

**Global Climate Change Alliance Plus (GCCA+) Scaling Up Pacific Adaptation Project (SUPA)  
Project Concept Note (version 2)**

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)
<b>General Information</b>	
(New) Project Title	Strengthen existing emergency water supply for Banaba Island, Kiribati
Project Site(s)	Banaba Island, Kiribati
Indicative Project Cost	EUR 380,000 (AUD 630,000)
Background	<p>The two previous project design documents (PDDs) for GCCA+ SUPA activities in Kiribati (version 1 signed on 18.05.20, and version 2 signed on 12.11.20) focused on the supply and installation of small solar powered desalination units and the provision of training to supplement water supply in the southern Gilbert Islands especially during drought. The positioning of technical expertise in desalination in MISE was an additional component of the PDDs.</p> <p>These activities were consistent with the specific objective of the Kiribati Development Plan <i>“to explore and promote the use of water desalination from reverse osmosis technology using solar energy for remote communities”</i>.</p> <p>Due to the spread of COVID-19 community transfer in the Pacific Island region in 2021 the national partners and implementing agency (SPC) determined that the proposed activities were not feasible. At the end of June 2021, after consultation with EUD, it was agreed to seek alternative activities that could be completed by the end of the project’s implementation period (30.06.23)</p>

Background to Banaba  
Island




*Map of Banaba, with indicated location of the old shed (red box)*

Banaba is a raised coral atoll in western Kiribati in the Central Pacific close to the equator with a population of around 300. The island is small (6km<sup>2</sup>) and isolated, 285 kilometres from its nearest neighbour, Nauru. The interior of the island was extensively mined for phosphate deposits from 1900 to 1979. The island primarily relies on rainwater and supplementary RO (Reverse osmosis) desalination during times of drought.

In March 2021, Banaba Island faced an extreme drought and water crisis. The island had been almost a year without substantial rain. Banaba island had one desalination plant, which was not working. Also, as there is no rain gauge on Banaba, the island is not included in the rainfall and climate watch alerts issued by Kiribati Meteorological Services, and there appears to be no routine reporting of storage levels to the National Drought Committee.

As an emergency measure in 2021, the Government of Kiribati has installed and operationalised one new desalination unit in Banaba. This unit was among those that had been purchased by the Kiribati Adaptation Fund in 2020, but was not installed. The New Zealand and Australian High Commissions provide support in 2021 to charter a vessel to make the two-to-three-day journey from Tarawa to Banaba.

	 <p data-bbox="564 607 1299 640"><i>New unit installed in 2021 in a temporary location in Banaba</i></p>																
Proposed activities	<ul data-bbox="564 674 1401 925" style="list-style-type: none"> <li>• Demolition of an existing, abandoned building</li> <li>• Construct a permanent new structure to house the units</li> <li>• Purchase and install storage tanks for desalinated water, intake and transfer pumps</li> <li>• Spare parts for desalination units</li> <li>• On-site training by MISE team for Banaba water technician</li> <li>• Purchase and install a rain gauge</li> </ul>																
Indicative budget	<table border="1" data-bbox="643 943 1362 1597"> <thead> <tr> <th data-bbox="643 943 994 981">Proposed activities</th> <th data-bbox="994 943 1362 981">EURO</th> </tr> </thead> <tbody> <tr> <td data-bbox="643 981 994 1055">Demolition of an existing building</td> <td data-bbox="994 981 1362 1055">20,000</td> </tr> <tr> <td data-bbox="643 1055 994 1267">Materials and labour for new structure to house the units; intake and transfer pumps; plastic storage tanks and other plumbing materials</td> <td data-bbox="994 1055 1362 1267">265,000</td> </tr> <tr> <td data-bbox="643 1267 994 1413">Charter vessel to transport materials, MISE team to Banaba Island for installation.</td> <td data-bbox="994 1267 1362 1413">100,000</td> </tr> <tr> <td data-bbox="643 1413 994 1487">Purchase and install rain gauge</td> <td data-bbox="994 1413 1362 1487">5,000</td> </tr> <tr> <td data-bbox="643 1487 994 1525"></td> <td data-bbox="994 1487 1362 1525"></td> </tr> <tr> <td data-bbox="643 1525 994 1563"><b>Total indicative budget</b></td> <td data-bbox="994 1525 1362 1563"><b>390,000</b></td> </tr> <tr> <td data-bbox="643 1563 994 1597"><b>Available budget</b></td> <td data-bbox="994 1563 1362 1597"><b>485,000</b></td> </tr> </tbody> </table> <p data-bbox="564 1608 1401 1675">The available budget for Kiribati is Euro 550,000 less Euro 65,000 which covers a grant agreement for the national coordinator.</p>	Proposed activities	EURO	Demolition of an existing building	20,000	Materials and labour for new structure to house the units; intake and transfer pumps; plastic storage tanks and other plumbing materials	265,000	Charter vessel to transport materials, MISE team to Banaba Island for installation.	100,000	Purchase and install rain gauge	5,000			<b>Total indicative budget</b>	<b>390,000</b>	<b>Available budget</b>	<b>485,000</b>
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Proposed modality for funding implementation of the activities	<ul data-bbox="564 1682 1401 1787" style="list-style-type: none"> <li>• SPC procures the materials and charter arrangements. SPC enters into a service contract with MISE for design, labour costs and oversight of construction.</li> </ul>																
Rationale	<ul data-bbox="564 1834 1401 1973" style="list-style-type: none"> <li>• Fits within the SUPA's project's criteria for scaling up</li> <li>• Links to national priorities for desalination in outer islands (Kiribati Development Plan)</li> <li>• It scales up an existing emergency measure and makes it more</li> </ul>																

	<p>sustainable</p> <ul style="list-style-type: none"> <li>• The selected scaled up measures have socio-economic benefits for the communities</li> <li>• The measure fits within the scope of the SUPA budget.</li> <li>• Maintenance - during the construction MISE technical staff will provide additional training and spare parts to Banaba Island water technician</li> </ul>
<p>Ways in which this concept differs from the activities in the PDD</p>	<ul style="list-style-type: none"> <li>• The majority of the materials are already available in Kiribati – the new desalination unit is already operational having been installed in 2021 as an emergency measure. This action will strengthen and provide sustainability to that installation. Most of the building materials and plastic tanks are available in Kiribati.</li> <li>• The need to bring in outside technical assistance is removed – discussions are in progress with a sister project funded by the New Zealand Ministry of Foreign Affairs and Trade "Managing Water Scarcity through strengthened Water Resources Management" which covers Cook Islands, Kiribati, RMI, Tokelau and Tuvalu and is implemented by SPC.</li> </ul>