

**PROJECT INFORMATION DOCUMENT (PID)
APPRAISAL STAGE**

Report No.: AB6066

Project Name	Kiribati Adaptation Phase III (LDCF)
Region	EAST ASIA AND PACIFIC
Country	Kiribati
Sector	Environment
Lending Instrument	SPECIFIC INVESTMENT LOAN
Project ID	P112615
Borrower(s)	Republic of Kiribati
Implementing Agency	Office of the President (Office of Te Beretitenti)
Environmental Screening Category	{ }A {X}B { }C { }FI
Date PID Prepared	April 11, 2011
Estimated Date of Appraisal Completion	May 12, 2011
Estimated Date of Board Approval	August 30, 2011
Decision	Project authorized to proceed to negotiations

I. Country Context

1. The Republic of Kiribati consists of 32 low lying coral islands and one raised coral island in three main island groups scattered over 3.5 million sq. km of sea in the Central Pacific between 4° N to 3° S and 172° E to 157° W. Most of the islands are less than 2 km wide and not more than 6 m above sea level. Twenty-one of these islands are permanently inhabited. The total land area is 811 sq. km, of which almost half (388 sq. km) is on Kiritimati (Christmas Island) situated in the eastern Line Islands of Kiribati. The total population of Kiribati is estimated to be 106,000 in 2010, and is projected to grow to between 119,400 and 140,400 by 2025. The Gilbert Islands, where the bulk of the population lives, has a land area of 286 sq. km and contains the capital on Tarawa Atoll. South Tarawa comprises 47% of the total population with relatively high population densities of up to 10,000 people per sq. km in some villages.
2. Only some 18% of the population is in permanent employment, and over half of these work for the government. Approximately 47% of the population lives in South Tarawa, and this is a magnet for internal migration from the outer islands. South Tarawa provides opportunities for cash employment and consumption, as well as access to higher education and specialist social services not available elsewhere in Kiribati. This has led to population growth of 5.2% in recent years into both North and South Tarawa. The UNDP¹ noted that South Tarawa recorded the highest incidence of basic needs poverty in Kiribati, affecting 18.3% of households and 24.2% of the population. A household census of Betio and Bairiki

¹ "Kiribati: Analysis of 2006 Household Income and Expenditure Survey". UNDP, Suva.

villages conducted by the Sustainable Towns Programme (STP) in November 2009 found that the per capita income of 70% of residents in the two villages was less than US\$1.75/day. In 2006, with a Gini Coefficient of 0.35, South Tarawa was reaching a high level of inequality.

3. The revenue of Kiribati is drawn primarily from five main sources: (i) the sale of fishing licenses (access fees account for more than 50% of annual non-grant government revenue and add about 22% to the GDP); (ii) official development assistance from overseas; (iii) The Kiribati Revenue Equalization Reserve Fund (RERF); (iv) general taxation; and, (v) tariffs paid by households for services². A high dependency on fragmented donor contributions, reliance on costly and inefficient state owned enterprises and a vulnerability to external economic and environmental factors add to the challenges faced by the country, and more specifically the infrastructure sector. Major long term concerns include environmental degradation, the capacity of the islands to support a growing population with little coordination of the settlement patterns (particularly in Tarawa), the impending vulnerability to climate change, and general long term sustainability issues.
4. The World Bank has increasing operations in Kiribati. In addition to the proposed project on climate change adaptation, other currently active technical assistance or works activities are in the areas of institutional capacity building for labor export, in the telecommunications sector, and the Kiribati Road Rehabilitation Project (jointly funded with ADB). An Aviation Infrastructure Investment Project is under preparation. Upcoming projects include investments in solar energy and assistance to respond to the global food crisis.

II. Sectoral and Institutional Context

5. Kiribati is one of the most vulnerable countries in the world due to the effects of climate change such as sea-level rise, and natural disasters such as drought and weather fluctuations. The country is located in relatively calm latitudes but its low atolls (in many places no more than 2m above mean sea level and only a few hundred meters wide) 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 results, amongst other things, are extreme weather events (prolonged droughts to heavy rainfall), increasing salinity of the water lenses and incremental damage to buildings and infrastructure.

6. The islands are increasingly vulnerable due to high population concentration, accelerated coastal development, and environmental degradation. Infant mortality rate due to diarrheal diseases in Kiribati are the highest in the Pacific. Current rates of use of existing groundwater resources in South Tarawa are already unsustainable. Government capacity and financial resources are limited. The impact of climate change and sea level rise is expected to be severe especially on coastal land and infrastructure, water resources, human health, agriculture, ecosystems and fisheries. In the absence of adaptation, Kiribati could face economic damages

² “Kiribati: Infrastructure Sector Review” (September 2009). The Pacific Region Infrastructure Facility (PRIF), Sydney.

due to climate change and sea level rise of US\$ 8 to 16 million a year by 2050, or 17% to 34% of its 1998 GDP.

7. Coping with climate change-induced sea level rise and higher temperatures is a matter of survival for small island countries and Kiribati has been on the frontline to prepare itself in terms of awareness raising and international engagement. The Government Policy Statement on Climate Change embraces climate change adaptation as the only option (“*As Kiribati cannot escape climate change it must adapt to it.... as the precise speed and extent of future climate change is unknowable, adaptive responses themselves need to be risk minimizing, flexible and progressive*”).

8. The National Adaptation Program of Action (NAPA) adopted by government in 2007 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, damage to community assets, and ecosystem degradation and biodiversity loss. Water resources adaptation, well improvement, and coastal zone management and resilience enhancement for adaptation were identified as priority adaptation projects.

9. Institutionally, the Office of the President – with the support of its Strategic Management and Policy Unit - has become the country’s spokesperson on climate change. MELAD, with its cadre of technical and scientific staff, maintain the knowledge of the environmental and social impacts of climate change and can provide essential inputs and intellectual leadership to support a whole-of-government approach to climate adaptation. The institutional setup for national management of climate change needs to be strengthened with each agency’s mandate clarified in order to ensure better coordination and coherence.

10. The Kiribati Adaptation Program Phase III (KAP III) builds on the achievements of KAP I (technical assistance to increase awareness 2003-2006) and on the experience of KAP II (pilot implementation project 2006-2011) to enhance the Government of Kiribati (GOK) capacity to design and implement adaptation measures that respond to the most pressing climate-related and natural hazard issues facing the country.

11. There are several reasons for the Bank to continue to be involved in this Program, namely:

- The Bank has an established track record in climate change adaptation in Kiribati through phases I and II of the Kiribati Adaptation Program. KAP was conceived as a 3-stage program, and it is appropriate for the Bank to continue to build on and expand the work completed, taking advantage of the lessons learned.
- It is strategically relevant for the Bank to support water resource management in the Pacific, including Kiribati, as it would complement ADB, the EU, Government of New Zealand and other partners’ initiatives in this sector.
- The experience gained in Kiribati has direct relevance to the Bank’s climate change and hazard risk-reduction programs in other Pacific countries. The outcomes from KAP also have direct relevance to other Bank initiatives in Kiribati such as the Road Rehabilitation project.

12. The approach adopted in developing KAP III rests on (i) reinforcing best practices in the design and implementation of adaptation measures in water and civil works; (ii) balancing capacity building and on-the-ground investments; emphasizing community consultation and participation and the role of civil society; supporting disaster risk reduction measures as part of long-term climate change adaptation; leveraging other donors' programs in pursuing climate resilient investments.

III. Project Development Objectives

13. The project development objective is to *improve the resilience of Kiribati to the impacts of climate change on freshwater supply and coastal infrastructure*. The project will achieve this objective by strengthening the government capacity and improving the management and governance of water resources and infrastructure.

IV. Project Description

14. The project scales up best practices in the design and implementation of adaptation investments in water resource management and coastal resilience that were successfully piloted under KAP II. It also strengthens the linkages between climate change adaptation and disaster risk reduction and supports community-driven climate and disaster risk management as part of a comprehensive, top-down-bottom-up approach to coastal management.

15. The project has a total investment of US\$10.8million financed through grants as follows: AU\$ 4.85 million from the Government of Australia; US\$3.0 million from the Global Environment Facility (GEF) Least Developed Country Fund (LDCF); US\$1.8 million from Japan Policy and Human Resources Development (PHRD); US\$ 0.9 from the Global Facility for Disaster Reduction and Recovery (GFDRR); and US\$ 0.25 million as in-kind contribution from the Government of Kiribati. Each component is described below. For further details see Annex 2 of the PAD.

16. **Component C1 – Improve water resource use and management (US\$4.4 million including contingencies)**. The activities include:

- ***Groundwater Abstraction Systems***. Expand the installation of groundwater abstraction systems in North Tarawa based on investigations and community consultation work completed under KAP II.
- ***Water Reticulation Management (Leakage detection and repair of real losses)***. Reducing leakage is a key priority for the GOK. It is proposed to expand on the small pilot under KAP II supported with capacity development and community awareness-raising under separate activities.
- ***Roof Rainwater Harvesting***. Expand the program started under KAP II of installing rainwater harvesting systems on public buildings for community use.
- ***Improved Water Management Governance***. Consider the legislative and regulatory framework and governance model to support community management of water reserves.

17. Each of the above activities will be supported with capacity enhancement and community consultation and education programmes.

18. **Component C2 – Increase coastal resilience (US\$2.8 million including contingencies).** Expanding on work started under KAP II, the activities are:

- ***Investments in Shoreline Protection.*** Implement further works at priority sites identified and started under KAP II.
- ***Advisory Support for Shoreline Erosion Mitigation Measures.*** Continue to further build MPWU’s capability in coastal assessment, options analysis, design and construction through the appointment of a Senior Civil Engineer seconded to MPWU.
- ***Asset Management of Coastal Infrastructure.*** Develop skills in coastal infrastructure asset management.
- ***Mangrove Replanting in Outer Islands.*** Continue/expand the mangrove planting program commenced under KAP III.

19. **Component C3 - Strengthen the Capacity to Manage the Effects of Climate Change and Natural Hazards (US\$2.1 million including contingencies).** Underpinned by the work from KAP II and in support of a whole-of-government approach to climate change adaption (CCA), disaster risk reduction (DRR) and community involvement, the activities are:

- ***Technical Support to the Strategic Risk Management Unit, OB.*** Provide additional support to the SRMU to better undertake its role with respect to Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR) coordination, integration and policy harmonization functions.
- ***Coastal Management Policy and Locally Managed Adaptation Planning.*** Prepare a national coastal management policy framework³ and strategy aimed at better management of coastal zones, resources and infrastructure and facilitate local communities and Island Councils, with help from government ministries, to develop locally managed adaptation plans, thus improving resilience at national, island and village / community levels. Within the national framework objectives and guidelines, the locally managed adaptation plans (LOMAPs) will identify risky localities and vulnerable public infrastructure, preferred management actions, potential resources for small-scale measures and solutions. Implementation of mitigation measures will be achieved through other activities with an emphasis on locally managed solutions implemented within the overarching national framework and strategy and coastal management framework.
- ***Communications & Media.*** Covers the direct costs of communications and media activities relating to CCA and DRR over the duration of the project.
- ***Climate Change Website Maintenance.*** Covers the direct costs and IT services to maintain and continue to populate the GoK’s website (www.climate.gov.ki) with KAP III outputs, stories and general information.

³ Albeit recognizing that “coastal” is too confining for some islands of Kiribati where, for example, as in the case of South Tarawa, no area is far from the coastal zone and all land is potentially at risk of the effects of climate change.

- **Disaster Fund Small Grants Scheme.** Operation of a small grants scheme for CCA and DRR activities at community level with an agreed proportion of activities increasingly identified through the locally managed adaptation plans as they are prepared across the country.

20. **Component C4 – Project Management, Monitoring & Evaluation (US\$1.5 million including contingencies).** Activities are:

- **Project Management Unit.** Establishment and operation of an appropriately staffed Project Management Unit (PMU) to be supported as needed by the central PMU that has been established in MFED for other World Bank-supported projects in Kiribati.
- **Independent audit.** Audit of the project financial systems and results.
- **Mid-term review.** Independent review of the project progress and achievements at the time the project has achieved roughly 50% disbursement of funds.
- **Monitoring & evaluation.** Monitoring of project implementation progress and other key performance indicators; end of project review of the project achievements and final verification of the indicators from the Results Framework.

V. Financing

Source:	(\$m.)
Borrower/Recipient	0.25
Global Environment Facility (GEF)	3.0
Global Fund for Disaster Risk Reduction (GFDRR)	0.9
Co-financing	6.65
Financing Gap	0
Total	10.8

VI. Implementation

21. As was the case under KAP II, the Office of the President (Office Te Beretitenti, OB) is the implementing agency responsible for the overall execution of the project. The Secretary of the OB will be the Project Director, overseeing the Project Management Unit comprising a Project Manager, an Assistant Project Manager, and Accountant and a Procurement Officer. The PMU will be responsible for all project procurement, financial management, reporting and monitoring. Technical implementation of individual components and sub-component rests with specialized agencies (MPWU, MELAD, MHMS, MISA, and Island Councils). The multi-agency National Adaptation Steering Committee (NASC) will provide overall governance and be the project sign-off authority on behalf of the GoK.

22. The project implementation arrangements reflect and address the capacity constraints faced by government agencies. MPWU and PUB are constrained by the very limited number of senior technical staff. The project therefore will support three long-term, resident senior engineers with skills in water monitoring, water operations and civil works whose responsibilities will include advising senior management, mentoring junior staff, and assisting with project implementation. Specialized training and capacity building on water investigations,

asset management planning, technical design, procurement and supervision of works, contracting and tendering will be provided as part of the project technical assistance activities. The OB is also constrained by the limited number of staff. With the project assistance, the PMU will be staffed with qualified local consultants and, based on the experience of KAP II, will be supported by a Project Manager Advisor and a Procurement Advisor that will be recruited internationally.

VII. Safeguard Policies (including public consultation)

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment (OP/BP 4.01)	X	
Natural Habitats (OP/BP 4.04)		
Pest Management (OP 4.09)		X
Physical Cultural Resources (OP/BP 4.11)		X
Involuntary Resettlement (OP/BP 4.12)		X
Indigenous Peoples (OP/BP 4.10)		X
Forests (OP/BP 4.36)	X	
Safety of Dams (OP/BP 4.37)		X
Projects in Disputed Areas (OP/BP 7.60)*		X
Projects on International Waterways (OP/BP 7.50)		X

VIII. Contact point at World Bank and Borrower

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* By supporting the proposed project, the Bank does not intend to prejudice the final determination of the parties' claims on the disputed areas

Implementing Agencies

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IX. For more information contact:

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