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**United Nations Development Programme**

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

<b>Project title:</b> Integrated Flood Management to Enhance Climate Resilience of the Vaisigano River Catchment in Samoa	
<b>Country:</b> Samoa	
<b>Implementing Partner:</b> Ministry of Finance	<b>Management Arrangements :</b> National Implementation Modality (NIM)
<b>UNDAF/Country Programme Outcome:</b>	
<p><b>UNDAF Goal 1:</b> By 2017, the most vulnerable communities across the Pacific Island Countries and Territories are more resilience and select government agencies, civil organization and communities have enhanced capacity to apply integrated approaches to environmental management, climate change, adaptation/mitigation and disaster risk management.</p> <p><b>UNDAF Goal 3:</b> Enhanced inclusive economic growth and poverty reduction through improved and increase sustainable employment, livelihood opportunities and food security for women, youth and vulnerable groups.</p> <p><b>UNDAF Goal 5:</b> Regional, national, local and traditional governance systems are strengthened, respecting and upholding human rights, especially in line with international standards.</p>	
<b>UNDP Strategic Plan Output:</b> Output 1.4: Scaled up action on climate change adaptation and mitigation cross sectors which is funded and implemented.	
<b>UNDP Social and Environmental Screening Category:</b>  Moderate	<b>UNDP Gender Marker for each project output:</b> GEN2
<b>Atlas Project ID/Award ID number:</b> 00098736	<b>Atlas Output ID number:</b> 000101956
<b>UNDP-GEF PIMS ID number:</b> 5919	<b>GCF ID number:</b> FP037
<b>Planned start date:</b> July 2017	<b>Planned end date:</b> July 2023
<b>LPAC date:</b> 04 July 2017	

**Brief project description:**

As a Small Island Developing State (SIDS) in the Pacific, Samoa has been heavily impacted by increasingly severe tropical storms. Given the topography of the country, these extreme events have caused significant river discharge that results in flooding of lowland areas. Recent tropical storms like Cyclone Evan have caused floods resulting in serious health impacts and significant damage to both public and private assets. The resulting damages have been estimated at US \$200 million. Urban infrastructure has suffered considerably and is expected to further degrade as extreme weather events are becoming more frequent.

The objective of this project is to strengthen the adaptive capacity, and the reduce exposure to extreme weather events of vulnerable communities, infrastructure, and the built environment in the Vaisigano River Catchment area. This is the river that flows through the Apia Urban Area (AUA)

The project represents the GoS's initial steps in operationalizing a comprehensive flood management solution. It has three major outputs:


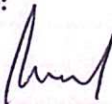

- (a) Assessments and mechanisms in place for an integrated approach to reduce vulnerability towards flood-related risks
- (b) Infrastructure in the Vaisigano River are flood-proofed to increase resilience to negative effects of excessive water
- (c) Drainage in downstream areas upgraded for increased regulation of water flows.

In conjunction with GoS co-financing leveraged for this project, GCF resources will be used to address a number of key technical issues including infrastructure; capacity and information based barriers to enhancing the effectiveness of flood management systems. The primary direct beneficiaries include approximately 26,528 people in the Vaisigano river catchment area and 37,000 people indirect beneficiaries.

**FINANCING PLAN**

GCF grant	USD 57,717,748
UNDP TRAC resources	-
Cash co-financing to be administered by UNDP	-
<b>(1) Total Budget administered by UNDP</b>	<b>USD 57,717,748</b>
<b>PARALLEL CO-FINANCING (all other co-financing (cash and in-kind) administered by other entities, non-cash co-financing administered by UNDP)</b>	
UNDP	
Government	USD 8,000,000
<b>(2) Total co-financing</b>	<b>USD 8,000,000</b>
<b>(3) Grand-Total Project Financing (1)+(2)</b>	<b>USD 65,717,748</b>

**SIGNATURES**

Signature:  Hon. Sili Epa Tuioti Minister of Finance Ministry of Finance	Agreed by Government	Date/Month/Year: 21/7/2017
Signature:  Hon. Sili Epa Tuioti Minister of Finance Ministry of Finance	Agreed by Implementing Partner	Date/Month/Year: 21/7/2017
Signature:  Notonegoro UNDP Resident Representative (a.i.)	Agreed by UNDP	Date/Month/Year: 21/7/2017

**Disbursement:** Government is aware of the conditions of disbursement ascribed to the first and subsequent tranches of the GCF funding as specified in the FAA (and in particular Clause 8 and 9.02 of the FAA). To the extent that these obligations reflect actions of the Government, the Government must ensure that the conditions 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. Samoa is a Small Island Developing state (SIDS) located in the Polynesian region of the South Pacific. In 2012, Samoa's GDP was estimated to be US\$683 million with a growth rate of 1.2%. The economy of Samoa relies strongly on agriculture, fisheries, development aid and remittances. The service sector, notably tourism contributes 25% of the GDP. Agriculture contributes approximately 10% of the GDP; however, the sector accounts for approximately 68% of the labor force, the majority of whom are engaged in subsistence agriculture.
2. Projected climate change scenarios cited by the Australian Commonwealth Scientific and Industrial Research Organization (CSIRO) suggests that Samoa is expected to have: i) more frequent and extreme rainfall events; ii) more frequent and longer drought events; iii) increased air and water temperatures; iv) sea level rise; and v) more frequent extreme wind events. An extreme daily rainfall of 400 mm; currently a one-in-60-year event will likely become a one-in 40-year event by 2050. Similarly, an extreme six-hourly rainfall of 200 mm; that is, currently a one-in-30-year event will likely become a one-in-20-year event by 2050. Further, the CSIRO model projected an 8% increase in the wind speed for a 50-year storm by 2059. The increase in frequency and severity of cyclones expected from climate change threatens the sustainability of infrastructure in the long-term and potentially can set back Samoa by decades in terms of its development agenda.
3. Despite the minimal contributions to global greenhouse gas emissions, Samoa 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 lead to increased risks of climate change impacts in Samoa. Much of the impact of climate change is felt by individual households. The vast majority of households do not have the financial capital to implement household-level interventions for climate change adaptation. The limited disposable income of most Samoan households means that tendencies for short-term gain take precedence over investment into longer-term measures for climate resilience. Households are not able to save for contingencies, nor are they able to proactively implement interventions that will reduce their vulnerability to the effects of climate change. With the GoS being unable to implement the large -scale flood protection infrastructure that would be required to protect communities given their financial resources, both communities and infrastructure within these catchments will remain exposed to flood risks during extreme rainfall events.
4. Settlements in Samoa are concentrated in coastal areas with approximately 70% of the population living and earning their livelihoods within one kilometer of the coast. Critical infrastructures such as hospitals, government buildings, schools, places of employment, and the international airport are also predominantly located in the coastal zone. These infrastructures and livelihoods are at risk from flooding caused by extreme rainfall events and coastal inundation. Further, roads and other key infrastructure (power supply, health facilities, communications systems) in Samoa are exposed to a range of hazards, including but not limited to: i) sea flooding caused by sea level rise; ii) flooding as a result of storm surges and intense wave action during cyclones and other periods of extreme rainfall; iii) landslides during extreme rainfall events; and iv) accelerated deterioration of road surfaces owing to extreme weather and rising water tables. Key transport infrastructure is therefore vulnerable to flood events. At present, the GoS considers maintenance of the approximately 2,340 kilometers of road and 52 bridges to be a priority for promoting connectivity and access of communities to inter alia economic growth, provision of public services including small holder livelihoods. As an example, the Leone Bridge was destroyed by Cyclone Evan, thereby causing significant connectivity issues in Apia.
5. According to the Post-Disaster National Assessment (PDNA 2013) for Cyclone Evan (Category Three), damages were estimated at more than US\$200 million. The damage to physical assets totaled

approximately US\$103 million as well as lost productivity of an additional US\$100 million. In addition to the damage caused to economic infrastructure, community assets, worth an undisclosed amount, were also damaged/destroyed. The flooding during Cyclone Evan also resulted in extensive destruction of household goods and the temporary displacement of approximately 7,500 people. The cost of this displacement would make the total damages even higher. The flooding during the cyclone damaged 2,088 houses, mostly in poorer urban settlements in Apia. With an urban population of 20% in the AUA and an urbanization rate of 0.6 %/year (2011 census), the expected rapid urbanization of AUA has and will continue to result in greater exposure of infrastructure to the climate risks identified above. Infrastructure and livelihoods are at risk from flooding caused by extreme rainfall events and coastal inundation during storms. For example, transport infrastructure is vulnerable to flood events.

6. Damages caused by Cyclone Evan in the AUA was ten times greater than those occurring in all but four of the districts in Samoa. Flooding of the Vaisigano River was very significant during the last cyclone, necessitating the evacuation of local communities in parts of the catchment. About 7,500 people were evacuated after high winds damaged homes and the Vaisigano River broke its banks. The severity of the impact was such that the government called for international assistance. The collapse of the Leone Bridge disrupted a major east–west transport corridor and destruction of road infrastructure affected other commercial links. Further, the drainage system was unable to cope, resulting in extensive flooding of lower Apia. In addition to the Vaisigano River, four other major rivers, flow through the Greater Apia catchment area. They include the Gasegase, Fuluasou, Loimata o Apaula and Fagalii Rivers. While these rivers have not been the primary source of flooding of AUA during recent events, the threat they pose as climate change impacts intensify is recognized.
7. A particularly important baseline project for the proposed GCF project is the ‘Economy Wide Adaptation to Climate Change (EWACC)’ project that started in 2014. The EWACC was financed by the Least Developed Country Fund (LDCF) that recognizes the importance of mainstreaming adaptation efforts into sector policies is critical to addressing long-term climate change risks. Under the EWACC, an Integrated Watershed Resource Management plan (IWMP) for the Greater Apia Catchments was developed. It identified the root causes of climate vulnerability and outlined strategies for reducing the risks posed by climate-induced disasters. The IWMP follows the “Ridge-to-Reef” principle with an integrated approach to building climate resilience and protecting community livelihoods/assets. On the basis of the IWMP, the GoS is in the process of developing the first phase of required flood protection infrastructure for the Vaisigano River, this being called Segment 1. The construction of limited climate-resilient riverbank protection measures (particularly at the mouth of the river) will assist in safeguarding adjacent communities and physical infrastructure from flooding associated with extreme weather events although the needs are far bigger than that currently being designed. The IWMP includes recommendations on a mix of “hard” (i.e. structural) and “soft” (i.e. non-structural) adaptation measures to build climate resilience.
8. Although the efforts of the GoS under projects such as the EWACC and its sectoral sister projects are contributing towards reducing the vulnerability of the AUA, technology, policy and institutional capacity constraints is hindering the necessary transformative process to induce game-changing flood-proofing of the Samoan climate change response mechanism, particularly for the economically vital AUA. By definition, the LDCF financed projects address only urgent and immediate needs, which are insufficient to tackle the longer term challenges. Moreover, budgetary restrictions only allow for the focus on the highest priority risk-prone geographical areas and/or focus on a subset of critical infrastructure and/or part solutions that can be accommodated in available budgets, as opposed to solutions that are ideally required to address the risks at hand (and expected) in a holistic manner.
9. The project outcome envisaged, based on a series of assessments and consultations, consists of the following components: (a) Integrated flood management to enhance resilience in the Vaisigano River Catchment; (b) Climate Proofing the Cross Island Road; (c) Construction of a reservoir upstream of the

Vaisigano river (to support flood management with co-benefits in hydropower generation and as a potable water storage for the AUA); and (d) Promotion of climate resilient drainage systems in the AUA.

Figure 1 portrays the hierarchy of objectives with regards to climate change adaptation in Samoa that reflect objectives stated in the GoS's Strategy for Development of Samoa (2017 – 2020) (SDS) and the priorities the GoS has identified for the GCF.

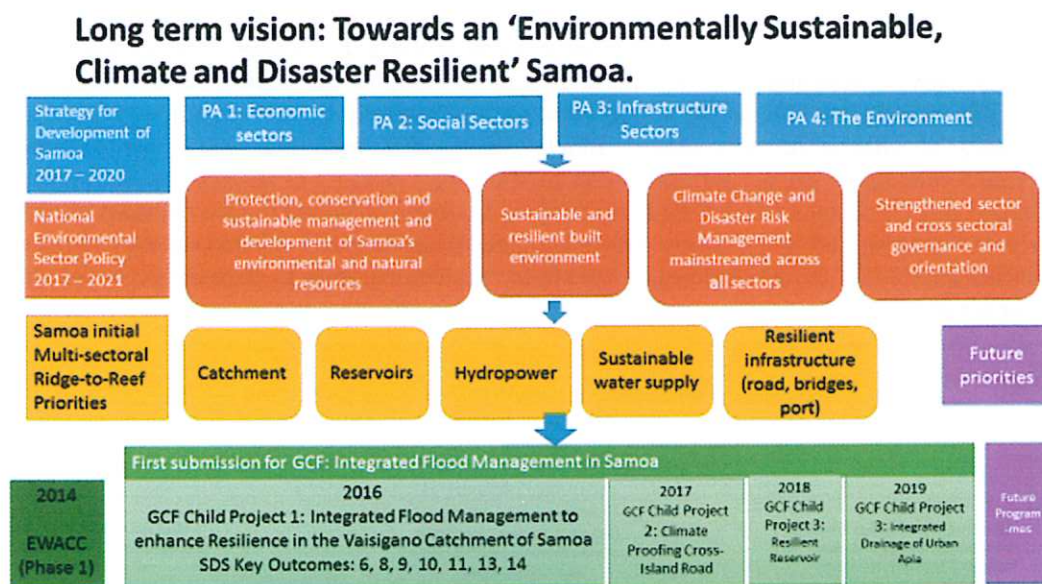
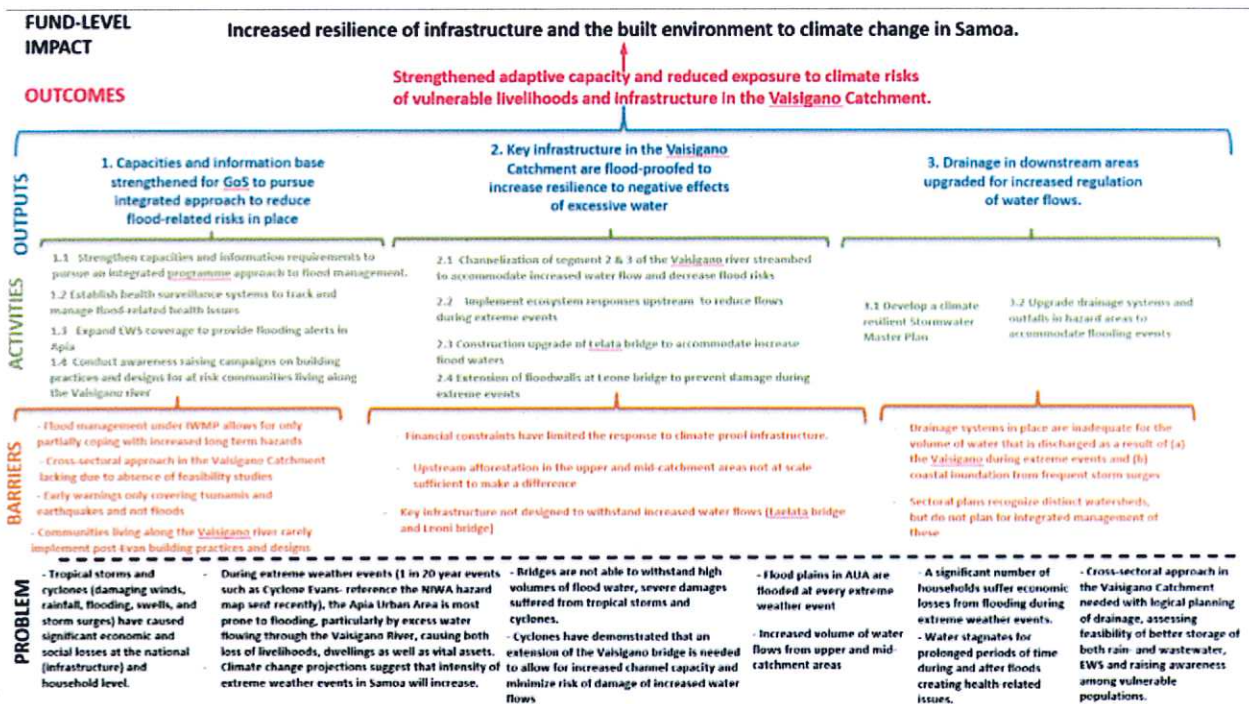


Figure 1: Toward an Environmentally Sustainable, Climate, and Disaster Resilient Samoa.

- Demonstrating the country ownership, the MoF is the implementing partner/ Executing Agency for project and will serve as chair of the steering committee for this project. MNRE, LTA and MWTI are key ministries in this project with regard to implementation, and MoF with regard to administration, strategic coordination and steering. MoF through its Economic Policy and Planning Division (EPPD) is responsible for the coordination of the country's 14 sectors that contribute to the national development strategy and program objectives in line with a relatively recently adopted sector-wide approach to development. EPPD responsibility for sector coordination puts the ministry in the best position for facilitating the development of necessary cross-sector mechanisms and structures such as those related to better management of climate change and disaster risk management. MoF is also the NDA for the GCF. MoF is also the lead agency in carrying out fiduciary responsibilities as well as implementation of public financial management reforms. MoF with the support of MFAT immediately facilitates the mobilization of resources for recovery following major events ensuring a smooth transition from emergency to early recovery

### III. STRATEGY

11. The project has three inter-related outputs that will achieve impact potential as described above, along with creating conditions for scaling up and replicating the project impact beyond the immediate target areas. Each of these outputs comprises of 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 shown below, and described below, demonstrates how the implementation of project activities leads to short-term outputs of the project. These outputs lead to longer-term outcomes which include reduced vulnerability of Samoa to future impact of climate change-related flooding, reduced loss from future flood events, enhanced livelihoods and improved public health surveillance. All of these outcomes contribute to reducing exposure to climate-risks in the Vaisigano River Catchment.



12. This project is also closely linked to Samoa’s country priorities of the UNDAF where Outcome 1.1 is that by 2017 the most vulnerable communities across the PICTs are more resilient and select government agencies, CSOs and communities have enhanced capacity to apply integrated approaches to environmental management, climate change adaptation/mitigation and disaster risk management.

13. The project will address the barriers that prevent the GoS from being able to reduce the vulnerability of the Vaisigano River Catchment to climate change impacts in an urgent, effective and sustainable manner. These barriers will be addressed within the context of a broader coherent programmatic approach to flood management in the AUA.

14. First, the project will tackle the issue of inadequate integrated planning. This will be achieved by integrated catchment planning of the Vaisigano River Catchment. It is expected that, by the end of the project, Samoa will have strengthened capacities and built up information bases required to make informed decisions on pursuing a comprehensive approach to flood management through river and



drainage works. In addition, relevant technical feasibility studies will be commissioned for a flood-buffering reservoir in the Vaisigano River and flood-proofing the Central Cross Island Road. In addition, GCF resources will support developing an integrated sewage system for AUA that takes into account likelihood of increased rainfall that will provide technical information for the project to address flood risks in Samoa.

15. Secondly, the project will ensure that key infrastructure along the Vaisigano River will be resilient to the adverse effects of excessive water and higher run off. This will be achieved by the construction upgrade of the Lelata Bridge (to ensure it is resilient to expected intensity of water as a result of heavy rainfall) and extension of floodwalls at Leone and Lelata Bridges as part of the proposed river bank works (Segments 2, 3 and 4). Improvement of river works in the Vaisigano River Catchment to withstand flash floods during extreme weather events will further increase resilience of key infrastructure and affected ecosystems in Apia. This will be achieved by channeling Segment 2, 3 and 4 of the Vaisigano River streambed to decrease flood risks and also by developing ecosystem-based responses upstream for decreased flows and sediment loads during extreme weather events. The ecosystems based responses include using agroforestry and reforestation schemes to reduce run-off. Co-benefits of youth employment and income generation will also be achieved.
16. Thirdly, the project will scale up activities that have already been tested and proven to be effective to support climate resilient livelihood options in the Vaisigano River Catchment. At present, LDCF financing is used through non-government organizations (NGOs) to provide training, monitoring, and mentoring of village based multi-disciplinary frontline workers who will in turn train community members in resilient livelihoods, and in linking households with green jobs and agro processing markets. The project will build on these two foundational investments to provide transformational support to the river catchment communities through support for enterprise development specifically focused on reducing flood risk and increasing households' resilience. These communities will play a key role in preserving and revitalizing the water catchment by influencing water flow reduction down-stream through enhanced agro-forestry practices.
17. Finally, inadequate drainage systems in the context of increased water flows as a result of extreme events will be addressed by developing a climate resilient Drainage Master Plan and also upgrading drainage systems in specific high priority hazard areas and upsizing ocean outfalls to move water away more quickly, thus reducing buildup in the AUA. This will increase the regulation of water flows and reduce flooding in the AUA.
18. The activities of the project have been designed with a strong focus on gender considerations. The project design also ensures overall alignment of project activities with the specific needs of women and other vulnerable groups residing in the Vaisigano River Catchment. The implementation of business incubators focused on improving the Vaisigano River Catchment will cater specifically for the needs of women and youth. It will also result in enhanced capacities of communities to monitor, evaluate and communicate results and impacts of flood protection adaptation investments. The estimated number of beneficiaries for this portion of the project is 6,000 people
19. The total number of beneficiaries of the GCF investments in the Vaisigano River Catchment, were estimated with the support of the RiskScape platform. Approximately 26,528 people in exposed area will benefit from the river works. The drainage master plan and the updated EWS will target all the population 37,000 inhabitants of the AUA.
20. For the ecosystem component of the project, 9,000 beneficiaries residing in 18 villages in the Vaisigano River Catchment will be offered specialized training to generate activities and business proposals to implement community-based adaptation measures. Of these 9,000 beneficiaries, it is expected that 50%, or 4,500 beneficiaries, will take up the training. Coupled with adequate business skills training, it is

assumed that more than 25%, will develop business ideas that will increase incomes for themselves and their families.

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## **IV. RESULTS AND PARTNERSHIPS**

### **i. Expected Results:**

#### **Output 1. Strengthening capacities and mechanisms for integrated approach to reduce flood-related risks in place:**

GCF resources will strengthen national capacity and mechanisms to reduce flood related risks in the Vaisigano River Catchment induced by climate change. Tropical storms and cyclones (damaging winds, rainfall, flooding, swells, and storm surges) have caused significant economic and social losses at the national and household level. The need for an integrated approach is necessary as key barriers exist that limit a comprehensive approach to reducing vulnerability in the Vaisigano River Catchment. First, flood management under the IWMP allows for only partially coping with increased long-term hazards. Secondly, a cross-sectoral approach in the Vaisigano River Catchment is lacking due to the absence of feasibility studies. Thirdly, the EWS only cover tsunamis and earthquakes, but not floods and storm events. Finally, current building practices and designs create risks for communities living alongside the Vaisigano River. The project resources will be used to address these barriers in a coherent and holistic manner, thus avoiding a fragmented approach to barrier removal, which historically has resulted in a piecemeal set of solutions that have fallen short of realizing a paradigm shift. This Output comprises three activities:

**Activity 1.1 Strengthen capacities and information requirements to pursue an integrated programme approach to flood management.**

The activity has three sub-activities. These include:

- (a) Review the interdependence of flood mitigation options: A number of flood mitigation interventions have been identified but have to-date only been considered in isolation. An assessment of the overall performance of the proposed interventions as an integrated flood management system is required. This is best achieved through the use of an integrated hydraulic model;
- (b) Conduct feasibility studies for flood-buffering reservoir in the upper catchment of the Vaisigano River: The study will assess options to support flood management with co-benefits in hydropower generation and as a potable water storage for the AUA. Terms of Reference for the study have been prepared as part of this proposal;
- (c) Conduct feasibility studies for Apia integrated sewage system: the project will undertake a feasibility study to develop an integrated sewage system for the whole AUA. In the first 18 months of the project implementation, actions that will be undertaken are described in Annex 18.

**Activity 1.2 Establish health surveillance systems to track and manage flood-related health issues:**

The activity has four sub-activities. These include:

- (a) Inclusion of flood-related information in Samoa's CLEWS messaging system: An EWS exists in Samoa and is operational in the context of tsunamis and earthquakes (see Activity 1.3). GCF resources will be used to expand the existing infrastructure with flood related information, so health practitioners and evacuation personnel can prepare for and minimize adverse impacts from an early stage. Prevention and adaptation will be facilitated as opposed to recovery after the damage has been done;
- (b) Train health practitioners dealing with and how to respond to flood-related emergencies: Even when the system is operational, there is still a necessity for the right people to react to the messages. The health practitioners that need to make informed decisions to prepare for floods will be trained in a consistent application of the flood-related EWS;

- (c) Train village councils on how to prepare for and evacuate flood-related victims: Key members of village councils will be trained to make informed decisions to prepare for evacuation during floods. As with 54(b), the training needs to be so decisions are made consistent with the best approaches; and
- (d) Awareness raising among health practitioners and village councils about the flood-related EWS.

#### Activity 1.3 Expand EWS coverage to provide flooding alerts in Apia

The activity has two sub-activities. These include:

- (a) Update data collection so as to undertake hydrological modelling to generate flood scenarios: work will be undertaken to upgrade of existing network of instruments and gauges to collect key information on rainfall and river flow, lightning detection etc., to generate key data to facilitate improved flood forecasting; and
- (b) Integration of flood warning into the EWS in Vaisigano River Catchment: activities will be undertaken to integrate the five new sirens into the national Emergency Siren Network. This will include installation and regular testing of the sirens as well as signpost indicating the nearest storm shelters. Work will be undertaken with villages, with special attention to upstream populations, on identifying the appropriate sounds and evacuation preparations need for daytime and night time flooding scenarios. The capacity of the technical officers at MNRE will be enhanced to integrate flood forecast into the EWS.

#### Activity 1.4. Conduct awareness raising campaigns on climate resilient building practices and designs for at risk communities living along the Vaisigano River

For this activity, the involvement of private sector and civil society in the promotion of flood proofing infrastructure and livelihoods will be essential. As such, the activity has three sub-activities, these being:

- (a) Translation of the new building code and Apia spatial plan into simple manuals for builders. As the new Building Code is a technical document, translation is needed in lay-person's terms. This will be done by preparing simple guidelines for do it yourself and professional builders to follow when building or making renovations to housing;
- (b) The production and exhibition of flood-resilient buildings; and
- (c) The articulation of appropriate land use practices to be used in the Upland Watershed Conservation Policy and the 2 million trees campaign.

### **Output 2. Key infrastructure in the Vaisigano River Catchment are flood-proofed to increase resilience to negative effects of excessive water**

Currently, a flood wall scheme in the lower section of the Vaisigano River, Segment 1 is under construction. Segments 2, 3 and 4 have been designed but have not been funded. To provide the intended flood protection all segments of the proposed scheme need to be implemented. The proposed flood wall scheme including Segments 1, 2, 3 and 4 are designed to pass the 1:20 year flood with 0.5m freeboard. This output, accounting for 57% of the total GCF investments, represents the investments that will support channelization of Segment 2, 3 and 4 to reduce risks of flooding from the Vaisigano River. This investment is necessary regardless of what happens up stream including the potential future construction of a retention reservoir that would be designed to withstand a 1-100 year flood including ensuring that downstream effects in those instances are closer to impacts of a 1-20 year flood.

#### Activity 2.1. Channelization of segment 2, 3 and 4 of the Vaisigano river streambed to accommodate increased water flow and to decrease flood risks

The activity has four sub-activities. These include:

- (a) Review proposed designs for channelization of Segment 2, 3 and 4 of the Vaisigano River including the impact on channel capacity of the new Lelata Bridge and the potential for optimizing scheme design and durability;
- (b) Establishment of flood protection measures along segments 2, 3 and 4 of the Vaisigano River: The upgraded designs will be implemented by contractors selected through a competitive bidding process;
- (c) Capacity Building of maintenance teams for flood protection measures: Maintenance teams from MNRE and LTA will be trained in the preparation of the development of maintenance manuals and maintenance schedules. Over the life of the project, monitoring of flooding along the Vaisigano River segments will be undertaken to provide for the construction of similar infrastructure in the other Greater Apia Catchments; and

(d) Contracting members of the local communities for execution of activities with regards to building and landscape restoration along the Vaisigano River: A plan for the involvement of members from vulnerable population will developed related to labor intensive activities to generate employment opportunities.

#### Activity 2.2. Implement ecosystem responses upstream for decreased flows during extreme weather events

Overall, the activity includes:

- (a) Participatory mapping by communities and value chain system actors, with a focus on women and youth, to support adoption of climate-resilient technologies and practices. This will entail 1) scientific crop selection in consultation with farmers and MNRE, with a particular focus on crops and tree species that can reduce erosion and contribute to food security and/or economic value; 2) mapping of lands and identification of support delivery mechanisms suitable for each; 3) identification of non-degraded lands or areas that should be prioritized for conservation; and 4) market mapping to identify value chain development strategies;
- (b) Development, packaging, and dissemination of suite of climate-smart practices among community members;
- (c) Enterprise development of small agricultural and flood management businesses through targeted business management training and credit guarantees supported by the Small Business Enterprise Center (SBEC);
- (d) Strengthen value addition, marketing and business development (based on market mapping) for linkages with tourism industry, supermarkets, and export markets; and
- (e) Work with the communities involved to increase afforestation/conservation of native species where necessary to reduce flood risk.

The activity includes the following six sub-activities:

- (a) Determining and implementing the best protection options for flood management activities in the Vaisigano River Catchment area, depending on landscape, land tenure, existing land use and planned developments: This sub activity entails a characterization (land tenure, vegetation, land use, water resources, landscape etc.) of the Vaisigano River Catchment that will determine relevant interventions;
- (b) Demarcation process of one area within the Vaisigano River Catchment as a 'no development zone' in combination with a 'restricted zone' below it and assign this as a "Water Source Protection Area" as mandated under the Water Resources Management Act 2008 and the Water Resources Management Regulation 2013: Zoning will inform proper land use at different sub-catchment areas (i.e. steep slopes, delineation of riparian environments, sustainable agricultural sites). This will also indicate priority landowners for targeted consultations to avoid land tenure problems. Specific remote sensing exercises (e.g. via drone technology) will support in the demarcation process and detailed mapping;
- (c) Follow development consent process for demarcation: This sub-activity will formalize the status of a "Water Source Protection Area" ('no development zone' 600m above sea level (ASL) and 'restricted development zone' 300-600m ASL) will improve enforcement on unsustainable developments which contribute to increased runoff;
- (d) Develop a community based adaptation strategy for ecosystem based alternative income generating activities: Precautionary approaches such as promoting conservation of critical upland areas (e.g. payment of ecosystem services) will be explored and implemented to ensure that highly sensitive areas for flood management are protected, as it is cheaper to conserve and rehabilitate now than to mitigate in the future;
- (e) Train members of local population on these alternative income generating activities, as well as providing resources for business incubation for entrepreneurial agribusiness and climate change and flood-related business options: Ecosystem based income generating activities promote community involvement and benefit sharing of protective measures to reduce flood risks. Capacity building of community members and intermediaries on alternative income generating activities will allow for the optimization of economic impact while respecting integrity of ecosystems; and
- (f) Provision of a cash-for-work option for flood-related catchment rehabilitation (anti-erosive measures, landscaping options): The will provide a source for potential laborers from vulnerable groups to gain income.

#### Activity 2.3. Replacement of Lelata Bridge to accommodate increase flood waters

Lelata Bridge is a major artery for transport in the AUA. Disruption to this bridge results in significant knock on effects including some with life threatening consequences during emergencies. The design for implementation of Segments 2, 3 and 4 of the Vaisigano River flood scheme will necessitate replacing this bridge to maintain the design capacity of the channelization works. The Lelata Bridge was built in a time when the context with regards to flood hazards was different and not as well-known as it is now. The bridge sits lower than the proposed Vaisigano

flood protection wall and therefore will impede flows and the ability of the channel to pass the design flow. The bridge will be replaced to provide sufficient freeboard to not impede flows in the proposed channel in a 1:20 year event.

Activity 2.4. Extension of floodwalls at Leone and Lelata Bridges to prevent damage during extreme events

The proposed floodwalls adjacent to the Lelata and Leone Bridge have not been designed in line with the designs for new Leone Bridge and the proposed Lelata Bridge. The floodwalls need to be extended to accommodate the new bridges. Extension of the new floodwalls is needed for the floodwalls to be aligned with the flood proofing measures foreseen for Segments 2 and 3.

### **Output 3. Drainage in downstream areas upgraded for increased regulation of water flows**

Adequate drainage for quick dispersal of flood water and proper sanitation and sewerage facilities that avoid the mixing of polluted sewage water with storm water have been promoted in Samoa. However, their integrated planning has yet to be consolidated in an approved master plan for urban areas. While efforts are underway to do so, certain high risk hazard areas in the AUA need rapid measures to avoid their negative influence on the inland areas (nine hazard areas have been identified) along with the need to increase outfall capacity. In this context, the following activities will be undertaken:

Activity 3.1. Develop a climate resilient Stormwater Master Plan

The AUA currently has no master plan for management of the urban storm water network. Developing such a plan will lead to linking the storm water systems (developed under 3.2) to a wider storm water network that can be upgraded according to recognized priority areas. While storm water systems have been designed in the past, these designs need to be updated to adapt them to expected flood risks. These designs need to reflect adequately the causes of local flooding and the performance of the urban storm water network. As such, an integrated hydraulic model is required. The model would be part of the catchment wide model. A storm water masterplan can then be produced, and updated, based on model results.

Activity 3.2 Upgrade drainage systems and outfalls in hazard areas to accommodate flooding events

During the LDCF financed EWACC project, nine specific priority upgrades or drainage reticulation were recognized to be of extreme importance for upgrading if flooding of the AUA was to be contained. An upgrade of drainage outfalls and adjacent piped reticulation in the critical hazard coastal area is also targeted with GCF financing. The nine priority upgrades were recognized with regards to flood prone drainage areas in the Vaisigano floodplain. A critical hazard on the northern edge of the CBD adjacent to the coast is also recognized as a priority. Hazard areas will also need to be integrated into the Master plan, along with lessons learned during the implementation of the drainage systems in these areas.

#### ii. Partnerships:

21. The MoF is the implementing partner/ Executing Agency for project and will serve as chair of the steering committee for this project, along with two other on-going climate related projects, that of the National Adaptation Fund (NAF) and the Pilot Programme for Climate Resilience (PPCR). MNRE, LTA and MWTI are key ministries in this project with regard to implementation, and MoF with regard to administration, strategic coordination and steering. MoF through its Economic Policy and Planning Division (EPPD) is responsible for the coordination of the country's 14 sectors that contribute to the national development strategy and program objectives in line with a relatively recently adopted sector-wide approach to development. EPPD responsibility for sector coordination puts the ministry in the best position for facilitating the development of necessary cross-sector mechanisms and structures such as those related to better management of climate change and disaster risk management. Finally, MoF has been the implementing partner of numerous multilateral institution led development initiatives, which gives the ministry extensive experience with international accounting and reporting procedures as well as donor coordination. MoF is also the NDA for the GCF. MoF is also the lead agency in carrying out fiduciary responsibilities as well as implementation of public financial management reforms. MoF with the support

of MFAT immediately facilitates the mobilization of resources for recovery following major events ensuring a smooth transition from emergency to early recovery.

22. MNRE is the largest repository of knowledge and experience on climate and natural resources in the country, with a number of highly trained staff in areas from hydrology to land registry and management to urban planning and beyond. MNRE is also responsible for producing the key policy documents that guide climate change programming for the country, including the National Policy Statement on Climate Change and the NAPA. It is the designated secretariat for the National Climate Change Country Team (NCCCT), members of which include the CEOs of relevant ministries. The NCCCT has served as the key coordination mechanism for national response to climate change initiatives in the past, but has not remained active. Further, MNRE has been the traditional UNDP GEF implementing partner for Samoa in past years and has amassed experience with both UNDP protocol and GEF reporting procedures. Recently, it has even set up a separate division within the ministry dedicated to managing all GEF administrative work and communications.
  23. The MWTI is the government entity principally responsible for establishing, regulating, promoting and monitoring transport and infrastructure legislation and policy to ensure safe, secure and viable transportation modes and infrastructure assets. It focuses mainly on airport, road and port initiatives, but MWTI is also the national ministry in charge of developing, disseminating and monitoring specifications for the national building code, which has been revamped to accommodate the country's objectives in connection with climate change, disaster risk management and "building back better" philosophy. In this area, MWTI has considerable construction experience of relevance for the development of this GCF project.
  24. The LTA is the third partner in the implementation of the project brings together the road asset management and road use management functions under the Land Transport Authority Act 2007. The prime objective is to provide a safe and environmentally friend land transport networks for Samoa.
  25. The MOH, Ministry of Health is the fourth partner of the project who will be primarily involved in those activities relating to the EWS and Health Surveillance System which will track flood related disease outbreaks. MOH will also lead trainings for health practitioners in order to manage flood related emergencies and flood related victims.
- iii. Stakeholder engagement:
26. The project was developed with significant multi-stakeholder discussions and participation. The Ministry of Finance led the discussions on the proposal identification and development process with the full involvement of Ministry of Natural Resources and Environment (MNRE), Ministry of Works, Transport and Infrastructure (MWTI), Land Transport Authority (LTA) and other key stakeholder ministries and agencies. Civil society organizations were also fully engaged in the process. Initial consultations around the ongoing EWACC project has provided the basis for the conceptualization of the project which has been elaborated by specific teams and missions dedicated to this project.
  27. A wide range of stakeholders were involved in the development of the project, tailored to the specific needs of the three project outputs: 1) capacities and mechanisms in place for an integrated approach to reduce vulnerability towards flood related risks, 2) Infrastructure in the Vaisigano catchment are flood proofed to increase resilience to negative effects of excessive water and 3) Drainage in downstream areas upgraded for increased regulation of water flows. The key stakeholders to be engaged include a range of government line ministries to support the project implementation, and local communities.
  28. Effective stakeholder engagement involving local communities requires an understanding of Samoa's traditional social culture and community traditions. The centrality of the family unit or aiga in the

governance, decision making and organization of Samoan community life will inform the approach that the project/programme takes. Governance and family decision making particularly of marginalized or vulnerable groups, including women, young people, the elderly, people living with disability will be assisted utilising the MWCSN networks (the Mayor and the Women's Representatives) into Samoan villages will help to identify appropriate target groups.

iv. Mainstreaming gender:

29. A gender action plan has been completed prior to the GCF Board Approval for this project. The full gender analysis and action plan are included in Annex 6. The Plan recommends that project implementation take into consideration:

- The differing needs in flood disasters faced by women and men, as well as elderly people, people living with disability and youth and children;
- Analysis of the gendered division of labor (e.g. gender-differentiated roles, responsibilities, and needs);
- Women's access to, and control over, environmental resources and the goods and services that they provide;
- Identification of gaps in equality through the use of sex and age disaggregated data enabling development of action plans to close those gaps, devoting resources and expertise for implementing such strategies, monitoring the results of implementation, and holding individuals and institutions accountable for outcomes that promote gender equality;
- Ensure equitable participation by women, men, youth, elderly people and people living with disability at both macro and micro level climate resilience processes;
- Promote advocacy and awareness adjusted to most effectively reflect gender-specific differences. Strategies used in the project should be tailored, taking into account such differences, including on the risk of increased gender-based violence following disasters.
- Include all stakeholders involved in the project to develop awareness raising / training aimed at drawing attention to the implication of climate resilience adaptation and gender equality;
- Identify specific strategies to include or target women and young people in particular for income generation activities in the Vaisigano catchment area;
- Undertake community discussions and dialogue in relation to gender and social inclusion in climate and disaster resilience.

30. In addition to the recommendations listed above, it will be important to ensure that the gender and social inclusion aspects of the project are tailored specifically for a Samoan context. In order to do this, the following approaches are also strongly recommended:

- Recognize the centrality of the family unit to the organization and working of Samoan communities;
- Build on the projects, structures and initiatives being rolled out by the Government of Samoa and other development partners, in order to maximize the use of resources, and for greatest efficiency and effectiveness;
- Assess how gender is currently being mainstreamed in differing Ministries and sectors, to most effectively develop needs assessments, enable planning, and be effective in monitoring and evaluation;
- Link income generating activities identified by women and youth with projects and initiatives active in the Vaisigano catchment area, such as the Small Business Incubator for example.

Gender will be fully mainstreamed into the project implementation.

v. Knowledge:

31. Implementation of concrete adaptation actions on the ground will constitute the primary learning experience, which will feed into all awareness, training and knowledge management actions facilitated and conducted by the project. The adaptation initiatives through this project such as river works, appropriate drainage systems, health surveillance systems and upstream ecosystems-based interventions and related youth employment programmes will generate a wealth of knowledge that will be acquired by the Samoans involved in the project and will benefit a large proportion of the Samoan population in building their capacities to adapt. The directly targeted trainings built into the different elements of the project will provide specialized technical skills for GoS and non-government technical staff as well as communities and businesses. The knowledge sharing elements will be beneficial not only for other areas of Samoa but to other Pacific islands as well as this would be one of the first projects in the Pacific to deliver a comprehensive flood management solution for a densely populated, high economic impact area.
32. Knowledge and learning is envisaged at multiple levels within this project. Firstly, at the policy and planning level, the feasibility studies conducted for future projects will be integrated by the GoS into their policy planning as well towards a comprehensive programmatic approach to flood management. Secondly, the project increases potential for knowledge and learning of ecosystems-based approaches to water management, flood mitigation and health surveillance across multiple government sectors through targeted trainings at the technical level. Finally, it will increase the knowledge at the village and community levels of measures that can be taken to build climate-resilient homes, alternative livelihoods, entrepreneurial agribusiness and EWS.
33. More specifically, knowledge and learning will be applied with regards to the Health Surveillance System to track and manage flood-related disease outbreaks at the village level. GoS officials, especially from the MoH will be provided with targeted trainings on linking health and climate information and how to manage this information in order to forecast public health risks caused by flooding. Health practitioners will be trained on dealing with flood-related emergencies and at the village level, councils will be trained on how to prepare for and evacuate flood-related victims. This will become a part of the additional support through this project to the EEWS in Samoa, which while well advanced already does not cater for flood-related early warnings. Targeted trainings for technical officers at MNRE to integrate flood forecast into the EWS is part of the projects efforts to improve the technical capacities of institutions in Samoa towards climate change-induced hazards. This will also go hand in hand with the activities to raise awareness on flood-related EWS, targeting health practitioners and village councils.
34. The project has included capacity building for upstream ecosystem enhancing activities that will protect and revitalize the water catchment, including: agroforestry projects, forest-pastoral systems and microbusinesses. This forms a strong element of knowledge and learning that will benefit communities and the businesses alike. From a business incubation angle, the project will extend the existing lending, guarantee, and training programs to new businesses that contribute to flood management in the catchment area, established under the SBEC and Development Bank of Samoa. Trainings will be designed to ensure interventions are maintained over the long-term.
35. To date, the SBEC has not had a strong focus on climate change resilience. The project will allow the SBEC to strengthen and extend its services to SMEs and vulnerable populations, particularly women and youth, to enhance their resilience to climate change and reduce downstream flood risks. Through this these trainings and the knowledge acquired, microbusinesses can develop and improve their capacity to access market links to the value chains of larger national and foreign-owned companies, ensuring business feasibility well beyond the duration of the project.
36. Financial management trainings for farmers will improve the capacity of farmers to access financial resources, which will also be enhanced through partnerships with several NGOs and government small business lending programs. The already established relationship of this project with SUNGO will be a



strong link these trainings as SUNGO has not only provided input for government policy and planning processes on issues impacting quality of life for the people of Samoa but is also part of a regional NGO network involved in implementing international projects as well as trainings. NGOs will provide training, monitoring, and mentoring of village based multi-disciplinary frontline workers who will in turn train community members in resilient livelihoods, and in linking households with green jobs and agro processing markets.

37. Overall for the ecosystem component of the project, 6,000 beneficiaries residing in 18 villages in the Vaisigano River Catchment will be offered specialized training to generate activities and business proposals to implement community-based adaptation measures. Of these 6,000 beneficiaries, it is expected that 50%, or 3,000 beneficiaries, will take up the training. Of these 3,000 beneficiaries receiving training, it is assumed that 25%, or 750 people will develop a business plan that is approved for a microfinance loan ranging from 500 Tala to 30,000 Tala. Coupled with adequate business skills training, it is assumed that more than 95%, or 715 beneficiaries will develop business ideas that will increase incomes for themselves and their family.
38. Finally, a body of knowledge will be developed through these interventions that will contribute towards more sustained climate resilient solutions across the Pacific where other islands are confronted with similar flood management challenges. Through monitoring of the effectiveness of the planned investments, awareness raising support, targeting all the islands, exchange visits (bringing island representatives from non-target islands), collection and dissemination of public health data at the village level by MoH, and organization of regional knowledge sharing events, the project builds national and regional knowledge on effective flood management processes and climate resilient hard and soft infrastructure 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 flood management measures put in place in the project. The M and E plan will include provisions 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 region.

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## V. FEASIBILITY

### i. Cost efficiency and effectiveness:

39. The project will reduce the vulnerability of 30% of the population of Samoa through minimizing the likelihood of damages from extreme events in the Vaisigano River Catchment. This objective will be achieved in a cost effective manner through the following considerations that have been reflected in the design of the project:
  - (a) Selection of locally appropriate options, based on detailed site-specific assessments and public consultations, taking into consideration the operations and maintenance requirements; and
  - (b) A comprehensive approach to removal of multiple barriers
40. During the implementation of the project, advantages and disadvantages of the proposed engineering solutions will be discussed to ensure community acceptance and optimal solutions can be obtained. The cost effectiveness of strengthening disaster preparedness and climate change adaptation measures have been proven. For example, inclusion of disaster resilient features in the design of new construction projects is estimated to increase construction costs by 1%. In comparison, the cost of repair and reconstruction of damage caused by climate-induced natural disasters is estimated to be 35-40% of total

construction costs.<sup>1</sup> According to the PDNA (2012), the total cost of damage and losses from Cyclone Evan was estimated at US\$203 million which equates to more than a quarter of the country's GDP. Without appropriate counter-measures for climate risks, economic assets are threatened by damage and resources are likely to be diverted away from development spending towards disaster response and reconstruction. Thus, this project will include upstream "soft" interventions to address root causes of vulnerability.

41. The project will also address a range of issues that limit the sustainability and effectiveness of ongoing or planned interventions such as technical, institutional, financial and regulatory barriers. The short timespans for current projects/programmes of 4-5 years is insufficient to tackle longer term challenges. Budgetary restrictions do not allow for the highest priority risk-prone geographical areas and critical infrastructure to be addressed by such projects. This project will also remove the capacity barrier through institutional capacity building, thus bringing in more transformational change in the medium to longer-term.
  42. The project will also establish a sustainable financing mechanism for continuous monitoring, operations and maintenance for what is considered a public good. It will do so through design by crowding in public finance once the existing barriers are sufficiently removed. The development partners who are interested in assisting the operationalization of the parts of the SDS will benefit from the knowledge and lessons from this project which can be used to upscale and introduce in other catchments.
  43. The Government will be investing in operations and maintenance related to the planned infrastructure. The technology selected is done so in part because they require relatively low maintenance, in addition to be industry best practices while being locally appropriate to the context of Samoa.
  44. The economic net present value of the proposed investment project has been estimated to reach approximately US\$15.6 million, and to yield an economic internal rate of return of approximately 15.5%.<sup>2</sup> This is expected to be an under-estimate as assumptions made in the economic analysis are conducive to underestimating the true economic value of the proposed investment project. Sensitivity analysis shows the net present value (NPV) to be reasonably robust to both increases in estimated economic costs and decreases in estimated economic benefits. As such, the planned investment project is deemed to be economically efficient.
- ii. Risk Management:
45. Please see Risk Log in Annex 14. for full details on risk management. The overall risk rating for this project is Moderate. As per standard UNDP requirements, the 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.
- iii. Social and environmental safeguards:

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<sup>1</sup> Pereira, J. 1995. *Costs and Benefits of Disaster Mitigation in the Construction Industry*. Caribbean Disaster Mitigation Project. Available at [http://www.preventionweb.net/files/1177\\_CDMPCostsandBenefits.pdf](http://www.preventionweb.net/files/1177_CDMPCostsandBenefits.pdf)[http://www.preventionweb.net/files/1177\\_CDMPCostsandBenefits.pdf](http://www.preventionweb.net/files/1177_CDMPCostsandBenefits.pdf)

<sup>2</sup> These estimates will be subjected to further analysis and review.

46. A full Social and Environmental Screening Process and Management Plan have been completed for the project - see Annex 5. Environmental risks associated with project activities have been deemed moderate. They include:

Risk 1: Sediment movement during riverbank works  
Risk 2: Sediment movement during ecosystem revegetation works  
Risk 3: Exposure of Acid Sulfate Soils  
Risk 4: Construction waste

47. In addition to the Social and Environment Management Plan, an Integrated Watershed Management Plan has been prepared for Apia (see Annex 17). 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](mailto: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.

iv. Sustainability and Scaling Up:

48. The project has been designed through extensive consultations and involvement of government, NGOs, and CBOs to ensure ownership of the interventions and effectiveness of their impact. Relevant government agencies and local communities have been involved in the design and will be leading on implementation of project interventions. The topic of flood management is very real to a majority of Samoans given that many have been directly affected by their repeated occurrence.
49. The project builds on this commitment and ownership to ensure that the investments and impacts are sustained for the long-term. The project will be sustainable because it will remove key technical and capacity barriers in order to enhance resilience in flood management of the Vaisigano River Catchment.
50. River works: Proposed river works and physical assets to be constructed/strengthened will protect the local community from inundation during flood events. The selection of the intervention has been done to achieve long-lived protection measures with minimal maintenance. However, for the minimal maintenance that is typically required for hard infrastructure, such as the repair of the bridges or river works, or monitoring and repairing vandalism and visual wear and tear, GoS co-financing will cover such costs. For the O and M plan developed indicates that the costs associated to the river works (Activity 2.1, 2.3 and 2.4) would be approximately \$200,000/year. GoS has committed financial resources to cover these expenses during the lifespan of the project (See Annex 4).
51. Livelihoods: Capacity building for upstream ecosystem enhancing activities as well as establishing producer groups will protect and revitalize the water catchment areas, including through agroforestry projects, forest-pastoral systems and microbusinesses. Trainings will be designed to ensure interventions are maintained over the long term. As microbusinesses develop, stakeholders will facilitate market access links to the value chains of larger national and foreign-owned companies, ensuring business feasibility well beyond the duration of the project. In addition, commercial banks and government lending authorities will receive technical assistance to incorporate climate resilience into their lending criteria, and local construction companies will receive training in meeting new flood resilient building codes. Furthermore, the capacity of farmers to access financial resources, including through financial management training, will be enhanced through partnerships with several NGOs and government small business lending programs. The Samoa Umbrella of Non-Governmental Organizations (SUNGO) which is a

network of over 110 member organizations comprising of NGOs, CBOs, Civil Society Organizations (CSOs) and Trusts that provide alternative development options and assistance to community groups in Samoa has been, and continues to be consulted during the preparation of this project and will play a key role during the implementation of the project through upstream ecosystem response and outreach activities. Programmes such as the SBEC that work closely with SMEs will also be involved in the upstream ecosystem based responses, thus ensuring that the results achieved by the GCF financed activities are sustained well beyond the lifetime of the project by these organizations. This project is therefore part of a broader suite of actions that the GoS is seeking support on in addition to its own resource commitments to address flood management from extreme events. The measures outlined in this project, will address a need that will not require additional investment for the next 30-40 years.

52. Drainage: The project will support to upgrade nine drainage reticulation upgrades that were recognized to be of extreme importance for upgrading if flooding of the AUA was to be contained. The project will also include the upgrading of outfalls to move water away more quickly during a flood event. It was assessed that the annual O and M cost will be 1% of capital cost which is very reasonable. Activity 3.2.2 budget US\$10 million, therefore O and M cost for the in Activity 3.2.2 would be \$100,000/year. GoS has committed financial resources to cover these expenses during the lifespan of the project (See Annex 4).
53. Capacity building: At the central government level, the Climate Resilient Investment Coordination Division within MoF will receive capacity building as part of efforts to prepare GoS for GCF direct access in the future. The lessons drawn from this project will also feed into the broader programmes that GoS ultimately will be operationalizing over the coming years with GCF and other resources. The broader outcome of the project will work in a phased approach, treating both consecutive geographic zones (starting with Vaisigano River Catchment to the Greater Apia Catchment and onwards to other macro- and micro-catchments in Samoa), as well as prioritized themes (starting with integrated flood management).
54. Programmatic approach: A body of knowledge will be developed through these interventions that will contribute towards more sustained climate resilient solutions across the Pacific where other islands are confronted with similar flood management challenges. It is important to emphasize that building a climate resilient flood management programme is a new field in Samoa and many parts of the Pacific. Information and awareness gaps are still significant in the country in terms of water management 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 and dissemination of public health data at the village level by MoH, and organization of regional knowledge sharing events, the project builds national and regional knowledge on effective flood management processes and climate resilient hard and soft infrastructure 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 flood management measures put in place in the project. This GCF project will become one of the first projects in the Pacific that delivers a comprehensive flood management programme solution for a densely populated, high economic impact area. The overall experience from the implementation of this project, therefore, will contribute significantly to the national and regional body of knowledge. Accumulation of such knowledge in turn becomes critical to effectively expand and maintain flood management programmes in the region.

v. Economic and/or Financial Analysis:

55. Samoa is no stranger to the impacts of hydrometeorological hazards, as it has been affected by cyclones numerous times in recent decades. In 1990 and 1991, Cyclone Ofa and Cyclone Val respectively caused a total of 21 fatalities and losses between USD 300 and 500 million equivalent to approximately four times Samoa's GDP.<sup>36</sup> More recently, Cyclone Evan caused significant damages and losses. Damages to durable

physical assets destroyed by Cyclone Evan were estimated to reach approximately USD\$103 million while production losses were estimated to reach approximately USD\$100 million, for a total effect reaching beyond USD 200 million. Compared to the size of Samoa's economy (estimated at the time of Cyclone Evan to be approximately USD\$725 million), Cyclone Evan created an adverse impact corresponding to approximately 30% of Samoa's economy.<sup>37</sup> Following Cyclone Evan, real GDP declined by 0.4%. Associated with cyclones and heavy precipitations are floods. Extreme floods have been experienced numerous times in recent decades, including in 1990, 1991, 2001, 2003, 2006 and 2008. Samoa, including the AUA, has suffered significantly from the impacts of flooding.

56. Perhaps more importantly in the context of the current planned flood mitigation investment project, Samoa's disaster risk profile indicates a high degree of risk in the context of climate change. Samoa is expected to incur, on average, approximately USD\$7 million/year in direct losses due to cyclones and an additional USD\$1.6 million/year (on average) in emergency losses.
57. In a more recent analysis of the economic costs of adaptation in the Pacific, adapting infrastructure to projected changes in rainfall and associated floods solely in the more urbanized areas of Samoa was projected to cost on average USD\$7.8 million/year over the period 2011-2050 for a total outlay of approximately USD\$300 million (without discounting).
58. There is thus clear evidence in Samoa that the economic costs of climate hazards have historically been high and that they are projected to increase as result of climate change. The current project aims to significantly contribute to achieving climate resilience in Samoa, and more specifically in the Vaisigano River Catchment.
59. Approach and Methodology to the Economic Analysis:  
The economic analysis of the proposed project was carried out in accordance with the Guidelines for the Economic Analysis of Projects of United Nations Development Programme. The economic efficiency of the investment was determined by computing the economic NPV with an assumed 10% discount rate, and the economic internal rate of return (IRR). For consistency purposes, all proposals developed with the support of UNDP have opted to use a 10% discount rate, in line with the existing practice of multilateral development banks. The time horizon for the economic analysis was set at 25 years.
60. Economic values (costs and benefits) are all measured in real terms of 2016. Economic costs of the project are net of taxes, duties, and price contingencies. Furthermore, the analysis assumes a shadow wage rate of 1.00 for unskilled and semi-skilled labor in Samoa. Provided that the economic cost of labor in Samoa is expected to be lower than the market wage rate (financial cost), we expect this assumption leads to significantly over-estimating the economic cost of the project, and under-estimating the true net economic value of the project. For example, in a recent (2014) cost-benefit analysis of an Agribusiness Support Project in Samoa, the Asian Development Bank (ADB) used a shadow wage rate factor of 0.9, reflecting a judgment that the labor component of the project had a lower opportunity cost than is implied by the financial labor cost (as a result of the existence of surplus unskilled and semi-skilled labor in Samoa). In the more recent Samoa Submarine Cable Project, the ADB used a shadow wage rate factor of 0.8 in the cost-benefit analysis of the project. Using a shadow wage rate of 1.00 allows the use of financial cost as a measure of the economic cost of the project (once again noting that in doing so, the economic cost of the project is over-estimated, and the net present value of the investment is then under-estimated).
61. As is common when undertaking the economic analysis of investment projects, numerous assumptions were used to delineate the "with project scenario" from the "without project scenario". These

assumptions are presented and discussed in details in Economic Analysis (attached as Annex 16). Assumptions were made so as to under-estimate the true net economic value of the proposed investment project.

62. The cost of the various components (both capital and operation and maintenance costs) were provided with the support of engineering experts.
63. The assessment of the benefits of the investment proceeded in four different steps. First, mapping of flooded areas in the lower Vaisigano River Catchment area was simulated for four return period flooding events: 1:1, 1:5, 1:20, and 1:100 year event. For each of these four events, mapping of flooded areas with and without the proposed investment project were performed. The shrinking of the extent of the flooded areas provided by the project intervention indicated the mitigation impacts of the project. Second, housing and building were overlay on the identified flooded areas. For this purpose, the project team had access to the extensive database the Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI). Third, flooding damages to housing and building were estimated with the support of the RiskScape platform. Estimated flooding damages include damages to housing, building, and to housing contents. Estimates of flooding damages to housing and building with and without project interventions were performed and the difference between the two scenarios provided an estimate of the potential benefits of the project. Fourth, estimates of infrastructure damages as well as production losses (lost revenues) were estimated using information available in the Woodruff (2008), GoS (2013), and World Bank (2016).<sup>47</sup> The details of the above methodology are available in Economic Analysis (attached as Annex 16).

#### Results:

64. The economic NPV of the proposed investment project has been estimated to reach approximately US\$15.6 million, and to yield an economic IRR of approximately 15.5%.<sup>48</sup> As indicated earlier, this is expected to be an under-estimate as the assumptions made in the economic analysis are conducive to under-estimating the true economic value of the proposed investment project. Sensitivity analysis shows the NPV to be reasonably robust to both increases in estimated economic costs and decreases in estimated economic benefits. As such, the proposed investment project is deemed to be economically efficient.

#### Other Benefits

65. Some benefits of this project were not included in this analysis due to limited data. In particular, the health benefits of the proposed investment projects were not included in the analysis. Data collected by the MoH indicates a positive correlation between the occurrence of flooding events and the (reported) incidence of various diseases. Similarly, this economic analysis did not include the potential impacts of flooding on the rapidly growing tourism sector in Samoa. Finally, the macro-economic impacts of the flooding were not included in the analysis. Including the benefits of mitigating these impacts would increase the estimated NPV and IRR of the proposed project.

## VI. PROJECT RESULTS FRAMEWORK

	<p>This project will contribute to the following Sustainable Development Goal (s):</p> <p>This project will contribute to the following country outcome included in the UNDAF/Country Programme Document:</p> <p><b>UNDAF Goal 1:</b> By 2017, the most vulnerable communities across the Pacific Island Countries and Territories are more resilience and select government agencies, civil organization and communities have enhanced capacity to apply integrated approaches to environmental management, climate change, adaptation/mitigation and disaster risk management.</p> <p><b>UNDAF Goal 3:</b> Enhanced inclusive economic growth and poverty reduction through improved and increase sustainable employment, livelihood opportunities and food security for women, youth and vulnerable groups.</p> <p><b>UNDAF Goal 5:</b> Regional, national, local and traditional governance systems are strengthened, respecting and upholding human rights, especially in line with international standards.</p> <p>This project will be linked to the following output of the UNDP Strategic Plan:</p> <p>Output 1.4: Scaled up action on climate change adaptation and mitigation cross sectors which is funded and implemented.</p> <p>GCF Paradigm shift objectives:</p>					
<b>SDG indicators</b>	<b>Objective and Outcome Indicators</b>	<b>Means of Verification (MoV)</b>	<b>Baseline</b>	<b>Mid-term Target</b>	<b>End of Project Target</b>	<b>Assumptions</b>
	<i>Indicator 1.5.3: Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015-2030</i>	<i>Quarterly and annual monitoring reports.</i>	<i>No sectoral policies aligned to the Sendai Framework.</i>	<i>N/A</i>	<i>4 sectoral plans / studies developed/adopted for key sectors in the Greater Apia Catchment (Roads, Drainage, Reservoir, Water supply, etc.) aligned to the Sendai Framework for Disaster Risk Reduction 2015-2030.</i>	<i>The Government of Samoa is currently in the process of defining the national SDG framework and localizing global SDG targets and indicators. At project inception, the project, jointly with Government partners will review the baselines and define project specific mid-term and end-of-project targets, in line with global SDG targets and indicators.</i>
<b>UNDP Strategic Plan Indicators</b>	<b>Output 1.4: Scaled up action on climate change adaptation and mitigation cross</b>	<i>Quarterly and annual monitoring reports.</i>	<i>No scaling up at current date</i>	<i>50% of project complete</i>	<i>100% of project completed and delivered.</i>	<i>The presence and magnitude of earthquakes, tsunamis</i>

	<i>sectors which is funded and implemented.</i>  <i>Direct project beneficiaries: 26,528 residents located in the AUA.</i>				<i>d and delivered.</i>	<i>and cyclones do not delay the implementation of the project.</i>
<b>FUND LEVEL IMPACT:</b>						
<b>Fund level Impact:</b> 1. Increased resilience of infrastructure and the built environment to climate change	1. 1. Number physical assets made more resilient to climate variability and change, considering human benefits  1. 2. Value of physical assets made more resilient to climate variability and change, considering human benefits	Questionnaire based surveys (QBS / Interviews) at the beginning, mid-term and end of the project.  Prepare quarterly reports by construction vendors	No single engineered river works solutions to minimize and to withstand flooding exists in Segments 2, 3 and 4 in the Vaisigano River.  EWACC project (12 M) climate proofing only segment 1 of Vaisigano river catchment area.	N/A	Following physical assets constructed or strengthened:  Channelization of Segments 2, 3 and 4 of the Vaisigano River  Construction upgrade of Lelata bridge  Extension of floodwalls at Lelata and Leone Bridges  At least 40 M dedicated to climate proof segment 2, 3 & 4 and drainage works in AUA.	Political stability fosters implementation as planned.  The presence and magnitude of earthquakes and tsunamis do not delay the implementation of the project.  Coordination among EWACC project (Segment 1) and GCF project (Segments 2, 3 and 4) will be aligned during implementation of interventions along the Vaisigano River.  Environmental and social impact assessment is completed and approved without delay.
<b>PROJECT OUTCOMES:</b>						
<b>Project Outcomes:</b> 1. Strengthened adaptive capacity and reduced exposure to climate risks	1. 1. Use by vulnerable households, communities, businesses and public sector services of Fund supported tools, instruments, strategies and activities to respond to climate change and variability.		Currently, residents and economic assets located in the AUA lack protection from extreme flooding of the Vaisigano River		At least 26,528 residents located in the AUA are protected by flood management interventions.	Good coordination between government agencies enhances project progress that is aligned with sectoral



	<p>1. 2. Number of males and females (and percentage of total population) reached by climate related early warning systems established/ strengthened</p>		<p>Currently the EWS covers only tsunami and earthquake warnings.</p>		<p>At least 26,528 residents located in the AUJA receive EWS for flooding.</p>	<p>adaptation priorities.  Coordination among EWACC project (segment 1) and GCF project (Segment 2, 3 and 4) will be aligned during implementation along the Vaisigano River  Good coordination among National Siren Network and MNRE foster expansion of the EWS.</p>
<b>PROJECT OUTPUTS:</b>						
<p><b>Project Outputs</b> 1. Assessments and mechanisms in place for an integrated approach to reduce vulnerability towards flood related risks</p>	<p>Number of sectoral plans and studies developed and/or adopted aligned to the IWMP.  Number of technical and extension officers trained on flood-related EWS data collection and interpretation</p>	<p>Review of Sectoral plans and IWMP document along with GoS staff semi-structured interviews.  Workplace survey at the beginning, midterm and end of the project.</p>	<p>Limited number of sectoral plans and projects to centrally plan drainage. No feasibility studies prepared for better rain and wastewater storage.  Limited capacity exists for technicians to interpret early warning data and instruments utilize for flood related response</p>		<p>4 sectoral plans / studies developed/adopted for key sectors in the Greater Apia Catchment (Roads, Drainage, Reservoir, Water supply, etc.) aligned to the IWMP.  At least 300 technicians will be trained on EWS related to flooding.</p>	<p>Coordination between government agencies enhances and sustains project progress that is aligned with sectoral adaptation priorities. MNRE Climate Change Unit and MoFCRICU will ensure a programmatic approach and coordination of adaptation work.  Human resources in government ministries and agencies will be sufficient to ensure successful development of sectoral plans aligned to IWMP and implementation of flood-related EWS...</p>
<p><b>Project Outputs</b></p>	<p>Number of people benefitting from</p>	<p>Review of infrastructure</p>	<p>No people benefit</p>		<p>At least 26,528</p>	<p>Coordination with</p>

<p>2. Infrastructure in the Vaisigano River are flood proofed to increase resilience to negative effects of excessive water</p>	<p>improved flood management through implementation of hard and soft measures for protection of community assets (set by gender)</p> <p>Number of people reached by flood - related early warning systems established (separate by gender).</p>	<p>design to verify climate resilience. Site visits to verify implementation of climate resilient flood protection measures.</p> <p>Household and business surveys conducted at baseline (prior to implementation of interventions), MTR and TE/end line.</p>	<p>from management from climate resilient flood protection measures introduced in Vaisigano River for protection of community assets.</p> <p>The current EWS does not cover floods.</p>	<p>people benefit from improved flood management from climate-resilient flood protection measures introduced in Vaisigano River for protection of community assets (separate gender).</p> <p>At least 26,528 people benefit from EWS coverage related to flooding alerts in Apia.</p>	<p>EWACC project increases opportunities for collaboration and alignment with interventions segment 2 and 3.</p> <p>Coordination between government agencies enhances and sustains project progress that is aligned with sectoral adaptation priorities and EWS expansion.</p> <p>Involvement of women committees and traditional authority structures will ensure gender and cultural sensitivity of project interventions.</p>
<p><b>Project Outputs</b></p> <p>3. Drainage in downstream areas upgraded for increased regulation of water flows.</p>	<p>Number of households served with flood-proofed drainage in Vaisigano River Catchment</p>	<p>Review of Drainage Master Plan design to verify climate resilience. Site visits to verify drainage systems upgraded to withstand flooding.</p>	<p>Currently, hazard areas exist within the AUA have inadequate drainage systems to withstand high volumes of water<sup>5</sup></p>	<p>At least 5,000 households benefit from flood-proofed drainage in Apia.</p>	<p>Awareness-raising of communities allows them to perceive adaptation benefits of project interventions.</p> <p>Constant communication and management of expectations ensures continuous community involvement throughout planning and implementation</p>

## VII. MANAGEMENT ARRANGEMENTS

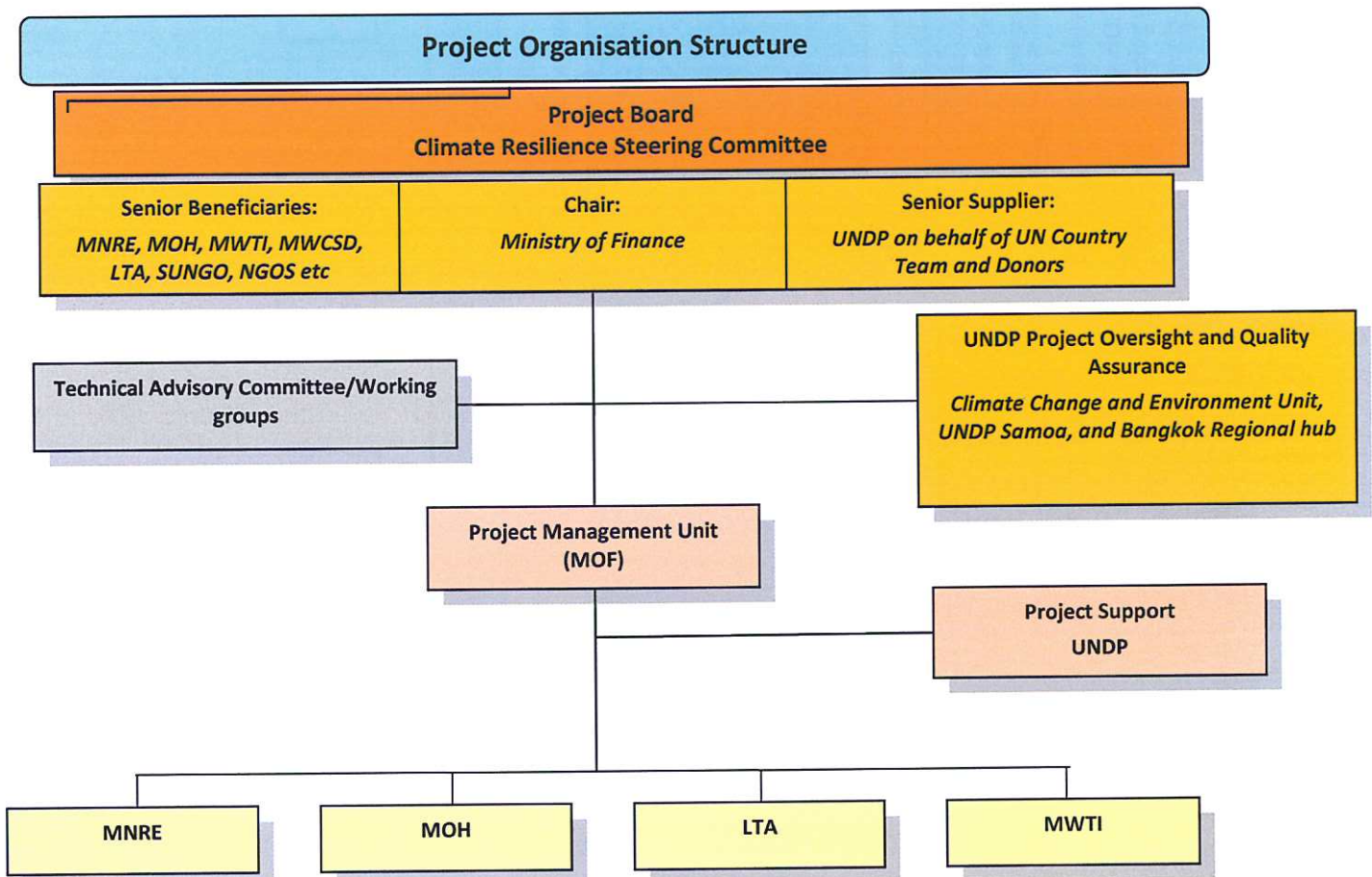
i. Roles and responsibilities of the project’s governance mechanism:

66. The project will be implemented following UNDP’s national implementation modality, according to the Standard Basic Assistance Agreement between UNDP and the Government of Samoa, and the Country Programme.

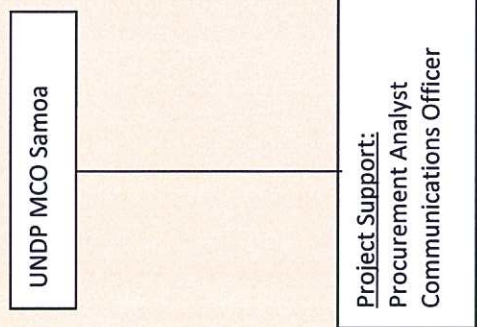
67. The **Implementing Partner** for this project is Ministry of Finance (MoF). The Implementing Partner is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of UNDP resources. The Implementing Partner is responsible for:

- Approving and signing the multiyear workplan;
- Approving and signing the combined delivery report at the end of the year; and,
- Signing the financial report or the funding authorization and certificate of expenditures.

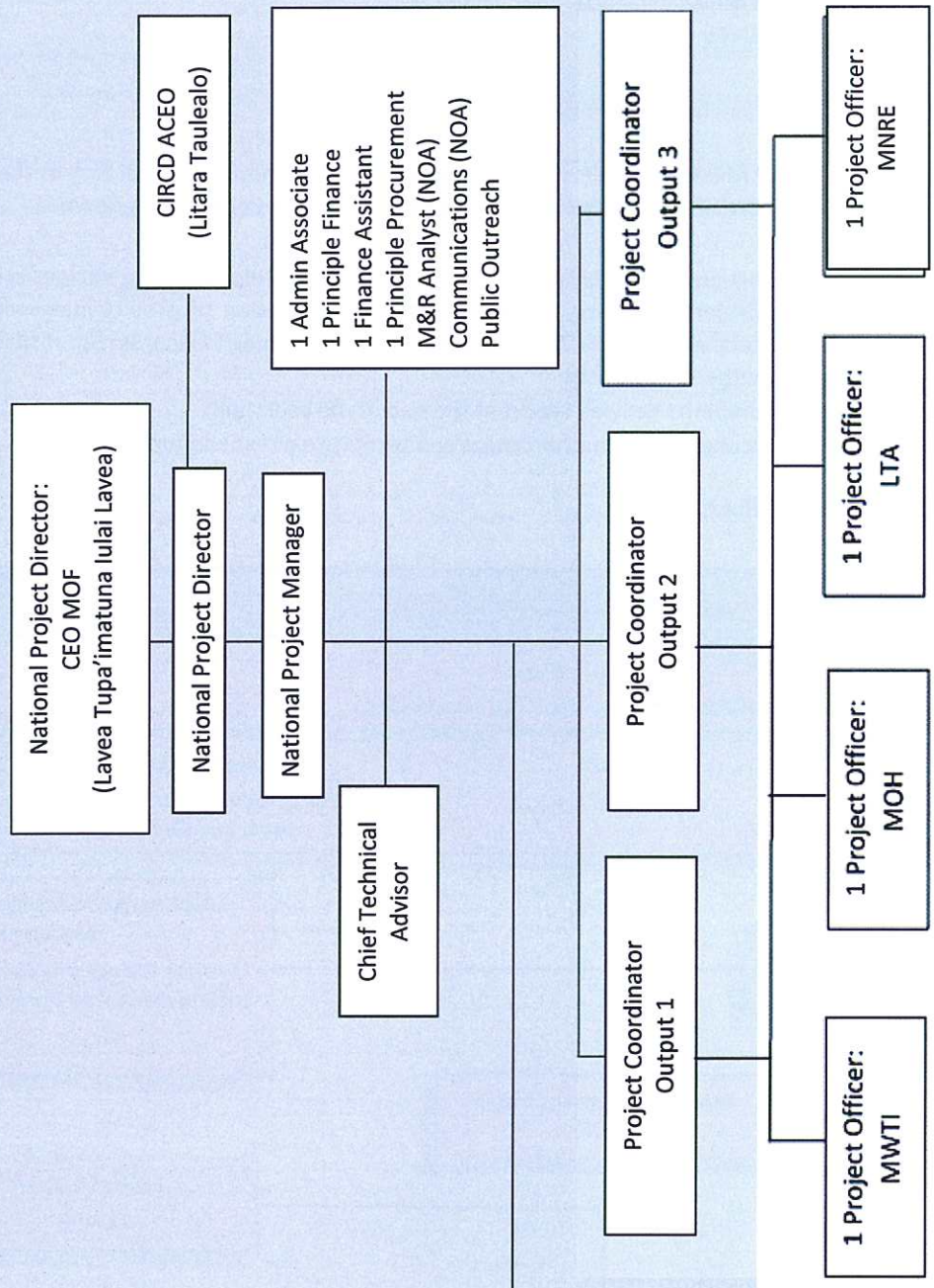
The project organisation structure is as follows:



**United Nations Development Programme:**



**Ministry of Finance:**



68. **Project Board:** The Project Board (also called Project Steering Committee) is responsible for making by consensus, management decisions when guidance is required by the Project Manager, including recommendations for UNDP/Implementing Partner approval of project plans and revisions. 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 Programme Manager.

69. Specific responsibilities of the Project Board include:

- Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
- Address project issues as raised by the project manager;
- Provide guidance on new project risks, and agree on possible countermeasures and management actions to address specific risks;
- Agree on 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 project manager's tolerances are exceeded; and
- Assess and decide to proceed on project changes through appropriate revisions.

70. 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 Ministry of Finance*

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 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: *United Nations Development Programme Multi Country Office CO Samoa*

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: *Government of Samoa: Ministry of Finance, Ministry of Natural Resources and Environment, Ministry of Health, Ministry of Works, Transport and Infrastructure and the Land Transport Authority.*

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.

**Project Manager:**

71. The Project Manager 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 Project Manager is responsible for day-to-day management and decision-making for the project. The Project Manager'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.
72. The Implementing Partner appoints the Project Manager, who should be different from the Implementing Partner's representative in the Project Board.
73. 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;

**Project Assurance:**

74. 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 National Project Director. This project oversight and quality assurance role is covered by the accredited entity fee provided by the GCF.
75. 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><b>1. Project start-up:</b></p> <ul style="list-style-type: none"> <li>• 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</li> <li>• 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</li> <li>• Prepare the Project Document with the government counterparts</li> <li>• Technical and financial clearance for the Project Document</li> <li>• Organize Local Project Appraisal Committee</li> <li>• Project document signature</li> <li>• Ensure quick project start and first disbursement</li> <li>• Hire project management unit staff</li> <li>• Coordinate/prepare the project inception workshop</li> </ul>	70%

Function	Detailed description of activity	Typical GCF fee breakdown
	<ul style="list-style-type: none"> <li>• Oversee finalization of the project inception workshop report</li> <li><b>2. Project implementation:</b></li> <li>• <u>Project Board</u>: Coordinate/prepare/attend annual Project Board Meetings</li> <li>• <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)</li> <li>• <u>Prepare GCF/UNDP annual project report</u>: review input provided by National Project Director/team; provide specialized technical support and complete required sections</li> <li>• <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.</li> <li>• <u>Procurement plan</u>: Monitor the implementation of the project procurement plan</li> <li>• <u>Supervision missions</u>: Participate in and support in-country GCF visits/learning mission/site visits; conduct annual supervision/oversight site missions</li> <li>• <u>Interim Independent Evaluation Report</u>: Initiate, coordinate, finalize the project interim evaluation report and management response</li> <li>• <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)</li> <li>• <u>Project budget</u>: Provide quality assurance of project budget and financial transactions according to UNDP and GCF policies</li> <li>• <u>Performance management of staff</u>: where UNDP supervises or co-supervises project staff</li> <li>• <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.</li> </ul>	



Function	Detailed description of activity	Typical GCF fee breakdown
Oversight of project completion	<ul style="list-style-type: none"> <li>Initiate, coordinate, finalize the Project Completion Report, Final Independent Evaluation Report and management response</li> <li>Quality assurance of final evaluation report and management response</li> <li>Independent Evaluation Office assessment of final evaluation reports; evaluation guidance and standard setting</li> <li>Quality assurance of final cumulative budget implementation and reporting to the GCF</li> <li>Return of any un-spent GCF resources to the GCF</li> </ul>	10%
Oversight of project reporting	<ul style="list-style-type: none"> <li>Quality assurance of the project interim evaluation report and management response</li> <li>Technical review of project reports: quality assurance and technical inputs in relevant project reports</li> <li>Quality assurance of the GCF annual project report</li> <li>Preparation and certification of UNDP annual financial statements and donor reports</li> <li>Prepare and submit fund specific financial reports</li> </ul>	20%
	<b>TOTAL</b>	<b>100%</b>

76. Direct Project Services as requested by Government: services provided to government directly under NIM. The UNDP Country Office will also deliver a pre-determined set of project-specific execution services at the request of the Government. To ensure the strict independence required by the GCF and in accordance with the UNDP Internal Control Framework, these execution services should be delivered independent from the GCF-specific oversight and quality assurance services (i.e. not done by same person to avoid conflict of interest).

These execution services will be charged to the project budget in accordance with the [UNDP's Harmonized Conceptual Funding Framework and Cost Recovery Methodology](#). The letter of agreement for these direct project costs is included in Annex 2.

77. The government has requested UNDP to undertake the following services: procurement of specialized equipment for interventions related to river works, drainage , etc. and services foreseen by the project, recruitment of key technical national & international staff and consultants, arrangements for international travel estimated at \$156,237.00 from the total project budget.

78. Project Management Unit:

The project management unit will be housed at the Central Bank Building of the Ministry of Finance. The project coordinators for each Output will be housed with each responsible party. The PMU will work closely and through the Climate Resilience Investment and Coordinaton Division (CRICD) of the Ministry of Finance under the Authority of the Chief Executive Officer. The CRICD unit coordinates major CC related projects finances for the Government of Samoa.

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

80. Disclosure of information: Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy<sup>3</sup> and the GCF Disclosure Policy<sup>4</sup>.
81. Carbon offsets or units: 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.
82. Transfer or disposal of assets: In consultation with the NIM Implementing Partner and other parties of the project, UNDP programme manager (UNDP Resident Representative) is responsible for deciding on the transfer or other disposal of assets. Transfer or disposal of assets is recommended to be reviewed and endorsed by the project board following UNDP rules and regulations. Assets may be transferred to the government for project activities managed by a national institution at any time during the life of a project. In all cases of transfer, a transfer document must be prepared and kept on file. POPP:

[https://popp.undp.org/\\_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP\\_POPP\\_DOCUMENT\\_LIBRARY/Public/PPM\\_Project%20Management\\_Closing.docx&action=default](https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PPM_Project%20Management_Closing.docx&action=default). In addition, the following GCF requirements must be followed: As stated in Clause 9.03 of the Funding Activity Agreement included in Annex 1<sup>5</sup>, the Accredited Entity shall inform the GCF, in the final APR, which steps it intends to take in relation to the durable assets and/or equipment purchased with the GCF Proceeds to implement the Funded Activity.

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<sup>3</sup> See [http://www.undp.org/content/undp/en/home/operations/transparency/information\\_disclosurepolicy/](http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/)

<sup>4</sup> See [https://www.greenclimate.fund/documents/20182/184476/GCF\\_B.12\\_24\\_-\\_Comprehensive\\_Information\\_Disclosure\\_Policy\\_of\\_the\\_Fund.pdf/f551e954-baa9-4e0d-bec7-352194b49bcb](https://www.greenclimate.fund/documents/20182/184476/GCF_B.12_24_-_Comprehensive_Information_Disclosure_Policy_of_the_Fund.pdf/f551e954-baa9-4e0d-bec7-352194b49bcb)

<sup>5</sup> 23.04 of the AMA states: " In relation to a Funded Activity that is a grant financed in whole or in part with GCF Proceeds, if any part of such grant is used to purchase any durable assets or equipment used to implement the relevant Funded Activity (such as vehicles or office equipment), upon completion of the Funded Activity or termination of the relevant FAA in accordance with its terms, the Accredited Entity shall take such steps in relation to such assets or equipment which it reasonably deems in the best interest of the continued operation of the Funded Activity taking into consideration the objectives of the Fund and the terms of the applicable SBAA."

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## VIII. MONITORING AND EVALUATION (M&E) PLAN

83. 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. Monitoring and Evaluation plans have been included in Annex 8 and Annex 9 respectively.
84. 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.
85. In addition to these mandatory UNDP and GCF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed during the Project Inception Workshop and will be detailed in the Inception Workshop Report. This will include the exact role of project target groups and other stakeholders in project M&E activities including national/regional institutes assigned to undertake project monitoring.

### M&E oversight and monitoring responsibilities:

86. **Project Manager:** The Project Manager is responsible for day-to-day project management and regular monitoring of project results and risks, including social and environmental risks. The 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 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.
87. The Project Manager will develop annual work plans to support the efficient implementation of the project. The 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.
88. **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.
89. **Project Implementing Partner:** The Implementing Partner is responsible for providing any and all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary and appropriate. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes, and is aligned with national systems so that the data used by and generated by the project supports national systems.
90. **UNDP Country Office:** The UNDP Country Office will support the 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.

91. 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 Project Manager.
92. 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.
93. 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.
94. **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.

#### Audit:

95. The project will be audited according to UNDP Financial Regulations and Rules and applicable audit policies on NIM implemented projects.<sup>6</sup> Additional audits may be undertaken at the request of the GCF.

#### Additional monitoring and reporting requirements:

96. **Inception Workshop and Report:** A project inception workshop will be held within two months after the project document 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.
97. The 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. The project inception report must be submitted to the GCF no later than 6 months after the FAA effectiveness date.

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<sup>6</sup> See guidance here: <https://info.undp.org/global/popp/frm/pages/financial-management-and-execution-modalities.aspx>

98. **GCF Annual Project Report (APR):** The National Project Director, the UNDP Country Office, and the UNDP-GEF Regional Technical Advisor will provide objective input to the annual APR covering the calendar year for each year of project implementation. The National Project Director will ensure that the indicators included in the project results framework are monitored annually in advance of the APR submission deadline so that progress can be reported in the APR. The APR will include reporting of: environmental and social risks and related management plans, gender, co-financing and financial commitments, GCF 'conditions precedent' outlined in the FAA, amongst other issues. The annual project report will be due for submission to the GCF in the first quarter of each year for the duration of the project. The last APR will be due for submission within 3 months after the project completion date.
99. The APR will be shared with the Project Board. The UNDP Country Office will coordinate the input of other stakeholders to the APR as appropriate. The quality rating of the previous year's APR will be used to inform the preparation of the subsequent APR.
100. **Lessons learned and knowledge generation:** Results from the project will be disseminated within and beyond the project intervention area through existing information sharing networks and forums. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to the project. The project will identify, analyse and share lessons learned that might be beneficial to the design and implementation of similar projects and disseminate these lessons widely. There will be continuous information exchange between this project and other projects of similar focus in the same country, region and globally.
101. **Independent Interim Evaluation Report:** An independent mid-term review process will begin after the third APR has been submitted to the GCF, and the MTR report will be submitted to the GCF in the same year as the 3<sup>rd</sup> GCF APR. The interim independent evaluation report is due for submission to GCF by the 4<sup>th</sup> quarter of 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 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.
102. **Final Independent Evaluation Report:** A final independent evaluation will take place upon completion of all major project outputs and activities. The final 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. The Final Independent Evaluation report is due for submission to the GCF within 6 months after the project completion date.
103. The 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.
104. 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).

105. **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 <sup>7</sup> (US\$)		Time frame
		GCF grant	Co-financing	
Inception Workshop	UNDP Country Office	USD 10,000	None	Within two months of project document signature
Inception Workshop Report and baseline assessments	Project Manager		None	Within 6 months after FAA effective date
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>	Project Manager	Per year: USD 10,000 Total: USD 60,000		Annually
Annual Project Report	Project Manager and UNDP Country Office and UNDP-GEF team	None	None	Annually
NIM Audit as per UNDP audit policies	UNDP Country Office	Per year: USD 3,333 Total: USD 20,000	None	Annually
Lessons learned, case studies, and knowledge generation	Project Manager	Per year: USD 5,000 Total: USD 30,000	None	Annually
Monitoring of environmental and social risks, and corresponding management plans as relevant	Project Manager UNDP CO	Per year: USD 10,000 Total: USD 60,000	None	On-going
Monitoring of gender action plan	Project Manager UNDP CO	Per year: USD 4,000 Total: USD 24,000	None	On-going
Monitoring of stakeholder engagement plan	Project Manager UNDP CO	Per year: USD 4,000 Total: USD 24,000	None	On-going
Addressing environmental and social grievances	Project Manager UNDP Country Office	Per year: USD 10,000	None	Costs associated with missions,

<sup>7</sup> 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 <sup>7</sup> (US\$)		Time frame
		GCF grant	Co-financing	
	BPPS as needed	Total: USD 60,000		workshops, BPPS expertise etc can be charged to the project budget
Project Board meetings	Project Board UNDP Country Office Project Manager	Per year: USD 1,666 Total: USD 10,000	None	At minimum annually
Supervision missions	UNDP Country Office	None <sup>8</sup>	None	Two per year
Oversight missions	UNDP-GEF team	None <sup>8</sup>	None	Troubleshooting as needed
GCF learning missions/site visits	UNDP Country Office and Project Manager and UNDP-GEF team	Total: USD 18,000	None	To be determined.
Independent Mid-term Review (MTR) and management response	UNDP Country Office and Project team and UNDP-GEF team	Total: USD 30,000	USD: 20,000 in kind	4 <sup>th</sup> quarter 2020
Independent Terminal Evaluation (TE) included in UNDP evaluation plan, and management response	UNDP Country Office and Project team and UNDP-GEF team	Total: USD 30,000	USD: 20,000 in kind	December 2022
Translation of MTR and TE reports into English	UNDP Country Office	None	None	As required. GCF will only accept reports in English.
<b>TOTAL indicative COST</b> Excluding project team staff time, and UNDP staff and travel expenses		Total: USD 376,000	Total: USD 40,000	

<sup>8</sup> 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

106. The total cost of the project is USD 65,717,748. This is financed through a GCF grant of USD 57,717,748, in cash co-financing to be administered by UNDP and USD 8,000,000 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.

### Project Financing

Component	Outputs	Financing institution			Total (US\$)
		GCF	Government	UNDP	
		Grant	Grant	Grant	
Strengthened adaptive capacity and reduced exposure to climate risks of vulnerable livelihoods and infrastructure in the Vaisigano Catchment	Output 1	8.972	8.00	-	62.596
	Output 2	34.037			
	Output 3	11.587			
	Project Management	3.121	-	-	
<b>Total</b>		<b>57.718</b>	<b>8.00</b>	<b>-</b>	<b>65.718</b>

### GCF Disbursement schedule

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

Disbursements	GCF Proceeds (million USD)	Contingency* (million USD)	Indicative expected month and year of disbursement
Disbursement 1	4,766,361	520,383	August 2017
Disbursement 2	7,377,554	850,000	August 2018
Disbursement 3	11,649,728	1,750,000	August 2019
Disbursement 4	8,195,166	1,850,000	August 2020
Disbursement 5	9,055,131	1,750,000	August 2021
Disbursement 6	8,543,427	1,410,000	August 2022
<b>TOTAL</b>	<b>57,717,748</b>		

\* To be accessed upon request from the Accredited Entity, when required.

### Budget Revision and Tolerance:



108.GCF requirement: 10% of the total projected costs per year can be reallocated among the outputs. 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.

109.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 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 Project Manager and UNDP Country office will seek the approval of the UNDP-GEF team.

110.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).

#### Refund to GCF:

111.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.

#### Project Closure:

112.Project closure will be conducted as per UNDP requirements outlined in the UNDP POPP.<sup>9</sup> 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.

#### Operational completion:

113.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.

#### Financial completion:

114.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).

115.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.

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<sup>9</sup> see <https://info.undp.org/global/popp/ppm/Pages/Closing-a-Project.aspx>

## X. TOTAL BUDGET AND WORK PLAN

Total Budget and Work Plan	
Atlas Proposal or Award ID:	00098736 Atlas Primary Output Project ID: 00101956
Atlas Proposal or Award Title:	Integrated Flood Management to Enhance Climate Resilience of the Vaisigano River Catchment in Samoa
Atlas Business Unit	WSM10
Atlas Primary Output Project Title	Integrated Flood Management to Enhance Climate Resilience of the Vaisigano River Catchment in Samoa
UNDP-GEF PIMS No.	5919
Implementing Partner	Ministry of Finance

Component	GCF Output/ Atlas Activity	Responsible Party (Atlas Implementing Agent)	Financing Source	Budgetary Account Code	Budget Account 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 - 10 (USD)	Amount Year 11 - 15 (USD)	Amount Year 16 - 20 (USD)	Amount Year 21 - 25 (USD)	Total (USD)	Budget Note							
Integrated Flood Management to Enhance Climate Resilience of the Vaisigano River Catchment in Samoa	GCF Output 1: Assessments and mechanisms in place for an integrated approach to reduce vulnerability towards flood- related risks	Ministry of Finance	GCF	71200	International consultants	296,686	152,895	171,419	86,000	16,000	16,000					739,000	1A							
				71400	Contractual services Individuals	121,200	121,200	121,200	42,000	42,000									489,600	1B				
				71600	Travel	48,314	35,137	35,137	35,137	35,137									224,000	1C				
				72100	Contractual services companies	950,000	1,500,000	470,000												2,920,000	1D			
				72200	Equipment & furnitures	23,000	23,000	23,000	23,000	23,000										138,000	1E			
				74200	Audio visual & print production costs	8,000	13,500	8,250	4,250	8,250	2,750									45,000	1F			
				74500	Miscellaneous	32,281	32,281	32,281	32,281	32,281	32,281									193,683	1G			
				75700	Training, Workshops and Conference	22,127	44,304	44,304	34,961	44,304	-									190,000	1H			
						<b>Sub-total GCF</b>			<b>1,501,608</b>	<b>1,922,317</b>	<b>905,591</b>	<b>257,629</b>	<b>200,972</b>	<b>151,168</b>	<b>151,168</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>4,939,283</b>				
								71400	Contractual services Individuals	3,200	3,200	3,200	3,200	3,200	3,200	12,800	16,000	16,000	16,000	16,000	80,000	1I		
								73100	Rental & Maintenance - Premises	1,200	1,200	1,200	1,200	1,200	1,200	4,800	6,000	6,000	6,000	6,000	30,000	1J		
								73400	Rental & Maintenance - Other Equipments	800	800	800	800	800	800	3,200	4,000	4,000	4,000	4,000	20,000	1K		
									<b>Sub-total GoS</b>	<b>5,200</b>	<b>5,200</b>	<b>5,200</b>	<b>5,200</b>	<b>5,200</b>	<b>5,200</b>	<b>20,800</b>	<b>26,000</b>	<b>26,000</b>	<b>26,000</b>	<b>26,000</b>	<b>130,000</b>			
					<b>Total Output 1</b>					<b>1,506,808</b>	<b>1,927,517</b>	<b>910,791</b>	<b>262,829</b>	<b>206,172</b>	<b>156,368</b>	<b>20,800</b>	<b>26,000</b>	<b>26,000</b>	<b>26,000</b>	<b>5,069,283</b>				
				GCF Output 2: Infrastructure in the Vaisigano River are flood- proofed to increase resilience to negative effects of excessive water		Ministry of Finance	GCF	71200	International consultants	216,400	152,800	155,300	209,700	162,800	142,700					1,039,700	2A			
								71400	Contractual services Individuals	208,600	208,600	208,600	208,600	208,600	208,600	208,600	208,600						1,251,600	2B
								71600	Travel	6,000	4,000	4,000	6,000	4,000	6,000								30,000	2C
72100	Contractual services companies	1,218,800	2,200,000					5,500,000	6,800,000	2,300,000	1,800,000									19,818,800	2D			
72300	Materials & goods	865,500	2,192,000					4,222,000	68,000	68,000	68,000									7,483,500	2E			
74200	Audio visual & print production costs	20,400	16,000					16,000	16,400	16,000	16,400									101,200	2F			
74500	Miscellaneous	218,194	218,194					218,194	218,194	218,194	218,194									1,309,162	2G			
				75700	Training, Workshops and Conference	100,000	100,000	50,000	50,000	100,000	100,000					500,000	2H							

Component	GCF Output/ Atlas Activity	Responsible Party (Atlas Implementing Agent)	Financing Source	Budgetary Account Code	Budget Account 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 - 10 (USD)	Amount Year 11 - 15 (USD)	Amount Year 16 - 20 (USD)	Amount Year 21 - 25 (USD)	Total (USD)	Budget Note					
		Sub-total GCF	Govt of Samoa	71400	Contractual services Individuals	2,833,894	5,091,594	10,374,094	7,576,894	3,077,594	2,359,894	-	-	-	-	31,533,962						
				73100	Rental & Maintenance - Premises	21,000	21,000	21,000	21,000	160,000	160,000	160,000	160,000	84,000	105,000	105,000	105,000	525,000	2I			
				73400	Rental & Maintenance - Other Equipments	160,000	160,000	160,000	160,000	31,560	31,560	31,560	31,560	126,240	157,800	157,800	157,800	800,000	4,000,000	2J		
		Sub-total GoS		Ministry of Finance	GCF			212,560	212,560	212,560	212,560	212,560	212,560	850,240	1,062,800	1,062,800	1,062,800	5,314,000	2K			
								3,066,434	5,304,154	10,586,634	7,789,434	3,290,154	2,772,434	48,000	48,000				96,000	3A		
														289,800	289,800						579,600	3B
		GCF Output 3: Drainage in downstream areas upgraded for increased regulation of water flows		Sub-total GCF	Govt of Samoa	72100	Contractual services companies	-	-	-	-	4,841,100	4,841,100					9,682,200	3C			
						74500	Miscellaneous	-	-	-	-	204,822	204,822							409,643	3D	
						75700	Training, Workshops and Conference	-	-	-	-	50,000	50,000								100,000	3E
												5,433,722	5,433,722								10,867,443	
										63,000	63,000	84,000	84,000	105,000	105,000	105,000	105,000	105,000	525,000	3F		
Project Management Unit		Sub-total GoS	Govt of Samoa	73100	Rental & Maintenance - Premises	-	-	-	-	210,000	210,000	280,000	350,000	350,000	350,000	350,000	1,750,000	3G				
				73400	Rental & Maintenance - Other Equipments	-	-	-	-	33,720	33,720	44,960	44,960	56,200	56,200	56,200	56,200	281,000	3H			
										306,720	306,720	408,960	408,960	511,200	511,200	511,200	511,200	2,556,000				
										5,740,442	5,740,442	408,960	408,960	511,200	511,200	511,200	511,200	13,423,443				
										30,000	30,000								60,000	PM1		
										241,000	241,000	241,000	241,000	241,000	241,000				1,446,000	PM2		
										23,000	23,000	23,000	23,000	23,000	23,000				138,000	PM3		
		Ministry of Finance	GCF	72100	Contractual services companies	5,000	5,000	5,000	5,000	5,000	5,000						30,000	PM4				
				72200	Equipment & furnitures	26,020	5,204	5,204	5,204	5,204	5,204							52,040	PM5			
				72400	Communications and Audio visual equipment	8,400	8,400	8,400	8,400	8,400	8,400								50,400	PM6		
				72500	Supplies	6,000	6,000	6,000	6,000	6,000	6,000								36,000	PM7		



Note	Description of cost item	1	Persons	1	Years	@	\$32,000	=	\$32,000
	Community Trainers for evacuation and flood response	1	Persons	1	Years	@	\$32,000	=	\$32,000
	Public awareness campaign for early warning system	1	Persons	1	Years	@	\$32,000	=	\$32,000
	Public awareness campaign for 2 million trees	2	Person	0.5	Years	@	\$32,000	=	\$32,000
	Articulation of land-use practices	1	Person	0.5	Years	@	\$32,000	=	\$16,000
1C	International Travel - Consultants	12	Pax			@	\$7,000	=	\$84,000
	International Travel - Training for officials	20	Pax			@	\$7,000	=	\$140,000
1D	Review of interdependence on flood mitigation (based on the actual cost for similar feasibility study)	1	Contract	6	Months	Price estimate	=	\$450,000	
	Feasibility study for flood-buffering reservoir (based on the actual cost of similar feasibility study adding the complexity of hydropower)	1	Contract	6	Months	Price estimate	=	\$500,000	
	Feasibility studies for flood-proofing central cross Island Road (based on the actual cost of similar study with additional volume of work)	1	Contract	6	Months	Price estimate	=	\$400,000	
	Feasibility studies for Apia Integrated Sewage System (based on the actual cost of similar study)	1	Contract	8	Months	Price estimate	=	\$570,000	
	EWS Technology (addition of 5 nodes)								
	* 5 sirens per sites @8,800	25	Units			@	\$8,800	=	\$220,000
	* Survey and Installation 5 sites	1	Contract	6	Months	Price estimate	=	\$155,000	
	* River gauge and monitoring devices	5				@	\$25,000	=	\$125,000
	Inclusion of Flood-related information in Samoa CLEWS (including flood monitoring system, alert trigger and dissemination measures)	1	Contract	6	Months	Price estimate	=	\$200,000	
	Construction and exhibition of flood resilient buildings (5 buildings)	1	Contract	3	Months	Price estimate	=	\$300,000	
1E	Vehicles	2	Units of vehicles			@	\$54,000	=	\$108,000
	Repairs and maintenance of vehicles	2	Vehicles			@	\$15,000	=	\$30,000
1F	Audio visual and printing production for training and workshop								
1G	Insurance for activities 1.1 and 1.3 under Output 1. Insurance cost has been added in responses to GCF's comments in order to protect against risks of non-performance and/or natural disasters for those activities that involve infrastructures and constructions works by selected contractors.								
1H	Training for health practitioners for flood emergencies 40 pax	1	Package (venue & material)			@	\$10,000	=	\$10,000
	Training for village councils on flood response 18 village @ 40 pax	18	Package (venue & material)			@	\$10,000	=	\$180,000

Description of cost item	
<b>Note</b>	
1I	Government co-financing for monthly cleaning to remove rubbish and inspect general condition (\$80,000), office spaces (\$30,000) and Operation and Maintenance (O&M) Plan for 25 years (\$20,000)
1J	
1K	
<b>Output 2 Infrastructure in the Vaisigano River are flood-proofed to increase resilience to negative effects of excessive water</b>	
2A	1/3 of Chief Technical Advisor for 6 years 1 Person 6 Years @ \$16,000 = \$96,000
	Flood Management Specialist (trainers) 1 Person 40 Days @ \$625 = \$25,000
	Ground-truthing specialist 1 Person 60 Days @ \$420 = \$25,200
	Survey analysis/mapping 1 Person 80 Days @ \$600 = \$48,000
	Legal Consultant regulation drafter 1 Person 65 Days @ \$700 = \$45,500
	Development of community based adaptation strategies (5 Years) 4 Person 100 Days @ \$400 = \$800,000
2B	National Project Coordinator for output 2 1 Person 6 Years @ \$41,600 = \$249,600
	Project Officer 1 Persons 6 Years @ \$32,000 = \$192,000
	Administrative Assistant 1 Persons 6 Years @ \$23,000 = \$138,000
	Finance Specialist 1 Persons 6 Years @ \$42,000 = \$252,000
	Finance Associate 1 Persons 6 Years @ \$28,000 = \$168,000
	Procurement Specialist 1 Persons 6 Years @ \$42,000 = \$252,000
2C	Site visit for finalizing intervention zone \$30,000
2D	Design & supervision of segment 2 & 3 of Vaisigano (based on the price for segment 1 @500,000) 2 Contracts 1 Years Price estimate = \$1,000,000
	Construction of Flood Protection measures along segment 2 & 3 (based on the cost of construction for segment 1 @5,740,500) 1 Contract 1 Years Price estimate = \$11,481,000
	Design & supervision of Lelata Bridge (based on the price of design and supervision for Leone bridge) 1 Contract 2 Years Price estimate = \$1,000,000
	Construction of Lelata Bridge (based on the price of Leone bridge @4.500,000) 1 Contract 2 Years Price estimate = \$4,646,000
	Design and supervision floodwalls (based on the price of design and supervision of seawall) 1 Contract 6 Months Price estimate = \$145,000
	Construction of floodwall extension (based on the price of sea wall of similar length) 1 Contract 6 Months Price estimate = \$1,546,000
2E	Replanting and rehabilitation, nurseries, river ecosystem health \$2,046,000

Note	Description of cost item	
	Inputs for SMEs (approx. 6,000 beneficiaries)	\$5,437,500
2F	Audio visual and printing production for publication and awareness	\$101,200
2G	Insurance for activities 2.1, 2.2, 2.3 and 2.4 under Output 2. Insurance cost has been added in responses to GCF's comments in order to protect against risks of non-performance and/or natural disasters for those activities that involve infrastructures and constructions works by selected contractors.	\$1,309,162
2H	Training for communities and beneficiaries (approx. 6,000 beneficiaries)	50 Packages (venue & material) @ \$10,000 = \$500,000
2I	Government co-financing for Staff Costs for monthly cleaning to remove rubbish and inspect general condition (\$525,000), office spaces (\$4,000,000) and Operation and Maintenance (O&M) Plan for 25 years (\$789,000)	
2J		
2K		
<b>Output 3: Drainage in downstream areas upgraded for increased regulation of water flows</b>		
3A	1/3 of Chief Technical Advisor for 6 years	1 Person 6 Years @ \$16,000 = \$6,000
3B	National Project Coordinator for output 3 Project Officer Administrative Assistant	1 Person 6 Years @ \$41,600 = \$249,600 1 Persons 6 Years @ \$32,000 = \$192,000 1 Persons 6 Years @ \$23,000 = \$138,000
3C	Development of Stormwater Masterplan document Design and supervision drainages 9 sites	1 Contract 1 Year Price estimate = \$369,000 1 Contract 1 Year Price estimate = \$900,000
3D	Construction of drainage upgrades 9 sites Insurance for activity 3.2 under Output 3. Insurance cost has been added in responses to GCF's comments in order to protect against risks of non-performance and/or natural disasters for those activities that involve infrastructures and constructions works by selected contractors.	492 Meters Total for 9 sites @ \$17,100 = \$8,413,200 \$409,643
3E	Trainings workshop on development of masterplan and community consultation	10 Packages (venue & material) @ \$10,000 = \$100,000
3F	Government co-financing for Staff Costs for monthly cleaning of drainages and upgrade systems in 9 priority segments and CBD coastal hazard area (\$525,000), office spaces and maintenance (\$1,750,000) and Operation and Maintenance (O&M) Plan for 25 years (\$281,000)	
3G		
3H		
<b>Project Management Unit</b>		
PM1	Mid-Term Evaluation (Int Consultant)	1 Person 60 Days @ \$500 = \$30,000



Note	Description of cost item	1	Person	60	Days	@	\$500	=	\$30,000
PM2	Terminal Evaluation (Int Consultant)	1	Person	60	Days	@	\$500	=	\$30,000
	GCF Project Coordinator/Manager (NOC)	1	Person	6	Years	@	\$49,000	=	\$294,000
	M&R Analyst (NOA)	1	Person	6	Years	@	\$32,000	=	\$192,000
	Public Outreach (NOA)	1	Person	6	Years	@	\$32,000	=	\$192,000
	Project Officer MWTI (NOA)	1	Person	6	Years	@	\$32,000	=	\$192,000
	Project Officer MOH (NOA)	1	Person	6	Years	@	\$32,000	=	\$192,000
	Project Officer LTA (NOA)	1	Person	6	Years	@	\$32,000	=	\$192,000
	Project Officer NDMO (NOA)	1	Person	6	Years	@	\$32,000	=	\$192,000
PM3	International Travel - trainings/workshops	2	Pax	6	Years	@	\$7,000	=	\$84,000
	Local Travel - Monitoring visits	4	Pax	6	Years	@	\$1,000	=	\$24,000
	Local Travel - Project Meetings	10	Pax	6	Years	@	\$500	=	\$30,000
PM4	Company to conduct trainings and workshops for project management unit (including training for: 1) Project Management; 2) Financial Management; 3) Procurement and 4) Monitoring and Reporting	6	Trainings	6	Years	@	\$5,000	=	\$30,000
PM5	Office Equipment and Furniture (desks/chairs etc.)							=	\$52,040
PM6	Audio Visual and Communication (telephones charges/internet charges)	12	Months	6	Years	@	\$700	=	\$50,400
PM7	Stationery and Other Office Supplies	12	Months	6	Years	@	\$500	=	\$36,000
PM8	Computer Hardware/Software, IT Supplies							=	\$75,000
PM9	Lease and maintenance of office equipments	6	Years			@	\$2,000	=	\$12,000
PM10	Professional Services - HACT Audit Fees and relevant assurance activities to be conducted by independent 3rd party as per UNDP requirement	3	Audits			@	\$20,000	=	\$60,000
	Professional Services - Legal Fees (construction works/contracts)	6	Contracts			@	\$5,000	=	\$30,000
PM11	Printing and publications (project reports and training materials)							=	\$10,000
PM12	Miscellaneous - Insurance and Bank Charges (\$31,000)							=	\$31,000
PM13	Inception workshop and community consultation	5	Packages (venue & material)			@	\$10,000	=	\$50,000
	Board meeting, Steering Committee, and Advisory group meeting	10	Packages (venue & material)			@	\$1,000	=	\$10,000
PM14	Admin services/support related to finance services over project duration - 1. Vendor management (\$81,600) 2. Payment processing (\$31,344) 3. Procurement services (procurement of goods and services) (\$43,293)							=	\$156,244



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## XI. LEGAL CONTEXT

### Additional legal conditions

116. 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.
117. 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 1 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 FAA.

### Legal Context Standard Clauses

118. This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of Samoa and UNDP, signed on 5 September 2008. All references in the SBAA to “Executing Agency” shall be deemed to refer to “Implementing Partner.”
119. This project will be implemented by Ministry of Finance (“Implementing Partner”) in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

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## XII. RISK MANAGEMENT

120. Consistent with the Article III of the SBAA [*or the Supplemental Provisions to the Project Document*], the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP’s property in the Implementing Partner’s custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:
- a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
  - b) assume all risks and liabilities related to the Implementing Partner’s security, and the full implementation of the security plan.
121. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner’s obligations under this Project Document.
122. The Implementing Partner agrees to undertake all reasonable efforts to ensure that no UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the 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/aq\\_sanctions\\_list.shtml](http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml).
123. 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>).
124. 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.

125. 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.
126. The Implementing Partner will take appropriate steps to prevent misuse of funds, fraud or corruption, by its officials, consultants, responsible parties, subcontractors and sub-recipients in implementing the project or using UNDP funds. The Implementing Partner will ensure that its financial management, anti-corruption and anti-fraud policies are in place and enforced for all funding received from or through UNDP.
127. The requirements of the following documents, then in force at the time of signature of the Project Document, apply to the Implementing Partner: (a) UNDP Policy on Fraud and other Corrupt Practices and (b) UNDP Office of Audit and Investigations Investigation Guidelines. The Implementing Partner agrees to the requirements of the above documents, which are an integral part of this Project Document and are available online at [www.undp.org](http://www.undp.org).
128. In the event that an investigation is required, UNDP has the obligation to conduct investigations relating to any aspect of UNDP projects and programmes. The Implementing Partner shall provide its full cooperation, including making available personnel, relevant documentation, and granting access to the Implementing Partner's (and its consultants', responsible parties', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with the Implementing Partner to find a solution.
129. The signatories to this Project Document will promptly inform one another in case of any incidence of inappropriate use of funds, or credible allegation of fraud or corruption with due confidentiality.
130. Where the Implementing Partner becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, the Implementing Partner will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's Office of Audit and Investigations (OAI). The Implementing Partner shall provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.
131. UNDP shall be entitled to a refund from the Implementing Partner of any funds provided that have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the Implementing Partner under this or any other agreement.
132. Where such funds have not been refunded to UNDP, the Implementing Partner agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to the Implementing Partner for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

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

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

Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project, the Government will ensure that the relevant national authorities shall actively investigate the same and

take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.

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

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### **XIII. MANDATORY ANNEXES**

Provided in separate files.

1. GCF Term sheet and Funding Activity Agreement
2. Direct project cost letter of agreement
3. Letter of agreement between the Implementing Partner and Responsible Parties
4. Letters of co-financing
5. Social and environmental screening procedure (signed) and management plan for moderate risk projects (in English and local language as required by GCF disclosure policy.
6. Gender analysis and action plan
7. Map of project location (s) with GPS coordinates
8. Monitoring Plan
9. Evaluation Plan
10. Timetable of project implementation
11. Procurement plan
12. Terms of reference for Project staff
13. UNDP Project Quality Assurance Report
14. UNDP Risk Log
15. Results of the capacity assessment of the project implementing partner and HACT micro assessment (to be completed by UNDP Country Office)

Additional annexes:

16. Economic analysis
17. Integrated watershed management plan in Apia
18. Statement of Compliance with Accreditation Status