



## ADAPTATION FUND

# PRE-CONCEPT FOR A REGIONAL PROGRAMME

## PART I: PROGRAMME INFORMATION

**Title of Programme:** Invasive Species Management for Ecosystem-based Adaptation to Climate Change

**Countries:** Niue, the Kingdom of Tonga

**Thematic Focal Area<sup>1</sup>:** Food security

**Type of Implementing Entity:** Regional Implementing Entity

**Implementing Entity:** Secretariat of the Pacific Regional Environment Programme

**Executing Entities:** Secretariat of the Pacific Regional Environment Programme

**Amount of Financing Requested:** 13,398,000 (in U.S Dollars Equivalent)

**Project Formulation Grant Request:** Yes ☐ No ☒

**Amount of Requested financing for PFG:** 0 (in U.S Dollars Equivalent)

**Letters of Endorsement (LOE) signed for all countries:** Yes ☒ No ☐

*NOTE: LOEs should be signed by the Designated Authority (DA). The signatory DA must be on file with the Adaptation Fund. To find the DA currently on file check this page: <https://www.adaptation-fund.org/apply-funding/designated-authorities>*

**Stage of Submission:**

☐ This pre-concept has been submitted before

☒ This is the first submission ever of the pre-concept

In case of a resubmission, please indicate the last submission date: [Click or tap to enter a date.](#)

**Please note that pre-concept should not exceed 5 pages (in addition to this first cover page)**

<sup>1</sup> Thematic areas are: Food security; Disaster risk reduction and early warning systems; Transboundary water management; Innovation in adaptation finance.

## **Programme Background and Context:**

The programme aims to address the nexus formed by climate change and invasive species, the compounding impacts of which are a threat to the livelihoods of Niuean and Tongan communities.

As Small Island Developing States (SIDS), Niue and the Kingdom of Tonga are at the forefront of climate change and disproportionately affected compared to continental landmasses. They are increasingly under the threat of similar climate challenges, such as rising mean temperatures, warming and rising seas, ocean acidification and deoxygenation, degradation of protective coral reefs, unpredictable and more extreme rainfall, more intense tropical cyclones and flooding, and prolonged droughts.<sup>2</sup> In particular, Niue and Tonga's respective Joint National Action Plans (JNAP) on Climate Change and Disaster Risk Reduction<sup>3</sup> highlight the following critical impacts:

- Damage from extreme weather events such as tropical cyclones, both on the built and on the natural environment (coastline and soil structure);
- Reduced agricultural production, highly vulnerable to rainfall variability and droughts;
- Increased mortality of coral reefs, either related to reef bleaching or damage from more intense extreme weather events.

In the context of Pacific islands, the impacts of such climate risks are aggravated by those of invasive species. Species such as rats, wild pigs and invasive plants outcompete native species, spoil crops and accelerate ecosystem degradation, increasing the vulnerability of Pacific communities to climate change and disasters. Native forest ecosystems, for instance, play a key role to limit soil erosion and damage from floods and landslides, while healthy coral reefs provide a natural barrier to marine submersions and cyclones. In turn, climate change is predicted to favour the establishment and the spread of invasive alien species, as changes in temperature and precipitation conditions will extend suitable areas and will enhance their competitive advantage against native species. This creates a negative feedback loop, where climate change degrades an ecosystem by enabling invasive species to thrive, which further degrades the ecosystem, making it more vulnerable to climate change.

In the face of the challenges posed by the climate change and invasive species nexus, Tonga and Niue can only rely on limited human and financial resources, providing a strong rationale for knowledge, expertise and resource mutualization with other Pacific island countries and territories facing similar challenges.

## **Programme Objectives:**

The overall programme goal is to increase the climate resilience of small island communities through the protection and restoration of ecosystem services negatively affected by invasive species. The project will achieve this through three programme specific objectives:

- 1) Enhance and protect terrestrial and marine ecosystems by managing invasive species to improve the resilience of small island communities to climate change and disasters
- 2) Improve the food security and livelihoods of communities dependent on natural resources by managing invasive species in a gender and socially inclusive way
- 3) Foster regional cooperation and the sharing of expertise, knowledge and resources to improve cost efficiency and achieve increasingly impactful operations

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<sup>2</sup> IPCC, 2019. Special Report on the Ocean and Cryosphere in a Changing Climate.

<sup>3</sup> Government of Tonga (2018). JOINT NATIONAL ACTION PLAN 2 ON CLIMATE CHANGE AND DISASTER RISK MANAGEMENT 2018 – 2028. Government of Niue (2012). Niue's Joint National Action Plan for Disaster Risk Management and Climate Change.

Through the first objective, the programme is targeting Outcome 3 of the Adaptation Fund (AF) Strategic Results Framework by increasing ecosystem resilience in response to climate change and variability-induced stress. Its second objective contributes to Outcome 6 of this framework by strengthening livelihoods and sources of income for vulnerable people in targeted areas. The third objective contributes to Outcome 8, by supporting the development and implementation of innovative adaptation practices, tools and technologies.

## Programme Components and Financing:

Programme Components	Expected Outcomes	Expected Outputs	Countries	Amount (US\$)
1. Protect our Islands	Two outcomes transversal to the 6 first components:  - Improved resilience of small island communities to climate change and disasters due to protected and enhanced ecosystems  - Improved food security and livelihoods of communities dependent on natural resources affected by invasive species	1.1. Strengthened national and inter-island biosecurity measures	Niue and Tonga	1,000,000
2. Predator Free Pacific		2.1. Removal of invasive mammalian predators	Tonga	3,000,000
3. War on Weeds		3.1. Management of highly priority weeds	Niue and Tonga	200,000
4. Natural Enemies - Natural Solutions		4.1. Delivery of weed biological controls, including novel targets	Niue and Tonga	2,500,000
5. Resilient Ecosystems – Resilient Communities		5.1. Ecological restoration of priority biodiversity sites	Niue and Tonga	1,500,000
6. Protect Our Marine Areas		6.1. Strengthened measures to identify and contain the spread of marine invasive species	Niue and Tonga	300,000
7. Regional knowledge and experience sharing	7.1. Fostered regional cooperation and knowledge and expertise sharing	7.1. Knowledge products elaborated and disseminated with regional partners involved in invasives species management	Niue, Tonga and PICTs	3,500,000
8. Programme Execution cost				180,000
9. Total Programme Cost				12,180,000
10. Programme Cycle Management Fee charged by the Implementing Entity (if applicable)				1,218,000
<b>Amount of Financing Requested</b>				<b>13,398,000</b>

**Project Duration:** 5 years

## PART II: PROGRAMME JUSTIFICATION

The proposed regional programme aims to implement six components dedicated to different and complementary sets of invasive species management activities, all contributing to improve the resilience of Niue and Tonga to climate change. This ecosystem-based approach offers a contribution to solving adaptation problems affecting Tonga and Niue by innovatively addressing the interrelationship of climate change with a major cause of biodiversity loss. Besides the obvious co-benefits for the safeguard of native biodiversity impacted by invasive species, the proposed components will improve the livelihoods of communities strongly dependent on natural resources.

### Component 1: Protect our Islands, National and inter-island biosecurity, early detection and rapid response to invasive species introductions

Component 1 will reduce the risk of introduction or return of invasive species to or within Niue and Tonga through the revision of biosecurity measures and the reinforcement of local capacities for early detection and rapid response with equipment and training. This preventive approach will protect communities from invasive species, which establishment and damage could be amplified

by climate change. The coordinated efforts of neighbouring countries supported by PRISMSS significantly improves cost efficiency, as the chances of spreading species are reduced overall.

### **Component 2: Predator Free Pacific, Removal of invasive mammalian predators from islands**

Component 2 will focus on the removal of rodents from inhabited and uninhabited islands in order to restore ecosystem functions critical to resilience against extreme climate events, while improving the livelihoods of local communities by protecting crops and local crustaceans stocks. The restoration of coastal ecosystems on islands freed from predators includes for instance the faster recovery of coral reefs from bleaching events thanks to the recovery of native seabird populations, generating critical nutrient flows.<sup>4</sup> Such programs also provide co-benefits on communities health, as rodents are the vector of diseases such as Leptospirosis. Regional cooperation and knowledge sharing is critical to deliver more ambitious operations, progressively targeting bigger islands with increasing numbers of beneficiaries.

### **Component 3: War on Weeds, Management of high priority weeds**

Component 3 will deliver high priority weed management to protect native ecosystems ensuring soil stability and water flow regulation, which are critical ecosystem services in the face of more frequent and intense droughts in the dry seasons and more extreme precipitations in the wet season, leading to increased runoff, floods and soil erosion. This component will include the management of African Tulip trees and other low-incidence weeds, to prevent a widespread growth that would threaten forest ecosystems critical for soil integrity.

### **Component 4: Natural Enemies - Natural Solutions, Biological control of widespread weeds**

Component 4 will support the development of biological control of widespread weeds to provide more sustainable and larger scale solutions for the protection of native ecosystems, with similar benefits for climate resilience as for Component 3. While *War on Weeds* activities are localized and require recurrent resources, natural enemies solutions take a longer time to develop but are more cost efficient once established. The programme will support the research to find suitable enemies for two novel target weeds that are problematic to both Niue and Tonga, as well as the deployment of developed solutions. As Pacific island countries and territories are generally challenged by similar invasive weeds and are characterized by similar ecosystems, the development of natural enemies solutions for one significantly reduces the costs for the region.

### **Component 5: Resilience Ecosystems – Resilient Communities, Priority area ecological restoration**

Component 5 will deliver priority area ecological restoration in both Niue and Tonga, including the Huvalu forest in Niue. The delimitation and targeting of conservation areas with specific values for their native biodiversity and critical ecosystem service allows an integrated approach and to use the site for demonstration, awareness and learning purposes. These areas also create safehavens for native biodiversity, preserving them in the face of rapid change.

### **Component 6: Protect Our Marine Areas**

Component 6 will improve the protection of coastal ecosystems against the spread of marine invasive species by conducting initial training and surveys to identify marine non-indigenous species, leading to the implementation of preventive and early response measures. The spread of marine invasive species could be hastened by changes in water temperature, oxygenation and acidity levels while such changes also increase the vulnerability of coral reefs and other ecosystems critical for small island communities. Improving the understanding and management

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<sup>4</sup> PRISMSS (2021). Rats or reefs - Invasive species & climate resilience in the Pacific. See [online](#).

of marine invasions is therefore a critical, and yet to be addressed challenge, with a strong rationale to mutualize learnings and progresses across the Pacific region.

### **Component 7: Regional learning and knowledge**

The last component of the project will be dedicated to knowledge sharing and dissemination between Niue and Tonga, but also more broadly to other countries and territories of the Pacific. It will integrate the elaboration of knowledge products and their dissemination through the Battler Resource Base and the PRISMSS Navigator, the online platforms assisting Pacific Island invasive species practitioners. The experience sharing will also capitalize on the existing Pacific Invasive Learning Network, through the organization of its 8<sup>th</sup> meeting and provision of a study tour showcasing the innovative practices implemented in Niue and Tonga.

The structuring of the programme around the Pacific Regional Invasive Species Support Service (PRISMSS) is a significant asset both for the cost-effectiveness of its activities and the sustainability of its outcomes. Established in 2019, PRISMSS is a partnership between SPREP, experienced technical partners and in-country experts to support and scale up on-the-ground invasive species management in the Pacific. While Pacific countries and territories such as Tonga and Niue have limited resources and capacities, PRISMSS has been enabling the sharing of technical expertises, support functions and lessons learned. The institutionalisation of local capacity and the provision of an ongoing support service hosted by SPREP aims to ensure the sustainability of the programme's outcomes.

The adaptation problems addressed by the programme are aligned with objectives highlighted in Niue and Tonga's respective Joint National Action Plans (JNAP) on Climate Change and Disaster Risk Reduction, also aligned with the Guiding Framework for Invasive Species Management in the Pacific endorsed by all Pacific Island Countries and Territories in 2023.

The project components have been defined accordingly to needs expressed by technical departments and endorsed by the national focal points of the Adaptation Fund in Tonga (Ministry of Environment, Climate Change, Disaster Management, Meteorology and Communications) and Niue (Secretary of Government). National consultations will be organized with administrations and local experts, complemented by local consultations as more specific site locations are defined. Consultations A specific care will be put in ensuring all consultations to gather opinions from representatives of women, youth and people with disabilities are included, along and also with integrating local traditional knowledge. To this end, the consultative process will be supported by the PRISMSS Gender Equality, Disability and Social Inclusion (GEDSI) and Traditional Knowledge (TK) Officer and will integrate the conclusions of the workshops organized on these topics as part of the 6<sup>th</sup> Pacific Invasive Learning Network in 2024.



This programme complements current projects implementing invasive species management to restore island resilience to climate change, from which it will incorporate lessons learnt and local capacity built. It is also intended to be implemented in the same timeframe as a national large scale ecosystem-based adaptation projects, in the form of country-scale invasive species management funded by the Green Climate Fund in Niue and Tonga and also executed by SPREP through the PRISMSS. The proposals for these two projects are developed in coordination with the current one for the Adaptation Fund to ensure their optimal cooperation. National projects will have a strong focus on large scale and complementary mammalian predator removals, with cross learning of lessons from the activities funded by the Adaptation Fund.

### PART III: IMPLEMENTATION ARRANGEMENTS

The implementing entity of the programme will be the Secretariat of the Pacific Regional Environment Programme (SPREP), through its Strategic Planning, Partnerships and Resource Mobilisation Department. SPREP will also act as executing entity of the programme, through its Invasive Species teams within the Biodiversity Conservation Programme. Coordination at the national level will include national environment ministries as national executing entities, respectively Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications for Tonga and Department of Environment for Niue. Quarterly meetings will be the basis for coordination of activities at the national level, with additional ad hoc meetings held as required also incorporating other national partners (Conservation International Tonga, etc.). At the regional level, technical coordination meetings will take place every 6 months with PRISMSS partners: Wellington University, SPC, Island Conservation, Birdlife International and Manaaki Whenua Landcare Research.

### PART IV: ENDORSEMENT BY GOVERNMENTS AND CERTIFICATION BY THE IMPLEMENTING ENTITY

#### A. Record of endorsement on behalf of the government<sup>5</sup>

<p>Mr. Sione Akauola, Chief Executive Officer, Ministry responsible for Environment (MEIDECC)</p> 	<p>Date: March, 10, 2025</p>
<p>Ms. Peleni Talagi Secretary to Government Office of The Secretary Of Government</p> 	<p>Date: March, 21, 2025</p>

Each Party shall designate and communicate to the secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.

**B. Implementing Entity certification**

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans (.....list here.....) and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.

*Name & Signature*  
Implementing Entity Coordinator

Date: *(Month, Day, Year)*

Tel. and email:

Project Contact Person:



30<sup>th</sup> April 2025

Sefanaia Nawadra  
Director General  
Secretariat of the Pacific Regional Environment Programme  
APIA  
Samoa

Fakaalofa lahi atu Director General,

**Re: Confirmation of Support for the development of project concept notes for Niue**

I am writing on behalf of the Government of Niue to confirm its full support for SPREP through the Pacific Regional Invasive Species Support Service (PRISMSS) to secure the services of consultants to develop project concepts with the Adaptation Fund and the Green Climate Fund to support Niue in managing invasive species.

Niue has committed to being one of the first island nations in the world to attempt to manage invasive at a large landscape/seascape scale to restore the resilience of its ecosystems and communities to the increasing impacts of climate change and could also help enhance Niue's premium ecotourism brand, boost ecotourism opportunities, and support sustainable economic growth.

We look forward to working with SPREP and the Invasives Team in progressing the concepts mentioned above.

Kind regards,

Hon Dalton Emani Makamau Tagelagi

**PREMIER OF NIUE**

**AND GREEN CLIMATE FUND NATIONAL DESIGNATED AUTHORITY**





MINISTRY OF METEOROLOGY, ENERGY,  
INFORMATION, DISASTER MANAGEMENT,  
ENVIRONMENT, CLIMATE CHANGE AND  
COMMUNICATIONS (MEIDECC)

NUKU'ALOFA, TONGA

24 February 2025

Sefanaia Nawadra  
Director General  
Secretariat of the Pacific Regional Environment Programme  
APIA  
Samoa

Malo e lelei Sefanaia

**Re: Confirmation of Support for the development of project concepts to the Adaptation Fund and Green Climate Fund to advance invasive species activities in Tonga**

I am writing on behalf of the Government of the Kingdom of Tonga to confirm its support for SPREP through the Pacific Regional Invasive Species Management Support Service (PRISMSS) to develop invasive species management focused concepts. This support will enable us and SPREP to engage consultants' services to develop project concepts with the Adaptation Fund and the Green Climate Fund, a crucial step in our efforts to manage invasive species in Tonga.

Tonga's commitment to being one of the first island nations in the world to manage invasive species at a large landscape/seascape scale and securing funding through above mentioned avenues is a significant step closer to achieving our commitments. This endeavor aims to restore the resilience of our ecosystems and communities to the increasing impacts of climate change. It also holds the potential to create new ecotourism opportunities and support sustainable economic growth.

We are eagerly looking forward to the opportunity to collaborate with SPREP and the Invasives Team to progress the above-mentioned concepts.

Yours sincerely

Mr. Sione 'Akauola  
CEO for MEIDECC



Cc: Ms. Luisa Malolo, Director of Climate Change  
Ms. Lupe Matoto, Director of Environment