

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

Title of Concept OR Project Idea:

Feasibility of a Water Sanitation for the populated Islands of the Cook Islands, starting with a 1 year pilot project on Atiu island, to establish a sanitizer unit to ensure ongoing clean drinking, cooking and bathing water for the entire island throughout the project lifespan.

Date of Submission: 26th October 2018

Submitted by and Contact: Bob Williams, CEO for Minister - Ministry of Health

<p>Indicate the areas for the Concept, which is based upon the CKI Country Program thematic areas</p>	<p><u>Mitigation:</u> Reduced emissions from:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Energy access and power generation <input type="checkbox"/> Low emission transport <input type="checkbox"/> Buildings, cities and industries and appliances <input type="checkbox"/> Forestry and land use <p><u>Adaptation:</u> Increased resilience of:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Most vulnerable people and communities <input checked="" type="checkbox"/> Health and well-being, and food and water security <input type="checkbox"/> Infrastructure and built environment <input checked="" type="checkbox"/> Ecosystem and ecosystem services
<p>Indicative total project cost</p>	<p>Amount: NZD _____1.0 million_____</p>

Project/Programme rationale, objectives and approach of programme/project (max 100 words)

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

The Cook Islands is vulnerable to extreme climate events such as increased flooding, lengthy drought periods, sea level rise, super cyclones and increased temperatures.

The objective of this project is to pilot the establishment of a mobile water sanitizer unit on Atiu island. It is anticipated that the mobile sanitizer is a feasible approach to reach all households and community water tanks on the island whilst awaiting the completion of the water gallery when it will be attached to the gallery.

The Ministry of Health through its sub-contract arrangement will lead this initiative which it hopes to replicate to all islands in the Cook Islands after one year of piloting on Atiu.

Context and baseline (max. 2 pages)

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

According to the IPCC emissions scenarios of low (B1), medium (A1B) and high (A2), for the years 2030, 2055 and 2090, the Cook Islands can expect more severe cyclones with less frequency. Increase in average maximum wind speed between 2% and 11% will severely devastate the fragile infrastructures and natural systems of these small islands. Global temperature increase under a high emissions scenario, ranging between 0.5-0.9 degrees Celsius in the north and 0.4-1.0 degrees Celsius in the southern Cook Islands will severely destroy the fragile coral reef systems of the whole of Cook Islands, given that the recent ocean warming in 2015/16 caused widespread coral bleaching across all of Cook Islands including clams in Manihiki and Penryhn. Frequency of such events will drastically reduce the recovery rate of coral reef systems and exacerbate their vulnerability. Increasing air temperatures and high precipitation are ideal breeding conditions for mosquitoes and expected to spike vector borne diseases besides water borne and heat related illnesses affecting mainly the elderly and younger children. Sea level rise predicted from 3-4mm per year will severely impact the livelihoods of low lying atoll communities. Scientists have also recorded the increased velocity of the easterlies within the last 20 years expected to generate stronger and higher wave actions. Already these communities are experiencing regular king tides and storm surge events causing crop damage, affecting drinking water holes, ecosystems, domestic dwellings and public infrastructures. Although the Cook Islands total global emissions is negligible at 00.00012%, the Cook Islands has taken great strides to do its fair share to reducing greenhouse gas emissions. According to the IPCC Report 2018, these events are predicted to exacerbate when global efforts to achieve the 1.5 temperature level fails.

The Cook Islands has a resident population of just over 14,000 (Census Report 2016) spread over 12 small islands with a land area of 236.7square kilometers and 1.8million square kilometers of the South Pacific ocean. Seventy five percent of the population is concentrated on mainland Rarotonga with the rest spread thinly across the other 11 inhabited islands. Livelihoods of the outer islands is very limited to small artisan activities for women, and family fishing and agriculture activities.

Given the thin spread of the population mainly of the elderly and young children, the capacity of the people on the islands to deal with the potential increasing effects of climate change is severely constrained.

The project

The Island of Atiu has a resident population of under 400 and has rundown old cement water tanks, new plastic water tanks and some new community water tanks. Atiu was nominated as the pilot island due to the fact that it has recently installed its water reticulation system. The plan is to establish a water gallery where the sanitizer will be attached to sanitize the water whilst in storage. Meanwhile, until the gallery is completed the

community and household water tanks will be sanitized individually via a mobile sanitizer unit. The project aims to ensure the sustainable supply of clean drinking, cooking and bathing water for the people of Atiu under this pilot program and eventually to be replicated to the rest of the Cook Islands.

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

The Cook Islands, National Vision articulated in Te Kaveinga Nui *"To enjoy the highest quality of life consistent with the aspirations of our people, and in harmony with our culture and environment"* with the National Sustainable Development Plan (NSDP) 2016-2020 been set up pursuant to this vision. All sector and government agencies planning are aligned to the 16 goals of the NSDP which are the national priorities. Goals 6 *'To improve access to affordable, reliable, sustainable modern energy and transport'* and 13 *'Strengthen resilience to combat the impacts of climate change and natural disasters'* both directly links to climate change mitigation and adaptation actions of this concept note whilst the remaining goals are all interlinked.

Furthermore, the Climate Change National Policy 2018-2028 Goal 2 states *'To strengthen resilience to the impacts of climate change through a coordinated, inclusive culturally appropriate adaptation and mitigation programme'* recognising inclusiveness of the vulnerable and adopting culturally appropriate climate actions mentioned in this concept note. Policy statement D also refers to *'build the resilience of socioeconomic ecological systems, including through economic diversification and sustainable management of natural resources'*. Policy statement E also recognises that *'participation of the private sector and civil society as significant aspects of achieving national climate change goals and to seek ways to incentivise their participation'*.

The Cook Islands Nationally Determined Contributions NDCs stresses the nation's intentions to explore further adaptation actions subject to financing opportunities and to further reduce its emissions through the transport sector.

The Cook Islands 2nd Joint National Action Plan 2016-2020, *'Are We Resilient'* adheres to *Strengthen climate and disaster resilience to protect lives, livelihoods, economic infrastructure, cultural and environmental assets in a collaborative sectoral approach'* all areas this project intends to address particularly targeting the vulnerable communities.

The Climate Change and National Health Adaptation Plan 2012, and the National Health Strategic Plan 2017-2021 articulates needs of strengthening health systems to build resilient communities.

The Cook Islands National Infrastructure Investment Plan 2015 mentions water supply and health amongst many other important areas for climate proofing and resilience development in Cook Islands.

The Cook Islands National Water Policy 2016 proposes that *'all the population has access to safe drinking-water'*, in this instance this pilot project will ensure the quality of water meets the required standards for human consumption and importantly, *'environmental protection'*.

The relationship of this concept note to national frameworks and priorities clearly identifies the urgency to move on this in order to adequately prepare these vulnerable communities to potential super cyclones and adverse impacts of climate change.

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

Social structures in the Cook Islands particularly of small island communities has largely changed since international travel became easily accessible to Cook Islanders. Mobility amongst the population contributed to depopulation of the islands, brain drain and disrupted traditional family units that many elderly are left on their own or with grandchildren whilst the working age have moved away seeking job opportunities. Many women have outlived their partners and hence there is a trend of women lead households emerging in the whole of Cook Islands.

Climate technology is a new concept and still evolving as new technologies are introduced to the market therefore awareness and education is required to introduce climate technologies to the population.

Changes in the social structures also creates financial strains on the new heads of the household as there is no alternative support system in the country. This project recognizes these trends and attempts to close the gaps although minimal, but hopefully it will transpire into a national solution.

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

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.

NDA, AE, community and NGO engagement was fostered at appropriate stages of the process and intends to strengthen throughout the development stages when fully transformed into a full proposal

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.

This pilot project when successfully completed will be replicated in all of the Cook Islands under the Ministry of Health to ensure the people of the Cook Islands have access to sustainable safe and clean water for drinking, cooking and bathing. The set up in Atiu will remain on the island to continue the sanitizing of the water for the population. Training will be provided to a people throughout the Pa Enea to carry out the maintenance work on the sanitizing unit. Eventually, the ongoing costs and maintenance of the unit will be the responsibility of the Ministry of Health through bilateral arrangements or through climate financing.

For non-grant instruments, explain how the capital invested will be repaid and over what duration of time.

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Assessed By and Date:

March 2019

Recommendation:

An enviolyte non toxic sanitisation of all water tanks on Atiu is recommended for the pilot project and eventually to the rest of the islands in the Cook Islands.

Submitted for your favourable considerations.