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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: <i>Outcome Area 1: Environmental management climate change and disaster risk management</i>	
UNDP Strategic Plan Output: <i>Output 1.4: Scaled up action on climate change adaptation and mitigation cross sectors which is funded and implemented.</i>	
UNDP Social and Environmental Screening Category: <i>Moderate</i>	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: FP015
Planned start date: 12 June 2017	Planned end date: 11 May 2024
LPAC date: 15 th February 2017	
Brief project description:	
<p>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</p>	

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

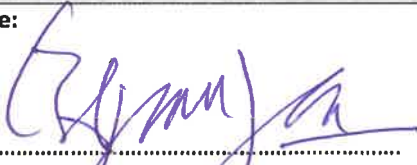

Building coastal resilience is an urgent national priority. The formulation of this project has been led at the highest political level by a Technical Working Group comprising key Government departments and NGO associations, representing vulnerable communities.

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:  Hon. Enele Sosene Sopoaga	Agreed by Government	Date/Month/Year: 14/6/2017
Signature: 	Agreed by Implementing Partner	Date/Month/Year:
Signature:  Ms. Osnat Lubrani	Agreed by UNDP	Date/Month/Year: 14.06.2017

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.

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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 km². 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 forces¹. 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 sectors², 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

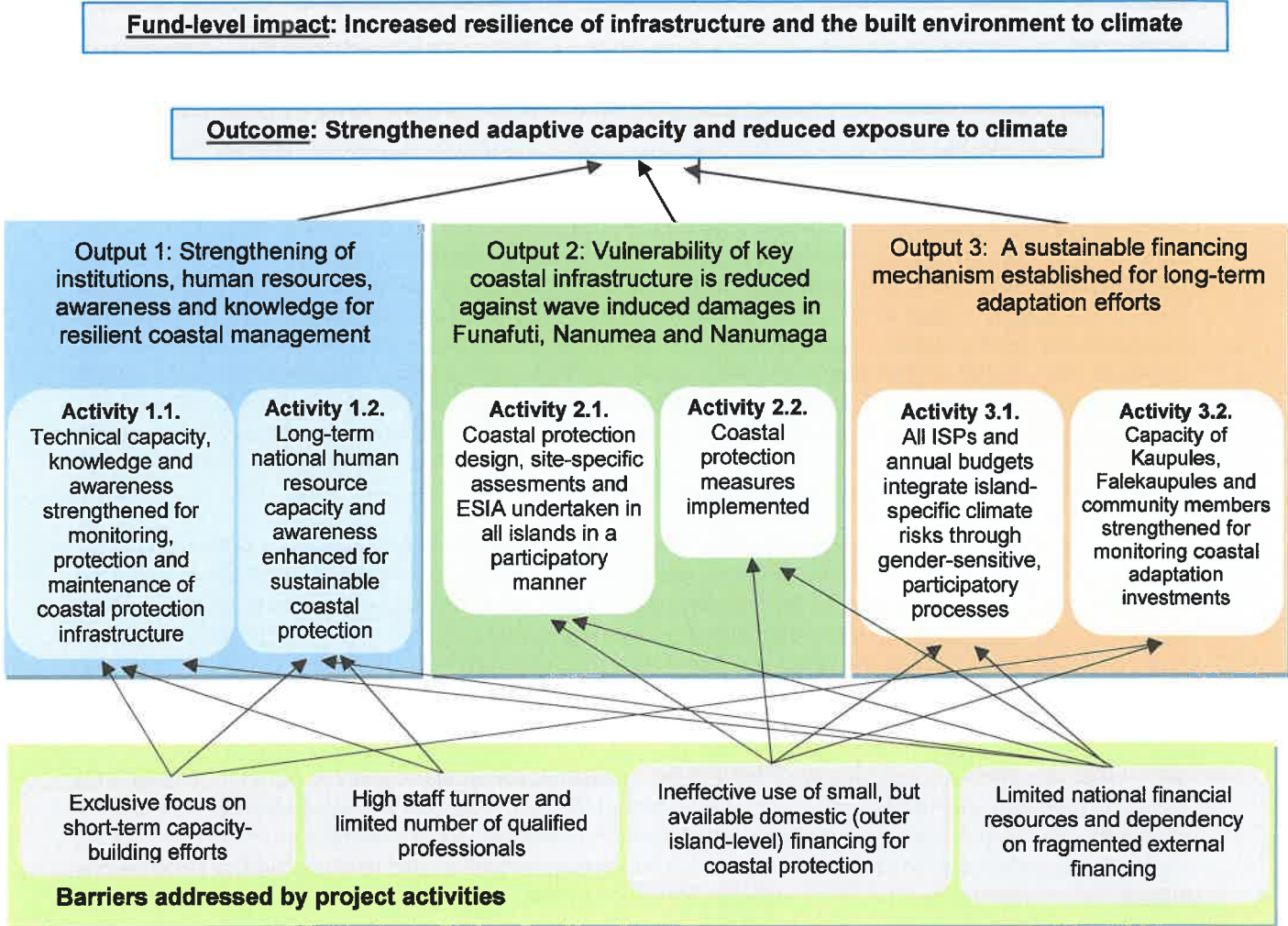
III. STRATEGY

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

³http://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 15. 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.

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 15.

34. Mainstreaming gender: A full gender assessment and action plan have been prepared for this project. They can be found in Annex 6. 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 policies 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 13. 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 probability are high (i.e. when impact is rated as 5 and probability 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 guidelines⁴. 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 4. 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

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.

with the proposed construction of coastal protection structures and dredging of materials can be sufficiently 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 30,000m³) 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 m³ 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 6.

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 15)

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

⁵ SDE expenditures include other block grants

- Monitoring and the basic repair of the geo-textile sand retainer revetment

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 15). 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: <i>Outcome Area 1: Environmental management climate change and disaster risk management</i>					
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:					

<p>Project Outcomes A5.0 Strengthened institutional and regulatory systems for climate-responsive planning and development</p>	<p>5.1 Institutional systems that improve incentive for climate resilience and their effective action</p>	<p>Only one round of ISPs has been produced and they neither are climate sensitive nor govern budget use</p>	<p>At least two cycles of ISP production</p>	<p>ISP production, execution of priority actions, and community review have become an annual event</p>	<p>Domestic unconditional grants (FTF/SDE) which currently finance island-level activities remain at similar volume</p>
<p>Project Outcomes A7.0 Strengthened adaptive capacity and reduced exposure to climate risks</p>	<p>7.2 Number of males and females benefiting from climate risk reduction measures</p>	<p>Currently, no Tuvaluans benefit from hard-engineered coastal protection measures</p>	<p>Coastal protection design and implementation started to have at least 3,100 individuals (50% women) who are in inundation areas protected by coastal protection</p>	<p>At least 3,100 individuals (50% women) who are in inundation areas protected by a coastal defense</p>	<p>There is a land-use agreement with the landowners; Environmental and social impact assessment confirms that the proposed measures have minimum risks</p>
<p>PROJECT OUTPUTS:</p>					
<p>Project Outputs 1. Strengthening of institutions, human resources, awareness and knowledge for resilient coastal management</p>	<p>Number of technical officers trained on:</p> <ul style="list-style-type: none"> - 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 <p>Number of students that are supported at higher-level studies (tertiary level or higher) on disciplines related to coastal protection work</p>	<p>Currently, there is no institutional arrangement where technical officers can gain technical skills.</p> <p>Tuvalu sponsored students in tertiary education totaled to 163⁶. DFAT (24 awards in 2012⁷) and NZAID (NZD 1.1million⁸) awarded a total of 20-30 scholarships each per year.</p>	<p>N/A</p> <p>At least 24 students (50% women) are supported for at higher level studies AND obtain a CCA-related position in the country.</p>	<p>At least 12 technical government staff (50% women) exposed to hands-on trainings on the three areas.</p> <p>At least 24 students (50% women) are supported for at higher level studies AND obtain a CCA-related position in the country.</p>	<p>Skill building trainings do not result in accelerated turnover of staff.</p> <p>The host departments allow their staff to be away for skill building for sustained period of time.</p> <p>The scholarship arrangement in which students are required to come back to the country after completing studies is properly enforced.</p>

⁶ Figures released by Tuvalu High Commission in Suva, 21st July 2015.

⁷ <http://fiiit.embassy.gov.au/files/suva/12091.2%20-%20AusAID%20Tuvalu%20awards%20-%20FINAL.DOC>

⁸ Aid budgeted for scholarships and others <http://www.aid.govt.nz/where-we-work/pacific/tuvalu>

<p>Project Outputs</p> <p>2. Vulnerability of key coastal infrastructure including homes, schools, hospitals and other assets is reduced against wave induced damages in Funafuti, Nanumea and Nanumaga</p>	<p>Island-level coastal assessment report produced</p> <p>The length of vulnerable coastlines protected</p> <p>Knowledge about gender-differentiated impact of coastal protection enhanced</p>	<p>No island-level reports containing assessment results such as local hydrodynamic processes are currently available.</p> <p>In the proposed locations, there is no structural measures to mitigate the risk of wave over-topping or coastal inundation events.</p> <p>Awareness about gender-differentiated impact of coastal protection is low.</p>	<p>All 9 islands of Tuvalu has a coastal assessment report.</p> <p>Construction of coastal protection commenced.</p> <p>Island-level social impact assessment includes a section on gender.</p>	<p>N/A</p> <p>2,210m of vulnerable coastlines are protected by a coastal defense measure.</p> <p>The final technical assessment report includes gender-differentiated impact and the results are shared at a regional/national forum.</p>	<p>There is a land-use agreement with the landowners; Environmental and social impact assessment confirms minimum risks.</p> <p>The technical assessment takes place sufficiently before the closure of the project so that a regional/national forum can be organized after the assessment.</p> <p>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.</p>
<p>Project Outputs</p> <p>3. A sustainable financing mechanism established for long-term adaptation efforts</p>	<p>Adaptation actions financed and implemented from island level plans (no. and type)</p> <p>Women's distinct role in the context of island decision making established</p>	<p>To date, no adaptation action has been implemented based on Island Strategic Plans.</p> <p>Women are only "consulted" during the island</p>	<p>All islands have an ISP with specific budgets for development priorities.</p> <p>The use of scorecards and participatory video has started</p>	<p>At least 16 adaptation priority actions (two in each island), outlined in ISPs, are financed by either domestic or external resources and executed.</p> <p>Women's group recognized by both men and women as</p>	<p>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.</p>

		<i>decision making process, but no distinct roles are established</i>	<i>an important interest group in the evaluation of kaupules</i>	
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 10 which presents a time table of activities

VII. MANAGEMENT ARRANGEMENTS

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

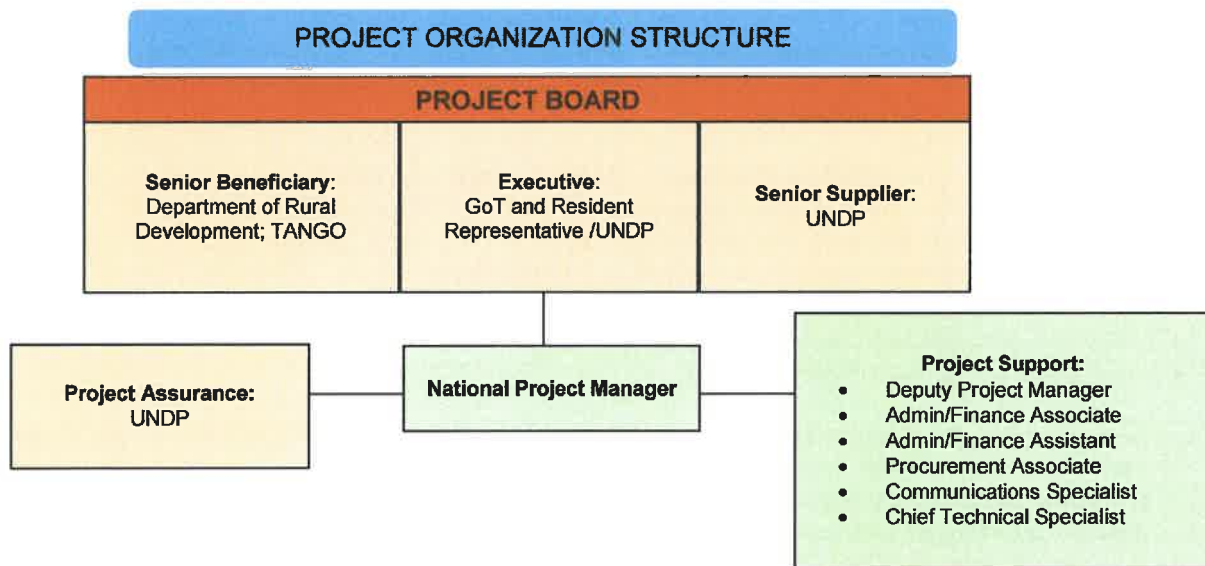
79. The project will be implemented following UNDP's direct implementation modality at the request from the Government of Tuvalu and the GCF National Designated Authority.

80. The **Implementing Partner** for this project is *UNDP*. UNDP will establish a Project Management Unit for the Implementation of the project. UNDP PMU 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-chaired 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 supplier.

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 Supplier 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 supervision, oversight and quality assurance role – funded by the agency fee – involving UNDP staff in Country Offices and at regional and headquarters levels. Project Assurance must be totally independent of the Project Management function. The quality assurance role supports the Project Board and Project Management Unit by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. This project oversight and quality assurance role is covered by the accredited entity fee provided by the GCF.

90. As an Accredited Entity to the GCF, UNDP delivers the following GCF-specific oversight and quality assurance services: (i) day to day project oversight supervision covering the start-up and implementation; (ii) oversight of project completion; and (iii) oversight of project reporting. A detailed list of the services is presented in the table below.

Function	Detailed description of activity	Typical GCF fee breakdown
Day-to-day oversight supervision	<p>Project start-up:</p> <ul style="list-style-type: none"> • In the case of Full Funding Proposals, prepare all the necessary documentation for the negotiation and execution of the Funding Activity Agreement (for the project) with the GCF, including all schedules • In the case of readiness proposals, if needed assist the NDA and/or government partners prepare all the necessary documentation for approval of a readiness grant proposal • Prepare the Project Document with the government counterparts • Technical and financial clearance for the Project Document • Organize Local Project Appraisal Committee • Project document signature • Ensure quick project start and first disbursement • Hire project management unit staff • Coordinate/prepare the project inception workshop • Oversee finalization of the project inception workshop report <p>Project implementation:</p> <ul style="list-style-type: none"> • <u>Project Board:</u> Coordinate/prepare/attend annual Project Board Meetings • <u>Annual work plans:</u> Quality assurance of annual work plans prepared by the project team; issue UNDP annual work plan; strict monitoring of the implementation of the work plan and the project timetable according to the conditions of the FAA and disbursement schedule (or in the case of readiness the approved readiness proposal) • <u>Prepare GCF/UNDP annual project report:</u> review input provided by Project Manager/team; provide specialized technical support and complete required sections 	70%

Function	Detailed description of activity	Typical GCF fee breakdown
	<ul style="list-style-type: none"> • <u>Portfolio Report (readiness)</u>: Prepare and review a Portfolio Report of all readiness activities done by UNDP in line with Clause 9.02 of the Readiness Framework Agreement. • <u>Procurement plan</u>: Monitor the implementation of the project procurement plan • <u>Supervision missions</u>: Participate in and support in-country GCF visits/learning mission/site visits; conduct annual supervision/oversight site missions • <u>Interim Independent Evaluation Report</u>: Initiate, coordinate, finalize the project interim evaluation report and management response • <u>Risk management and troubleshooting</u>: Ensure that risks are properly managed, and that the risk log in Atlas (UNDP financial management system) is regularly updated; Troubleshooting project missions from the regional technical advisors or management and programme support unit staff as and when necessary (i.e. high risk, slow performing projects) • <u>Project budget</u>: Provide quality assurance of project budget and financial transactions according to UNDP and GCF policies • <u>Performance management of staff</u>: where UNDP supervises or co-supervises project staff • <u>Corporate level policy functions</u>: Overall fiduciary and financial policies, accountability and oversight; Treasury Functions including banking information and arrangements and cash management; 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 policy advice; 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. 	
<p>Oversight of project completion</p>	<ul style="list-style-type: none"> • Initiate, coordinate, finalize the Project Completion Report, Final Independent Evaluation Report and management response • Quality assurance of final evaluation report and management response • Independent Evaluation Office assessment of final evaluation reports; evaluation guidance and standard setting • Quality assurance of final cumulative budget implementation and reporting to the GCF • Return of any un-spent GCF resources to the GCF 	<p>10%</p>

Function	Detailed description of activity	Typical GCF fee breakdown
Oversight of project reporting	<ul style="list-style-type: none"> Quality assurance of the project interim evaluation report and management response Technical review of project reports: quality assurance and technical inputs in relevant project reports Quality assurance of the GCF annual project report Preparation and certification of UNDP annual financial statements and donor reports Prepare and submit fund specific financial reports 	20%
	TOTAL	100%

ii. Project Management Unit:

91. The UNDP 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

92. 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

93. Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy⁹ and the GCF Disclosure Policy¹⁰.

94. **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 environmental complaints and disputes. Environmental and social grievances will be monitored and reported in the Annual Project Report.

v. Carbon offsets or units

95. 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

96. 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.

97. 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.

98. 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

⁹ See http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/

¹⁰ See https://www.greencimate.fund/documents/20182/184476/GCF_B.12_24_-_Comprehensive_Information_Disclosure_Policy_of_the_Fund.pdf/f551e954-baa9-4e0d-bec7-352194b49bcb

stakeholders in project M&E activities including national/regional institutes assigned to undertake project monitoring.

i. M&E oversight and monitoring responsibilities:

99. **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.

100. 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.

101. **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.

102. **Project Implementing Partner:** In this case, the project will follow Direct Implementation Modality (DIM). UNDP PMU is based in UNDP Fiji office and 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. UNDP PMU 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.

103. **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.

104. 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.

105. 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.

106. 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.

107. **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:**

108. 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:**

109. **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.

110. 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.

111. **Annual Project Report:** The National Project Manager, the UNDP Country Office, and the UNDP-GEF Regional Technical Adviser 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.

112. 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.

113. **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

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

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

114. **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 *October 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.

115. **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 *January 2024*.

116. 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.

117. 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).

118. **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	<i>IW Report: 1 month after IW</i> <i>Baseline assessments: 5 months after IW</i>
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 <i>(including hiring of external experts, project surveys, data analysis etc...)</i>	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	<i>Costs associated with missions, workshops, BPPS expertise etc. can be charged to the project budget.</i>
Project Board meetings	Project Board	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	
	UNDP Country Office 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		<i>1-2% of Total GCF grant</i>	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

119. 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	2,860,000		36,010,000
	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		2,860,000	
Total		36,010,000	2,860,000		38,870,000

ii. GCF Disbursement schedule

120. 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 70% 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 7 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:

121. GCF requirement (referred to signed FAA): (1) Any reallocation among the Funded Activity's outputs described in Part A of Schedule 2 resulting in a variation of more than ten per cent (10%) of the previously agreed budget for the output to which budget is reallocated must be approved in writing by the Fund in advance. (2) 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.

122. 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.

123. 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:

124. 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:

125. 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:

126. 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.

127. In consultation with other parties of the project, UNDP Programme Manager (UNDP Resident Representative) is responsible for deciding on the transfer or other disposal of assets or equipment purchased during the implementation of the project (such as vehicles or office equipment). Transfer or disposal of assets is recommended

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

to be reviewed and endorsed by the project board following UNDP rules and regulations upon operational completion of the project. Any funds or proceeds received from the sale of such assets (funded from GCF proceeds) will be refunded/transferred to the GCF by UNDP-GEF HQ upon financial completion of the project.

i. Financial completion:

128. 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).

129. 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	FJ10
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	66000	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	121,025	166,984	121,025	801,213	1b
				72100	Contractual Services-Companies	220,500	276,896	276,896	220,500	164,396	25,000	1,215,583	1c		
				71600	Travel	14,328	85,079	20,671	40,801	12,891	40,801	235,241	1d		
				72200	Equipment and Furniture	33,000	-	-	-	-	-	33,000	1e		
				74200	Audio Visual & Print Prod Costs	6,719	6,719	6,719	6,719	5,719	5,719	44,030	1f		
				74500	Miscellaneous Expenses	8,365	8,367	8,367	8,367	8,367	8,367	58,567	1g		
				75700	Training, Workshops and Conference	500	500	400	-	15,146	500	32,191	1h		
				72800	Information Technology Equipment	3,219	-	-	9,073	-	-	12,291	1i		
								Total Output 1	315,737	558,462	455,458	478,251	395,210	273,179	223,703

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 be 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:				
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	66000	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	66000	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
72100	Contractual Services-Companies	-	768,656					768,656	768,656	768,656	768,656	68,583	3,911,862	3c				
71600	Travel	11,537	99,412					31,338	28,818	43,742	25,187	64,443	304,477	3d				
74200	Audio Visual & Print Prod Costs	3,146	4,791					3,146	4,791	3,146	4,791	3,146	26,957	3e				
75700	Training, Workshops and Conference	-	64,219					36,656	11,146	26,510	11,146	26,510	176,186	3f				
74500	Miscellaneous Expenses	16,472	16,471					16,471	16,471	16,471	16,471	16,405	115,232	3g				
	Total Output 3	54,526	983,645	882,497	862,658	890,974	858,700	317,000	4,850,000									
	UNDP	66000	GCF	71200	International Consultants	222,611	-	-	48,788	-	223,366	84,171	578,936	Oa				
				71300	Local Consultants	223,636	222,403	222,403	232,191	222,403	222,403	232,191	1,577,628	Ob				
				71600	Travel	52,391	52,391	52,391	61,092	52,391	93,341	82,596	446,594	Oc				

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 UNIT¹⁷				72200	Equipment and Furniture*	15,729	-	-	-	-	-	-	15,729	Od
				72500	Supplies	10,291	10,291	10,291	10,291	10,291	10,291	10,291	72,040	Oe
				74100	Professional Services	3,146	3,146	3,146	3,146	3,146	3,146	3,146	22,020	Of
				74500	Miscellaneous Expenses	11,760	11,760	11,615	11,615	11,615	11,615	11,615	81,595	Og
				72800	Information Technology Equipment	9,219	-	-	-	9,219	-	-	18,437	Oh
				75700	Training, Workshops and Conference	10,146	6,146	6,146	6,146	6,146	6,146	6,146	47,020	Oi
					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
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

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

Budget notes:

Note	Description of cost item
1a	<ol style="list-style-type: none"> 1. Output 1 contributions towards CTA: 6 months (\$111,683) 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	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 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 3. For undergraduate: \$45,000/year for 3 students for 4 years 4. For graduate: \$50,000/year for 3 students for 3 years
1d	Domestic travel (boat fares); International travel for ICs; DSA for domestic and international travel
1e	<ol style="list-style-type: none"> 1. Survey total stations (digital) for Funafuti: @\$15,000, 2 pieces 2. Survey total stations (optical) for outer islands: @\$1,000, 3 pieces
1f	Training materials; advertisement for scholarship programs
1g	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
1h	<ol style="list-style-type: none"> 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
1i	Computers at DoLS; Computers for national consultants (master level students)
2a	<ol style="list-style-type: none"> 1. Output 2 contributions towards CTA: 48 months (\$894,356) 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	<ol style="list-style-type: none"> 1. Coastal assessment: Lump sum @\$2,000,000 spread across Y1-3 2. Coastal protection construction: Lump sum @\$21,456,624 spread across Y2-6 3. Hands-on training on ecosystem-based coastal protection (To be implemented along with BN1c-2): \$150,000
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	<ol style="list-style-type: none"> 1. Output 3 contributions towards CTA: 6 months (\$111,683) 2. CCA Mainstreaming expert: @\$700/day for 10 days in Y2 3. Participatory video expert: @\$600/day for 10 days in Y4-6
3b	<ol style="list-style-type: none"> 1. ISP Officer: @\$1,800/month for 7 years 2. Translator: @\$150/day for 24 days in Y3-7
3c	<ol style="list-style-type: none"> 1. Contractual services to oversee and execute post-disaster resilience building activities out of the Tuvalu Survival Fund 2. Contractual services to oversee and execute performance-based resilience building investments for advancing climate change adaptation actions at the island level
3d	Domestic travel (boat fares); International travel for ICs; DSA for domestic and international travel
3e	<ol style="list-style-type: none"> 1. ISP training materials: @\$3,000/year for Y1-7 2. Participatory video training: @\$1,500/year for Y2, 4 and 6
3f	<ol style="list-style-type: none"> 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
3g	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	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 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

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.

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.”

This project will be implemented by UNDP in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

XII. RISK MANAGEMENT

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 funds¹⁹ 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 http://www.un.org/sc/committees/1267/ag_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. UNDP as 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.
6. UNDP as the Implementing Partner will ensure that the following obligations are binding on each responsible party, subcontractor and sub-recipient:

¹⁹ To be used where UNDP is the Implementing Partner

- a. Consistent with the Article III of the SBAA *[or the Supplemental Provisions to the Project Document]*, the responsibility for the safety and security of each responsible party, subcontractor and sub-recipient and its personnel and property, and of UNDP's property in such responsible party's, subcontractor's and sub-recipient's custody, rests with such responsible party, subcontractor and sub-recipient. To this end, each responsible party, subcontractor and sub-recipient shall:
 - i. put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
 - ii. assume all risks and liabilities related to such responsible party's, subcontractor's and sub-recipient's security, and the full implementation of the security plan.
- b. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the responsible party's, subcontractor's and sub-recipient's obligations under this Project Document.
- c. Each responsible party, subcontractor and sub-recipient will take appropriate steps to prevent misuse of funds, fraud or corruption, by its officials, consultants, subcontractors and sub-recipients in implementing the project or programme or using the UNDP funds. It will ensure that its financial management, anti-corruption and anti-fraud policies are in place and enforced for all funding received from or through UNDP.
- d. The requirements of the following documents, then in force at the time of signature of the Project Document, apply to each responsible party, subcontractor and sub-recipient: (a) UNDP Policy on Fraud and other Corrupt Practices and (b) UNDP Office of Audit and Investigations Investigation Guidelines. Each responsible party, subcontractor and sub-recipient agrees to the requirements of the above documents, which are an integral part of this Project Document and are available online at www.undp.org.
- e. In the event that an investigation is required, UNDP will conduct investigations relating to any aspect of UNDP programmes and projects. Each responsible party, subcontractor and sub-recipient will provide its full cooperation, including making available personnel, relevant documentation, and granting access to its (and its consultants', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with it to find a solution.
- f. Each responsible party, subcontractor and sub-recipient will promptly inform UNDP as the Implementing Partner in case of any incidence of inappropriate use of funds, or credible allegation of fraud or corruption with due confidentiality.

Where it becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, each responsible party, subcontractor and sub-recipient will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's Office of Audit and Investigations (OAI). It will provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.

- g. UNDP will be entitled to a refund from the responsible party, subcontractor or sub-recipient of any funds provided that have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the responsible party, subcontractor or sub-recipient under this or any other agreement.

Where such funds have not been refunded to UNDP, the responsible party, subcontractor or sub-recipient agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to

such responsible party, subcontractor or sub-recipient for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

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

- h. Each contract issued by the responsible party, subcontractor or sub-recipient in connection with this Project Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the proposal, have been given, received, or promised in connection with the selection process or in contract execution, and that the recipient of funds from it shall cooperate with any and all investigations and post-payment audits.
- i. Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project or programme, the Government will ensure that the relevant national authorities shall actively investigate the same and take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.
- j. Each responsible party, subcontractor and sub-recipient shall ensure that all of its obligations set forth under this section entitled “Risk Management” are passed on to its subcontractors and sub-recipients and that all the clauses under this section entitled “Risk Management Standard Clauses” are adequately reflected, *mutatis mutandis*, in all its sub-contracts or sub-agreements entered into further to this Project Document.

XIII. 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. Letter of agreement between the Implementing Partner and Responsible Parties
3. Letter of co-financing
4. Results of Social and Environmental Screening Procedure
5. Environmental & Social Management Plan
6. Gender analysis and action plan
7. Map of project location
8. Monitoring Plan
9. Evaluation Plan
10. Timetable of project implementation
11. Procurement plan
12. Terms of reference for Project staff
13. UNDP Risk Log
14. UNDP Project Quality Assurance Report
15. 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
16. Results of the capacity assessment of the project implementing partner and HACT micro assessment (being completed by UNDP Pacific Office)

A complete list of project documents can be found on the [gefpiims database](#)