

**PROJECT INFORMATION DOCUMENT (PID)
IDENTIFICATION/CONCEPT STAGE**

Report No.: PIDC106885

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| Project Name | Kiribati Adaptation Program Phase III - Additional Financing (P163153) |
| Region | EAST ASIA AND PACIFIC |
| Country | Kiribati |
| Lending Instrument | IPF |
| Project ID | P163153 |
| Borrower Name | Office of Te Beretitenti |
| Implementing Agency | Office of Te Beretitenti |
| Environmental Category | B - Partial Assessment |
| Date PID Prepared | 23-Jan-2017 |
| Estimated Date of Approval | |
| Initiation Note Review Decision | |

I. Introduction and Context

Country Context

The Republic of Kiribati is one of the smallest, most remote, geographically dispersed, and climate-change vulnerable countries in the world. It consists of 32 low-lying atoll islands and one raised limestone island all located in three main island groups scattered over 3.5 million square kilometers of the central and western Pacific. Most of the islands are less than 2 km wide, and little more than 1.8 meters (on average) above sea level. High population concentration, and high costs of basic service provision make Kiribati especially vulnerable to external shocks, including the adverse impacts of climate change. Twenty-one of the islands are inhabited, with the bulk of the population residing in the Gilbert Islands, which have a land area of 286 sq. km and contain the capital on Tarawa Atoll. About 47% of the total Kiribati population of around 120,000 live in the capital, South Tarawa, which has high population densities of up to 10,000 people per sq. km in some villages. South Tarawa is a magnet for internal migration from the outer islands. The capital provides opportunities for cash employment and consumption, as well as access to higher education and specialist social services not available elsewhere in Kiribati. Because of the geography of the narrow and low-lying Tarawa atoll, the entire population and most infrastructure is concentrated along the coast, making it directly exposed to climatic threats.

This is compounded by the fact that, with 22 percent of the population in extreme poverty, Kiribati has the highest extreme poverty rate in the Pacific. Moreover, as much as 66 percent of the population are at risk of falling into extreme poverty, and this risk is amplified by the effects of climate change on freshwater supply and coastal infrastructure. With a Gini coefficient of 0.39, however, inequality in Kiribati is relatively low in international comparison. Expenditures of the richest quintile of households are 4.7 times expenditures of the poorest quintile.

Sectoral and Institutional Context

The country is located in relatively calm latitudes but its low, narrow atolls are subject to long term sea level rise and, more immediately, are exposed to continuing coastal erosion and inundation during spring tides, storm surges and strong winds. The islands are subject to periodic storm surges with a return period of 14 years. Sea-level rise and exacerbated natural disasters such as drought and weather fluctuations pose significant and direct additional threats to sectors and resources central to human and national development. By 2050, up to 80% of the land in Buariki, North Tarawa, and up to 50% of the land in Bikenibeu, South Tarawa could become inundated by sea-level rise and increasing storm surge, resulting in greater salinity of the water lenses, incremental loss of freshwater supply, damage to buildings and infrastructure, and increasing incidences of diseases and epidemics.

Droughts accompany the La Nina phenomenon, which occurs approximately every 6-7 years. Changes in rainfall, sea level rise, and changes in evapo-transpiration due to increased temperatures could result in a 19-38% decline in the thickness of the groundwater lens in Tarawa. Prolonged droughts and groundwater salination directly impact human wellbeing and agricultural productivity, and exacerbate the situation of extreme water shortage. The impact of climate change and sea level rise is also expected to be especially severe on coastal land and infrastructure, water resources, human health, agriculture, ecosystems and fisheries. In the absence of continued adaptation, Kiribati could face economic damages due to climate change and sea level rise of US\$ 8 to 16 million a year by 2050.

According to its Policy Statement (2016), the Government has updated its Climate Change policy, which will guide increased public awareness and education of communities with the continued support of development partners. The prohibitive adaptation costs to protect communities most vulnerable to the impact of sea level rise and the increased intensity and frequency of weather events are highlighted in the Policy Statement; hence the need for long term strategies to target Government interventions. The aforementioned Climate Change policy builds on the National Adaptation Program of Action (NAPA) adopted by government in 2007, which identifies salt water intrusion and coastal zone inundation as the most relevant climate-related hazards for Kiribati, with impacts including reduced agricultural land, flooding, infrastructure damage, water pollution, displacement of people, loss of biodiversity, ecosystem degradation, and damage to community assets. Water resources and coastal zone management, and resilience enhancement for community adaptation are identified as priorities.

Institutionally, the Office of the President (Office of Te Beretitenti, OB) is responsible for ministerial co-ordination, disaster risk management, and climate change policy through its Strategic Risk Management Unit. The Secretary of the Office of the President serves as the Project Director for the Kiribati Adaptation Program.

Relationship to CAS/CPS/CPF

The Bank's assistance to Kiribati is guided by the Government's own priorities articulated in the Kiribati Joint Implementation Plan for Climate Change and Disaster Risk Management (2014-2023), and the Bank's most recent Kiribati Country Assistance Strategy (CAS) FY2011-2014, the first climate change-focused CAS in the Pacific region, which aimed to assist Kiribati in addressing the existential threat posed by climate change. This CAS was followed by the Systematic Country Diagnostic (2016), covering eight small Pacific island countries (PIC8): Kiribati, Marshall Islands, the Federated States of Micronesia, Palau, Samoa, Tonga, Tuvalu, and Vanuatu. These documents identify the needs and priorities for Kiribati to respond to its extreme vulnerability to the effects of climate change and natural disasters.

The proposed additional activities will contribute to the third key priority area of the 2016 Systematic Country Diagnostic, which focuses on protecting incomes and livelihoods of the poor and the bottom

40 percent from climate change and natural disasters, as follows:

- a. The level of exposure, new and evolving risks, and the need to protect assets and people, calls for a mainstreaming of disaster risk reduction policy into many areas of policy making and development efforts. Priorities include: (i) strengthening policy, institutional and evidence-based decision making capacity; and (ii) mainstreaming disaster risk and climate change considerations into development planning and investments.
- b. A long-term strategy should also be developed for the atoll islands, as they have their own unique resilience needs. There are a number of options that can be explored to strengthen physical resilience including, but not limited to, a range of engineering solutions (e.g., sea walls, beach nourishment, wave dissipation measures) as well as ecosystem based approaches (e.g., protection of coral reefs, pollution control, planting mangroves) that can be considered and combined through integrated coastal zone management. This is particularly needed in situations where there is very limited land available.

II. Project Development Objective(s)

Proposed Development Objective(s)

There is no change to the original Project Development Objective, which is to improve the resilience of Kiribati to the impacts of climate change on freshwater supply and coastal infrastructure.

Key Results

There will be no changes to the current Project results framework, under which PDO-level result indicators are as follows:

- Volume of potable water saved through reduced leakage (kiloliters per day)
- Volume of potable water provided from new rainwater harvesting systems (kiloliters per day)
- Volume of potable water provided from new groundwater sources (kiloliters per day)
- Length of coastline protected (Kilometers)

III. Preliminary Description

Concept Description

The activities proposed for additional financing will enable the Government of Kiribati to expand the work already being undertaken to support key government priorities, as captured in the Kiribati Adaptation Program's (KAP III) development objective and components. The Government will be able to take advantage of the existing KAPIII mechanisms, and allow the project to increase the sustainability of the outcomes envisaged under the original KAP III design. Specifically, support is proposed for the following activities:

Component 1. Improve water resource use and management

Expansion of the Improved Water Supply Pilot Zones. This would respond to the Government's request to complete the technical design for additional sites in the population centers of Betio and Bairiki, South Tarawa. The project has built upon the existing Tarawa Water Master Plan (2010) and the Water and Sanitation Roadmap 2011 – 2030 to develop a Roadmap for an Expanded Program of Leak Detection / Water Network Improvements. The latter roadmap operationalizes the earlier strategies, while highlighting the need for the pilot interventions to be executed in an integrated and scalable manner that ensures the sustainability of the entire network. Cabinet has approved improvement of nine zones in three villages (Tanaea, Tebikenikora/Eita, and Nanikai) and the corresponding trial of a "user pays" cost recovery method. Increasing the number of sites included in

the pilot will provide several benefits: a greater proportion of the population will receive more reliable access to potable water and protect against the impacts of climate change on water supply, while the larger pilot will help prove the effectiveness of the overall Water Network Roadmap. If implemented under KAPIII, the Government of Kiribati will be able to bundle the design services, minimizing the costs of mobilizing international consultants.

Component 2. Increase coastal resilience
No additional activities proposed

Component 3. Strengthen the Capacity to Manage the Effects of Climate Change and Natural Hazards

a. Development of a Long-Term Coastal Security Strategy (LTCSS). Under KAP III, a baseline study and a draft coastal management framework and policy have been completed. Subsequently, short- to medium-term toolkits and detailed guidelines for better managing the country's coastal areas were to have been developed. However the newly-elected government requested support in August 2016 for an expanded Long-Term Coastal Security Strategy that focuses on measures to ensure long term viability and climate-adaptive development. The envisaged strategy will respond to this request by building on the completed coastal management framework and policy, providing appropriate short- and long-term solutions to minimize existing and future projected vulnerabilities, and to ensure that the atolls of Kiribati are suitable and livable for human habitation for as long as possible.

b. Resilience Fund scale-up. This will enable a larger number of eligible communities in the outer islands to receive grants for small-scale climate adaptation and disaster risk management projects. The initial call for proposals received over 300 applications (mostly for projects to improve access to potable water), of which 35 projects across 12 islands can be supported under the existing funding envelope, despite many more applications being found to be technically sound. In accordance with the President's Policy Statement (2016), the Government is strongly committed to maximizing outer island development, which will need to be underpinned by greater resilience of outer island communities. Additional funds for this activity would allow for an increase in the number of projects that could be financed, including an expansion of the call for proposals to additional islands in the Line and Phoenix groups, utilizing the mechanism now in place for delivery of these grants.

c. Extension of the Office of the President's Building. This will enhance KAP III's support to the Office of the President's Strategic Risk Management Unit, to better undertake its role with respect to climate change coordination, integration and policy harmonization.

IV. Safeguard Policies that Might Apply

| Safeguard Policies Triggered by the Project | Yes | No | TBD |
|---|-----|----|-----|
| Environmental Assessment OP/BP 4.01 | X | | |
| Natural Habitats OP/BP 4.04 | | X | |
| Forests OP/BP 4.36 | | X | |
| Pest Management OP 4.09 | | X | |
| Physical Cultural Resources OP/BP 4.11 | | X | |
| Indigenous Peoples OP/BP 4.10 | | X | |
| Involuntary Resettlement OP/BP 4.12 | X | | |

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| Safety of Dams OP/BP 4.37 | | X | |
| Projects on International Waterways OP/BP 7.50 | | X | |
| Projects in Disputed Areas OP/BP 7.60 | | X | |

V. Financing (in USD Million)

| | | | |
|---|----------|-----------------------|---------------|
| Total Project Cost: | 0.875327 | Total Bank Financing: | 0 |
| Financing Gap: | 0 | | |
| Financing Source | | | Amount |
| Australia-Pacific Islands Partnership Trust Fund | | | 0.495327 |
| Pacific Regional Infrastructure Facility Trust Fund | | | 0.38 |

VI. Contact point

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