Concept Note

Towards climate change resilient coastal fisheries and aquaculture in Tonga

Tonga | SPC

3 March 2020

GREEN CLIMATE FUND

Concept Note

Project/Programme Title:	Towards climate change resilient coastal fisheries and aquaculture in Tonga
Country(ies):	Tonga
National Designated Authority(ies) (NDA):	Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC)
Accredited Entity(ies) (AE):	Pacific Community (SPC)
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Please submit the completed form to **fundingproposal@gcfund.org**, using the following name convention in the subject line and file name:
"CN-[Accredited Entity or Country]-YYYYMMDD"

Notes

- The maximum number of pages should **not exceed 12 pages**, excluding annexes. Proposals exceeding the prescribed length will not be assessed within the indicative service standard time of 30 days.
- As per the Information Disclosure Policy, the concept note, and additional documents provided to the Secretariat can be disclosed unless marked by the Accredited Entity(ies) (or NDAs) as confidential.
- The relevant National Designated Authority(ies) will be informed by the Secretariat of the concept note upon receipt.
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A. Project/Programme Summary (max. 1 page)			
A.1. Project or programme	☒ Project ☐ Programme	**A.2. Public or private sector**	☒ Public sector ☐ Private sector
A.3. Is the CN submitted in response to an RFP?	Yes ☐ No ☒ If yes, specify the RFP: _____	**A.4. Confidentiality[1]**	☐ Confidential ☒ Not confidential
A.5. Indicate the result areas for the project/programme	Mitigation: Reduced emissions from: ☐ Energy access and power generation ☐ Low emission transport ☐ Buildings, cities and industries and appliances ☐ Forestry and land use Adaptation: Increased resilience of: ☒ Most vulnerable people and communities ☒ Health and well-being, and food and water security ☐ Infrastructure and built environment ☒ Ecosystem and ecosystem services		
A.6. Estimated mitigation impact (tCO2eq over lifespan)		**A.7. Estimated adaptation impact (number of direct beneficiaries and % of population)**	30% of Tonga's population (to be confirmed at the full proposal stage)
A.8. Indicative total project cost (GCF + co-finance)	Amount: USD 15,480,000	**A.9. Indicative GCF funding requested**	Amount: USD 12,980,000
A.10. Mark the type of financial instrument requested for the GCF funding	☒ Grant ☐ Reimbursable grant ☐ Guarantees ☐ Equity ☐ Subordinated loan ☐ Senior Loan ☐ Other: specify_____		
A.11. Estimated duration of project/ programme:	a) disbursement period: 2022-2027 b) repayment period, if applicable:	**A.12. Estimated project/ Programme lifespan**	2022-2050
A.13. Is funding from the Project Preparation Facility requested?[2]	Yes ☒ No ☐ Other support received ☐ If so, by who:	**A.14. ESS category[3]**	☐ A or I-1 ☒ B or I-2 ☐ C or I-3
A.15. Is the CN aligned with your accreditation standard?	Yes ☒ No ☐	**A.16. Has the CN been shared with the NDA?**	Yes ☒ No ☐
A.17. AMA signed (if submitted by AE)	Yes ☒ No ☐ If no, specify the status of AMA negotiations and expected date of signing:	**A.18. Is the CN included in the Entity Work Programme?**	Yes ☒ No ☐
A.19. Project/Programme rationale, objectives and approach of programme/project (max 100 words)	Climate change in Tonga poses a severe threat to the coastal fisheries and aquaculture sectors, which play a significant role in food and nutrition security, local livelihoods and the national economy. More severe extreme weather events, rising sea levels , increasing water temperature, and ocean acidification, are expected to have profoundly negative effects on the status and distribution of coastal habitats, and the fish and invertebrates they support. As a result, the productivity of coastal fisheries and aquaculture will decline. This project aims at building the resilience of key marine ecosystems and the coastal fisheries and aquaculture sectors they support by fostering resilient ecosystem and community-based fisheries/aquaculture management, enhancing livelihood resilience and strengthening governance, knowledge management, institutional and policy frameworks. The Pacific Community (SPC) is the accredited entity and the project will be		

[1] Concept notes (or sections of) not marked as confidential may be published in accordance with the Information Disclosure Policy (Decision B.12/35) and the Review of the Initial Proposal Approval Process (Decision B.17/18).

[2] See here for access to project preparation support request template and guidelines

[3] Refer to the Fund's environmental and social safeguards (Decision B.07/02)

	implemented by the Ministry of Fisheries, MEIDDECC and SPC (Coastal fisheries and aquaculture division).

B. Project/Programme Information (max. 8 pages)

B.1. Context and baseline (max. 2 pages)

Describe the climate vulnerabilities and impacts, GHG emissions profile, and mitigation and adaptation needs that the prospective intervention is envisaged to address.

The Kingdom of Tonga is an archipelago of 177 islands of which 36 are inhabited with an estimated total population of 100,745[4]. About 85 % of Tonga's population lives in rural areas with the main sources of livelihoods being agriculture and fishing. Fewer than 10 % of farmers and fishermen are commercial producers with most of Tonga's fisheries still based on traditional/subsistence fishing systems[5].

Coastal fisheries and aquaculture in Tonga

The coastal fisheries of Tonga consist of three main components: demersal fish (bottom-dwelling fish associated with coral reef, mangrove and seagrass habitats), nearshore pelagic fish (including tuna, rainbow runner, wahoo and mahi-mahi), and invertebrates gleaned from intertidal and subtidal areas. Demersal fish are estimated to make up more than 70% of the total annual catch (commercial and subsistence), and are thus a key pillar of Tonga's food security. Moreover, around 50% of representative coastal households earn their first or second income from catching and selling fish.

Fishing in Tonga has historically been 'open access', with all Tongans having equal access to coastal fishery resources. This has triggered increasing concerns over the depletion of local fisheries resources and degraded marine habitats. In 2002, Tonga's Fisheries Management Act was amended to allow local communities to manage their nearby marine areas through the establishment of Special Management Areas (SMA), which create resource management rights for areas adjacent to their village. These communities take the leading role in managing their coastal fisheries resources with assistance from the Ministry of Fisheries. To date, 40 SMA have been established. However, according to Tonga's Fisheries Sector Plan 2016-2024, over a third of Tonga's coral reefs remain threatened by overfishing (moderate to high risk). A recent review[6] of the SMA programme by FAO in 2017, highlighted that the programme is perceived as a big success by most stakeholders including communities, while also providing key recommendations to strengthen its effectiveness.

Despite great advances in the last decade and some success stories (e.g. pearl and mozuku), there have been no substantial commercial developments for most potential aquaculture commodities. The Tonga government provides for the development and management of aquaculture in the country through the Aquaculture Management Act 2003, supported by an Aquaculture Development and Management Plan 2018-2022. Coastal aquaculture commodities currently produced in Tonga include winged pearl oysters, marine ornamentals (e.g. giant clams, hard and soft corals), sea cucumber, seaweed and trochus.

Climate change vulnerabilities

Like other small island developing states (SIDS), Tonga is highly susceptible to the impacts of climate change and natural hazards due to its geographical, geological and socio-economic characteristics[7]. Tonga is currently classified as the second most at risk country in the world (World Risk Report, 2015[8]) in terms of its exposure and susceptibility to natural hazards and the unfolding effects of climate change.

The main climate change risks and impacts are extreme rainfall events and associated flooding, drought, increasing air and sea temperature changes, sea level rise, ocean acidification, coral bleaching, and more intense cyclones. The climate change baseline scenarios for Tonga based on a Pacific-Australia Climate Change Science and Adaptation Planning Programme (PACCSAP)[9] highlights the following trends, among others:

(i) Tonga's surface air temperature and sea surface temperature (SST) are projected to continue to increase (very high confidence). By 2030, under a high emissions scenario, this increase in mean air temperature is projected to be in the range of 0.4 - 1.0°C, and of +0.7°C for SST.
(ii) The intensity and frequency of days of extreme rainfall are projected to increase (high confidence).
(iii) Sea level will continue to rise (very high confidence). By 2090, under a high emissions scenario, this rise in sea level is projected to be in the range of 41 - 88 cm.
(iv) Ocean acidification will continue (very high confidence).
(v) Mass coral bleaching events will be more frequent and spatially extensive.

[4]Tonga National Population and Housing Census 2016 Preliminary Result
[5]Tonga Strategic Development Framework (2015 – 2025)
[6] FAO. 2017. A review of special management areas in Tonga, by Robert Gillett. FAO Fisheries and Aquaculture Circular No. 1137. Apia, Samoa. http://www.fao.org/3/a-i7278e.pdf
[7] See Tonga's Joint national action plan 2 on climate change and disaster risk management
[8] https://i.unu.edu/media/ehs.unu.edu/news/11138/Fact-sheet-WWR-2015-English.pdf
[9]https://www.pacificclimatechangescience.org/wp-content/uploads/2013/06/10_PACCSAP-Tonga-11pp_WEB.pdf

(vi) Tropical cyclones will decrease in frequency but become more intense (high confidence).

A trajectory of about + 3°C in global average surface air temperature corresponding to the current NDCs under the Paris Agreement would be catastrophic for Tonga. With a very ambitious + 1.5°C, the IPCC Special Report on the Ocean and Cryosphere in a Changing Climate (SROCC) published in 2019[10] predicts, with a high level of confidence, the disappearance of 70 - 90% of coral reefs worldwide between 2030 and 2052, if warming continues at current rates. According to the same report, extreme El Niño events are projected to occur about twice as often under both lower (RCP2.6) and higher (RCP8.5) emissions scenarios in the 21st century when compared to the 20th century (medium confidence). For Tonga, this would mean increased climate variability associated with ENSO and a higher occurrence of extremely damaging coral bleaching events.

Climate change impacts (coastal fisheries and aquaculture)

Coastal fisheries in Tonga are already impacted by climate variability and change. Recent sea temperature increases around Tonga's coastal waters have caused wide spread coral bleaching and increased algal blooms, which have affected coastal fisheries (JNAP 2; Tonga's Fisheries Sector Plan 2016-2024). The variability of fishing yields, as well as fish stocks, has already increased as a consequence of extreme climatic events When rain falls intensively over a short period, increased overland flow and runoffs smother and poison intertidal and subtidal areas, affecting ecosystem health, fisheries productivity and threatening important food sources (JNAP 2).

In the medium to long term, the anticipated impacts of climate change on coral reef ecosystems poses a significant threat to subsistence and commercial reef fisheries in Tonga. In 2011, vulnerability assessments by Bell et al.[11] indicated that habitat loss and reduced recruitment (due to increasing SST and reduced currents) may reduce demersal fish production by 20 - 50% resulting in a 20 - 35% reduction in catches by 2100, depending on emission scenarios. Over the same period, productivity of inter/subtidal invertebrates is projected to decrease by 5-10% due to ocean acidification. More concerning is recent and gloomier projections of climate change impacts on coral reef ecosystems (IPCC SROCC, 2019) which indicate that such production losses could actually be an underestimate.

A recent assessment of the vulnerability of reef dependent communities to the effects of ocean acidification on food security and livelihoods from fishing, aquaculture and tourism found that communities in Tonga were among the most vulnerable in the Pacific (Johnson et al. 2016[12]).

With respect to aquaculture, increasing SST and ocean acidification, and increased storm surges from extreme weather events could reduce the number of sites where pearl oysters, marine ornamental products and trochus can be grown successfully, with some medium to high projected impacts on aquaculture production by 2100 (Bell & al., 2011). On the contrary, in the Pacific region, pond aquaculture in freshwater (e.g. tilapia) or seawater/ brackish water (e.g. milkfish) is likely to be more productive due to increasing temperature and rainfall[13].

In summary, climate change will disproportionately impact coral reef ecosystems, further exacerbate existing challenges in coastal fisheries management, undermine sustainable growth in the coastal fisheries and aquaculture sectors, and hinder poverty reduction as well as food and nutrition[14] security efforts[15].

Adaptation needs in coastal fisheries and aquaculture

Several studies have identified adaptation needs to cope with the projected impact of climate change on coastal fisheries and aquaculture in Tonga (e.g. Bell et al., 2011; Johnson et al. 2018) through:

i. Maximizing access to tuna for coastal communities, and increasing the efficiency of pelagic fishing operations to provide fish for economic development (access to tuna being the main purpose of another GCF regional project targeting all eligible Pacific Island Countries including Tonga);
ii. Managing coastal ecosystems and fish stocks using global-best practices to ensure that these resources continue to provide fish for food security. Adaptation interventions include: managing and restoring vegetation in catchments; fostering the care of coastal fish habitats; sustaining production of coastal demersal fish and invertebrates; diversifying catches of coastal demersal fish; managing freshwater and estuarine fisheries to harness opportunities; develop coastal fisheries for small pelagic fish; and improving post-harvest methods.

[10] https://www.ipcc.ch/srocc/home/
[11] Bell J.D., Johnson J.E., Ganachaud A.S., Gehrke P.C., Hobday A.J., Hoegh-Guldberg O., Le Borgne R., Lehodey P., Lough J.M., Pickering T., Pratchett M.S., Waycott M. 2011. Vulnerability of Tropical Pacific Fisheries and Aquaculture to Climate Change: Summary for Pacific Island Countries and Territories. Secretariat of the Pacific Community, Noumea, New Caledonia. 381 p. https://www.spc.int/fr/node/10249
[12] Johnson, J.E., Bell, J.D., Sen Gupta, A. (2016) Pacific Islands ocean acidification vulnerability assessment. SPREP, Apia, Samoa, 40pp
[13] Bell J and Taylor M. 2015. Building climate-resilient food systems for Pacific Islands. Penang, Malaysia: WorldFish. Program Report: 2015-15.
[14] Undernutrition undermines climate resilience and the coping strategies of vulnerable populations (see Tirado & al. 2013. Climate Change and Nutrition: Creating a Climate for Nutrition Security. Food and nutrition bulletin 34(4):533-47).
[15] The large area of coral reef and associated coastal habitats should be able to produce the fish needed in short to medium term, but it will be difficult to distribute the fish to urban centres from remote islands, atolls and reefs (Bell & al., 2011; Johnson et al., 2018). On the longer term though (i.e. between 2050 and 2100), projections under high emission scenarios indicate that coral reefs will suffer considerable damage, posing a serious threat to food and nutrition security.

iii. Increasing the number of livelihoods that can be based on fishing, tourism and coastal aquaculture. Adaptation interventions include: developing pond aquaculture to diversify the supply of fish improving technical and business skills of communities; rebuilding/stock enhancement/restocking populations of sea cucumbers and trochus; developing coastal ecotourism ventures that are mindful of the fragility of coral-based ecosystems; diversifying production of coastal aquaculture commodities; and modifying locations and infrastructure for coastal aquaculture.

This project will meet adaptation needs listed in ii and iii above, to maintain and restore ecosystem functions/services, and enhance food and nutrition security and livelihood. It will target the most vulnerable coastal communities, which will be identified as part of the full funding proposal. The most vulnerable populations include those that are highly dependent on coastal fisheries and aquaculture for food/nutritional security and livelihoods; those at risk of being (or that have already been) displaced (e.g. on low-lying coastal areas); women (because they tend to depend more on natural resources for livelihood and subsistence, and are subject to gender-based violence which reduces their adaptive capacity); the poor and socially disadvantaged; and those that lack access to public information broadcasts and communications.

Please indicate how the project fits in with the country's national priorities and its full ownership of the concept. Is the project/programme directly contributing to the country's INDC/NDC or national climate strategies or other plans such as NAMAs, NAPs or equivalent? If so, please describe which priorities identified in these documents the proposed project is aiming to address and/or improve.

The proposed project is fully in line with Tonga's GCF country programme, with the proposed interventions being identified and listed as top adaptation priorities. It is also consistent with the national priorities, action plans, programs, policies and strategies. Building resilience to climate variability and change is in line with the Tonga Strategic Development Framework 2015 – 2025 (TSDF), the current Climate Change Policy, and the Tonga Fisheries Sector Plan (TFSP).

Implementing effective responses to climatic extremes and the increasing influence of climate change is a high priority for Government of Tonga as reflected in the newly released Joint Action Plan on Climate Change Adaptation and Disaster Risks Management (JNAP 2, 2018-2028) with the overarching goal of *"A Resilient Tonga by 2035"* with a target that focuses exclusively on resilient farming and fishing systems among the six defined objectives.

The project will also contribute to the implementation of the Tonga Fisheries Sector Plan (TFSP) 2018 – 2022, which has the general objectives of increasing the number of community-based Special Management Areas, reviewing fishery management and development plans, and an increased focus on the science necessary to support fishery management decisions in the context of climate change.

The project is also in line with some key policies in Tonga, including the Environmental Management Act (2010). Fisheries Management Act (2009), Aquaculture Management Act (2009), the National Strategy on Aquatic Biosecurity (2019-2023), the National Aquaculture Management and Development Plan (2019-2023) and the National Biodiversity Strategy & Action Plan (NBSAP). It is expected that this project will generate valuable lessons, methodologies and approaches to strengthen these policies and promote resilience throughout sectoral and national planning.

Describe the main root causes and barriers (social, gender, fiscal, regulatory, technological, financial, ecological, institutional, etc.) that need to be addressed.

The main factors that determine a community's adaptive capacity and therefore its vulnerability to climate change include economic wealth, provision of ecosystem services, information, skills, available infrastructure, inclusive institutions, and gender equity (IPCC ARS 2001). These factors have been identified as the main barriers to coastal communities and fishermen/fish farmers being able to effectively adapt to climate change.

Low financial capacity: Coping with climate change requires combined actions in various fields and collaboration and cooperation between all invested parties. Building resilient and climate-smart coastal fisheries and aquaculture sectors requires significant financial means. Since Tonga's fishery is essentially traditional/subsistence, coastal communities and fishermen/fish farmers have limited capacity to make financial investments in technologies that could improve the efficiency and sustainability of their fishing and farming practices in a changing climate. These communities are highly vulnerable to climate shocks that will erode the health and productivity of their marine resources. In addition, there is weak capacity of the State to finance coastal fisheries and aquaculture resilience activities in the face of climate change.

Lack of technical and technological capabilities: Although climate variability continues to manifest in different ways (e.g. irregular rainfall, dry spells, reduced productivity of targeted species), coastal communities and fishers with low-income levels are constrained to continue with the same practices year-after-year with little opportunity to adapt in a sustainable way to the known difficulties and disruptions of climate change. This approach limits their production capacity and worsens their poverty situation.

Limited knowledge and institutional awareness of climate-change risks, impacts and adaptation solutions: Besides limited infrastructure and technology to develop and disseminate climate-sensitive technologies and information, there is no institutional knowledge management framework that facilitates knowledge generation and sharing on innovative and adaptive measures which can be used for climate resilient fisheries practices, seasonal weather forecasting and early warnings. Fishing communities in Tonga have very limited awareness of these solutions. At the same time, the traditional knowledge on which communities historically depended for sustainable fishing and management is becoming increasingly

inadequate in the context of climate change. Most fishers in Tonga are not yet fully aware of the scale and magnitude of future climatic changes that will affect their livelihoods. An awareness and sense of urgency is generally lacking. Understanding of the range of possible future changes, including associated uncertainties, is critical for planning and adjusting local practices, processes, systems and infrastructure. There is currently no systematic and coherent understanding of the longer-term changes in climate that will occur and their likely implications for diverse communities and social groups. The absence of a coherent program to inform communities about these changes and what needs to be done to mitigate against uncertainties undermines adaptive capacity and therefore resilience to climate change.

Gender: Despite their important contributions to the fisheries and aquaculture[16] sectors in Tonga, women often earn less than men. This is due to a combination of factors, including limited access to and control over assets and resources, constraining gender norms, time and labour burdens of unpaid work, and barriers to sustaining entrepreneurship. The result is women having fewer opportunities and receiving smaller returns from fisheries and aquaculture than men—including lower income—and being left in positions of poverty. Addressing these gender inequalities and their underlying factors will not only positively affect the livelihoods of women—it will also benefit the families, communities, and sectors that depend on them. Gender equality is therefore central to realizing the potential of fisheries to improve livelihoods and enhance nutrition security for climate change resilience as well as being important in terms of social justice. The Tonga Strategic Development Framework (TSDF) recognizes women's empowerment and inclusion as an objective.

B.2. Project/Programme description (max. 3 pages)

Describe the expected set of components/outputs and subcomponents/activities to address the above barriers identified that will lead to the expected outcomes.

The project is designed to reduce vulnerability to climate change impacts in Tonga's coastal fisheries and aquaculture sectors, through adaptation interventions to foster resilient ecosystem- and community-based fisheries management (component 1); enhance food and nutrition security and livelihoods resilience in coastal communities (component 2); and strengthen governance, knowledge management and institutional and policy frameworks for climate-resilient fisheries and aquaculture (component 3). The scope of activities will be further refined at the full proposal stage, including through a feasibility study. The full proposal will only contain activities with small to medium environmental and social risks, which will be addressed through a detailed environmental and impact assessment and action plan. The project will develop a very proactive strategy for the participation of women in most of the activities especially recognizing that women have received a significant setback in Tonga's fisheries and aquaculture sectors due to years of limited access to productive assets such as fishing gears and fishing grounds. In accordance with GCF gender policy, the proposal will: (i) include qualitative and quantitative gender indicators; (ii) align with national policies and gender priorities; and (iii) strengthen equitable opportunities for women throughout the project cycle.

Component 1: Resilient ecosystem- and community-based coastal fisheries management

This component aims at increasing the resilience of coastal ecosystems and the provisioning services they provide, in particular through ecosystem- and community-based fisheries management. This would be achieved through enhancement and expansion of the SMA programme and through empowerment of vulnerable coastal communities to better cope with projected climate change impacts on coral reefs and associated resources.

Output 1.1: SMA programme is enhanced to better address climate change

Activities will mainstream climate change impacts and associated adaptation measures into the current SMA programme.

Activities:

- *(Could be done as part of PPF support) Review the current SMA programme from a climate change perspective and agree on key recommendations to implement;*
- SMA national conference to bring together key representatives from SMA communities, government authorities and key relevant stakeholders to share and exchange ideas on the successes and challenges for the sustainability of SMA with regards to climate change;
- Improve data collection protocols at community level and monitoring systems at national levels for all SMA, to better account for climate change impacts and adaptation measures;
- Undertake biological, socio-economic and vulnerability surveys to monitor status and impact of current SMAs;
- Conduct regional workshops and training of SMA management committees to share experience on the success and challenges of operating SMAs, enhance awareness and knowledge of climate change impacts, and present outcomes of the SMA programme review.
- Discuss and implement changes in current SMA's management if collectively agreed;
- Improve awareness with existing and new SMA regulations, planning and practices at the community level.

Output 1.2: SMA Network is expanded to strengthen the resilience of coastal ecosystems and fisheries

[16] Women are quite involved in pearl farming, pearl handicrafts, and culture of ornamentals.

Activities will create an effective SMA network covering the most vulnerable of Tonga's coastal communities and disseminate the revised SMA approach to multi-villages and multi-resource users (including inland villages that are not part of the SMA programme).

Activities:

- Undertake multi-villages consultations to agree on possible zoning and distribution of habitats and resources;
- Establish 20 more new SMA in addition to the 40 existing SMA's in Tonga;
- Undertake appropriate consultations and expert group workshops to establish a framework and appropriate management system for areas where SMA cannot be set up to complement existing SMA.

Output 1.3: Communities are empowered to better manage their SMA and coastal ecosystems for climate-change resilience

Activities will strengthen the capacities of coastal communities to better manage their SMA, including through training and workshops.

Activities:

- Conduct workshops in each SMA community to fully explain the impacts of climate change and how to adapt through protection of coastal ecosystems & SMA;
- Strengthen the capability of SMA committee in each SMA community to undertake compliance related activities and climate change adaptation activities by providing necessary tools and equipment including boat with outboard motor, navigation tools, safety gear, first aid kit;
- Promote adoption of sustainable coastal fishing gears and techniques and provide related equipment;
- Protect and restore key ecosystems that provide food and protection from storms and waves in most vulnerable coastal communities (no-take areas, ecological moorings, reef restoration, mangrove planting)
- Establish a Trust Fund for SMA communities climate change adaptation projects;
- Provide further ad-hoc assistance to communities to better manage their SMA and coastal ecosystems through procurement of materials and equipment (e.g. fishing or mangrove replanting equipment), small-scale infrastructure.

Component 2. Enhanced food and nutrition security as well as livelihood resilience in coastal communities

This component aims at providing additional and sustainable sources of protein and income for food/nutrition security and resilient livelihoods so as to strengthen the adaptive capacity of fisheries-dependent vulnerable households and compensate for the projected decline in demersal fish and aquaculture production (see section B1).

Output 2.1: Climate-change resilient aquaculture development and management

Activities will promote resilient aquaculture (e.g. through better site selection and practices) with positive or low environmental impact in selected vulnerable communities as an additional or alternative source of proteins and income.

Activities:

- *(Could be done as part of PPF support) Conduct review of current aquaculture operations from a climate change perspective, and feasibility studies to identify climate-resilient aquaculture strategies (species, investment opportunities, stock enhancement etc.) including for integrated fish farming, clams, pearl oysters, seaweeds, and sea cucumbers;*
- Upgrade existing aquaculture facilities (e.g. laboratory in Sopu) and infrastructure to make them more climate change resilient providing this only involves low to medium environmental and social risks;
- Build new laboratory and hatchery in Vava'u and Ha'apai for climate-resilient aquaculture (small-scale, with low to medium social and environmental impacts guaranteed through proper environmental impact assessment)
- Improve the hatchery propagation of all species of giant clam for restocking (including after climate-induced disasters), stock enhancement and aquarium trade;
- Improve the hatchery propagation of black pearl and wing pearl to provide farmers with a sustainable and homogenous supply of seeds;
- Improve the production and survivorship of sea cucumber sea ranching to enable mariculture of sea cucumbers to become a viable commercial industry throughout Tonga. ;
- If necessary, improve the farming of milkfish and tilapia in Nomuka given climate change projected impacts;
- Foster integrated fish farming (i.e. integrating pond fish culture into mixed crop-livestock systems, for instance through the use water from fish ponds to irrigate crops, or the production of bio-fertilizers from aquaculture residues) and undertake trial on potential inland and coastal water where possible (incl. flooded/saline land and water bodies);
- Develop climate-resilient community farming for Tilapia, seaweed, finfish, mud crab and prawns;
- Produce climate-resilient aquaculture guidelines for fish farmers (e.g. low intensification, integrated practices, use of herbivorous species, use of filter feeders, relevant for the domestic market, relevant for restocking/stock enhancement/restoration);

- Improve aquatic biosecurity protocols to account for potential climate change impacts on diseases' prevalence, incidence, etc.

Output 2.2: Diversification of livelihoods through ecotourism

The activities will enhance livelihoods in vulnerable coastal communities to increase their adaptive capacity through additional income and funding from ecotourism.

Activities:

- Deliver trainings for ecotourism and other relevant livelihood diversification in a coastal environment (including trainings to access financial services such as loans);
- Foster the creation of small-scale community-based ecotourism;
- Implement tourism-based funding mechanisms for coastal adaptation activities (could be linked to SMA Trust fund(s) established in component 1).

Output 2.3: Enhanced value chain and market access for resilient coastal fisheries and aquaculture

The activities will enhance value chain and market access for coastal fisheries and aquaculture products to strengthen adaptive capacity of vulnerable communities and the resilience of coastal ecosystems on which they depend. Adding value to climate resilient aquaculture and fishing products strengthens the case for better managing and restoring the ecosystems on which these operations depend. Expanding value chains for these products creates diversified livelihoods opportunities, taking pressure off natural and agricultural ecosystems, and helps ensure the sustainability of these operations beyond the project lifetime.

Activities:

- Assess climate change vulnerability of existing fishing facilities (fish landing sites, haul- out ramps for small boats, breakwaters) and retrofit or relocate most vulnerable ones (only low to medium social and environmental impacts);
- Build cold storage facilities in most vulnerable communities, using solar-powered equipment including operation and maintenance plans & trainings;
- Technology to increase value adding to catch, improve storage and post-harvest handling and processing;
- Improve seafood processing and preservation;
- Business management and planning training for fish farmers (incl. access to financial services);
- Value adding assessment and capacity building for farmed products.

Component 3: Strengthened governance, knowledge management, surveillance and policies for climate-resilient coastal fisheries and aquaculture management

This component aims at upgrading national policies, capacities, coordination and information systems for transformative and sustainable impacts in support of components 1 and 2.

Output 3.1: Improved awareness and knowledge of climate-resilient fisheries and aquaculture management for private sector and national stakeholders

The activities will allow raising awareness, developing, and implementing a knowledge management strategy on climate-resilient practices in coastal fisheries and aquaculture.

Activities:

- Conduct training and capacity-building activities (workshop, regional exchanges, mentoring etc.) for national government stakeholders (mainly staff from the Ministry on Fisheries) on projected climate change impacts and resilient coastal fisheries (including SMA) and aquaculture;
- Strengthen the knowledge base and climate change advisory capacity of fisheries and aquaculture extension workers;
- Enhance climate change knowledge (projected impacts and adaptation strategies) of private sector stakeholders involved in coastal fisheries and aquaculture;
- Design public education and awareness programs on projected climate change impacts on coastal ecosystems and the provisioning services they provide through fisheries and aquaculture, and prepare awareness materials for dissemination (including materials targeting youth on coral reef conservation, climate-resilient aquaculture and fisheries as livelihood options);
- Disseminate lessons learned from the project, targeting government officials, academia, local communities and other relevant stakeholders.

Output 3.2: Improved surveillance and information systems to support the resilience of coastal fisheries and aquaculture

The activities will result in the deployment of a modern and efficient surveillance, prediction and information system of climate and environmental key factors at national and local scales affecting coastal fisheries and aquaculture activities.

Coupled with enhanced fishing surveillance mechanisms, this will allow for adaptive management based on short-term predictions and longer-term projections under climate change scenarios.

Activities:

- *(Could be done as part of PPF support) Review of existing surveillance and monitoring-evaluation systems in relation with the fisheries and aquaculture sector from a climate-change perspective*
- Development of a national surveillance system dedicated to climate variability & change impacts on the coastal and marine environment to inform adaptive fisheries and aquaculture management;
- Establishment of marine environment climate change impacts surveillance program in pilot areas in coordination with local stakeholders;
- Examine the status of coastal and inshore finfish stocks (including creel survey and bio sampling surveys);
- Strengthen the existing surveillance and control mechanisms of the fish sites and resources and fishing activities (including a national workshop to approve the new surveillance mechanisms);
- Acquisition of surveillance materials (e.g. IT, data collection) in favour of the fisheries and aquaculture staff, managers and organizations/structures;
- Design of training modules, identification and training of the teams in charge of utilization of the strengthened surveillance mechanisms;
- Establish early warning systems, safety at sea, climate-induced disaster risk reduction and preparedness plans for the coastal fisheries and aquaculture sectors.

Output 3.3: Enhanced policies and coordination for resilient coastal fisheries

The activities will strengthen existing policies frameworks and coordination towards more resilient development and management of coastal fisheries and aquaculture.

Activities:

- Review and revise existing management frameworks and strategies for the coastal fisheries and aquaculture sectors (e.g. National Aquaculture Management and Development plan 2018-2022, SMA Management Plan, Sea Cucumber Fishery Management and Development Plan, the National Aquatic Biosecurity Strategy, export/import standards for live aquatic organisms and their products) to better account for climate change;
- Review and amend regulations and policies where appropriate to enable implementation of revised management framework and strategies (e.g. improve aquaculture development planning and zoning; strengthen aquatic biosecurity measures);
- Undertake broad consultations and workshops with relevant key stakeholders and in public media to get feedback regarding proposed revisions and amendments;
- Train government staff and other relevant stakeholders on changes made in policies framework;
- Support of the cross-sector working groups for the promotion of common actions addressing coastal ecosystem resilience to climate change impacts;
- Mainstream climate change adaptation into national and district level development planning and into budgeting in the coastal fisheries and aquaculture sectors

In terms of rationale, please describe the theory of change and provide information on how it serves to shift the development pathway toward a more low-emissions and/or climate resilient direction, in line with the Fund's goals and objectives.

To date, Tonga has developed and piloted promising climate adaptation fisheries practices within several projects[17]. However, most of these are at a small scale – for instance identifying vulnerabilities and taking small steps to moderate negative climate change impacts – and dealt with immediate shocks without much success on building resilience in the long-term. The proposed project builds on the knowledge generated from past interventions and champions a transformative approach that will shift the development pathway toward a more climate resilient direction by addressing the main barriers to change (see section B1 and annex 2). It will do so by: (i) promoting climate-resilient coastal fisheries and aquaculture development and management across most coastal communities in Tonga; (ii) enhancing the resilience of livelihoods in the most vulnerable communities; and (iii) strengthening governance, knowledge management, institutional and policy frameworks. A diagram explaining the theory of change is provided in annex 2 (attached).

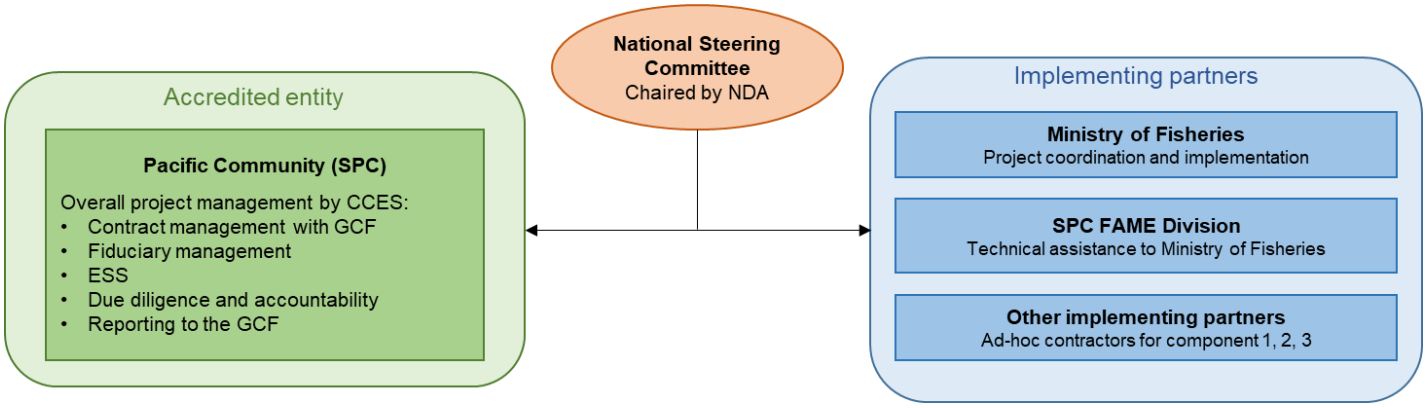
Describe how activities in the proposal are consistent with national regulatory and legal framework, if applicable.

The activities are fully consistent with the TSDF 2015-2025, the Climate Change Policy, the JNAP 2 (2018-2028), the TFSP (2018 – 2022), the Environmental Management Act (2010), the Fisheries Management Act (2009), the Aquaculture Management Act (2009), and the National Biodiversity Strategy & Action Plan (NBSAP) (see section B1).

[17] Examples include the Adaptation for Resilient Agriculture in the Pacific (ARAP) Project, Climate Resilience Sector Project, Integrated Island Biodiversity Project, Tonga Pacific Adaptation to Climate Change (PACC) Project, Mainstreaming Rural Development Innovations Programme In The Pacific (MORDI) and Tonga Rural Innovation Project (TRIP).

Describe in what way the Accredited Entity(ies) is well placed to undertake the planned activities and what will be the implementation arrangements with the executing entity(ies) and implementing partners.

SPC will be the Accredited Entity of the project. The project will be implemented by the Ministry of Fisheries, the Department of Climate Change in MEIDECC, SPC FAME division. The figure below provides an overview of the implementing arrangements.



During consultations, it has been suggested that the **National Climate Change Coordination Committee (NCCCC)** could act as the Steering Committee and would provide overall direction and guidance for project implementation. This will be confirmed at the full proposal stage. The NCCCC membership comprises key government ministries namely: Ministry of Finance and National Planning (MFNP) and Ministry of Fisheries and other relevant ministries to climate change adaptation. The NCCCC may co-opt other members in the private sector and NGO's operating in climate change related areas based on specific needs. The broad and diverse membership in the NCCCC and the transparent nature of project delivery provides safeguards against the inappropriate use of project resources.

Please provide a brief overview of the key financial and operational risks and any mitigation measures identified at this stage.

It is imperative to identify risks as external factors, which may play a role in determining the outcome of the project. The anticipated risks are categorized into – stakeholder, operational, financial, and political. Description of the anticipated risks and underlying management the project will have in place are presented in the table below.

Type of Risk	***Risk***	***Risk Level***	***Mitigation Measures***
Stakeholders	Lack and/changing interest of key stakeholders Low stakeholder support/buy in for the project – Key stakeholders do not participate fully in project activities. Local stakeholders resist implementation of proposed climate change adaptation intervention	Low	• Engage with key stakeholders early in the project development, implementation • Stakeholder meetings held on a regular basis, especially prior to and at the early stages of the project. • Communications strategy prepared for the project and adapted to inform across different target audiences. • Capacity building and training of relevant stakeholders (e.g. local authorities and communities) to increase their understanding and awareness of the benefits of climate change adaptation interventions, and their ability to effectively implement, use and maintain the adaptation interventions. Implementation of public awareness programmes on the effects of climate change and the benefits of climate change adaptation interventions. • Demonstration of the benefits of climate change interventions in pilot sites.
Financial	Global recession, inflation and currency instability Project financial mismanagement	Low	• All funds will be maintained in USD for international purchases to reduce the impact of price and currency fluctuations. • The project will have a clear separation of roles and will demonstrate robust accountability and audit practices
Operational	Irregularities in the disbursement of funds and delay in procurement market price and availability of inputs for the project	Low	• A procurement and finance specialist will be recruited within the project coordination unit to ensure streamlined disbursement of funds and procurement process as per SPC policies.

			● Procurement will be developed in accordance with the project work plan to ensure the availability of inputs in a timely manner.
Policy	Political and security instability affects the implementation of the project	Low	● The project will operate in politically stable and secure areas and every effort will be made to ensure that project activities are carried out with the participation of all relevant stakeholders, including government departments and local structures.
Technical	Low capacity of stakeholders to implement project activities	Medium	● Component 3 capacity building activities for stakeholders will help overcome this obstacle
Delay	All or parts of the project activities are delayed, affecting the achievement of targets on time.	Medium	● Detailed activity plans prepared for all activities. Regular monitoring of progress to identify possible sources of delay and update plans.
Expectations	High expectations of communities and local governments in terms of rapid investments in the field	Medium	● Awareness-raising actions to explain the immediate contribution and the long-term outcomes of the project.

Monitoring and evaluation

The timeframe for the project provides the basis for monitoring and evaluation. The project coordination unit will be responsible for the day-to-day monitoring of the project. The participating communities will actively participate in monitoring and evaluating the various activities in which they are involved. The coordination unit will progress monitoring at all levels starting with baseline data and inception report, 6-monthly progress reporting, final report, as well as mid-term and final evaluations. The coordination unit will work with existing personnel at national and district level in developing reporting formats and systems to ensure sustained monitoring beyond the project life.

B.3. Expected project results aligned with the GCF investment criteria (max. 3 pages)

Provide an estimate of the expected impacts aligned with the GCF investment criteria: impact potential, paradigm shift, sustainable development, needs of recipients, country ownership, and efficiency and effectiveness.

The project focuses on adaptation and aligns with the following GCF focal areas: (i) increase resilience and livelihood of the most vulnerable people, communities and (ii) increase the resilience of health, food and water security.

	Impacts and indicators	**Project's targets** (To be confirmed at the full proposal stage)
GCF impacts and core indicators	Area (ha) of Special Management Area made more resilient to climate change through sustainable fishing practices	Establish 20 more new SMA in addition to the 40 existing SMA
	Number of households adopting a wider variety of livelihood strategies/ coping mechanisms	Around 5,500 (30% of Tonga's households)
	Direct beneficiaries	Around 30% of Tonga's population
	Indirect beneficiaries	100% of Tonga's population
	Percent of target population aware of the potential impacts of climate change and range of possible responses	Around 50% of Tonga's population
Other relevant indicators	Expected strengthening of adaptive capacity	Around 50% of Tonga's population
	Potential for scaling-up and replication	Strong potential for scaling-up and replication (see paradigm shift potential below)
	Expected increase in production	Up to 50 % increase in seafood production

Impact potential:

The project will advance climate-resilient sustainable development in Tonga by ensuring adaptation of its coastal fisheries and aquaculture sectors to climate risks and impacts. GCF funding will support an integrated approach to strengthening the resilience of these sectors through three inter-related outputs contributing to a climate-resilient, ecosystem- and community-based fisheries/aquaculture management system and aquaculture development. The project will benefit 5,500 households representing around 30% of Tonga's population. Of the total population who will benefit directly a significant number will be smallholder fishers (males and females) who will benefit through having access to an early warning system, adoption of climate resilient fishing practices, and diversification of climate resilient livelihoods. Twenty additional climate-resilient SMA will also be established, and the 40 existing ones will be improved. Around 10 new fish farms will also be established. A more accurate and detailed methodology to estimate the exact number of beneficiaries will be provided at the full proposal stage, once the feasibility study has been conducted and the list of targeted vulnerable communities precisely identified based on vulnerability assessment.

Paradigm shift potential:

The project is constructed with several interdependent components, which together will deliver long-term transformative changes in the coastal fisheries and aquaculture sectors by: (i) reviewing and strengthening current programmes, practices, strategies and policies at multiple levels in both sectors to better account for and deal with climate change impacts; (ii) enhancing awareness, knowledge management, and surveillance systems of climate change impacts; (iii) improving coordination among all relevant stakeholders to implement adaptation solutions in both sectors; and (iv) empowering the most vulnerable coastal communities to better manage coastal ecosystems and enhancing their livelihood resilience. For instance, an improved and scaled-up SMA programme will enhance the resilience of vulnerable communities and empower them to manage their own resources. The proposed activities will catalyse impact beyond a one-off project investment through knowledge and learning, enhanced and integrated surveillance systems, and strengthened regulatory frameworks and policies. Skills learned during the project will continue to provide communities with the tools needed to deal with adversity. Finally, the project also aim at being a game changer for women in both sectors by placing them at the forefront and recognising their untapped potential to be major drivers of change in their communities.

Sustainable development potential:

This project will provide direct employment in the coastal fisheries and aquaculture sectors, and will benefit all those involved in the production and distribution cycle. In addition to the direct adaptation outcomes, this project also creates environmental, social and economic co-benefits and gender-sensitive development impact.

Environmental co-benefits

The project will have a range of positive environmental impacts, through better management of vulnerable coastal ecosystems by the communities as they practice responsible fisheries and aquaculture. By improving existing SMA, and establishing new ones, the project will also contribute to the protection and recovery of marine biodiversity. Finally, the project will effectively contribute to restocking populations of targeted species such as trochus or sea cucumber.

Economic co-benefits

The project will yield many direct and indirect economic benefits, at the micro and macro levels. The project will enhance fisheries and aquaculture production for communities as well as improving incomes through better access to market linkages, and increases in value adding to fishing produce. The implementation of the project will create direct jobs, consisting mainly of local labour and indirect jobs around the sites. It will be a potential source for youth and women's employment. The project will also contribute to reducing the economic losses due to extreme climate/weather events.

Social impacts

The social impact of the project is expected to be positive. The participating communities will see resilient coastal fisheries and aquaculture as a feasible option for households to fulfil their nutritional requirements as well as ensuring their livelihoods (including through ecotourism). The project will lead to increased skills for beneficiaries to understand market institutions, financial and governance institutions as well as have improved management skills and better understanding of adaptive measures. The project will improve human capacity, especially for women, youth and other vulnerable groups, with enhanced access to resilient fishing and aquaculture management practices specific to local needs. It will also increase the institutional capacity to mainstream climate change adaptation into national and district level development planning and into budgeting in the fisheries and aquaculture sectors. This will improve the resilience of local communities in the longer term.

Gender-sensitive development impact

Gender equality objectives will be integrated into all aspects of project activities and management, through the conscious integration of gender-based groups in project activities. The project will fully comply with GCF gender guidelines, which will be incorporated into the various parts of the full proposal development, the project implementation, and the monitoring and evaluation. Gender disaggregated data will be collected to monitor project impacts following GCF guidelines on Social and Environmental Safeguards. A gender assessment and action plan for the project will be developed at the full proposal stage. Each of the components will have an approach to encourage the inclusion of women with specific targets identified for them. The identification of assets, skills training and enterprise development will be designed to address opportunities of relevance for women. The project will promote participatory and capacity development tools with a gender focus both at the national level (institutional development and policy improvement) and at the local level. Enabling women to fully engage in and benefit from coastal fisheries and aquaculture can boost production, reduce poverty and enhance food and nutrition security for thousands of fish-dependent households.

Needs of recipient:

Identified as the second most at risk country in the world (World Risk Report, 2015[18]) in terms of its exposure and susceptibility to natural hazards and the unfolding effects of climate change, Tonga is clearly highly vulnerable, particularly as it relates to the coastal fisheries and aquaculture sectors. Significant additional adaptation efforts are needed to address the critical interface between climate, coastal fisheries, aquaculture, and livelihoods at the community level. The project will contribute significantly to addressing some of the main climate change impacts faced by coastal communities and the

[18] https://i.unu.edu/media/ehs.unu.edu/news/11138/Fact-sheet-WWR-2015-English.pdf

marine ecosystems they rely on by strengthening current coastal management planning and practices such as SMA, enhancing diversification and hence resilience of livelihoods, and providing an institutional enabling environment.

Country ownership:

The proposed project is fully consistent with Tonga's GCF country programme (the proposed interventions are identified and listed among the top adaptation priorities), national development plans, programs, policies and strategies. The project fits into the guidelines of Tonga's Nationally Determined Contribution (NDC), which is now a reference framework for climate change in the country. Through the objectives set, the project meets the guidelines established in the national plan for economic and social development (TSDF, 2015-2025). The project is part of the vision and objectives of the national climate adaptation plan (JNAP 2). The project will be executed by the Ministry of Fisheries. Due to the cross cutting nature of the project, the Department of Climate Change (DCC) in the Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC) will have the overarching role of project supervision. This project has been co-developed with the main stakeholders involved in fisheries and climate change issues. The Concept Note has been designed through extensive consultations and involvement of government officials at the Ministry of Fisheries and DCC to ensure ownership of the interventions and effectiveness of their impact.

Efficiency and effectiveness:

The project will demonstrate a strong cost effectiveness and financial soundness, and will incorporate findings from the existing reviews conducted on SMA (e.g. FAO 2017). The proposed financial structure of the project is deemed adequate and reasonable in order to achieve the project's objectives. A detailed economic and financial analysis (including a cost benefit analysis) of the project's interventions will be conducted as part the feasibility study (as part of the PPF support). Benefits emanating from this project will continue to flow through communities long after this project has been completed.

B.4. Engagement among the NDA, AE, and/or other relevant stakeholders in the country (max ½ page)

Please describe how engagement among the NDA, AE and/or other relevant stakeholders in the country has taken place and what further engagement will be undertaken as the concept is developed into a funding proposal.

This concept note has been co-developed with the Ministry of Fisheries, the NDA (MEIDECC) and SPC as the accredited entity. Several meetings were held at various respective ministries to identify priorities for inclusion in the proposal, and at SPC with representatives of SPC's CCES programme, SPC's FAME division and the Ministry of Fisheries. An in-country workshop is planned to be held in April or May 2020 gathering relevant stakeholders to help addressing the feedback from the GCF following the first submission of this concept note, and review the different interventions. SPC, as the regional direct accredited entity, is planning to solicit technical assistance from the GCF to lead the workshop.

C. Indicative Financing/Cost Information (max. 3 pages)

C.1. Financing by components (max ½ page)

Please provide an estimate of the total cost per component/output and disaggregate by source of financing.

Component	Indicative cost (USD)	GCF financing		Co-financing		
		Amount (USD)	Financial Instrument	Amount (USD)	Financial Instrument	Name of Institutions
Component 1	6,000,000	5,000,000	Grants	1,000,000 (TBC)	Grants and in-kind contribution	Government and on-going projects supporting SMA[19]
Component 2	6,000,000	5,000,000	Grants	1,000,000 (TBC)	Grants and in-kind contribution from government	Government and on-going projects supporting aquaculture in Tonga
Component 3	2,500,000	2,000,000	Grants	500,000 (TBC)	Grants and in-kind contribution from government	Government and on-going projects supporting fisheries and aquaculture policies and climate information services
Project Management Costs (7%)	980,000	980,000	Grants			

[19] See for instance: https://projects.worldbank.org/en/projects-operations/project-detail/P164941

Indicative total cost (USD)	15,480,000	12,980,000	Potentially 2,500,000 (the exact amount of co-financing and its sources will be confirmed at the full proposal stage)

C.2. Justification of GCF funding request (max. 1 page)

Tonga, like many Pacific island countries, is experiencing increased climate variability and subsequent disturbances to the natural environment, which has resulted in adverse impacts on their coastal communities and their livelihoods. The country's low economic base puts an imperative on the international community to urgently fund intervention programmes to help Tonga's communities cope and adapt. Therefore, a GCF contribution to this project is critical to make the coastal fisheries and aquaculture sector more climate-resilient, and decrease the vulnerability of coastal communities and the coral reef ecosystems they rely on. The GCF contribution would help the country reorient its fishing value chains towards low-carbon development pathways (e.g. by avoiding emissions from imported seafood or proteins). GCF involvement is needed to address the full scope of climate impacts already visible in the coastal fisheries and aquaculture sector, and anticipated impacts in the next 30-50 years. Although there is some uncertainty as to how climate change will manifest in some parts of Tonga, current trends indicate that without significant assistance the country will not be able to undertake the deep transformation of the sector required to make it climate resilient.

Without GCF support, current opportunities to shift the fishery and aquaculture sectors towards climate-resilient and low-carbon development would be missed, leading to continued impoverishment of rural populations, food insecurity, and an aggravation of vulnerability and environmental degradation trends. The GCF funds provided to this project will serve the dual purpose of making the development investment more sound, resilient and viable while providing immediate adaptation and mitigation benefits to local populations. The status of the Tongan economy means that not all interventions can be supported through loans. Grant funding is required to help support large changes and to improve investments that will help redirect the country towards a low-carbon economy, with a resilient fisheries sector that can effectively support its population, and contribute to economic growth.

Therefore, as the government of Tonga moves toward deepening its interventions in climate change adaptation and mitigation in line with the Joint National Adaptation Plan on Climate Change and Disaster Risk Management (JNAP 2), GCF resources will play a lead role through funding of this project in support of the Tongan government in its endeavour to overcome barriers (detailed in Section B1) towards resilient coastal fisheries and aquaculture.

As climate change has a negative impact on demersal fish and aquaculture production, achieving any given food and nutrition security target will require greater investments in fishery productivity increased income. Public and private sectors as well as public-private partnerships will play a critical role.

C.3. Sustainability and replicability of the project (exit strategy) (max. 1 page)

Please explain how the project/programme sustainability will be ensured in the long run and how this will be monitored, after the project/programme is implemented with support from the GCF and other sources.

The project has been designed to ensure the sustainability of project benefits via a number of mechanisms, including:

(i) Participation of multiple stakeholders/beneficiaries at all levels from conceptualization to implementation and subsequent awareness and dissemination workshops for a spectrum of stakeholder groups, that will establish a greater foundation for sustainability;
(ii) Focus on the capacity building needs of all stakeholder levels – community, district, islands and national so that, by the end of the project, participating stakeholders will have acquired adequate knowledge and skills to sustain and build on the project results;
(iii) Collaboration with the existing community leadership structures (SMA committee, Village Development Committee or Village Councils, District Officers and Town Officers Committee), in order to ensure continuity of activities after the closure of the project;
(iv) Development of operation and maintenance plans when needed;
(v) Implementation of funding mechanisms (trust funds and contributions from ecotourism)
(vi) Strengthening of national policies, capacities, coordination and information systems for transformative and sustainable impacts.

D. Supporting documents submitted (OPTIONAL)

☒ Map indicating the location of the project/programme (see Annex 1)

☒ Diagram of the theory of change

☐ Economic and financial model with key assumptions and potential stressed scenarios

☐ Pre-feasibility study

☐ Evaluation report of previous project

☐ Results of environmental and social risk screening

Self-awareness check boxes
Are you aware that the full Funding Proposal and Annexes will require these documents? Yes ☐ No ☐ • Feasibility Study • Environmental and social impact assessment or environmental and social management framework • Stakeholder consultations at national and project level implementation including with indigenous people if relevant • Gender assessment and action plan • Operations and maintenance plan if relevant • Loan or grant operation manual as appropriate • Co-financing commitment letters
Are you aware that a funding proposal from an accredited entity without a signed AMA will be reviewed but not sent to the Board for consideration? Yes ☒ No ☐

Annex 1: Map of Tonga