Project Administration Manual

PUBLIC

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Republic of Kiribati: South Tarawa Renewable Energy Project (Phase 2)

ABBREVIATIONS

ADB	–	Asian Development Bank
BESS	–	battery energy storage system
CO_2e	–	carbon dioxide equivalent
DCC	–	development coordination committee
EA	–	executing agency
GAP	–	gender action plan
GHG	–	greenhouse gas
GWh	–	gigawatt-hour
IA	–	implementing agency
km	–	kilometer
kW	–	kilowatt
kWh	–	kilowatt-hour
MFED	–	Ministry of Finance and Economic Development
MISE	–	Ministry of Infrastructure and Sustainable Energy
MW	–	megawatt
MWh	–	megawatt-hour
MWp	–	megawatt peak
O&M	–	operation and maintenance
PIC	–	Project implementation consultant
PAM	–	project administration manual
PMU	–	project management unit
PUB	–	Public Utilities Board
SPS	–	Safeguard Policy Statement (2009)

CONTENTS

APPENDIXES

Project Administration Manual Purpose and Process

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with the policies and procedures of the government and Asian Development Bank (ADB). The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The purposes of the PAM are to (i) share the project status with ADB's and the government's project teams, (ii) identify the contact persons to facilitate communication and coordination between ADB and the government, and (iii) facilitate preparation of the project completion report. The PAM will be useful for new project members to understand the project status easily and communicate effectively with other members.

The Ministry of Finance and Economic Development (MFED), as executing agency, and the Public Utilities Board (PUB), as implementing agency, are wholly responsible for the implementation of this ADB-financed project, as agreed jointly between the recipient and ADB, and in accordance with the policies and procedures of the government and ADB. ADB staff is responsible to support implementation including compliance by MFED and PUB through the oversight of the Ministry of Infrastructure and Sustainable Energy, and the project steering committee of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At grant negotiations, the recipient and ADB shall agree to the PAM and ensure consistency with the grant and project agreements. Such agreements shall be reflected in the minutes of grant negotiations. In the event of any discrepancy or contradiction between the PAM and the agreements, the provisions of the grant agreements shall prevail.

This project is processed under the Pacific Regional Renewable Energy Investment Facility and approval authority for projects under this facility has been delegated to ADB's President. After ADB President's approval of the project's Investment Facility Report (IFR), changes in implementation arrangements are subject to agreement and approval pursuant to relevant government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval, they will be subsequently incorporated in the PAM.

I. PROJECT DESCRIPTION

1. **The proposed project.** The proposed South Tarawa Renewable Energy Project (Phase 2) is processed under the Pacific Renewable Energy Investment Facility (PREIF – the facility) and follows the Facility's streamlined business process.[1] The project will help the Government of Kiribati in transforming their energy sector to one that is low-carbon and adapted to growing climate and natural hazards. The project will (i) expand access to clean and sustainable energy; (ii) improve the reliability and climate resilience of service; (iii) reduce reliance on fossil fuels for power generation; (iv) reduce greenhouse gas emissions; (v) reduce the cost of power generation; (vi) pilot clean mobility, (vii) improve the capacity of energy sector stakeholders, and (viii) drive the transition to a sustainable blue economy (SBE) through nature-based solutions. The project will install climate-adapted floating solar photovoltaic (FPV), a battery energy storage system (BESS), a transmission and distribution network, productive uses of energy (PUE), such as electric vehicles (EVs) including an e-boat for the operation and maintenance of the FPV system, EV charging stations, electric artificial reefs and wave breakers for coastal protection, and capacity building, including on disaster preparedness.

2. The financing plan of the $27.4 million project includes grants of $14.9 million from ADB's Special Funds Resources (Asian Development Fund – ADF), and $10.0 million from ADB's ADF 13 Thematic Pool supporting the disaster risk reduction and climate change adaptation strategic area (DRR-CCA), and grant cofinancing of $0.5 million from the Ireland Trust Fund for Building Climate Change and Disaster Resilience in Small Island Developing States (ITF), to be administered by ADB. The government of Kiribati will provide $2 million counterpart financing to cover land acquisition through cash contributions, and taxes and duties through exemption.

3. The project is expected to contribute to increasing solar energy generation to 29.93 GWh on average from floating and land-based solar photovoltaic capacities enabled by the BESS, and thereby displace an average of 2.402 million liters of diesel fuel consumption and avoid 11,806 tons of carbon dioxide equivalent (tCO_2e) greenhouse gas (GHG) emissions per year for 25 years. The project is being prepared through a $3.5 million regional transaction technical assistance facility[2] funded by the Clean Energy Financing Partnership Facility under the Asian Clean Energy Fund (ACEF),[3] and the multi-donor Clean Energy Fund,[4] administered by ADB. The project builds upon and expands the scope and outputs of the ongoing $14.7 million South Tarawa Renewable Energy Project (STREP) approved in November 2020 with grant funding from ADB's ADF, the Government of New Zealand, and the Strategic Climate Fund.[5]

4. **Project rationale.** The Republic of Kiribati is a small island nation in Central Pacific. It comprises 32 atolls and a coral island with a total land area of 810 square kilometers (km^2) widely dispersed over an exclusive economic zone of 3.5 million km^2 and spread across three island groups and time zones. Kiribati's remoteness from major markets and most resources leads to high import costs, while its low elevation - averaging only 2 meters above sea level - creates severe vulnerability to sea-level rise and other climate change impacts and natural hazards.

[1] Asian Development Bank (ADB). 2017. *Report and Recommendation of the President to the Board of Directors: Proposed Pacific Renewable Energy Investment Facility*. Manila. The Facility is designed to finance renewable energy projects in the PIC-11 countries to transform their power sectors from diesel to sustainable renewable energy generation sources and support sector reform, private sector development, and capacity building. The 11 countries are the Cook Islands, the Federated States of Micronesia, Kiribati, Nauru, Palau, the Republic of the Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu. Project processing is streamlined by (i) the Board delegating authority to the President to approve qualifying projects to an aggregate approval limit, and (ii) replacing the traditional concept approval process with approval of a project scoping mission back-to-office report (BTOR) by the head of department.

[2] ADB. 2020. *Preparing Floating Solar Plus Projects under the Pacific Renewable Energy Investment Facility.* Manila. The TA will prepare a floating photovoltaic roadmap for the PIC-11 and 3 FPV projects in Kiribati, Tonga and Tuvalu.

[3] Established by the Government of Japan

[4] Financing partners: the governments of Australia, Norway, Spain, Sweden, and the United Kingdom.

[5] Under the Scaling Up Renewable Energy Program in Low-Income Countries (SREP).

Climate change presents a very high risk to Kiribati, one that threatens the very survival of the islands. Of greatest concern is medium to long-term sea level rise (SLR) and the rapid depletion of limited freshwater reserves, both due to climate change. SLR and alternating unusual levels of precipitation and drought have caused erosion and massive land loss as well as saltwater encroachment into the water lens and the limited inland water reservoirs. Too much flooding and inundation (rendering land unusable) and associated erosion continue to damage coastal infrastructure, displace homes, and stranding essential assets. All infrastructure lies on land close to the coast.

5. The permanent Kiribati population of around 121,391 i-Kiribati (2021 est.) is divided almost equally between Tarawa, the capital at 56%, and the rest of the 33 coral atolls comprising its territory. Its growth rate has remained at around 1.6%. While nearly 56% of i-Kiribati are considered as "urban", only a proportion of these —39%—are classified as "productive". Service activities constitute over 65% of the economy as Kiribati has few natural resources and a calcareous soil, unsuitable for agriculture. The limited productive components are agricultural products, naturally growing coconuts, roots and tubers, taro and tropical fruit and some pork and chicken rearing. Fishing and fishing licenses are sources of revenue for the government while handicraft represents add-on to women in households. In 2021, 92.8% of i-Kiribati has access to electricity (88% in urban areas), but only 12% have access to clean fuels and technology. [6]

6. Overcrowding in the capital,[7] South Tarawa, is exacerbating energy and water poverty, and is stressing the natural environment, housing, land management, sanitation services, and underground water reserves. South Tarawa is home to about 50% of the Kiribati's population with a poverty rate of 19% which is relatively lower than other parts of the country.[8] Kiribati's poverty rate based on cost of basic needs head count ratio was estimated at 21.9% in Household Income and Expenditure Survey (HIES) 2019–2020 (although extreme poverty has decreased from 14% in 2006 to 1.7% in 2019[9]). Around 20%–25% of households are headed by women. Gender inequalities persist in the public and private sectors, and within the home. Unemployment is high overall (31%), and even higher among women (58%). Women are the most affected by energy poverty, suffering health problems caused by using biomass and kerosene for lighting, cooking, and boiling water for drinking. Access to modern energy services reduces exposure to pollutants, saves time, and allow women to participate in the community, in decision-making and in income-generating activities. The government's policy is to move towards substantial reduction of the imbalances by replacing fossil fuel imports, deploying renewable energy and energy efficiency measures, establishing more permanent staffing for civil services based on overseas support and development assistance, and mainstreaming gender in development.

7. Like for many other small Pacific countries, Kiribati's electricity generation relies heavily on imported diesel fuel, transported over long distances across the ocean and subject to weather and climate-change related supply disruptions.[10] This dependence exposes Kiribati to high and fluctuating oil prices and has resulted in one of the region's highest costs of power generation.[11] The Government of Kiribati has prioritized strengthening fuel security and reducing carbon emissions and hopes that continued investments in renewable energy, energy storage, and distributed technologies improve the country's energy security, increase grid reliability, while reducing fossil fuel consumption.

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[6] ADB. 2023. *Key Indicators for Asia and the Pacific 2023*.

[7] High population density of over 3,600 people per km^2

[8] Pacific Community & Kiribati National Statistics Office. 2021. 2019-2020 Household Income and Expenditure Survey Report. Noumea, New Caledonia

[9] Footnote 11. Measured as people living below the international poverty line of $2.15 a day (2017 PPP).

[10] In 2022, the Public Utilities Board (PUB) spent A$9.8 million (59% of total expenditure) on diesel and lubricant. Approximately 49% of all imported diesel is used for electricity generation.

[11] Pacific Power Association. 2018. "*Utilities Benchmarking Report, 2017 Fiscal Year*", indicates the average supply costs across Pacific utilities is $0.32 per kilowatt-hour compared to 0.395 per kilowatt-hour for South Tarawa.

8. **Primary energy demand.** Kiribati's primary energy consumption is dominated by imported fossil fuels (52%) and coconut oil (42%). The residential sector is the largest consumer of energy, followed by land transport. In 2016, electricity made up only 3% of household energy consumption; more than 95% of household energy consumption comes from biomass in the form of coconut oil and palm oil residue (77%) and fuel wood and wood waste (10%), and petroleum products in the form of kerosene (5%) and petroleum (5%). Kiribati people rely on wood and kerosene for cooking and boiling water, which often results in health problems caused by indoor air pollutants. Liquefied petroleum gas use is limited because of its high cost, especially in comparison with kerosene, which is subsidized by the government (footnote 10).

9. **Sector context.** Grid-connected electricity in South Tarawa is generated and distributed by the state-owned Public Utilities Board (PUB), established under the Public Utilities Ordinance (1977, and further amended in 2000). The PUB's mission is to commercially provide and maintain quality, reliable electricity, water, and sewerage disposal services to Tarawa. Among the PUB's three operations streams, electricity provides the most revenue at 89% on average, or 78% of total revenue including community service obligations (CSO) and other income. The PUB relies on development partners for capital investments and on government subsidies (CSO) of around 9% of total revenues.[12] The PUB's 7.01 megawatts (MW) of installed capacity comprises several diesel generators totaling 5.45 MW, including 4 new diesel generators provided by the Governments of New Zealand and the People's Republic of China (PRC), and grid-connected solar photovoltaic (PV) totaling 1.56 MW-peak (MWp). These supply an annual peak demand close to 6 MW to government, commercial, and residential customers. While PV systems account for 22% of installed capacity, these supply only 9% of demand on South Tarawa, and diesel generation supplies the remaining 91%. The PUB forecasts that the demand up to 2030 will grow by 5% per annum. Of the 6,825 households in South Tarawa, 72.4% have access to grid electricity, mainly for lighting. Around 20%–25% of households are headed by women.

10. PUB's diesel generation system on South Tarawa has low efficiency and incurs high cost of repairs and maintenance and large capital replacements on top of the high cost of fuel shipments. Due to lack of back up generation assets, PUB regularly conducts load shedding to cope when catastrophic events, such as generator failures, occur.[13] The government recognizes that renewable energy can reduce power generation costs, and support equitable socioeconomic growth and poverty reduction, but this must be complemented by supply side efficiency, demand side management, policy reform and improved tariff setting to ensure sustainability.[14]

11. **Key constraints to achieving sustainable development goal (SDG) 7 targets.** Up until recently, the Kiribati energy sector has not significantly addressed the following inter-related constraints: (i) inefficient and insufficient generation and grid capacity leading to unreliable supply, (ii) lack of energy storage to manage intermittency and offset nighttime load, (iii) affordability concerns due to high fuel and generation costs, and high tariff rates that disproportionately affect the poor, suppress demand, and hinder growth in the commercial and tourism sectors,[15] (iv) limited capital to fund repair and maintenance costs and asset replacements, (v) weak financial management, governance and overall institutional capacity, (vi) weak policy and regulatory

[12] Despite having the highest tariffs in the region at A$0.10–A$0.55 ($0.08–$0.44)/kWh for residential customers and up to A$0.70 ($0.56)/kWh for industry and government consumers with a weighted average tariff of A$0.51/kWh, the PUB needs heavy subsidies, largely for its water and sewerage operations. Government subsidy through the CSO agreement was A$1,135,000 in 2017 (8% of total revenues). This increased to A$1,474,590 in 2018 (10%), A$1,282,258 in 2019(10%), A$1,230,00 in 2020 (8.2%), A$1,549,707 in 2021 (9.6%), A$1,449,028 in 2022 (8.7%). This subsidy largely goes to the water operations, with tariffs well below cost-recovery, and to the sewerage services that are provided free of charge.

[13] PUB has requested funding from the Government of New Zealand for installation of a diesel generator and fiber optic cables for the entire South Tarawa grid (Bonriki-Betio), and for other network and institutional capacity building.

[14] World Bank. 2019. *Implementation Completion and Results Report TF0A5646 on a Small Grant in the Amount of USD 0.3 Million to the Republic of Kiribati for Scaling - Up Renewable Energy Program Investment Plan*. Washington, D.C.

[15] Pacific Power Association. 2018. *Utilities Benchmarking Report, 2017 Fiscal Year*. Suva. This report indicates that the average supply costs across Pacific utilities is $0.320 per kilowatt-hour compared to $0.395 per kilowatt-hour for South Tarawa.

framework, (vii) lack of incentives for private sector investments, (viii) limited financing, and (ix) reliance on development partner funding.[16]

12. **Sector and tariff reforms and regulation.** The cost of fuel for electricity generation decreased steadily from 63% of total expenditure in 2015 to 56% in 2019, this rose again to 59% in 2022, thus exposing PUB to importers' prices and adversely impacting its profitability and sustainability (footnote 15). Revenues in 2017 and 2018 were affected by the introduction of the inverted block tariff structure for residential customers. Here, the highest volume users pay the highest tariffs, effectively providing a financial incentive for customers to consume electricity wisely, and a tariff equivalent to a "lifeline" or low-income tariff.[17] In 2018-2019, the estimated losses from electricity was about A$0.5 million, increasing at about 8% over 2017. The main reasons for losses in electricity revenues are the below cost recovery tariff and the subsidies provided to the water operations.

13. **Energy road map and investment plans.** The International Renewable Energy Agency supported Kiribati to prepare a plan to guide medium-term investments in line with commitments under the Paris Agreement through the Kiribati Integrated Energy Roadmap: 2017–2025.[18] The road map identified grid-connected solar photovoltaic as the least-cost generation option and recommends the following: (i) deployment of properly sized solar photovoltaic and battery energy storage systems to enable further renewable energy deployment and to support efficient diesel operation in South Tarawa, (ii) to explore the possibility of a pilot electric vehicle (EV) for public transport and private motorcycles in South Tarawa using solar photovoltaic charging, and (iii) to address water supply leakage before envisaging expensive and technically complex PV-driven reverse osmosis (RO) desalination system**.** Also, despite the potential for revenue generation from the high electricity costs, there are no independent power providers in Kiribati. Barriers to private sector investment include (i) lack of an enabling policy and regulatory framework, (ii) credit worthiness of PUB as an off-taker, (iii) lack of bankable projects, and (iv) small transaction sizes.[19]

14. The Government of Kiribati (GOK) has prioritized strengthening fuel security and reducing emissions and hopes that continued investments in renewable energy, energy storage, and distributed technologies improve the country's energy security, increase grid reliability, while reducing fossil fuel consumption. Ongoing projects and this proposed project continue to align with the Kiribati 20-Year Vision 2016-2036,[20] the blueprint for Kiribati transformation which addresses government's objectives outlined in their Energy Policy (2009), the Kiribati Joint Implementation Plan for Climate Change and Disaster Risk Management 2014-2023,[21] and the Kiribati Development Plan for 2016-2019,[22] which seeks to increase I-Kiribati's access to high-quality and climate-resilient infrastructure, and to provide equal opportunity and outcomes for all I-Kiribati's by incorporating gender mainstreaming. The project will contribute to delivering government targets under their Climate Change Policy (2019),[23] and their Nationally Determined

[16] ADB's projects in the energy, urban and water sector projects addressed these key constraints, including financial and asset management, governance and regulation, particularly the development of the Energy Act 2022. ADB and the Government of New Zealand are implementing utility reforms and institutional capacity building programs in addition to infrastructure investments. The Government of New Zealand is installing a diesel generator and fiber optic cables, and information management system for the entire South Tarawa grid (Bonriki-Betio), while ADB is supporting financial management and capacity building in accounting, auditing, and governance. ADB's Private Sector Development Initiative supports reforms to expand private sector opportunities in Kiribati.

[17] Kiribati's Per Capita GDP of A$2,397 (US$1,625) is the lowest in Pacific region. The limited economic growth and lately COVID-19 impact make it more difficult for the customers to absorb utility costs and affordability capacity.

[18] International Renewable Energy Agency. 2017. *Kiribati Integrated Energy Roadmap: 2017–2025*. Bonn. The levelized cost of electricity from grid-connected solar PV is $245/MWh compared with $347/MWh for diesel. Despite this and the significant technical resource potential for solar energy (554 MW), deployment has been limited

[19] ADB's Private Sector Development Initiative supports reforms to expand private sector opportunities in Kiribati.

[20] Government of Kiribati. 2016. "*Kiribati 20-Year Vision 2016-2036 (KV20)*". South Tarawa.

[21] Government of Kiribati. 2013. "*Kiribati Joint Implementation Plan for Climate Change and Disaster Risk Management 2014-2023*". South Tarawa.

[22] Government of Kiribati. 2016. "*Kiribati Development Plan 2016-2019*". South Tarawa.

[23] Government of Kiribati. 2019. "*Kiribati Climate Change Policy*". South Tarawa.

Contributions.[24] However, the approach to developing the energy sector has focused on maintaining the existing generation and distribution technologies, and progressively replacing diesel with land-based PV. But due to climate change, this current model to developing the energy sector is no longer sustainable. Over the last two decades, Tarawa has become particularly vulnerable to climate hazards, with longer and more intense dry periods, more regular flooding, sea level rise (SLR), extreme weather events, higher temperatures, and storm surges. SLR means that there will be far less dry land available to host energy infrastructure, reclamation is costly, and the future location of suitable land is unknown. Coastal erosion threatens all land-based infrastructure and saltwater intrusion exacerbates the water quality issues and further constrains the limited supply from the Bonriki and Buota freshwater lenses. Adaptive climate-resilient technologies and approaches are required.

15. A sustainable, accessible energy supply is vital to lowering vulnerability and to providing a basis to all adaptation pathways. Access to clean energy and water allows communities to develop climate-adapted livelihoods and, over time, adapt more successfully to climate change. For example, sustainable energy supply provides a basis for: (i) sustainable food and water supplies; (ii) reliable education facilities; (iii) reliable health care facilities; (iv) low-carbon transport; and (v) other innovative end-use technologies and applications.

16. ADB is leveraging cofinancing and is ensuring collaboration with development partners. The project involves technology and applications new to Kiribati, incorporates needed sector reforms and is delivered through innovative approaches to ensure sustainability. The project also builds on the innovations of the ongoing STREP.[25] The proposed project will initiate and contribute to the transformation of the Kiribati energy sector to one that is adapted to growing climate and natural hazards. It will do this by installing the innovative, climate-adapted and efficient *floating* PV (FPV) for power generation and for services and benefits beyond electricity, or productive uses of energy (PUE) to address multiple challenges. FPV is an adaptive technology as it requires no dry land, it rises with rising sea levels, rides the waves and floats with the tides, and is, by design, protected from coastal erosion and from strong winds due to its flexible cables and mooring system. To ensure holistic sustainability of the project and the PUB and MISE, the project will explore assistance to help resolve legacy issues around the governance, regulation and institutional capacity of the PUB and other relevant energy sector stakeholders, provide recommendations, and operationalize reforms and actions recommended under STREP and other donor initiatives. Energy, like climate change, is cross-cutting. It fuels all infrastructure, development, and economic growth.[26]

17. Kiribati is a small island developing state (SIDS), which also falls within ADB's fragile and conflict-affected situation (FCAS) classification. The project design cascades ADB's FCAS and SIDS Approach 2021 in its country-specific differentiated approach to achieve ADB's Strategy 2030[27] operational priorities, the ADB Energy Policy 2021[28] on cross-sectoral integrated solutions and alignment with the Paris Agreement, and the use of climate adaptation financing to contribute to ADB's increased climate financing target from $80 billion to $100 billion by 2030. The project aligns with five of the seven operational priorities (OPs) under ADB's Strategy 2030: (i) addressing remaining poverty and reducing inequalities (OP 1); (ii) accelerating progress in gender equality (OP 2); (iii) tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability (OP 3); (iv) making cities more livable (OP4) and (v) strengthening governance and institutional capacity (OP 6). The project aligns with the United Nations'

[24] Government of Kiribati. 2015. *"Kiribati Intended Nationally Determined Contributions*". South Tarawa.
[25] STREP pioneered the use of joint procurement, for two separate projects from different sectors, in ADB. The joint procurement of the PV, BESS and O&M contracts for STREP and for the South Tarawa Water Supply Project (STWSP) funded by the ADB, the Green Climate Fund, and the World Bank enabled harmonization of standards and achieved huge savings (44% for STWSP) due to economies of scale.
[26] ADB. 2019. *Report and Recommendation of the President to the Board of Directors: South Tarawa Water Supply Project*. Manila.
[27] ADB. 2018. *Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific*. Manila.
[28] ADB. 2021. *Energy Policy*. Manila.

Sustainable Development Goals (SDG), particularly SDG 7 on providing access to affordable and clean energy. The project is consistent with ADB's Pacific Approach 2021–2025[29] under which ADB's infrastructure program will harness renewable energy to drive down the cost of electricity, reduce risks, and reduce fossil fuel imports.

18. **Proposed solution**. The project will build on STREP with a view to increasing climate adaptation and resilience of energy infrastructure, as well as operationalize governance and utility -reforms, including relevant provisions in the Energy Act 2022, and the financial recovery action plan. Under the STREP's grid study, transmission grid upgrades and rehabilitation of the powerhouse were identified as priority to ensure stability, reliability, and resilience of supply and to optimize solar energy generated. Upgrading the transmission and distribution system will remove the constraint of transmitting solar energy from Bonriki, which has the most land for ground-mounted PV, to Betio, which has the highest energy demand.[30] On the PUEs, PUB requested to prioritize piloting electric vehicles (EVs), including an e-boat for FPV O&M, and charging stations to promote low-carbon transport technologies. PUB's institutional capacity will be strengthened to include EVs and electric maintenance plant that will also include plant for maintenance of transmission and distribution lines and equipment such as mobile elevated work platforms for the use of PUB maintenance staff. To ensure climate-resilience of the entire system, coastal protection and disaster risk reduction measures will be incorporated in the project design as promoted under the ADB's ADF 13 Thematic Pool for supporting disaster risk reduction and climate change adaptation strategic area and the Ireland Trust Fund for Building Climate Change and Disaster Resilience in Small Island Developing States. Artificial reefs, powered by the FPV plant, are proposed to be installed as additional wave breakers that also enhances fish growth. The design and monitoring framework in Appendix 1 presents the impact, outcome, and outputs.

19. **Project Impact, Outcome and Outputs.** Continuing from STREP, the proposed STREP 2 is aligned with the following impacts: renewable energy generation increased and greenhouse gas emissions reduced in Kiribati. The following project outcome statement emphasizes the combined mitigation-adaptation focus: generation and utilization of climate-adapted renewable energy in South Tarawa increased. The project has the following three agreed indicative outputs, subject to available financing and further due diligence:

a. **Output 1: Climate-resilient floating solar photovoltaic, battery energy storage system, and grid infrastructure installed.** These installations will consist of:
   (i) **Floating PV:** 4 MW/5 MWp, east of Betio port, next to the Marine Training Centre, including an **electric boat** for the O&M of the FPV system;
   (ii) **BESS.** 3 MVA (3 MWh) BESS in the Bonkiri water reserve; and
   (iii) **Grid infrastructure:** Around 30 kilometers of 33 kilovolt (kV), transmission and distribution system grid from Bonriki to Betio, including smart integration and control systems, streetlighting and other safety features.

b. **Output 2: Adaptive low-carbon productive use of energy infrastructure installed.** The FPV systems will be designed to integrate the installation of
   (i) electric vehicles (EV) (four electric cars), and two EV charging stations and plant to support PUB O&M works; and
   (ii) coastal protection, disaster risk reduction measures, and electric reef regeneration, including a community awareness program targeting 40% women participation.

[29] ADB. 2020. *Pacific Approach, 2021–2025.* Manila.
[30] The powerhouse rehabilitation funded by ADB is expected to be completed in December 2023. MFAT, the Japan International Cooperation Agency (JICA), and the People's Republic of China have ongoing support to PUB on diesel generation and O&M. MFAT is also supporting PUB on installation of fiber optic cables under their 5-year KURP.

c. **Output 3: Institutional capacity for inclusive and climate-resilient renewable energy project development and implementation enhanced.** Consulting services support for project management, construction supervision, reform actions, and comprehensive institutional and regulatory capacity building including on FPV systems O&M, will be provided.

20. The project will build on the assistance provided under STREP including:
(i) capacity building to ensure effective implementation of the new regulatory framework developed under the recently passed Energy Act 2022, and integration of the performance of the new regulatory and oversight functions of the Energy Planning Department (EPD) in MISE;
(ii) technical and advisory support regarding amendments to existing legislation to resolve conflicting provisions on utility governance, financial management and oversight, and to operationalize the recommendations under financial recovery action plan (FRAP) and SOEMAU Financial Advisor;
(iii) advisory support in the development of other required regulations stated in the Energy Act 2022 to fully implement objectives of the Act;
(iv) collaboration with other development partners and donors and regional entities on a coordinated and harmonized capacity building program for the energy sector; and
(v) other required assistance and advisory support to ensure compliance with financial and other covenants stipulated in the STREP and, later, STREP 2 legal agreements.
(vi) promoting women's employability in the energy sector in non-traditional STEM related fields through improved policies, on-job-training and awareness raising.

21. Capacity building is proposed for the EPD within MISE but aspects of which should be extended to PUB, KGES and other government ministries and departments, ensuring the development of critical skills and knowledge required to perform and participate in regulatory roles and procedures. This could include initially EPD's and MISE's respective duties and functions under the Energy Act , tariff setting fundamentals and procedure, hands-on training to initiate the Energy Performance, Labelling and Testing Regulations, the Electrical Code of Practice and other developed regulations, regulations covering the petroleum industry, specific functions under the new regulations, performance monitoring and oversight, licensing and permitting, disputes and consumer protection. Capacity building is acknowledged as being required on a continuous, longer-term basis. The capacity building program being developed under STREP will be updated to include training events proposed by other development partners including those being developed based on the energy sector training needs assessment supported by the Pacific Region Infrastructure Facility and the Pacific Power Association.

22. Assistance and advisory support for legislative reforms will focus on the Energy Act , those parts of the PUB Ordinance that remain. The IMS structure and advisory support will be enhanced to ensure financial sustainability of PUB's overall operations and that PUB is implementing sound accounting and financial management practices based on international best practice.

23. **Project categorizations and required due diligence.** The proposed project is category B for Environment and for Involuntary Resettlement, category C for Indigenous Peoples, and Effective Gender Mainstreaming for Gender. Procurement risk categorization is B. Assessments conducted under STREP on procurement capacity and strategic procurement planning, financial management, poverty, social and gender, and climate risk and vulnerability (CRVA), among others, have been updated. The CRVA has been updated for both the FPV and PUEs to ensure full alignment of the Paris Agreement as required by ADB.

II. IMPLEMENTATION PLANS

A. Project Readiness Activities

24. Project readiness activities are shown in Table 1.

Table 1: Project Readiness Activities

	2023	2024				2025	
Indicative Activities	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Responsible**
Obtain Project Development Consent	Oct						
Recruit Supervision Consultant (AA)							
Obtain executing agency's approval and issue RFP (SSS)					Oct		EA, IA, ADB
Receive proposals					Oct		ADB
Receive executing agency's evaluation report					Nov		EA, IA
Obtain ADB's prior review and no objection					Dec		ADB
Obtain executing agency's approval						Jan	EA
Award contract and mobilize						Jan	EA, IA, ADB
Conduct Resettlement Activities							
Disclose draft resettlement plan	Oct				Oct		EA, IA, ADB
Complete evaluation							EA/IA
Disclose final resettlement plan					Oct		ADB
Procure DBO Package (AA)							
Finalize draft bidding documents					Oct		EA, IA, ADB
Invite bids (OCB international): 60 days				Sep			EA, IA, ADB
Receive bids					Dec		
Receive executing agency's bid evaluation report						Jan	EA/IA
Obtain ADB's prior review and no objection						Feb	ADB
Obtain executing agency's approval						Feb	EA/IA
Award and sign contract and issue guarantees						Mar	EA/IA
Mobilize						Mar	EA/IA
Obtain ADB Management Approval					Dec		ADB
Conduct Grant Signing					Dec		EA, IA, ADB
Declare Loan Effectiveness						Mar	EA, IA, ADB

AA = advance action, ADB = Asian Development Bank, DBO = design-build-operate, EA = executing agency; IA = implementing Agency, OCB = open competitive bidding, Q = quarter, RFP = request for proposal, SSS = single source selection.
Source: ADB

B. Overall Project Implementation Plan

Activities	Q1-2 2025	Q3 2025	Q4 2025	Q1 2026	Q2 2026	Q3 2026	Q4 2026	Q1 2027	Q2 2027	Q3 2027	Q4 2027	Q1-2 2028	Q2-4 2028
Award turnkey contract and mobilization													
Submission of designs													
Design review													
Final design													
Place orders for T&D, BESS, FPV and SBEs/PUEs													
Manufacturing of equipment													
Site preparation works													
Implementation of gender action plan; tariff review, public awareness campaign, community engagement,													
Transmission and distribution network													
Transportation to site													
Construction													
Commissioning													
Handover of manuals													
1-year O&M period													
BESS, FPV, wave breaker, reef													
Transportation to site													
Construction													
Commissioning													
Handover of manuals													
1-year O&M period/ DLP													
EV and EV charging station													
Installation													
Commissioning													
Training workshops, conferences													

BESS=battery energy storage system, DLP = defects liability period; EV = electric vehicle, FPV = floating PV, O&M=operation and maintenance, PUB=Public Utilities Board, PUE = productive use of energy, SBE = sustainable blue economy, T&D = transmission and distribution.

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations: Roles and Responsibilities

Project Implementation Organizations	Management Roles and Responsibilities
Executing Agency (EA) (Ministry of Finance and Economic Development)	• Overall delivery of the project and reporting to Government • Ensure compliance with grant agreement covenants • Coordinate with PUB the preparation of withdrawal applications and submit to ADB • Maintain separate project accounts, have all project accounts audited annually and send to ADB • Ensure the compilation and presentation of all reporting requirements under the project Under MFED, the KFSU will: • lead financial management practices for donor-funded projects using international best practices. • will coordinate the capacity building, including financial management and internal audit, with ADB and other stakeholders. • Review Withdrawal applications from PMU • Review Project AFS and clear before submission to KAO • Facilitate coordination with other projects and relevant Government entities on implementation issues including safeguard matters. • Support the project on financial management, procurement and safeguards under the direction of the Executing Agency (MFED)
Implementing Agency (IA) (Public Utilities Board)	• Responsible for the overall implementation of the project • Ensure compliance with the provisions of the Grant and Project Agreements and government policies and guidelines • Responsible for procurement and services for the project • Issue contract change orders as appropriate • Establish and implement the project monitoring and evaluation framework • In coordination with MFED and assisted by the PMU, will maintain separate project accounts and records by funding source for all expenditures incurred on the project. • Submit to ADB annual audited entity financial statements
Project Steering Committee (PSC) established and is expected to report to the newly established Kiribati Energy Steering Committee (KESC) chaired by Secretary, MISE	• Comprising of the Secretaries of MFED, MISE, and MELAD and CEO of PUB and will be chaired by the Secretary MFED • The PSC will be the oversight committee and will oversee the project implementation, monitor progress, and provide guidance to the EA and IA. • Reviews and approves bidding documents, bid evaluation reports, contract awards and variations submitted by the PMU with assistance from the PIC for ADB no objection • Reviews and endorses invoices and withdrawal applications prepared by the PMU for ADB approval
Project Management Unit to be established at PUB and to be assisted and supported by the project implementation consultant (PIC)	• Responsible for oversight of the implementation of the project, under the direction of the IA, to ensure compliance of contractors with contracts, specifications and management plans. • Prepare reports and supporting information for the EA and IA • Prepare withdrawal applications • Prepare project financial statements and ensure timely conduct of audit • Responsible for ensuring safeguards implementation and monitoring across the Project • Responsible for GAP implementation and reporting

	• Ensure readiness of all project sites for contractor including surveyed and staked out sites, any required permits in place and secured lease agreements (if required)

ADB = Asian Development Bank, CEO = chief executive officer, EA = executing agency, IA = implementing agency, MELAD = Ministry of Environment, Lands, and Agricultural Development, MFED = Ministry of Finance and Economic Development, MISE = Ministry of Infrastructure and Sustainable Energy, PUB = Public Utilities Board.
Source: ADB.

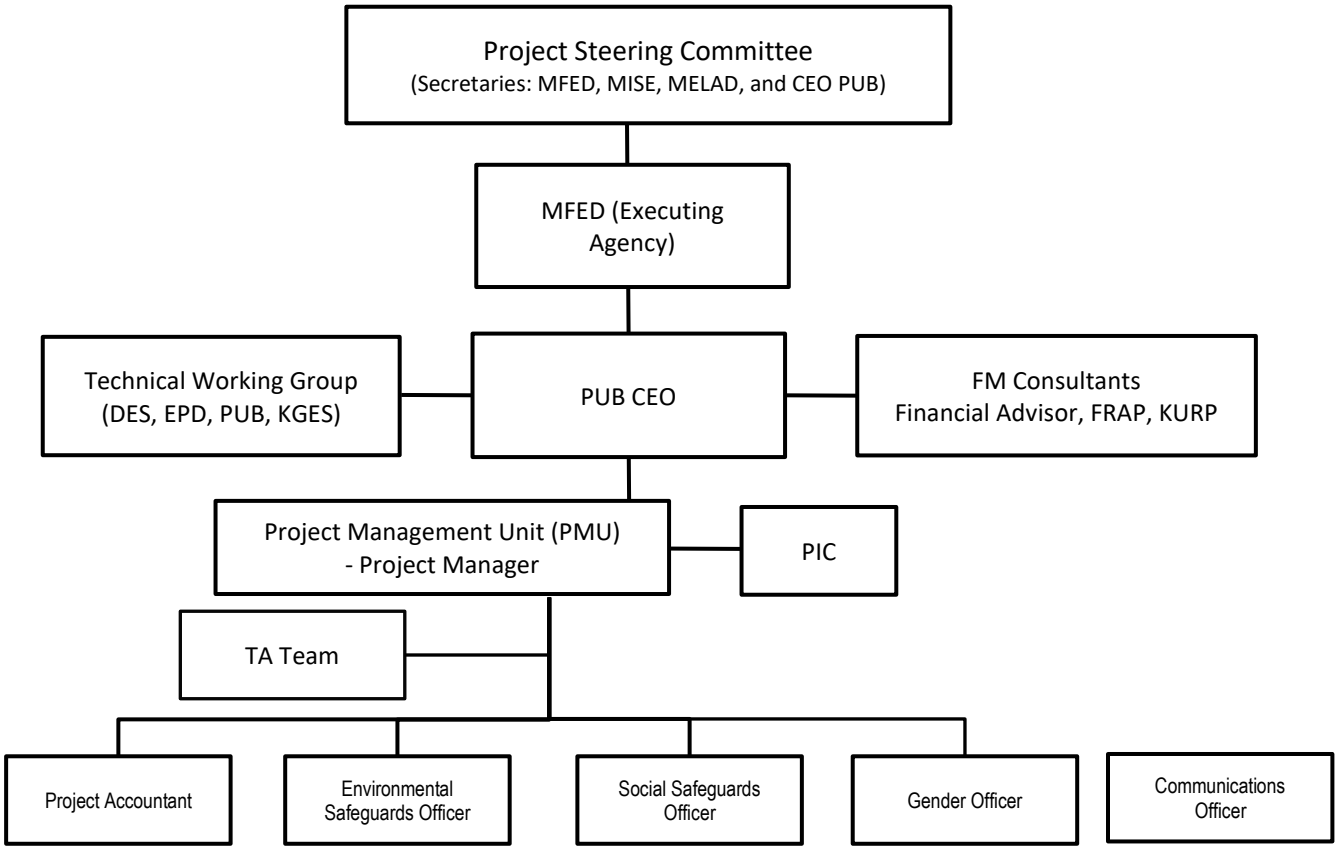
The Asian Development Bank will monitor and review overall implementation of project in consultation with EA and IA including project implementation schedule; actions required for summary poverty reduction and social strategy; gender action plan; environmental management plan; project expenditure progress with procurement and disbursement; compliance with grant covenants and likelihood of attaining project outputs and outcome. Consultant recruitment will be delegated by the EA/IA to ADB following an agreed Matrix of Responsibilities.

B. Key Persons Involved in Implementation

Executing Agency	
Ministry of Finance and Economic Development (MFED)	Officer's Name: Koin Uriam-Kiritione Position: Secretary Telephone: (686) 740 21806 Email address: secretary@mfep.gov.ki
Implementing Agency	
Public Utilities Board (PUB) will be the implementing agency	Officer's Name: David Drake Position: CEO Telephone: +686 7202 6056 Mobile: +686 73033321 Email address: ceo@pub.com.ki ; daviddrake30@gmail.com
ADB	
Energy Sector Office Sectors Group	Staff Name: Keiju Mitsuhashi Position: Director, Energy Telephone No.: +63 2 8632 4901 Email address: kmitsuhashi@adb.org
Mission Leader	Staff Name: Cindy Cisneros Tiangco Position: Director, Emerging Areas, Energy Sector Office Telephone No.: +63 2 8683 1856 Email address: ctiangco@adb.org

C. Project Organization Structure

Figure 1: Project Organizational Structure



CEO = Chief Executive Officer, DES = Director of Engineering Services, MISE, EPD = Energy Planning Department, MISE, FM = financial management, FRAP = financial recovery action plan, KGES = Kiribati Green Energy Solutions, KURP = Kiribati Utility Reform Program, MELAD = Ministry of Environment, Lands, and Agricultural Development, MFED = Ministry of Finance and Economic Development, MISE = Ministry of Infrastructure and Sustainable Energy, PIC = project implementation consultant, PMU = project management unit, PUB = Public Utilities Board, TA = technical assistance.

IV. COSTS AND FINANCING

25. **Cost estimates and Financing Plan**. The summary cost estimates, and the summary financing plan are in tables 1 and 2. The project is estimated to cost $27.4 million, of which $2.0 million comprises Government counterpart funding for taxes and duties by exemption and land acquisition cost through cash contributions. The government has requested (i) a grant not exceeding $14.9 million from ADB's Special Funds resources (Asian Development Fund - ADF); (ii) a grant not exceeding $10.0 million from ADB's ADF Thematic Pool for supporting the disaster risk reduction and climate change adaptation strategic area, and (iii) grant cofinancing equivalent to $0.5 million from the Ireland Trust Fund for Building Climate Change and Disaster Resilience in Small Island Developing States, to be administered by ADB, to help finance the project. Financing of expenditures is through cost-sharing.

26. Detailed cost tables prepared during design are included as appendixes to support implementation and monitoring. The succeeding sections describe costs and financing arrangements.

Table 1: Summary Cost Estimates

Components	Amount[a] ($ million)
A. Base Cost[b]	
Output 1. Climate-resilient FPV, BESS, and grid infrastructure installed	19.47
Output 2. Adaptive low-carbon productive uses of energy infrastructure installed	2.07
Output 3. Institutional capacity for inclusive and climate-resilient renewable energy project development and implementation enhanced	2.66
Subtotal (A)	**24.2**
B. Contingencies[c]	**3.2**
Total (A+B)	**27.4**

BESS = battery energy storage system, FPV = floating photovoltaic.

[a] Includes taxes and duties. The government will finance taxes and duties of $1.8 million by exemption. It includes compensation for economic displacement costs of $0.2 million through cash contribution; excludes government in-kind contributions in the form of office space, internet, and related expenses. Such an amount does not represent an excessive share of the project cost.

[b] In mid-2024 prices as of August 2024.

[c] Physical contingencies computed at 13.3% for the design-build-operate contracts. Price contingency is based on expected inflation over the implementation period and includes the provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

Source: Asian Development Bank estimates.

Table 2: Summary Financing Plan

Source	Amount[a] ($ million)	Share of Total (%)
Asian Development Bank		
Special Funds resources (Asian Development Fund grant)[b]	24.9	90.9
Ireland Trust Fund for Building Climate Change and Disaster Resilience in Small Island Developing States[c] (grant)	0.5	1.8
Government of Kiribati[d]	2.0	7.3
Total	**27.4**	**100.0**

[a] The project costs are inclusive of government's in-kind contribution for taxes and duties of $1.8 million which will be financed by exemption; it also excludes government in-kind contributions in the form of office space, internet, and related expenses.

[b] Includes $10 million from the Asian Development Fund 13 thematic pool grant supporting the disaster risk reduction and climate change adaptation strategic area.

[c] Administered by the Asian Development Bank.

[d] Includes compensation for economic displacement costs amounting to $0.2 million to be financed by government through cash contribution.

Source: Asian Development Bank.

A. Cost Estimates Preparation and Revisions

27. The above cost estimates for the project components, which are standard, are based on market trends with additional specific requirements on materials, foundations, logistics, and the location of the project sites and their vulnerability to climate impacts such as flooding and extreme weather events.

B. Key Assumptions

28. Price contingencies based on expected cumulative inflation during implementation are in Table 3. Physical contingencies were calculated at 13.2% of the design-build-operate contract.

Table 3: Escalation Rates for Price Contingency Calculation

Item	2024	2025	2026	2027	2028	Average
Foreign rate of price inflation	1.80%	1.80%	2.00%	2.00%	2.00%	1.92%
Domestic rate of price inflation	4.00%	3.00%	3.00%	2.60%	2.60%	3.04%

Source: ADB. Economic Research and Regional Cooperation Department. Domestic and International Cost Escalation Factors.

C. Allocation and Withdrawal of Grant Proceeds

1. Asian Development Bank Asian Development Fund (ADB-ADF) Financing

No.	Category Item	Total amount allocated for ADB financing ($)	ADB-ADF Financing Percentages for withdrawal from the Grant Account
1	Design-Build-Operate (FPV, BESS, Transmission and Distribution network and auxiliary equipment, works, productive uses of energy and one-year operation and maintenance services) **	20,500,000.00	100.0% of total expenditure claimed*
2	Institutional capacity development (project management and project implementation consulting services, and capacity building program) **	1,200,000.00	100.0% of total expenditure claimed*
3	Unallocated	3,200,000.00	
	Total	**24,900,000.00**	

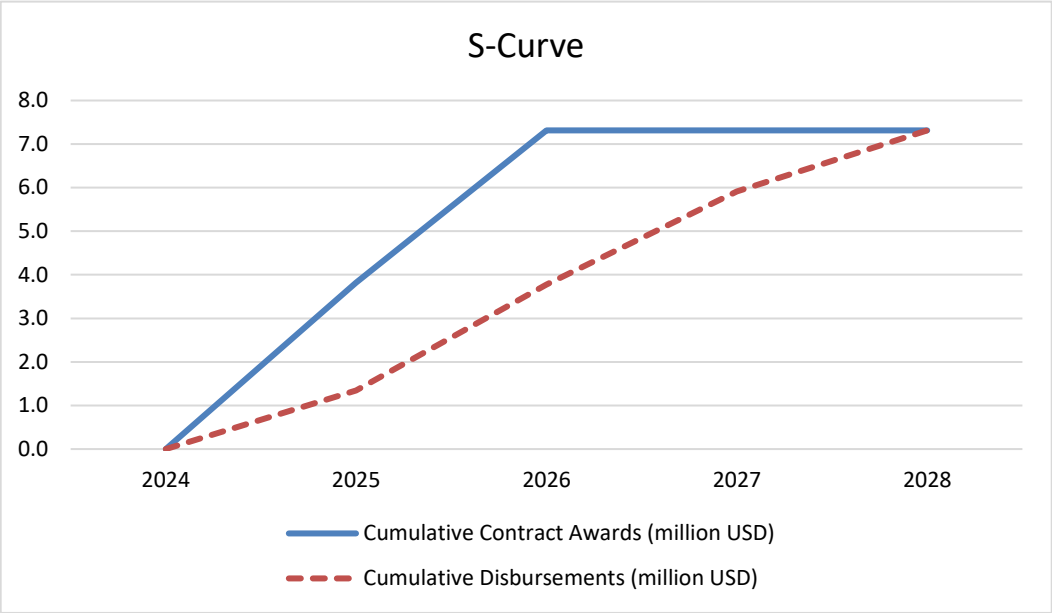
ADB = Asian Development Bank, ADF = Asian Development Fund, BESS = battery energy storage system, FPV = floating PV, PV = photovoltaic.
* Excluding taxes and duties imposed within the territory of the recipient.
** Subject to the condition for withdrawal as described in paragraph 5 of schedule 2 of Grant Agreement.
Source: ADB.

2. Ireland Trust Fund for Building Climate Change and Disaster Resilience in Small Island Developing States Financing

No.	Category Item	Total amount allocated for ITF financing ($)	ITF Financing** Percentages for withdrawal from the Grant Account
1	Institutional capacity development (project implementation consulting services, and capacity building program) **	500,000	100.0% of total expenditure claimed*
	Total	**500,000**	

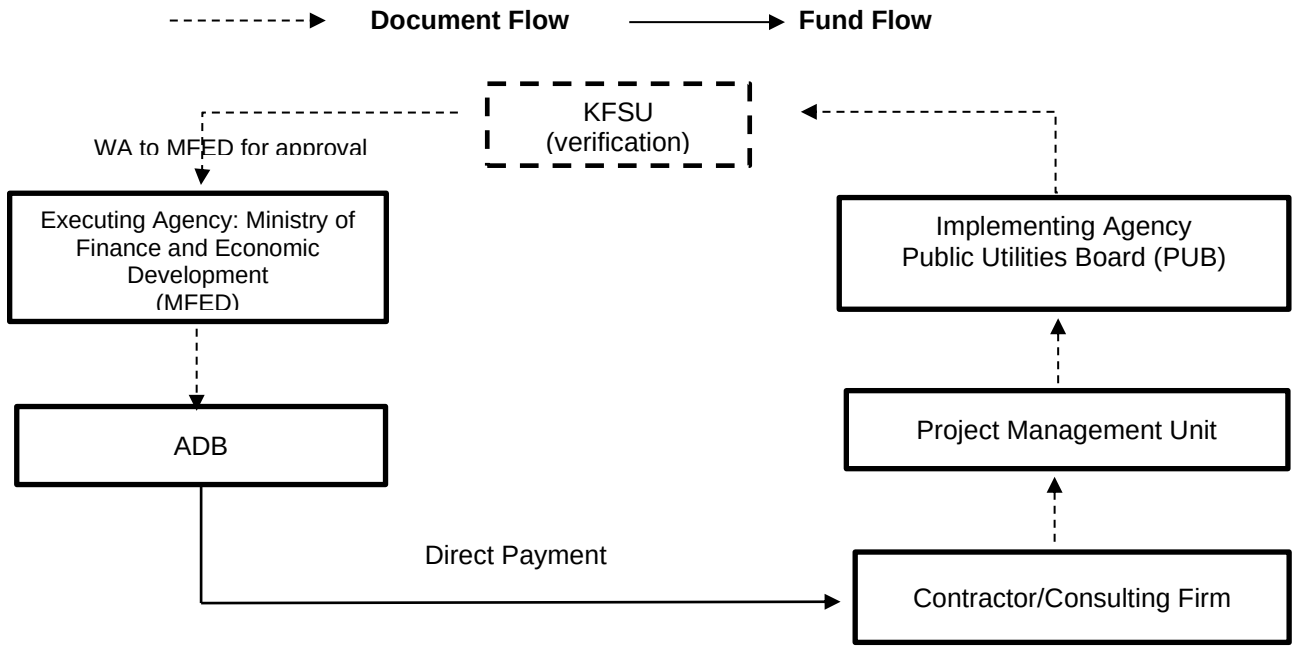
ITF = Ireland Trust Fund for Building Climate Change and Disaster Resilience in Small Island Developing States.
* Excluding taxes and duties imposed within the territory of the recipient.
** Subject to the condition for withdrawal as described in paragraph 5 of schedule 2 of Grant Agreement.
Source: ADB.

D. Contract and Disbursement S-Curve



	2024	2025	2026	2027	2028
Cumulative Contract Awards (million USD)	0.0	22.2	25.4	25.4	25.4
Cumulative Disbursements (million USD)	0.0	8.7	20.2	24.1	25.4

E. Fund Flow Diagram



ADB = Asia Development Bank, WA = withdrawal application.
Note: The Kiribati Fiduciary Support Unit will support within MFED, including in the preparation of WAs
Source: ADB.

V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

29. The financial management assessment (FMA) was conducted from May – June 2023 and updated in September 2023 following the ADB's *Financial Management Technical Guidance Note (2015 and amended from time to time*). The FMA assessed the financial management arrangements of the Ministry of Finance & Economic Development (MFED) as the executing agency (EA) and the Public Utilities Board (PUB) as the Implementing Agency (IA), including fund flow, staffing, accounting policies and procedures, financial reporting and monitoring, internal and external auditing arrangements and financial information systems, and the sufficiency of the financial management arrangements for implementing the project. Based on the assessment, the key financial management risks identified are (i) weak financial management and internal control systems, (ii) lack of accounting policy and procedures manuals, (iii) absence of internal audit function at IA level and risk-based audit, (iv) qualification of auditor's opinion for many years for PUB and delays in audit, (v) lack of periodic expenditure commitment monitoring, (vi) use of manual spreadsheets for reporting which is prone to error and is time-consuming, and (vii) incompatible accounting system for public accounting and extensive use of off-system spreadsheets. The overall pre-mitigation financial management risk of the project is *substantial*. MFED and PUB have agreed to implement an action plan to mitigate the project's financial management risk. The financial management action plan is provided in Table 4

Table 4: Financial Management Action Plan – MFED, KFSU and PUB

Area	Risk Description	Risk Rating	Mitigating Actions	Responsibility	Timeframe
Staffing, Reporting, and monitoring	EA and IA both have weak financial management capacity and internal control systems.	Substantial	A PMU is already in place to implement STREP Phase 1. The donor-funded KFSU was created within the MFED to lead financial management practices for donor-funded projects using international best practices. Capacity building will be coordinated with ADB and other stakeholders to strengthen fiscal management.	MFED, PUB, ADB	Throughout the implementation of the project
Staffing	Insufficient staffing in PUB's finance division to handle the increased workload.	Substantial	Qualified and experienced experts, including engineers, accountants, and safeguards specialists, who are engaged in the ongoing STREP PMU will be directly contracted to the	MFED (KFSU), PUB, PMU, PIC	1st training – at inception mission Subsequent training – annually thereafter

			STREP 2 PMU, which will be funded by the project. Training will be provided to staff on financial management, disbursements, accounting, financial reporting, and auditing requirements.		
Funds flow	No payments made at the PMU, therefore less risk involved. Counterpart funding will be through tax exemption which has to be formalized.	Moderate	The tax exemption status of the project is to be formalized with GoK before grant effectiveness.	GoK, MFED, PUB, ADB	Before grant effectiveness
Accounting policies and procedures	No accounting policy and procedures manuals with MFED/PUB.	Substantial	Preparing a formal written financial management manual for review by the ADB, MFED, and PUB and for approval by GoK, This FM manual is to be reviewed and updated annually.	GoK, MFED/KFSU, PUB, ADB	12 months after grant effectiveness; annually
Accounting policies and procedures	Unreconciled balances in both MFED and PUB's books of account	Substantial	When migrating to the new systems ensures that such balances are written off/ eliminated through due process	MFED (KFSU), PUB	12 months before end of first year of grant disbursement
Internal audit	Internal audit function at MFED but not at PUB. No audit committee and no risk-based audit and project specific activities might be excluded from the MFED's internal audit.	Substantial	MFED will include the project in its annual internal audit plan throughout the project implementation period until PUB has established its own internal audit unit.	PUB, PMU	Recurring. Throughout the implementation period.
External audit	Audit reports of government entities by the	Substantial	The Audit Act 2017 strengthens the KAO's powers, including	ADB, MFED, PUB, PMU	3 months after grant effectiveness

	KAO may be delayed due to the late submission of project accounts. Qualified audit opinion for PUB's entity financial statements due to insufficient audit evidence provided.		undertaking legal recovery actions. The PMU will have a qualified and experienced project accountant responsible for addressing issues raised in the KAO's project audit reports in a timely manner. Also, KAO is to consider the hiring of a private sector auditor for the proposed project.		
Reporting and monitoring	Only annual financial statements are produced by MFED. No periodic monitoring and expenditure commitment monitoring. Credibility issues with financial reporting at PUB. Regular off-system reporting through spreadsheets is time-consuming and error-prone.	Substantial	Commence a regime of formal periodic monitoring through the at /KFSU (Recon System. For PUB, ensure that the periodic reporting formats are agreed upon and all reporting is on-system. Train PMU staff on ADB's financial management and disbursement requirements.	MFED (KFSU), PUB, PMU	3 months after grant effectiveness 3 months after grant effectiveness 1st Training – at inception mission Subsequent training - annually
Information system	Lack of integration between billing, human resources, and accounting software may adversely impact the quality and timing of consolidated	Substantial	The PUB will be supported by ADB assistance in integrating accounting with billing and human resources reporting. The new Information Management System being implemented through KURP includes Finance, HR, and Payroll, and the structure will ensure that PUB complies with	PUB	3 months after grant effectiveness

	financial statements.		international best accounting practices. Furthermore, timely adjustments in accounting policies on revenue recognition and accounts receivables will be required to ensure consistency with the ongoing deployment of prepaid metering for domestic, commercial, and government Ministry customers.		

ADB = Asian Development Bank, EA = Executing agency, GoK = Government of Kiribati, IA = Implementing agency, IPSAS = International Public Sector Accounting Standards, KAO = Kiribati audit office, KFSU = Kiribati Fiduciary Services Unit, MFED = Ministry of Finance and Economic Development, PFM = Public financial management, PMU = Project management unit, PUB = Public Utilities Board, STREP = South Tarawa Renewable Energy Project

B. Disbursement

1. Disbursement Arrangements for ADB and ADB-administered Ireland Trust Fund for Building Climate Change and Disaster Resilience in Small Island Developing States

30. Disbursement of the grant proceeds, including ADB-administered cofinancier funds, will follow ADB's *Loan Disbursement Handbook* (2022, as amended from time to time),[31] and detailed arrangements agreed between the government and ADB. Online training for project staff on disbursement policies and procedures is available.[32] Project staff are encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

31. **Direct payment procedure**. The project may request ADB to pay a supplier, consultant, or contractor for large payments, by submitting a Withdrawal Application and the necessary supporting documents to the ADB. The direct payment procedure is a disbursement procedure where ADB, at the Recipient's request, directly pays a designated beneficiary,[33] stipulated in the contract and approved by ADB (e.g., supplier, contractor, or consultant). A signed withdrawal application will be submitted by MFED to ADB, based on invoices approved by PUB, together with a summary sheet and the required supporting documents.

32. The processing of payments to the consultants, consulting firm, suppliers and contractors will generally follow the fund flow diagram in Figure E. Fund Flow Diagram. The PMU will be responsible for collecting and retaining supporting documents, as well as preparing and sending the withdrawal applications to PUB for review and endorsement to MFED through the KFSU for verification. MFED will be responsible for the approval and submission of withdrawal applications to ADB.

33. Before submitting the first withdrawal application, the recipient should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on

[31] The handbook is available at ADB. Loan Disbursement Handbook 2022.
[32] Project staff already registered in ADB's eLearn platform can access the ADB Disbursement Simplified course on eLearn. New users can register for the online training by submitting the course registration form.
[33] Payment to a trust not permitted. Basic requirements for direct payment procedure are in Chapter 9 of ADB's *Loan Disbursement Handbook* and is available for download from ADB.

behalf of the government, together with the authenticated specimen signatures of each authorized person.[34] The minimum value per withdrawal application is stipulated in the *Loan Disbursement Handbook*. Individual payments below this amount should be paid by the EA/IA and subsequently claimed to ADB through reimbursement, unless otherwise accepted by ADB. The recipient should ensure sufficient category and contract balances before requesting disbursements. Using of ADB's Client Portal for Disbursements (CPD) [35] system is encouraged for submission of withdrawal applications to ADB.

2. Disbursement Arrangements for Counterpart Funds

34. The disbursement of counterpart funds will be carried out in accordance with government guidelines and practices. The government's contribution to the counterpart funds will include (i) local taxes and duties under the project through exemption, (ii) compensation for economic displacement costs through cash contribution, and (iii) in-kind contribution in terms of office space, internet, and alike.

35. All disbursements under government financing will be carried out in accordance with regulations of the government and ADB.

C. Accounting

36. The PUB and MFED/KFSU will maintain, or cause to be maintained, separate books and records for all expenditures incurred on the project from all funding sources following the International Public Sector Accounting Standards (IPSAS) for cash-based accounting. PUB, through the PMU, will prepare project financial statements following the IPSAS cash basis of accounting in recording financial transactions and financial reporting.

37. The project's internal audit unit will control and inspect assets during the project's implementation period. The assets will be under the supervision of the PUB's finance and accounting and managed and safeguarded by the PMU.

D. Auditing and Public Disclosure

38. MFED will cause the project financial statements to be audited following the International Standards on Auditing or International Standards for Supreme Audit Institutions by an independent auditor and on the terms of references acceptable to ADB. The audited project financial statements, and the auditor's opinion, will be presented in English and submitted to ADB within 6 months from the end of the fiscal year by MFED as the EA.

39. PUB's audited entity financial statements (AEFS), together with the auditor's report and management letter, will be submitted in English to ADB by the earlier of the time prescribed for their approval following the laws of the country or 1 month after their approval by the relevant authority.

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[34] The evidence of authorized persons to sign withdrawal applications is in Appendix 4A of ADB's *Loan Disbursement Handbook* and is available for download from ADB. Loan and Grant Financial Information Services.

[35] The Client Portal for Disbursements facilitates online submission of WA to ADB, resulting in faster disbursement. The Recipient needs to complete the registration form, which is available online at ADB. Guide to the Client Portal for Disbursements.

40. The audit report for the project financial statements will include a management letter and auditor's opinions, which cover (i) whether the project financial statements present an accurate and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting standards; (ii) whether grant proceeds were used only for the purposes of the project; and (iii) whether the recipient, executing, and implementing agency was in compliance with the financial covenants contained in the legal agreements for the project (where applicable).

41. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal program supervision, and followed up regularly with all concerned, including the external auditor.

42. The government, MFED, PUB, and PMU have been made aware of ADB's policy on delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.[36] ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the recipient), or for additional support to be provided to the auditor if the audits required are not conducted in a manner satisfactory to ADB or are substantially delayed. ADB reserves the right to verify the project's financial accounts.

43. Public disclosure of the audited project financial statements, including the audit's opinion on the project financial statements, will be guided by ADB's Access to Information Policy.[37] After the review, ADB will disclose the audited project financial statements and the opinion of the auditors on the project financial statements within 14 days of ADB's confirmation of their acceptability by posting them on ADB's website. The management letter, additional auditor's opinions, and AEFS will not be disclosed.[38]

VI. PROCUREMENT

A. Applicable Procurement Policy

44. Procurement of goods, works, consulting services, and nonconsulting services will follow the ADB Procurement Policy (2017, as amended from time to time) and the Procurement Regulations for ADB Borrowers (2017, as amended from time to time). Since ADB is administering cofinancing resources for ADF-financed operations, universal procurement applies.[39] All procurement review is delegated to ADB. Solely ADB procurement review and no objection requirement will apply to all packages. Other than the government, project consultants and ADB, co-financers will not be involved in or have access to the bidding and evaluation process and will

[36] ADB's approach and procedures regarding delayed submission of audited project financial statements:
(i) When the audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (a) the audit documents are overdue; and (b) if they are not received within the next 6 months, requests for new contract awards and disbursement, such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters, will not be processed.
(ii) When the audited project financial statements are not received within 6 months after the due date, ADB will (a) withhold processing requests for new contract awards and disbursement, such as new replenishment of advance accounts, processing of new reimbursement, and issuance of new commitment letters; (b) deny the extension of the grant closing date; and (c) delay the negotiation or Board presentation of new grant proposals. ADB will inform the executing agency of ADB's actions and advise that the grant may be suspended if the audited project financial statements are not received within the next 6 months.
(iii) When the audited project financial statements are not received within 12 months after the due date, ADB may suspend or cancel the grant.

[37] ADB. 2018. *Access to Information Policy*.

[38] Such information falls under the Access to Information Policy's exceptions to disclosure. Footnote 10, para. 16.

[39] ADB. 2013. *Blanket Waiver of Member Country Procurement Eligibility Restrictions in Cases of Co-financing for Operations Financed from Asian Development Fund Resources*. Manila.

not have access to related confidential information such as the Bids, Bid Evaluation Report, and related assessment.

B. Procurement Strategy Summary

45. The executing agency has prepared a strategic procurement planning report for the project, which defines a procurement strategy that will support the delivery of the project outputs and the achievement of the planned project outcomes. Procurement activities include procurements for the installation of floating solar photovoltaic, battery energy storage system, grid infrastructure and productive uses of energy to: (i) facilitate increased generation and utilization of climate-resilient renewable energy in South Tarawa, and (ii) enhance adaptive low-carbon productive uses of energy infrastructure. The STREP2 procurements form part of the Floating Solar Photovoltaic Projects which also includes the introduction of FPV facilities into Tuvalu under the Increasing Access to Renewable Energy Project (Additional Financing) (IAREP AF) approved in December 2023. To capture procurement and administrative efficiencies, and provide a more attractive opportunity for prospective bidders, the STREP2 and IAREP AF contracts are being tendered jointly, with both being offered to the market as a single solicitation. The winning bidder will be obliged to execute and perform both the STREP2 and IAREP AF contracts.

46. **Value for money (VfM).** Strategic procurement planning was conducted to choose the optimal procurement arrangement for the project. The project will achieve the best VfM by: (i) using electronic procurement lower the transaction cost, enhance process efficiency and transparency; (ii) regional procurement entailing packaging of the OCB contracts of two projects and their O&M services together into single large package to ensure standardization of similar equipment in both projects and capture economies of scale (described below); and (iii) recruiting an international consulting firm following single source selection ensure consistency, retain institutional memory, streamline and expedite the recruitment process, progressively build capacity, shortening the learning curve, and other efficiency gains as advocated under the one-project one-consultant approach of the Pacific Renewable Energy Investment Facility.[40]

C. Project Procurement Risk Classification

47. Procurement risk is initially classified as moderate, and the mitigated risk classification is low. The risk rating acknowledges (i) the sound track record of PV procurements for previous projects in small island countries in the Pacific and elsewhere, (ii) the packaging of goods, works and services into contracts that a market survey establishes as offering bidders a scope of work in each case within their proven capabilities and consistent with their commercial interest, and (iii) the use of ADB SBDs that align the commercial terms and risks of each contract with the preferences of prospective bidders. The existence of previous experience using adapted ADB BD as for STREP.

D. Project Implementation Arrangements

48. **Procurement methods**. It is intended that the contract for the STREP 2 works and services will be procured jointly with the contract for the Tuvalu IAREP-AF works and services under a single Bidding Document using Open Competitive Bidding (OCB). Two distinct turnkey contracts and two distinct O&M services contracts will be formed, one of each for each country, but all four contracts be offered to the market in a single solicitation and the winning bidder will be

[40] ADB. 2017. *Report and Recommendation of the President to the Board of Directors: Proposed Pacific Renewable Energy Investment Facility.* Manila.

obliged to execute and perform both sets of contracts. In other words, the contracts of the two countries will be procured jointly but contracted separately. Based on analysis of options for the bidding documents, the ADB SBD for Plant with a separate O&M contract shall be used. Direct contracting or single-source-selection is envisaged for the TA consultant to become the project implementation consultant.

49. **Advance contracting.** All advance contracting will be undertaken in conformity with ADB Procurement Policy (2017). The issuance of invitations to bid under advance contracting will be subject to ADB approval. Advanced contracting is proposed for the recruitment of consultants under the project, including PMU support as well as Project Implementation Consultant and the supply, installation and grid integration of the floating solar photovoltaic, battery energy storage system (BESS), transmission and distribution network, and the related operation and maintenance services of these including the productive uses of energy such as the electric vehicles and their charging stations, and the electric reef. A single design-build-operate (DBO) contractor will be procured for the OCB contracts for the project as well as the OCB contracts for the Tuvalu Increasing Access to Renewable Energy Project (Additional Financing) using the innovative regional procurement approach. The issuance of invitations to bid under advance contracting will be subject to ADB approval.

50. **Retroactive financing.** Retroactive financing does not apply.

51. **PV Supply Chain.** ADB projects have to comply with ADB's Safeguard Policy Statement (2009) and ADB's Social Protection Strategy (2001). The solar PV component in this project is assessed to be "core" to the project and it has been determined that the solar component is of utility scale. The ADB Guidance Note on the Solar Photovoltaic (PV) Supply Chain and attestation requirements under the category of Utility Scale will apply to mitigate any forced labor or child labor-related risks. Accordingly, the project will: (a) undertake enhanced due diligence on the successful bidder(s) for solar component and their supply chain; (b) require the tier 1 contractor and supplier to provide an attestation as part of the procurement contract to confirm compliance with labor requirements consistent with the Safeguard Policy Statement (Prohibited Investment Activities List, Appendix 5), and (c) require the same as (b) from their relevant subcontractors and suppliers. To make the attestation letter part of the Contract Documents, Section 9 (Contract Forms) should be adjusted as necessary to ensure that the attestation letter is construed as an integral part of the Contract. Appendix 5 details the required language and the Attestation Letter template to be incorporated in the bidding documents.

52. **Merit Point Criteria.** Merit Point Criteria Evaluation is recommended to allow for the quality-based differentiation between the bids, balancing with the price component, to achieve value for Money and support the sustainability priorities of the Project. This will also support sustainability outcomes which will include supporting local participation (and achieving targets under the Gender Action Plan), contract management throughout different stages, environmental and health and safety management, and waste minimization.

53. The evaluation criteria and subsequent evaluation relating to the artificial reef component is considered not relevant because there is extremely limited market of suppliers, as such there would not be much differentiation in the approach.

54. A combined score will be calculated using a 70:30 non-price/price weighting. This procurement is focused on cost effective projects with a competitive levelized cost of electricity (LCOE) using commercial and off-the-shelf solutions by experienced EPC contractors in the main sector. There is, nonetheless, an interest in evaluating good design, engineering and construction

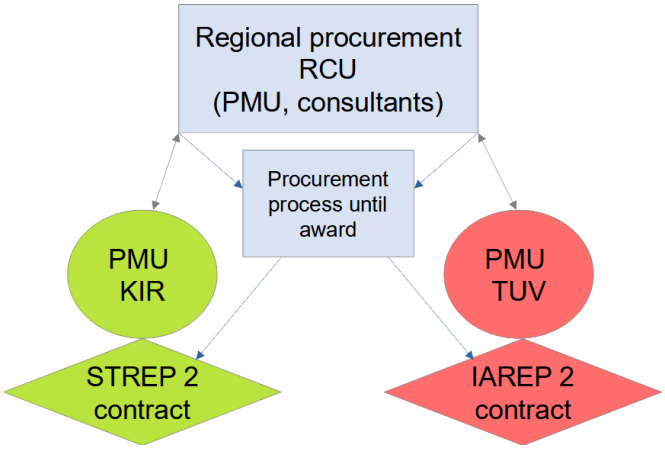
methodology so that the employers/countries may benefit from best-in-class companies approaches and methodologies without making it too onerous, due to the nature of the items to be procured. Thus, to match these requirements it is proposed a non-price/rice ratio of **70/30**.

55. **Regional Procurement.** Procurement of the design-build-operate (DBO) contract is through a regional procurement process using open competitive bidding (OCB) 1S2E for advertisement in Q4 2024, with the use of Merit Point Criteria for evaluation. Necessary consents from both the Government of Kiribati and the Government of Tuvalu for the regional procurement approach have been obtained, including legal opinions from the Attorney General of each country confirming no-objection.

56. The proposed structure (Figure 2 below) for the regional procurement with the Tuvalu Increasing Access to Renewable Energy Project (Additional Financing) (IAREP AF) would be the following:

- Use of the ADB standard bidding documents for plant and open competitive bidding (OCB) procedure following ADB procurement guidelines.
- Setup of a Regional Coordination Unit (RCU) comprising of the Project management unit (PMU) of each country under each project and the consultants to support the tender process.
- RCU issues the tender on behalf of the countries.
- RCU conducts the bidding on behalf of the countries including responding to bidders questions, pre-bidding meeting, technical and financial evaluation as well as recommendation for award.
- RCU asks each country and ADB for no-objection to issue:
  - the bidding documents
  - the bid evaluation report (for both technical and financial components) and recommendation for award
- Laws of each country apply to each contract and separate contracts are signed by each country. RCU is closed at award stage.
- Technical requirements (section 6 of the Bidding documents) have a common chapter and a specific chapter for each country. The latter includes the specific details of each contract
- Open competitive bidding procedures will be used for the main procurement package under the project which has an estimated value in excess of $3 million.
- Contract Management Plan will be attached to the bidding document as required by the Procurement Regulations for ADB Borrowers (2017, as amended from time to time). This will form the basis of monthly progress report to be submitted by the contractor

Figure 2: Proposed Regional Procurement Structure



57. ADB has been directly supporting the government of Kiribati in the development of its revised procurement legislation and associated capacity development activities under different Technical Assistance projects. PUB, as the implementing agency, does not have sufficient capacity or experience to undertake procurement of a project this size and complexity and the procurement risk is initially assessed as high. The following measures are being implemented on this project to mitigate the observed risks, which result in the residual risk being reduced to moderate/low:

(i) ADB will directly support the engagement of the project implementation consultant and the PMU/Project individual consultants, through joint recruitment procedures acceptable to PUB and MFED/KFSU, as further outlined in succeeding paragraphs below;
(ii) The engaged ADB TA consultant will support PUB in the recruitment (tendering and evaluation) of the single goods and works package to be procured under the project. Additionally, the package will in accordance with ADB's standard bidding document or he procurement of plant and will be subject to prior review by ADB at key stages of the process;
(iii) A market sounding exercise was undertaken to assess interest in the provision of the goods and works required under the project to ensure that the packaging of the project maximizes the possibility of project success; and
(iv) The terms of reference for the Project implementation consultant include a requirement to support PUB in any procurement related activities under the project.

58. **Consultant Recruitment.** All consultants will be recruited according to ADB's Procurement Policy (2017) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time). The terms of reference for all consulting services are detailed in Section D.

59. An estimated 138 person-months inputs from 6 national individual experts are required for the project management unit. In addition, an international firm will be engaged on a time-based contract for a minimum of 52 person-months international and 60 person months national inputs to undertake project implementation including but not limited to construction supervision activities on the project, capacity building, surveys and assessments, including potential installation and monitoring of small pilot equipment for coastal protection and disaster risk reduction.

60. The government requested ADB support to jointly recruit all consulting services packages required under the project. A delegation matrix outlining the responsibilities of government and

ADB for consultant selection has been provided by the recipient. The matrix signed by the implementing agency is included as Appendix 4 in the signed fact-finding mission memorandum of understanding. ADB will support the recruitment process including the advertisement, tender, and evaluation stages. Government will remain responsible for the confirmation of the Terms of Reference, negotiating and signing the consulting services contracts. ADB Standard Request for Proposal (updated January 2023) will be used for the recruitment of the PIC, including application of the environmental, health and safety provisions. Single Source Selection (SSS) will be considered for the TA consultant to become the PIC as well as for incumbent Project Management Unit consultants in the ongoing STREP PMU to ensure consistency, retain institutional memory, streamline and expedite the recruitment process, progressively build capacity, shortening the learning curve, and other efficiency gains as advocated under the one-project one-consultant approach of the Pacific Renewable Energy Investment Facility.[41] A new communications officer position will be recruited to enhance the PMU communications and community engagement.

61. An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages is detailed in Section C.

E. Procurement Plan

Basic Data

<table>
<tr><td colspan="2">Project Name: South Tarawa Renewable Energy Project (Phase 2)</td></tr>
<tr><td>Project Number: 49450-30</td><td>Approval Number:</td></tr>
<tr><td>Country: Kiribati</td><td>Executing Agency: Ministry of Finance and Economic Development</td></tr>
<tr><td>Project Procurement Classification: B</td><td rowspan="2">Implementing Agency: Public Utilities Board (PUB)</td></tr>
<tr><td>Procurement Risk: Medium</td></tr>
<tr><td>Project Financing Amount: $27.4 million
ADB Financing: $24.9 million
Cofinancing (ADB Administered): $0.5 million
Non-ADB Financing: $2.00 million for taxes and duties and land acquisition</td><td>Project Closing Date: December 2028</td></tr>
<tr><td>Date of First Procurement Plan 28 August 2023:</td><td>Date of this Procurement Plan: 13 November 2024</td></tr>
</table>

i. Methods, Thresholds, Review and 18-Month Procurement Plan

a. Procurement and Consulting Methods and Thresholds

62. Except as the Asian Development Bank (ADB) may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works		
Method	**Threshold**	**Comments**
Open Competitive Bidding for Works	US$3,000,000 and Above	Prior Review

Consulting Services	
Method	**Comments**
Quality and Cost Based Selection	
Individual Consultants Selection	Competitive
Single Source Selection/Direct Contracting	

[41] ADB. 2017. *Report and Recommendation of the President to the Board of Directors: Proposed Pacific Renewable Energy Investment Facility.* Manila.

b. Goods and Works Contracts Estimated to Cost $1 Million or More

63. The following table lists goods and works contracts for which the procurement activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value (in US$ million)	Procurement Method	Review (Prior/ Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
STREP2-P-01	Design, supply, install, test & commission plant – floating PV, inverters, civil works, BESS, transmission and distribution network and grid connection, transformers, switchgear, SCADA, cabling, ancillary facilities, electric reef, electric boat, 4 electric vehicles and charging stations, and O&M for 12 months for installed facilities. Two separate contracts will be awarded for each project: Contract № 1: Design, supply, install, test & commission, operate and maintain STREP2 facilities (STREP2-funded) Contract № 2: 12 months operate and maintain STREP2 facilities (STREP2-funded) Contract № 3: Design, supply, install, test & commission, operate and maintain IAREP AF facilities (Tuvalu IAREP AF-funded) Contract № 4: 12 months operate and maintain IAREP AF facilities (Tuvalu IAREP AF-funded)	Total: $24.68 20.50 4.18	OCB	Prior	1S2E	Q3 2024	Advertising: International PQ: No AC: Yes DPA: No eGP: No SBD: Plant Contracts № 3 and 4: is funded under the Tuvalu IAREP AF (49450-032)

AC = advance contracting, BESS – battery energy storage system, DPA = domestic preference applicable, eGP = electronic government procurement, IAREP AF = Increasing Access to Renewable Energy Project (Additional Financing), O&M = operation and maintenance, OCB = open competitive bidding, PQ = prequalification of bidders, Q = quarter, SBD = standard bidding document, SCADA = supervisory control and data acquisition system, STREP2 = South Tarawa Renewable Energy Project (Phase 2), TBC = to be confirmed.
Source: Asian Development Bank.

c. Consulting Services Contracts Estimated to Cost $100,000 or More

64. The following table lists consulting services contracts for which the recruitment activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value (US$)	Recruitment Method	Review (Prior/ Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
STREP2-CS-01	Project Implementation Consultant	1,100,000	SSS	Prior	Q4 2024	STP	Type: Firm Assignment: International QCR: 90/10 AC: Yes eGP: CMS
STREP2-CS-02 to 07	Individual Consultants 1. Project Manager 2. Environmental Safeguards Officer 3. Social Safeguards Officer 4. Gender Officer 5. Project Accountant 6. Communications Officer	600,000	 SSS SSS SSS SSS SSS ICS	Prior	Q1 2025		Type: Individual Assignment: National AC: Yes eGP: CMS

AC = advance contracting, CMS = consultant management system, eGP = electronic procurement, STP = simplified technical proposal, ICS = individual consultant selection, Q = quarter, QCBS = quality- and cost-based selection, QCR = quality/cost ratio, and SSS = single source selection.
Source: Asian Development Bank.

F. Consultant Terms of Reference

1. Project implementation consultant (PIC)

65. The PIC scope of works include (a) analytical work, including field assessments, and installation of measurement stations and/or pilot equipment for coastal protection and disaster preparedness (as would be recommended in the assessments), community consultations and related community-based initiatives; (b) related institutional capacity building and knowledge sharing on (i) FPV and all project infrastructure, productive uses of energy, sustainable blue economy, transmission and distribution, coastal protection, disaster risk reduction measures, disaster preparedness, electric mobility and charging infrastructure, and electric reefs, and (ii) energy sector regulation, financial management, operation and maintenance; and, c) construction supervision and contract management, as well as tasks assigned as outlined below. Notwithstanding this, the PIC shall support other reasonable requests by the PMU/PUB throughout the project duration. The PIC shall also perform the role of an “Engineer” as prescribed in the FIDIC Conditions of Contract for Construction, as utilized by the ADB. A written approval of the Client prior to consultant performing the role of the “engineer” is required.

Detailed scope of work:

A. Community-Based Coastal Protection and Disaster Risk Reduction Measures

66. Under the ADF 13 Thematic Pool for supporting the disaster risk reduction and climate change adaptation strategic area and under the Ireland Trust Fund for Building Climate Change

and Disaster Risk Reduction for Small Island Developing States, the consultants will cover the following activities, which aim to address the coastal flooding and erosion due to cyclones and storm surges. In these activities, a gender-sensitive perspective will be applied, with the understanding that women and men across the socioeconomic spectrum will be affected differently by sea level rise and the proposed interventions, The consultant will work with KFSU safeguards and MELAD on these activities:

(i) Develop baseline description on current shoreline processes, coastal ecosystem and its conditions, related socio-economic and development activities of the communities in and around the proposed project site.
(ii) Map out all relevant stakeholders, with focus on differentiated gender roles and functions around coastal activities and management.
(iii) Develop a gender action plan for the implementation of the project activities in line with and contributing to the overall project gender action plan.
(iv) Review and consult with key stakeholders on past and ongoing coastal protection measures and document key lessons and challenges faced.
(v) Assess existing practices and gaps at the community level in managing and maintaining existing coastal protection measures including use of early warning and subsequent preparations for the inundation.
(vi) Conduct comparative technical assessment of applicable community-led coastal protection measures reflecting technical, environmental, social, cultural and operation and maintenance aspects for identified site in South Tarawa. Technical assessment to include monitoring mechanism for effectiveness of interventions against relevant indicators for coastal resilience.
(vii) Develop multi-criteria evaluation framework for comparing between applicable coastal protection measures.
(viii) In consultation with stakeholders, applying the multi-criteria evaluation framework, determine the optimal coastal protection measure to implement for identified site.
(ix) Undertake detailed design of selected coastal protection measure with consideration of potential reuse of demolition waste and innovative bioproducts to enhance its durability.
(x) Mobilize local community for the construction of coastal protection measures and introduction of equipment/tools for monitoring coastal erosion and community-based monitoring process. Monitoring will be continued for 2 years after construction, with results shared with government and the communities.
(xi) Develop community-based operational and maintenance plan along with potential funding mechanism for repair and maintenance.
(xii) Conduct coastal preparedness and awareness activities including use of early warning and subsequent preparations for inundation at the community level.

B. Institutional Capacity Building

67. The PIC, in collaboration with the PMU, PUB, MISE, the EA, IA and in coordination with other donor-funded initiatives such as the MFAT KURP, shall lead in the design and implementation of institutional capacity building program under the project. The PIC shall assist the PMU in delivering relevant consultations, training, knowledge sharing, awareness raising, and community engagement including but not limited to those defined under the Gender Action Plan, the Design and Monitoring Framework, and Stakeholder Communications Strategy and Participation Plan.

(i) Building on the capacity development program development under STREP and take into the capacity needs assessment conducted under the TA, design and implement a capacity building program for inclusive and resilient renewable energy

project development and implementation. Circulate for approval of PUB and the Project Steering Committee and implement accordingly. Assist PUB, MISE, and KGES, MELAD, MICTD, MWYSSA and other government agencies and solar stakeholders in other relevant capacity building events to achieve targets under the gender action plan and the environmental management plan. Organize, conduct and deliver the capacity building program for the executing and implementing agencies and other relevant stakeholders through classroom training, hands-on workshops, and seminars. Coordinate with individual consultants under the PMU on related capacity building tasks and deliverables under their TORs and incorporate into the program. The capacity building program shall include, but is not limited to, the following:

a. assessing technical, financial, and economic viability of renewable energy technologies and projects;
b. technical and financial management of assets, accounting and auditing
c. improving community engagement; stakeholder communication strategy
d. climate impacts, gender, environmental and social safeguards assessments, monitoring and reporting;
e. workshop on operations and maintenance and project management and supervision;
f. public awareness programs conducted on efficient household electricity demand management targeting women's, youth, and church organizations
g. business skills training on income opportunities from electricity supply, including support for business plan development and
h. mainstreaming gender-equality and developing the gender strategy for PUB (in coordination with the PMU)

(ii) Provide capacity building including certified training by accredited entities to the PMU and relevant PUB staff and technicians, in collaboration with the contractor, in PV and BESS construction and O&M and safeguards matters and raise awareness in the PMU, PUB and MISE on all aspects of the statutory and policy requirements for environmental assessment and management, involuntary resettlement and gender-equality, as required by the government and ADB. Procure, as necessary and if not yet available, required software to enable PUB and MISE to design, plan, monitor, operate and maintain the electricity network with large intermittent generation efficiently.

68. The project will build on the assistance provided under STREP including:

(i) capacity building to ensure effective implementation of the new regulatory framework developed under the recently passed Energy Act, and integration of the performance of the new regulatory and oversight functions of the Energy Planning Department (EPD) in MISE;
(ii) advisory support regarding amendments to existing legislation to resolve conflicting provisions on utility governance, financial management and oversight, and to operationalize the recommendations under financial recovery action plan (FRAP) and SOE MAU Financial Advisor;
(iii) advisory support in the development of other required regulations stated in the Energy Act 2022 to fully implement objectives of the Act;
(iv) collaboration with other development partners and donors and regional entities on a coordinated and harmonized capacity building program for the energy sector; and

(v) other required assistance and advisory support to ensure compliance with financial and other covenants stipulated in the STREP and, later, STREP 2 legal agreements.

69. Capacity building is proposed for the EPD within MISE but aspects of which should be extended to PUB, KGES and other government ministries and departments, ensuring the development of critical skills and knowledge required to perform and participate in regulatory roles and procedures. This could include initially EPD's and MISE's respective duties and functions under the Energy Act, tariff setting fundamentals and procedure, hands-on training to initiate the Energy Performance, Labelling and Testing Regulations, the Electrical Code of Practice and other developed regulations, regulations covering the petroleum industry, specific functions under the new regulations, performance monitoring and oversight, licensing and permitting, disputes and consumer protection. Capacity building is acknowledged as being required on a continuous, longer-term basis. The capacity building program being developed under STREP will be updated to include training events proposed by other development partners including those being developed based on the energy sector training needs assessment supported by the Pacific Region Infrastructure Facility and the Pacific Power Association.

70. Assistance and advisory support for legislative reforms will focus on Energy Act and those parts of the PUB Ordinance that remain. The IMS structure and advisory support will be enhanced to ensure financial sustainability of PUB's overall operations and that PUB is implementing sound accounting and financial management practices based on international best practice.

C. Construction supervision

71. The PIC shall support the PMU in the site supervision of the contracts entered into under the project including in all monitoring and reporting tasks, assist PUB, MISE and relevant government agencies in implementing relevant provisions and ensuring compliance with the Kiribati Energy Act 2022. The PIC shall also work with the PIC and PMU for the Tuvalu Increasing Access to Renewable Energy Project (Additional Financing), in coordinating construction supervision and field activities, share common issues, mitigating measures and lessons learned, given that one contractor is engaged to design, build, operate and maintain all infrastructure FPV, PV, BESS, T&D, PUEs and SBEs for the two projects. The tasks for which the PIC shall be responsible include, but are not limited to, the following:

(iii) Develop project performance monitoring system incorporating project implementation progress, contract award and disbursement, project performance management system, and compliance with grant covenants to comprehensively monitor project performance and identify eminent and potential bottlenecks for implementation. These data and findings in the performance monitoring system are migrated into quarterly progress report and project completion report to be submitted to ADB

(iv) Responsible of all site supervision activities and coordination of third-party inputs necessary for successful completion of the STREP2-funded contracts on behalf of the employer;

(v) Review Contract Management Plan and related progress report submitted by the contractor

(vi) Review contractor's project implementation schedule and assess its technical risks. Recommend necessary updates or adjustments to the schedule to both PMU manager and contractor;

(vii) Review the contractor's basic designs, detailed designs and drawings to ensure that they meet the relevant international standards and conforms to the employer's requirements;
(viii) Review the equipment selection and manpower allocations of the contractor;
(ix) Review material submittals provided by the contractor. Attend and review tests of construction materials before their use;
(x) Attend the inspection and witnessing of the testing of electrical plant, equipment and civil structures;
(xi) Assess the testing and commissioning process and documentations provided by the contractor and attend the testing and commissioning phase;
(xii) Review and comment on the contractor's O&M programs and manuals for each system and T&D. Finalize and submit the O&M programs/plans and manuals and supervise the O&M contractor and assist the implementing agency/PUB in the initial O&M implementation;
(xiii) Assist the PMU manager in the assessment of contractual claims submitted by the contractor;
(xiv) Prepare regular analysis and progress reports after site visits as required, and no less than on a monthly basis;
(xv) Other activities reasonably requested by the PMU Manager that are related to the supervision of the contracts;
(xvi) Assist, train and support implementing agencies (PMU, PUB and MISE) in providing project management in line with international standards and best practices;
(xvii) Working with the O&M contractor, develop and assist PUB/PMU in developing (a) common technical standard and asset register for solar photovoltaic and BESS system, and (b) O&M strategy;
(xviii) Assist the PMU/PUB to review and approve O&M training program and O&M procedure manual (to be submitted by turnkey contractor) and to assess completeness of the O&M training program for invoice processing;
(xix) Provide expert advice and support on design, procurement, construction supervision, operation and maintenance activities;
(xx) Enhance the operations and maintenance (O&M) programs developed by the contractor and assist the executing agency (MFED) and implementing agencies (PUB and MISE) in implementing the O&M program in the initial stages;
(xxi) Support the PMU, PUB, MISE and MFED in the development of the tariff and subsidy plan based on available models to ensure compliance with covenants under the grant and project agreements with ADB;
(xxii) Building on the work conducted under the TA in collaboration with relevant government agencies such as Office of the Attorney-General and MWYSSA, assist the PMU, PUB and MISE and relevant government agencies in further conceptualizing

72. Other Specific Activities:

(i) Input to the preparation of a detailed work program and implementation schedule for the project output activities, to the satisfaction of the PMU manager and PUB;
(ii) Ensure compliance with the ADB's Safeguard Policy Statement (2009) and project safeguards documents, including the initial environmental examinations (IEEs) and corresponding environmental management plans, and social safeguards due diligence reports, Site Specific Health and Safety Management Plan; and ensure

compliance of project implementation with the government's laws, environmental policy and procedures;

(iii) Assist the PUB/PMU manager in assessing changes necessary to the project design in order to fulfil the project requirements and support the preparation of consequent variations to the main plant contracts;

(iv) Assist the PUB/PMU manager with financial management including:
   a. monitoring the financial performance of the construction contract including managing and reviewing budget, assessing contractors' payment claims and other various claims; and
   b. providing inputs to project audit reports with respect to the contracts that the PIC is supervising.

(v) Input to the preparation of project performance monitoring and assessment procedures within PMU/PUB requirements during implementation; include monitoring of climate components and performance indicators;

(vi) Assist the PMU in preparing quarterly progress reports; semi-annual safeguards monitoring reports; any required updates to safeguards documents (IEE, Resettlement Plan, Gender Action Plan, and others, as appropriate), climate risk assessments and monitoring;

(vii) Develop and implement stakeholder consultation and communication programs to ensure the full awareness and participation of communities and stakeholders;

(viii) Support the PMU/PUB in updating, implementing and monitoring the Stakeholder Communication Strategy;

(ix) Develop HIV/AIDS training program for the community near the project construction sites, who may be impacted by temporary influx of construction workers, and coordinate with local health authorities and the PMU for its implementation;

(x) As necessary and at the request of the PMU, support development of an employee training program to be implemented by contractors for prevention of communicable diseases, including COVID-19, and coordinate as requested with local health authorities and the PMU for its implementation.

(xi) Assist and provide inputs to ADB missions; and

(xii) Where requested by the PMU Manager, review and input to the creation of terms of reference for individual consultants to be engaged under the project.

73. An estimated 52 person-months of international consulting services and 60 person-months of national consulting services for a period of up to 36 months will be required under the time-based PIC firm contract required to (i) facilitate construction supervision; (ii) assist the contractor and PUB in the provision of an O&M program (including safeguards and gender aspects), (iii) provide knowledge transfer and strengthen the operational capacity of PUB, MISE and other beneficiaries, (iv) assist PUB and MISE in implementing the Energy Act and assist in strengthening the capacity of EPD and other agencies on regulatory functions. A summary is presented below:

International Experts Name of Positions	**Person months**	**National Experts Name of Positions**	**Person Months**
Firm		**Firm**	
Required Key Experts	**Indicative**	**Indicative Non-key Experts**	**Indicative**
Power/FPV Expert [Team Leader]	7	Project Engineer	24
Transmission and power systems expert	5	Civil/Environmental Engineer	18
BESS and Grid Integration Specialist	4	Social development specialist	18
Legal/Regulatory Specialist	5		
Indicative Non-key Experts	**Indicative**		

Environment specialist	4		
Gender specialist	4		
Social safeguards specialist	4		
Finance/Contract Manager	3		
CCA/DRR specialist	4		
Marine ecologist	4		
Coastal Engineering Specialist	4		
Nature-based Solutions Specialist	4		
Total	**52**	**Total**	**60**

BESS = battery energy storage system, CCA = climate change adaptation, DRR = disaster risk reduction, FPV = floating solar photovoltaic
Source: Asian Development Bank

1. International Consultants (52 person-months - indicative)

A. Required Key Experts

74. **Power/FPV expert [Team Leader]** (international, 7.0 person-months, intermittent). The expert should have post graduate degree in engineering or other relevant field, and about 12 years of experience in solar photovoltaic engineering with the design, specification and installation of grid connected floating and land-based solar photovoltaic system including battery storage energy system, and in power electric engineering with the design, specification, and implementation of medium to low voltage systems. Experience in designing and implementing floating PV installations is required. Familiarity with ADB's procurement, disbursements, and project monitoring requirements is highly preferable. Provide hands on support and guidance to the "Project Engineer" in the execution of the "engineer" role as prescribed in the Conditions of Contract of the ADB Standard Bidding Document for Works. The activities to be undertaken will include but not limited to the following:

(i) Develop project performance monitoring system incorporating implementation progress, contract award and disbursement, project performance management system, and compliance with grant covenants to comprehensively monitor all performance and identify eminent and potential bottlenecks for implementation. These data and findings in the performance monitoring system are migrated into quarterly progress reports and project completion report to be submitted to ADB.
(ii) As Team Leader, oversee and supervise the work of the PIC team and is responsible for the overall delivery of the assignment.
(iii) Prepare the detailed work program and implementation schedule for the project and project completion report;
(iv) Provide high level advice to the PMU Manager regarding management issues;
(v) Assist the PMU Manager with monitoring the financial performance of the project including managing and reviewing budget, assessing Contractor's claims and other various claims;
(vi) Assist the PMU Manager with the human resource management of the project staff, including monitoring of staff performance, satisfaction and training needs and making recommendations for actions by the PMU to maintain competent staff;
(vii) Assist the PMU Manager with risk management of the project, ensuring compliance with legal requirement, occupational health and safety requirement;
(viii) Coordinate the input and activities of the international specialists and ensure coordination with the national specialist and Contractor;
(ix) Review Contractor's project implementation schedule and assess the plan's technical risks and carry out sensitivity analysis to check project viability under

these risks. Prepare terms of reference, expertise requirements, and person-month and cost estimates for additional consulting services, if required;

(x) In conjunction with the PMU Manager establish and support the planning objectives for the PMU and provide high level advice to the PMU Manager regarding management issues;

(xi) Prepare monitoring assessment procedures within PUB/PMU/MISE and the necessary guidelines for staff guidance during project preparation and implementation. Assist in the development and monitoring of the project;

(xii) Assist the PMU Manager in developing detailed budgets for the project. Assist in controlling project budgets. Provide advice to the PMU Manager to mitigate the effects of cost over-runs. Assist the PMU Manager in developing and implementing cost control mechanism for the project and for project management;

(xiii) Provide high level advice to other national and international consultants as required to ensure adequate coordination occurs between all disciplines and with the National Specialists;

(xiv) Assist the PMU Manager in preparing monitoring assessment procedures within PUB/PMU/MISE and the necessary guidelines for staff guidance during project preparation and implementation. Prepare progress reports after site visits to assist the PMU Manager in monitoring the project progress;

(xv) Review the contractors design, documentation, equipment selection and test program;

(xvi) Review the proposed materials by the Contractor used in construction/fabrication work and ensure that they comply to the requisite standards and Employer's Requirements;

(xvii) Inspect and witnessing of testing of mechanical plant and equipment;

(xviii) Assist in the supervision of construction of the project and their commissioning;

(xix) Undertake site visits to establish the project progress and effectively monitor the project progress and assess the contractor's claims. Provide advice to the PMU Manager on the necessary measures to effectively mitigate project issues;

(xx) Assist the PMU Manager in assessing changes to the project design, project requirements and any consequent variation claims; Review contractor's claims for milestone payments for civil portions and assist PUB/PMU/MISE to verify and adjust the claims. Assist PUB/PMU/MISE to assess any variations proposed by the Contractor and assess it;

(xxi) Assist PUB/PUB/PMU/MISE in strengthening the technical and safeguard management of the Project by undertaking the necessary training for the PUB/PMU/MISE national specialists in technical assessment procedure and techniques, construction supervision and monitoring, and reporting. Involve the national specialists through on-the-job training, affecting transfer of knowledge and skills, in project management and monitoring of the project, and develop staff capability in handling the technical management of the project;

(xxii) Review existing documents and data relating to the project;

(xxiii) Review Contractor's concept designs, detailed designs, and drawings for the project to ensure that they meet the necessary international standards and conforms to the Employer's Requirements;

(xxiv) Assist the PMU to conduct holistic engineering design (to be submitted by the turnkey contractor) review which includes validating technical specification and performance, and reviewing geotechnical assessment, electrical interfaces, materials, control interfacing, and foundation design. Assist the PMU to guide and instruct the turnkey contractors for corrective actions or design and drawings revision where necessary;

(xxv) Assist the PMU on procurement and contract management matters, including preparing necessary information to be submitted to ADB for no-objection.

(xxvi) Assist the PMU to review control and construction documents (to be prepared by the contractor) to verify compliance with design specification, applicable code and standard, and contracts. Assist the PMU to guide and instruct the turnkey contractors for corrective actions or design and draw revision where necessary;

(xxvii) Assist the PMU in construction supervision which includes cost oversight including variation order, bill of quantity check, and invoice check processing; Supervise construction, monitoring project program according to the construction program, maintaining quality and construction standards and commissioning of the project;

(xxviii) Review Contractors' plans for pre-commissioning, test-run, and final acceptance procedure. Develop witnessing plan for review and confirmation of the performance and submit to the PMU for approval. Attend and review the material tests of the construction material and provide advice on the suitability of the material for construction; Jointly conduct pre-commissioning, test run, and final acceptance witnessing to verify compliance with functional guarantee of equipment and the designed performance of the project;

(xxix) Develop (a) common technical standard and asset register for floating and land-based solar photovoltaic system and BESS, and (b) operation and maintenance (O&M) strategy. Assist the PMU to review and approve O&M training program and O&M procedure manual (to be submitted by turnkey contractors) and to assess completeness of the O&M training program for invoice processing;

(xxx) Review the proposed construction materials and the construction process proposed by the Contractor to ensure it conforms to the recommended international standards and the Employer's Requirements; Assist PUB/PMU/MISE undertaking the implementation of the project by ensuring all civil and structural components meet international best practice and ensuring that the contractor's design is suitable for conditions at sites and allow for any limitations imposed by the site conditions;

(xxxi) Develop project performance monitoring system incorporating implementation progress, contract award and disbursement, project performance management system, and compliance with grant covenants to comprehensively monitor all performance and identify eminent and potential bottlenecks for implementation. These data and findings in the performance monitoring system are migrated into quarterly progress reports and project completion report to be submitted to ADB;

(xxxii) Undertake site visits to establish the project progress and effectively monitor the project progress and assess the contractor's claims. Provide advice to the PMU manager on the necessary measures to effectively mitigate project issues; Develop project management capacity enhancement training module in project preparation including site selection, system configuration design, costing, and grid synchronization and protection. Work with ADB to deliver project management, procurement and contract management related training for staff in the PMU and the other relevant agencies;

(xxxiii) Liaise with other international and national consultants and coordinate with their local counterparts to ensure that the overall design of the project is cost effective for long term operations and maintenance, practical and meet the overall requirements of PUB/PMU/MISE; and

(xxxiv) Guide and assist the PMU to prepare quarterly progress report and project completion report in ADB formats.

75. **Power Systems/Transmission expert [Deputy Team Leader]** (international, 5.0 person-months, intermittent). The expert shall act as deputy team leader and will lead the implementation of the grid upgrades, working closely with the team leader. The expert should have post graduate degree in engineering or other relevant field, and about 12 years of experience in transmission and/or power systems engineering including design, specification and installation of medium to high voltage transmission and distribution system, including all auxiliary facilities, energy management systems. Experience in high RE penetration grid is highly preferable. Familiarity with ADB's procurement, disbursements, and project monitoring requirements is desirable. The activities to be undertaken will include but not limited to the following:

(i) For the grid upgrades, develop project performance monitoring system incorporating implementation progress, contract award and disbursement, project performance management system, and compliance with grant covenants to comprehensively monitor all performance and identify eminent and potential bottlenecks for implementation. These data and findings in the performance monitoring system are migrated into quarterly progress reports and project completion report to be submitted to ADB.
(ii) As Deputy Team Leader, work closely with and coordinate with the team leader to oversee and supervise the work of the PIC team and for the overall delivery of the assignment.
(iii) Work closely with the BESS and grid integration specialist in overseeing the grid upgrades and BESS installation and integration
(iv) Prepare the detailed work program and implementation schedule for the project and project completion report;
(v) Provide high level advice to the PMU Manager regarding management issues;
(vi) Assist the PMU Manager with monitoring the financial performance of the project including managing and reviewing budget, assessing Contractor's claims and other various claims;
(vii) Assist the PMU Manager with the human resource management of the project staff, including monitoring of staff performance, satisfaction and training needs and making recommendations for actions by the PMU to maintain competent staff;
(viii) Assist the PMU Manager with risk management of the project, ensuring compliance with legal requirement, occupational health and safety requirement;
(ix) Coordinate the input and activities of the international specialists and ensure coordination with the national specialist and Contractor;
(x) Review Contractor's project implementation schedule and assess the plan's technical risks and carry out sensitivity analysis to check project viability under these risks. Prepare terms of reference, expertise requirements, and person-month and cost estimates for additional consulting services, if required;
(xi) In conjunction with the PMU Manager establish and support the planning objectives for the PMU and provide high level advice to the PMU Manager regarding management issues;
(xii) Prepare monitoring assessment procedures within PUB/PMU/MISE and the necessary guidelines for staff guidance during project preparation and implementation. Assist in the development and monitoring of the project;
(xiii) Assist the PMU Manager in developing detailed budgets for the project. Assist in controlling project budgets. Provide advice to the PMU Manager to mitigate the effects of cost over-runs. Assist the PMU Manager in developing and implementing cost control mechanism for the project and for project management;

(xiv) Provide high level advice to other national and international consultants as required to ensure adequate coordination occurs between all disciplines and with the National Specialists;

(xv) Assist the PMU Manager in preparing monitoring assessment procedures within PUB/PMU/MISE and the necessary guidelines for staff guidance during project preparation and implementation. Prepare progress reports after site visits to assist the PMU Manager in monitoring the project progress;

(xvi) Review the contractors design, documentation, equipment selection and test program;

(xvii) Review the proposed materials by the Contractor used in construction/fabrication work and ensure that they comply to the requisite standards and Employer's Requirements;

(xviii) Inspect and witnessing of testing of mechanical plant and equipment;

(xix) Assist in the supervision of construction of the project and their commissioning;

(xx) Undertake site visits to establish the project progress and effectively monitor the project progress and assess the contractor's claims. Provide advice to the PMU Manager on the necessary measures to effectively mitigate project issues;

(xxi) Assist the PMU Manager in assessing changes to the project design, project requirements and any consequent variation claims; Review contractor's claims for milestone payments for civil portions and assist PUB/PMU/MISE to verify and adjust the claims. Assist PUB/PMU/MISE to assess any variations proposed by the Contractor and assess it;

(xxii) Assist PUB/PUB/PMU/MISE in strengthening the technical and safeguard management of the Project by undertaking the necessary training for the PUB/PMU/MISE national specialists in technical assessment procedure and techniques, construction supervision and monitoring, and reporting. Involve the national specialists through on-the-job training, affecting transfer of knowledge and skills, in project management and monitoring of the project, and develop staff capability in handling the technical management of the project;

(xxiii) Review existing documents and data relating to the project;

(xxiv) Review Contractor's concept designs, detailed designs, and drawings for the project to ensure that they meet the necessary international standards and conforms to the Employer's Requirements;

(xxv) Assist the PMU to conduct holistic engineering design (to be submitted by the turnkey contractor) review which includes validating technical specification and performance, and reviewing geotechnical assessment, electrical interfaces, materials, control interfacing, and foundation design. Assist the PMU to guide and instruct the turnkey contractors for corrective actions or design and drawings revision where necessary;

(xxvi) Assist the PMU to review control and construction documents (to be prepared by the contractor) to verify compliance with design specification, applicable code and standard, and contracts. Assist the PMU to guide and instruct the turnkey contractors for corrective actions or design and draw revision where necessary;

(xxvii) Assist the PMU in construction supervision which includes cost oversight including variation order, bill of quantity check, and invoice check processing; Supervise construction, monitoring project program according to the construction program, maintaining quality and construction standards and commissioning of the project;

(xxviii) Review Contractors' plans for pre-commissioning, test-run, and final acceptance procedure. Develop witnessing plan for review and confirmation of the performance and submit to the PMU for approval. Attend and review the material tests of the construction material and provide advice on the suitability of the

material for construction; Jointly conduct pre-commissioning, test run, and final acceptance witnessing to verify compliance with functional guarantee of equipment and the designed performance of the project;

(xxix) Develop (a) common technical standard and asset register for floating and land-based solar photovoltaic system and BESS, and (b) operation and maintenance (O&M) strategy. Assist the PMU to review and approve O&M training program and O&M procedure manual (to be submitted by turnkey contractors) and to assess completeness of the O&M training program for invoice processing;

(xxx) Review the proposed construction materials and the construction process proposed by the Contractor to ensure it conforms to the recommended international standards and the Employer's Requirements; Assist PUB/PMU/MISE undertaking the implementation of the project by ensuring all civil and structural components meet international best practice and ensuring that the contractor's design is suitable for conditions at sites and allow for any limitations imposed by the site conditions;

(xxxi) Undertake site visits to establish the project progress and effectively monitor the project progress and assess the contractor's claims. Provide advice to the PMU manager on the necessary measures to effectively mitigate project issues; Develop project management capacity enhancement training module in project preparation including site selection, system configuration design, costing, and grid synchronization and protection. Lead the conduct of capacity enhancement training in project preparation procurement, disbursement, monitoring and administration, and evaluation upon completion for staff in the PMU and the other relevant agencies;

(xxxii) Liaise with other international and national consultants and coordinate with their local counterparts to ensure that the overall design of the project is cost effective for long term operations and maintenance, practical and meet the overall requirements of PUB/PMU/MISE; and

(xxxiii) Guide and assist the PMU to prepare quarterly progress report and project completion report in ADB formats.

76. **BESS and Grid Integration Specialist** (international, 4 person-months, intermittent). The expert should have a postgraduate degree in engineering or other relevant field; and at least 8 years of experience in battery energy storage systems and grid integration of intermittent generators. Experience includes integration of intermittent renewables, particularly, floating and land-based solar photovoltaic systems with BESS and diesel gensets; grid stability analysis and implementation and operation of control systems for energy management on projects of a similar nature. The expert will specifically target solutions for key challenges of stable operation of high penetration renewable power systems. The activities to be undertaken will include but not limited to the following:

(i) Carry out site visits to assess the status of the current scheme prior to evaluating the Contractor's proposed electrical design;

(ii) Review the contractor's design including the proposed equipment as a part of the design and assess their compatibility with the existing system, where necessary, and its compatibility and interconnection with PUB's overall system and grids;

(iii) Review the adequacy of the contractor's proposed control system implementation plan and control system algorithm and operation. Make recommendations to PUB about integration actions for communications and control for the connection of the battery systems;

(iv) Supervise the installation of the key electrical equipment and systems;

(v) Assess the testing and commissioning process and documentation provided by the contractor and attend the testing and commissioning phase;
(vi) Assist PUB during implementation of the control system to ensure effective integration, training, and efficient operation of the electrical system;
(vii) Working with the team leader, provide the PMU Manager with the support to monitor and supervise the project and develop a monitoring procedure identifying key components in the installation process;
(viii) Undertake site visits to establish the project progress and effectively monitor the project progress and assess the contractor's claims. Provide advice to the PMU Manager on the necessary measures to effectively mitigate project issues;
(ix) Working with the team leader, assist the PMU Manager in assessing changes to the project design, project requirements and any consequent variation claims; and
(x) Develop (a) common technical standard for the FPV, PV and BESS system, and (b) O&M strategy. Assist the PMU to review and approve O&M training program and O&M procedure manual (to be submitted by turnkey contractors) and to assess completeness of the O&M training program, especially for BESS.
(xi) Review and become fully versant with the capabilities of the installed network, SCADA and RE control system associated with the BESS as well as existing control systems commissioned by PUB;
(xii) Work closely at all times with PUB nominated staff to ensure capacity building so that PUB staff are capable to operate the system in the long term and anticipate potential modifications to the control programming and hardware as necessary as new RE and BESS are connected to the system;
(xiii) Identify any capability, qualification or training constraints within PUB nominated staff and make recommendations to PUB for actions to mitigate;
(xiv) Work with PUB to establish secure, remote SCADA access to allow remote monitoring and assistance;
(xv) Working with the team leader, review the generation data, develop and implement metrics to measure renewable energy contribution, estimate optimal performance for the current RE installed, curtailment, and margin for improvement;
(xvi) With adequate safety precautions in place, explore opportunities to improve system performance through improved reliability or use of renewable generation;
(xvii) If and when new renewable generators, other BESS or enablers are connected to the system, or if the diesel generator configuration changes, assist PUB to update or plan to update the RE controller and SCADA accordingly to absorb the changes; and
(xviii) Advise PUB on long term system maintenance, versioning control, and capacity building it should undertake to ensure best long-term system performance.

77. **Legal/Regulatory Specialist** (international, 5.0 person-months, intermittent). The expert will have a degree in law and will have a recognized professional qualification. The expert should have at least 10 years' experience which will include drafting and review of national energy legislation and design of energy regulatory frameworks. Experience in developing countries, particularly in the Pacific region, is desirable. Working with relevant experts and consultants, lead in the assessment of gaps in legislation and recommend secondary laws and legal instruments to implement the Energy Act. Provide advisory support on legal and governance issues to PUB, MISE, the Office of the Attorney General, and other relevant agencies. Design and lead in the implementation of capacity building on legal and regulatory matters, especially to ensure that EPD performs its regulatory functions.

B. Non-Key Experts

78. **Environment Specialist** (international, 4.0 person-months, intermittent). The international expert should have a postgraduate degree in environment or relevant field, and about 10 years of experience in environmental assessment, management, and monitoring of projects funded by ADB or similar IFI. Experience in the Pacific region is required. The activities to be undertaken will include but not limited to the following:

(i) Provide in-country and remote mentoring and training to the environment safeguards officer seconded to the PMU and KFSU.
(ii) Based on detailed design, review and update the initial environmental examination (IEE) report, the feasibility study, and other relevant reports, assist the PMU prepare the applications for clearance by the Environment and Conservation Department (ECD) of MELAD and submit the applications.[42]
(iii) Ensure that the updated IEE and environmental management plan (EMP) and any conditions of environmental license issued by the ECD are integrated into the bid documents.
(iv) As applicable, assist in the evaluation of bids in respect of environmental management matters.
(v) As required, provide support and training to the contractor(s) as they prepare their construction EMP (Site Specific EMP), review and approve the Site Specific EMP (include sharing with ADB for review and comment); and assist the PMU to monitor compliance with the approved Site Specific CEMP.
(vi) Assist the PMU to implement and monitor the environment safeguard requirements including preparation of the semi-annual safeguards monitoring reports.
(vii) Working with the technical experts, support the PMU to prepare and implement compliance and monitoring checklists and forms for the Engineer to issue instruction to contractor or corrective action requests for non-conformances and/or breaches.
(viii) Provide capacity building and mentoring to PUB/PUB/PMU/MISE. Assist PUB/PUB/PMU/MISE in strengthening environmental management in the sector by undertaking the necessary training in environmental assessment, mitigation planning, environmental supervision and monitoring, and reporting. Involve PUB/PUB/PMU/MISE through on-the-job training, affecting transfer of knowledge and skills, in environmental management and monitoring of projects.
(ix) Ensure the project is implemented in compliance with the environmental, health and safety laws and regulations of Kiribati and ADB's Safeguard Policy Statement, 2009;
(x) Report on implementation of environmental safeguards including monitoring, particularly CEMP implementation and effectiveness of environmental impact mitigations and training provided to PUB/PMU/MISE and contractors in: (a) inputs to PMU quarterly progress reports; and (b) semi-annual safeguards monitoring reports; and
(xi) In discussion and coordination with PUB/PMU/MISE and ADB, assist in preparing or updating environmental assessment guidelines for energy sector focusing on floating and land-based solar and BESS projects in line with country systems/procedures and best practice (using SPS as benchmark) for staff guidance during project preparation and implementation.

[42] Based on determination by the Department of Environment, this will include reformatting the IEE as a preliminary environmental assessment report or environmental impact assessment.

79. **Gender Specialist** (international, 4.0 person-months, intermittent). The international expert should have a postgraduate degree in social science, gender and development studies or relevant field, and about 8 years working experience, or a combination of undergraduate degree and directly relevant professional experience in gender mainstreaming and also preferably in social development/safeguards and ideally in projects funded by ADB or similar international development agencies. The expert, in collaboration with the Social Safeguards Specialist and the local Gender and Social Safeguards Officers in the project management unit, will undertake the following activities:

(i) Implement the GAP including developing and implementing gender strategy/policy for human resource management for PUB, and business skills training, among others and conduct field visits to monitor GAP progress working closely with PUB and PMU;
(ii) Work with the Social Safeguards Specialist and assist the PMU in monitoring overall project implementation with the view to identifying any unanticipated social risks, particularly sensitive gender impacts. If such risks and/or impacts eventuate, adjust, adapt, and/or develop project activities to implement appropriate mitigation measures including revision of GAP and gender indicators if required;
(iii) Implement the collection of sex-disaggregated data relevant to the project and reflecting on GAP targets and indicators to prepare GAP semi-annual progress reports and provide inputs to the project's monthly/quarterly progress reports;
(iv) Together with the Social Safeguards Specialist and local PMU counterparts, implement the project's overall stakeholder communication and consultation plan especially dealing with the affected persons, CSOs/NGOs and other relevant stakeholders and ensure gender inclusive participatory consultation such as with local women and men (in separate groups) and provide all the meeting minutes and documentation, working closely with relevant PIC team members and PUB and PMU;
(v) Assist the Social Safeguards Specialist and local PMU counterparts in working with the PMU, PUB and the contractor in setting-up and resolving grievances during project implementation including, but not limited to, communicating with concerned parties the grievances by the affected persons /communities, including women and vulnerable groups, conducting assessment on any safeguards related issues and facilitate timely resolution;
(vi) Undertake regular check and supervision of all the contractor's compliance with the gender/social safeguards requirements and prepare corrective actions to address non-compliance, if any, during construction;
(vii) Provide inputs to the semi-annual safeguards report and other necessary inputs for the monthly/quarterly progress report;
(viii) Provide training and capacity building to PMU, especially the Gender Officer, PUB and concerned government staff on gender mainstreaming and social development; and
(ix) Develop a GAP for the coastal protection and DRR activities, with specific focus on current social and economic activities around the coast that may be disrupted by sea level rise or coastal flooding.

80. **Social Safeguards Specialist** (international, 4 person-months, intermittent). The international expert should have a postgraduate degree in social science, gender and development studies or relevant field, and about 8 years working experience, or a combination of undergraduate degree and directly relevant professional experience and social safeguards, and social development and also preferably in gender mainstreaming, and ideally in projects funded

by ADB or similar international development agencies. The expert, in collaboration with the Gender Specialist and the Social Safeguards and Gender Officers in the project management unit (PMU) will undertake the following activities:

(i) Coordinate with the Gender Specialist and assist the PMU in monitoring overall project implementation with the view to identifying any unanticipated social risks and/or sensitive gender impacts. If such risks and/or impacts eventuate, adjust, adapt, and/or develop project activities to implement appropriate mitigation measures including revision of GAP and gender indicators if required;
(ii) Implement the project's overall stakeholder communication and consultation plan especially dealing with the affected persons, CSOs/NGOs and other relevant stakeholders and ensure gender inclusive participatory consultation such as with local women and men (in separate groups) and provide all the meeting minutes and documentation, working closely with relevant PIC team members and PUB and PMU;
(iii) Work with the PMU and the contractor in setting-up and resolving grievances during project implementation including, but not limited to, communicating with concerned parties the grievances by the affected persons /communities, including women and vulnerable groups, conducting assessment on any safeguards related issues and facilitate timely resolution;
(iv) Undertake regular check and supervision of all the contractor's compliance with social safeguards requirements and prepare corrective actions to address non-compliance, if any, during construction;
(v) Inform PUB of any unanticipated resettlement impacts during construction and conduct field assessment to update or formulate new resettlement plan, if required
(vi) Collaborate with the Gender Specialist and the Social Safeguards and Gender Officers in preparing semi-annual safeguards report and other necessary inputs for the monthly/quarterly progress report; and
(vii) Provide training and capacity building to PMU, especially the Social Safeguards Officer, PUB and concerned government staff on social safeguards and social development.

81. **Finance/Contract Manager** (international, 3.0 person-months, intermittent). The expert should have a postgraduate degree in finance or relevant field, and about 5 years working experience. The expert will undertake the following activities.

(i) Guide and assist the PUB/PMU/MISE to prepare project audit report and corporate audit report in accordance with the requirements of ADB;
(ii) In cooperation with the team leader, develop project management capacity enhancement training module in financial analysis and financial management. Lead the conduct of capacity enhancement training in financial analysis and management and ADB disbursement and financial management policies and procedures for staff in the PMU and other relevant agencies;
(iii) Support review of updated Contract Management Plan and related progress report to be submitted by the Contractor
(iv) Collaborate with and update and enhance, as necessary, the tariff and subsidy analyses conducted by the government (MFED/SOEMAU, PUB, MISE and with the help of ADB and KFSU/MFAT KURP consultants) to ensure sound financial performance of the project and PUB and provide recommendations for necessary improvement in tariff level and structure to approach cost recovery;
(v) Review the electricity tariff analysis done under the TA based on historical data

and assess the level of direct and indirect subsidies. Confirm the willingness to pay for incremental electricity consumed, long run marginal cost of power generation; and

(vi) In consultation with PMU, PUB and KFSU, to update the FMM, assist PUB and MISE and MFED to calculate appropriate tariff levels to comply with relevant grant covenants and Assist PUB in developing a plan towards cost-recovery and assist in the initial stages of implementation of the tariff and subsidy plan to comply with grant covenants and conditions.

82. **Climate Change Adaptation/Disaster Risk Reduction (CCA/DRR) Specialist** (international, 4.0 person-months, intermittent). The expert is expected to have a graduate degree in related fields, and at least 7 years of relevant working experience in climate change and or disaster risk modelling, hydrological modelling, and in climate change risk assessment in energy projects, or a combination of undergraduate degree and directly relevant professional experience. The consultant with previous experience in developing countries in the Pacific region is desirable. The consultant will work with the marine ecologist, coastal engineering specialist, nature-based solutions specialist, and environmental experts in assessing and evaluating technologies and options for coastal protection and disaster risk reduction and recommending solutions for adoption and piloting during project implementation. The expert shall work with the marine ecologist and other relevant experts in assessing the effectiveness of the wave breakers and electric reefs. Work with relevant safeguards and gender specialists and engineers (international and local) in conducting consultations and other work as defined in section E above. Previous experience in ADB DMCs, particularly in the Pacific, is desirable.

83. **Marine Ecologist** (international, 4.0 person-months, intermittent). The expert is expected to have a graduate degree in related fields, and at least 7 years of relevant working experience in marine ecology surveys, or climate change and/or disaster risk modelling for marine environments, or a combination of undergraduate degree and directly relevant professional experience. The consultant with previous experience in developing countries in the Pacific region is desirable. The consultant will work with the coastal engineering/management specialist and nature-based solutions in developing a baseline information on current shore line and coastal eco-systems, assessing and evaluating technologies and options for coastal protection and disaster risk reduction and recommending solutions for adoption. The expert shall work with the CCA/DRR specialist and other relevant experts in assessing the effectiveness of the wave breakers and electric reefs and work with relevant safeguards and gender specialists and engineers (international and local) in conducting consultations and other work as defined in section E above. Previous experience in ADB DMCs, particularly in the Pacific, is desirable.

84. **Coastal Engineering Specialist** (international, 4 person-months, intermittent). The expert should have a graduate degree in coastal/ocean engineering, coastal management, water resources management, or related field. Preferably 10 years' experience in planning and design of coastal protection projects including nature-based solutions, similar coastal zone management and infrastructure projects, ideally with ADB or similar international funding agencies. Experience in the Pacific region or in similar regional context is preferred. The expert will have demonstrated ability to coordinate a multidisciplinary team for installation of wave breakers, coastal protection work and contribute to associated coastal hazard preparedness activities. The expert will coordinate the feasibility and appropriate use of demolition waste in coastal protection. The expert will work with the CCA/DRR specialist and key experts in undertaking baseline mapping on current shoreline process, coastal ecosystem and its conditions, assessing and evaluating technologies and options for coastal protection and disaster risk reduction. The expert will consult with key stakeholders and experts to develop gender responsive coastal protection solutions

during project implementation. Develop quality control, monitoring and operational and maintenance plans for coastal protection with specific responsibilities. The expert will coordinate and conduct associated capacity building and awareness activities for key government, civil society, community and key stakeholders on construction, monitoring and maintenance related activities.

85. **Nature-based solution Specialist (international, 4 person-months, intermittent).** The expert must have a master's degree in environmental sciences, ecosystem management, or any other discipline related to nature/eco-system based solutions. Preferably 12 years' experience in applying nature-based solutions in integrated coastal zone management, coastal protection measures or similar kind of projects. Experience working with ADB or other similar international funded projects is desirable. Experience of working in the Pacific or in similar regional context is preferred. The expert will provide technical advice and specialist support for baseline mapping of shoreline process, coastal ecosystem and its conditions, to incorporate locally relevant nature-based solutions as part of the design and implementation of coastal protection measures that can achieve multiple resilience benefits. The expert will contribute to the capacity building and awareness activities for stakeholders and provide relevant inputs to develop quality control, monitoring and operational and maintenance plans for nature-based coastal protection.

2. National Consultants (60 person-months - indicative)

A. Non-Key Experts

86. **Project Engineer** (national, 24 person-months, intermittent). The expert should have a bachelor's degree in engineering, science or other relevant field, preferably in electrical or mechanical engineering, and at least 5 years of working experience, with exposure to donor-funded infrastructure projects. The expert shall act as the national team leader and will assist the international team leader and the team in performing all tasks, particularly in the following activities:

(i) Visit the project sites; collect the updated information; and guide and assist the other international specialists to prepare all the deliverables in ADB formats;
(ii) Act as local liaison, including:
   a. facilitate logistics of the team;
   b. identify and collect existing data, reports and documentation to fulfil data requests of the team;
   c. manage work schedule in conjunction with Team Leader and PMU;
   d. advise turnkey contractor of local operational requirements and logistics; and
   e. identify and manage opportunities for capacity building and knowledge transfer.
   f. attend and provide inputs to the PIC's reports on all training and capacity building activities
   g. perform the role of "the Engineer" as prescribed in the Conditions of Contract of the Asian Development Bank (ADB) Standard Bidding Document for Works.
   h. oversee all design and construction activities under the project.
   i. coordinate with the Contractor to ensure that the designs are completed and reviewed in time as planned.
   j. coordinate the Design Reviewers in reviewing the detailed engineering designs, drawings, specifications, and bills of quantities, prepared by the Contractor.

k. coordinate with the Contractor and manage all construction supervision activities for all construction under the project.

87. **Civil/Environmental Engineer** (national, 18 person-months, intermittent). The expert should have a bachelor's degree in engineering, science or other relevant field, preferably in civil, surveying or environmental engineering and at least 5 years of working experience, with exposure to donor-funded infrastructure projects, including community-based initiatives. The expert will work with the national team leader and the whole team in performing all tasks and delivering all outputs. Work with the international team leader and the specialists working on the productive uses of energy component, including on the community-based initiatives and capacity building for coastal protection and disaster risk reduction. Coordinate with the international and national social development specialists in engaging community participation, in stakeholder consultations and in the installation of recommended protection measures and equipment.

88. **Social development specialist** (national, 18 person-months, intermittent). The expert should have a bachelor's degree in social science, social work or related field, and at least 3 years of working experience. Experience with CSOs, NGOs, and community-based initiatives is highly desirable. The expert will work with the national team leader and the whole team in performing all tasks and delivering all outputs. Work with the international team leader and the specialists working on the productive uses of energy component, including on the community-based initiatives and capacity building for coastal protection and disaster risk reduction. Coordinate with the international and national social development specialists in engaging community participation, in stakeholder consultations and in the installation of recommended protection measures and equipment.

89. The consulting firm shall submit the following required reports:

(i) **Inception Report.** This shall be submitted within one month after issuance of the Notice to Proceed. It shall contain the updated implementation plan, schedule of personnel deployment, and detailed approach and methodologies for implementation. An inception workshop will be conducted with PMU/PUB/MISE and ADB within 6 weeks from notice to proceed with services to present the proposed program of activities and to seek feedback on improvements, which will be reflected in the consultants' inception report;

(ii) **Monthly Progress Reports.** This shall be submitted by the end of the first week of the succeeding month during the consulting service period. This shall contain (i) the latest progress status against the targets set in the initially agreed implementation plan (including capacity building activities described in Output 3) in the inception report, (ii) justification for any major variations (iii) mitigation measures to minimize any further variations;

(iii) **Quarterly Progress Reports.** This shall be submitted by the last week of each quarter during the consulting service period. This shall contain (i) the latest progress status against the targets set in the initially agreed implementation plan (including capacity building activities described in the inception report, (ii) justification for any major variations (iii) mitigation measures to minimize any further variations; (iii) safeguards implementation and monitoring (including consultation, communications, grievance redress and other relevant matters).

(iv) **Semi-Annual Safeguards Monitoring Reports.** Support will be provided to the PMU in preparation of this report. This shall be submitted every 7th month covering the previous six months during the project period. These reports are required to be prepared in in accordance with ADB's Safeguards Policy Statement (2009).

(v) **Midterm Report.** This shall be submitted 10-12 months after Notice to Proceed. This shall contain achievement of the project in relation to the targets set in the TOR and agreed implementation plan, challenges faced, actions taken, and lessons learned and comparison between estimates vs. actual outputs, and any action plan to resolve delays and other issues. It shall include key findings of project-supported workshops, and key progress, monitoring and evaluation data to enable overall project monitoring;

(vi) **Interim Reports.** This shall be submitted 18-20 months after Notice to Proceed and 6 months before project completion date. This shall contain achievement of the project in relation to the targets set in the TOR and agreed implementation plan and action plan. It shall include key findings of project-supported workshops, and key progress, monitoring and evaluation data to enable overall project monitoring;

(vii) **Final Report.** This shall be submitted one month prior to the end of the assignment, including accomplishments under the project, challenges faced, and lessons learned and comparison between estimates vs. actual outputs - for instance, technical, financial, economic, and environment and social safeguards, etc. Following submission, a final review workshop will be conducted with relevant government agencies, stakeholders and ADB. The final workshop will summarize the final report.

90. The PIC shall submit:

(i) Monthly Progress Report – including key comments on the Contractor's Progress Report.

(ii) **Design Review/Acceptance Report.** This shall be submitted within one month after turnkey contractor submits the detailed design. This shall contain (i) key assessments of detailed designs; (ii) recommendation for acceptance and (iii) reference specifications, mitigation measures, standards and requirements for environmental management.

(iii) **Technical report on coastal protection.** This shall be submitted within four months of project commencement. This report covers: (i) Mapping of current coastal conditions; (ii) Comparative assessment of applicable nature-based coastal protection solutions; (iii) Consultation process and evaluation framework for technology selection and (iv) Detailed design for selected intervention, with monitoring and maintenance plan.

(iv) **Test Reports.** For each construction contract, the following test reports shall be prepared and submitted within one month after each test.

a. Mechanical Completion Test and Supervision Report;
b. Inverter Commissioning Test Report;
c. Performance Test (Acceptance Test) Report;
d. Provisional Acceptance Report; and
e. Final Acceptance Test Report

91. **Site Records**. At the completion of the construction stage, the PIC shall provide to the Employer a full detailed set of all site records. This shall include, as a minimum, all site reports, materials approvals, test records, photographs, instructions, variations, inspection certs, etc. The information shall be provided in paper and electronic (PDF) format.

92. **Assistance to drafting secondary legislation to the Energy Act 2022.** The PIC through the PMU shall collaborate with the Attorney General's Office and relevant government agencies on assessing necessary secondary legislation or implementing rules and regulations to the Act. Prior consultations with MISE, PUB, MWYSSA, MELAD, MFED and other relevant agencies will have been conducted prior to submission of draft recommendations including approach to development of the legislation itself.

93. **Training reports.** The PIC shall submit a complete report after each or series of training events and incorporate summaries in the monthly and quarterly progress reports.

2. Project Management Unit (6 individual consultants)

94. Single Source Selection (SSS) is envisioned for the existing staff of the IAREP Project Management Unit. The Project Accountant will work with the KFSU staff/consultants and other consultants engaged in the project or relevant technical assistance (TAs).

95. **Project Manager** (36 persons-month, national, intermittent). The expert should have tertiary qualifications in engineering or equivalent from a recognized institution and should have at least 10 years of relevant project management and power project experience, preferably in a power utility and with solar photovoltaic generation. Duties of the expert will include the following:

(i) Lead the PMU who is accountable to PUB, MISE, and the Project Steering Committee;
(ii) Work with the project implementation consultant (PIC) to progress the implementation of the project;
(iii) With assistance and support from the PIC, manage, and supervise contractors in project implementation;
(iv) With assistance and support from the PIC, manage, supervise, and oversee all the goods, works and turnkey contracts;
(v) Regularly visit the project sites to ensure timely implementation of project activities;
(vi) Communicate with all stakeholders to ensure community support and acceptability of project implementation;
(vii) Coordinate with ADB, government authorities, and stakeholders to achieve the project outcomes as stated in the expected project outputs;
(viii) With assistance and support from the PIC, develop project implementation schedule based on the project management strategy and monitor the progress, reporting regularly on action necessary to mitigate potential delays in project implementation;
(ix) With assistance and support from the PIC and in consultation with ADB, update the project administration manual regularly;
(x) With assistance and support from the PIC, coordinate the disbursement of project funds;
(xi) Prepare and submit, with endorsement from the Project Steering Committee and with assistance from MFED, MISE, PUB and PIC, project audit reports, and corporate audit reports as required by ADB;

(xii) Provide management, financial, and administrative support to ensure that contractual requirements are met;
(xiii) With assistance and support from the PIC, supervise procurement and contracting activities and supervise and oversee the contractors, suppliers for construction and commissioning, operation and maintenance of solar photovoltaic and BESS facilities;
(xiv) With assistance and support from the PIC, manage construction phases including sending letters of acceptance and notices to proceed, implementing and monitoring contractors' quality assurance plans and environmental management plans, monitoring consultant / contractor programs and progress, processing progress claims, reviewing change of orders and extensions of time, providing employer / owner sign-off at hold points, reviewing contractors' construction drawings for compliance with the design intent and specifications, coordinating environmental and social safeguard (land acquisition and resettlement) activities, overview commissioning, and providing oversight of contract completion and administration activities;
(xv) Report and provide secretariat support to the Project Steering Committee;
(xvi) With assistance and support from the PIC, prepare and submit quarterly progress reports, semi-annual safeguard monitoring reports, annual audited project financial statements and annual audited entity/corporate financial statements. as well as project completion reports as required by ADB; and
(xvii) Coordinate and actively manage and participate in training activities of the project for counterparts assigned to the project.

96. **Gender Officer** (18 person-months, national, intermittent). The expert will be part of the PMU and support the overall implementation and monitoring of the project. The national expert should preferably have a degree in social science, or gender and social development and at least 3 years of relevant experience in gender mainstreaming and social development, ideally in projects funded by ADB or similar international development agencies. The activities to be undertaken will include but not limited to the following:

(i) Assist the PMU and work with the PIC Gender Specialist in the implementation and monitoring of the project's Gender Action Plan (GAP) including all gender awareness and capacity building activities, and provide guidance on the revision of the gender targets/activities, if needed or identify areas where gender-inclusive and socially inclusive provisions can be strengthened under the project;
(ii) Assist in monitoring the contractor's compliance with their responsibilities under the GAP including preparation of corrective actions if required;
(iii) Assist and work with the Social Safeguards Specialist and Officer in monitoring grievances particularly relevant to vulnerable groups including women and measures to address the grievances in a timely and appropriate manner;
(iv) Assist in implementing the collection of sex-disaggregated data relevant to the project and reflecting on GAP targets and indicators to prepare GAP semi-annual progress reports and provide inputs to the project's monthly/quarterly progress reports;
(v) Work with the PIC Gender Specialist and Social Safeguards Specialist in the implementation of the stakeholder communication and consultation plan during project implementation, ensuring the participation of vulnerable groups and working closely with relevant PIC team, PUB and other relevant government agencies;

(vi) Assist/provide inputs in the preparation of quarterly progress reports and semi-annual safeguard monitoring reports as well as project completion reports as required by ADB;
(vii) Work with PIC Gender Specialist and Social Safeguards Specialist in ensuring compliance with social safeguards and GAP during implementation including preparation of necessary safeguards plan for unanticipated impacts and/or corrective action plan, if required; and
(viii) Provide necessary inputs, if needed, to other project implementation documents (e.g. monitoring and evaluation) on social safeguards and gender aspects.

97. **Social Safeguards Officer** (18 person-months, national, intermittent). The expert will be part of the PMU and support the overall implementation and monitoring of the project. The national expert should preferably have a degree in social science or social development and at least 3 years of relevant experience in social safeguards, and preferably social development and gender mainstreaming, and ideally in projects funded by ADB or similar international development agencies. The said expert will work closely with the KFSU E/S team. The activities to be undertaken will include but not limited to the following:

(i) Assist the PMU and work in collaboration with the PIC's Social Safeguards and Gender Specialists in the implementation and monitoring of the project's Gender Action Plan (GAP) including all gender awareness and capacity building activities, and provide guidance on the revision of the gender targets/activities, if needed or identify areas where gender-inclusive and socially inclusive provisions can be strengthened under the project;
(ii) Assist in monitoring grievances particularly relevant to vulnerable groups including women and measures to address the grievances in a timely and appropriate manner;
(iii) Work with the PIC Gender Specialist and Social Safeguards Specialist in the implementation of the stakeholder communication and consultation plan during project implementation, ensuring the participation of vulnerable groups and working closely with relevant PIC team, PUB and other relevant government agencies;
(iv) Assist/provide inputs in the preparation of quarterly progress reports and semi-annual safeguard monitoring reports as well as project completion reports as required by ADB;
(v) Work with PIC Gender Specialist and Social Safeguards Specialist in ensuring compliance with social safeguards during implementation including preparation of necessary safeguards plan for unanticipated impacts and/or corrective action plan, if required; and
(vi) Provide necessary inputs, if needed, to other project implementation documents (e.g. monitoring and evaluation) on social safeguards and gender aspects.

98. **Environmental Safeguards Officer** (18 person-months, national, intermittent). The specialist (either consultant or seconded government staff) will be part of the PMU and support the overall implementation and monitoring of the project. The national expert should preferably have a degree in environmental science, engineering or similar disciplines and at least 3 years of relevant experience in environmental safeguards and compliance, and environmental management, and ideally in projects funded by ADB or similar international development agencies. The activities to be undertaken will include but not limited to the following:

(i) Work with the PIC international environment specialist (IES) to review and update the initial environmental examination (IEE) report, the feasibility study, and other

relevant reports prepared for the project. Assist the PMU to prepare the applications for clearance by the Department of Environment and submit the applications;

(ii) Work with the IES to ensure that the updated IEE and environmental management plan (EMP) and any conditions of consent issued by the ECD are integrated into the bid documents;

(iii) Assist in the evaluation of bids in respect of environmental management matters;

(iv) Work with the IES to, as required, provide support and training to the contractor as they prepare their construction EMP (Site Specific EMP), review and approve the Site Specific EMP; and assist the PMU in monitoring compliance with the approved Site Specific EMP;

(v) Assist the PMU to implement and monitor the environment safeguard requirements including preparation of the semi-annual safeguards monitoring reports.

(vi) Support the PMU to prepare and implement compliance and monitoring checklists, including working through the Resident Engineer to issue instructions to contractors or corrective action requests for non-conformances and/or breaches;

(vii) Undertake capacity building and mentoring provided by the IES and assist in strengthening environmental management in the sector by undertaking the necessary training in environmental assessment, mitigation planning, environmental supervision and monitoring, and reporting. Involve PUB/PMU/MISE through on-the-job training, affecting transfer of knowledge and skills, in environmental management and monitoring of projects;

(viii) Work with the IES to ensure the project is implemented in compliance with the environmental, health and safety laws and regulations of Kiribati and ADB's Safeguard Policy Statement, 2009; and

(ix) Work with the IES to report on implementation of environmental safeguards including monitoring, particularly CEMP implementation and effectiveness of environmental impact mitigations and training provided to PUB/PMU/MISE and contractors in: (a) inputs to PMU quarterly progress reports; and (b) semi-annual safeguards monitoring reports.

99. **Communications Officer** (12 person-months, national, intermittent). A master's degree in media and communications, journalism, publishing, public affairs or related fields is preferred. Minimum of 5 years' general experience. Five years demonstrated relevant professional experience at the national or international level in public relations, communications, social media, knowledge support, external relations, community engagement and mobilization, public affairs, and at least 2 years' experience in developing gender inclusive communications and knowledge support strategies and products. Excellent written and spoken communication skills in English; and working experience in the Pacific particularly Tuvalu and Kiribati is an advantage. The Officer will provide support to the IA and Project Management Unit (PMU) for the design and implementation of a gender-inclusive communication strategy for ongoing renewable energy projects and related initiatives. The assignment comprises 12 person-months input an individual consultant spread over a period of 3 calendar years.

(i) In collaboration with PIC gender specialists, PMU project managers, gender officers, and fellow communication officer for both the Kiribati and Tuvalu FPV projects, prepare a comprehensive gender-inclusive communications strategy aligned with the goals and objectives of STREP/2 and IAREP/AF that includes different strategies for the project audience applicable at the different stages of the projects' lifecycle.

(ii) Establish the implementing agency's profile, credibility and project brand, and also prepare the information disclosure protocols with the target audience and through the relevant communication channels.
(iii) Develop content style guide and approaches for the multi-media programs including social media, radio, TV and other popular communication channels in the country.
(iv) Conceptualize and advise on the latest trends and best practices for disseminating information related to the project and overall renewable energy sector.
(v) Prepare project videos and case studies capturing, lessons, good practices and project impacts including social, gender and economic benefits.
(vi) Develop and disseminate content on promoting women's recruitment and participation in technical roles relevant to the renewable energy sector.
(vii) Work closely with the implementing agencies and advise on communication, social media and knowledge support strategies and implications for action and policies proposed.
(viii) Develop messaging and talking points and provide communications counsel to the EAs, IAs and PMUs spokespersons in preparation for media interviews.
(ix) Develop good coordination and communication with other similar donor initiatives and programs.
(x) Deliver the following
- Gender-inclusive communication strategies and action plans for STREP, STREP 2 and IAREP and its additional financing developed and implemented.
- At least one video (of each project) prepared and uploaded on the IA's website.
- At least one training (for each IA) delivered on gender-inclusive communication strategies conducted.
- Compilation of at least 02 case studies per year on project's good practices on gender mainstreaming

(xi) Any other tasks assigned by the EA/IA and the PMU

100. **Project Accountant** (36 person-months, national, intermittent). The Project Accountant will be responsible to the Project Manager and PUB for the compilation and security of all records of receipts and payments, and records management. The Project Accountant will work with the KFSU and the PIC Finance/Contract Manager on related contract management issues and disbursements. The expert should preferably have a degree in finance, accounting, or similar, ideally a certified public accountant, and at least 3 years of relevant experience in accounting, auditing and financial management, and ideally in projects funded by ADB or similar international development agencies. The expert will process all project payments, in accordance with the guidelines under the Asian Development Bank's (ADB) Loan Disbursement Guidelines, for approval by the approved Authorizing Officer and will also be responsible for the preparation and balancing of project accounts and periodic reporting. Duties of the expert will include the following:

(i) Provide management, financial and administrative support to ensure contractual requirements are met, with the following deliverables;
(ii) Prepare and maintain project account ledgers and monthly bank reconciliations for ADB and Government project accounts in a timely manner;
(iii) Prepare and maintain contract logs/monitoring for consultants and contractors;
(iv) Prepare and maintain project account ledgers for each grant category timely;
(v) Prepare withdrawal applications and the necessary documentation required for direct payment and reimbursement disbursement procedures, as per ADB guidelines;

(vi) Monitor and report on withdrawal application processing periods;
(vii) Prepare and maintain adequate accounting records, proper internal control systems, and ensure timely reporting to management;
(viii) Prepare monthly, quarterly and annual project financial reports; Assist PUB and MFED in their preparation of annual audits in compliance with the relevant Project agreement and consistent with ADB guidelines; and
(ix) Other duties as may be required by the Project Manager or the ADB project officer.

VII. SAFEGUARDS

A. Environment

101. The project is category B for environment under ADB's Safeguards Policy Statement 2009 (SPS) and an IEE has been prepared. Environmental safeguards evaluation for KIR comprises three elements: (i) the provision of floating solar; (ii) extension of battery energy storage at Bonriki; and (iii) a new electrical distribution cable between Bonriki and Betio. The ADB will ensure the SPS as well as country safeguards are complied with. Converting grassland and tree-covered green space to solar PV arrays will have a net benefit on the infiltration rates of rainwater into the Bonriki freshwater lens. This is a natural asset for South Tarawa and the project will help to reduce the decline in water availability and water quality as well as avoid the risk of further encroachment of incompatible land uses and contamination. In compliance with ADB's Access to Information Policy, the IEE and subsequent monitoring reports will be disclosed on ADB's website. Further work will be required during detailed design including a flora and fauna survey (and updated mitigation measures if biodiversity values are identified) and a baseline noise survey.

102. Screening determined key impacts of floating PV were: (i) impact on the marine environment and (ii) solid waste generation. Impacts on the noise, air and marine water environments during construction and operation are minimal due to the low level of activity during construction (on-site assembly of offshore manufactured elements) and operation (no moving parts that require regular replacement or lubrication). A dedicated marine ecology assessment (March 2023) identified elevated levels of suspended sediment and wide-ranging human disturbance at the proposed deployment site, concluding impact on marine ecology would be minimal and of an acceptable scale. Provision of an artificial reef system to protect the FPV from wave action will create nursery areas for fish species. For solid waste, it will be a contractual requirement for the Contractor to remove all packaging waste (pallets, cardboard boxes and protective packaging) from Kiribati on completion of construction.

103. For further battery and PV provision at Bonriki, the site proposed has been cleared for development under STREP. Like FPV, construction and operation impacts are minimal due to pre-fabrication (offshore) only requiring on-site assembly combined with minimal maintenance. The future disposal of 'end of life' batteries and PV panels will be addressed under a 'return to supplier' contract requirement supplemented with PUB succession planning. MELAD are currently conducting a vegetation survey at the Bonriki site to determine any project provision for replanting.

104. New network works are confined within the existing road reserve. To reduce visual impact single steel poles, rather than lattice towers, are proposed combined with a single aerial bundled cable (ABC). Construction impacts are localized and small scale, confined to drilling a hole for poles and a crane to position the pole.

105. The construction related impacts are usual, small-scale and can be mitigated and managed to acceptable levels provided the measures identified in the environmental management plan (EMP) are implemented, and subsequently monitored and reported. Short-term impacts include temporary disruptions to pedestrian connectivity, removal of sources of food and fibre, the risks to groundwater quality from uncontrolled management of earthworks and hazardous substances as well as minor community and occupational health and safety risks. Noise and dust are likely to be minor due to the lack of earthworks and heavy machinery operating on site. The foreign workforce is likely to be minimal and labor influx is not a significant risk. Operational impacts include the permanent loss of open space and food/fibre production from the reserve, the visual impacts from the change in landscape (from wooded areas and grassland to large areas of uniform solar panels), and the benefits to the water quality and quantity to the Bonriki lens, and the management of waste panels and batteries.

106. As necessary, the impact associated with outbreaks such as the novel coronavirus disease (COVID-19) pandemic, specific provisions in the bidding documents and contracts for works under the project will be included, requiring that the contractors create a COVID-19 risk management plan to be incorporated into the health and safety plans and emergency response plans under the environmental management plan and implement a training program for prevention of communicable diseases, including COVID-19, to employees, in coordination with the local health authorities, the PIC and the PMU. To manage and mitigate impacts during operation, the PUB will implement measures identified in the environmental management plan covering correct disposal of used equipment such as batteries and inverters. Adequate mitigation measures have been incorporated into the environmental management plan.

107. The proposed geo-bag barrier reef activity needs to ensure that the source for sand will be adequate and approved by the relevant government agency. A national Environment Specialist will be engaged to support project implementation. The Mission conducted a brief session with the Government on ADB's SPS requirements. The government was reminded that the environmental license for the project is to be obtained prior to any construction work commencing. International and national environmental safeguards specialist/officer in the STREP/STREP2 PIC and PMU shall work closely with their counterpart specialists in STWSP PMU as well as in the KFSU, not only on safeguards monitoring and reporting but on capacity building. Hands-on knowledge transfer across teams and from international to national experts shall be facilitated during the implementation of the projects.

108. There is a potential to enhance biodiversity by controlling invasive and alien (flora and fauna) species during operation, maintaining a vegetative buffer zone and priority planting of native species and planting the site in vegetation to create habitat for insects, reptiles and crabs. The contractors will prepare their construction EMP (CEMP) based on the IEE/EMP that will be updated during the design phase. The PMU and ADB will review the CEMP, physical activities will only commence after the CEMP is approved. The PUB and the O&M contractor will be required to include the EMP mitigation measures in their standard operating procedures. The PUB will establish the PMU, which will be supplemented by the project implementation consultant which will include an international environment specialist who will mentor and develop capacity of the environment safeguards officer assigned to the PMU. The PMU will monitor compliance with, and effectiveness of, the CEMP.

109. The mission confirmed with MELAD-ECD that PUB, as the owner and operator of the project, will submit the application for the environmental license, using the IEE (updated following detailed design) formatted as an environmental assessment report under the country system.

110. A climate change adaptation risk evaluation was conducted and will inform the technical specifications for infrastructure design. The PMU and PIC will be responsible for inspecting works undertaken during construction and installation, monitoring and reporting on the effectiveness of environmental safeguards implementation and mitigation during the project.

111. **Climate Risk and Vulnerability Assessment (CRVA).** Full climate risk and vulnerability assessment has been undertaken. The CRVA assessed risks to all project components and found all to be either 'low' or 'moderate'. The CRVA found that the measures taken at this stage are adequate. The key measures to be taken, during detailed design stage, are to ensure that all technologies are protected from flooding, coastal erosion/overtopping and strong winds.

112. The floating technology – floating solar – is relatively new and is highly exposed to climate risks, notably storms, waves, winds, and sea level rise. These are to become greater with climate change. As a result, additional analysis was undertaken of the wave climate to determine the implementation specifications.[43] In summary, the following measures are to be taken to ensure that the investment is resilient to severe weather events:

- Location inside the lagoon as this is more protected from extreme weather conditions;
- East-west configuration for the PV modules at 5º tilt maximum: this will add compactness, lower mechanical and wind loads and will not reduce generation;
- Wave attenuation by fixed wave breaker(s);
- Heavy or partially filled floaters, that also decrease drag and lift forces by strong winds and add to the mechanical strength of the floating structure;
- Smaller floating islands up to 600 kWp or so to decrease the mechanical strengths within each floating structure and also to reduce the load on the anchors allowing them to withstand stronger winds;
- Increased tensile strength of the floating structure modules that are connected to the anchors.

B. Involuntary Resettlement and Indigenous Peoples

113. **Involuntary Resettlement.** The project is classified as category B for involuntary resettlement, following the requirements of ADB's SPS, on account of land requirements for the floating PV and the transmission line upgrade. Due diligence undertaken by the TA confirms this classification. The project will not involve involuntary land acquisition and physical displacement. There is minimum economic displacement in terms of loss of access of some households to the lagoon area earmarked for the FPV, and of some trees and crops in the road reserve where transmission poles for the upgrade will be planted. A resettlement plan will set out resettlement impacts, measures for mitigation and compensation for affected owners. International and national safeguards specialist/officer in the STREP/STREP2 PIC and PMU shall work closely with their counterpart specialists in STWSP PMU as well as in the KFSU, not only on safeguards monitoring and reporting but also on capacity building. Hands-on knowledge transfer across teams and from international to national experts shall be facilitated during the implementation of the projects. A Resettlement Plan has been prepared in compliance with the SPS and laws of Kiribati.

114. The Resettlement Plan outlines the project impacts and this plan will be disclosed to affected persons by MELAD and made available on the ADB website. Prior to contract award, the Resettlement Plan will be updated and implemented (compensation and activities completed).

[43] WACOP Pacific Wave Atlas (Prepared by SPC in 2017), and updated "Wave Climate report MTC", also prepared by SPC.

The funds to implement the Resettlement Plan will come from government counterpart funds and the Ministry of Finance commits to ensure the funds are available for timely compensation payments to affected persons. If there are land ownership disputes in the project area at the time of compensation, undisbursed entitlements for affected assets will be deposited into an escrow-like account by the Ministry of Finance until land ownership claims are resolved. A compensation completion report will be submitted by PUB to ADB prior to contract award. Semi-annual safeguard monitoring reports will be prepared and disclosed on the ADB website following grant effectiveness. A social safeguards specialist will be engaged within the PMU.

115. **Indigenous peoples**. The project is classified as category C for indigenous peoples according to ADB SPS. There are no distinct and vulnerable indigenous peoples in Kiribati.

116. **Prohibited investment activities.** Following ADB's Safeguard Policy Statement (2009), ADB funds may not be applied to the activities on the ADB Prohibited Investment Activities List in Appendix 5 of the Safeguard Policy Statement

VIII. GENDER EQUALITY AND SOCIAL DIMENSIONS

117. **Gender Assessment.** The poverty and social assessment conducted by ADB as part of the due diligence (2023) reaffirms the challenging state of extreme poverty and hardship faced by the country's population. Poverty in Kiribati is characterized by key issues including over-population, limited land and marine resources, climate change, geographic remoteness and isolation from trading partners, and international markets. Consequently, the country is facing issues such as overcrowding, water and food security, unemployment, poor sanitation, and higher incidence of health issues. Gender inequalities persist in the country which are further exacerbated with the increased poverty levels and urbanization. Women are overrepresented in informal economy with limited or no access to higher skilled technical and leadership roles particularly in energy sector. Women were only 26% of the total workforce at PUB with only 11% (5 out of 39) were employed in power engineering department and only 2% (1 out of 45) were working under the water engineering department. In 2022, women held only 6.7% seats in the parliament. Gender assessment (2023) conducted as part of the due diligence revealed key gender barriers for women including (i) lack of knowledge and practice of sexual and reproductive health and rights, (ii) lack of awareness about career opportunities in non-traditional sectors such as energy; (iii) limited internship and scholarship opportunities for women to advance their career in technical fields; (iv) physical and sexual harassment, (v) higher incidence of gender based violence; and (vi) women's time poverty given the care burden.

118. **Gender Action Plan (GAP).** The ongoing STREP and the proposed STREP 2 are both classified as "Effective Gender Mainstreaming (EGM)", which require implementation and monitoring of GAP. The gender design of STREP 2 is informed by the lessons learned during the implementation of GAP of the on-going STREP and due diligence conducted by ADB in 2023. Some of the key challenges noted during the implementation of STREP GAP were to meet the 50% target of women's recruitment in project generated jobs particularly in the technical fields. In STREP 2, the key focus will be to improve the employability of women in the technical field through training, internships and awareness raising. Another target which the on-going STREP GAP could not achieve was to integrate the gender dimensions of tariff policy as part of the energy act. The proposed Gender Action Plan (GAP) for STREP 2 will strengthen and complement the gender interventions of STREP 1 GAP with a focus on three key areas; (i) strengthening the institutional capacity of PUB and Ministry of Energy in mainstreaming gender in policies and planning; (ii) improve the readiness level of the communities particularly women to access employment in STEM related fields and business opportunities in the renewable energy sector through technical

and business development skills training programs; and (iii) public awareness and consultation during the design and implementation of the project and community awareness on disaster resilience, coastal protection climate adaption measures.

119. The international and national gender specialist/officer in the STREP/STREP2 PIC and PMU shall work closely with the contractor/s and their counterpart specialists in the STWSP PMU as well as in the KFSU, not only on the implementation of the GAP, monitoring and reporting but also on the design and implementation of capacity building activities required in the GAP. Hands-on knowledge transfer across teams and from international to national experts shall be facilitated during the project implementation. The PMU with assistance from the PIC will report the progress of GAP and safeguard activities in its quarterly progress reports and semi-annual GAP progress reports to ADB and the government.

GENDER ACTION PLAN

Outputs	Activities and Targets	Timeline	Responsibility
Output 1: Climate-resilient floating solar photovoltaic, battery energy storage system, and grid infrastructure installed.	1a. During implementation carry out gender inclusive public awareness and stakeholder consultations[i] on the potential impacts and benefits of enhancing women's role in project activities, design, construction, and operation. Target: 40% women (2022 baseline: N/A).	Q2- Q4 2025	MISE, PUB and PIC
	1b. During implementation, through contractual clause, conduct orientation and guidance on labor standards, gender-sensitive work environment, gender equality in wages, safety to contractors' employees and PSEAH policies, regulations enforcement at commencement of work and monitoring of implementation (20% women's participation). (2022 baseline: N/A) (OP 2.2.3)	Q2 – Q3 2025	PIC
	1c. At least 20% of workers engaged by the contractor and PUB in FPV, PV, BESS, and grid construction, installation, operation, and maintenance are women. (2022 baseline = 0) (OP 2.1) *(DMF indicator)*	Q2 – Q4 2025	PIC and PUB
	1d. At least one training for all project staff and contract workers on gender-sensitive renewable energy project design, installation, operation and maintenance, and on FPV conducted upon mobilization and after commissioning, with at least 20% women participants (2022 baseline = 0) (OP 3.1.2) (*DMF indicator)*	Q2 2025	Implementation Contractors, PIC
	1e. At least two public awareness programs conducted on efficient electricity demand management targeting women's, youth and church organizations. Target: 40% women (2022 baseline = 0) (OP 3.1.2)	Q4 2025 – Q1 2026	MISE, PUB, PIC in working with MWYSSA
Output 2: Adaptive low-carbon productive uses of energy infrastructure installed.	2a. One assessment conducted to identify employment and business opportunities for men/women in the value chains of EV and renewable energy sector (2022 baseline: N/A) (OP 2.1) 2b. At least 40 stakeholders (including 40% women) participated in one national workshop and report increased awareness on employment and business opportunities in the value chains of EV and renewable energy sector (2022 baseline: N/A) (OP 2.1.1)	Q2 2025 Q4 2025	PIC in coordination with MWYSSA, Ministry of Employment, Ministry of Education, MISE, and Ministry of Commerce
	2c. At least two training programs conducted on business skills[ii] related to productive uses of electricity supply. Target: 20 women and 10 men (2022 baseline: N/A) (OP 2.1.1)	Q1 2026	MFED, MISE, PUB, PMU, PIC, MWYSSA.
	2d. At least 40 stakeholders participated in two capacity building workshops report increased awareness on coastal protection, disaster risk reduction measures and reef generation, with at least 40% women (2022 baseline: N/A) (OP 2.5.1, OP 3.2.2) *(DMF indicator)*	Q2 2026	PMU and PIC in close coordination with MWYSSA

Output 3: Institutional capacity for inclusive and climate-resilient renewable energy project development and implementation enhanced	3a. Conduct capacity assessment of the PUB, MISE, and MWYSSA on sector specific gender mainstreaming approaches and practices (2022 baseline: N/A) 3b. At least one capacity building workshop conducted for PUB, MISE, and MWYSSA and other relevant stakeholders on mainstreaming gender in energy sector policies and projects. (2022 baseline: N/A) 3c. At least 40 stakeholders, including at least 30% women, participate in 2 national workshops and report increased awareness on FPV, PV and BESS technology, and on the Energy Act and related regulations. (2022 baseline = 0) (OP 2.1.1, OP 6.1)	Q3 2025 Q4 2025	PUB, PMU, PIC
	3d. At least two learning events[iii] conducted to promote STEM education and leadership skills for women and girls with a focus on career pathways in renewable energy sector (2022 baseline: N/A)(OP 2.3.1) 3e. At least 5 technicians (qualified electricians or licensed electrical, mechanical, civil engineers), including at least 20% woman, who received certified training on solar photovoltaic (PV), floating PV, BESS and transmission system design, installation and operation and maintenance are employed in PUB. (2022 baseline = 0) (OP 2.1) 3f. At least 5 vocational students, including at least 20% woman, receive on the job training at PUB and MISE for technical or information-technology related positions. (2022 baseline = 0) (OP 2.1.1)	Q2 2025 Q2 2025-Q4 2027	PMU in coordination with Ministry of Education, KIT, PIC
	3g. Project Management Unit with at least 20% women staff established and operational. (2022 baseline = 0) (OP 2.1)	Q1 2025 – Q4 2027	MFED, PMU, MISE, PUB, PIC
Implementation Arrangements: The PIC Gender Specialist (GS) and PMU Gender officer (GO) will support the Gender Action Plan (GAP) implementation and monitoring. Gender Targets and activities related to capacity building/training will be the responsibility of the PIC. The GO will provide support in coordination, community mobilization, identification of trainees and follow-up on GAP related activities and targets. GAP progress will be part of the quarterly progress reports, the GO will be responsible for collecting data on GAP targets from all the project stakeholders.			

ADB = Asian Development Bank; BESS = battery energy storage system; HH = household; KIT = Kiribati Institute of Technology; MFED = Ministry of Finance and Economic Development; MISE = Ministry of Infrastructure and Sustainable Energy; MWYSSA = Ministry of Women, Youth, Sports and Social Welfare, O&M = Operations and Maintenance, OP = Operational Priority, PIC = Project Implementation Consultant; PMU = Project Management Unit; PSC = Project Steering Committee; PSEAH = prevention of sexual exploitation, abuse and harassment, PUB = Public Utilities Board; RE = renewable energy, STEM = Science, Technology, Engineering and Mathematics.

Source: Asian Development Bank.

Notes:

[i] Public consultations are part of the ongoing South Tarawa Renewable Energy Project (STREP). These will be continued in STREP (Phase 2)

[ii] STREP 2 will have follow-up training on business skills with the same batch of trainees (trained under STREP), this will be done in collaboration with the Ministry of Commerce/collaborate, KIT/ business skills training with more support from Ministry of Commerce to follow-up and back-stopping. The National Gender Officer will coordinate with the women and business section at Ministry of Commerce.

[iii] Project will ensure that awareness and mentoring programs for students at schools will be part of the project's communication strategy, this will be done in collaboration with Ministry of Employment, Ministry of Education, MISE and MWYSSA The key objective of these activities will be to promote awareness about renewable energy and increasing women's participation in STEM related fields in the energy sector.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

A. Monitoring

120. **Project performance monitoring**. PUB and MISE, in coordination with MFED and assisted by PMU and PIC, will prepare quarterly monitoring reports, including (i) disaggregated baseline data for output and outcome indicators, and (ii) implementation status: "Projection vs Actual' (e.g. implementation schedule, costs, outputs (installed capacity, energy yield and GHG emissions reductions etc.). The quarterly reports will provide information necessary to update ADB's project performance reporting system. The two annual grant reviews and the quarterly monitoring reports will include environmental and social safeguard monitoring reports.

121. **Greenhouse gas emissions monitoring**. During the operational phase, the project's GHG savings will be monitored by the IAs, with initial assistance from the international specialists within the PIC/PMU. A monitoring procedure and analysis tools have been developed that utilize data streams available to the IAs through monitoring equipment to be included as part of the project. The method estimates fuel consumption if the project's associated renewable energy contribution to demand was not available and compares that to actual fuel consumption. An emissions factor of 2.68 tCO_2/liter (diesel fuel combustion) is applied to the difference.[44] GHG savings will be published annually by the IA and incorporated in reports.

122. **Design and monitoring framework (DMF) indicators monitoring and reporting**. Within 3 months from completion of the one-year operation and maintenance period, PUB and MISE, assisted by the PIC and PMU, shall assess the achievements of the project (following the methodology described above) against DMF indicators (Section IX.A) for its first full year of operation and include the findings in the project completion report (para. 96). Except for the grid penetration, which is the first-year estimate, the other DMF outcome indicators are the average achievement per year of the 25-year economic life of the solar and battery system. The energy yield and corresponding grid penetration, diesel savings, and GHG emissions avoidance are highest in the first year of operation given that solar PV has an annual performance degradation estimated at 0.5%. The project should exceed the DMF outcome indicators and should reach the conceptual design performance in its first full of year of operation estimated at 11.953 GWh of solar electricity generated, 3.1 million liters of diesel fuel displaced, and 8,657 tCO_2e GHG emissions avoided. The grid penetration is the percent of total renewable energy generation over the total energy generation in the grid (diesel plus solar). For achievement evaluation in the project completion report, Output 1 is given a weight of 70%, with Outputs 2 and 3 given a weight of 15% each and weights spread equally among their indicators. Output 1 indicators 1a to 1e are weighted a total of 80% while indicators 1f to 1h total of 20%.

123. **Safeguards monitoring.** Safeguards issues, including grievances received, training and capacity development, consultations, contractor's compliance with the approved CEMP, safeguards non-compliance requiring corrective actions and any unanticipated safeguards impacts will be monitored and reported in the contractor's monthly reports, and quarterly progress reports and semi-annual safeguards monitoring reports to be prepared by the PMU supported by the PIC. Implementation checklists and suggested contents for the semi-annual safeguards monitoring report for social and environmental safeguards monitoring are in Appendixes 1 to 2 and 3 to 4, respectively.

[44] http://www.ipcc-nggip.iges.or.jp/public/2006gl/vol2.html

124. **Gender and social dimensions monitoring.** The project's GAP will be implemented by the social safeguards and gender specialists under PIC with oversight from the PMU. The specialist will be responsible for incorporating social and gender mainstreaming measures into project implementation, including awareness activities and establishment of sex-disaggregated indicators for project performance and monitoring. PMU assisted by the social safeguards and gender specialists will report the progress of activities in its quarterly progress reports on overall project activities and semi-annual GAP progress report to ADB and the government.

125. **Grievance Redress Mechanism (GRM):** The Mission shared the process for setting up a GRM including examples and encouraged the use of existing local mechanisms that are already in place under existing projects which are working well. The GRM for STREP will be used for this project. The government was reminded that the GRM needs to be promoted and understood by the community and everyone. The GRM should be integrated into the contractor's Construction Environmental and Social Management Plan and consider appropriate responses to incidents involving SEAH (sexual exploitation, abuse, and harassment) or GBV (Gender Based Violence).

126. **Financial management.** In addition to the standard assurances, compliance with the specific assurances will be monitored. Implementation of covenants will be (i) summarized in the quarterly progress reports, (ii) discussed during PMU and Project Steering Committee meetings, and (iii) reviewed during biannual grant review missions. The executing agency will cause the project financial statements to be audited following the International Standards on Auditing of International Standards for Supreme Audit Institutions by an independent auditor and on the terms of reference acceptable to ADB. The audited project financial statements, together with the auditor's opinion, will be presented in English and submitted to ADB within 6 months from the end of the fiscal year by MFED as the EA. The government has been made aware of ADB's policy on delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures. The executing and implementing agencies shall ensure that the financial management action plan are updated at least annually and that the mitigation actions are addressed within the timeframe and their status reported to ADB, as a part of the periodic reporting.

B. Evaluation

127. ADB and the EA assisted by PMU will conduct two annual reviews throughout the implementation of the project as well as a midterm grant review for the project. The review will monitor and conduct a 'Projection vs. Actual' comparison analysis for (i) project output quality (e.g. installed capacity, energy yields and GHG emissions reductions, etc.), (ii) implementation arrangements, (iii) implementation progress, and (iv) disbursements. Within 6 months of physical completion of the project (including completion of the one-year operation and maintenance period), the EA will submit a project completion report to ADB.[45]

128. ADB will undertake a midterm review within 2 years of the Project being effective or at any time that ADB and the government consider it necessary. The midterm review mission will (i) review institutional, administrative, organizational, technical, environmental, social, economic, and financial aspects of the project based on the assumptions and risks included in the design

[45] Project completion report format is available at: http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar.

and monitoring framework and updated PPR; (ii) review covenants to assess whether they are still relevant or need to be changed, or waived due to changing circumstances; (iii) assess the need to restructure or reformulate the project and the effects of this on the immediate objectives (purpose) and long-term goals of the project; and (iv) update the project's design and monitoring framework if restructuring or reformulation is necessary or its immediate objectives will change. The midterm review mission will be conducted in accordance with ADB's Project Administration Instructions (PAI).

129. Within 6 months from physical completion of the project (including completion of the one-year operation and maintenance period), the national executing entities will submit a project completion report (PCR) to ADB. Then, ADB will prepare its own PCR[46] to evaluate the performance of the project to enhance transparency and accountability, and to learn from operation experience in the design and implementation of the project. These lessons are expected to be used to improve the design and performance of ongoing and future ADB-financed and administered projects. The PCR is validated by the Independent Evaluation Department (IED). The PCR:

(i) provides a concise description of the project and its rationale;
(ii) assesses the adequacy of preparation, design, implementation arrangements, and due diligence, including how problems were identified and handled, whether they were foreseen as potential risks at appraisal, and the adequacy of the solutions adopted during implementation;
(iii) evaluates relevance of project design at appraisal and at completion, effectiveness in achieving outcomes and attribution to the project by assessing achievements of output targets including GHG emissions reductions, efficiency in delivering outputs, and sustainability of achieving output and outcome targets;
(iv) evaluates the performance of the recipient, executing agency and ADB;
(v) identifies remaining issues and lessons learned from the project;
(vi) suggests follow-up actions if required; and
(vii) makes recommendations—based on the evaluation and lessons learned—for future project design and implementation as well as improvements in related ADB procedures.

130. Within 2 years after the PCR is approved, ADB's IED will evaluate and validate the PCR. Both PCR and IED's evaluation report are rated as highly successful, successful, less than successful, or unsuccessful. To align with other Multilateral Development Banks like the World Bank Group weighting systems for 'sovereign' project ratings, equal weights are applied to the four evaluation criteria (relevance, effectiveness, efficiency, sustainability) that determine the overall success rate. Both PCR and IED's evaluation report will be prepared in accordance with ADB's (i) Guidelines for the Evaluation of Public Sector Operations and (ii) PAI.

C. Reporting

131. PUB through the PMU and assisted by the PIC will provide ADB with i) quarterly progress reports in a format consistent with ADB's project performance reporting system and should include the project's financial progress, showing periodic and cumulative amounts of budgeted and actual

[46] The PCR will be prepared within 24 months (the preparation will start after 12 months if the project needs to see a full year operation of the project to gauge the achievements of the outcomes) after project completion regardless of financial closure of the grant accounts. A project is complete when all its outputs are completed (i.e. when the project's facilities are completed and ready to operate. If revenue streams are envisaged, then these should be occurring). The PCR can only be finalized and circulated to the Board after the financial closure of the grant accounts, including all co-financed products administered by ADB.

sources and uses of funds (covering the total project cost) following the cost categories in the project administration manual and reconciled with ADB's records; (ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions, (c) updated procurement plan, and (d) updated implementation plan for the next 12 months; and (iii) a project completion report within 6 months of physical completion of the project. To ensure that projects will continue to be viable and sustainable, project financial statements and the AEFS, together with the auditor's report, should be adequately reviewed .

D. Stakeholder Communication Strategy

132. A Stakeholder Communication Strategy (SCS) has been prepared in line with the requirements of ADB's Access to Information Policy 2018 and Safeguards Policy Statement (SPS) 2009. Table 8 outlines the range of meaningful consultation and disclosure activities planned during the pre-construction, construction, and early operational phases of the project. Gender inclusive face-to-face and community level meetings will be conducted with project stakeholders and affected people during the pre-construction phase and early in the construction phase.

133. The project will also conduct wide-reaching public awareness campaigns targeting the island community, as well as capacity building training and workshops for specific groups, including employees, women entrepreneurs and women, youth and church organizations. Culturally appropriate information, education and communication (IEC) materials, including posters and handouts, will be developed to ensure all stakeholders, including the poor, vulnerable and low-literacy groups, clearly understand key project components, benefits and impacts. A range of communication methods will be used, including radio, to broaden the target audience and reach. The implementation of the Stakeholder Communication Strategy will be the responsibility of the PMU, and a detailed plan will be prepared and implemented, with support from the PIC.

Table 8: Stakeholder Communication Strategy*

No.	Objectives	Target Stakeholders**	Messages Agenda	Means of Communication	Schedule/ Frequency	Responsible Agencies/Groups	Resources	Reporting
PRE-CONSTRUCTION PHASE								
1.	Affected persons are meaningfully consulted on compensation and assistances to be provided before commencement of civil works.	Asset owners and affected persons	Resettlement Plan, schedule of payment of compensation or assistances, other mitigation measures and GRM	Face-to-face meetings, group meetings, letters, phone calls, project brochure, GRM.	As needed and when draft Updated Resettlement Plan is prepared, and during payment of compensation and provision of assistance	PMU and MELAD	Printed handouts, presentations, CEFs.	PMU quarterly report and semi-annual safeguards monitoring report.
2.	Awareness of importance of sustainable use of natural resources, PUE and SBE technologies.	Island community	Value of the floating solar and marine resources, the solar plants and the water reserve to the island	Presentations at schools, posters, notice boards, public radio, and consultations with CSOs and community groups.	Pre-construction phase	PMU, MISE and MELAD (ECD) with support from the PIC	Presentations, handouts, posters, graphics.	PMU quarterly report.
3	Gender inclusive public awareness on enhancing women's role in the project	Island community	Impacts and benefits of women's role in project activities, design, construction and operation.	Consultations with CSOs and community groups, meetings within PUB, Contractor and MISE, posters, radio and notice boards.	Pre-construction stage with one update after six months	MISE, PUB and Contractors	Presentations, handouts, posters, graphics.	PMU quarterly report, GAP progress reports.
	Stakeholders understand the new FPV, PUE and SBE technologies	Utility, ministries, NGOs, women's org, students	FPV, PUE, SBE, details, Opportunity created,	Meetings, Workshops, presentations to all stakeholders	As needed, during visits	PMU, with TA assist.	PPT Presentations, discussions	PMU reports
PHASE 1 – CONSTRUCTION								
3.	Inform South Tarawa residents about	Betio, Bonriki and nearby	Project construction program,	PUB and Government notices, public	Prior to construction commencement	PMU with assistance from PIC	Public radio and notice boards.	PMU quarterly report.

No.	Objectives	Target Stakeholders**	Messages Agenda	Means of Communication	Schedule/ Frequency	Responsible Agencies/Groups	Resources	Reporting
	construction contractor and construction program, schedule, and outcome.	residents, PUB customers.	schedule, and outcome, employment opportunities and road closures/other disruptions.	consultation with community, public radio.	and updates every six months.			
4.	Gender-inclusive public awareness of EMP monitoring and GRM.	Betio, Bonriki and other residents.	EMP monitoring and GRM procedures.	Public consultation with community.	Early in project construction phase.	Implementation contractor. Oversight from PIC	Printed handouts and posters.	EMP and GRM records and reports
	Capacity building among project staff and contractors	Project staff, contract workers and O&M employees	Awareness of renewable energy, gender issues, labor standards, health and safety, anti-sexual harassment	Training and posters	At least two sessions during construction phase, with 100% of contractors	Implementation contractor	Training materials and posters	PMU quarterly report, GAP progress reports.
	Awareness of efficient household electricity demand management.	Women's youth and church organizations	Efficient household electricity demand management	Workshops, poster and radio	One time during construction phase.	MISE, PUB in collaboration with MWYSSA and AMAK	Presentations, handouts and posters	PMU quarterly report, GAP progress reports.
	Capacity building on floating solar photovoltaic, BESS, and grid network technology, PUEs and SBEs	Key community stakeholders and representatives	Floating Photovoltaic, PV and BESS technology, transmission and distribution, PUE/SBE and all related operation and maintenance	National workshop	One time during construction phase.	MFED, PMU, MISE, PUB	Presentations and handouts	PMU quarterly report, GAP progress reports.

No.	Objectives	Target Stakeholders**	Messages Agenda	Means of Communication	Schedule/ Frequency	Responsible Agencies/Groups	Resources	Reporting
	Support to small business entrepreneurs	Vulnerable affected households and at least 20 women and 10 men.	Income opportunities from electricity supply and business skills	Training	One time during construction phase.	PIC in collaboration with MWYSSA and AMAK	Training materials	PMU quarterly report, GAP progress reports.
5.	Internal project communications	Contractor, Construction Supervisor, PMU, PUB, MFED and other key stakeholders	Project-related information, instructions, clarifications, progress and issues	Regular meetings and reporting, posters, notice board.	Daily, weekly and monthly during construction.	Contractor, Construction Supervisor, PMU, PUB, PIC, MFED, MISE.	Forms, templates.	PMU quarterly report
6.	Disclosure of periodic monitoring reports	MFED and ADB	Performance monitoring, including complaints received ad resolution	Reports on safeguards performance monitoring, issues resolution and corrective action plans	Quarterly progress reports and semi-annual safeguards monitoring reports	PUB with support from PIC	Reports.	NA
73.	South Tarawa ribbon cutting ceremony.	Island community.	Summary of work done and outcome.	Public ceremony and local radio news report.	Construction completion.	PUB and Government.	Ceremony.	PMU quarterly report.
PHASE 2 – OPERATIONS AND MAINTENANCE								
81.	Customer and local PUB staff feedback and error reports.	PUB customers and local staff.	Feedback and error reports.	Verbal to local PUB staff, written reports to PMU and to implementation contractor.	As necessary.	Local PUB staff, PMU, and implementation contractor.	Pencil and paper and electronic records and reports.	PMU reports to implementation contractor regarding any warranty.

ADB = Asian Development Bank, AMAK = Aia Mwaea Ainen Kiribati, CEF = Compensation and Entitlement Form, EMP = environmental management plan, GRM = grievance redress mechanism, MELAD = Ministry of Environment, Land, and Agriculture Development, MFED = Ministry of Finance and Economic Development, MISE = Ministry of Infrastructure and Sustainable Energy, MWYSSA = Ministry of Women, Youth, Sports and Social Welfare, PIC = Project Implementation Consultant, PMU = project management unit, PUB = Public Utilities Board, PUE = productive use of energy (electric vehicles and charging stations), SBE = sustainable blue economy (coastal protection, disaster risk reduction and electric reef regeneration)

*Strategy will be continuously assessed and revised, if required, during implementation with a corresponding plan prepared by the PMU.

**Participation of women and vulnerable groups will be ensured in all consultations.

Source. ADB estimates.

X. ANTICORRUPTION POLICY

134. Implementation of the project shall adhere to ADB's Anticorruption Policy (1998, as amended from time to time) and Integrity Principles and Guidelines (2015, as amended from time to time). ADB has the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project. All contracts financed by ADB shall include provisions specifying that (i) the contracts are ADB financed; (ii) ADB's Anticorruption Policy and Integrity Principles and Guidelines apply; (iii) the executing and implementing agencies and all project contractors, suppliers, consultants (including lead firms and sub-consultants), and other service providers shall permit ADB to review and inspect their accounts and records and other documents relating to the bid submission and contract performance and to have them audited by auditors appointed by ADB; and (iv) the project contractors, suppliers, consultants (including lead firms and sub-consultants), and other service providers undertake that no fees, gratuities, rebates, gifts, commissions, or other payments other than those shown in the bid have been offered, given, or received in connection with the procurement process or in the contract execution. Individuals and entities on ADB's Sanctions List[47] are ineligible to participate in ADB-financed, -administered, and -supported activity and cannot be awarded any contracts under the project.[48] The project team and the executing agency should obtain endorsement from the Office of Anticorruption and Integrity before the effectivity or approval of any contract variation involving a debarred or temporarily suspended firm or individual in ADB's Sanctions List, regardless of the nature or cost of contract variation.

135. Underpinned by ADB's zero tolerance for corruption, the Office of Anticorruption and Integrity aligns with ADB's commitment to strengthen governance across Asia and the Pacific. To report a complaint of integrity violations to ADB's Office of Anticorruption and Integrity, please visit https://www.adb.org/who-we-are/integrity/report-integrity-violations.

136. To support these efforts, relevant provisions are included in the grant agreements and the bidding documents for the project. Additionally, the government will (a) comply with ADB's Anticorruption Policy (1998, as amended to date), and cooperate fully with any investigation by ADB and extend all necessary assistance, including providing access to all relevant books and records for the satisfactory completion of such investigation; (b) ensure that relevant staff are trained in ADB's Anticorruption Policy; (c) ensure that the audited annual project accounts under the project, project progress, and procurement activities are disclosed on relevant government entities; and (d) allow and facilitate ADB's representatives to conduct spot and random checks on (i) flow of funds and their use for the project in accordance with the legal agreements; (ii) work-in-progress; and (iii) project implementation under the project.[49]

XI. ACCOUNTABILITY MECHANISM

137. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make an effort in good faith to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still

[47] ADB. Sanctions List; and ADB. Frequently Asked Questions on ADB Sanctions.
[48] ADB. Procurement Regulations for ADB Borrowers; and ADB. Office of Anticorruption and Integrity.
[49] Governance and Anticorruption Action Plan II Guidelines. See also Sourcebook: Diagnostics to Assist Preparation of Governance Risk Assessments.

dissatisfied, should they approach the Accountability Mechanism.[50]

XII. RECORD OF CHANGES TO THE PROJECT ADMINISTRATION MANUAL

	Date Changed	Section Changed	Changes made
1.			

[50] Accountability Mechanism.

DESIGN AND MONITORING FRAMEWORK

Impacts the Project is Aligned with			
Renewable energy generation increased (*Kiribati Intended Nationally Determined Contribution)*[a] Greenhouse gas emissions reduced in Kiribati (*Kiribati Integrated Energy Roadmap: 2017–2025)*[b].			
Results Chain	**Performance Indicators**	**Data Sources and Reporting**	**Risks and Critical Assumptions**
Outcome Generation and utilization of reliable, resilient and climate-adapted clean energy in South Tarawa increased	By 2029: a. Increased renewable electricity supply on South Tarawa to 74.45% of the generation mix (58.41% on average per year for 25 years) (2023 baseline: 44.00%) (OP 1.3.1) b. Generation from solar photovoltaic increased to 29.39 GWh (29.93 GWh on average per year for 25 years) (2023 baseline: 6.43 GWh) (OP 3.1) c. CO_2 equivalent greenhouse gas emissions avoidance increased to 11,806 tons of CO_2 equivalent (6.314 tons of CO_2 on average per year for 25 years) (2023 baseline: 4,633 tons) (OP 3.1)	a–c. MISE, PUB, and KOIL annual reports and PUB hourly generation data	R: Extended delays because of unforeseen disease outbreaks as well as climate or natural hazards A: The 2023 baselines for outcome performance indicators a–c assume that the STREP and South Tarawa Water Supply Project PV and BESS are in operation
Outputs 1. Climate-resilient floating solar photovoltaic, battery energy storage system and grid infrastructure installed	By 2028: 1a. At least 5 MW-peak floating solar PV commissioned and operational (2023 baseline: 0) (OP 3.1.4) 1b. An additional 3 MWh BESS commissioned and operational (2023 baseline: 13.5 MWh) (OP 3.1.3) 1c. At least 30 km of transmission and distribution grid constructed or upgraded (2023 baseline: 0) (OP 3.1.3, OP 4.1.2) 1d. At least 20% of workers engaged by the contractor and PUB in FPV, BESS, and grid construction, installation, operation, and maintenance are women. (2023 baseline: 0) (OP 2.1)	1a–1d. MISE and PUB annual reports and quarterly project progress reports	R: Costs of equipment and materials increase significantly beyond estimates
2. Adaptive low-carbon productive uses of energy	By 2028: 2a. PUB staff benefit from clean mobility and reduced pollution through the four electric cars	2a–2c. MFED, MISE and PUB annual reports	R: Lack of agreement in higher levels of government

Results Chain	Performance Indicators	Data Sources and Reporting	Risks and Critical Assumptions
infrastructure installed	and two charging stations procured (2023 baseline: 0) (OP 3.1.5) 2b. At least 0.17 hectares of reef created or generated, and 300 meters of coast protected (2023 baseline: 0) (OP 3.3.3) 2c. At least 40 stakeholders participated in two capacity building workshops and reported increased awareness on coastal protection, disaster risk reduction measures and reef generation, of whom at least 40% are women (2023 baseline: NA) (OP 2.5.1, OP 3.2.2, OP 6.1)	and project progress reports	
3. Institutional capacity for inclusive and climate-resilient renewable energy project development and implementation enhanced	By 2028: 3a. At least five vocational students, including at least 20% women, received on-the-job training at the PUB and MISE for technical or information-technology related positions. (2023 baseline: 0) (OP 2.1.1) 3b. PMU with at least 20% women staff established and operational. (2023 baseline: 0) (OP 2.1) 3c. At least 40 stakeholders, including at least 30% women, participated in two national workshops and report increased awareness on FPV, BESS technology, and the Energy Act 2022 and related regulations. (2023 baseline: 0) (OP 2.1.1, OP 6.1)	3a–3c. MISE and PUB annual reports and quarterly project progress reports	.

Key Activities with Milestones

1. **Output 1**: **Climate-resilient floating solar photovoltaic, battery energy storage system, and grid infrastructure installed.**
   - 1.1 Contractor procures FPV, BESS, and grid upgrades (Q3 2025–Q1 2026)
   - 1.2 Contractor installs and commissions FPV, BESS, and grid upgrades (Q2 2026–Q2 2027)
   - 1.3 Contractor operates, maintains and hands over FPV, BESS, and grid upgrades (Q2 2027-Q2 2028)
   - 1.4 Contractor conducts related public awareness campaign and training (Q2 2025–Q4 2028)

2. **Output 2**: **Adaptive low-carbon productive uses of energy infrastructure installed.**
   - 2.1 Contractor procures electric boat, electric cars, and charging stations (Q2–Q3 2025)
   - 2.2 Contractor procures artificial reef (Q2-Q3 2025)
   - 2.3 Contractor installs, operates, maintains, and hands over productive uses of energy (PUEs) (Q3 2025–Q1 2027)
   - 2.4 Contractor conducts related public awareness campaign and training (Q2 2025–Q2 2028)

3. **Output 3**: **Institutional capacity for inclusive and climate-resilient renewable energy project development and implementation enhanced.**
   - 3.1 Establish project steering committee and technical working group (Q1 2025)
   - 3.2 Recruit PMU and PICs (Q1 2025)

3.3 PICs develop capacity building program (Q2 2025) 3.4 PICs and PMU organize and conduct training for public sector institutions and other stakeholders (Q2 2025-Q4 2028) 3.5 DBO contractor conducts public awareness campaigns, organizes community-based initiatives, and conduct hands-on training in FPV, BESS, grid, electric vehicles and charging stations, artificial reef design, construction, and operation and maintenance (Q2 2025–Q2 2027) **Project Management Activities** Engage PMU (Q1 2025) Engage PICs (Q1 2025) Procure regional DBO contractor (Q3 2024–Q1 2025) Award and mobilize DBO contract (Q1 2025) Monitor and guide assistance to sector reforms and regulation (Q1 2025–Q3 2028) Evaluate capacity building events. (Q2 2025–Q4 2028)
Inputs
Asian Development Bank: $24.9 million ADF [c] (grant) Ireland Trust Fund for Building Climate Change and Disaster Resilience in Small Island Developing States: $0.5 million (grant) Government of Kiribati: $2.0 million

A = assumption, ADF = Asian Development Fund, BESS = battery energy storage system, CO_2 = carbon dioxide, DBO = design–build–operate, FPV = floating solar PV, GWh = gigawatt-hour, km = kilometer, KOIL = Kiribati Oil Company, MFED = Ministry of Finance and Economic Development, MISE = Ministry of Infrastructure and Sustainable Energy, MW = megawatt, MWh = megawatt-hour, NA = not applicable, OP = operational priority, PIC = project implementation consultant, PMU = project management unit, PUB = Public Utilities Board, PV = photovoltaic, Q = quarter, R = risk, STREP = South Tarawa Renewable Energy Project.

[a] Government of Kiribati. 2015. *Intended Nationally Determined Contribution*.

[b] International Renewable Energy Agency. 2017. *Kiribati Integrated Energy Roadmap: 2017–2025*.

[c] Includes $10 million from the ADF 13 thematic pool grant supporting the disaster risk reduction and climate change adaptation strategic area.

Source: Asian Development Bank

DETAILED COST ESTIMATES BY EXPENDITURE CATEGORY

Item		Foreign Exchange	Local Currency	Total Cost
A.	**Investment Costs[a]**			
1	Output 1: Climate-resilient FPV, BESS, and grid upgrade	**18.15**	**0.40**	**18.55**
	a. Floating PV	6.56		6.56
	b. Battery energy storage system	1.25		1.25
	c. Transmission and distribution network	7.06		7.06
	d. Civil and installation works	2.74	0.30	3.04
	e. O&M	0.55	0.10	0.65
2	Output 2: Adaptive low-carbon productive uses of energy	**1.67**	**0.28**	**1.95**
	a. Electric vehicles	0.25	0.00	0.25
	b. Charging Stations	0.30	0.00	0.30
	c. Coastal Protection, DRR measures, and reef regeneration	1.12	0.28	1.40
3	Output 3: Institutional capacity development	**1.53**	**0.17**	**1.70**
	a. Project Management Unit Consultants	0.54	0.06	0.60
	b. Project Implementation Consultant and Capacity Building Program	0.99	0.11	1.10
4	Land acquisition	**0.00**	**0.20**	**0.20**
5	Taxes and duties	**0.00**	**1.80**	**1.80**
	Subtotal (A)	**21.35**	**2.00**	**24.20**
B.	Contingencies[b]			
	Physical Contingency	2.59	0.11	2.70
	Price Contingency	0.41	0.09	0.50
	Subtotal (B)	**3.00**	**0.20**	**3.20**
	Total Project Cost (A+B)	**24.35**	**3.05**	**27.40**

Notes: Numbers may not sum precisely because of rounding.
BESS = battery energy storage system, DRR = disaster risk reduction, FPV = floating PV
[a] In mid-2024 prices.
[b] Physical contingencies computed at 13.2% of the turnkey contract. Price contingencies computed at 1.92% on foreign exchange costs and 3.04% on local currency costs; includes provision for potential exchange rate fluctuations.
Source: Asian Development Bank estimates.

DETAILED COST ESTIMATES BY FINANCIER

Item		ADB ADF		ITF		Government		Total Cost	
		Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category	Amount	% of Cost Category
A.	**Investment Costs[a]**								
1	**Output 1: Climate-resilient FPV, BESS, and grid upgrade**							**18.55**	**67.70%**
	a. Floating PV	6.56	100.0%					6.56	23.93%
	b. Battery energy storage system	1.25	100.0%					1.25	4.54%
	c. Transmission and distribution network	7.06	100.0%					7.06	25.75%
	d. Civil and installation works	3.04	100.0%					3.04	11.11%
	e. O&M	0.65	100.0%					0.65	2.37%
2	**Output 2: Adaptive low-carbon productive uses of energy**							**1.95**	**7.12%**
	a. Electric vehicles	0.25	100.0%					0.25	0.91%
	b. Charging Stations	0.30	100.0%					0.30	1.09%
	c. Coastal Protection, DRR measures, and reef regeneration	1.40	100.0%					1.40	5.11%
3	**Output 3: Institutional capacity development**							**1.70**	**6.20%**
	a. Project Management Unit Consultants	0.60	100.0%					0.60	2.19%
	b. Project Implementation Consultant and Capacity Building Program	0.60	54.55%	0.50	45.45%			1.10	4.01%
4	**Land acquisition**					0.20	100%	**0.20**	**0.73%**
5	**Taxes and duties**					1.80	100%	**1.80**	**6.56%**
	Subtotal (A)	**21.70**		**0.50**		**2.00**		**24.20**	**88.32%**
B.	**Contingencies[b]**								
	Physical Contingency	2.70	100.0%						0.00%
	Price Contingency	0.50	100.0%						0.00%
	Subtotal (B)	**3.20**		**0.00**		**0.00**		**3.20**	**11.68%**
	Total Project Cost (A+B)	**24.90**		**0.50**		**2.00**		**27.40**	**100.00%**

Notes: Numbers may not sum precisely because of rounding.
ADB = Asian Development Bank, ADF = Asian Development Fund, BESS = battery energy storage system, FPV = floating PV, ITF = Ireland Trust Fund for Building Climate Change and Disaster Resilience in Small Island Developing States, O&M = operation and maintenance,

DETAILED COST ESTIMATES BY OUTPUTS

Item	Total Amount	Output 1 Amount	Output 1 % of Cost Category	Output 2 Amount	Output 2 % of Cost Category	Outputs 3 Amount	Outputs 3 % of Cost Category
A. Investment Costs[a]							
Output 1: Climate-resilient FPV, BESS, and grid upgrade	18.55	18.55	100%				
Output 2: Adaptive low-carbon productive uses of energy	1.95			1.95	100%		
Output 3: Institutional capacity development	1.70					1.70	100%
Total Base Cost (A)	22.20	18.55	83.6%	1.95	8.8%	1.70	7.7%
B. Contingencies[b]							
1. Physical	2.70	2.256	83.6%	0.239	8.8%	0.209	7.7%
2. Price	0.50	0.418	83.6%	0.042	8.8%	0.036	7.7%
Subtotal (B)	**3.20**	**2.674**	**83.6%**	**0.281**	**8.8%**	**0.245**	**7.7%**
Total Project Cost (A+B)	**25.40**	**21.22**	**83.6%**	**2.23**	**8.8%**	**1.95**	**7.7%**

Notes: Numbers may not sum precisely because of rounding.
Excludes taxes and duties by exemption and land acquisition cost totaling $2.0 million financed by the government.
BESS = battery energy storage system, FPV = floating photovoltaic.
[a] In mid-2024 prices.
[b] Physical contingencies computed at 13.2% for the turnkey contract. Price contingencies computed at 1.92% on foreign exchange costs and 3.04% on local currency costs
Source: Asian Development Bank estimates.

DETAILED COST ESTIMATES BY YEAR

	Total $ million	2025	2026	2027	2028
A. Investment Costs[a]					
Output 1: Climate-resilient FPV, BESS, and grid upgrade	18.55	6.36	8.45	2.80	0.93
Output 2: Adaptive low-carbon productive uses of energy	1.95	0.67	0.89	0.29	0.10
Output 3: Institutional capacity development	1.70	0.58	0.77	0.26	0.09
Total Base Cost (A)	22.20	7.61	10.11	3.36	1.12
B. Contingencies[b]					
1.Physical	2.70	0.93	1.24	0.41	0.12
2.Price	0.50	0.16	0.22	0.07	0.04
Subtotal (B)	3.20	1.10	1.46	0.48	0.16
Total Project Cost (A+B)	**25.40**	**8.71**	**11.57**	**3.84**	**1.28**

Notes: Numbers may not sum precisely because of rounding.
Excludes taxes and duties exemption and economic displacement cost totaling $2 million, financed by the government.
BESS = battery energy storage system, FPV = floating PV, PV = photovoltaic.

[a] In mid-2024 prices.

[b] Physical contingencies computed at 13.2% for the turnkey contract. Price contingencies computed at 1.92% on foreign exchange costs and 3.04% on local currency costs

Source: Asian Development Bank estimates.

SAFEGUARDS REPORTS TEMPLATES AND CHECKLIST

Checklist for Safeguard Supervision/Monitoring (Resettlement)

Checklist for Safeguard Supervision: Involuntary Resettlement

PROJECT INFORMATION

Loan/Grant No.:	Project Name:	
Approval Date:	Closing Date:	Cumulative Progress (%):
Project Team Leader(s):		Project Analyst:

1) Resettlement Categorization

(Original)	A	☐	B	☐	C	☐	FI	☐
(additional financing, if any)	A	☐	B	☐	C	☐	FI	☐

(Please complete the following sections if the project has been categorized as A, B or FI involving land acquisition/resettlement issues)

2) Resettlement Planning

Resettlement Planning Documents: RF ☐ RP ☐ Number of RPs_____ ESMS ☐

RP Finalized or Updated after Detailed Design: Yes ☐ No ☐ If no, actions?

(Attach a list of subprojects and status if necessary.)

Final/Updated RP Disclosed and Posted on ADB Website: Yes ☐ No ☐ If no, actions?

Compensation Rates Approved by the Government: Yes ☐ No ☐ If no, actions?

3) Institutional Setup for Resettlement

PIU/PMU Resettlement Staff Assigned: Yes ☐ No ☐ If no, actions?

If yes, Name: Since: ___/___ (month) (year)

Resettlement Specialist Consultant Mobilized: Yes ☐ No ☐ If no, actions?

If yes, Name: Since: ___/___ (month) (year)

Grievance Redress Mechanism Established: Yes ☐ No ☐ If no, why?

Allocation of Government Budget: Yes ☐ No ☐ If no, actions?

If yes, amount$: ☐

4) Resettlement Monitoring and Reports

Internal Monitoring System Established: Yes ☐ No ☐ If no, actions?

External Monitor Engaged (if needed): Yes ☐ No ☐ If no, actions?

If yes, Name: Since: ___/___ (month) (year)

Monitoring Report Submitted to ADB: Yes ☐ No ☐ If no, actions?

If Yes, provide information below

	Baseline Report	Report 1	Report 2	Report 3	Report 4
Submission Date (m/yr)					
ADB Review Date (m/yr)					
Web-posting Date (m/yr)					
Name of ADB Reviewer					

5) Resettlement Field Review with Participation of Safeguard Specialist/Officer/Staff Consultant Yes ☐ No ☐ If no, actions?

If Yes, provide information below

Mission Date (m/yr)							
Type of mission							
Name of safeguard specialist/officer/staff consultants							

Suggested Contents of Resettlement Monitoring Report

Heading/Section	Contents
Introduction	Brief background on the project/subproject and progress status The project's category and planning documents (original, updated or new plans) on resettlement impacts Institutional arrangements and budget allocation for resettlement/social management; Arrangement for the monitoring
Monitoring Activities	Methodology for monitoring (whether checklists prepared etc.); What period the monitoring covers Main activities – site visits, consultations, survey etc.
Monitoring Results and Actions Required	Progress and performance in implementation of RPs and other programs (how these were implemented, what are the outputs, etc.) Results on consultations, disclosure and grievance redress (whether they have been effective, level of satisfaction of affected persons [AP] with various aspects of the resettlement plan [RP], public awareness of the compensation policy and entitlements will be assessed among APs.) Whether the implementation comply with the approved RPs (e.g. whether compensation rates were at replacement cost, full payment made to all APs sufficiently before land acquisition; prompt attention to unforeseen damages or losses, to ensure APs are fully compensated for losses) Results on outcome (whether APs were able to restore livelihoods and productive activities) Compliance on monitoring and disclosure (whether reports have been submitted, posted on website) Whether any issues and corrective measures identified to achieve the RP objective. If yes, actions with target dates and responsible agency/person) Follow-up item/plan for next report
Summary and Conclusions	Summary of main findings; Main issues identified and corrective actions noted; A table on follow-up action which can be updated each period to track completion of actions required including progress of the follow-up of problems and issues identified in the previous report
Attachments	Monitoring checklist (based on items identified in the RPs) Photographs Additional information as required

Checklist for Safeguard Supervision/Monitoring (Environment)

PARD Safeguards Implementation Checklist: Environment

Date:

PROJECT INFORMATION

Loan/Grant No.:	Project Name:	
Approval Date:	Closing Date:	Cumulative Progress (%):
Project Team Leader(s):		Implementing Agency

1) Categorization

(Original)	A		B		C		FI		
(additional financing, if any)	A		B		C		FI		

(Please complete the following sections if the project has been categorized as A, B or FI)

2) Planning

Documents:	EARF		IEE/EIA		No. of IEE/EIA _____		EMP	
IEE/EIA Disclosed and Posted on ADB Website:	Yes		No		If no, actions?			
EMP Finalizeded or Updated after Detailed Design:	Yes		No		If no, actions?			
CEMP submitted, reviewed and approved:	Yes		No		If no, actions?			
(Attach a list of subprojects and status if necessary.)								

3) Institutional Setup

PIU/PMU Environment Staff Assigned:	Yes		No		If no, actions?			
If yes, Name:						Since:	/ (month)	/ (year)
Environmental Specialist/Consultant Mobilized:	Yes		No		If no, actions?			
If yes, National Specialist's Name:						Since:	/ (month)	/ (year)
If yes, International Specialist's Name:						Since:	/	
Participation of Gov. Environment Agency/Division:	Yes		No		If no, actions?			
If yes, Name:						Since:	/ (month)	/ (year)
Grievance Redress Mechanism Established:	Yes		No		If no, why?			
Allocation of Government Budget:	Yes		No		If no, actions?			
If yes, amount$:								

4) Monitoring and Reports

Internal Monitoring System Established:	Yes		No		If no, actions?			
Compliance monitoring incorp. into Q Progress Reports:	Yes		No		If no, actions?			
External Monitor Engaged (if needed):	Yes		No		If no, actions?			
If yes, Name:						Since:	/ (month)	/ (year)
Monitoring Report Submitted to ADB:	Yes		No		If no, actions?			
If Yes, provide information below								

	Baseline Report	Report 1	Report 2	Report 3	Report 4
Submission Date (m/yr)					
ADB Review Date (m/yr)					
Web-posting Date (m/yr)					
Name of ADB Reviewer					

5) Field Review with Participation of Safeguard Specialist/Officer/Staff Consultant Yes ☐ No ☐ If no, actions?

If Yes, provide information below

Mission Date (m/yr)							
Type of mission:							
Participants (safeguard specialist/officer/staff consultants)							

6) Compliance with Loan Covenants

List of key covenants in loan and project agreement

Item #	Covenant	Compliance rating*	Describe status of compliace

*Note: Yes ; No; Not yet due

Overall safeguard rating (e-Operation):

S = Satisfactory; PS = Partly Satisfactory; US = Unsatisfactory

7) Status of Implementation of EMP Activities (Please provide a cross reference if it is already covered under Section 6 above)

	Items	Yes/No	Describe Implementation Status

8) Major Issues or Complaints (Cumulative)

Item		Description
1	Issue	
	Proposed Action(s)	
	Follow-up Issues/Actions	
	Final Resolution of Issue	
2	Issue	
	Proposed Action(s)	
	Follow-up Issues/Actions	
	Final Resolution of Issue	

*Add rows as needed.

Prepared by:	**Confirmed by:**	**Confirmed by:**
	Team Leader:	Safeguard Specialist/Officer:
Date:	Date:	Date:

To: Sector Director/Country Director

cc: Project Team Leader; PARD Safeguard Specialist

IEE = initial environmental examination; EIA = environmental impact assessment; EMP = environmental management plan; FI = financial intermediary; MTR = mid-term review; PCR = project completion review; PIU/PMU = project implementation/management unit; TL = team leader; EARF = environmental assessment and review framework; SS = safeguard specialist

Suggested Outline of Monitoring Report – Environment

Heading/Section	Contents
Introduction	Brief background on the project and subproject. Institutional arrangements for project management and environmental management.
Monitoring Activities	Who participated in the monitoring? Methodology for monitoring (whether checklists prepared etc.). When the monitoring was undertaken and what period it covers. Summary of other monitoring undertaken in the period (i.e. form contractor's monthly reports and if any survey/sample monitoring undertaken). Main activities – observations/inspections, consultations, interviews with contractor staff etc.
Works in Progress	Details of the works being undertaken, (with photographs). Include whether any environmental training/awareness has been provided to contractor staff in the period (what, by whom etc.).
Monitoring Results and Actions Required	Whether works and measures comply with the approved environmental management plan (EMP)/CEMP). Should follow sequence of items identified in EMP/CEMP and verify that all mitigations measures noted are being implemented. Corrective actions cited (date to be resolved and person responsible on contractor team and verification by implementing agency).
Summary and Conclusions	Summary of main findings. Main issues identified and corrective actions noted. Can include summary table which can be updated each period to track completion of actions required.
Attachments	Monitoring checklist (based on items identified in the EMP/CEMP) refer annex 1. Additional photographs. Additional information as required.

ADB GUIDANCE NOTE ON THE PV SUPPLY CHAIN

ATTESTATION TEMPLATE[51]

Language to be inserted to the bidding documents (Sovereign utility scale solar projects)

[To be inserted Section 2 (Bid Data Sheet) ITB 11.1]

"The Bidder shall submit with its Bid the Attestation Letter using the form included in Section 4 (Bidding Forms) to demonstrate that works, goods and services, and related materials and products to be used for the Project do not involve production or activities involving forced labor and/or child labor.

Failure to submit the Attestation Letter is deemed to be a material deviation and will result in rejection of the bid."

[To replace EQC 2.2.1 in Section 3 (Evaluation and Qualification Criteria)]

2.2.1 History of Nonperforming Contracts

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
Nonperformance of a contract[a] did not occur as a result of contractor default (including, but not limited to, breach of obligations relating to forced labor or child labor) since 1 January	Must meet requirement	Must meet requirement	Must meet requirement[b]	Not applicable	Form CON-1

[To be inserted in Section 4 (Bidding Forms) and to be made part of the Contract Documents[52]]

Attestation Letter

Date: ……
OCB No.: ……

To: [*insert complete name of the Employer/Purchaser*]

[51] If the Sub-committee decides that a project requires an attestation as part of the procurement contract, in consultation with PPFD and OGC, the project teams should include the requirement for obtaining an attestation from the relevant supplier/contractor along with the relevant attestation template in the Project Administration Manual (PAM) or as part of the Procurement Plan.

[52] In order to make the attestation letter part of the Contract Documents, Section 9 (Contract Forms) should be adjusted as necessary to ensure that the attestation letter is construed as an integral part of the Contract.

We, the undersigned, acknowledge that ADB will not finance activities listed on the prohibited investment activities list, under Appendix 5 of its Safeguard Policy Statement (2009), which includes, among others, production or activities involving forced labor[53] or child labor[54].

After duly considering the above policy and commitment of ADB, we have conducted due diligence on the works, goods and services, and related materials and products to be used in the Project, and following such due diligence:

(a) we attest and represent that (i) to the best of our knowledge, we are not using (and we have not used, and we will not use) works, goods and services, and related materials and products in the Project, where the production and supply of such products used forced labor or child labor; (ii) we adhere to labor legislation of the Employer's country and require our subcontractors and suppliers for the Project to adhere to the same in the production and supply of works, goods and services, and related materials and products proposed to be used in the Project; and (iii) to the best of our knowledge, the works, goods and services, and related materials and products to be procured and/or supplied by us for the Project do not involve production or activities involving the use of forced labor or child labor;

(b) we attest and represent that our subcontractors, manufacturers and suppliers have confirmed to us separately that to their knowledge, after due enquiry and diligence, the offered works, goods and services, and related materials and products do not involve production or activities involving the use of forced labor or child labor;

(c) we further confirm that should you or ADB require an audit of our records related to the procurement of works, goods and services, and related materials and products used in the Project, we shall promptly make available to you, ADB or your respective designated representatives all relevant documents and records to assist with the audit, and grant access, to the extent practicable, to the sites, facilities, plants, and equipment to an independent auditor retained by you or ADB;

(d) we confirm that if the contract is awarded to us, (i) we shall monitor the works, goods and services, and related materials and products provided by us on an ongoing basis, (ii) require our subcontractors, suppliers or manufacturers to immediately notify to us any incidents of forced labor or child labor, and if new risks or incidents of forced labor or child labor are identified, (iii) we commit to promptly inform you, if we receive information that the representation in (a) is false and of any new risks or incidents of forced labor or child labor in the production or activities for the offered works, goods and services, and related materials and products used in the Project, and to take appropriate steps to remedy them;

(e) we agree that a breach and misrepresentation of (a), (b), (c), or (d) above is a sufficient ground for bid rejection and may give the Employer/Purchaser the right to terminate the contract with us, if our bid is accepted and the contract is awarded to us.

Sincerely,

[53] Forced labor means all work or services not voluntarily performed, that is, extracted from individuals under threat of force or penalty.

[54] Child labor means the employment of children whose age is below the host country's statutory minimum age of employment or employment of children in contravention of International Labor Organization Convention No. 138 "Minimum Age Convention" (www.ilo.org).

Authorized Signature [In full and initials]: _____
Name and Title of Signatory: _____
_____
Address: _____