

Concept Note

Project/Programme Title: **Infrastructure Adaptation and Resilience Programme:
Roading, Structures and Drainage**

Country(ies): **Cook Islands**

National Designated
Authority(ies) (NDA): **Climate Change Cook Islands**

Accredited Entity(ies) (AE): **Ministry of Finance and Economic Management**

Date of first submission/
version number: 2019-02-18 [V.1]

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Notes

- The maximum number of pages should **not exceed 12 pages**, excluding annexes. Proposals exceeding the prescribed length will not be assessed within the indicative service standard time of 30 days.
- As per the Information Disclosure Policy, the concept note, and additional documents provided to the Secretariat can be disclosed unless marked by the Accredited Entity(ies) (or NDAs) as confidential.
- The relevant National Designated Authority(ies) will be informed by the Secretariat of the concept note upon receipt.
- NDA can also submit the concept note directly with or without an identified accredited entity at this stage. In this case, they can leave blank the section related to the accredited entity. The Secretariat will inform the accredited entity(ies) nominated by the NDA, if any.
- Accredited Entities and/or NDAs are encouraged to submit a Concept Note before making a request for project preparation support from the Project Preparation Facility (PPF).
- Further information on GCF concept note preparation can be found on GCF website [Funding Projects Fine Print](#).

A. Project/Programme Summary (max. 1 page)			
A.1. Project or programme	<input type="checkbox"/> Project <input checked="" type="checkbox"/> Programme	A.2. Public or private sector	<input checked="" type="checkbox"/> Public sector <input type="checkbox"/> Private sector
A.3. Is the CN submitted in response to an RFP?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, specify the RFP: _____	A.4. Confidentiality¹	<input type="checkbox"/> Confidential <input checked="" type="checkbox"/> Not confidential
A.5. Indicate the result areas for the project/programme	<p>Mitigation: Reduced emissions from:</p> <input type="checkbox"/> Energy access and power generation <input type="checkbox"/> Low emission transport <input type="checkbox"/> Buildings, cities and industries and appliances <input checked="" type="checkbox"/> Forestry and land use <p>Adaptation: Increased resilience of:</p> <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		
A.6. Estimated mitigation impact (tCO₂e over lifespan)	To Be Determined	A.7. Estimated adaptation impact (number of direct beneficiaries and % of population)	13,007 (2016 census population of Rarotonga, 74.6% of Cook Island total population)
A.8. Indicative total project cost (GCF + co-finance)	Amount: USD 69.36m	A.9. Indicative GCF funding requested	Amount: USD 50.15m
A.10. Mark the type of financial instrument requested for the GCF funding	<input checked="" type="checkbox"/> Grant <input type="checkbox"/> Reimbursable grant <input type="checkbox"/> Guarantees <input type="checkbox"/> Equity <input type="checkbox"/> Subordinated loan <input checked="" type="checkbox"/> Senior Loan <input type="checkbox"/> Other: specify _____		
A.11. Estimated duration of project/ programme:	Disbursement: +/- 8 years	A.12. Estimated project/ Programme lifespan	100+ years (ongoing)
A.13. Is funding from the Project Preparation Facility requested?²	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Other support received <input type="checkbox"/> If so, by who: _____	A.14. ESS category³	<input checked="" type="checkbox"/> A or I-1 <input type="checkbox"/> B or I-2 <input type="checkbox"/> C or I-3
A.15. Is the CN aligned with your accreditation standard?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	A.16. Has the CN been shared with the NDA?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
A.17. AMA signed (if submitted by AE)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If no, specify the status of AMA negotiations and expected date of signing: _____	A.18. Is the CN included in the Entity Work Programme?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
A.19. Project/Programme rationale, objectives and approach of programme/project (max 100 words)	<p>The rationale, objectives and approach of the Roothing, Structures and Drainage Adaptation and Resilience Programme</p> <p>Climate Change is a significant threat to all island nations in the Pacific and elsewhere. The Cook Islands are extremely vulnerable to both slow and fast-onset events as a result of current and anticipated climate changes. This vulnerability is intensified by current socio-economic, infrastructure and environmental constraints/pressures on the respective islands which make up the Cook Islands.</p>		

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

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

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

Assistance is sought for the development and implementing of strategies, policy and standards as well as practical measures, including management, human and physical infrastructure, to support the required adaptation of the Cook Islands in terms of understanding, and then responding appropriately to the impacts of climate change.

The objective of the proposal is to build on and expand the current asset management and physical development of critical roading, structures and drainage infrastructure in the Cook Islands, to ensure that this infrastructure is suitable for the future needs of the community and is adapted to mitigate the impacts of climate changes and ensure resilient infrastructure that supports the socioeconomic and environmental goals of the Cook Islands.

This project will have two main programme streams:

- Strengthen and implement key change in existing institutions, through a development framework including human resources, policy, standards, sourcing and managing technical capabilities and information to change the way in which development is undertaken in the Cook Islands and mitigate the climate change impacts, and
- Reduce vulnerability by adaptation & construction of strategic physical infrastructure assets to improve community resilience to climate impacts, emergency response and access.

The implementation approach is to integrate the work streams into the current infrastructure and institutional structure, with appropriate support and a *'shift in thinking and the way things are done'* to achieve the programme goals and outcomes. This will ensure that these new approaches to the adaptation and resilience of infrastructure and development in the Cook Islands become core business in both the government and private sectors, and are sustainable for the long term.

The implementing partners for this programme are represented within the infrastructure sector and include the Infrastructure Committee, Office of the Prime Minister, Climate Change Cook Islands, Ministries of Financial and Economic Management, National Environment Service, Emergency Management Cook Islands, Pa Enua Governments, Communities (including the private sector) and Infrastructure Cook Islands. The executing entity for the Infrastructure Adaptation and Resilience Programme: Roding, Structures and Drainage will be Infrastructure Cook Islands.

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

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

Context and baseline

The Cook Islands consists of 15 small islands scattered over 2 million square kilometres of the Pacific Ocean lying between Fiji (2,300km to the west, French Polynesia (1,140km to the east and Hawaii (4,730km to the north). The islands are divided geographically into seven low lying atolls in the Northern group and a Southern group of raised atolls (3) and volcanic islands (5). The Southern Group of islands lie within 300km of Rarotonga. However the Northern Group islands is some 1,250 kms from the capital – are very remote, low lying, sparsely populated with very little arable land. For some of the remote islands the loss of population by urbanization pressures is a significant threat to their sustainable development.

Approximately sixty per cent of the total land area in the Cook Islands is covered in forest, both primary and regenerating secondary. Extensive forestry operations have ceased and this has maintained a relatively stable coverage in the marginal and steep escarpment areas of the islands. However, over the years there has been progressive removal of forest in the lower slopes of islands, mostly for plantations, infrastructure, commercial, tourism and housing development. Of the approximate 240 square kilometres of land, 26.2 % is makatea land (lime and rock), and only 4.3 % is used for agricultural purposes. The balance or approximately 70 % are mostly marginal lands: steep sloping lands, wetlands, fern lands and escarpments. Over 70 % of the land in the Cook Islands is not suited to agriculture or urban development use due to steep slopes, marginal soils, escarpments, wetlands or drainage.

The volcanic based southern islands typically have very steep and incised central escarpments, with very narrow coastal plains at the base of the mountains. The coastal plains accommodate villages, subsistence and intensive agriculture, infrastructure, urban centres and industry. The central marginal lands with their native biodiversity however do play a significant part in the ground water retention and the hydrological cycle. The northern island groups are dominated by lower lying atolls, often a series of interconnected islets about a lagoon. Land and soils are extremely limited.

Over the years, improper and mostly uncontrolled development has occurred in environmentally sensitive areas such as the immediate foreshores, sloping lands and wetlands. As land space is at a premium, pressures on these more sensitive areas has heightened to the point where it is resulting in increased incidents of human health impacts and stress on natural ecosystems as well as public infrastructure. There is mounting community and government concern about the increasing risks of land degradation and the ability of infrastructure to support growth and development as a result of unchecked development, including, tourism, housing, and the infrastructure itself.

Changes in climatic conditions such as rising temperatures, sea level rise and increased rainfall variability are making both direct and indirect impacts on communities and their environments across the Cook Islands, through impacts on natural resources and public infrastructure that form the key systems which support human health and livelihoods, thus increasing community vulnerability.

In the southern volcanic island groups, including the capital island Rarotonga, the streams are numerous and drain rapidly outwards from the steep interior, which rises to peaks of more than 600 meters above sea level. Problematic local flows on the coastal plains are often from concentration of surface run-off from poor development form and infrastructure which has not been designed to accommodate the increase in rainfall intensity attributed to ongoing climate change impacts. Wet season rainfall accounts for about two thirds of the average annual rainfall of between 1255 mm and 2122 mm. The wet season is also the cyclone season, which brings with it torrential rainfall from storm events. There are often adverse impacts on key infrastructure including the water supply, scouring of drainage networks, erosion and sedimentation from disturbed soils concentrating debris to form blockages of streams and drainage infrastructure.

Uncontrolled development particularly of wetland areas, secondary flow paths and flood plains, or their modification is causing interruptions to the normal surface and subsurface flows of water through the catchments. Blockages or diversions are leading to flooding of low-lying areas and other environmental problems along the foreshore and lagoon as a result of the loss of these areas and functions.

Coastal erosion and inundation is also linked to climate change through rising temperatures, sea levels and rainfall. This has an effect on coral reef systems as well as other factors such as inland deforestation, erosion and resulting sedimentation affecting lagoon and coral health. In the pacific islands, this coastal erosion and inundation has the potential to become life threatening in areas with coral cays and low lying atolls, as significant amount of sand and soil are eroded away or inundated, as well as deterioration of the coral reefs themselves impacting the sustainability of life on these islands.

Problems associated with land use, development and management including, changes to the landscape, soil dynamics and properties, as well as infrastructure development have never before been addressed strategically from the national level in an integrated manner.

This programme looks to address the above issues in terms of implementing a frame work to support development controls and sustainable land use and management while adapting critical public infrastructure including roading, the associated structures and drainage infrastructure to mitigate the impacts of, and improve infrastructure and community resilience to the impacts of climate change.

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

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

The road network and associated infrastructure such as drainage channels, culverts, bridges and other structures provide the means for the transportation of goods and services upon which the economic, social and environmental development of the country is critically dependent. Rising seas and rainfall intensity as a result of climactic change are a major threat to this infrastructure and the damage or loss of this infrastructure would have a severe impact on the quality of life of the population and quite possibly on the future of the Cook Islands.

There are 4 key areas which will be addressed to protect and preserve current critical public and private infrastructure including putting in place a frame work to manage the impacts of climate change and development in the Cook Islands into the future. These include:

- Sustainable land Management – Development and implementation of essential changes to current land use and development practices by establishing an integrated framework (policy, standards, regulation, capacity and capability) to address the ongoing development of the Cook Islands while addressing the current and future impacts of climate change in a sustainable environmental, social and economic manner.
- Road Network – Adaptation and construction to be resilient to the current and future impacts of climate change, fit for purpose and facilitating safe passage and connection of communities, goods, services and people.
- Road Structures (bridges and structures such as sea walls etc.) – Adaptation and construction to be resilient to the current and future impacts of climate change, fit for purpose and facilitating safe passage and connection of communities, goods, services and people.
- Catchment Management and stormwater drainage systems and water quality – Adaptation and construction to be resilient to the current and future impacts of climate change fit for purpose and environmentally sustainable.

Climate Change Impact – Uncontrolled land development

The Cook Islands and Rarotonga in particular, has been and is still undergoing significant change as more and more people either settle on, or visit the islands. This as described above has led to a significant increase in the development of land and changes in land use, this has generally been in a relatively uncontrolled manner and has not been integrated across the environment and infrastructure sectors. This in turn has had an adverse effects on natural systems and the capability of infrastructure systems to manage and deliver required levels of services. Examples include the loss of natural drainage courses and infilling of natural 'holding areas'. The ad hock location and development of private /public roads.

Climate Change Impact – Sea Level Rise

Sea level is expected to continue to rise in the Cook Islands. By 2030, under a high emissions scenario, this rise in sea level is estimated to be in the range of 4-15 cm. The sea-level rise combined with the natural year to year change will increase the impact of storm surges and coastal flooding. Current observed impacts are flooding of low-lying areas, inundation, foreshore erosion and sedimentation of lagoons. As the sea level rises and storm surges intensify, building the resilience of coastlines, coastal infrastructure and shoreline ecosystems is essential.

Coastal erosion and inundation is already a severe issue with some major works already completed along the northern and south western foreshore of Rarotonga including at Avarua and at the airport as well as a number of the Pa Enuu. However, there are a number of other locations in Rarotonga and the Pa Enuu which are experiencing significant erosion and inundation which will be further exacerbated by climate change impacts. In some places, this is impacting on private land, businesses and government assets. A key example of this is Rarotonga's main strategic road, Ara Tapu and the associated reticulated services located within this road corridor. Ongoing erosion has reduced the land mass between Ara Tapu and the coast in a number of locations. This has significantly reduced the protection provided to this key infrastructure and in identified location this is less than 5m which is identified as potential erosion from a single event. Further to this erosion is the impact of inundation which limits the use and safety of key infrastructure.

Climate Change Impact – Intensity of Rainfall

Average annual and seasonal rainfall is generally projected to increase over the course of the 21st century for the Southern Islands. The projected intensification of the South Pacific Convergence Zone may mean that it will be drier in the North. Model projections show extreme rainfall days are likely to occur more often throughout the Cook Islands. These projections have significant implications for water and sanitation services, as well as stormwater, drainage and flood management. Concerns for water supply include damage to infrastructure from flooding, loss of water sources due to declining rainfall and increasing demand, changes in the water quality of sources and changes within distribution. Notwithstanding the effect of water quality being discharged into the lagoons, particularly Rarotonga where the lagoon is a massive contributor and driver of the tourist industry which is critical to the sustainability of the Cook Islands economy.

Flood management will be essential for the southern group, particularly with Rarotonga already suffering impacts of damage to infrastructure services and ecosystem from recent extreme rainfall events. Sanitation will also require attention. Droughts may impact on sanitation practices as water resources are stressed, while flood concerns include loss and damage to stormwater infrastructure and its ability to facilitate increased flows from increased rainfall intensity and development pressure while there is reduced absorptive capacity of land and lagoons to assist with providing environmental sustainable stormwater outcomes.

Programme Description

The identified 4 key areas which this programme will address have a number of actions which have been identified to enable the mitigation of impacts and adaptation of infrastructure relative to climate change.

Sustainable land Management

- Review of current legislation and choices for land use planning in terms of advocacy work, legislative platforms, policy, guidelines and best practices.
- Link land use policy and planning system development to other spatial orientated initiatives such as the creation and enhancement of protected areas in the Cook Islands.
- Land use planning and development to include an integrated approach to the environmental, social and economic outcomes.
- Land use planning and development should consider a socio-economic analysis of the local communities - their needs; existing community practices, and the application of local traditional practices in the locality.
- Legal provisions should enable the government and communities to adopt certain policies, guidelines and practices related to occupation, continued use, land management and environmental protection.
- Land use planning system development needs to include provisions for integrated local area plans (ILAPs) developed at the local village levels.
- The adoption of appropriate land use policy for urban areas, rural areas as well as remote and less populated islands;
- The adoption of suitable soil conservation measures, laws or regulations;
- Laws and/ regulations to protect lands yet unaffected by degradation and of high potential use for agriculture and rural development;
- Laws, regulation or policies to introduce early warning systems, that enable regular monitoring and evaluation of development activities related to the use and management of land, versus the status of ecosystems.
- Data collection including digital mapping (LIDAR or similar technology) which will assist in determining pressure points and future options and planning for managing the effects of climate change.

Road Network

Adaptation of the road infrastructure to address impacts of climate change. Including;

- Development and improvement of the outer main road Ara Tapu on Rarotonga as a key strategic route for social and economic development of the Cook Islands;
 - Provide resilient network which is capable of tolerating increased environmental pressures and climactic events due to the changing climate.
 - Provision of emergency response and access to communities during emergency events.
 - To provide for the long term transportation and access needs of Rarotonga.
 - Adaptation of the network as required to mitigate the unavoidable impacts of climate change such as erosion, sea level rise and resulting inundation.

- Provision of road side drainage to prolong the life of transport assets and protect from the effect of increased intensity rainfall and associated surface water as a result of climate change.
- Implementation and enforcement of road design and construction standards to ensure that new and altered infrastructure is resilient to the impacts of climate change.
- Improved asset management of existing infrastructure to ensure it is operating at required levels of service
- Development and improvement of the inner road Ara Metu and associated link roads on Rarotonga as an alternative route;
 - to provide emergency response and access to communities during emergency events.
 - To provide for the long term transportation needs of Rarotonga as the impacts of climate change affect the use and suitability of the main road.
 - Construction of new roads to provide connection between sections of the inner road and provide an alternative routes from the main road improving community resilience.
 - Provision of sealed pavements and road side drainage to prolong the life of transport assets and protect from the effect of increased intensity rainfall and associated surface water as a result of climate change.
 - Implementation and enforcement of road design and construction standards to ensure that new and altered infrastructure is appropriate and resilient to the impacts of climate change.
 - Improved asset management of existing infrastructure to ensure it is operating at required levels of service.
 - Undertake significant improvements to the link roads between Are Tapu and Are Metua to enable road users to access the inner road.
- Development and improvement of the road networks on the Pa Enuā including;
 - Provision of sealed pavements and road side drainage to prolong the life of transport assets and protect from the effect of increased intensity rainfall and associated surface water effects as a result of climate change.
 - Implementation and enforcement of road design and construction standards to ensure that new and altered infrastructure is appropriate and resilient to the impacts of climate change.

Road Structures (bridges and structures)

Adaptation of the road structures to address impacts of climate change. Including;

- Adaptation and construction of bridges and structures in the Cook Islands to;
 - Provide resilient network which is capable of tolerating increased environmental pressures and climactic events due to the changing climate.
 - Strengthen critical infrastructure to provide resilience and enable provision of emergency response and access to communities during natural disaster events.
 - To provide for the long term transportation and access needs of Rarotonga.
 - Adaptation of the infrastructure required to mitigate the unavoidable impacts of climate change such as sea level rise, sea surge, increased flow capacity and the interaction of inland and coastal waters on infrastructure and resulting impacts.
 - Provision of flood management and attenuation
 - Implementation and enforcement of bridge and structure design and construction standards to ensure that new and altered infrastructure is appropriate and resilient to the impacts of climate change.

Catchment Management and stormwater drainage systems

- Undertake catchment management planning
- Increase in stormwater infrastructure capacity due to increased rainfall intensity and altered frequency.
- Stormwater quality improvements through provision of attenuation and treatment options
- Stormwater quantity reduction through development controls and management of catchments pre and post development flows
- Protection of critical stormwater attenuation and treatment land such as swamp lands.
- Restriction on the development of flood plains and secondary flow paths.
- Improved asset management of existing infrastructure to ensure it is operating at required levels of service

These activities will focus on infrastructure and asset rehabilitation and improvement, development of alternatives as well as institutional strengthening. This will enable the impacts of climate change to be pro-actively managed into the future and that critical transport infrastructure is suitable for the on-going impacts of Climate change

The GCF is directed to make a significant and ambitious contribution to the global efforts towards attaining the goals set by the international community to combat climate change, and promoting the paradigm shift towards low-emission and climate-resilient development pathways by limiting or reducing greenhouse gas emissions and adapting to the impacts of climate change.

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

As noted previously the proposed development, adaptation and improved resilience of roading, associated structures and drainage infrastructure is supported through various strategic national documents such as:

- The National Sustainable Development Plan (NSDP) 2016-2020; JNAP II – Are We Resilient?
- The Cook Islands 2nd Joint National Action Plan (JNAP) – A sectoral approach to Climate Change and Disaster Risk Management 2016-2020;
- Intended Nationally Determined Contribution (INDC) 2015;
- Second National Communication to the UNFCCC 2011;
- Cook Islands National Infrastructure Investment Plan 2015 – 2025;
- Individual Island Community Development Plans;
- Cook Islands State of the Environment Report 2017;
- Cook Islands Climate Change Country Programme 2018-30
- Cook Islands Infrastructure Road Asset Management Programme 2018-2023

The integrated approach will address these issues in terms of implementing a frame work to support development controls and sustainable land use and management as a *'shift in thinking and the way things are done'* while also adapting critical public infrastructure including roading, the associated structures and drainage infrastructure to achieve the programme goals and outcomes. This will ensure that these new approaches to the adaptation and resilience of infrastructure and development in the Cook Islands become core business in both the government and private sectors, and are stainable for the long term.

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

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

The CI Country Programme has been developed over a number of years and has included liaison with 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.

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 frequent stakeholder information workshops as 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 and programme 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.

Community Website, Facebook, Instagram and Twitter platforms

The internet is an important and effective tool for information dissemination. It is intended that 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.

Engagement among relevant stakeholders

This concept idea has been prepared under GCF programme with continued engagement with Climate Change Cook Islands. The further development of this concept into a fundable programme will demand continual engagement and collaboration between the sector stakeholders. This will be achieved at various levels: overall guidance by the national Infrastructure Committee, with support from the infrastructure sector, Climate Change Cook Islands of the Office of the Prime Minister as the National Designated Authority and the Ministry of Financial and Economic Management as the Accredited Entity. Dedicated capacity will be sourced to develop this concept further and this capacity will report to the Project Management committee. The final programme will be the output of the national sector and will be finalised through engagement and workshops with all stakeholder groups. Preparation funding support will be required for this stage.

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

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

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

Component/Output	Indicative cost (USD)	GCF financing		Co-financing		
		Amount (USD)	Financial Instrument	Amount (USD)	Financial Instrument	Name of Institutions
GCF Programme preparation	102,000.00	68,000.00	Grant	34,000.00	National Budget	MFEM
Programme & Project Management	612,000.00	476,000.00	Grant	136,000.00	National Budget	MFEM
Sustainable land development and catchment management; Data capture, Policy, regulation and implementation as an integrated Government and community approach.	3,400,000.00	2,720,000.00	Grant	680,000.00	National Budget	MFEM
Adaptation & construction of strategic roads to improve community resilience to climate impacts, emergency response and access.	33,204,400.00	23,684,400.00	Grant	9,520,000.00	National Budget	MFEM
Adaptation & construction of bridges and structures to improve community resilience to climate impacts, emergency response and access.	20,889,600.00	15,449,600.00	Grant	5,440,000.00	National Budget	MFEM
Adaptation & construction of drainage systems and structures to improve resilience to climate impacts, mitigation of flooding and environmental and health impacts of storm water.	11,152,000.00	7,752,000.00	Grant	3,400,000.00	National Budget	MFEM
Indicative total cost (USD)	69,360,000.00	50,150,000.00		19,210,000.00		

Note: The above funding is based on an 8 year implementation program.
Basis of currency exchange rate 1 NZD = 0.68 USD

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

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.

In the case of private sector proposal, concessional terms should be minimized and justified as per the Guiding principles applicable to the private sector operations (Decision B.05/07).

Justification of GCF funding

This adaptation and resilience programme is a significant undertaking for the Cook Islands which is required to implement the described key institutional changes and physical implementation of the adaptation required to improve community resilience to climate change impacts, emergency response and access for the community.

Despite the current positive economic picture and continued growth expected in the Cook Islands and based on ongoing prudent macroeconomic management against rising risks from economic and climate shocks. The Cook Islands due to its size both geographically and population, remoteness and relative economic capacity is unable to fund and undertake the required climate change adaptation program within its own capacity. As such international support from multilateral and bilateral sources for capacity building, climate finance, physical implementation and technology transfer is required to deliver this programme and to reinforce the Cook Islands ongoing development efforts to date. This support will strengthen not only the physical infrastructure to the impacts of climate change but also establish policies; regulations; and develop and implement new initiatives to ensure that the ongoing impacts of climate change are managed in a sustainable long term manor and fully assess and address the impacts of climate change.

The Cook Islands Government and community contributions will include funding contributions as well as project implementation of on-going land and development management to improve development and infrastructure outcomes. The Cook Islands have committed to implementing sustainable climate change adaption in conjunction with international support and funding to achieve the required interventions.

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

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

Program implementation sustainability

To effectively monitor and evaluate implementation of the Country Programme, and this specific GCF programme the Cook Islands will develop a Monitoring and Evaluation Framework based on "THE COOK ISLANDS CLIMATE CHANGE COUNTRY PROGRAMME COORDINATION FRAMEWORK". 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.

The key to ensuring the sustainability and replicability of the project will rely on 5 key outcomes:

1. Obtaining the best base data for each element – Flood maps; road conditions; structures analysis
2. Determining the most critical aspects – set up prioritisation systems based on risk (socially, financially and environmentally), practicality, buildability, innovativeness
3. Setting up robust, consistent programmes of work – 3 year, 5 year and/or 10 year plans
4. Engaging with the private sector both on and off shore to deliver the programmes – contracting parties for terms (e.g. 3 years) to deliver a range of activities.
5. Continuous interaction with stakeholders and reporting

All road, drainage and structural assets can be treated in the same way, it is the execution of works which may differ according to the particular asset type. Once the project management team is confident with its base information then it can undertake critical analysis of that information to determine the most beneficial and suitable actions to be implemented.

Projects can then be set up as an individual task or as a group of tasks – e.g, road maintenance; road improvement; structures improvement etc. and then allocated to budget heads or lines within a budget group. ICI project management systems will ensure that reporting is carried out in much the same way as they do now – monthly work progress, financial tracking and budget management.

Setting up and maintaining the project management system and structure is critical to ensure transparency on how projects are developed and implemented and the system will provide continuity and consistency in the way schemes are initiated, developed, procured and completed. Feedback to the key stakeholders – NDA, OPM, CIIC and others - will be via the Platforms and Workshops outlined in the previous section.

The likelihood is that there will be numerous tasks that can be done under this funding and the development of the 3,5 and 10 year plans will ensure that there is a continuous forward works programme to meet the outcomes and objectives of this program. It is of course critical that ICI work closely with other agencies (NDA, CIIC, OPM, ESA, MFEM) to ensure that there is a continuous information cycle and support mechanism for securing funds and meeting GCF requirements and conditions.

Longterm programme and output sustainability

A key aspect of this programme is the development of sustainable integrated land management systems, policy and legal framework, operation and maintenance systems, establishment and training of Island Government staff and local communities in the operation, monitoring and maintenance of infrastructure. The systems will include regular day-to-day management, disaster response, information collection and sharing resulting in sustained infrastructure security, resilience and response to improve the longterm livelihoods of the people of the Cook Islands.

Key to this sustainability objective is a project to establish a frame work for sustainable land management and development within the infrastructure and environment sectors of government and the community. Infrastructure Cook Islands and the National Environment Service will play a key roles in establishing and implementing this framework including co-ordination, monitoring and assistance to the community, Government, and sector stakeholders both public and private. with an Integrated Water Resource Management system for the islands.

Rather than establishing this institutional frame work as additional processes and bureaucracy the intention is to integrate it with current government systems, processes. In conjunction with the establishment and building of additional capacity, and capability to sustain this change in the way development and land management is undertaken building and operation in parallel to the projects implementation with the net result that at the end of this project this water setup will have been created and capacitated to provide sustainable, longterm overall management arrangements for the water sector in the Pa Enea. Monitoring Item

Due to the extreme isolation of the various islands these arrangements must integrate public, private and community interests, infrastructure and capabilities to optimise and build on available resources and not be a simple engineering implementation arrangement.

D. 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

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