

CONCEPT IDEA NOTE FOR CLIMATE RELATED ACTIVITIES THAT MAY BE FUNDABLE BY THE GREEN CLIMATE FUND AND OTHER FINANCIAL SOURCES

This Concept Idea Note is based upon the GCF Concept Note. It is designed to prepare any Concepts or Project Ideas with GCF financing in mind, however, can also be applicable to other financial institutions. Once the Concept Idea Note is completed please send to the CCCI office (as the GCF National Focal Point), where an assessment will be undertaken as to whether the Concept could be eligible for funding under the GCF or other financial source, or both. CCCI will then communicate the result of the assessment back to the proponent, and outline what will next happen to the Concept Idea Note, such as require more information to make a clearer assessment, the submitted Concept is GCF eligible for funding and the next steps, or a determination that outlines the Concept is not eligible for GCF funding but may get funding from another source.

Title of Concept OR Project Idea:

BUILDING RESILIENCE & SUSTAINABILITY IN INFRASTRUCTURE

For the purpose of the

Consolidation of Cook Islands Government Office Facilities

Date of Submission: 29 October 2018

Submitted by and Contact: Cook Islands Investment Corporation – Special Projects Unit (SPU)

<p>Indicate the areas for the Concept, which is based upon the CKI Country Program thematic areas</p>	<p><u>Mitigation:</u> Reduced emissions from:</p> <ul style="list-style-type: none"> Energy access and power generation <input checked="" type="checkbox"/> Low emission transport Buildings, cities and industries and appliances Forestry and land use <p><u>Adaptation:</u> Increased resilience of:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Most vulnerable people and communities <input checked="" type="checkbox"/> Health and well-being, and food and water security <input checked="" type="checkbox"/> Infrastructure and built environment <input checked="" type="checkbox"/> Ecosystem and ecosystem services
<p>Indicative total project cost</p>	<p>Amount: Estimated NZD \$48,000,000</p>

Project/Programme rationale, objectives and approach of programme/project

Brief summary of the problem statement and climate rationale, objective and selected implementation approach, including the executing entity (ies) and other implementing partners.

The Cook Islands are among the most vulnerable to sea-level rise and extreme weather events resulting from climate change. The nation's total land mass is a small 237 square kilometers, enclosed by 2.2 million square kilometers of ocean. Continuous sea level rises coupled with heavier rainfalls and intensifying cyclonic conditions threaten the coast lines and low-lying areas of all islands, including the capital Rarotonga and the main business district Avarua.

Governments economic infrastructure such as ports, airports, roads, power and water have undergone extensive improvements and climate adaptation measures over the last 20 years and continue to be the focus of the nations development investment priorities. Improvements to social infrastructure i.e. Ministry administration buildings, schools and hospitals have progressed at a much slower rate due in part to the size of the portfolio and national budgetary constraints. A large portion of Governments social infrastructure on Rarotonga are situated along coastal and low-lying areas, and over past years have sustained cyclone, flood and sea surge damages. Given the predicted weather conditions going into the future, these assets will continue to suffer damages and constrain Governments ability to continue providing essential public services and to facilitate national disaster recovery efforts effectively.

This project proposal seeks to address the vulnerabilities of the infrastructure housing Government Ministries and Crown Agencies, whose continuous service during a disaster recovery period is paramount. This proposal takes a holistic view of adapting the infrastructure to climate change whilst tackling other concerns such as worker and public safety, accessibility, gender inclusiveness, performance efficiencies, and sustainability. The most viable solution is to relocate the affected public services to a centralized facility that is designed and built to withstand changing weather patterns and conditions, that will promote environmentally sustainable building principles, and support (and enhance) sector performance and inevitable recovery efforts.

The Cook Islands Investment Corporation (CIIC) has produced a three-stage redevelopment plan for a centralized Government complex to accommodate the affected Ministries/Agencies. The redevelopment plan seeks to consolidate twenty (28) Ministries/Agencies into three modular and elevated buildings.

CIIC, as the Agency responsible for the management of Government assets, will take the lead in project development and management. The project proposal is being developed in collaboration with the affected Ministries/Agencies, and will be delivered in partnership with Climate Change Cook Islands Division (National Designated Authority), and the Ministry of Finance and Economic Management (Implementing Entity).

The CIIC on behalf of the Cook Islands Government is seeking a grant from the Green Climate Fund (GCF) to support the project. CIIC is currently exploring the option of delivering this project as part of a Public Private Partnership.

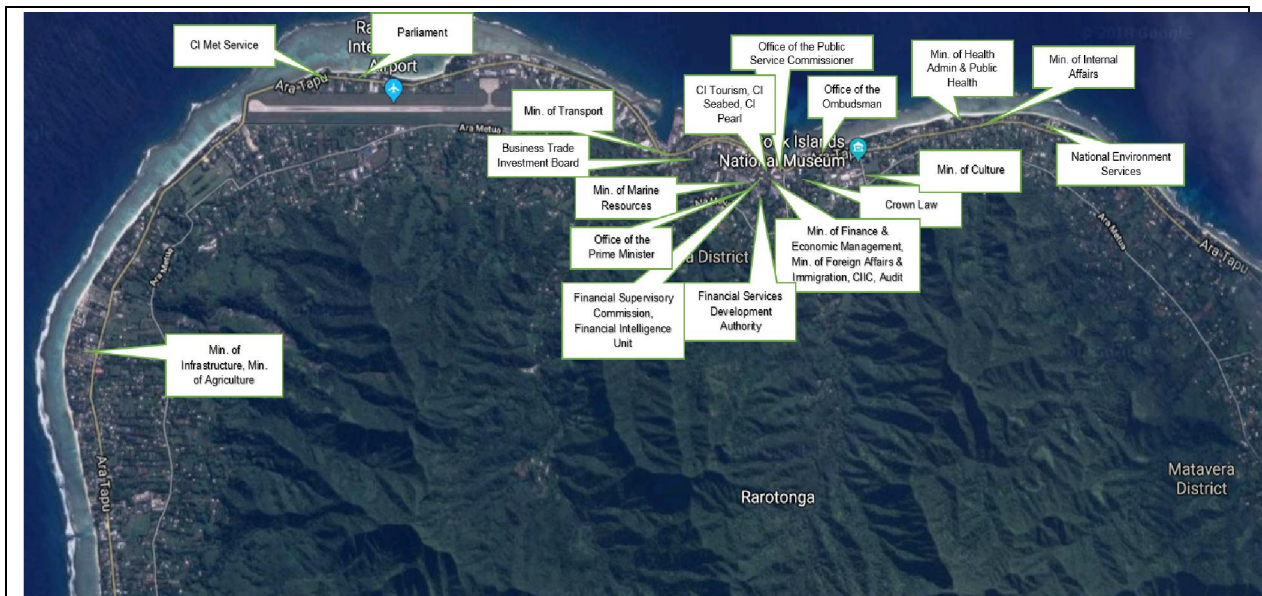


Diagram 1: Current locations of Ministries vulnerable to climate changes on Rarotonga’s coast and low-lying areas. Context and baseline (max. 2 pages)

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

The Cook Islands is on the front line of Climate Change. The islands are a fragile environment that is threatened by rising sea levels, changing rainfall patterns, intensifying tropical cyclones, and warming climate and sea temperatures. Currently the Cook Islands emit a mere 0.00012% of the world’s carbon emission. However, our islands bear the brunt of the negative effects of increasing temperatures. The Cook Islands’ 2.2 million square kilometers of ocean absorbs much of the carbon emitted by larger countries. As a consequence the coastal zones around Rarotonga and the Pa Enua are at the mercy of rising sea levels, increased ocean temperatures, amplified tidal surges which all converge to prove very challenging to our eco-system and infrastructure. The coastal zones around the Cook Islands have become one of the most vulnerable in the world.

The Cook Islands sits at the heart of the “cyclone belt.” Between 1969 and 2010, the nation recorded 74 cyclones. Changing weather patterns mean the destructive storms will only intensify. In 2005, five consecutive cyclones over a two-month period blazed through the nation, causing damage estimated at \$13.7 million. On average, destruction per cyclone totals \$4.5 million, or 2 percent of the country’s GDP. In the event of a disaster, the nation’s recovery is dependent on Governments’ ability to respond quickly and efficiently.

A Coastal Vulnerability Assessment by the University of New South Wales Water Research Laboratory (WRL) identified high probability that 2.0m high surge waves will affect the entire foreshore of Avarua in the next 25 years. This highlights the need to protect critical infrastructure and services within these areas that the local economy and society requires to survive.

Disaster risk reduction and national response planning are key driving factors for the proposed project. The Office of the Prime Minister, Ministry of Finance and Economic Management, Ministry of Infrastructure, Cook Islands Tourism Corporation, Ministry of Health, the National Environment Services, to name a few, require continuance through and post disaster events in order to facilitate speedy recovery. At their current location and in their respective conditions, their services are highly vulnerable. Without the appropriate interventions, these Ministries/Agencies may fail to deliver what the country requires in times of need.

In the unlikely event of wide spread damage post tropical cyclone, government operations will need to be reinstated before government can facilitate national recovery efforts effectively. The proposed intervention involves relocating twenty eight (28) Ministries/Agencies into a centralized and climate-proofed complex. The consolidation co-locates

Ministries and Crown Agencies whose combined efforts drive economic and social development, and disaster risk reduction and recovery. This in turn allows better rationalization of limited financial and human resources.

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

Te Kaveinga Nui National Sustainable Development Plan 2016 – 2020 articulates key development goals for the Cook Islands, underpinning good governance principles. Specific goals supporting delivery of the proposed intervention include:

- **Goal 5** – Build resilient infrastructure and Information Communication Technologies to improve our standard of living.
- **Goal 13** – Strengthen resilience to combat the impacts of climate change and natural disasters.
- **Goal 16** – Promote a peaceful and just society and practice good governance with transparency and accountability.

The *Cook Islands Country Program, Investment Strategy and Priority Setting* documented by Climate Change Cook Islands establishes eleven programmatic focus areas for climate funding. The proposed project contributes to **seven** pivotal areas, as outlined below.

- **Disaster Risk Management & Flood Management** - the proposed project mitigates the risk of climate related events on essential public services. It also allows for more coordinated efforts amongst Ministries/Agencies.
- **Climate Proofing Infrastructure** – the building structures will be strengthened and essential services elevated by at least 2 metres above ground level.
- **Coastal Protection / Restoration & Agriculture, Ecosystem Based Adaptation** – affected streams within the vicinity of the proposed complex will be rehabilitated and strengthened to better manage storm and flood waters.
- **Renewable Energy Development (including clean energy transportation)** – the new buildings and consolidated approach presents the opportunity to design for greater energy efficiencies. The design principles for the new buildings include net-zero operating outcomes which cannot be achieved within the existing buildings. The large roof areas allows for solar PV installation to meet the buildings energy demands.
- **Water Security** – onsite water collection, treatment and storage systems, together with efficient water fixtures will allow the property to be self-sufficient, including during times of drought.
- **Waste Management** – solid waste and waste water management facilities incorporate recycling, reuse and reduction measures to minimise any impacts on the immediate and surrounding environment.
- **Livelihoods of People and Communities & Knowledge, Research and Innovation** – the proposal incorporates innovative technologies featured in developed countries, but which are yet to reach the local market. Prohibiting factors include reluctance to import such technologies to low/no market demand and lack of awareness. The proposed building designs feature smart building control systems to minimise energy and water wastage, reused construction waste, air temperature controls incorporating natural airflow and chilled-water systems, higher energy efficiencies adopting improved LED technologies. . These, with many others, will pioneer and promote knowledge within the communities on sustainable building technologies and encourage market growth in these areas.

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

The root causes driving this Project are:

- **Existing infrastructure** of Government Ministries/Agencies are extremely vulnerable as they are located along the coast lines of Rarotonga.
- The buildings themselves have **not been built fit to withstand extreme weather events** and present a high

level of risk to staff and neighbouring properties in the event of a disaster.

The main barriers that this Project are:

- **Financial** - The funding for this Project will be a significant investment that due to the current fiscal situation of CIG will prove to be a potential barrier. Financially, the Cook Islands will need funding assistance to complete this project.
- **Technology** – ICT servers and network will need to be relocated in the early stage of development.

Where relevant, and particularly for private sector project/programme, please describe the key characteristics and dynamics of the sector or market in which the project/programme will operate.

The local private sector, construction industry, will play a key role in delivering the project, including the ongoing operations and maintenance. The local construction market continues to strengthen with more players entering the industry each year. The successful delivery of a project of this nature under a Public Private Partnership arrangement would require a consortium of key industry local and international players. The local construction market is limited to less than five suppliers capable of construction and the ongoing operations and maintenance, the contract and financial management capacity may require external/international parties to take the lead.

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

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

For the development of this initial concept CIIC has consulted with Climate Change Cook Islands, the NDA. More in-depth consultations will be had with Climate Change Cook Islands and the Ministry of Finance and Economic Management leading up to a full Concept Note. Consultations with affected Ministries/Agencies have taken place over the past two (2) years and will continue during the concept note and funding proposal development stages.

The feasibility study for the proposed project is currently underway, with the outcomes expected to be finalized and presented to Cook Islands Government in March 2019. A value analysis on PPP scenarios will further inform decision making, and will be presented to Government in the April-June 2019 quarter.

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

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

Funding assistance from the GCF will guarantee this project will be delivered and implemented urgently. Without the critical assistance of the GCF, the Cook Islands Infrastructure and operations remains vulnerable and the mercy of severe weather disruptions. The sustainable principles embedded in the design of this project will ensure that on-going costs are known upfront and affordable.

Activities under the proposed project will build institutional and technical capacities of government officials to plan, implement, update and maintain climate-proofing measures. In addition, climate-proofing interventions will be embedded into public sector budgets and strategic planning following project closure, which assists with ensuring the sustainability of the projects outcome. Improved engagement between government agencies will also ensure that climate-resilient interventions in the building sector are responsive to the needs and priorities of the Cook Islands.

Assessed By and Date:

Recommendation: