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| Programme Title: | GLOBAL WARMING & FORESHORE PROTECTION |
| Country(ies): | COOK ISLANDS |
| National Designated Authority(ies) (NDA): | COOK ISLANDS GOVERNMENT – CLIMATE CHANGE OFFICE |
| Accredited Entity(ies) (AE): | COOK ISLANDS MINISTRY OF FINANCE & ECONOMIC MANAGEMENT |
| Date of first submission/ version number: | *[2018-11-16] [V.1]* |
| Date of current submission/ version number | *[2018-11-16] [V.1]* |
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| 1. **Project/Programme Summary (max. 1 page)** | | | | |
| **A.1. Project or programme** | Project  Programme | **A.2. Public or private sector** | Public sector  Private sector | |
| **A.3. Is the CN submitted in**  **response to an RFP?** | Yes  No  Request from “Cook Islands Climate Change Office” | **A.4. Confidentiality[[1]](#footnote-2)** | Confidential  Not confidential | |
| **A.5. Indicate the result areas for the project/programme** | Mitigation: Reduced emissions from:  Energy access and power generation  Low emission transport  Buildings, cities and industries and appliances  Forestry and land use  Adaptation: Increased resilience of:  Most vulnerable people and communities  Health and well-being, and food and water security  Infrastructure and built environment  Ecosystem and ecosystem services | | | |
| **A.6. Estimated mitigation impact (tCO2eq over lifespan)** |  | **A.7. Estimated adaptation impact (number of direct beneficiaries and % of population)** | | 100% of population (est.17,000) and 100% of tourist numbers (est.135,000) annually. |
| **A.8. Indicative total project cost (GCF + co-finance)** | Amount: USD $1,550,000 | **A.9. Indicative GCF funding requested** | | Amount: USD $1,240,000 |
| **A.10. Mark the type of financial instrument requested for the GCF funding** | Grant  Reimbursable grant  Guarantees  Equity  Subordinated loan  Senior Loan  Other: specify\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | |
| **A.11. Estimated duration of project/ programme:** | 10 years for the programme | **A.12. Estimated project/ Programme lifespan** | | 100+ years |
| **A.13. Is funding from the Project Preparation Facility requested?[[2]](#footnote-3)** | Yes  No  Other support received  If so, by who: | **A.14. ESS category[[3]](#footnote-4)** | | A or I-1  B or I-2  C or I-3 |
| **A.15. Is the CN aligned with your accreditation standard?** | Yes  No | **A.16. Has the CN been shared with the NDA?** | | Yes  No |
| **A.17. AMA signed (if submitted by AE)** | Yes  No | **A.18. Is the CN included in the Entity Work Programme?** | | Yes  No |
| **A.19. Project/Programme rationale, objectives and approach of programme/project (max 100 words)** | Rising Seas due to Climate Change are a huge threat to all island nations in the Pacific and elsewhere. There are numerous scientific papers and statements outlining the likely effects and our project is seen as an opportunity to protect the island(s) from this live threat. We will implement a programme of works on a project by project basis to install foreshore protection devices starting with the highest priority areas first. CI Government will design the projects and tenders will be sought from International Companies to construct the work. | | | |
| 1. **Project/Programme Information (max. 8 pages)** | | | | |
| **B.1. Context and baseline (max. 2 pages)** Rising sea levels are not a new phenomenon, neither is protecting our foreshores. However, the scientific predictions based on evidence of global warming are that the rate at which sea levels are rising is accelerating. There is also evidence to suggest that materials, such as rock, which are traditionally used to provide foreshore protection, are diminishing and becoming costlier to produce and install.  The Cook Islands are but one of a multitude of nations that has an uneasy future when it comes to withstanding the spectre of climate change and rising seas. There are about 620,000 kms (372,000 miles) of coastline in the World. Over one-third of the total human population, nearly 2.4 billion people, lives within 100 km (60 miles) of an oceanic coast, a fact emphasized by the devastating tsunami in the Indian Ocean in 2004.  Whilst the length of coastline may have been with us for an enormous time, the current evidence is that a lot more people and places will be affected by the predicted climate changes and this poses a serious threat to people, property and our current ways of life. The buffeting of our foreshores is not a new thing and we have undertaken many steps to combat the forces of nature over the years, but the pressure is building, not only in terms of climate issues but also the challenges of building structures to combat these forces of nature.    Infrastructure Cook Islands (ICI) is the Planning and Design section of the Cook Islands Investment Corporation who, in turn, is responsible for managing and improving the Cook Islands Government infrastructure assets. This application has been prepared by ICI as they are confident that they have a programme of schemes which will meet these challenges, which will be cost-effective, environmentally acceptable, robust and sustainable.   1. **SOCIAL, CULTURAL & ECONOMIC BENEFITS**   Foreshores and rivers/watercourses in the Cook Islands serve a number of purposes, a few of which are highlighted below:   * Social – Population sustainability, population safety and recreational (beaches, fishing, water sports) * Cultural – historical places, sacred grounds * Economical – tourist attractions, fishing, camp grounds, irrigation for food (rivers and flood plains)   **Social** The desirability of building a house with sea views or with a babbling brook running through the property has increased over the years and this has a double effect. One is the need to protect the house from falling into the sea or river and the other is to ensure that the effect of building a house does not unduly impact on the operation and purpose of the foreshore or river itself.  There are numerous examples where developments have been built in vulnerable areas (foreshores and flood plains) – see adjacent image of Trader Jacks in Avarua town centre on the island of Rarotonga being pounded during Cyclone Meena in Feb 2005.  Similarly, there are countless examples where rivers have burst their banks and engulfed properties (think Hurricane Katrina and the impact on New Orleans). The cost to society is enormous both emotionally and financially, as well as security wise, with insurance claims and additional costs to Government in the tens of millions or more.  **Environmental** As has been witnessed in recent years, weather patterns are unpredictable and storms, particularly Cyclones, can be among the most devastating natural disasters. In 2015 Cyclone Pam rampaged through Vanuatu with winds of up to 320 km/hour, which ripped roofs off houses and downed trees and caused massive flooding and property damage. Vanuatu President Baldwin Lonsdale said the cyclones that the nation had experienced were directly linked to climate change. *"We see the level of sea rise. [We see] change in weather patterns."* Storms of this nature greatly upset the natural ecosystem, significantly disrupting coastal native shellfish, fish, insect, bird, and mammal habitat. Pollutants from flooded industrial sites cause hazardous chemicals to enter untreated into project sites, groundwater, watersheds and the oceans. Wildlife can be killed by the force of the disaster or impacted indirectly through changes in habitat and food availability. Endangered species are especially vulnerable when habitat is destroyed.  Water quality is impacted when sewage treatment facilities flood or debris enters reservoirs and waterways. Beaches move and change shape due to storm surges. Riverbanks erode during flash flood events. In the urban landscape, natural disasters can impact historic structures, leading to the need for restoration and preservation work. Infrastructure such as bridges, roads, transmission lines, and oil and gas pipelines may need new permits, assessment and repair. Home and commercial building repairs may first require the identification of asbestos, mould, or lead hazards and then require significant programmes of work to restore liveable conditions.  **Cultural**  As indicated above, areas of conservation, cultural heritage and historic significance are as vulnerable as any area of land. There are a number of historic sites on many of the 15 islands which make up the total Cook Islands population and some of these are already threatened simply by the fact that many islands are low lying – Penrhyn in the Northern Group has a maximum elevation of less than 5 metres.  The most legendary recorded migration from Rarotonga took place in 1350 when seven vakas are reputed to have set sail from Avana Harbour in Ngatangiia, to make the arduous voyage to New Zealand. This is an extremely important historical site and has already experienced severe conditions which will continue to threaten the area – (see photo of Trader Jack’s adjacent). | | | | |  |
| 1. **COOK ISLANDS NATIONAL OBJECTIVES**   The CI Country Programme was developed as part of the Green Climate Fund (GCF) Readiness and Preparatory Support program. The key objective of the Country Programme is to outline the priorities that can be supported by the GCF and other development partners to progress the paradigm shift in the Cook Islands to achieve low emissions and climate resilient development. It serves as a roadmap for coherent engagement with partners in order to maximise financial opportunities and ensure that resources are directed efficiently towards national climate and development priorities.  The Country Programme is building upon ongoing climate and development strategies in the Cook Islands including:   1. The National Sustainable Development Plan (NSDP) 2016-2020; JNAP II – Are We Resilient? 2. The Cook Islands 2nd Joint National Action Plan (JNAP) – A sectoral approach to Climate Change and Disaster Risk Management 2016-2020; 3. Cook Islands Renewable Energy Chart 2016-2020; 4. Intended Nationally Determined Contribution (INDC) 2015; 5. Second National Communication to the UNFCCC 2011; 6. Cook Islands National Infrastructure Investment Plan 2015 – 2025; 7. Individual Island Community Development Plans; 8. Cook Islands State of the Environment Report 2017; 9. Cook Islands National Biodiversity Strategy and Action Plan 2017-2021 and the draft Cook Islands Climate Change Policy 2018-28.   It has been informed by the community, the public and private sectors, and non-government and civil society partners, through participatory approaches, under the guidance of the National Designated Authority, the Climate Change Cook Islands division of the Office of the Prime Minister.  The national government will provide the oversight for the implementation of this Country Programme, including the operationalising of a system of national coordination. All sectors and levels of government will be responsible to integrate, where appropriate, climate finance considerations in their plans and programmes. The proposal to develop a foreshore protection programme fulfils a number of Government and Agency objectives such as:  1. **NIIP 2015 -** Priority Area 2: Infrastructure for economic growth, Sustainable Livelihoods and Resilience *'Our investment in infrastructure will maximise economic return, improve our people’s livelihoods and build resilience****'*** 2. **NSDP 2016 -** The National Development Goals - Objective 5 - Build resilient infrastructure 3. **2018 Cook Islands Budget Book 2 Ministry Budget Statements** - The Ministry of Infrastructure Cook Islands has a strong commitment to providing effective services for all through its vision *“to ensure premier infrastructure development to meet the needs and aspirations of the people of the Cook Islands”* 4. **NSDP 5,13; JNAPII Strategy 7; NIIP;** Manihiki, Palmerston, Tongareva, Pukapuka, Rakahanga, Nassau, Island Plans; GCF Brilliant Resilient Workshop; Fostering Resilience Workshop 5. **Goal 11 Promote sustainable land use, management of terrestrial ecosystems, and protect biodiversity** 6. **Goal 12 Sustainable management of oceans, lagoons and marine resources** 7. **Goal 13 Strengthen resilience** to combat the impacts of climate change and natural disasters 8. **PROGRAMME IMPLEMENTATION APPROACH**   **Priority Sectors for Mitigation and Adaptation**  The key sectors for mitigation are electricity, transport, deforestation and land use change. The fundamental challenge to mitigation interventions are access to finance, availability of appropriate low emission technologies to suit the Cook Islands context and expertise in renewable energy and energy efficient technologies.  The key sectors for adaptation are education; infrastructure (roads, bridges, buildings, built coastal structures, harbours, airports); water; waste – solid and liquid; wetlands, waterways and coastal and terrestrial ecosystems; agriculture; marine resources; and cross cutting areas such as health, culture and gender.  **Phase 1** - ICI has established cross-agency links and, through this application, will create a multi-disciplinary project Managamant Unit (PMU) utilising expertise from the private sector and other CI government agencies working under the following leadership structure:   * Climate Change Office – Lead Agency and NDA * Office of Prime Minister – Legislative review * Cook Islands Investment Corporation – Asset Management Systems and coordination * ICI – Technical lead, project design * Ministry of Finance and Economic Management – financial review, economic analysis * Emergency Management (CDEM)   A copy of the staffing structure and indicative costs for setting up the PMU is included at Appendix B. Implementing partners for constructing the work will most likely be by engagement of the private sector (developers and constructors, Blue Sky and TAU, CDEM) through the CI Government procurement process.  **Phase 2 -** The PMU will be charged with investigating, implementing and managing a 5 year programme of works to strengthen foreshore resistance in the most vulnerable areas and to also look at the risks posed by rising sea levels and present solutions that can be implemented. It is envisaged that the PMU will exist for an initial 5 year period. Any decision to extend this time will be undertaken by the Management Board.   1. **ISSUES AND CHALLENGES – LAND OWNERSHIP & STAKEHOLDER ENGAGEMENT**   There is a particular need to integrate emergency management and consideration of the effects of climate change into public infrastructure planning, design, construction, maintenance and management. The government liases and negotiates with landowners (or nominated representatives) to locate or survey boundaries and to gain access to family land for the purposes noted above.  However there is a lack of information identifying the owners of land, resulting in delays and disputes, with subsequent difficulty in planning for climate change mitigation, providing detours, emergency evacuation routes, alternative routes and access to critical assets such as water supply installations.  We will therefore focus our immediate attention to those areas where the Government has an agreement to enter and work upon the land. DFevelopment of the land wonership adatbase and subsequent negotiations with those integral to this programme will be part of the PMU objectives and will become part of the 5 year planning process as we move forward to ensure we can work on land within prvate ownership.  The programme has been split into a number of areas as ICI does already have a range of defined schemes and a series of development initiatives to manage the protection of its foreshore from climate change impact. As a key stakeholder, responsible for managing, maintaining and improving certain Government assets, ICI would have signifcant input imto this programme. | | | | |
| **B.2. Programme description (max. 3 pages) YEAR 1 SET UP & DEVELOPMENTAL PHASE –** The office of Climate Change Cook Islands on behalf of the CI Government will establish a **Project Management Unit** which will be responsible for everything related to the fund. The role of the PMU, amongst other things will be to investigate issues, promote initiatives, develop stakeholder and landowner relationships, develop strategies, complete design work and procure contracts for the physical works of approved schemes. The PMU members, responsibilities and associated relationships is set out in the attached document at Appendix C.  **YEAR 1 “QUICK WINS”**   1. Set up PMU – **Estimated Cost $380,000 –** commence foreshore strategy development plan. 2. Implement short-term Rutaki protection recommendations on Rarotonga as described in the Tonkin and Taylor report March 2018 – “Maintenance and repair of existing structures as necessary *- repair of existing structures involves ongoing repair on an as-needed basis. This may include rebuilding rock revetment material and displaced rocks, clearing overwash sand, filling scour holes. This option is generally the very minimum required to maintain an effective coastal protection structure scheme and time and costs tend to increase with structure age and/or substandard initial design or construction* **Estimated Cost $250,000** 3. Undertake inundation and hazard mapping across Rarotonga as a whole which will support alternative inland road development options and future land-use planning (use of LIDAR technology through our relationship with University of NSW, Sydney – see report 2012) – **Estimated Cost $300,000** 4. Explore alternative inland road development options for Rarotonga informed by hazard mapping (included above). 5. Establish a monitoring regime to inform risk management. 6. Implement long-term inundation mitigation strategy at agreed tipping points and modify if necessary based on monitoring.   Extrapolate Tonkin & Taylor Rutaki Report methodology across Rarotonga and Outer Islands where applicable to develop 5 year programme of works.  **YEAR 1 STAKEHOLDER ENGAGEMENT**  Develop stakeholder engagement plans which will include:   1. Specific engagement plan for the Rutaki project 2. Continue previous community engagement to inform the community how progressive land development in low-lying and inundation prone areas of Rutaki increases their vulnerability in tandem with the effects of sea level rise. 3. Involve the community in beach monitoring to develop enhanced awareness and discussion regarding ongoing changes. 4. Extrapolate to rest of Rarotonga 5. Extrapolate to Outer Islands | | | | |
| **YEAR 1 PROJECT SPECIFIC DEVELOPMENT – ABANDONED SHERATON FORESHORE LOCATION - ESTIMATED COST - $250,000**  Coastal erosion is already a severe issue with some major works already completed along the northern foreshore of Rarotonga at Avarua and the airport areas. However, there are a number of other locations which are experiencing significant erosion and, in some places, this is impacting on private property and businesses and Government assets such as the outer road where the land mass between the road and the water is less than 10m in some places. This is exacerbated by the fact that the tourist population has accelerated dramatically in the last 5 years and the demand for coastal living and vacations where properties front the sea is increasing.  Traditional materials used to withstand nature have been man-made reinforced concrete, timber structures, steel sheet piles and rock, all which have a finite life as the materials used to create these defence mechanisms are in ever increasing demand as we continue to build on this planet. Some areas have no natural rock resource (Holland, the middle east for example) and it is necessary to import materials at significant cost to build the mass structures needed to ‘hold back the tide’.  Fig.1 Loss of existing protection  This is no different for the Cook Islands as we have a finite quantity of rock in accessible locations and the quality and strength of material already excavated is questionable to say the least. Finding affordable alternative materials is a serious challenge but we have incorporated an innovative design into this project that will go some way to meeting that challenge.  The present and only method for dealing with foreshore protection has been through the excavation and placing of rock and there is no detailed specification for how this should be done, although there are industry guidelines for this type of activity and we will be selecting competent contractors which are experienced in this sort of work to carry out the physical activities.  *Fig.2 depicting new ‘Over Armour’ wall after placement and reinstatement*  A preliminary scheme concept for the Rutaki project includes a product called ‘Over Armour’, which is a manufactured product that protects foreshore erosion as well as assisting with stormwater flow path management. It is simply a multi-sided ‘shell’ or mould which is manufactured on or off site, placed at the selected location and then filled with crushed recycled concrete, crushed glass, crushed rock, sand or other waste material (as long as it is heavier than water).  This innovative solution follows a similar methodology as rock placement and we do have test results to support the crushing capability of the casing and physical evidence of similar works dating back 12-15 years. A specific methodology will be developed using industry best practice techniques for the handling and placement of the units at site.  Rarotonga is the significant main population centre in the Cook Islands and has (and will continue to have) a glut of glass and other waste products such as recycled concrete or sand. These materials are a core component of the scheme design and assist in dealing with a current problematical issue of waste disposal. As a result, not only will be preserving one local material (rock), we are also disposing of a ‘pest’ (glass) which can only be of a significant benefit for the island.  If project funding is forthcoming we will offer the work as part of an open tender package for industry players (CI and NZ/Aus/Pacific Islands) to reinstate the wall and complete the associated road work under the NZ3910 conditions of contract. The tender is likely to be a price/attribute form of tender but this will be finalised once we know the project has been approved. At this stage the project has been identified as **high risk** when assessed against the ICI risk matrix in terms of social, environmental and economic considerations and the project has been included in the ICI 2018/19 Asset Annual Plan.  The key risks in *“doing nothing”* are:   1. **Accident potential** - for users of the road above the wall failure, as the sea has penetrated below the road above and is eroding the road pavement structure and causing road surface issues. 2. **Asset Loss** - the current protection has been washed away and further incursion under the road is likely 3. **Loss of amenity** – the Beach is being eroded in front of what was the wall   **Year 1 Project Specific Development – LIDAR TECHNOLOGY MAPPING - Estimated Cost - $300,000** The Cook Islands government requires up to date topographical information to support numerous applications across different government sectors as there is a significant lack of base information to inform and enable robust decisions across government relating to development and infrastructure planning, environmental processes and monitoring, hazard identification, assessment and adaptation.Some local work has been undertaken but this is generally project specific such as localised photogrammetry and does not support the wider requirements that the government agencies need. To enable and improve the ongoing management, monitoring, planning and implementation of projects and policy across many sectors both public and private, accurate data and tools to enable evidence based decision making is required.Airborne Light Detection and Ranging (LiDAR) data is an optical remote sensing technology that provides extremely accurate, high-resolution topographic data and aerial imagery. LiDAR measures distances, height and depth by sending a pulse of light from a laser towards an area being surveyed, measuring how long the light pulse takes to return. The laser and sensor are mounted on a specialist aircraft where a GPS system is used to position the aircraft. The process produces elevation data and other derived products such as digital elevation models (DEMs) and contours which can be used in a range of applications. Airborne LiDAR data is able to provide highly detailed maps and 3D models. A comparison of different technologies used to obtain elevation data can be found in figure 1. ***Fig1***  Developing a digital elevation modelling (DEM) for the Cook Islands would be a significant step forward and would be utilised as an important tool throughout government as well as the private sector.  The activity intends to provide data with a wide range of applications including:   * Analysing the impacts of climate change on infrastructure and the environment. * Planning for climate change adaptation by mapping out lagoons and fringing reefs * Disaster management and recovery * Input to policy such as appropriate location and types of development * Inland Flood hazard mapping and modelling * Inundation hazard assessment and modelling utilising lagoon and reef DEM * Development Planning, including mapping structures, drainage flow paths, ground slope & stability, etc. * Infrastructure Planning, design and Implementation including mapping roads corridors and water courses, structures, asset management etc. * Catchment Management, including; maximum planned development, storm water management, water supply protection. * Environmental monitoring such as coastal processes, monitoring shoreline change, beach erosion and accretion, and vegetation changes etc. * Up to date information including high resolution imagery would also be used for general geo-spatial functions and mapping across government. | | | | |
| **B.3. Expected project results aligned with the GCF investment criteria (max. 3 pages)** | | | | |
| There are a number of areas where the Cook Islands are vulnerable to climate change forecasts. We have low lying islands where land height above sea level is 5m in some places; we have the coastal erosion issues which have been highlighted above and in numerous reports and we have inundation and drainage issues arising from storms at sea and the change/increase in intensity of rainfall patterns.  Setting up a specialist PMU will go some way to giving the people of the Cooks some comfort that the climate change issues are being seriously considered and that a series of actions will be forthcoming to protect them. This unit will have overall responsibility to develop management plans and to implement projects which will tackle to climate change issues. The Unit will be answerable to the country of course but will also report to a Management Board (consisting of key stakeholders) who will discuss, debate and approve or disapprove the initiatives put forward by the PMU.  As stated above, the initial ‘life span’ of the PMU is a 5 year period in which it is expected that it will deliver the following:   1. Review, update use the information contained in the 2005 Coastal Protection Feasibility Study prepared by GHD to inform and assist in preparing the CI Coastal management Plan for all islands 2. Review and Update the JNAP for Disaster Risk Management 2012 3. Engage with ICI and other stakeholders to develop asset specific proposals and projects to inform a Forward Works Programme for the next 5 years and beyond. 4. Finalise the project design and seek tenders for the foreshore protection works recommended in the Tonkin and Taylor Rutaki Foreshore Report 5. Undertake engagement of UNSW to continue its work for Coastal Mapping to enable all areas of vulnerability within the Cook Islands to be identified and to enable Action Plans for such sites to be developed.   These are the key areas initially for the PMU but there is likely to be a longer term need for the Unit as they can focus on the specific forward looking needs of the Nation rather than be embroiled in the day to day management of projects or policy decision making.  The 2 projects put forward for delivery as part of the 5 year Infrastructure Annual Plan of works and included in this programme application have significant impact in a number of areas:  **Project 1** is for Coastal protection works at the Old Sheraton site as part of a rolling programme of similar treatments for the vulnerable areas of the island of Rarotonga, which has the largest population of all the Cook Islands. This is covered in detail above.  A comprehensive study has been done and the conclusions indicate that there has and will continue to be a net loss of land if no action is taken. This is a common feature around the whole island and threatens the economic and social fabric of the island. The intention is to treat the Old Sheraton site first and then complete the remaining works as set out in the Tonkin and Taylor report        **Project 2** is also highlighted in detail above and is essentially a digital mapping project which will assist in determining our future options for managing the effects of global warning. We have already used the expertise of UNSW to undertake a similar limited project concentrated on a single area in Nikao and Avatiu and this proposal will seek to extend that knowledge base by additional use of the LIDAR technology.  By using this technology we will be able to ascertain projected flow paths of rising sea levels; predicted impact areas and percentage of the population likely to be affected by the effects of Global Warming. This will in turn enable us to consider and determine the appropriate mitigation options and implement a plan of action for protection and/or alternative courses of action we need to combat the potential outcomes.  Whilst we have highlighted Rarotonga as the first location to target (mainly because of the scale of the population), the mapping and predictive modelling rationale will be rolled out for all the islands; most of which have differing challenges and needs.  What is clear however, is that with the geographical make up of all the islands almost the whole of the CI population of 14,000 people is threatened in some way by global warming. By mapping the land height and key features we can make some determinations on the scale of the issue and start developing ideas of what to do to protect the population of each island.  **Beyond Year 1**  By setting up a Project Management Unit we will be able to offer a career pathway for up to 6 people initially covering a diverse range of activities. The make-up of the team is shown and the type of work to be undertaken is illustrated at Appendix C and whilst it will require people with specialist skills from the outset, there will be opportunity for young graduates and trainees to become part of the group and progress to professional level status in a number of different disciplines e.g. Contract Management; Project Management; Asset Management; Climate Change Subject Matter Expert (SME) amongst some of the options.  The PMU will be the fund ‘owner’ in the sense that it will be responsible for the process of making applications to the fund through the CI GW Office, developing programmes, managing projects and ensuring that all activities accord with the GCF Investment Initiatives Criteria. We believe that the threats posed by Global Warming are better tackled by a dedicated project team rather than a collection of individuals working out of different offices, Agencies and Government Departments. The unity and concentrated effort of a single team will ensure comprehensive, realistic and achievable outcomes can be delivered on time and in budget for the benefit of all the Cook Islands.  The PMU team will report to a Board made up of key stakeholders and this is illustrated on the org chart at Appendix C. Similarly it will work with different Departments to ensure a unified approach to funding requests and to ensure the requests meet the Country’s objectives with respect to Climate Change impact.  Some of the issues facing the team are:  **Sea level Rise**   * Sea level rise expected to be 0.9 and 1.6mm by end of Century depending upon current and projected rates of polar ice and glacial melt * Sea level rise in Western Pacific at 10mm per year up to 2030 * For region overall total sea level rise to 2030 similar to global average at 2-3mm per year   **Impact**   * Sea water flooding of atoll islands and low lying islands * Impacts on settlements and contamination by flooded sewage systems * Impacts on local food supply like taro, coconuts, pandanus etc * Coastal erosion * Sea and ocean conditions becomes unpredictable   **Country Profile**   |  |  | | --- | --- | | Geographical location | Oceania | | Land area | 236.7 square kilometers | | Population | 17,459 (Census 2016 Preliminary Results) | | Types of climate | Tropical oceanic, moderated by trade winds; a dry season from April to November and a more humid season from December to March | | GHG emissions profile | GHG emissions rose by 56% between 1994 and 2006 – 3.6 t CO2 per capita[[4]](#footnote-5) | | Key emitter sectors | Electricity generation, Transportation, Deforestation | | Key climate risks | Sea level rise, Drought, Extreme rainfall, Cyclones, Higher temperatures | | Vulnerable sectors | Water, Coastal protection, Built environments, Health, Energy, Agriculture, Marine Resources | | NDA/FP | Climate Change Cook Islands (CCCI), Office of the Prime Minister (OPM) | | National/Regional AEs | Ministry of Finance and Economic Management (MFEM), South Pacific Regional Environment Program (SPREP), Asian Development Bank (ADB) | | International AEs | United Nations Development Program, UN Environment, European Investment Bank | | Potential AEs nominated | Bank of the Cook Islands, |   **The Cook Islands economy**  The Cook Islands geography has both advantages and disadvantages for the economy. Its natural beauty and unique culture is the platform of the tourism based economy. Strong growth in tourism in recent years has seen the Cook Islands experience economic growth and progression towards higher levels of economic prosperity. However, the strong economic growth and heavy reliance on this sector makes the Cook Islands extremely vulnerable to shocks in external markets and natural disasters. If a major tropical cyclone were to hit Rarotonga, it would take time before the tourism industry and the entire country could rebuild.  Rarotonga is the centre of commercial activities, including tourism and is home to around 72 percent of the resident population. Due to the small populations on the rest of the inhabited islands (pa enua), economies are largely subsistence, with some small tourism, agriculture and pearl industries. The Cook Islands Government, thus provides high levels of support to the pa enua to ensure that a reasonable standard of living is achieved for all residents. Despite this, inequality between Rarotonga and the pa enua remains an issue.  For the period of 2016/17 – 2019/2020 financial years, the estimated climate change spending as a percentage of total appropriation by the Cook Islands Government within its budget is 16% (this includes all sources of funding). 6% is attributed to development partner (ODA) assistance, with Cook Islands Government covering 7% and the balance of 3% being borrowings (loans). In terms of GDP, total climate change finance equates to 9% of GDP. Development partner (ODA) contributions equal 3% of GDP, local budget allocation for climate financing is 4% of GDP, while borrowings make up 2% of GDP.  The Cook Islands has and is utilising GCF Readiness Funds. It has attracted total USD840,000 (Readiness 1 – USD150,000; Readiness 2 – USD690,000) under the Readiness Program to build the capacities of the National Designated Authority, to develop this Country Programme, support the Direct Access Accreditation of the Ministry of Finance and Economic Management (MFEM) to the GCF and implement education and awareness programs.  Activities could include, a comprehensive assessment of the cost of mitigation and the incremental cost of adaptation; enhancing measurement, reporting and verification (MRV) practises; development of standardised baselines to assess and monitor the impacts of implementing NDC initiatives; support for data collection, storage and management; and support for education, training, public awareness, public participation, public access to information and international cooperation in the implementation of this Country Programme and the Cook Islands NDC targets. | | | | |
| **B.4. Engagement among the NDA, AE, and/or other relevant stakeholders in the country (max ½ page)** | | | | |
| **Climate Change and Disaster Risk Management Platform**  The Climate Change and Disaster Risk Management Platform meets on a quarterly basis. The group comprises of approximately fifty representatives of government agencies, non-government and civil society organisations, private sector and traditional leaders. Quarterly meetings are held to provide an update on climate change and disaster risk management activities in country and those abroad, which may have bearing on the Cook Islands. The progress of the Country Programme will be reported to the Platform on a quarterly basis for open dialogue.  **Yearly GCF Stakeholder Workshop**  In order to keep the main stakeholders at the same level of information on the GCF, the NDA will organise a yearly stakeholder information workshop. This workshop will be an opportunity to:   * Present an update on climate change issues including the GCF, status of the project funding globally and any developments of interest to the Cook Islands; * To present the status of climate change projects in the Cook Islands: projects funded, project proposed for funding, including those proposed to and supported by GCF funding; * To discuss any other issues related to climate change including development partner, Adaptation Fund and GCF processes in country.   **CCCI Website, Facebook, Instagram and Twitter**  The internet is an important and effective tool for information dissemination. Regular updates will be posted online, in order to keep climate change alive in people’s mind and inform on any important issues; opportunities or events; and climate finance information, including Adaptation Fund and GCF news and transparency requirements. | | | | |
| 1. **Indicative Financing/Cost Information (max. 3 pages)** | | | | |
| **C.1. Financing by components (max ½ page)** | | | | |
| *Please provide an estimate of the total cost per component/output and disaggregate by source of financing.*   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **Component/Output** | **Indicative cost**  **(USD)** | **GCF financing** | | **Co-financing** | | | | **Amount**  **(USD)** | **Financial Instrument** | **Amount**  **(USD)** | **Financial Instrument** | **Name of Institutions** | | PMU | 1,000,000 ⃰ | 800,000 | Grant | 200,000 | Ann. Budget | MFEM | | Sheraton Foreshore Project | 250,000 ⃰ ⃰ | 200,000 | Grant | 50,000 | Ann. Budget | MFEM | | LIDAR Mapping | 300,000 ⃰ ⃰ | 240,000 | Grant | 60,000 | Ann. Budget | MFEM | | **Indicative total cost** **(USD)** | 1,550,000 | 1,240,000 | | 310,000 | | |   *⃰ Funding for 5 years*  *⃰⃰⃰ ⃰ One off Project Cost* | | | | |
| **C.2. Justification of GCF funding request (max. 1 page)** | | | | |
| The Asian Development Bank (ADB) Outlook 2017, provides a positive picture on the Cook Islands, although noting that it must maintain prudent macroeconomic management against rising risks from economic and climate shocks. Strong growth in tourism, coupled with higher levels of public and private capital investment has equated to strong economic growth averaging 3.7 percent over the period 2011/12 to 2016/17. Nominal and real GDP growth is expected to remain positive in the coming years, though at lower levels, due to continued but slower growth in tourism and investment, both public and private.  The Cook Islands does however still require international support from multilateral and bilateral sources for capacity building, climate finance and technology transfer to reinforce its efforts to date. This should strengthen current programs, policies; regulations; develop and implement new initiatives; and fully assess and address the impacts of climate change.  *Explain why the Project/ Programme requires GCF funding, i.e. explaining why this is not financed by the public*  *and/ or private sector(s) of the country.*  *Describe alternative funding options for the same activities being proposed in the Concept Note, including an analysis*  *of the barriers for the potential beneficiaries to access to finance and the constraints of public and private sources of*  *funding.*  *Justify the rationale and level of concessionality of the GCF financial instrument(s) as well as how this will be passed on*  *to the end-users and beneficiaries. Justify why this is the minimum required to make the investment viable and most efficient considering the incremental cost or risk premium of the Project/ Programme (refer to Decisions B.12/17; B.10/03; and B.09/04 for more details). The justification for grants and reimbursable grants is mandatory.* | | | | |
| **C.3. Sustainability and replicability of the project (exit strategy) (max. 1 page)** | | | | |
| To effectively monitor and evaluate implementation of the Country Programme, the Cook Islands will develop a Monitoring and Evaluation Framework based on “THE COOK ISLANDS CLIMATE CHANGE COUNTRY PROGRAMME COORDINATION FRAMEWORK” (attached at Appendix D). The framework will emphasise on regular monitoring and periodic in-depth evaluation to ensure that expected outputs, outcomes and impacts are achieved.  The NDA – Climate Change Cook Islands will drive the monitoring and evaluation of the Country Programme. The Country Programme will be reviewed periodically to take on board new and emerging issues related to climate change and its impacts on the Cook Islands. 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. | | | | |
| 1. **Supporting documents submitted (OPTIONAL)** | | | | |
| Map indicating the location of the project/programme  Diagram of the theory of change  Economic and financial model with key assumptions and potential stressed scenarios  Pre-feasibility study  Evaluation report of previous project  Results of environmental and social risk screening | | | | |

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

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **THE COOK ISLANDS CLIMATE CHANGE COUNTRY PROGRAMME COORDINATION FRAMEWORK** | | | | | | | |
| **Step 1: The Coordination Structures** | | | | | | | |
| **STRATEGIC OBJECTIVES** | **DESCRIPTION OF ACTIONS** | **RESPONSIBILITY** | | **1 YEAR** | **2-4 YEARS** | **> 5 YEARS** | **INDICATOR** |
| 1.1 Strengthen tracking and accountability systems of climate finance | Promote transparency and accountability in climate finance flows and expenditure | MFEM (Treasury and DCD)  CCCI | |  |  |  | 1. # of institutions tracking climate finance 2. Develop a system of checks and balances for monitoring climate finance flows 3. Develop a format for M&E and reporting |
| Effective institutional arrangement for managing, monitoring and coordinating climate finance, including clear roles and responsibilities for different actors | CCCI  MFEM (Treasury and DCD) | |  |  |  | Six monthly performance dashboard |
| Coordinate with other agencies/ministries and ensure that climate finance is integrated into budgeting and planning processes as an important starting point for tracking and reporting climate finance across the various sectors and at the national level | CCCI  MFEM (Treasury and DCD) | |  |  |  | Mainstreamed climate finance in country planning processes |
| 1.2 Improve mechanisms for prioritising project pipeline development of programmatic priority areas | 1. Facilitate and support a structured dialogue involving all relevant stakeholders to discuss the Country Programme 2. Work closely with private sector with clear green growth plans in developing projects 3. Map out identified projects which will need climate finance to unlock stagnation | CCCI | |  |  |  | 1. # of projects included in the pipeline  2. Pre-identified scope of focus by CCCI/NDA |
| Document simple guidelines and process to aid potential organisations | CCCI | |  |  |  | # of guidelines produced |
| Targeted awareness creation, orientation and relevant training for interested organisations | CCCI  MFEM (DCD) | |  |  |  | # of trainings and trained personnel |
| Identify opportunities for co-financing | CCCI  MFEM (Treasury and DCD) | |  |  |  | # of projects successfully implemented through collaboration |
| 1.3 Strengthen co-financing mechanisms at all levels | Identify opportunities to add value by co-financing projects and programs together with GCF, Adaptation Fund, GEF, ADB and other regional and multilateral organisations, and bi-lateral development partners | CCCI  MFEM (DCD) | |  |  |  | 1. Amount of money allocated for co-financing 2. # of co-financed projects |
| 1.4 Strengthen collaboration/partnership mechanism between all stakeholders to support implementation of the proposed actions in implementing the Country Programme | Implement this Strategy Coordination Framework | CCCI (lead)  All relevant stakeholders | |  |  |  | # of successful actions proposed in the Country Programme |
| Identify and build capacity of relevant staff where project implementation occurs | CCCI (lead)  All relevant stakeholders | |  |  |  | 1. # of capacity building trainings 2. # of personnel whose capacity has been built |
| 1.5 Initiate and enhance engagement with the Private Sector | Increase engagement with the Private Sector in contributing to climate resilience and low emission investment and potential funding modalities | CCCI  Private Sector | |  |  |  | # of projects involving the private sector |
| 1.6 Strengthen the CCCI/NDA’s technical capacity to monitor and evaluate projects and programmes funded through climate finance | Train staff in proposal development, programme design and project management cycle | CCCI | |  |  |  | # of staff trained on proposal and concept note formulation |
| **Step 2: Partnerships and Co-financing** | | | | | | | |
| 2.1 Strengthen partnerships amongst AEs, development partners and relevant EEs | 1. Availability of CCCI/NDA services 2. Publication of climate finance information online 3. Bi-annual climate finance roundtable | CCCI  MFEM (DCD) |  | |  |  | # of engagements |
| 2.2 Establish an information platform that informs and monitors the performance and progress of project development, execution and impact | Regularly publish online information on climate change and climate change financing in the Cook Islands including projects and contacts amongst others | CCCI |  | |  |  | Updated website |
| 2.3 Raise awareness of potential co-financing in non-state actors | 1. Establish Technical Assistance team to guide on how to access co-financing 2. Organise annual workshop on climate finance | CCCI  MFEM (Treasury and DCD) |  | |  |  | # of secured co-financed projects |
| 2.4 Improve engagement between CCCI/NDA and external stakeholders | Keep stakeholders engage in the process through regular communication, platform meetings, community meetings, etc. | CCCI  All relevant |  | |  |  | Feedback on engagement survey results |
| 2.5 Promote engagement of the private sector in financing and implementing the paradigm shift towards low emission and climate resilient development pathways | Raise awareness about support provided by GCF, Adaptation Fund, etc. for private sector to access its resources | CCCI  Private Sector  CSOs |  | |  |  | 1. # of CSOs, private entities that have benefitted from climate change financing 2. # of projects in private sector, CSOs |
| Raise awareness about co-financing opportunities at different levels |  | |  |  | 1. # of approved projects 2. # of co-financers and sources |
| 2.6 Strengthen knowledge management mechanisms to enable key stakeholders to access, manage and exchange information | Strengthen the Climate Change and Disaster Risk Reduction Platform to align and coordinate implementation of the Country Programme and Coordination Framework | CCCI  Relevant Stakeholders |  | |  |  | # of stakeholder meetings |
| **Step 3: Technical Capacity of Stakeholders** | | | | | | | |
| 3.1 Strengthen knowledge generation, management and sharing amongst stakeholders | Building the institutional and technical capacity on monitoring, verification and reporting | CCCI  MFEM (DCD) |  | |  |  | 1. M&E framework 2. M&E report |
| Capturing lessons learnt, success stories, impacts etc. | CCCI  MFEM (DCD) |  | |  |  | # of newsletters, brochures, pamphlets, etc. disseminated |
| Training of project implementers on capturing measuring, analysis and reporting data | CCCI  MFEM (DCD) |  | |  |  | # of trainings undertaken |
| 3.2 Strengthen the capacity of stakeholders to mobilise, engage, collaborate with key players and create partnerships | Sensitise the stakeholders on the Climate Change Policy and Country Programme | CCCI  MFEM (DCD) |  | |  |  | # of partnerships and collaborations |
| 3.3 Build the capacity of staff in national Accredited Entities and Executing Entities to develop bankable climate change project proposals | Establish a Technical Assistance Team to guide proponents | CCCI  MFEM (DCD) |  | |  |  | Technical Assistance team established under CCCI |
| 3.4 Strengthen private sector capacity to support the implementation of the Climate Policy, Investment Strategy and GCF Country Program | Provide support to the private sector on development of climate change project proposals and concept notes | CCCI  MFEM (DCD) |  | |  |  | 1. # of proposals approved 2. Co-financing mobilized 3. # of projects implemented |

1. Concept notes (or sections of) not marked as confidential may be published in accordance with the Information Disclosure Policy ([Decision B.12/35](http://www.greenclimate.fund/documents/20182/184476/GCF_B.12_32_-_Decisions_of_the_Board___Twelfth_Meeting_of_the_Board__8_10_March_2016.pdf/020edfa1-53b2-4abf-af78-fccf5628db2a)) and the Review of the Initial Proposal Approval Process ([Decision B.17/18](http://www.greenclimate.fund/documents/20182/751020/GCF_B.17_18_-_Review_of_the_initial_proposal_approval_process.pdf/559e7b1c-7f34-44dd-9eff-8fa235714312)). [↑](#footnote-ref-2)
2. See [here](http://www.greenclimate.fund/gcf101/funding-projects/project-preparation/#step-2-submit-a-ppf-application) for access to project preparation support request template and guidelines [↑](#footnote-ref-3)
3. Refer to the Fund’s environmental and social safeguards ([Decision B.07/02](http://www.greenclimate.fund/documents/20182/24943/GCF_B.07_11_-_Decisions_of_the_Board_-_Seventh_Meeting_of_the_Board__18-21_May_2014.pdf/73c63432-2cb1-4210-9bdd-454b52b2846b)) [↑](#footnote-ref-4)
4. 2nd National Communication under the UNFCCC, 2011 [↑](#footnote-ref-5)