

**Global Climate Change Alliance Plus (GCCA+) Scaling Up Pacific Adaptation Project (SUPA)
Project Concept Note**

Name of Country	Kiribati
Name of Lead Agency/Ministry	Water and Sanitation Engineering Unit (WSEU) & Energy Planning Unit (EPU) of the Ministry of Infrastructure and Sustainable Energy (MISE)
General Information	
Project Title	Enhancing sustainable water security measures to adapt to climate change and disasters in vulnerable remote islet communities in Kiribati.
Project Site(s)	<p>The project sites are selected from Cabinet approved islets confirmed from vulnerability assessments made by MISE which include projections of annual rainfall; vulnerability to drought, seawater intrusion and inundation hazards.</p> <p>In Riboono Island, Abaing Atoll; Tamana Island; Arorae Atoll and Onotoa Atoll, reverse osmosis (RO) desalination systems have been installed.</p> <p>Further RO units have been proposed by the government for 10 islands. Four islands in Tabiteuea Atoll (population 5,261, 2015 census) have been identified for the SUPA project. The atoll has airstrips, and shipping schedules are dependent on the cargo for delivery. The four identified islets are: Bangai, Aiwa and Tenatorua in Tabiteuea North, and Takuu in Tabiteuea South.</p> <p>RO units in the remaining six islets: Kiebu in Makin, Bikaati in Butaritari, Takaeng in Aranuka, Abatiku in Abemama, Abamwakoro in Nonouti, and Tabuarorae in Onotoa, will be covered by the Kiribati Government Disaster Fund project.</p>
Project Duration	Mid 2019 to Dec 2022
Project Partners	Kiribati National Expert Group (KNEG)
Indicative Project Cost	EUR 500,000 (AUD 800,000)
<i>Funding modality: Indicate below your country's preference for funding arrangements for national coordinator and implementation.</i>	
Do you need a national coordinator (Yes or No)? Yes	
If you answered "No" above, proceed to question 3.	
1. Place a tick in the box on the right to indicate the modality for funding the national coordinator	

position.	
Country recruits and pays the national coordinator through a Grant Agreement with SPC	
SPC recruits the national coordinator so he/she becomes an SPC staff based in-country	✓
2. In which agency will the national coordinator be housed? MISE	
3. Place a tick in the box on the right to indicate the modality for funding implementation of activities.	
Country carries out procurement for all activities through a Grant Agreement with SPC (and according to SPC's procurement policies and procedures)	
SPC carries out procurement for all activities	
Blend of the above two modalities	✓
Project Description and Link to SUPA Output 3	<p>Kiribati is experiencing adverse impacts of climate change and related natural disasters. These impacts exacerbate the vulnerability of local communities' health, food security and in particular water security among others. It is affecting the quantity and quality of water available to the communities in the small island atolls of Kiribati.</p> <p>The project aims to enhance community resilience to water security challenges brought about by climate change and disasters by expanding the storage and supply of potable water using solar powered RO units in communities with limited access to potable water.</p> <p>This project will install solar powered RO desalination units for the 4 islets to help provide safe potable water, enhancing the livelihood of residents in these vulnerable islets, and replicating previous projects.</p> <p>The project will enhance other vital sectors on the islets including:</p> <ul style="list-style-type: none"> • Food security (alternative water source for domestic agriculture). • Improve community health and children's health, reducing risks to water borne disease. • Safer potable water for schools and clinics. • Improve accessibility to potable water for women and children, increasing time for economic activities for women with children. <p>Arrangements for capacity building and maintenance and training will be a key component of the SUPA project and will be further discussed and itemised during project design.</p>

	Altogether, this proposal links well with the SUPA Output 3 requirements.
Proposed Project Outputs	<ol style="list-style-type: none"> 1. Solar powered RO units installed in up to 4 islets; providing accessibility to potable water and enhancing food security and health. 2. Capacity building in installation, operation and maintenance in solar powered RO plants strengthened. 3. Water Safety Plans developed in up to 4 islets; utilising different water sources (rainwater harvesting, ground water well, RO units).

General Criteria for Identification of Projects

Criteria	How does the proposed project adhere to the criterion?
1. Each country is to select one sector from the following list for scaling up: <i>i) Food security, ii) Water security, iii) Human health, iv) Coastal protection, v) Marine resources</i>); and the sector selected must be linked to national priorities.	The objective of the project is to address health and social issues relating to water needs for the more vulnerable rural areas. The objective is also consistent with the goals and strategies of the Government of Kiribati as identified in the Kiribati Development Plan (KDP) 2016-2019 and Government Party manifesto or “Te Motinnano” that calls to “ <i>improve access to quality climate change resilient infrastructure in urban and rural areas</i> ” with specific objective “ <i>to explore and promote the use of water desalination from reverse osmosis technology using solar energy for isolated communities.</i> ” while the KV20 aims to “ <i>provide 75% of the population with access to potable water by the end of 2020.</i> ”
2. Identify the tested and effective previous measure that has elements of sustainability, and is to be scaled up in the project timeframe.	<p>MISE has already implemented similar projects; installing 6000L/d capacity RO plants in the Riboono islet, Tamana, Arorae and Onotoa, following Cyclone Pam (2015).</p> <p>The installation of such systems will be guided by MISE team with labor provided by the communities as contribution to the project. MOUs will be signed between MISE and the community who will assist with maintaining the system thereafter. The community should be able to generate income/running costs through tariffs for consumables such as filters that need replacing from time to time, and other costs.</p>

<p>3. The selected scaled up measures must have socio-economic benefits for the communities and be implemented using an evidence-based gender-sensitive and rights-based approach.</p>	<p>In this proposal, the measures provide strong support for the social-economic development of the community. The measures will benefit the community by providing potable water, improved health, food security and improve well-being especially for women and children.</p> <p>These measures will be managed at the community level, where gender and youth tasks allocation are coordinated by the village leaders.</p>
<p>4. The selected scaled up measure must fit within the scope of the SUPA budget.</p>	<p>The proposal budget is EUR 500,000.</p>
<p>5. Recognising that maintenance of government-owned infrastructure is the responsibility of the particular government agency, provisions for maintaining the newly scaled up measure must be included in the SUPA intervention as this is essential for sustainability.</p>	<p>The operation and maintenance of the completed project infrastructure will be managed by the recipient community committee responsible for the financial management of the installed system, income generation for buying spare parts and logistics. The MISE maintenance fund may be a further option if maintenance costs are high and cannot be met by the communities.</p> <p>MISE island based water technicians will be able to provide technical support in the maintenance of the systems and supervising operation where required. MISE has 26 technicians, six based in South Tarawa and 20 in the outer islands.</p>