REQUEST FOR CEO ENDORSEMENT/APPROVAL

PROJECT TYPE: Full-sized Project

THE LEAST DEVELOPED COUNTRIES FUND FOR CLIMATE CHANGE (LDCF)[1]

Submission Date: June 23, 2011

PART I: PROJECT INFORMATION

GEFSEC PROJECT ID:

GEF AGENCY PROJECT ID: P112615

COUNTRY(IES): Kiribati

PROJECT TITLE: Increasing resilience to climate variability and hazards

GEF AGENCY(IES): World Bank,

OTHER EXECUTING PARTNER(S): Office of the President (OB) as lead agency, with inputs from Ministry of Environment, Land and Agric. Development, Ministry of Public Works and Utilities, Ministry of Communications, Transport and Tourism Development - Meteorological Office, Ministry of Internal and Social Affairs

GEF FOCAL AREA: Climate Change (Adaptation)

Expected Calendar (mm/dd/yy)	
Milestones	**Dates**
Work Program (for FSP)	10/30/2009
Agency Approval Date	08/15/2011
Implementation Start	10/01//2011
Mid-term Review (if planned)	08/01/2014
Project Closing Date	08/31/2016

A. PROJECT FRAMEWORK

Project Objective: To improve the resilience of Kiribati to the impacts of climate change on freshwater supply and coastal infrastructure. The objective will be achieved by strengthening the government capacity and improving the management and governance of water resources and infrastructure.

Project Components	**Indicate whether Investment, TA, or STA**[b]	**Expected Outcomes**	**Expected Outputs**	**LDCF Financing**[a]		**Co-financing**[a]		**Total ($)**
				($) a	%	($) b	%	c = a+b
1. Improve water resource use and management	Investment, TA	Reduced impact of drought and storm surges on quality and availability of freshwater resources	Investments in galleries for effcient and improved water abstraction extended to North Tarawa Water leakage/ wastage detection and repair capacity increased at national and community level Rainwater harvesting scaled up at household and community level (South Tarawa and Outer Islands) Improved water reserve governance to protect water supply to South Tarawa Increased capacity in MPWU, PUB and government to better manage the water sector	2,300,000	52	2,120,000	48	4,420,000

[1] This template is for the use of LDCF Adaptation projects only.

2. Increase coastal resilience	Investment, TA	Reduced vulnerability of coastal communities to sea level rise and extreme weather events	Shoreline protection of public infrastructure in South Tarawa scaled up Advisory support to the MPWU for shoreline erosion mitigation measures strengthened Coastal infrastructure asset management skills consolidated and applied by the GoK in outer islands and South Tarawa Mangrove replanting by communities in outer islands scaled up	180,000	7	2,580,000	93	2,760,000
3. Strengthen the Capacity to Manage the Effects of Climate Change and Natural Hazards	Investment, TA	Climate and disaster risk concerns guide the development of policies and investments	Technical support provided to the SRMU to improve the coordination of climate change related policies Coastal Management Policy and Locally Managed Adaptation Plans developed Improved management of public communications and media, and improved public access to KAP information Improved management and impact of scaled-up Disaster Fund	180,000	8	1,970,000	92	2,150,000
4. Monitoring & Evaluation	TA		M & E information progressively collected and fed back into project management decisions; mid-term and final review of project performance carried out independently.	40,000	29	100,000	71	140,000

5. Project Management	Investment, TA	Project management capacity is enhanced and supported	Local PMU staff hired to manage KAPIII implementation and monitor compliance with safeguards and legal covenants	300,000	23	1,030,000	78	1,330,000
Total Project Costs				3,000,000	28	7,800,000	72	10,800,000

[a] List the $ by project components. The percentage is the share of LDCF and Co-financing respectively to the total amount for the component.

[b] TA = Technical Assistance; STA = Scientific & Technical Analysis

B. SOURCES OF CONFIRMED CO-FINANCING FOR THE PROJECT (expand the table line items as necessary)

Name of Co-financier (source)	*Classification*	*Type*	*Project*	*%**
Government of Kiribati	Nat'l Gov't	In-Kind	250,000	3
Government of Australia	Bilat. Agency	Grant	4,850,000	62
Governmnet of Japan (Policy and Human Resources Development)	Bilat. Agency	Grant	1,800,000	23
Global Facility for Disaster Reduction and Recovery	Multilat. Agency	Grant	900,000	12
Total Co-financing			7,800,000	100

* Percentage of each co-financier's contribution at CEO endorsement to total co-financing.

C. CONFIRMED FINANCING PLAN SUMMARY FOR THE PROJECT ($)

	Project Preparation Amount (a)	**Project (b)**	**Total c = a + b**	**Agency Fee**	***For comparison: LDCF Grant and Co-financing at PIF***
GEF financing		A3,000,000	3,000,000	300,000	3,000,000
Co-financing		B7,800,000	7,800,000		3,300,000
Total	0	10,800,000	10,800,000	300,000	6,300,000

D. FOR MULTI AGENCIES/COUNTRIES (IN $)[1]

GEF Agency	**Country Name**	**(in $)**		
		Project (a)	**Agency Fee (b)[2]**	**Total (c) c=a+b**
(select)				
(select)				
Total LDCF Resources		0	2	0

1 No need to provide information for this table if it is a single country and/or single GEF Agency project.

2 Relates to the project and any previous project preparation funding that have been provided and for which no Agency fee has been requested from Trustee.

E. PROJECT MANAGEMENT BUDGET/COST

Cost Items	***Total Estimated person /months***	***LDCF ($)***	***Co-financing ($)***	***Project total ($)***
*Local consultants**	240	155,000	420,000	575,000
*International consultants**	6	30,000	95,000	125,000
*Office facilities, equipment, and communications**		100,000	470,000	570,000
*Travel**		15,000	45,000	60,000
Total		300,000	1,030,000	1,330,000

* Details to be provided in Annex C.

F. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

Component	*Estimated person/month*	*LDCF ($)*	*Co-financing ($)*	*Project total ($)*
*Local consultants**	200	110,000	290,000	400,000
*International consultants**	207	922,000	2,378,000	3,300,000
Total		1,032,000	2,668,000	3,700,000

* Details to be provided in Annex C.

G. DESCRIBE THE BUDGETED M&E PLAN:

The project includes monitoring and evaluation of fiduciary and safeguards compliance, project implementation progress and project impact. A total budget of $140,000 of which $40,000 financed by GEF has been included in the project to specifically cover the cost of monitoring and evaluating project performance and impact. In addition, it is envisaged that the Project Management Assistant will dedicate a significant portion of his/her time to assist with the M&E data collection and reporting.

Quarterly, semi-annual and annual reports, independent financial audits, a mid-term review and a final evaluation review are required under the project. In addition the project supports knowledge sharing and seeks feedback through regular reporting to the NASC, donor partners active in Kiribati, public consultations organized around all major project activities and public communication and media services.

The Results and Monitoring Framework (Annex A) has been designed to be simple, focused on factual, rather than qualitative, information that may be largely obtained from the firm contract outputs. Firm and individual TORs will incorporate a requirement to report against the results framework and other key monitoring indicators to the extent that their activities are relevant.

A M&E specialist will undertake a review of the M&E reporting and conclusions at mid-term or when approximately 50% of the budget has been disbursed. The review will be based on project outputs, structured interviews with key GoK officials, selected Bank and donor partner mission team members, contracted firms and individuals (by telephone if necessary), and observation of field teams in operation. Particular weight will be placed on verifying M&E performance against community engagement KPIs.

PART II: PROJECT JUSTIFICATION

A. DESCRIBE THE PROJECT RATIONALE AND THE EXPECTED MEASURABLE ADAPTATION BENEFITS:

The Republic of Kiribati (population 112,000) comprises one oceanic island (Banaba) and 32 low-lying coral atolls with a total land area of about 811sqkm spread over some 3.5 million kilometres in the Pacific Ocean. Kiribati is particularly vulnerable to climate variability and weather extremes with its atolls rising only 2 metres above mean sea level. In 1999, two uninhabited islands of Kiribati were lost under water. Climate related threats include increased temperatures, more frequent droughts and storms events, rising sea levels and more frequent seawater flooding events. The adverse impacts of climate change are already taking place in Kiribati and include: degradation of coastal zones, coral reefs, fisheries, fresh groundwater, vegetation and biodiversity; accelerated coastal erosion, reduced access to clean freshwater resources and regular incidences of diseases and epidemics. The magnitude and intensity of these threats affect the health and livelihood of the majority of the population and pose increasing burdens to the economic wellbeing of Kiribati.

Fresh water supplies in Kiribati are rationed, sometimes severely. Droughts and the salinization of ground water lenses by the tidal action have exacerbated the situation. While Kiribati is probably the most advanced of all Pacific countries in attempting to mainstream climate change adaptation (CCA) into policies and programs, institutional capacity remains a major constraint. In addition, there is a lack of basic climate and hazard data collection capabilities and where data exist it is not sufficiently detailed to ensure sustainable management and planning. This becomes particularly evident and more critical when dealing with the Outer Islands for which some profiling has been carried out but it is unlikely to substitute for detailed hazard and vulnerability mapping. The National Meteorological Services has been in disrepair for

a long time with inadequate staff and equipment, particularly for outer observing stations. Other major hurdle is the country's inability to attend to disaster risk activities as the degree of the devastating effects of climate change on the water resources and coasts is far greater than the country's own financial resources.

Component 1 of the project will produce measurable adaptation benefits to address these water supply issues by:

- Expanding the installation of groundwater abstraction systems to two further sites on North Tarawa based on investigations and community consultation work completed under KAP II.
- Improving water reticulation management (leakage detection and repair of real losses). This activity will expand on the small pilot carried out under KAP II and support it with capacity development and community awareness-raising under separate activities.
- Expanding the program of installing rainwater harvesting systems on public buildings for community use that was started under KAP II. Part of the budget will be for a grant or subsidized micro-loan to provide rainwater harvesting systems for eligible households, targetting households with unreliable reticulated supplies.
- Improving the legislative and regulatory framework and governance model for water resources management with a focus on improved management and protection of the water reserves in Bonriki and Buota which supply reticulated water to South Tarawa.

These activities are expected to provide climate change adaptation benefits by increasing the total volume of potable water available per day, from: i) new ground water supplies, ii) reduced wastage and leakage from existing reticulated water supplies, and iii) new rainwater harvesting systems. By increasing and diversifying the sources of potable water, these activities will reduce the impact of drought and storm surges on quality and availability of freshwater resources, therefore increasing resilience to the impacts of climate change on freshwater supply. Further detail on measurement of outcomes is provided in Annex A.

Component 2 will produce measurable adaptation benefits to reduce the vulnerability of coastal communities to sea level rise and extreme weather events, by:

- Investing in further shoreline protection of public assets at priority sites identified and started under KAP II.
- Further building MPWU's capability to mitigate shoreline erosion - coastal assessment, options analysis, design and construction - through the appointment of a Senior Civil Engineer seconded to MPWU.
- Developing the GoK's skills in coastal infrastructure asset management through mentoring and additional training. Coastal conditions assessments of non-government assets will be expanded to further sites using methodologies and guidelines developed during KAPII.
- Expanding the mangrove planting program commenced under KAP III in outer islands.

Activities are expected to produce climate change adaptation benefits by increasing the length (kilometers) of coastline where public and private assets have been made resilient to the effects of sea -level rise, storm surge and extreme and variable weather events. It is expected that the Coastal Condition Assessment Plan developed during KAP II will be i) proactively used as a basis for planning new and upgraded coastal protection works, and ii) updated to include major non-government assets with prioritization given to hazard mitigation treatment. See Annex A for measurable outcomes.

In order for climate and disaster risk concerns to guide the development of policies and investments, **Component 3** of the proposed project will support the strengthening and capacity building of the institutions responsible for CCA and DRR, by:

- Providing additional technical 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.
- Preparing a national coastal management policy framework 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.
- Covering the direct costs of communications and media activities relating to CCA and DRR over the duration of

the project.

- Covering 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.
- Building upon 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.

These activities are expected to improve resilience at national, island and village / community levels through an emphasis on locally managed adaptation solutions implemented within the overarching national framework and strategy and coastal management framework. Further detail on measurement of outcomes is provided in Annex A.

A. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH NATIONAL/REGIONAL PRIORITIES/PLANS:

The project is premised squarely on the Kiribati National Adaptation Program of Action (NAPA) approved by the Cabinet in January 2007. The Kiribati NAPA is fully aligned with the National Development Strategies 2004-2007 and the Kiribati Development Plan 2008-2011 which was approved by the Cabinet in April 2008. The proposed project also supports the Climate Change Policy and Climate Change Adaptation Strategy issued by Government in 2005 and 2007 respectively. Both stress the need to be prepared for adaptation, piloting small scale adaptation projects and collecting data useful for climate proofing natural and physical assets. The Kiribati Development Plan 2008-2011 is also aligned with the Millennium Development Goals, the Mauritius Strategy, and the Pacific Plan, all of which place priority on the environment including climate change. The project is also consistent with the Kiribati Natural Disaster Act of 1993, and the Environment Act of 1999 and its regulations (2001 and 2007). The project is also consistent with and supports the finding of the stock-take assessment funded by the Global Fund for Disaster Risk Reduction (GFDRR) that highlights the country gaps and priority measures to strengthen the country disaster risk management capacity.

The project is the third phase of the Kiribati Adaptation Program, which the government launched in 2003 with GEF and other partners' support. The Program has strengthened over the years and now enjoys the support of the highest level of government, stakeholders and donor partners. The project is part of the GEF Pacific Alliance for Sustainability (GEF-PAS), a regional program approved by the GEF Council in April 2008. The project takes into consideration the activities and outcomes of the ongoing GEF KAP II. More specifically, the proposed project will support on-the-ground implementation of the most promising adaptation measures that have been identified and developed under KAPII and expand the coverage of the demonstration investments piloted under KAP II to ensure an impact on the development programs of the country.

B. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH LDCF ELIGIBILITY CRITERIA AND PRIORITIES

The UNFCCC agreement of March 1994 entered into force in Kiribati in May 1995. Kiribati is included in the list of Least Developed Countries (LCDs) and is therefore eligible for support under the LDCF. The proposed project is consistent with the guidance for the LDCF (GEF/C.28/18 May 2006) and will implement priority actions specified in the 2007 NAPA. Component 1 addresses NAPA priority #1: water resource management; Component 2 addresses priority #2: coastal zone management and coastal resilience; while Component 3 addresses priorities #3, #4, and #5: strengthening of climate change data quality and management and institutional strengthening for adaptation. All components also support the cross-cutting issue of mainstreaming and capacity building for adaptation. The urgent adaptation measures described in the NAPA were identified through extensive consultations with all stakeholders including government ministries and agencies, state owned enterprises, private sector, NGOs and the communities. The proposed project reflects the country-drivenness of the NAPA and the national development strategies as described under section B. In addition, the project seeks to leverage additional co-financing from multilateral and bilateral sources. The project is leveraging significant co-financing from AusAID and GFDRR (directly and through Japan PHRD) as a testament of these partners' support for the project objectives. The project supports priority interventions that are eligible under the LDCF guidelines, namely it will integrate climate change risk considerations into water resource management and coastal zone management plans and investments; expand community-based adaptation measures to increase resilience against climate change risks; and implement measures to respond to the adverse effects of sea level rise.

The project will provide additional financing for adaptation for specific development activities of the government of Kiribati in vulnerable coastal communities. Cost-effectiveness criteria will be applied in the choice of adaptation measures. The project is designed in support and as integral part of the government Climate Change Adaptation strategy and will seek harmonization, synergies and cross-sector coordination with any other initiatives carried out by government and development partners. Finally, World Bank/GEF monitoring and evaluation procedures will be adopted throughout project implementation.

C. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

Key donors (especially NZAP, GOA, ADB and PRIF) were fully engaged during the project preparation and will be invited to participate in supervision missions. Extensive liaison will be undertaken with other donors to increase the overall impact of the programs. Other notable partner's initiatives which are particularly complementary to KAP III are outlined below.

The World Bank: 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 and in the telecommunications sector. An Aviation Infrastructure Investment Project is under preparation. Upcoming projects include investments in solar energy and assistance to respond to the global food crisis.

The World Bank/ADB: in conjunction with ADB, the WB is financing the Kiribati Road Rehabilitation Project. As part of this, ADB and WB are investigating the possibilities to include coastal erosion repair work and rehabilitation or replacement (where necessary) of the older parts of the water transmission line, thus complementing KAPIII activities.

Pacific Infrastructure Advisory Center (PIAC): PIAC is assisting the government of Kiribati in designing and implementing the South Tarawa Program for Water, Sanitation and Solid Waste Management (South Tarawa WS&SW Program). The WS&SW Program represents a coordinated approach under the leadership of the Government of Kiribati to improve service levels and performance in the WS&SW subsectors and thus enhancing the livelihood and welfare of the people. It comprises of a number of individual projects and activities that are planned, managed and implemented by government agencies with the support of and in direct consultation with development partners. Along with the NZAP's STP and ADB's Sanitation Master Plan project, KAPIII is a major development partner for the WS&SW Program. The program is therefore fully synergized with the water sector and capacity building components of KAPIII, particularly in its water resource management and water supply activities.

The overall program is coordinated by the Task Force for Water and Sanitation that has been established by the Government of Kiribati for this purpose. The members of the Task Force and the partners in the program have agreed to coordinate their efforts under the program to achieve a focused approach, avoid overlaps and gaps and reinforce their individual efforts.

ADB: ADB is undertaking the South Tarawa Sanitation Improvement Sector Project (formerly known as Tarawa Sanitation Improvement Project), aimed at improving equitable access to improved sanitation for South Tarawa's population. The obvious synergy with KAPIII is the project's impacts on ground water quality, as poor sanitation is a continued threat to the delivery of potable water. Specific synergies are through: Priority sanitation sector infrastructure investments undertaken by MPWU and PUB; improved sanitation practices among South Tarawa's population; capacity building within the PUB and MPWU for sanitation service delivery and regulatory oversight. The project also complements KAPIII through building project management capacity within the MPWU and PUB to improve project implementation ability.

New Zealand Aid Program: NZAP is undertaking a number of complementary urban development activities on South Tarawa and Kiritimati Island under the Urban Development Program (UDP) formerly called Sustainable Towns Program (STP). The UDP/STP Phase 2 (2010–2013), with funding support from NZAP and PRIF is implementing the construction a fully-serviced residential and associated land uses subdivision on a portion of Temaiku State Land for 150 low-middle income families. It is also planning to provide a package of visible infrastructure improvements, in particular potable water and sanitation in the two poorest villages of Betio and Bairiki (1,000 households). Other activities are aimed at strengthening the urban management capabilities of the Ministry of Internal and Social Affairs (MISA) and the Urban Councils through implementing a range of 'learning by doing' urban management core functions

in the existing villages on South Tarawa and Kiritimati Island, including a solid waste management project, local economic development, and construction of rainwater tanks at community maneabas making use of technical standards developed under KAP II. The experiences in working with communities in South Tarawa under STP, and the operation of small grants schemes, will be relevant to the KAP III project implementation. The NZAP are also involved in a rainwater harvesting initiative on Kiritimati, technical designs relating to which have been based on the standards developed under KAP II.

EU: Implemented by UNICEF, the EU is undertaking the Water and Sanitation in Outer Islands project. The goal is to increase access to safe and sustainable water and sanitation, and reduce water-related diseases in Kiribati. The project will target the small and remote outer islands of Kiribati, focusing on conducting hydro-geological assessments of groundwater resources, assessing existing water and sanitation infrastructures, repairing faulty structures and installing new rainwater harvesting systems with safe storage facilities. It is also expected to enhance governance capacity at community level to ensure the sustainable operation and maintenance of water infrastructure facilities. The project will further include intensive training and awareness raising campaigns on water sanitation and hygiene. That the EU project specifically targets outer islands complements KAPIII's water sector focus which is primarily on Tarawa.

The Australian Agency for International Development: AusAID was a major funding partner under KAP II and is the largest co-financier of KAP III. The KAP II/III projects represent AusAID primary vehicle for bi-lateral aid for Kiribati in the water and disaster management sectors. AusAID also has a number of other initiatives in Kiribati in areas of: Education, Health, Economic Growth and Reform, and Gender.

D. DESCRIBE ADDITIONAL COST REASONING

The adverse impacts of Climate Change on the targeted areas and sectors of Kiribati are real and visible and the government of Kiribati is highly committed to ensuring that the country future development is guided by climate change risk considerations. However, human capacity – particularly the ability to implement projects according to donors' requirements- and financial resources in this small island development state (SIDS) are an overwhelming constraint to the government's ability to act.

Without the LDCF intervention, government and donor interventions to address climate change risks for the most vulnerable areas (the coast) and sector (drinking water) will remain ad-hoc and piecemeal, limited to a few pilots, based on traditional protection measures or post-disaster reactive mode. Interventions to protect the coastal areas would be sporadic and insufficient to meet the increasing pressure of extreme weather events. Policy makers and disaster management professionals will not be able to effectively interpret climate risk data, anticipate climate hazards and integrate adaptive measures into policies and programs; in turn, storm surges, sea level rise and increased salinity of soil and aquifer will continue to degrade the freshwater supply and in turn deteriorate the livelihoods of coastal communities.

With the LDCF additional funding, the country will be able to implement a comprehensive program that addresses the key climate-related threats on its most vulnerable communities and sets the basis for enhanced preparedness for extreme weather events. By supporting water conservation methods and addressing freshwater supplies, strengthening the governance and management of the water sector and increasing communities' involvement in developing and implementing such adaptive measures, the LDCF funding will contribute to reducing the impact of droughts and storm surges on the livelihoods and wellbeing of the Kiribati population; by increasing the protection of physical and natural assets along the coasts, the additional funding will contribute to reducing the vulnerability of coastal communities to sea level rise and extreme weather events. Finally, by improving the quality and management of climate change data and strengthening the capacity of the institutions in charge of climate change technical and policy work, the LDCF funding will ensure that climate change risk considerations guide the development of future economic policies and programs.

E. INDICATE THE RISK THAT MIGHT PREVENT THE PROJECT OBJECTIVE(S) FROM BEING ACHIEVED AND OUTLINE RISK MITIGATION MEASURES:

The overall risk to the project is assessed as High due to the very weak institutional capacity within the sector, the relatively large size of the project and the concurrent implementation of other large investments. Lessons learned from KAP II form the basis of risk mitigation measures. The following outlines major categories of risk that may inhibit achievement of the project objective and mitigation measures:

(1) **Operating environment risks**: Kiribati lacks the in-country managerial and technical skills for effective project implementation. Lessons from the implementation of KAP II point to the human resource factor as the main constraint to a successful project implementation. Competing demands from other large projects will further stretch already very thin institutions. Partnerships with other donors to increase complementarities and effectiveness of interventions will mitigate this risk as well as a simple project design, intensive support and flexibility to restructure activities if needed.

(2) **Implementing agency risks**: The MPWU and PUB lacks the technical capacity to undertake a project of this size, particularly alongside other programs, and supporting agencies are already committed to other priorities. These risks will be mitigated by placing three water and civil engineers within the MPWU and PUB to ensure support and supervision throughout the implementation of civil works. An experienced project manager will lead the PMU and design and supervision firms will be employed for the civil and water components to provide the necessary support and reduce demands on the PMU. The World Bank will provide regular and intensive supervision missions and substantial training of agency staff throughout the project.

(3) **Project risks:** The project may struggle to effectively balance the desire to address multiple priorities outlined in Kiribati's NAPA and development frameworks, with the desire to implement the project in an efficacious and timely manner. This risk is mitigated by limiting the scope of the project, which has been agreed upon in principal by the GoK. The project design will be carefully reviewed to ensure that the activities are logically inter-connected. Socio-cultural factors may be a barrier to gaining community support for water reserves and acquiring land. This risk will be mitigated by ensuring extensive community consultation and negotiation over extended time periods as part of the implementation program. Water abstraction works can impact groundwater quality if poorly designed or over pumped and coastal protection works require sustainable sources of material. Capacity building for water and coastal resource management will mitigate these risks. Additionally, all works will be reviewed against best practice and be subject to GoK environmental clearances. Lack of familiarity with international procurement standards and logistical complexity has been a serious challenge for the timely implementation of KAP II. The consolidation of project activities to reduce procurement volume in KAPIII will mitigate this risk. Further, substantial technical assistance to the PMU on procurement will be provided and the World Bank's supervision of procurement (serving as a quality control mechanism) will be conservative.

(4) **Project stakeholder risks**: Since the project is addressing only selected sites, it may encounter some resistance by those not directly benefitting from the project. To mitigate this risk, the project will continue to raise awareness on its objectives, scope and expected benefits to the community through public consultation and communication efforts. Prior to starting any investment activity, specific consultations and a participatory mechanism established under the project will seek community consensus on agreed interventions.

F. EXPLAIN HOW COST-EFFECTIVENESS IS REFLECTED IN THE PROJECT DESIGN:

In 2000 a World Bank-funded study estimated that in the absence of adaptation the combined effect of sea level rise, changes in rainfall and higher temperatures could result in a decline of 19-38% in the thickness of the main groundwater lens in Tarawa and inundation of up to 54% of land in some villages in South Tarawa and up to 80% in some villages in North Tarawa by 2050. In the absence of adaptation, Kiribati could face economic damages due to climate change and sea level rise of US$ 8 to16 million a year by 2050, or 17% to 34% of its 1998 GDP. The key barriers to cohesive implementation of water and coastal sector adaptation measures to address these risks are i) Limited government financial resources and in-country capacity and expertise ii) highly vulnerable geographic and socio-economic situation iii) limited institutional capacity for strategic planning, management and governance of water and coastal resources and infrastructure.

The project is structured to overcome these obstacles by delivering a balance of 'hard' investments and 'soft' capacity building initiatives. Economic benefits associated with the reduction of vulnerability of water resources include improved supply of clean water for human consumption and related reduction of public health costs; and reduction of water shortages for agriculture and economic activities and related loss of productivity. Economic benefits associated with more effective coastal hazard protection include reduced damage to coastal structures and ecosystems and associated livelihoods. Although it is difficult to quantify these benefits there is consensus in government and among donors and communities that they are significant when compared to the risks. A conventional economic analysis was not applied to the project due to the difficulties of quantifying the damage associated with future climate events and the project benefits associated with climate risk reduction.

Through lower ongoing infrastructure maintenance, repair and reconstruction cost the project provides both direct and indirect economic benefits to Kiribati. Climate proofing of economic infrastructure will reduce or avoid disruption to private-sector activity leading to higher growth and government revenues. Freshwater supply and conservation investments and related improved water quality should result in reduced health service costs. Project expenditure on goods and services provided by local individuals and firms under the project will support growth of the private sector and employment in the context of a small domestic market. Project expenditure will also bring fiscal benefits with higher private sector activity leading to stronger customs duties and tax take. Targetted technical and managerial capacity building within and across government institutions will scale up and increase sustainability of project outcomes and assist better coordination of climate change adaptation projects and activites in Kiribati. Additionally, high integration of the project with the activities of other donors in Kiribati reduces donor fragmentation and increases cost effectiveness.

PART III: INSTITUTIONAL COORDINATION AND SUPPORT

A. PROJECT IMPLEMENTATION ARRANGEMENT:

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 (PMU) comprising a Project Manager, an Assistant Project Manager, an 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. Specific policy and technical documents related to a specific sector will be approved by the sector ministries involved (e.g. MELAD, MPWU).

Responsibility and role of each agency is outlined in the table below.

Project Implementation Organization	Management Roles and Responsibilities
Implementing Agency (IA) – Office of the President (*Te Beretitenti*, OB)	• Responsible for the overall execution of the project. • Houses and operates the PMU. • Responsible for all procurement and financial management of the project through its PMU • Coordinates project implementation • Works closely with firms and individuals responsible for implementing and supervising various aspects of the project. • Responsible for compliance with environmental and social safeguards policies • Checks and certifies work done by all consultants and contractors and arranges payments. • Reports progress to the GOK and the donors.
MPWU, MELAD, MHSH, MISA	• Responsible for the day-to-day implementation of specific components/sub-components • Checks and certify work done by consultants and contractors and report to OB • Sign off on sector related policy and technical documents produced by the project
National Adaptation Steering Group (NASC)	• Oversees and monitors project implementation • Advises the GOK of any issues or concerns affecting project implementation and proposes remedial action
World Bank	• Responsible for administering GEF, GFDRR, PHRD and Australia Trust Funds that co-finance components of the project.

	• Responsible for overall administration of the project. • Responsible for supervision of all procurement financed under the Grants • Responsible for overseeing the implementation of the project EMP and the Bank's environmental and social safeguards measures.

PART IV: EXPLAIN THE ALIGNMENT OF PROJECT DESIGN WITH THE ORIGINAL PIF:

The final project design is aligned with the original design described in the PIF, in terms of expected adaptation benefits, co-financing, LDCF grant requested and additional cost reasoning.

The amount of GEF LDCF grant requested remains the same. However, the amount of co-financing has substantially increased from the original estimation at the PIF stage. AusAID, a a major funding partner under KAP I and KAP II, has confirmed funding support for 45% of KAPIII. The KAP II/III projects represents AusAID's primary vehicle for bi-lateral aid for Kiribati in the water and disaster management sectors. In addition, funding support from the Global Facility for Disaster Reduction and Recovery (GFDRR) – from their multi-donor trust fund and from the Japanese Policy and Human Resources Development (PHRD) window for DRR - reflects the disaster risk reduction emphasis in KAPIII, which is more prominent than in KAPII.

The endorsement stage project design includes a fourth component – 'Project management, monitoring and evaluation' - not explicitly indicated in the PIF. At the PIF stage, this component was instead worked into the other three components. Given the project management limitations that restricted the timely delivery of KAPII outputs and outcomes, it became clear that this element required stand-alone attention with dedicated resourcing.

PART V: AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with LDCF policies and procedures and meets the LDCF criteria for project endorsement.

Agency Coordinator, Agency name	Signature	Date *(Month, day, year)*	Project Contact Person	Telephone	Email Address
Karin Shepardson, Program Manager, ENVGC		June 24, 2011	Jiang Ru	202 473-8677	jru@worldbank.org

ANNEX A: PROJECT RESULTS FRAMEWORK

Project Development Objective (PDO): The project will improve the resilience of Kiribati to the impacts of climate change on freshwater supply and coastal infrastructure.												
PDO Level Results Indicators*	**Core**	**Unit of Measure**	**Baseline**	**Cumulative Target Values****					**Frequency**	**Data Source/ Methodology**	**Responsibility for Data Collection**	**Description (indicator definition etc.)**
				YR 1	**YR 2**	**YR3**	**YR 4**	**YR5**				
Indicator One: Volume of potable water per day provided, water saved through reduced leakage and wastage.	☐	Kilo-liters per day	< 5	40	80	160	190	190	Semi-annual project report	Supervision Mission/ Progress Report	MPWU/PUB	Volume saved in treated areas in PUB South Tarawa reticulated water supply.
Indicator Two: Volume of potable water per day provided from new groundwater sources, and new rainwater harvesting systems.	☐	Kilo-liters per day	25	50	75	78	80	82	Semi-annual project report	Supervision Mission/ Progress Report	MPWU/PUB	Volume provided from all new sources (rainwater harvested, and gallery extraction)
Indicator Three: Length of coastline with vulnerable public and private assets made resilient to the effects of sea-level rise and wave action and extreme and variable weather events to a minimum 25 year design life.	☐	km	0.5	0.8	1.0	1.3	1.6	1.6	Semi-annual project report	Supervision Mission/ Progress Report	MPWU	Cumulative gross length of treatments – covers all forms of works from mangrove planting, nourishment and seawall options.
INTERMEDIATE RESULTS												
Intermediate Result (Component C1): Improve Water Resource Use and Management												
Intermediate Result indicator One: Number of groundwater abstraction systems installed and operating in North Tarawa.	☐	Number	1	2	3	3	3	3	Semi-annual project report	Supervision Mission/ Progress Report	MPWU	Number of systems installed (excluding Buota) and operating after two year from completion.
Intermediate Result indicator Two: - The frequency of water supply of households has increased from an average 1-2 hours per day to 3-4 hours per day in areas treated for leakage/waste reduction.	☒	Number	1-2	2	2-3	3-4	3-4	3-4	Semi-annual project report	Supervision Mission/ Progress Report	PUB	Measured based on number of households connected to the PUB supply where rehabilitation and non-revenue water savings are achieved.
Intermediate Result indicator Three: Reduction in total volume of non-revenue water lost through	☐	Percent change	0%	4%	9%	14%	19%	19%	Semi-annual project report	Supervision Mission/ Progress Report	PUB	Revenue and non-revenue water volumes are measured using the IWA 'Best Practice"

leaks and wastage in zones treated for leakage reduction in South Tarawa.												water balance approach. The target is a 50% reduction in non-revenue water in each zone treated.
Intermediate Result indicator Four: Number of rainwater harvesting systems installed and operating on public buildings (all islands).	☐	Number	4	4	9	15	15	15	Semi-annual project report	Supervision Mission/ Progress Report	MPWU	Installed and operating means that the tanks are collecting and retaining at time of assessment, and water is being distributed to community members.
Intermediate Result indicator Five: Public health water quality test result (and warnings if necessary) are publically notified and understood by communities each month relating to water sources throughout North and South Tarawa.	☐	Number each six month interval	0	2	4	5	5	5	Semi-annual project report	Supervision Mission/ Progress Report	MHMS/PUB/ MPWU	Assess that communities have received and understand the public health information through sample interviews conducted by the Mission/Consultants.
Intermediate Result (Component C2): Increase Coastal Resilience												
Intermediate Result indicator One: Coastline asset condition assessment is completed and documented for all major non-government assets along the South Tarawa coastline.	☐		Assessment completed for government assets.			Assessment is updated with non-government assets.			Semi-annual project report	Supervision Mission/ Progress Report	MPWU/MELAD	Coastal condition plan is updated to include major non-government assets, with prioritization for mitigation treatment (although not necessarily to be GoK funded)
Intermediate Result indicator Two: Government coastal asset management condition assessment and works programs are maintained for three consecutive years.	☐		No ongoing programs are undertaken.		Works program is based on asset management plan (Year 1)	Works program is based on asset management plan (Year 2)	Works program is based on asset management plan (Year 3)		Semi-annual project report	Supervision Mission/ Progress Report	MPWU/MELAD	The coastal condition assessment plan is proactively used as the basis for planning new and upgrade coastal protection works.
Intermediate Result (Component C3): Strengthen the Capacity to Manage the Effects of Climate Change and Natural Hazards												
Intermediate Result indicator One: National Key Performance Indicators on Climate Change Adaptation and Disaster Risk	☐		Nil		KPIs developed	KPIs are being measured	KPIs are fully reported publically	KPIs are fully reported publically	Semi-annual project report	Supervision Mission/ Progress Report	OB	KPIs are published in official GoK public reports.

Management are developed, applied and reported.												
Intermediate Result indicator Two: Functional plans (under the Disaster Management Plan) relevant to public health and potable water are established and operational.	☐		Nil		Sector plan(s) developed	Sector plan(s) operating	Sector plan(s) operating	Sector plan(s) operating	Semi-annual project report	Supervision Mission/ Progress Report	OB	Sector plans are written endorsed and are operational.
Intermediate Result indicator Three: Population, for which Locally Managed Adaptation Plans are developed, finalized and are being implemented.	☐	% of national popul'n	0%	5%	10%	20%	25%	33%	Semi-annual project report	Supervision Mission/ Progress Report	MELAD	Population taken from the 2010 census data for each census enumeration area of South Tarawa., North Tarawa and 2 Outer Islands (TBD)
Intermediate Result Indicator Four:												

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, Responses to Comments from the Convention Secretariat made at PIF)

The GEF Secretariat review highlighted no major issues with the project at PIF stage. Responses to review comments are below.

Review criteria	Review comment	Response
Project design	The descriptive detail of the activities are satisfactory for the current stage of project development but is expected to be further scoped during the PPG stage	Specific expected outputs are identified in the project framework Part I. Part II Section A provides extensive detail of activities within each project component.
Project design	A full list of relevant development activities in the water and coastal zone management sectors and how this project will be coordinated with them should be provided by CEO endorsement.	Part II Section C provides detail of the most relevant partner's projects that are ongoing in Kiribati and outlines synergies with KAPIII activities and components.
Project design	More details about cost effectiveness should be provided by CEO endorsement	A detailed explanation of cost effectiveness of the proposed investments is provided in section II (F)

ANNEX C: CONSULTANTS TO BE HIRED FOR THE PROJECT

Position Titles	*$/ person month**	*Estimated person month***	*Tasks to be performed*
For Project Management			
Local			
Project Manager	4500	16	Project management
Procurement Officer	2000	16	Procurement
Accountant	1700	16	Accounting and Financial Management
Project Management Assistant	1400	17	Monitoring and reporting
International			
PMU Advisor	20,000	1.5	Support to Project management
Justification for Travel, if any: 33 islands over 3.5 million kilometers			
For Technical Assistance			
Local			
Community Engagement	2000	55	Community consultation and engagement
International			
Water consulting firm	20000	21	Component A
Coastal protection firm	20000	6	Component B
Sr. Water Engineer (Advisor)	12500	10	Resident TA to MPWU
Sr. Civil Engineer (Advisor)	12000	6	Resident TA to MPWU
Sr. Water Operations (Advisor)	12500	6	Resident TA to PUB
CCA-DRR Policy Advisor	16000	5	TA to OB
M&E Specialist	15000	2	Project M&E
Justification for Travel, if any:			

* Provide dollar rate per person weeks or months as applicable; ** Total person weeks/months needed to carry out the tasks.

ANNEX D: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS

Not applicable

A. EXPLAIN IF THE PPG OBJECTIVE HAS BEEN ACHIEVED THROUGH THE PPG ACTIVITIES UNDERTAKEN.

B. DESCRIBE FINDINGS THAT MIGHT AFFECT THE PROJECT DESIGN OR ANY CONCERNS ON PROJECT IMPLEMENTATION, IF ANY.

C. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES AND THEIR IMPLEMTATION STATUS IN THE TABLE BELOW:

Project Preparation Activities Approved	*Implementation Status*	*LDCF Amount ($)*				*Co-financing ($)*
		Amount Approved	*Amount Spent To-date*	*Amount Committed*	*Uncommitted Amount**	
	(Select)					
	(Select)					
Total		0	0	0	0	0

* Uncommitted amount should be returned to the LDCF Trust Fund. Please indicate expected date of refund transaction to Trustee.