deferral period for an award must be not more than a period of one year. Deferral is only accepted on these special grounds:

(a) Medical (including pregnancy);

(b) Compassionate/emotional hardship (death or serious illness of an immediate family member; in the case of the latter, a medical report is required to substantiate the state of illness);

22.2 In cases where an award has been approved by the GOT to be deferred, the awardees" entitlements under this policy are suspended until the end of the deferral period or until the student resumes studying.

22.3 An awardee who fails to take up studying at the end of the deferral period will have his/her scholarship terminated.

23 COMPASSIONATE LEAVE

23.1 Compassionate leave may be granted only on the ground of

(a)serious illness of the awardee;

(b) Serious illness or death of an immediate family member (restricted to parents, spouse and legal dependants).

23.2 In such a situation, the student will be responsible for payment of his/her airfares.

23.3 Compassionate leave can be allowed for 2 weeks only.

23.4 Where compassionate leave exceeded the two weeks the awardee should apply to defer his/her award as specified under section 22.

24 DEATH DURING THE COURSE OF STUDY

In the case where the awardee dies during the course of his/her study, the Government will bear the following costs:

(a) Associated costs such as mortuary charges, embalming, casket and transportation to the airport.
(b) Air freight of the deceased remains back to Tuvalu
(c) Airfare of one immediate family member to accompany the deceased to Tuvalu.

25 Special Tutorial Assistance

25.1 Special Tutorial Assistance may be provided to the awardee if it is determined by the institution that the awardee requires it in order to complete his /her course but it must not be used to assist in upgrading the awardee"s mark.

25.2 Special assistance is normally used for extra tutorial assistance (e.g supplementary computer training) or for other academic support that is beyond the scope of the institution"s normal academic support facilities. The support can be arranged on an individual basis or in-groups when a number of awardees are experiencing similar difficulties.

25.3 An awardee may receive supplementary tutorial assistance up to 2 hours per week for 5 weeks (at the rate of AUD$15 per hour when they have

(a) obtained prior approval from the Personnel & Training Department;

(b) fulfilled the current study requirements for their course;

(c) made full use of available institutional facilities; and

(d) the institution recommends that the support is essential for the awardee"s satisfactory progress.

26 FLEXI School

26.1 An awardee is not eligible to enroll through Distance Flexi course unless that course is compulsory and a prerequisite to the next level of units.

26.2 The Government will only reimburse flexi courses for the followings:

(a) Pre-requisites courses taken for the first time

(b) Any awardee who wish to complete the course of study earlier than the given period of study.

(c) upon production of the receipts and confirmation of passing the course.

26.3 Flexi courses taken to make up for failed courses will not be reimbursed.

26.4 Flexi courses taken outside the approved program will not be entertained.

27 SCHOLARSHIP BOND AGREEMENT

All students who have accepted a Government scholarship whether funded by Tuvalu or outside sponsors will be required to enter into a bond agreement with the Government binding the student to return and work in Tuvalu in the public or private sector for a fixed period of time. The form to be used for this purpose is in Annex I.

28 EFFECTIVE DATE

This revised Policy will be effective from **01st February, 2015.**

* * *

(j) Authorization Letter from the Minister of Natural Resources

GOVERNMENT OF TUVALU
MINISTRY OF NATURAL RESOURCES
Private Mail Bag, Funafuti, TUVALU, Tel (688) 20160; (688) 20836; (688) 20827

Authorizing Reclamation of Land on the Islands of Nanumea, Nanumaga and Funafuti

By the powers vested in me under section 4(1) of the Foreshore and Land Reclamation Act, I hereby authorize the reclamation of land over and upon the foreshore or the seabed on the islands of Nanumea, Nanumaga and Fuanfuti who will be beneficiaries of the Tuvalu Coastal Adaptation Project in partnership with the Green Climate Fund, irrespective of the ownership of land bordering on or of whether any land borders on such foreshore or seabed.

Made at Funafuti this 28th day of April 2016

Hon. Fauoa Maani
Acting Minister for Natural Resources