

GEF-7 REQUEST FOR PROJECT ENDORSEMENT/APPROVAL



Project Type: MEDIUM-SIZED PROJECT
 Type of Trust Fund: SPECIAL CLIMATE CHANGE FUND

PART I: PROJECT INFORMATION

Project Title: Financial tools for small scale fishers in Melanesia			
Country(ies):	Fiji, Papua New Guinea	GEF Project ID:	10437
GEF Agency(ies):	WWF-US	GEF Agency Project ID:	G0028
Project Executing Entity(s):	Willis Towers Watson	Submission Date:	2021-04-09
GEF Focal Area (s):	Climate Change Adaptation	Expected Implementation Start	2021-12-01
		Expected Completion Date	2024-12-01
Name of Parent Program		Parent Program ID:	

A. Focal/Non-Focal Area Elements

Programming Directions	Focal Area Outcomes	Trust Fund	(in \$)	
			GEF Project Financing	Confirmed Co-financing
CCA-1	CCA-1: Reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaptation.	SCCF-A	1,005,046	7,330,578
Total project costs			1,005,046	7,330,578

B. Project description summary

Project Objective: to improve the resilience of vulnerable coastal communities to the adverse impacts of climate change, including major shock events, in Fiji and PNG						
Project Components/ Programs	Component Type	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Confirmed Co-financing
Component 1: Enabling environment for ex ante risk financing to improve resilience for coastal	TA	1.1. Climate risks, coverage priorities, and risk pooling options identified	1.1.1 Desktop risk assessment and community consultations, surveys, and workshops to identify and prioritize critical climate risks and impacts facing targeted communities and risk pooling options	SCCF-A	405,846	2,954,223

<p>communities in Tavua District and Qoliqoli Cokovata in Fiji and Madang Province in PNG.</p>		<p>1.2. Improved financial literacy to engage with risk financing and financial products for climate resilience amongst coastal community members</p> <p>1.3 Markets ¹ developed in the target geographies to insurance products for community level climate resilience and adaptation</p>	<p>1.2.1 Training manual (in local language(s), with visuals) for financial literacy for the products developed in 2.1.1</p> <p>1.2.2 Community Facilitators trained to deliver 1.2.1 and to strengthen peer to peer financial literacy networks</p> <p>1.2.3 Financial literacy training on risk financing and insurance products (developed in 2.1.1) in the targeted communities</p> <p>1.3.1. Assessment of current status and enabling environment for local insurance marketplace</p> <p>1.3.2. Insurance program roll-out plan for local insurers, including guidance on policy administration options and distribution mechanisms (for insurance program developed under Component 2)</p> <p>1.3.3. Engagement and market information and analytics pack to facilitate reinsurance/retrocession protection for participating market(s), local and international.</p>			
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¹ Markets here refers to the insurance marketplace, encompassing both insurance providers and purchasers.

Component 2: Financial products and incentives for coastal communities	TA	<p>2.1 Insurance program(s) designed to underpin improved financial resilience to climate shock events for three target communities, including developing options for incentivizing sustainable ecosystem management practices and other climate adaptation measures in risk-responsive pricing</p> <p>2.2. Premium financing identified and mobilization pursued</p>	<p>2.1.1 Insurance products² to address critical climate risks to target communities, including index design, pay-out structure, underwriting and settlement data identification, and risk analytics</p> <p>2.1.2. Insurance program design for the deployment of the financial products in 3 target communities, including distribution, administration, and risk pooling options, risk metrics and data suitable for underwriting and settlement, pay-out management processes, and options developed for incentivizing ecosystem management practices and other climate adaptation measures in risk-responsive pricing</p> <p>2.2.1. Engagement and consultations to mobilize short-term premium support for “proof of concept” of insurance program(s) developed under 2.1.2, including extending coverage as an incentive for better ecosystem management practices</p> <p>2.2.2. Design of premium aggregation and management mechanisms</p>	SCCF-A	426,200	3,108,165
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² Examples: Index-based insurance, e.g. coverage of blue infrastructure, livelihood protection, and business interruption products, targeted at the individual, household, community, or cooperative level; microinsurance products directly linked to microfinance

			2.2.3. Strategy for sustainable, long-term ex ante financing of community climate risk			
Component 3: KM and M&E	TA	3.1 Effective project communications, knowledge management and adaptive management	3.1.1 KM products disseminated to share lessons and scale up similar private sector work internationally on financial products for climate resilience 3.1.2 M&E reports, used for adaptive project management and successful project delivery	SCCF-A	96,000	703,735
Subtotal					928,046	6,766,123
Project Management Cost (PMC)				SCCF-A	77,000	564,455
Total project costs					1,005,046	7,330,578

For multi-trust fund projects, provide the total amount of PMC in Table B, and indicate the split of PMC among the different trust funds here: ()

C. confirmed sources of Co-financing for the project by name and by type

Please include evidence for co-financing for the project with this form.

Sources of Co-financing	Name of Co-financier	Type of Cofinancing	Investment Mobilized	Amount (\$)
GEF Agency	WWF US	In-kind	Recurrent expenditure	126,605
CSO	WWF Pacific	In-kind	Recurrent expenditure	150,000
Private Sector	Willis Towers Watson	In-kind	Recurrent expenditure	3,816,320
CSO	ORRAA	Grant	Investment mobilized	2,128,589
CSO	ORRAA	In-kind	Investment mobilized	1,109,064
Total Co-financing				7,330,578

Describe how any "Investment Mobilized" was identified.

Investment mobilized has been identified in the cofinancing committed by the Ocean Risk and Resilience Action Alliance (ORRAA). This includes an Ocean Resilience Innovation Challenge, which will support 15

novel financial products by 2025. Other programs being supported under this cofinancing can be found in Annex 1 of ORRAA’s cofinancing commitment letter. The term Investment Mobilized has been used to reflect co-financing that excludes recurrent expenditure, and financing that will be leveraged alongside the GEF grant.

Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

GEF Agency	Trust Fund	Country Name/Global	Focal Area	Programming of Funds	(in \$)		
					GEF Project Financing (a)	Agency Fee (b)	Total (c)=a+b
WWF-US	SCCF-A	Fiji, Papua New Guinea	Climate Change	CC – Global Set Aside	\$1,005,046	\$90,454	\$1,095,100
Total GEF Resources					\$1,005,046	\$90,454	\$1,095,100

D. Does the project include a “non-grant” instrument? NO

E. Project’s Target Contributions to GEF 7 Core Indicators

See CCA Tracking tool.

F. Project Taxonomy

See Annex G

part ii: project justification

describe any changes in alignment with the project design with the original pif

1a. Project Description.

1) The global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)

Adaptation Problem, Threats and Root Causes

Melanesia is facing a range of climate threats, including increasing air and sea temperatures, sea-level rise, flooding, variations in precipitation patterns, longer drought periods, coastal erosion, coral bleaching, and ocean acidification. See the climate risk screening tool in Appendix 6: Climate Risk Screening for more details.

Melanesia is also subject to climate shock events, such as cyclones and flooding. In Papua New Guinea, the northern provinces (including Madang - the focus of this project) are facing more frequent and intense rainfall, particularly during monsoon season. This has led to more frequent and more extreme flooding, impacting infrastructure such as roads and bridges and disrupting communication, transport,

and economic and market accessibility.³ PNG is also susceptible to tropical cyclones. In Fiji, tropical cyclones and flooding events have comprised 96% of natural disasters over the past 30 years.⁴ Such events are expected to increase due to climate change, with sea level rise contributing to even greater flooding and storm surge impacts.

Natural disasters such as tropical cyclones and floods cause average annual direct losses of around US\$284 million in the Pacific. With a combined population of fewer than 10 million people, annual losses are the highest in the world on a per-capita basis.⁵ For example, Tropical Cyclone Winston, a category 5 storm, swept through Fiji in February 2016 and is estimated to have caused just under Fijian \$1bn in losses and damages.⁶ More recently, Cyclone Harold and Cyclone Yasa (both Category 5) impacted Fiji in 2020, and Cyclone Ana in 2021, all causing substantial damage. Yasa, for example, impacted Vanua Levu (where the project focuses), resulting in flooding, buildings being destroyed, deaths and injuries, and hundreds of millions of dollars in damages.⁷ Coastal communities are especially vulnerable. According to a World Bank report, climate-related shocks events push approximately 25,700 Fijians into poverty each year.⁸

In addition to threatening coastal communities and damaging property, climate shock events also cause extensive damage to ecosystems. Cyclones, for instance, damage coral reef structures and fish habitat. As the strength and integrity of these ecosystems are threatened, so is their ability to provide critical ecosystem services such as coastal protection and fisheries habitat. Indirectly, cyclones result in increased pressure on fish stock, as communities rely on fisheries for food security in the immediate aftermath of such events. At the same time, climate pressures are putting those same ecosystem services under increasing chronic stress. According to the IUCN, ocean warming affects fishery yields and the distribution of fish stocks. The health of marine species and humans will be affected by increasing bacteria and virus outbreaks as pathogens spread more easily in warming waters, while travel and tourism will be impacted by frequent coral bleaching events.⁹

Barriers to be Addressed

A number of barriers need to be addressed to increase the resilience of coastal communities in PNG and Fiji. Currently, (1) financial products that support the financial resilience of coastal communities to climate change impacts do not exist. In addition, (2) local insurance markets currently do not have the conditions in place to provide the financial products. (3) There is a lack of financial literacy to understand

³ Climate Risk, Vulnerability and Needs Assessment for Morobe, Madang, East Sepik, Northern And New Ireland Provinces Of Papua New Guinea. Ref. No. (PNG/AF/VNA/2014). Tom D'Haeyer, Julie Deleu, Edith Maroy, Danitza Salazar, Georg Petersen, Pendley, Michael Allen, Bonie Belonio.

⁴ Republic of Fiji : second national communication to the United Nations Framework Convention on Climate Change. - Suva, Fiji : Ministry of Foreign Affairs, 2014.

⁵ Brown, Daigneault, and Gawith, "Costs and Benefits Of Ecosystem-Based Adaptation For Flood Risk Reduction In Fiji", Agricultural & Applied Economics Association, Minneapolis, MN, July 27-29, 2014

⁶ https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/fiji_lessons_learned_workshop_report_external.pdf

⁷ <https://www.theguardian.com/world/2020/dec/18/cyclone-yasa-two-die-in-fiji-as-storm-hits-second-largest-island>

⁸ <http://documents1.worldbank.org/curated/en/163081509454340771/pdf/Climate-vulnerability-assessment-making-Fiji-climate-resilient.pdf> <http://documents1.worldbank.org/curated/en/163081509454340771/pdf/Climate-vulnerability-assessment-making-Fiji-climate-resilient.pdf>

⁹ IUCN, 2016: D. Laffoley and J.M. Baxter, (eds), "Explaining ocean warming: Causes, scale, effects and consequences", Gland, Switzerland: IUCN (2016). 456 pp: <http://dx.doi.org/10.2305/IUCN.CH.2016.08.en>

the value of these financial tools, and therefore low demand and/or unwillingness to pay for climate risk insurance and other financial tools even if they already exist. (4) Premium financing (financing to cover insurance premiums) needs to be in place to ensure affordability of insurance products. Finally, (5) there are limited incentives for sustainable management of natural resources which must underpin increased coastal community resilience to climate change. Without the availability and uptake of financial tools for climate adaptation, coastal communities in PNG and Fiji will remain increasingly vulnerable to severe climate events and will continue to have limited financial capacity to absorb shock events. Each of these barriers is described further below:

1. There is a lack of access to (and existence of) appropriate financial products for climate adaptation, particularly regarding financial resilience to climate shock events, in Pacific coastal small-scale fishing communities.

The financial products currently available covering climate risk in the Pacific are almost entirely insurance products for fixed assets (i.e. personal property such as fishing gear or boats) on an indemnity basis (i.e. paying out based on actual damage, often after a lengthy loss-adjustment process), which have little relevance to those who rely on subsistence activities and public goods for their livelihoods and wellbeing. Current insurance provision is almost exclusively focused on urban communities, which mainly consists of commercial property insurance, and can be costly or impossible to procure for many low-income households. Existing community risk sharing arrangements (e.g. the Wontok system, where the family and community provide for individuals) are suitable for individual resilience but not climate risk to the community as a whole. Climate risk is a covariant risk, meaning a single event impacts the entire community at the same time - the impact is highly concentrated in both space and time.

The financial products currently available are either not accessible or do not appropriately build the adaptive capacity or resilience of Pacific small-scale fishing communities in the face of climate shocks. Without financial products that address these climate risks, small-scale fishing communities are even further unprepared to respond to extreme weather and environmental impacts. They are often left without the necessary liquidity or smoothed income to rebuild, replace lost livelihood activities interrupted by natural catastrophe events, and recover, drastically slowing down economic recovery. Without financial resilience to climate impacts, communities are often reliant on the overexploitation of marine resources, which offer a source of food security. Increased post-event anthropogenic (e.g. fishing) pressure impairs ecosystems' ability to recover, causing long-term damage to these assets and their productivity which underpins future livelihood activities. As climate change exacerbates the risk landscape, the lack of suitable climate financial products poses a severe threat to natural ecosystems and long-term economic development and prosperity, as any development gains are threatened by increasing risks.

2. The local insurance market conditions and the reliance on international risk markets in Fiji and PNG represents another barrier to increased catastrophe insurance cover in the region. In order to underwrite insurance coverage for risks which are correlated across the local market area (which is especially true for climate-related risks in the Pacific), the insurance market requires access to sufficient risk capital to pay simultaneous claims and thereby underpin sustainability. However, the size of most Pacific insurance markets put them at a distinct disadvantage: small population size and low insurance penetration, even without being split across multiple primary insurers, provides too little risk volume to be commercially compelling to international risk markets unless their unintended costs, and uncertainty in underwriting methodologies (and, therefore, their "view of risk") is radically constrained. Therefore, local markets would benefit from technical assistance to

package their catastrophe risk in the most efficient and analytically robust way possible in anticipation of international risk market requirements.

3. There is a lack of financial literacy among members of coastal small-scale fishing communities.

Many coastal communities are relative newcomers to cash-based economies and have limited skills or understanding of savings and insurance cultures. For example, PNG's non-life insurance penetration rate is 0.59% while Fiji's is 1.42%. For rural communities in Fiji and PNG, insurance coverage is extremely limited.

A lack of financial literacy prevents these communities from understanding the value of insurance as a climate adaptation instrument and accessing these tools, leaving communities reliant on uncertain external financial flows to respond and recover from shock climate events. The lack of financial literacy is also a barrier to insurance companies distributing products to communities; the commercial opportunity related to insurance innovation in the Pacific is relatively small because distribution requires so much community engagement and training, and insurers are dependent on development actors to facilitate penetration.

The establishment of a savings culture as part of financial literacy training is needed to provide additional resilience for coastal communities.

4. Paying premiums is a challenge in small-scale coastal communities, as households often do not have the fiscal space to prioritize insurance and financial planning for climate shock events. Even if the barriers listed above are removed and communities have (1) access to appropriate financial products, and (2) the financial literacy to understand their use and value, the capacity to pay or prioritize risk financing is limited.

Therefore it is critical to recognize that Pacific communities are not solely responsible for climate risk, nor can they solely afford the premiums. Rather, paying premiums needs to be addressed by looking at public and private risk sharing to ensure the successful and affordable rollout of the financial products to these coastal communities.

5. Incentives to drive positive behavior change towards sustainable resource management are few in a poverty context where the motivation is high to overexploit resources for short-term food and livelihood security needs. There are currently few incentives, or financial resources, to adopt Community Based Fisheries Management that includes triggers for environmental events like bleaching or extreme weather events (for example, payment to sit out until a coral bleaching event has recovered, payment to clean up coral reefs impacted by cyclones).

The barriers are described in more detail in Section 1.3 of the ProDoc.

The barriers have been elaborated since PIF stage. One barrier was added: 'local insurance market conditions and the reliance on international risk markets.' This details the barriers to local insurance markets underwriting risk and being able to offer the project's insurance products to local communities.

2) the baseline scenario and any associated baseline projects

Community Engagement, Coastal Resource Management, and Livelihood Improvement

In Papua New Guinea (PNG), WWF Pacific is currently working with 15 communities in 3 Districts (Madang, Sumkar, and Bogia) of Madang Province of Papua New Guinea. These 3 districts are organized

into 12 wards, each of which has a Ward Plan. The Ward Plans include components on fisheries and the environment, which WWF Pacific supports.

In PNG, WWF Pacific utilizes a Community Facilitator (CF) model for community engagement. Female and male representatives selected by the community leaders are trained by WWF about once a month across program themes, including: community-based fisheries management; disaster risk reduction and climate change resilience; and, financial literacy, village savings and loans scheme (VSLs) administration, and small to medium enterprise development. Community facilitators are supported by peer-to-peer networks. The CF model promotes gender equity and program longevity within the communities by upskilling and implementation of projects in a situationally appropriate manner.

In Fiji, WWF Pacific works with 109 communities on coastal fisheries, including the project target communities in Tavua and Qoliqoli Cokovata. WWF Pacific works through the local government authorities, who appoint a community leader to lead and organize surveys and other activities for the community.

The project will utilize the CF model in both PNG and Fiji to engage communities and provide training related to risk management.

Coastal Resource Management and Livelihoods

The proposed project will build on ongoing initiatives for coastal resource management and livelihoods. The project will explore providing concessional access to insurance product as an incentive for adherence to existing coastal resource management initiatives (e.g. sustainable fisheries management plans, etc.).

In PNG, coastal fisheries management is overseen by the National Fisheries Authority (NFA) and the Conservation and Environment Protection Authority. There are 15 Marine Protected Areas (MPA) bordering the Madang Province. Four of these are formally registered as MPAs through government processes, led by the Conservation and Environment Protection Authority. The other 11 areas follow a customary tenure process known as tambu. Tambu are community established and community managed fisheries areas; they are managed by a fisheries committee.

WWF Pacific helps train community fishermen to undertake management plans designed for marine areas (formally designated and community managed) and build monitoring capacity.

Overall, WWF Pacific focuses on the following marine-management activities in Madang:

- Improving the livelihoods and food security of coastal fishing communities – this includes supporting alternative livelihood activities to reduce pressure on fisheries.
- Coastal Rehabilitation – in Madang, mangrove habitats are destroyed for timber and fuel, as well as to make room for infrastructure. WWF Pacific supports mangrove rehabilitation and planting to build resilience against climate impacts.
- Community Resilience to the adverse impacts of climate change.
- Incorporating community fisheries, climate adaptation and disaster risk reduction as part of safeguarding community income and livelihoods.

In addition to strengthening marine ecosystem management, WWF Pacific is planning to work with sugarcane producers on a certification option. Sugarcane production takes place alongside a main river, which captures pollutants that are then discharged into the sea (and is therefore important from a ridge-to-reef perspective). To help track progress, WWF Pacific undertakes a socioeconomic survey

twice a year. In 2021-2022, WWF Pacific will also be undertaking a nation-wide gender assessment to ensure gender integration in all WWF Pacific activities. The project will build on these recommendations.

Finally, World Vision implements various development projects, including on health, education, water and sanitation, disaster risk reduction, climate change adaptation and mitigation, governance, gender, economic development and resilience livelihoods, including in the 15 communities. World Vision and WWF Pacific in Madang share knowledge on disaster risk reduction and climate change adaptation to better address impacts of climate change in the local communities in Madang Province.

In Fiji, indigenous Fijians maintain rights in designated local fishing grounds (known as Qoliqolis). Each qoliqoli is ideally expected to have a fisheries management plan, run by community committee in conjunction with the Ministry of Fisheries. Along with Ministry of Fisheries, WWF Pacific provides training and other support towards developing and implementing these management plans.

In addition to local fishing grounds, Fiji has a number of protected areas/tabu¹⁰ areas. Qoliqoli Cokovata alone contains 18 marine protected areas/tabu area (fishing prohibited zone) and 4 mangrove reserves /tabu areas, each with a management plan and committee in place. Qoliqoli Cokovata is also a designated RAMSAR site.

There are several initiatives taking place in Fiji over the life of the project:

- The Macuata Provincial Natural Resource Management Plan (2014 - 2018), renewed in 2019, has been developed and endorsed by the provincial council. This plan lays out activities for several thematic areas, including biodiversity, leadership and governance, capacity building, sustainable financing and sustainable economic development.
- Under the project 'Living with Change: Resilient Mangroves, Fisheries and People of Fiji and PNG' (\$1.1 million, 2018 – 2021), funded by BMZ and WWF-Germany¹¹ WWF Pacific is supporting Fijian communities (including Tavua and Qoliqoli Cokovata) to develop district-wide Community Development Plans for the years 2020-2040, aligned with the 20-year Fiji National Development Plan. The plans will include components on sustainable fishing and farming practices, accompanied by community capacity building to manage these resources. The project will also support the development disaster action plans to improve natural disaster responses.
- 'Creating a Community Driven Business Case for Sustainable Fisheries Management in Fiji's Domestic Fisheries Supply Chain and Markets,' funded by MFAT-New Zealand AID and executed by WWF Pacific, is a 2-year project (2021-2023) working to strengthen fisheries committees in Qoliqoli Cokovata and Nadogo districts, and connecting fishers to markets to reduce constraints around middlemen and create a financing mechanism to allow community committees to effectively resource and implement the qoliqoli management plans.

Financial inclusion and Microfinance in Fiji and Papua New Guinea

The project will build on ongoing initiatives and operations by WWF Pacific, government, and national financial institutions.

Papua New Guinea

* a "tabu" is the temporary closure of a section of a community's fishing ground for 100 days

¹¹ <https://wwf.panda.org/?323150/WWF-Pacific-announces-launch-of-Living-with-Change-Resilient-Mangroves-Fisheries--People-of-Fiji-and-PNG-Project>

- WWF Pacific works with women’s groups in the fishery sector and promotes financial inclusion workshops. Workshops have led to numerous women saving their earnings and some starting new businesses.
- Village Saving and Loans Scheme (VLS): WWF Pacific supports VLS schemes, wherein members can take out “loans”, up to their savings amount, but are bound by social and environmental loan conditions that preclude the use of the loan for activities that have social (buying alcohol or tobacco for resale) or environmental (buying a chain saw to cut mangroves) impacts. The savings groups are community run and have their own constitution, and are supported by the CF model. Community members can use their involvement in the VLS to transition to a formal bank. WWF PNG has established and continues to support 32 savings groups in 15 communities across three of Madang’s four coastal Districts. This provides a good basis in relation to financial literacy for roll out of financial products. WWF Pacific’s focus over the coming years is on developing formal partnerships with banking institutions willing to adopt environmental and social loan conditions and to assist in the implementation of a roll out of a broader financial literacy program.¹² The financial tools in the proposed project will create additionality with the VLS scheme as it will similarly enable women to improve on their financial literacy and access financial products. It will also build off the success and trust gained in the communities since the establishment of the VLS schemes, and further the financial tools offered to community members.

Fiji

- The South Pacific Business Development is the largest Microfinance Institution in Fiji. It hosts a microfinance network that focuses specifically on women micro-entrepreneurs. The initiative continues to build economic stability for women in Fiji, with approximately 7,000 active loan clients and 9,000 savings accounts established.¹³
- To “contribute more effectively to inclusive, sustainable economic growth,” the Reserve Bank of Fiji (RBF) developed a Financial Sector Development Plan (FSDP) 2016-2025 through a multi-stakeholder process. The FSDP includes recommendations to strengthen the microfinance sector. In addition, RBF formed a National Financial Inclusion Taskforce to develop a coordinated and collaborative approach to increasing financial inclusion.¹⁴ The ministry of finance established the Microfinance Working Group to promote the objectives of the National Financial Inclusion Taskforce, and the group is now mandated to work on improving public and private sector participation, legal framework, infrastructure, good governance and skills transfer and training.¹⁵ RBF releases an annual Financial Inclusion Report.
- The Government of Fiji is currently actively engaged on the deployment of livelihood protection insurance at the sovereign level, which would be complemented by the proposed project for coastal communities. This will provide important baseline for the development and deployment of new products for additional segments of the population and will support the development of the long-term premium financing strategy.

¹² This work is supported by the project ‘Improving Livelihoods of Coastal Communities in Papua New Guinea through Sustainable Fisheries and Financial Inclusion’ (2019-2021, AUD 70,000)

¹³ NCSMED- The National Centre for Small and Micro Enterprises Development (NCSMED) was originally set up in 2002 under the Small and Micro Enterprises (SMEs) Development Act 2002

¹⁴ <https://bfaglobal.com/wp-content/uploads/2020/01/Fiji-Financial-Inclusion-Regulatory-Impact-Assessment.pdf>

¹⁵ <http://www.nfitfiji.com/micro-finance/microfinance-working-group/>

The project will work with national active financial institutions to build their capacity to provide climate risk insurance products and ultimately distribute and administer the financial products in the deployment phase (see national context).

Climate analytics and product design

Sovereign level disaster risk financing - The Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI), supported by World Bank, has provided 15 Pacific Island Countries (PICs) – including Fiji and PNG - with disaster risk modeling and assessment tools to help them better understand, model, and assess their exposure to natural disasters. Probabilistic assessments of major perils, as well as raw geo-referenced data is available for these countries, including satellite imagery, topographic maps, bathymetric maps, surface geology maps, surface soil maps, land cover / land use maps, and historical catalogues of tropical cyclones. PCRAFI has also engaged the PICs in a dialogue on integrated financial solutions for the reduction of their financial vulnerability to natural disasters and to climate change.

Building on PCRAFI, the Pacific Catastrophe Risk Insurance Company (PCRIC) was established as a regional public-good risk pooling facility in the Pacific, which provides insurance coverage to PICs for Tropical Cyclone and Earthquake (including Tsunami). PCRIC's policies are offered on a parametric modelled loss basis, using AIR Worldwide's custom-built model. The insurance policies are currently issued against emergency response cost, which varies between 16% and 23% of modelled ground up property losses. PCRIC is currently exploring the development of additional insurance products for PICs. PCRIC is a potential public-private regional institution to underwrite this project's proposed insurance program and is already actively exploring such opportunities, supported by WTW as Reinsurance Broker and Strategic Advisor.

Climate resilience finance for development: Part of the Pacific Financial Inclusion Project, the Pacific Insurance and Climate Adaptation Programme (PICAP) is taking place 2021-2022 and will be delivering rain, wind, and drought analytics to support risk financing for the Pacific, including Fiji.

This project will be leveraging the risk modeling and analytics produced by WB and PFIP above (PCRAFI, PICAP), as well as the risk market through PCRIC.

Ocean Risk and Resilience Action Alliance (ORRAA) is a multisector alliance that supports climate-risk management projects across the Pacific region, as well as for small island states globally. Their work includes assessing coastal risks and developing innovative community-level risk financing. Currently, for example, ORRAA is supporting innovative financial products for fisherfolk. The project will leverage these novel insurance product designs and assess opportunities to replicate in Fiji and PNG.

Willis Towers Watson (WTW), a risk advisor and intermediary and the third largest insurance broker globally, provides a strong foundation of expertise and experience in developing insurance products, especially in the development space and in support of ecosystem resilience. The proposed project will leverage WTW's extensive expertise in disaster risk finance and insurance program design and implementation to yield community adaptation benefits.

WTW has a strong presence within the Pacific and are experts in the design and implementation of innovative regional, national, and provincial catastrophe risk financing solutions. This proposed project will build off WTW's work in Small Island Developing States and on ocean risk, coastal adaptation finance, and ecosystem resilience, and their work with both local Pacific insurance companies and the regional risk pool, PCRIC. WTW are linked into ongoing insurance initiatives across the Pacific region, which will be leveraged for the proposed project. The following baseline initiatives provide a foundation for this proposed project in Fiji and PNG:

- WTW led the insurance workstream of the Pacific Ocean Finance Programme. This consultancy was focused on the feasibility and design of insurance instruments to support Pacific Ocean health and thereby increase the resilience of Pacific communities. As part of this project, WTW conducted a Pacific-wide ocean risk assessment and feasibility analysis for the use of insurance instruments and developed 3 novel insurance concepts with initial product design in Fiji, Palau, and Vanuatu. These concepts include parametric insurance coverage for blue infrastructure (e.g. coral reefs and mangroves) from climate shock events, including acute threats (such as storms) and chronic threats (such as increasing ocean temperatures), and the design of a livelihood protection product to support fisherfolk resilience and incentivize improved fisheries management. The outcomes and lessons learned will be directly applicable to the development of financial adaptation strategies for coastal communities in Fiji and PNG.
- WTW is the sole broker, and project team members have been instrumental in the design, analytics, and placement, of both the existing regional catastrophe emergency response schemes for Small Island Developing States: CCRIF SPC in the Caribbean / Central America and PCRIC in the Pacific (where WTW also provides captive management and strategic advisory services). WTW's work with PCRIC is invaluable to the development and deployment of any insurance in Fiji and PNG as WTW is currently PCRIC's sole reinsurance broker, as well as captive manager and strategic advisor. As the regional risk pool, there is a huge potential that implementation of the Fiji and PNG programs can leverage PCRIC. Furthermore, WTW are consulting on the development and design (including the definition, modelling, and ultimately, the retrocession protection placement) of additional insurance products to compliment the current PCRIC offering, to provide additional coverage to Pacific countries. In particular, WTW consulted on the design of a fixed-benefit household insurance product for "bronze" category (compliant with certain minimum resilience features) households in Fiji. This engagement on additional potential products will be relevant to the proposed product development in Fiji and PNG, as they could benefit from leveraging PCRIC, as the internationally supported regional institution for the management of climate risk.
- WTW led on the delivery of a consultancy project for the IFC, developing a parametric insurance product providing livelihood protection for low-income households in Fiji, which included the engagement and management of a data and IT platform provider for the project, in addition to the modelling, structuring and preparation for the ultimate placement of risk transfer for the scheme. The risk analytics and modelling, the fundamental product design, and the local engagement through this project will be directly applicable to the Fiji product design and implementation and will provide a template for the PNG work.
- WTW is reinsurance broker to Tower Insurance (a key insurer in Fiji and PNG and active in 6 other Pacific island markets), where there is significant interest in opportunities at the micro-level, with a dependence on development actors to facilitate penetration.
- WTW is working globally to develop insurance models that directly support the resilience of coastal ecosystems—specifically coral reefs—and the coastal communities they support. Over the next few years, WTW is working with the Mesoamerican Reef Fund to design and implement a reef insurance program for the Mesoamerican Reef in Belize, Guatemala, Honduras, and Mexico. The "reef catastrophe model" and insurance program design process will provide a strong baseline and lessons learned for the ecosystem resilience components of this GEF project.

A detailed description of the baseline can be found in Section 1.5 of the ProDoc. The baseline has been updated with new projects and initiatives that have been approved/planned since PIFstage.

3) the proposed alternative scenario with a brief description of expected outcomes and components of the project

Details on the project strategy can be found in the Project Document under Section 2.2.

The project objective is to improve the resilience of vulnerable coastal communities to the adverse impacts of climate change, including major shock events, in Fiji and PNG. The project will work in three communities: Tavua District and Macuata Qoliqoli Cokovata in Fiji, and Madang province in PNG.

The project is organized through three interconnected components:

Component 1: Enabling environment for ex ante risk financing to improve resilience for coastal communities in Tavua District and Qoliqoli Cokovata in Fiji and Madang Province in PNG.

Component 1 is focused on building the enabling environment for the financial products developed under Component 2.

An affordable, inclusive insurance market, which is able to provide reliable and sustainable cover to climate-vulnerable communities, is influenced by characteristics of two dynamics: the 'demand' for insurance and the 'supply' of insurance. The purchasers of insurance (e.g. governments, enterprises, and individuals) make up the demand side of the equation, while the sellers of insurance (e.g. local and international insurance providers) make up the supply. Especially in geographies that are particularly vulnerable to natural catastrophe events, and which have relatively small local insurance markets (on both the supply and demand sides), increasing community-level access to useful and affordable insurance cover requires tackling barriers on both sides of the market.

Outcome 1.1 Climate risks, coverage priorities, and risk pooling options identified

Output 1.1.1 Desktop risk assessment and community consultations, surveys, and workshops to identify and prioritize critical climate risks and impacts facing targeted communities and risk pooling options

Under this Output, WTW will generate a climate risk assessment, and WTW, WWF, and local community facilitators will undertake community consultations to inform insurance product design and financial adaptation strategies. This will address two key questions, the answers to which will directly inform product design:

1. What are the main community-level climate hazard-related impacts (to assets, cashflows, and ecosystems), which rapidly dispersed post-event funding could address; and
2. What post-event actions could be implemented to smooth community-level impacts (e.g. climate-responsive ecosystem management and/or distribution of a community managed response fund).

Project activities to answer those questions will include:

- Community-specific vulnerability assessment
- Planning and design of data collection
- Community climate risk management priority assessments
- Demand assessments / willingness to pay surveys

The results will be used under Outcome 1.2 to develop risk understanding and financial literacy, and under Component 2 to develop insurance products and program(s).

Outcome 1.2 Improved financial literacy to engage with insurance products for climate resilience amongst vulnerable coastal community members

Output 1.2.1 Training manual (in local language(s), with visuals) for risk understanding and financial literacy for the products developed in 2.1.1

WTW and WWF will develop a training manual and material to strengthen the understanding of (i) the climate impacts and viable product design characteristics and risk pooling options identified under Output 1.1.1. and (ii) how the financial products being developed and deployed under Component 2 will reduce the impacts of climate hazards at the community and/or household level.

Output 1.2.2 Community Facilitators trained to deliver 1.2.1 and to strengthen peer to peer financial literacy networks

Community facilitators already identified by local communities and working with local government and WWF (see baseline) will be trained based on the materials developed in 1.2.1. WTW and WWF will host a “training-the-trainers” workshop for community facilitators and will provide technical and communication material for the community workshops.

Output 1.2.3 Financial literacy training on risk financing and insurance products (developed in 2.1.1) in the targeted communities

With the support of WWF and WTW, the community facilitators will conduct community workshops and training in the selected communities to strengthen the understanding of risk management and insurance products to be developed under Component 2. The GEF finances will fund the costs of travel and workshops associated with this targeted training as well as the costs of the community facilitators.

Outcome 1.3 Markets developed in the target geographies to provide insurance products for community-level climate resilience and adaptation

Output 1.3.1. Assessment of current status and enabling environment for local insurance marketplace

WTW will work with the local insurance marketplace in Fiji and PNG, which will be responsible for providing the insurance products to communities. Activities include an initial desktop assessment of the insurance market (identifying potential insurers and key market conditions and dynamics), consultations with local insurers (listed above), and a desktop review of the enabling environment for insurance products (including the identification of issues that could impact the implementation of the proposed products). These assessments will help inform the roll-out plan for Output 1.3.2.

Output 1.3.2. Insurance program roll-out plan for local insurers, including guidance on policy administration options and distribution mechanisms (for insurance program developed under Component 2)

WTW will develop an implementation strategy and roadmap (i.e. roll-out plan) for insurance companies to “roll out” the proposed insurance program(s) developed under Component 2, and which will supply the proposed insurance products developed under Component 2.

Development will be done through insurance industry round table(s), meetings, and desk assessment.

Output 1.3.3. Engagement and market information and analytics pack to facilitate reinsurance / retrocession protection for participating market(s), local and international

Another critical enabling component of an insurance program for catastrophe risk is access to sufficient risk capital for insurers to underwrite the risk without jeopardizing their sustainability / financial stability. For this, local insurance markets will likely need to secure access to international risk markets. Under this Output, WTW will supply risk analytics for the proposed insurance program(s) (developed in Component 2) in the format required to facilitate efficient local market access to reinsurance / retrocession protection (in the international markets) as required. This will include engagement with international re/insurers and international markets.

Component 2: Financial products and incentives for coastal communities

Under this component, Willis Towers Watson (WTW) will design tailored insurance products and program(s) to address the climate risk to coastal fishing communities and support the climate adaptation of these communities.

The project will explore the integration of incentives and/or explicit risk financing for ecosystem management measures throughout insurance product and program design

The project will explore three approaches to integrate ecosystem-based adaptation and financial resilience into the insurance product and program design. The feasibility of these approaches will be assessed based on results from Component 1 surveys and consultations and Component 2 premium financing consultations against the conditions and requirements outlined below. WTW and WWF Pacific will outline and assess the feasibility of the approaches in each community. More than one approach may be appropriate and integrated into insurance products / program.

1. ***Implicitly / indirectly integrate incentives for ecosystem management by incorporating ecosystems and ecosystem health into insurance product and program design.***
The key condition to this integration is the ability to quantify an objective, demonstrable, and reliable relationship between ecosystem characteristics (e.g. extent and health) and the probability of pay-outs.
2. ***Integration of incentives for ecosystem management into the insurance program by identifying opportunities to offer concessional community-level insurance as a reward for behavioral shifts to sustainable ecosystem management practices.***

There are two essential conditions that must be met in order to integrate incentives for sustainable ecosystem management measures with insurance in this direct way:

1. There must be an existing ecosystem management policy / plan / program to which adherence is to be incentivized (and monitored); and
2. There must be financial support available to offer concessional access to insurance as an incentive. Potential sources of premium support will be identified and pursued in outcome 2.2.

Existing ecosystem management policies / plans / programs will be reviewed. Ecosystem management policies/plans/programs could include initiatives related to recent commitments from governments to sustainable ocean management—e.g. sustainable fisheries policies—or even an organic agriculture certification or standard (which could help pay the premiums and ensure better agricultural practices).

3. **Insurance pay-outs to directly finance the implementation of pre-arranged climate shock-responsive ecosystem management plans** (e.g. post-event iFAD deployment, catch restrictions, and/or reef and/or mangrove response). The insurance pay-outs could finance the implementation of management plans that focus on mangrove and/or reef restoration and protection or reef catch restrictions, each of which could indirectly increase the resilience of community members in the face of climate change. The viability of this type of “ecosystem response financing mechanism” is subject to community priorities and practical community capacity and readiness to implement shock-responsive ecosystem management.

All three approaches will be pursued by the project as detailed in the descriptions of the relevant project activities. The approaches will be fully and successfully integrated into the final insurance program if the above criteria for feasibility are met. It is likely that the above conditions of feasibility will be met in at least some of the project communities, and this will allow for testing of the approach. If none of the three approaches are found to be viable in any of the project target communities, then the project will focus on delivering the insurance products for increased adaptation capacity of the coastal communities.

Outcome 2.1 Insurance program(s) designed to underpin improved financial resilience to climate shock events for three target communities, including developing options for incentivizing sustainable ecosystem management practices and other climate adaptation measures in risk-responsive pricing

Output 2.1.1 Insurance products to address critical climate risks to target communities, including index design, pay-out structure, underwriting and settlement data identification, and risk analytics

Under this output, insurance product blueprints will be developed. Product design will be informed by the requirements of both sides of the insurance contract: insurers and insureds.

Index design will be based on historical event and impact data establishing the relationship between independent event parameters and community impacts. Pay-out structures and triggers will then be defined at index thresholds, in line with community financial needs and considering ultimate product affordability. Index design will build on community consultation and robust risk assessment, and WTW’s parametric insurance expertise—including hazard modelling, historic and (future-looking) probabilistic impact analysis, and advanced quantitative actuarial assessment—will be critical to design an index that appropriately and reliably captures community needs. The process will involve three broad steps:

1. Data identification, collection, and validation (including hazard, exposure, and vulnerability data from community consultations, grey and academic literature on historical events, earth observation / remote sensing, and modeled data sources);
2. Fundamental index design linking cyclone (wind), extreme rainfall, drought, and ocean heatwave hazards to community impacts and financial need; and
3. Definition of pay-out structure(s).

Finally, two methodologies will be provided:

- For the loss calculation process, reliable, regularly reported, and publicly available real-time (or near real-time) data for the pay-out settlement process will be identified, and a complete loss calculation process specifying the exact settlement data inputs and processing methodology; and
- For the underwriting process, a methodology to determine the probability of covered events and associated pay-outs and, therefore, actuarially sound product-level pricing.

Output 2.1.2. Insurance program design for the deployment of the financial products in three target communities, including distribution, administration, and risk pooling options, risk metrics and data suitable for underwriting and settlement, pay-out management processes, and options developed for incentivizing ecosystem management practices and other climate adaptation measures in risk-responsive pricing

Under this output, the insurance program(s) for the distribution, administration, and aggregation of the financial products (developed in Output 2.1.1) will be designed, covering three target communities. This will likely be an iterative process with Output 2.1.1, especially considering the interaction between the fundamental product design and the identification of the policyholder(s), risk pooling / aggregation mechanisms, and pay-out protocols. WTW will undertake the following key steps of program design:

1. Identification of policyholder(s)—
 - The policy holder is able to collect, manage, and pay premiums;
 - The policyholder is able to distribute pay-outs to covered beneficiaries (and manage disputes); and
 - The underlying parametric index serves as a good proxy for impacts to that policyholder—at an appropriate resolution.
2. Identification of enrollment, program administration, and risk pooling / joint procurement options in the communities
3. Development of pay-out management processes and protocols

Finally, program-level risk analytics and metrics will be provided to indicate the price of the final program and all of the risk therein, which will feed into the probabilistic financial loss modelling and market information and analytics pack in output 1.3.3. The final insurance program concept design and analytics for deployment in three target communities will be captured in a final technical report.

Outcome 2.2. Premium financing identified and mobilization pursued

It is critical to recognize that extreme climate risk—especially in Pacific Small Island Developing States (PSIDS)—is not and cannot be the responsibility of vulnerable communities alone. Therefore, this outcome, and the project more generally, is not about “convincing” communities to pay insurance premiums. Rather, it is focused on shifting from an ad hoc, *ex post* community-level shock response (which is often disjointed, delayed, and ineffective when it comes to reducing disruption and short- and long-term impacts on communities) to a more formalized *ex ante* community-level shock response (which would get funds quickly and efficiently in the hands of those that need it to smooth shocks, reduce disruptions, manage natural resources, and respond to impacts).

Output 2.2.1. Engagement and consultations to mobilize short-term premium support for “proof of concept” of insurance program(s) developed under 2.1.2, including extending coverage as an incentive for better ecosystem management practices

As the value of insurance does not become apparent until a covered event occurs and a pay-out is made, a ‘proof of concept’ stage is needed to demonstrate the value of insurance in providing increased adaptive capacity to communities in the event of a climate shock.

Therefore, this output is focused on securing short-term funding to finance the initial deployment and ‘proof of concept’ for the developed financial products in target communities.

WTW will undertake the following activities:

- Consolidation of community willingness and ability to pay assessment
- Development of short-term premium financing strategy
- Consultations on the potential to provide premium support as a reward for sustainable practices
 - This will include the convening of private sector roundtables with key representatives from the tourism, fishing, and agriculture sectors in Fiji and PNG.
- WTW will implement the short-term premium financing strategy
 - This will be underpinned through the assessment of risk responsibility and ownership section of the strategy.

Output 2.2.2. Design of premium aggregation and management mechanisms

Premium support will be sought from multiple sources (e.g. government, development partners, private sector, and/or philanthropy); therefore, a financial management plan and “blended finance mechanism” for those premiums must be developed.

Under this Output, WTW will host funder workshops and engage donors and government to explore potential blended finance arrangements for the aggregation of premium financing to support vulnerable community access to climate shock protection.

Output 2.2.3 Strategy for sustainable, long-term *ex ante* financing of community climate risk

In addition to the short-term premium finance being identified under Output 2.2.1, which will be used to cover community premiums during a ‘proof of concept’ phase, long-term premium finance will be explored to ensure the sustainability of the insurance program. A long-term premium financing strategy will be developed.

Under this Output, WTW will undertake the following activities to feed into the long-term premium financing strategy:

- Identify potential sources for long-term financing of premiums
- Consultations and surveys with potential financing sources identified above

A final program sustainability and project close workshop will then be held with identified potential sources of premium financing to present the strategy and build support for the sustainability of the insurance program.

Component 3: Knowledge Management and Monitoring & Evaluation

Under this Component, the project will support project-level monitoring and evaluation to track and evaluate project progress. In addition, a knowledge management and communications strategy will be implemented to support up-take of project methodologies and results.

Outcome 3.1 Effective project communications, knowledge management, and adaptive management

Output 3.1.1 KM products disseminated to share lessons and scale up similar private sector work internationally on financial products for climate resilience

Through this Output, the project will develop knowledge and communication products to disseminate and scale up the project's financial products for climate resilience at an international level.

The full Knowledge Management and Communications Plan can be found in the Project Document in Appendix 7: Knowledge Management and Communications.

Communication and knowledge products will be shared directly with key stakeholders via methods defined in the Stakeholder Engagement Plan (in the Project Document, Appendix 5: Stakeholder Engagement Plan), including target communities, Fiji Insurance Association government, and other partners developing insurance products.

Output 3.1.2 M&E reports used for adaptive project management and successful project delivery

The Project Management Unit—hosted at WTW—and WWF Pacific will follow an M&E plan (see Section 2.7) to monitor and report on project progress and identify any areas where adaptive management is required. Under this Output, the PMU will draft and deliver the following:

- A six month Project Progress Report (PPR), and a 12-month PPR, which includes tracking against the results framework and work plan (and from which the PIR is generated and submitted to the GEF Secretariat);
- Annual Work Plan and Budget (AWP&B) with implementation targets;
- Quarterly Financial Report;
- Annual adaptive management meeting to review project results and discuss any necessary adjustments to the project strategy; and
- Terminal Evaluation Project close report.

Additionally, a Terminal Evaluation will be conducted by independent consultants.

The proposed alternative scenario can be found with a more detailed description of components, outcomes and outputs in section 2.2 of the ProDoc.

There have been several changes to the Table B since PIF approval including:

- *The Outcome “Markets developed in the target geographies to provide insurance products for community level climate resilience and adaptation” was moved from Component 2 to Component 1, with additional outputs added. Developing local insurance markets was considered a key enabling condition to ensure roll out of the proposed insurance program.*
- *Component 2 Outcomes have been adjusted. The first outcome now describes the insurance programme as a whole (rather than being split amongst outcomes). The second outcome is dedicated to mobilizing premium financing, as this is key for shifting risk ownership from the most vulnerable coastal communities to the private sector and national and international climate finance sources.*

4) alignment with GEF focal area and/or Impact Program strategies;

This project is closely aligned with the GEF Climate Change Adaptation Focal Area, specifically *Objective CCA-1: Reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaptation.*

The project will develop financial products for coastal communities in Fiji and PNG to increase their resilience against shock climate events such as cyclones, as well as long-term chronic stressors such as sea level rise, temperature increases, and acidification. The project will achieve this by developing

targeted insurance products that provide solutions to specific climate impacts facing the target communities, provide financial literacy to encourage uptake within these same communities, and deploy the financial products. Overall, this is expected to reduce the vulnerability and increase the resilience of coastal communities in Fiji and PNG to climate change impacts.

This section has not significantly changed since PIF stage.

5) incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing;

The project will build off a baseline of private sector, government, and NGO approaches to improve the resilience of small-scale coastal fishers to the impacts of climate change. This baseline includes:

- Ongoing efforts to ensure sustainable coastal management and community-based fisheries management in Fiji and PNG
- Strong community engagement, including support on financial literacy, fisheries management, and disaster risk reduction
- Existing climate risk analytics and insurance markets in the region, and
- Ongoing insurance risk initiatives, including on disaster risk finance to yield community adaptation benefits.

GEF finance allows the project to undertake new strategies to:

- Build an enabling environment for *ex ante* risk financing that increase community resilience and adaptation – this includes identifying adaptation and resilience solutions and improving the financial literacy of communities to engage with climate resilient financial products, and
- Develop financial products that address specific climate risks to coastal communities and deploy these products. The project will ensure sustainability through a strategy for sustainable sourcing of insurance premiums.

This baseline and additional proposed strategies will provide additional adaptation benefits above the business-as-usual scenario through two main areas:

1. In the case of an extreme climate event, the financial products developed through the project will provide resources to communities to recover.¹⁶ This increases community resilience to climate shock events.
2. The project will explore incentives and payouts to support communities implement better ecosystem management approaches. Improved fisheries management is expected to lead to more resilient ecosystems, which in turn provides long-term benefits (e.g. food sources) for communities.

This section has not significantly changed since PIF stage.

6) global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF); and

The project will provide the following adaptation benefits:

¹⁶ The products will be accessible to communities by the end of the project, however actual uptake cannot be guaranteed.

1. In the case of an extreme climate event, the financial products developed through the project will provide resources to communities to recover. This increases community resilience to climate shock events.
2. The project will explore incentives and payouts to support communities implement better ecosystem management approaches. Improved fisheries management is expected to lead to more resilient ecosystems, which in turn provides long-term benefits (e.g. food sources) for communities.

Climate Change Adaptation core indicators

Level	LDCF/SCCF results framework	Project's adaptation benefits
Goal	To increase resilience to the adverse impacts of climate change and variability in vulnerable developing countries and support their efforts to build adaptive capacity	
Core Indicator 1	Total number of direct beneficiaries (gender disaggregated)	Total: 7,500
		Male: 3,750
		Female: 3,750
Core Indicator 2	Area of land managed for climate resilience (ha)	0
Core Indicator 3	Total number of policies/plans that will mainstream climate resilience	0
Core Indicator 4	Total number of people trained	Total: 7,500
		Male: 3,750
		Female: 3,750

7) innovativeness, sustainability and potential for scaling up.

Innovation. The proposed project is innovative in several respects. The project will develop the first community-level risk financing product for climate risks, including a technical roll-out plan, a proof of concept, and a roadmap for long-term sustainability. Innovative aspects include:

1. Currently there are no community-level climate insurance products provided in the Pacific. The project will design and deploy a financial product to support communities to pool and manage their risk.
2. A novel blended finance mechanism that identifies the necessary institutional and administrative arrangements, building on a strong business and policy case, for the public and private sectors to share risk at the international, national, and local levels.

3. The project's comprehensive and bespoke combination of product design, program development, and premium financing strategy Insurance mechanisms offer a unique opportunity to integrate climate resilience and sustainable ecosystem management, incentivizing sustainable environmental practices as a co-benefit of increasing community-level financial resilience to climate shock events. The project will explore providing coastal communities with concessional access to insurance products in exchange for adherence to certain environmental management protocols (e.g. responsible fisheries management, implementing harvest control rules and conservation activities). The project will ensure long-term sustainability by linking the insurance product to existing ecosystem management policies/plans/programs, which would define the environmental management protocols and monitor compliance long-term. As healthy coastal / marine ecosystems provide significant climate adaptation benefits to coastal communities (e.g. coastal protection and increased food security), the insurance products could therefore increase community financial resilience and physical ecosystem resilience to climate-related threats. While this has been piloted in terrestrial developing world contexts, there are few examples in the ocean context. Additionally, the project will explore innovative ways that healthy ecosystems can be integrated into insurance pricing to generate a price signal to indirectly incentivise sustainable ecosystem management. Finally, the project will explore innovative insurance instruments to provide cover for ecosystems themselves—funding community-led post-event ecosystem response activities after, for example, reef and/or mangrove damage from extreme weather events.

Sustainability. The project will integrate sustainability into two aspects of the insurance mechanism: the supply side and the demand side.

On the supply side, the project will support the development and deployment of low-cost financial products for coastal communities in Fiji and PNG, and provide the foundation for the long-term implementation of these products by the private sector. The project will provide the technical underwriting necessary to provide insurance at risk-based, actuarially sound, and, therefore, sustainable prices. Engagement with local insurers on the roll-out strategy (including guidance on low-cost product distribution and administration, likely through a mobile phone app) and international reinsurers (and the regional risk pool, PCRIC) on the placement of the risk will embed the insurance in the local and international risk markets. Ultimately, the deployment of the product will embed these tools into private sector operations and allow these actors to administer the financial products into the future.

The project will also build the demand for financial products through the following outputs:

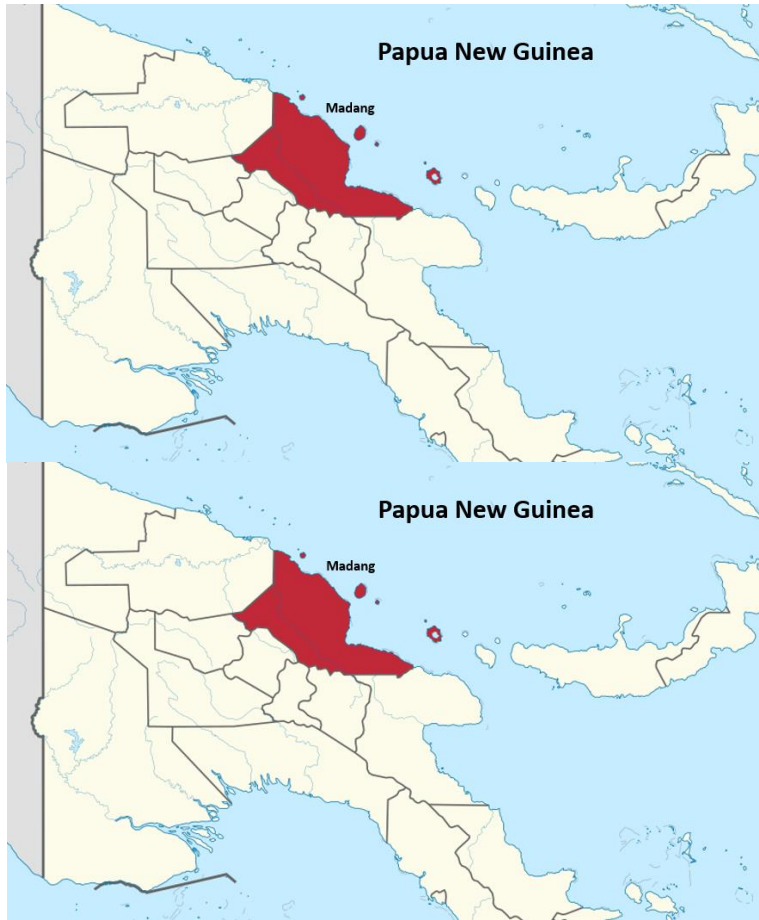
1. Building financial literacy and risk understanding – this will increase understanding of the value of these financial products to communities and ensure long-term buy in from the communities.
2. Providing concessional access to the financial products (through premium subsidy) during a 'proof of concept' phase – based on global experience with index insurance, concessional access at initial launch greatly increases the chances of longer-term take-up, particularly if pay-outs are made across some of the communities during the project implementation phase. Further, an initial 'proof of concept' phase is beneficial to the sustainability of the insurance in the long-term because it allows communities to gain familiarity with insurance as a mechanism, proves the process of administration and product roll-out, and (if a climate event occurs and a pay-out is made) demonstrates the value of insurance.
3. Developing a long-term premium financing strategy – Risk financing proves its value over time. Climate risk responsibility is not straightforward; risk is shared across the public and private sectors at the international, national, and community levels. As the target communities have

little disposable income, and they are not necessarily responsible for climate risk financing alone, long-term support for risk financing products will compete with other pressing expenditure needs in the communities and will need to be advocated for at the national and international levels. Therefore, the project will develop a premium financing strategy to engage potential sources of long-term premium finance, assessing risk ownership and their willingness to pay, and identifying mechanisms which the coastal communities and the governments of Fiji and PNG could employ to raise risk capital to cover their climate risk. The development of this long-term premium financing strategy will support the sustainability and ensure this project offers a strong framework for climate risk management and financing into the future.

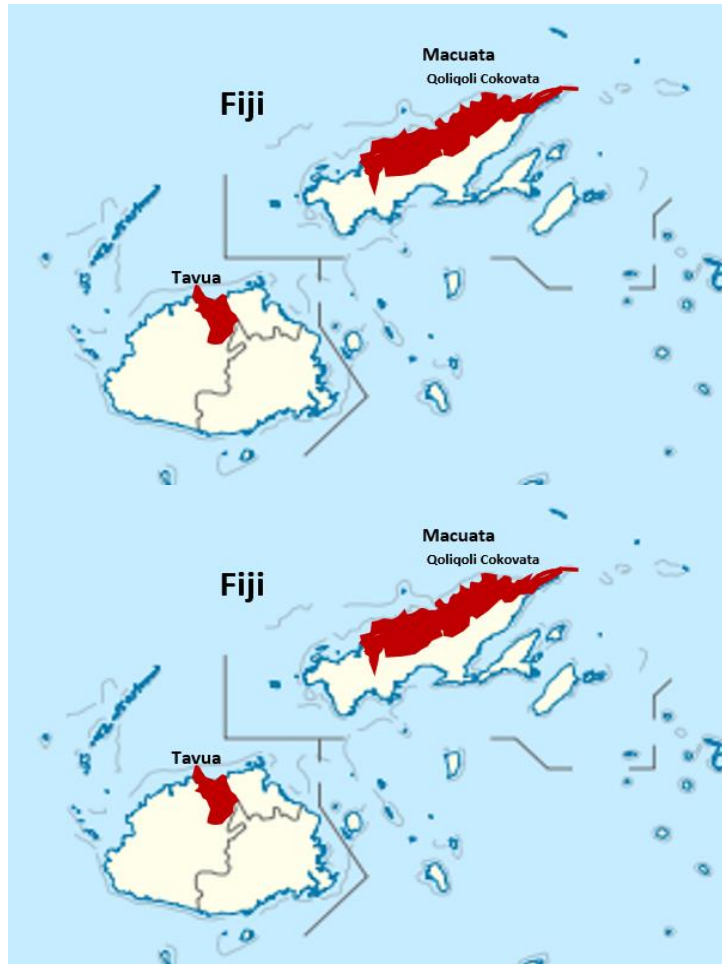
Scaling Up. The proof of concept established through this project and the lessons learnt can be rapidly scaled to other sites across the Pacific region and globally. The partnership with private sector actors such as WTW support scaling via technical support and enhanced platforms to communicate the work conducted and impacts delivered across the Melanesian region. Most importantly, this project will provide a blueprint for connecting communities to pre-positioned international climate finance to build resilience and a process for establishing more formalized climate risk sharing across the public and private sectors at the international, national, and local levels. As such, success in this project would contribute to a template of locally relevant, globally applicable solutions. Discussions with various levels of Government in PNG suggests this project could be scaled up through incorporation into the Local Level Government Ward Development Planning Process (WDP's). WDP's are integrated planning processes where community members at the individual ward level can prioritize where the finances made available through the central government are prioritized across 12 sectors spanning all aspects of good local government including: policing, education, environment, women, and infrastructure.

This section has not changed significantly since PIF stage.

1b. Project Map and Geo-Coordinates. Please provide geo-referenced information and map where the project interventions will take place.



Map of project area in Papua New Guinea: Madang Province



Map of Project Area, Fiji¹⁷

¹⁷ Version 1.2, November 2002. Copyright (C) 2000,2001,2002 Free Software Foundation, Inc.
51 Franklin St, Fifth Floor, Boston, MA 02110-1301 USA



Map of all three project areas

Project Coordinates:

Madang Province Coordinates: 5°10'S 145°20'E

Tavua Coordinates: -17.5396° S, 177.9139° E

Macuata Coordinates: 16.4865° S, 179.2847°

2. Stakeholders. Please provide the Stakeholder Engagement Plan or equivalent assessment. (Type response here; if available, upload document or provide link)

A stakeholder engagement plan can be found in Appendix 4 of the Project Document. It has also been uploaded here.

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement.

The Stakeholder Engagement Plan details the method and level of engagement with each stakeholder during each year of project implementation. The project will engage the following types of stakeholders:

- **Private Sector**

- Insurance market: Local insurance providers and international partners will be engaged early in project development to support the design of financial products, roll-out options and to determine the market's competitive pricing. Ultimately, it is envisioned that insurers will agree on, distribute and then administer policies related to these financial products.
- Potential donors: The project will hold structured interviews with potential donors to discuss their willingness to cover short-term insurance premiums, as well as inform a plan for long-term premium financing. A workshop will be held with potential donors

and government to explore blended finance arrangements and premium aggregation going forward.

- **Local communities in Fiji and PNG** - Local communities in Fiji and Papua New Guinea are the key beneficiaries of the project. Local communities will be invited to participate in surveys and consultations to identify climate hazards and discuss solutions. Second, they will be invited to workshops and trainings that promote financial literacy, provide awareness around risk financing options, and assess demand for these products within the communities. Community input on financial product and distribution options are vital for the success of the project. During the third year of the project, surveys will assess the community's willingness to pay for premiums and options for long-term financing.
- **Government of Fiji and PNG** - The Government of Fiji and Papua New Guinea will be involved in the design of the financial products and roll-out plans. The project will conduct interviews with members of the government to discuss risk financing options, as well as discuss different mechanisms to aggregate premiums and distribute the product. In addition, provincial level government will be included and informed of community level consultations.
- **NGO's and Multilaterals** - NGOs and multilateral organizations will be interviewed and consulted on the possibility of incorporating environmental management into the application of the insurance pay-outs. The organizations will be solicited for feedback and advice on methods of adherence and monitoring to ensure improved environmental management practices are being followed and bolstered by insurance pay-outs.

Select what role civil society will play in the project:

- Consulted only;**
 Member of Advisory Body; contractor;
 Co-financier;
 Member of project steering committee or equivalent decision-making body;
 Executor or co-executor;
 Other (Please explain)

3. Gender Equality and Women's Empowerment. Provide the gender analysis or equivalent socio-economic assessment. (Type response here; if available, upload document or provide link)

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women's empowerment? (yes /no) If yes, please upload gender action plan or equivalent here.

If possible, indicate in which results area(s) the project is expected to contribute to gender equality:

- closing gender gaps in access to and control over natural resources;
 improving women's participation and decision making; and or
 generating socio-economic benefits or services for women.

Does the project's results framework or logical framework include gender-sensitive indicators? (yes /no)

During Project Development, a Gender Analysis and Action Plan was developed in accordance with the GEF Policy on Gender Equality¹⁸ and the WWF Gender Policy.¹⁹ The objective of the Gender Analysis and Gender Action Plan is to ensure a gender-responsive project strategy.

In Fiji, the Gender Analysis was conducted based on a desktop review and through workshops and consultations held with the Tikina Nadogo representatives in Macuata and representatives of the Tikina Tavua in Western Fiji. Consultations were undertaken using participatory tools to ensure the full participation of women, men, youth and all sectors of the communities.

In PNG, a small number of face-to-face interviews were conducted. The gender consultant and project team had limited ability to conduct gender responsive stakeholder consultations in Papua New Guinea due to constraints around COVID-19. Therefore, the information will need to be expanded and validated during Agency Approval or in the first 6 months of implementation.

Gender Analysis

Fiji. In the past decade, the Fijian Government has enacted and introduced several critical pieces of legislation, policies and strategic initiatives that reference gender inclusion, including a national strategic planning document, the Roadmap for Democracy and Sustainable Socio-economic Development²⁰ and a national review on the progress in the implementation of the Sustainable Development Goals²¹ that directs all sectors to share the responsibility for achieving gender equality. Despite these efforts, Fiji still reflects gender-based inequalities in natural resource management, decision making, and access to resources.

Fijian population is heavily dependent on inshore fisheries for subsistence and local economic needs. Women and men are both involved in fisheries, but with gendered divisions of labor. Women and men fulfill different roles, use different types of equipment, and often have different sets of knowledge and experience.

Papua New Guinea. In recent years, the Government of Papua New Guinea has introduced policies to promote gender equality. However, gender equality still a massive challenge in PNG. In 2017, Papua New Guinea ranked 159 out of 160 countries of the Gender Inequality Index. The main challenges focused on: i) access to health care, ii) access to education services, iii) domestic violence, and iv) lack of political representation. In PNG, culturally embedded patriarchal norms still represent gender constraints that prevent women from participating in political life, decisions making structures, and other leadership spaces.

Fisheries are the main contributor to household subsistence and livelihoods in PNG, making this industry the major contributor to the country's overall economy. Men and women participate in the sector actively but in different ways. Men engage in fishing for income generation, but women are more likely to fish for family meals. Women tend to have lower catches because they stop fishing once they have

¹⁸ <https://www.thegef.org/council-meeting-documents/policy-gender-equality>

¹⁹ <https://www.worldwildlife.org/publications/wwf-gender-policy>

²⁰ Ministry of National Planning. 2009. Roadmap for Democracy and Sustainable Socio-economic Development 2010-20214. Available online at <https://www.fiji.gov.fj/getattachment/Govt--Publications/Peoples-Charter/RSEED.pdf.aspx>

²¹ Republic of Fiji. 2019. Voluntary National Review. Available online at https://sustainabledevelopment.un.org/content/documents/25011Fiji_VNR_2019_final.pdf

enough to feed their families or to exchange. Women play an essential role in selling in local markets, in fish processing, and in collecting seafood in coastal areas²².

Despite the strong matrilineal culture of PNG, men are perceived as the household heads and are, in the end, the primary decision-makers. Even though women are likely to have access to land, they have limited control, due to the traditional governance systems, which determine decisions about its use. The combination of a lack of land ownership and decision making for resource management puts PNG women in a disadvantaged position regarding economy autonomy and access to financial services²³.

Gender Action Plan

The proposed project will promote gender equality and the empowerment of women in several overarching ways:

- Consultative Stakeholder Engagement using Participatory Approaches – the project will ensure that women’s and men’s needs, knowledge, and expertise are heard and that they are provided equal opportunity for participation and decision making in project implementation, progress and monitoring.
- Trainings Offered Through the Project – Under Component 1, the project will support financial literacy trainings. The project will utilize strategies to incorporate gender dimensions into the trainings, and ensure women are able to participate (selecting appropriate times, venues, women-only side-groups). This will be assisted by the project’s use of the model of Community Facilitator model, which operates with one male and one female representative per community.
- The project will ensure the insurance program is developed in a way that takes gender dimensions into account, and will ensure both men and women have equitable access to the project-developed insurance program.
- The knowledge management and communications plan will ensure gender mainstreaming – this includes developing project communication materials and lessons learned documents that incorporate women’s perspectives, with the aim of providing further information around gender in parametric insurance. The project will also make sure project communication materials are accessible to women.

Specific activities have been identified per output to ensure gender mainstreaming throughout the project design (see Gender Action Plan).

The Gender Action Plan will be monitored through both (1) the Annual Work Plan and Budget, which will incorporate activities and activity/output-level indicators identified in the Gender Action Plan, and (2) the project’s results framework, which includes the following sex-disaggregated indicators:

- Total number of people trained through the project (Male: 3,750 / Female: 3,750)
- Total number of direct beneficiaries (Male: 3,750 / Female: 3,750)
- Number of people with improved financial literacy to engage with project-supported financial products
- Number of community members benefitting from project-developed insurance products

²² FAO. 2019. Country Gender Assessment of Agriculture and the rural sector in PNG. Available online at <https://reliefweb.int/sites/reliefweb.int/files/resources/ca6308en.pdf>

²³ FAO. 2019. Country Gender Assessment of Agriculture and the rural sector in PNG. Available online at <https://reliefweb.int/sites/reliefweb.int/files/resources/ca6308en.pdf>

4. Private Sector Engagement. Elaborate on the private sector's engagement in the project, if any.

The project is being executed by Willis Towers Watson, a private sector company with a proven track record designing, implementing, and supporting public-private collaboration to address largescale challenges of risk. WTW is a global risk advisor and insurance intermediary with extensive experience and expertise developing and implementing novel, sustainable insurance products and programmes, especially in the development space leveraging public-private collaboration, and in support of ecosystem resilience. WTW has strong private sector relationships in the Pacific, working with local Pacific insurance companies and the regional risk pool, PCRIC, and is linked into ongoing insurance initiatives across the Pacific region.

One of the central features of the project strategy is to engage with local insurance companies as the distributors and administrators of community-level insurance programs. This will embed the project outcomes into the local private sector and support its long-term sustainability. The project will engage with local insurance providers to provide risk metrics to underpin financially sustainable insurance. The local insurance marketplace includes the insurance associations of Fiji (the Insurance Council of Fiji) and PNG (the Papua New Guinea Insurance Council), as well as local companies: QBE Insurance, Capital Insurance, Tower Insurance, Sun Insurance, New India, FijiCare, Alpha Insurance, Southern Cross Assurance, National Teachers Insurance, Pacific MMI Insurance, INSPAC, Century Insurance, Trans Pacific Assurance, Western Pacific Insurance, PHA Health Assurance Co, Pacific Reinsurance Company Ltd.

Another critical enabling component of an insurance program for catastrophe risk is access to sufficient risk capital for insurers to underwrite the risk without jeopardizing their sustainability / financial stability. For this, local insurance markets will likely need to secure access to international risk markets. Therefore, in addition to providing risk analytics in a format to facilitate this access, the project will conduct consultations with international re/insurers to understand market appetite and capacity to support underwriting. The international re/insurance companies that the project will engage include the Pacific Catastrophe Risk Insurance Company (PCRIC), Lloyd's of London syndicates—including AXA XL, Hiscox, Beazley, RenaissanceRe, Chaucer, MS Amlin, and Nephila—Allianz, Hanover Re, Swiss Re, Munich Re, Renaissance Re, Scor, Zurich, Descartes, Generali, Unipol, Global Parametrics, OTT Risk, Liberty, Odyssey Re, Sirius Re, Transatlantic Re, Peak Re, MSI, Tokyo Marine, Toa Re, Arch Re, Axis, Endurance, New Re, Asia Capital Re, and Partner Re. Global industry associations—such as the Insurance Development Forum, the International Cooperative and Mutual Insurance Federation (ICMIF), and the Microinsurance Network (MiN)—will also be engaged as vehicles for collective engagement where relevant.

Additionally, the project will engage with private sector cooperatives and associations in the focus communities to understand and quantify their—and their members'—vulnerability to extreme climate risk. Cooperatives and associations will be engaged as potential insurance policyholders, potentially collecting premiums (e.g. from buyers as a supply chain risk management tool) and/or managing and distributing pay-outs for the benefit of their members. Furthermore, the project will engage with the private sector—especially in the tourism, fishing, and agriculture sectors—to support community-level access to the insurance products through financial support of premiums. Private sector roundtables will be held on the value of community-level insurance. Additionally, strategic engagement with the governments of Fiji and PNG on potential avenues for public-sector support and leadership to incentivize private-sector participation in community-level resilience will be pursued. For example, governments have the ability to raise taxes and levies and allocate the proceeds to premium support for

vulnerable communities. Ways of effectively shifting the risk ownership from vulnerable communities to the private sector through public-sector incentives will be explored as part of the premium aggregation and short- and long-term premium financing strategies and engagement.

5. Risks.

Risk	Risk Level	Project Mitigation
Communities lack interest in engagement to identify adaptation solutions and related financial products	Low	Communities were engaged during project development and expressed interest in being involved in the project. In addition, the project will work with communities that have already been engaged in financial training from WWF, through SMEs and village saving schemes, so they already have some level of financial literacy and buy in to the project concept.
Culturally inappropriate project delivery will hamper relationships with communities, and such relationships and trust are key to project success	Low	Working through local community facilitators and local WWF staff, the project will 1) ensure appropriate community protocols are followed, 2) reduce the amount of staff time that needs to be spent in the field by providing a constant presence in the community, and 3) identify local issues with the team before they become problematic.
Insurance scheme developed at the wrong level (individual, community, ward, resource)	Low	In-depth community consultation will be undertaken during project execution to assess the appropriate level for insurance and other financial products.
Communities and governments do not ultimately see the value of risk financing; therefore, take-up is limited and the financial products are not mainstreamed for long-term use	Medium/ High	The project will ensure that (1) communities understand the climate risks and the benefits of financial tools to manage these risks – e.g. the economic / business case; and (2) the financial tools will be responding to community needs and targeted to fit the community. The project will include a “proof of concept” phase to encourage initial uptake and demonstrate the value of the products.
There is limited interest to finance premiums, both at the community-level and from government, donors, and other potential premium financiers	Low / Medium	The project will undertake willingness to pay assessments in each target community. Communities may not pay anything during a “proof of concept” stage. Even after a “proof of concept” stage, the amount communities are willing and able to pay may be low. Assessments undertaken during execution will determine the price of the financial products and what is viable for the financial product to succeed. The gap will be covered by premium financing from other sources, specifically those that are identified during a “risk ownership and responsibility” assessment. To mitigate the risk associated with uncertain premium

		<p>mobilization that results from unclear risk ownership and responsibility (and recognizing that taking on this uncertainty / risk is a key value of the project itself), the project will develop a short term and long-term premium financing strategy. The strategy for long-term sustainable premium financing arrangements will provide a framework for structured risk management and the clarification of risk responsibility and risk sharing between the public and private sectors at the international, national, and community levels, to ensure long-term sustainability of the financial products.</p>
<p>(1) Premium financing isn't mobilized, or (2) conditions aren't in place to incentivize improved ecosystem management or to provide payouts for improved ecosystem management</p>	<p>Medium/ High</p>	<p>A key innovative aspect of this project is potentially providing concessional access to the insurance products in exchange for improved fishing / management practices, or to provide pay-outs for ecosystem management. This requires willingness and interest from funders to cover associated costs.</p> <p>In addition, the project needs to have a strong baseline of existing plans / policies in place on which to build such an incentive scheme. It is beyond the scope (and funding) of this project to provide training on ecosystem management, develop new plans (or improve plans) related to ecosystem management, or monitor such plans to ensure the conditions are being met.</p> <p>The project will assess entry points and engage a range of stakeholders to identify where the project may offer concessional community-level insurance as a reward for behavioral shifts to sustainable ecosystem management practices and potential donors to cover the costs.</p>
<p>Local insurers lack interest or capacity to provide a product as primary carrier and administrator</p>	<p>Low</p>	<p>The project will identify the best governance option for product implementation. This could include local insurer participation, where the local insurer (1) acts as a fronting insurer, passing all risk-taking to international risk markets or (2) takes some risk themselves. Depending on the regulatory view, it is possible that this program could be placed directly on international markets. Additionally, it is possible that PCRIC could play a role either as a primary insurer or as a risk-taker.</p> <p>The project will engage local carriers/insurers to ensure the project design and roll-out strategy takes into account the above risk. In addition, the project will support the local insurers' ability to provide the product through technical materials that underwrite the products.</p>
<p>No insurance markets want to take the risk at an acceptable price</p>	<p>Low</p>	<p>By using the parametric form of insurance, and by utilizing primary data sources for hazards, which are known to be acceptable to global climate risk transfer markets, the project</p>

		<p>will identify appropriate technical pricing. The scale of the project may be a barrier to achieving best possible pricing because (1) the administrative costs for the local insurer, associated with product distribution and policy management, will be relatively higher the smaller the scale of the program. (2) Relatively few markets will be interested in underwriting small volumes of risk, particularly if there are no existing relationships between domestic insurer(s) and the global reinsurance market.</p> <p>Best pricing is therefore likely to be achieved by using a domestic insurer already connected to the global risk markets and / or involving the regional risk pool, PCRIC, in the transaction to bring scale and regional diversification.</p>
Legal and regulatory barriers	Low	<p>Local legal and regulatory infrastructure in Fiji and PNG should be sufficient to enable this product to be made available relatively quickly.</p> <p>The project will engage regulators from an early stage to familiarize them with the proposed financial products. Insurance regulation in Fiji is undertaken by the Reserve Bank of Fiji (RBF), which has been very supportive of implementing innovative parametric insurance coverage in Fiji. Insurance regulation in PNG is undertaken by the Office of the Insurance Commissioner (OIC); as the legal system is based on English and Australian common law, standard legal concepts related to insurance are recognized and wordings are often derived from the UK and Australia.</p>
A natural (earthquake, tsunami) or anthropogenic (mine spill) event outside the scope of insurance policy occurs and impacts policy uptake	Medium	<p>The project will clearly identify what events are to be covered by the products.</p>

COVID-19 Risk Analysis

Risk category	Potential Risk	Mitigations and Plans
Availability of technical expertise and capacity and changes in timelines	It may be difficult to access government staff while they are focused on COVID-19 containment or recovery, affecting connectivity and availability of government.	The project will follow government protocols for engagement. Key government partners are represented on the Project Steering Committee, and therefore will be kept abreast of the project regularly. Relevant government staff will be engaged by email or through other means. The insurance technical assistance will be provided by WTW who has already been

		successfully working on this virtually. The risk is also mitigated through WWF Staff working with communities, the government and provincial governments as a conduit for WTW.
Stakeholder engagement process	The project involves continued consultations with government, communities, private sector member and CSOs in order to develop and implement successful financial products. While COVID-19 remains a threat in the project areas, it may cause challenges and alterations in community-level and in-person consultations and workshops.	Consultations will only be undertaken in person if it complies to national to local government guidelines and WWF national office guidelines. COVID protocol will be followed, such as supplying sanitizer and masks, and meeting with group sizes per the limits set by government. As much as possible, remote connections will be sought. In all cases, continued attention will be given to ensuring the voices of IP, women, youth, and any underrepresented community members.
Future risk of similar crises	It is not anticipated that this project will have adverse impacts that might contribute to future pandemics, for example, there will be no focus on increasing the human-wildlife interface or any actions that cause degradation.	This project will not involve on-the-ground activities that will affect biodiversity or human-wildlife interactions, although the project team will be mindful of this during implementation.

COVID-19 Opportunity Analysis

Opportunity Category	Potential and plans
Can the project do more to protect and restore natural systems and their ecological functionality?	The project will enhance the ability of communities to respond to natural disasters and may include incentives or pay-outs to promote sustainable fisheries/ecosystem management.
Can the project include a focus on production landscapes and land use practices within them to decrease the risk of human/nature conflicts?	The project focuses on coastal communities, many of which rely on fisheries for their livelihoods. The project may consider using sugarcane certification in PNG to help cover premiums and incentivize best agricultural practices.
How can this project contribute to resilient recovery from the COVID-19 pandemic?	COVID-19 impacts have been felt heavily in SIDS and particularly in communities dependent on tourism for their livelihoods (both directly and indirectly through reliance on tourism-dependent remittances) Multiple extreme weather events over the course of the pandemic have only exacerbated effects in the project area, and it is exactly these compounding impacts against which this project seeks to build community-level resilience. The risk management training provided by the project will build capacity for the communities the project will work with to determine their path forward toward a resilient recovery. The

	<p>products, programs, and premium financing engagements throughout the project will formalize risk management arrangements to build resilience in the face of future impacts.</p>
<p>Can the project promote circular solutions to reduce unsustainable resource extraction and environmental degradation?</p>	<p>The project will develop insurance products to help make communities more resilient to climate impacts, while incentivizing better fisheries management. While the project will encourage environmental stewardship and promote sustainable resource extraction, there are limited opportunities for circular solutions within this project.</p>
<p>Can the project innovate in climate change mitigation and engaging with the private sector?</p>	<p>This project is focused on climate adaptation rather than climate mitigation.</p> <p>The project will closely engage the private sector throughout the development of the financial products and program, including engagement with micro-insurers, banks, international markets and local insurers.</p>
<p>Opportunity for new uses of technology to enhance stakeholder engagement</p>	<p>The pandemic has restricted the project's ability to access remote communities for stakeholder engagement and data collection. There may be opportunities to utilize technology to engage with stakeholders .</p> <p>Utilizing locally appropriate digital media assets could help create a knowledge platform for stakeholders that could be shared more broadly and reproduced in other projects.</p>

Climate Risk, Status and Impacts Table

Climate Risk and Current Status	Impacts from Climate Risk	How is the Project Addressing this?
Location: Fiji- Tavua District, Qoliqoli Cokovata		
<p>Flooding and coastal inundation in Fiji has become more frequent and is usually triggered by extreme weather events, including La Nina and El Nino events.</p>	<p>Fiji’s 2017 Climate Vulnerability Assessment estimated that average losses due to extreme flooding events and damaging storms were around \$500 million annually. Floods can damage infrastructure, modes of transportation, methods of communication and availability of natural resources such as freshwater and fish stocks.</p>	<p>This project will expand upon the understanding of climate risks in the region through data identification, collection, and validation (including hazard, exposure, and vulnerability data, e.g. building of databases of historic shock events and impact data, climate projections, land-use data, and key asset/ household geolocation data). Understanding the climactic risks in the region is the first step to addressing the impacts. The project will develop financial products to help communities adapt to extreme climate change events (cyclones, flooding). Healthier reefs help protect Fijians against climate risk events physically (as reefs protect coastal communities by weakening storm surges and wave damage) and economically (because communities depend on coastal</p>
<p>Sea level rise has affected Fiji more than most of the globe. The average global sea level rise is 2.8-3.6mm annually, whereas Fiji’s annual average increase has been approximately 6mm per year since 1993.</p>	<p>Within the provinces around the Great Sea Reef in Fiji, 40% of the population directly depend on the coastal reef system for protection against climate risk events. Sea-Level rise and other climate change events disrupt the natural processes and activities of reef systems and tidal flats. These areas provide habitats for fisheries and are critical for the Fijians that rely on them for their livelihoods.</p>	
<p>Rising temperatures in Fiji, demonstrated in daily maximum temperatures, have increased an average of .1°C per decade for the past 50 years.</p>	<p>Warming temperatures have led to a warming of ocean water temperatures and coral bleaching events. The coastal communities are heavily dependent on the reefs, but bleaching events affect the availability of fish within the reef systems, therefore impacting livelihoods.</p>	
<p>Tropical Cyclones and extreme weather events- Fiji experiences frequent tropical cyclones with damaging winds, rains, and storm surge. Tropical cyclones Ami, Evan, and Winston in 2003, 2012, and 2016 all caused widespread damage and numerous fatalities.</p>	<p>In 2020, Fiji was hit by Cyclone Harold and Cyclone Yasa (both Category 5), in 2021 Cyclone Ana struck. The latter two cyclones hit Vanua Levu (where the project focuses), with Yasa resulting in flooding, buildings being destroyed, deaths and injuries, and hundreds of millions of dollars in damages. These cyclones result in increased pressure on reefs as communities seek food security in the direct aftermath of such damages.</p>	
<p>Fluctuations in Precipitation have been observed in Fiji, with rainfall amounts varying drastically from year to year. Over the past 50 years, the overall</p>	<p>In Fiji, changes in long-term precipitation and soil moisture will alter groundwater recharge rates as well as create a higher demand for groundwater resources during periods of less precipitation. Fluctuations in precipitation can also affect human health and welfare. Extreme rainfall</p>	

change in precipitation has been around 7.3%.	events could also exceed the capacity of storm-water drainage networks, overflow dams and cause flooding and water resource contamination.	resources for their livelihoods).
Climate Risk and Current Status	Impacts from Climate Risk	How is the Project Addressing this?
Location: Papua New Guinea - Madang Province in the Momase Region		
Coastal Flooding has been a climate risk in Papua New Guinea for decades, particularly during the monsoons. As rainfall fluctuations intensify and tropical cyclones become more frequent, the flooding events are projected to intensify as well.	Flooding is a much greater risk in more populated areas with more infrastructure such as Madang Province in the Momase region. The Madang province is at high risk to infrastructure damage, with around 800km of roads and almost 100 bridges. Flooding also causes heavy coastal erosion and negatively impacts agricultural productivity. Damages to natural ecosystems such as mangroves and coral reefs when silt and sediments are brought in also occurs. Coastal flooding leads to human health risks as there is an increase in water-borne diseases.	The project will continue to monitor and gather scientific data surrounding climate change in the region as the development, pricing and roll-out of parametric insurance options heavily rely on available accurate climate data. As the project conducts assessments and analyzes the risk for the target locations in Papua New Guinea, considerations will also be made for the inland agricultural areas of Papua New Guinea, within the target area, that are also affected by climate related shock. The project will develop financial products to help communities adapt to extreme climate change events (cyclones, flooding).
Sea Level Rise: By 2030, sea level in PNG is expected to rise by 4-15 cm.	Sea level rise can exacerbate the impacts of extreme weather events, especially storm surges and coastal flooding. Sea level rise also contributes to coastal erosion and saltwater intrusion into freshwater sources. Extreme cases of sea level rise may lead to the displacement of communities.	
Drought/ annual dry-spell length: The risk of seasonal drought is projected to decrease because of the projected increases in rainfall. However, the length of dry spells (a consecutive period of dry days) is expected to increase	In 2015, there was a drought in PNG that affected over 2.5 million people (EM-DAT). Longer drought periods are projected to negatively affect crop production and crop cycle timing as well as the availability communities have to fresh drinking water. Sensitivity to drought is more extreme inland in agricultural areas rather than in the coastal communities.	
Tropical Cyclones and extreme weather events- Although globally it is projected that cyclones will decrease, the intensity of these events, and the impacts felt by them, will increase. The increase in cyclones and extreme weather events can be tied to the increase in El Nino and La Nina events.	In Papua New Guinea, fatalities as a result of tropical cyclones and extreme weather event over the past 25 years have exceed 3,000 individuals, with the majority of fatalities caused by tsunamis and wave surges. Papua New Guinea is less susceptible to cyclones than Fiji, but does experience landslides and storms that cause extreme winds and El Nino events. Landslides are exacerbated by erosion and flooding, that result from storm surges.	

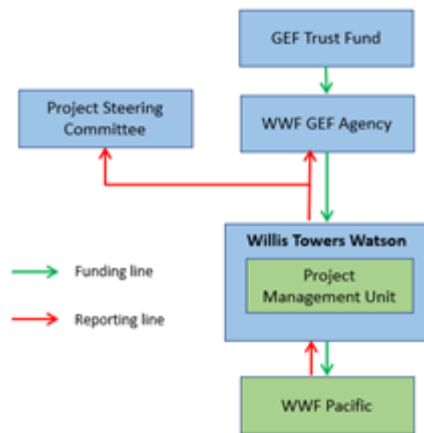
<p>Increase of precipitation intensity and variability is expected. No significant change in mean or extreme wind speed is projected.</p>	<p>More extreme rainfall is expected, likely contributing to increased frequency of inland flooding. Fluctuations in precipitation can also affect human health, welfare, occurrence of diseases and pests and access to freshwater and natural resources. Extreme precipitation events could lead to sedimentation and siltation, as well as pollution of groundwater supply and of the reef systems.</p>	
<p>Temperature fluctuation: PNG is projected to get significantly hotter in the coming decades with a current warming rate of about 0.1 °C/decade. By 2030, the temperature is projected to continue to increase, with a projected warming of 0.4-1 °C. By 2050, a 1.1 – 1.9 °C warming is projected.</p>	<p>The increases in the average daily temperatures over the next 10-30 years will result in more frequent and extreme hot days. Hotter days are projected to have a negative impact on human health, crop production and biodiversity in the Madang province and surrounding coastal areas. Extreme temperature increases have also been associated with an increase in disease outbreak and coral reef bleaching events.</p>	

* See climate risk screening here for further information on future climate projects for Fiji and Papua New Guinea. Collective references are provided in the footnote below.²⁴

²⁴ References for climate risk screening:

- Harris et al., 2014: Updated high-resolution grids of monthly climatic observations –
- CRU TS3.10: The Climatic Research Unit (CRU) Time Series (TS) Version 3.10 Dataset, Int. J. Climatology, 34(3), 623-642, doi: 10.1002/joc3711;
- Republic of Fiji : second national communication to the United Nations Framework Convention on Climate Change. - Suva, Fiji : Ministry of Foreign Affairs, 2014.
- Federated states of Micronesia, Second National Communication to the United Nations Framework Convention on Climate Change, 2014
- <https://www.theguardian.com/world/2020/dec/18/cyclone-yasa-two-die-in-fiji-as-storm-hits-second-largest-island>
- Papua New Guinea Initial National Communication under the United Nations Convention on Climate Change, 2000
- Tom D’Haeyer, et al. 2014: Climate Risk, Vulnerability and Needs Assessment for Morobe, Madang, East Sepik, Northern and New Ireland Provinces Of Papua New Guinea. Ref. No. (PNG/AF/VNA/2014).
- Reducing the Risk of Disasters and Climate Variability in the Pacific Islands: PAPUA NEW GUINEA Country Assessment.” World Bank.
- Climate Change in the Pacific: Scientific Assessment and New Research | Volume 2: Country Reports; Chapter 11: Papua New Guinea

6. Institutional Arrangement and Coordination



The proposed implementation arrangement includes WWF as the GEF Agency, WTW as the lead Executing Agency and responsible for hosting the PMU, WWF Pacific as a project executing partner, and a Project Steering Committee.

Project Management Unit

Willis Towers Watson (WTW) will be the lead Executing Agency for this project. WTW has extensive experience in developing and assessing risk management tools and risk transfer products, as a global risk advisor and re/insurance broker with close to 200 years of experience. WTW has had a strong presence in the Pacific dating back more than 25 years and the project team is made up of globally recognized experts in public and private sector insurance product and program development and implementation.

WTW will be responsible for project administration, project management, reporting, and monitoring and evaluation for the project and will coordinate with the WWF GEF Agency.

WTW will host the Project Management Unit (PMU) in their London office, which will be responsible for the day-to-day management of the project. The PMU functions will be responsible for project administration (issuing subgrants), project management, reporting, monitoring and evaluation for the project and will coordinate with the WWF GEF Agency. The PMU will be comprised of a Project Manager at an average of between 10% and 20% FTE over the life of the project.

Additional to the PMU, WTW will assign the following roles:

- Senior director (overall project oversight and delivery responsibility);
- Disaster risk financing and insurance subject-matter expert;
- Risk data and modelling technical expert; and
- Risk financing and insurance analyst.

Roles may be delivered by more than one appropriately qualified individual.

WTW will ensure during the design and roll out of insurance products that consultants and staff are not offering products that would be considered unfair, deceptive or abusive to the communities these products will engage.

WWF Self Execution

WTW has expressed a dependency on WWF Pacific for efficiency and success in delivery of this proposed project. Specifically:

- WTW as an international private sector entity cannot go straight to local government and communities to implement the project. WWF Pacific has built strong relationships with communities in the proposed project sites and can facilitate linking WTW with local government and the communities.
- A base-level understanding of financial processes is required for WTW to be able to then discuss with communities potential financial products to assist overcoming specific climate shock events, to train communities on those products, and to work with communities to roll the products out, and this is why the communities in Great Sea Reef and Madang have been selected – because previous work by WWF and the Community Facilitators has provided that base-level financial literacy on which this project can build.
- WTW needs to work through trainers who can help get the technical information across to communities in a way that is locally-appropriate and in local language and also in a way that is not misleading, so that communities do not lose trust with the private sector. The community facilitators in Madang that have been working for years already with WWF will be critical for playing this role.

There are no alternative organizations that have created this base-level financial knowledge with communities, have existing community trainers to work with, and no alternative organizations that hold existing strong relationships with communities in the high climate risk areas of Fiji and PNG that can create an effective link to the global private sector company, WTW, in the time span of the project duration. As such, a small portion of the project activity-related budget would be sub-granted from WTW to WWF Pacific to facilitate relationships at the local level, to connect in the Community Facilitators, and to ensure a smooth and locally-appropriate implementation of the project on the ground.

WTW will make a small sub-grant to WWF Pacific, which will be the primary interlocutor with the coastal communities and facilitate relationships at the local level, to connect in the Community Facilitators, ensure alignment with the existing sustainable ecosystem management program of WWF and to ensure a smooth and locally-appropriate implementation of the project on the ground. More specifically, WWF Pacific will:

- Organize and facilitate the community consultations to identify climate risks and solutions (output 1.1.1)
- Provide direct inputs, review and translation of the manual and training materials (output 1.2.1) to ensure the materials are culturally appropriate and in local language,
- Organize and facilitate the training of Community Facilitators (output 1.2.2), and the Community Facilitators training of the selected communities on the financial products developed under component 2 (output 1.2.3).
- Provide in partnership with the Department of Environment (Fiji) and Ministry of Fisheries (Fiji), and relevant government agencies in PNG, relationship facilitation between WTW and the selected project communities and partners across both components

Project Steering Committee

A Project Steering Committee (PSC) will be formed to serve as the oversight, advisory and support body for the project. The PSC will include a representative from the Ministry of Economy (Fiji), Ministry of iTaukei Affairs, Department of Environment (Fiji), the Ministry of Fisheries (Fiji), relevant government ministries in PNG, WTW, and WWF Pacific. The project steering committee will also include a representative from WWF-International's Sustainable Blue Economy ACAI or Blue Futures Initiative. A member of the WWF GEF Agency team will hold an "observer status" on the Project Steering Committee.

The PSC provides overall guidance for the implementation of the project. It is responsible for approving annual work plans and budgets and reviewing and approving any changes to the project strategy alongside WWF GEF Agency. The PSC will be invited to a (virtual) annual reflection workshop (see M&E section) to discuss the theory of change and project progress.

GEF Agency Oversight and Supervision

WWF-US, through its WWF GEF Agency will: (i) provide consistent and regular project oversight to ensure the achievement of project objectives; (ii) liaise between the project and the GEF Secretariat; (iii) report on project progress to GEF Secretariat (annual Project Implementation Report); (iv) ensure that both GEF and WWF policy requirements and standards are applied and met (i.e. reporting obligations, technical, fiduciary, M&E); (v) approve annual workplan and budget; (vi) approve budget revisions, certify fund availability and transfer funds; (vii) organize the terminal evaluation and review project audits; (viii) certify project operational and financial completion, and (ix) provide no-objection to key terms of reference for project management unit.

Coordination with GEF & non-GEF Initiatives Table

GEFID	Country/Location	GEF/GCF Agency	Project Title	Project Summary
10431	GEF support: Indonesia, Philippines, Solomon Islands; non-GEF support: Fiji	ADB	Public-Private Partnerships (PPPs) for Coral Reef Insurance in Asia and the Pacific	The project aims to enable large-scale financing to increase the climate resilience of coastal businesses, communities and livelihoods in selected countries in the Asia Pacific region through an innovative private-public partnership model for coral reef insurance. There is opportunity to collaborate with ADB on the critical integration of community-level financial resilience and ecosystem resilience. ADB and WTW will ensure a coordinated communication approach to the Government of Fiji.
10575	Fiji, Indonesia, Madagascar, Philippines, Solomon Islands, Tanzania	WWF	Coral Reef Rescue: Resilient Coral Reefs, Resilient Communities	This project will work with government partners, academia and communities to support climate resilient coral reef ecosystems. There may be overlap with the communities engaged through the Melanesia project, and opportunities to coordinate work around coral reefs and insurance products.
5216	Fiji	UNDP	Implementing a Ridge to Reef approach to Preserve Ecosystem Services, Sequester Carbon, Improve Climate Resilience and Sustain Livelihoods in Fiji	This R2R approach in priority catchments will address key environmental issues in an integrated manner. It will bolster Fiji's national system of marine protected areas through an enhanced, representative and sustainable system of LMMA including greater protection of threatened marine species. Negative impacts of land-based activities on these MPAs will be reduced through development and implementation of integrated catchment management plans, including mangrove protection, the adoption of appropriate sustainable land use practices and riparian restoration in adjoining upstream watersheds as well as terrestrial PAs, restored and rehabilitated forests. This project is currently being implemented by the Department of Environment with national partners in five focal watersheds in Fiji.
NA	Fiji	WWF (GCF)	GCF Coral Reef Resiliency Program (CRRP) – Fiji Country Project	The WWF GCF CRRP – Fiji Country Project (Concept Note under review by the GCF Secretariat) will improve the management and ecosystem functioning of Fiji's Great Sea Reef (GSR) to enhance the resilience of coastal economies and communities to the current and future impacts of climate change. The Project will provide support to ensure the continued productivity of reef and connected coastal ecosystems by addressing climate-related threats as well as key stresses from land-based pollution and over-exploitation of reefs for their fisheries,

				tourism, and extraction of non-fish products. The project includes a suite of restoration and R2R planning and enforcement interventions to improve the management of the GSR along with the development of pipeline businesses to create new investment areas in “coral safe” blue and green enterprises. The project will include the development and scaling of successful climate insurance products to enhance the resilience of coastal ecosystems and communities. The important insurance market feasibility, financial literacy development, and insurance product development work to be executed by the Financial tools for small scale fishers in Melanesia GEF project will provide important results to inform the scaling and replication of those products and enabling conditions for other communities along the GSR.
3954	Papua New Guinea	UNDP	Community-Based Forest and Coastal Conservation and Resource Management in PNG	This project aims to establish a system of terrestrial and marine protection which builds upon existing community-based resource management structures in PNG. Project components include: Community Conservation Areas strengthened or established in West New Britain Province and the Owen Stanley Range; National and local policies and capacities to support community managed PAs; Conservation-compatible livelihood generation opportunities.
5569	Papua New Guinea	UNDP	Facilitating Renewable Energy & Energy Efficiency Applications for Greenhouse Gas Emission Reduction	This project aims to establish a system of terrestrial and marine protection which builds upon existing community-based resource management structures in PNG. Project components include: Community Conservation Areas strengthened or established in West New Britain Province and the Owen Stanley Range; National and local policies and capacities to support community managed PAs; Conservation-compatible livelihood generation opportunities.
5261	Papua New Guinea	UNDP	Strengthening the Management Effectiveness of the National System of Protected Areas	This project works to strengthen national and local capacities to effectively manage the national system of protected areas, and address threats to biodiversity and ecosystem functions in these areas.
10712	Fiji, SI, Vanuatu	FAO	Enhancing water-food security and climate resilience in volcanic island countries of the Pacific	This project aims to reduce the pressures on over-exploited coastal aquifers to enhance water and food security and climate resilience. The project will be achieved by expanding and assessing the role of volcanic aquifers and introducing new groundwater governance frameworks for more sustainable management.

7. Consistency with National Priorities.

The project is consistent with the following national strategies, plans, reports and assessments under relevant conventions:

Consistency with National Priorities Table

Country	Title	Relevance to Project	Reference
Fiji	Voluntary National Review Fiji's Progress in the Implementation of the SDG's	Fiji's VNR is a comprehensive review of the implementation of the transformative 2030 Agenda and its 17 SDGs. As Fiji's first-ever national review of this nature, the Fijian government has made a special effort to ensure inclusivity throughout the exercise, underpinned by a commitment to leaving no Fijian behind. The project is aligned to Fiji's implementation of the SDGs as it continues to encourage government to work with NGOs and Private enterprises to help advance socio-economic development by improving financial literacy of Fijians.	Government of Fiji / 2019
Fiji	5 year & 20 year National Development Plan	The 20-Year Development Plan provides the forward-looking vision for "Transforming Fiji" towards an even more progressive, vibrant and inclusive society. It outlines a framework that encompasses strategic policy maneuvers, new approaches to development and the aspirations of all Fijians. The Fiji NDP highlights the underlying theme of inclusive socio-economic development, which ties into this project as communities, and especially women, will gain financial literacy and benefit from the financial products.	Ministry of Economy, Republic of Fiji / 2017
Fiji	National Adaptation Plan A pathway towards climate resilience	The NAP provides a clear vision for adaptation and identifies priorities to be addressed in partnership with academic institutions, development partners, and private sector entities over the next five years, and beyond. It addresses vulnerabilities identified by the Climate Vulnerability Assessment and adopts the values and principles of the NAP Framework. The Fiji NAP aims to improve climate change information management and increase Fijian's ability to predict and respond to climate events. This project will help achieve these goals through the Community Facilitator (CF) model, educating both male and female Fijians on disaster risk reduction and climate change resilience.	Government of the Republic of Fiji/ 2018
Fiji	Fiji NDC Implementation Roadmap 2017-2030	Fiji's current Nationally Determined Contribution (NDC) is specific to the energy sector both in terms of a GHG (greenhouse gas) baseline, with 2013 as the reference year, and in terms of potential mitigation actions. The goal of the NDC Implementation Roadmap 2017-2030 is to provide a temporal pathway with concrete mitigation actions and financing needs to achieve the transformational change called for under the NDC. The NDC Roadmap calls for new methods of financing which this project will introduce to Fijian communities to support adaptation in the form of risk mitigation and insurance products.	Fiji's Ministry of Economy with support from the Global Green Growth Institute / 2018
Fiji	Climate Vulnerability	The Fiji Climate Vulnerability Assessment was implemented with the objective to carry out a climate vulnerability assessment for Fiji and develop	Government of the

	Assessment	recommendations to inform Fiji's investment planning process. The initiative helped inform the national development priorities, and its investment and development plan for the next 5, 10 and 20 years. The project might also strengthen Fiji's Nationally Determined Contribution (NDC). The Climate Vulnerability Assessment for Fiji highlights the likely increase in extreme weather events, which lead to a large loss in income and assets for vulnerable communities. This project will increase the ability to deal with extreme weather events and recover financially with the help of long-term sustainable financing.	Republic of Fiji, 2017. Support of World Bank Group and GFDRR.
Fiji	Fiji's Intended Nationally Determined Contribution	Fiji submitted their Intended nationally determined contributions (INDC) to the UNFCCC Secretariat on the 5th of November 2015. No further revisions were undertaken, and the same document was endorsed and submitted as the First nationally determined contributions on 22nd April 2016. Within the Adaptation goals in Fiji's NDCs are several key actions that this project will support such as increasing the understanding of impacts of climate change, help governments build resilience, and explore climate change financing modalities.	Government of the Republic of Fiji Islands, 2015.
Fiji	National Biodiversity Strategy and Action Plan for Fiji 2017–2024	The Fiji National Biodiversity Strategy and Action Plan 2020–2025 (NBSAP) is a national policy document recognized under the Environment Act 2005. The NBSAP is also a requirement for all parties to the Convention on Biological Diversity and its 2020 Aichi Targets. This policy document prioritizes conserving biodiversity which will be achieved through this project by exploring incentives to reduce pressures on inshore fisheries and reef systems rich in biodiversity.	Government of Fiji, 2017
Fiji	Environment and Climate Adaptation Levy (ECAL)	The Government of Fiji's source of tax revenue dedicated to climate resilience, which is a consortium of taxes on prescribed services, items and income. The ECAL is mandated to fund work across Fiji to support economic, community, and infrastructure adaptation to the worsening impacts of climate change, as well as protect the natural environment and reduce Fiji's carbon footprint.	Government of Fiji, 2019
PNG	National Climate Compatible Development Management Policy	The National Climate Compatible Development Management Policy (NCCDMP) is the Government's blueprint to achieve the vision in building a climate-resilient and carbon neutral pathway through sustainable economic development for Papua New Guinea. This policy emphasizes enhancing capacity in understanding climate change as well as targeting communities and sectors with the highest risk. This project targets sectors that are most vulnerable (coastal communities) and will enhance community understanding of climate change through education and outreach.	Papua New Guinea Government / 2014
PNG	Papua New Guinea Vision 2050	This document is the new long-term strategy to map out the future direction for Papua New Guinea. Vision 2050 is underpinned by seven Strategic Focus Areas, or pillars: <ul style="list-style-type: none"> · Human Capital Development, Gender, Youth and People Empowerment; · Wealth Creation; · Institutional Development and Service Delivery; · Security and International Relations; · Environmental Sustainability and Climate Change; · Spiritual, Cultural and Community Development; and · Strategic Planning, Integration and Control. 	The National Executive Council of Papua New Guinea / 2009

		The project will help achieve the 2050 vision by supporting community adaptation to climate change impacts.	
PNG	Papua New Guinea Development Strategic Plan (DSP) 2010 to 2030	<p>This long-term development framework is intended to promote and guide PNG onto a path of sustainable economic growth, achieving economic prosperity and a high quality of life for all Papua New Guineans. The PNG DSP embodies the principles of the Constitution of PNG and reinforces the fundamental directives required to advance PNG into a middle-income country by 2030.</p> <p>This project will help achieve the DSP goals of improving and expanding PNG's economy by offering financial products that provide livelihood protection to climate impacts.</p>	Department of National Planning and Monitoring of Papua New Guinea / 2010
PNG	Papua New Guinea Medium Term Development Plan 2011 to 2015	<p>The Medium-Term Development Plan 2011-2015 (MTDP) is a 5-year rolling development plan providing a clear, accountable plan for investment. It sets the sector strategies, targets, deliverables and their projected estimate cost to implement.</p> <p>Protecting and developing the fisheries sector in PNG is a goal cited in the MTDP. This project will explore incentive mechanisms to reduce pressure on fisheries and encourage community-based fisheries management.</p>	Department of National Planning and Monitoring / 2010
PNG	Papua New Guinea Intended Nationally Determined Contribution (INDC)	PNG is committed to assist in global mitigation efforts, but the country's effort will be contingent on external, adequate and predictable funding being made available. The NDCs include the need to address damage to coral reefs as well as food insecurity – this is being addressed in the project by offering financial products that provide livelihood protection to climate impacts.	Papua New Guinea Government / 2016
PNG	Fisheries Management Regulation 2016	Updated regulation of the legal instrument for fisheries management in PNG.	National Fisheries Authority of Papua New Guinea / 2016
PNG	Papua New Guinea National Food Security Policy 2016 to 2025	The policy sets the medium to long-term direction and signals priority areas to focus resources (financial and human) to build sustainable food security for all Papua New Guineans. This project will increase the adaptive capacity of communities to respond to climate change impacts, and will explore incentives for sustainable fisheries management to improve long-term food security.	Papua New Guinea Government / 2015
PNG	The National Beche de mer Fishery Management Plan / 2003	<p>Objectives:</p> <ul style="list-style-type: none"> ● To manage the fishery to the maximum economic benefit of Papua New Guinea. ● To ensure that the development of the bêche-de-mer fishery benefits coastal communities, particularly customary fishers. ● To ensure use of the bêche-de-mer resource is sustainable and that bêche-de-mer fishing has minimal impact on the marine and coastal environment. <p>The project will explore providing reduced premiums for insurance in exchange for e.g. sustainable community fisheries management.</p>	Papua New Guinea Government / 2003
PNG	Papua New	The overall outcome of the SPCR will be the enhancement of PNG's resilience	Papua New

	Guinea's Strategic Program for Climate Resilience (SPCR)	<p>to climate change through improved access to resources, knowledge, and tools and climate resilient infrastructure at the national, sectoral, district, and community levels.</p> <p>This project will support adaptation and PNG's ability to react and respond to climate events, increasing the resiliency of communities. The project will engage communities directly through village chiefs and public authorities, providing more accessible information to citizens.</p>	Guinea Government / 2012
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8. Knowledge Management. Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

The project knowledge management and communications strategy will ensure lessons, methods and tools related to the project-developed financial products are developed, stored and appropriately disseminated. Knowledge management and communication is tracked and budgeted under Output 3.1.1.

Monitoring and evaluation reports

Reports will be developed to meet reporting requirements of the WWF GEF Agency. The PMU will develop a 6-monthly project progress report, with annual tracking of the Results Framework. An annual Adaptive Management meeting will also take place, with key findings documented. Finally, a terminal evaluation will be developed and made publicly available by the PMU and WWF GEF Agency. Lessons learned and best practices from the Project will be captured from WWF Pacific reports, trainings, surveys and from stakeholders at the annual Adaptive Management meeting. The knowledge developed will work to include feedback and lessons learned from communities and women's perspectives.

Knowledge and Communication products

In addition to meeting reporting requirements, the PMU will also develop knowledge and communication products that support technical outputs under the Project.

Year 1

- Climate risk and vulnerability assessments per community – Tavua, Macuata, Madang (Output 1.1.1, 2.1.1)
- Report on survey results per community, including synopsis of resource management, governance and socioeconomic information (Output 1.1.1)
- Training manual for community facilitators and community members to engage with project-developed financial products, with visuals and translated into local language (Output 1.2.1)

Year 2

- Insurance roll-out plan for local insurers, containing guidance on insurance policy administration options and mechanisms for distribution (Output 1.3.2)
- Insurance market and analytics packet will be produced to facilitate retrocession protection for participating market(s), local and international (Output 1.3.3)
- Long-term premium financing strategy (Output 2.2.3)

Year 3

- Financial products and program design for improved community climate resilience (Output 2.1.1) - documenting the final insurance program concept design and analytics

Communication product development and sharing

The knowledge developed above will be packaged into formal, publicly available communications products as relevant, adhering to WTW, WWF and GEF brand guidelines.

Communication product development will be supported by Acclimatise, which was acquired by Willis Towers Watson (WTW) in November 2020. Acclimatise has expertise in developing strong communication products – including videos and infographics – to support sharing and awareness building of financial products. This support has been budgeted under 3.1.1.

A public-facing website, hosted by WTW, will be developed for the project to ensure both targeted stakeholders and interested parties has access knowledge and communication products developed under the project. As relevant, WTW will present on the progress, challenges and how they were overcome, best practices, and lessons learned at key events and workshops (TBD based on COVID 19).

Finally, communication and knowledge products will be shared directly with key stakeholders via methods defined in the Stakeholder Engagement Plan (see Appendix 5: Stakeholder Engagement Plan), including:

- Communities: Climate risk and vulnerability assessments and training manuals on financial products will be provided to communities in an accessible way. Products will be provided both as hard/soft copies and presented via workshops to ensure maximum engagement.
- Government of Fiji and Papua New Guinea: Communication products will be provided to both central and provincial levels of government.
- Partners developing Insurance products: UNDP, the Nature Conservancy (TNC), ADB, and others are developing community-focused insurance products to support reef resilience and livelihoods. The PMU will coordinate and share information as relevant to support up-scaling of project-developed financial product

Budget

Staff time at WTW and WWF Pacific will be used to develop the knowledge products listed above, and deliver them using the communication sharing methods described above. WWF Pacific will be responsible for translating and publishing documents for a Fiji and PNG audience, and ensuring communities can access these products.

Grants/ Sub-grants	WWF Pacific	\$ 10,000.00
Staff Costs	Senior Director	\$ 4,000.00
Staff Costs	Disaster risk financing and insurance Subject-Matter Expert	\$ 22,500.00
Staff Costs	Risk data and modelling Technical Expert	\$ 2,000.00
Staff Costs	Risk financing and insurance Analyst	\$ 7,500.00
Staff Costs	Project Manager	
Grand Total		\$ 46,000.00

9. Monitoring and Evaluation. Describe the budgeted M & E plan.

The project Monitoring and Evaluation Plan has been developed by Willis Towers Watson and WWF Pacific.

The Project will be monitored through the Results Framework (see **Error! Reference source not found.**). The Results Framework includes 1-2 indicators per Outcome. The baseline has been completed for each indicator along with feasible targets, set annually where relevant. A methodology for measuring indicator targets is provided. Indicator

targets are Specific, Measurable, Achievable, Relevant, and Time-bound (SMART), and disaggregated by sex where applicable. Component 3 of the Results Framework is dedicated to M&E, knowledge sharing and coordination.

The project will report against relevant indicators in the LDCF/SCCF results framework to provide a portfolio level understanding of progress towards the GEF Global Environmental Benefits.

The Project Manager will be responsible for gathering M&E data for the annual results framework tracking. This includes (i) gathering information from WTW technical staff on the progress of financial products against results framework indicators, and (ii) gathering information from WWF Pacific, which will be responsible for monitoring community-level indicators (e.g. financial literacy, # community beneficiaries).

Table of Project Reports

M&E/ Reporting Document	How the document will be used	Timeframe	Responsible
Inception Report	<ul style="list-style-type: none"> Summarize decisions made during inception workshop, including changes to project design, budget, Results Framework, etc. 	Within three months of inception workshop	WTW Senior Director
Quarterly Financial Reports	<ul style="list-style-type: none"> Assess financial progress and management. 	Every three months	PMU Project Manager, with co-financed F&A support
Annual Work Plan and Budget (AWP&B)	<ul style="list-style-type: none"> Plan activities and budget in advance of each project year 	Annual	PMU Project Manager
6 Month Project Progress Report (PPR)	<ul style="list-style-type: none"> Share lessons internally and externally; Report to the PSC and GEF Agency on the project progress. 	After first 6 months	PMU Project Manager
12 month Project Progress Report (PPR) with Results Framework and workplan tracking	<ul style="list-style-type: none"> Inform management decisions and drafting of annual workplan and budget; Share lessons internally and externally; Report to the PSC and GEF Agency on the project progress. 	After first 12 months	PMU Project Manager
Project Closeout Report	<ul style="list-style-type: none"> Based on the format of the PPR 	Project technical close	PMU Project Manager
Terminal Project Evaluation Report	<ul style="list-style-type: none"> External summative evaluation of the overall project; Recommendations for GEF and those designing related projects. 	Before project completion	External expert or organization

An independent terminal evaluation has been budgeted by the project and will adhere to WWF and GEF guidelines and policies. The Terminal Evaluation will be completed before the official close of the project. The evaluation provides an opportunity for sharing lessons and best practices for future projects. The Operational Focal Point will be briefed and debriefed before and after the evaluation(s) and will have an opportunity to comment on the draft and final report.

An annual reflection workshop will be hosted by the PMU (virtually or in-person) to review project progress and challenges to date, taking into account results framework tracking, work plan tracking, and stakeholder feedback to review project strategies, risks and the theory of change (ToC). The results of this workshop will inform project decision making (i.e., refining the ToC, informing PPRs and AWP&Bs).

Budget for Monitoring and Evaluation

Monitoring and Evaluation has been budgeted at \$50,000 (5% of total project budget). Monitoring and Evaluation costs include:

- Terminal Evaluation: USD 25,000.
- A portion of the project manager's time has been budgeted under M&E for the roles and responsibilities associated with technical and financial reporting (\$18,000).
- A sub-grant of \$7,000 will be provided to WWF Pacific to support reporting requirements and responsibilities for local monitoring against the results framework.

10. Benefits. Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate.

Risk awareness and understanding within selected communities – Component 1 will provide local communities, enterprises, and governments with risk metrics they can use to understand current and future climate risks, which will aid planning and adaptation strategies. The project will build the communities' capacity to understand and use these metrics in a meaningful way.

Risk quantification – The development of an insurance product requires that the risk is measured and quantified, since technical insurance pricing is based on the probability of a certain event happening. Putting this price tag on risks by analyzing the underlying exposure and vulnerability means that the value of the insurance process goes beyond the coverage itself. That price signal drives more informed choices about where and how communities may site and design infrastructure, housing, facilities, and even (alternative) livelihood activities. Insurance does not create the risk, but it does provide a more precise and actionable understanding of the full cost of climate risk.

Coverage – Coverage of communities against climate risk is extremely valuable as a financial adaptation tool. Communities will have liquidity to respond to climate shock events, which allows for the development of contingency plans with predictable, pre-agreed funds arranged for implementation and event response.

A new market – This project will result in the creation of a climate micro-insurance market (through the design of the products and the implementation of risk transfer / actual placement), which facilitates access of communities to insurance markets that previously didn't cover climate risks, enabling these communities (and scalable to additional communities) to leverage private sector risk capital to build resilience.

Incentives for ecosystem management – Concessional access to financial adaptation tools may be provided as an incentive for sustainable behaviors / adherence to management policies. This contributes to a virtuous cycle of more resilient communities and more resilient ecosystems which, as a whole, will support adaptation to climate change.

PART IV: ANNEXES

Annex A: Project Results Framework

The Project Results Framework can be found in Appendix 3 of the Project Document.

Targets are aligned with the targets projected at PIF stage.

Annex B: Response to Project Reviews (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion, and responses to comments from the Convention Secretariat and STAP at PIF).

STAP screen

STAP comment	Response to comment
The proposal covers a neglected issue - livelihood assurance of small and artisanal fisherfolk in Melanesia. The methodology followed is one of a direct subsidized insurance program.	Thank you for the comment.
The risk-return tradeoff in this proposal is also managed through the insurance mechanism itself. Unlike the PPP Coral Reef Assurance proposal presented in this review portfolio, this proposal focuses on direct subsidy for a major multilateral insurance company rather than getting businesses to buy insurance products. The business model of getting small fisherfolk to get tagged and get subsidized insurance products does not seem sustainable. Further clarity is needed about how such a business model would work long-term.	This project is not proposing a subsidy of a major multilateral insurance company—it is focused on identifying potential support (from the public and private sector) for community access to insurance in order to formalize what is currently an implicit contingency liability on government balance sheets. This has been clarified and outlined in Outcome 2.2.
Blended finance could deliver on the stated objective but beyond the GEF seed funds how would the WTW have an incentive to stay involved? The role of government in this context in maintaining some level of engagement and a replenishment model for insurance premiums beyond the initial outflow of cash from GEF is needed.	This has been addressed through the combination of short-term and long-term premium financing strategies (and formalization of premium aggregation mechanisms) in Outcome 2.2.
Innovation in this project model is limited though the proposal references the WWF Global Coastal program as a model for upscaling. However, those are purely conservation linked activities. Perhaps some clarity on how this could also find synergies with existing coastal fisheries projects which WWF has funded by GEF is also needed. Linkages with other WWF projects such as the GCF Coral Reef Initiative	<p>The WWF GCF Agency is currently preparing documents on a Coral Reef Resiliency Program, which will include Fiji, and potentially Solomon Islands, Madagascar, Tanzania, the Philippines, Indonesia, and Cuba. The proposed program will include the development and scaling of successful climate insurance products (including from this project) to enhance the resilience of coastal ecosystems and communities.</p> <p>In addition, the WWF Blue Futures Initiative will look at carrying forward the outcomes and learning from this project, especially as it relates to incentives and disincentive mechanisms that encourage best practice and shift private capital towards sustainable blue</p>

	economy projects.
Catalysis of other private sector investment perhaps from large fishing companies should also be explored.	This is integrated through the pursuit of private sector premium support (and public sector engagement on incentives for private sector engagement) in Outcome 2.2.

Comments from GEF Secretariat during PIF Review:

GEF Secretariat Comment	Response to comment
By CEO Endorsement, please ensure the KM plan also allows for capture of (i) challenges and how they were overcome; and (ii) feedback and experiences from communities, including women's perspectives.	Please see the Knowledge Management and Communications Plan in Appendix 6 of the ProDoc. The project KM plan will track challenges and lessons learned. It will also document feedback from communities, including women's perspectives.
Yes. However, as the agency knows, the implementation and execution roles on GEF projects are meant to be separate per policy and guideline. The GEFSEC will analyze any requests for dual role playing by an agency at the time of CEO endorsement and only approve those cases that it deems warranted on an "exceptional" basis. We strongly encourage the agency to look at third party options as a preferred way forward. We also strongly encourage the agency to discuss any and all options for execution that do not include the government with the GEFSEC early in the PPG phase. The technical clearance of this PIF in no way endorses any alternative execution arrangement.	The WWF Pacific role and justification is detailed in Section 2.3 of the ProDoc. Letters of support for WWF Pacific's role as an executing partner have been provided by the Fiji and PNG OFP.

Annex C: Status of Utilization of Project Preparation Grant (PPG) (Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF: \$50,000			
Project Preparation Activities Implemented	GETF/LDCF/SCCF Amount (\$)		
	Budgeted Amount	Amount Spent To date	Amount Committed
Project Development	17,947	17,947	
Gender Analysis	4,300	4,300	
Stakeholder Engagement	21,753	21,753	
Travel	3,000	3,000	
Other	3,000	3,000	
Total	50,000	50,000	-

If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue to undertake exclusively preparation activities up to one year of CEO Endorsement/approval date. No

later than one year from CEO endorsement/approval date. Agencies should report closing of PPG to Trustee in its Quarterly Report.

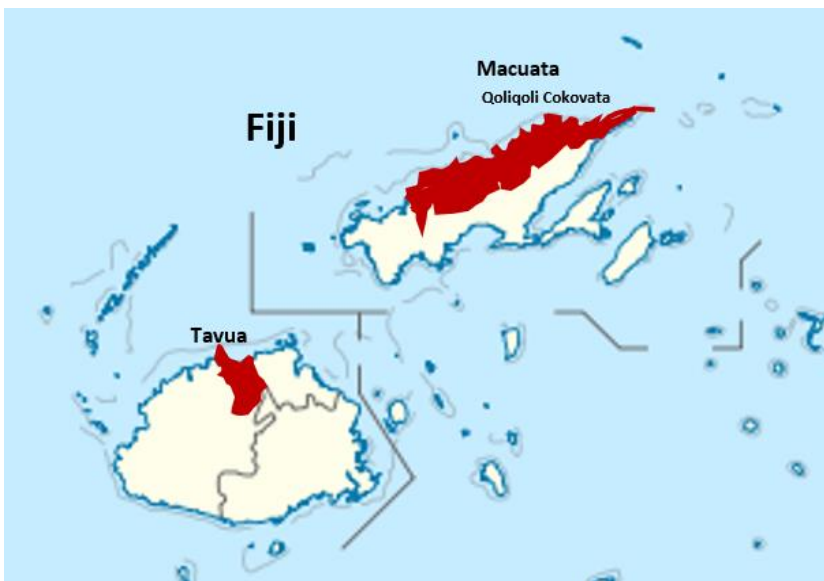
Annex D: Calendar of Expected Reflows (if non-grant instrument is used)

Provide a calendar of expected reflows to the GEF/LDCF/SCCF Trust Funds or to your Agency (and/or revolving fund that will be set up)

N/A

Annex E: Project Map(s) and Coordinates

Please attach the geographical location of the project area, if possible.





Madang Province Coordinates: 5°10'S 145°20'E

Tavua Coordinates: -17.5396° S, 177.9139° E

Macuata Coordinates: 16.4865° S, 179.2847°

Annex F: GEF 7 Core Indicator Worksheet

Annex G: GEF Project Taxonomy Worksheet

Taxonomy ⓘ

Biomes, Biodiversity, Focal Areas, Coral Reefs, Mangroves, Sea Grasses, Mainstreaming, Fisheries, Protected Areas and Landscapes, Productive Seascapes, Climate Change, Climate Change Adaptation, Livelihoods, Small Island Developing States, Mainstreaming adaptation, Private sector, Disaster risk management, Community-based adaptation, Climate resilience, Climate information, Demonstrate innovative approaches, Influencing models, Convene multi-stakeholder alliances, Deploy innovative financial instruments, Stakeholders, Private Sector, SMEs, Financial intermediaries and market facilitators, Civil Society, Community Based Organization, Academia, Non-Governmental Organization, Type of Engagement, Participation, Consultation, Partnership, Information Dissemination, Indigenous Peoples, Beneficiaries, Communications, Awareness Raising, Strategic Communications, Behavior change, Education, Local Communities, Gender Equality, Gender results areas, Access to benefits and services, Knowledge Generation and Exchange, Participation and leadership, Gender Mainstreaming, Gender-sensitive indicators, Sex-disaggregated indicators, Women groups, Capacity, Knowledge and Research, Knowledge Generation, Training, Workshop, Knowledge Exchange, Peer-to-Peer, Capacity Development, Learning, Theory of change, Indicators to measure change, Adaptive management, Innovation