



# Project Concept Paper

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Project Number: 54011-001  
April 2020

## Proposed Grant and Technical Assistance Grant Palau: Disaster Resilient Clean Energy Financing

## CURRENCY EQUIVALENTS

The currency unit of Palau is the United States dollar.

## ABBREVIATIONS

ADB	–	Asian Development Bank
DRCEFF	–	Disaster Resilient Clean Energy Financing Facility
FI	–	financial intermediation
GRF	–	general reserve fund
MOF	–	Ministry of Finance
NDBP	–	National Development Bank of Palau
NDRMF	–	National Disaster and Risk Management Framework
PCCP	–	Palau Climate Change Policy
PPUC	–	Palau Public Utilities Corporation

## NOTES

- (i) The fiscal year (FY) of the Government of Palau and its agencies ends on 30 September. “FY” before a calendar year denotes the year in which the fiscal year ends, e.g. FY 2020 ends on 30 September 2020.
- (ii) In this report, "\$" refers to United States dollars.

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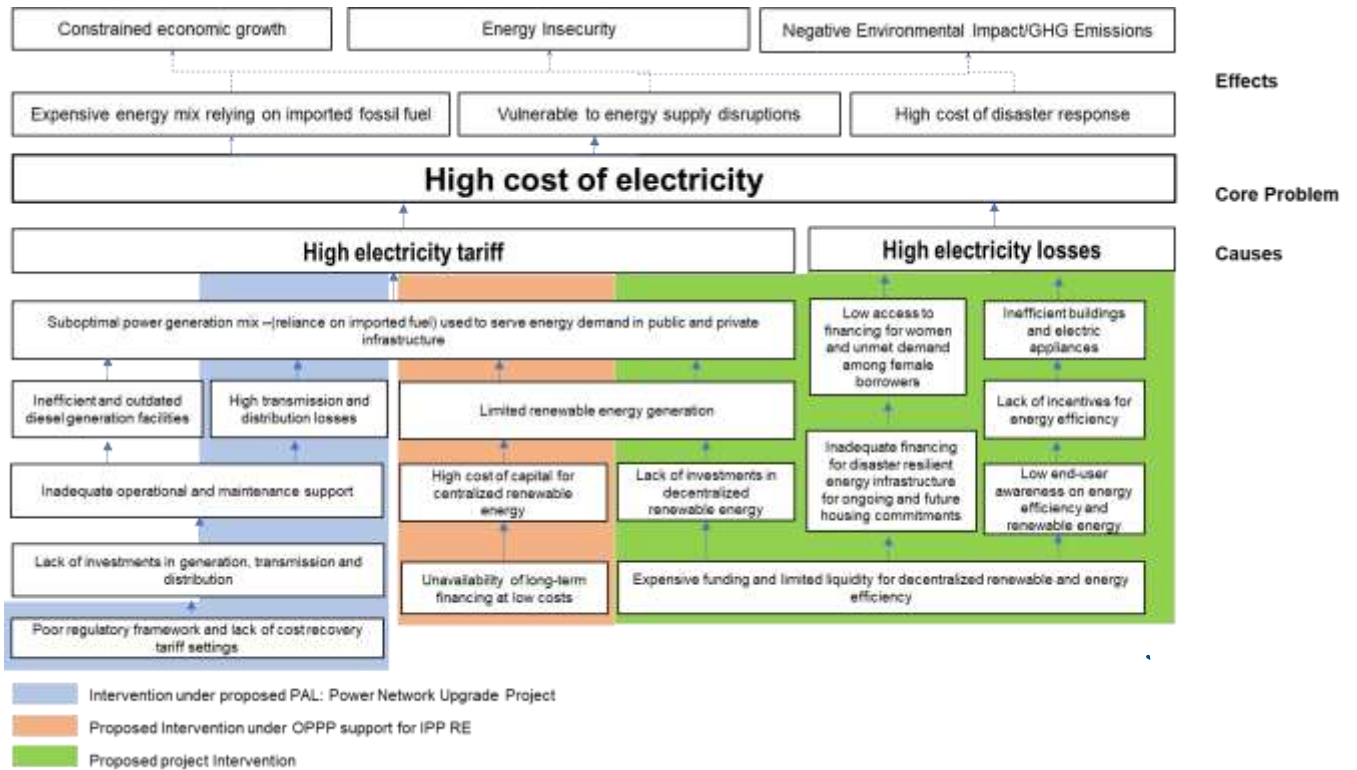
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## PROJECT AT A GLANCE

<b>1. Basic Data</b>		<b>Project Number: 54011-001</b>	
Project Name	Disaster Resilient Clean Energy Financing Facility	Department/Division	PARD/PAEN
Country Recipient	Palau, Republic of Ministry of Finance	Executing Agency	Ministry of Finance
Country Economic Indicators	<a href="https://www.adb.org/Documents/LinkedDocs/?id=54011-001-CEI">https://www.adb.org/Documents/LinkedDocs/?id=54011-001-CEI</a>		
Portfolio at a Glance	<a href="https://www.adb.org/Documents/LinkedDocs/?id=54011-001-PortAtaGlance">https://www.adb.org/Documents/LinkedDocs/?id=54011-001-PortAtaGlance</a>		
<b>2. Sector</b>	<b>Subsector(s)</b>	<b>ADB Financing (\$ million)</b>	
		Total	0.00
<b>3. Operational Priorities</b>		<b>Climate Change Information<sup>1</sup></b>	
✓ Addressing remaining poverty and reducing inequalities		Climate Change impact on the Project	High
✓ Accelerating progress in gender equality		<b>Cofinancing</b>	
✓ Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability		Adaptation (\$ million)	1.00
✓ Strengthening governance and institutional capacity		Mitigation (\$ million)	2.00
<b>Sustainable Development Goals</b>		<b>Gender Equity and Mainstreaming</b>	
SDG 1.5		Effective gender mainstreaming (EGM)	✓
SDG 5.5		<b>Poverty Targeting</b>	
SDG 7.3		General Intervention on Poverty	✓
SDG 9.4			
SDG 10.2			
SDG 12.c			
SDG 13.a			
<b>4. Risk Categorization:</b>	Low		
<b>5. Safeguard Categorization</b>	Environment: C Involuntary Resettlement: C Indigenous Peoples: C		
<b>6. Financing</b>			
<b>Modality and Sources</b>		<b>Amount (\$ million)</b>	
ADB		0.00	
None		0.00	
<b>Cofinancing</b>		<b>3.00</b>	
Japan Fund for Poverty Reduction - Project grant (Full ADB Administration)		3.00	
<b>Counterpart</b>		<b>0.00</b>	
None		0.00	
<b>Total</b>		<b>3.00</b>	
Currency of ADB Financing: US Dollar			

<sup>1</sup> The project reduces greenhouse gas emissions. However, it does not fall under the eligibility criteria for climate mitigation finance as defined by the joint multilateral development bank methodology on tracking climate finance, which notes that not all activities that reduce greenhouse gases in the short term are eligible to be counted towards climate mitigation finance. Accordingly, greenfield fossil fuel projects are excluded, and climate mitigation finance is considered zero.

# PROBLEM TREE



GHG=greenhouse gas; IPP=independent power producer; OPPP=Office of the Public-Private Partnership; RE=renewable energy

## I. THE PROJECT

1. The Asian Development Bank (ADB) seeks to provide a financial intermediation grant to the Republic of Palau to create the access of low income and female borrowers to affordable disaster resilient clean energy financing. The assistance is planned to be provided as a grant equivalent of up to \$3 million to create the Disaster Resilient Clean Energy Financing Facility (DRCEFF) by the Ministry of Finance (MOF) and on-lent by the National Development Bank of Palau (NDBP). It will be ADB's first-ever financial intermediation (FI) project in Palau and Pacific Developing Member Countries (Pacific DMCs) that targets exclusively disaster resilient clean energy financing available for low income and women beneficiaries. The project is consistent with the objectives of ADB Pacific Approach, 2016–2020 emphasizing the importance of expanding ADB work in climate change and disaster risk management to mobilize more financing for the Pacific region and to introduce innovative solutions to strengthen disaster preparedness, address vulnerability, and build resilience.<sup>1</sup> It is also aligned with the Government's forthcoming Koror-Babeldaob Urban Development Strategy and Action Plan, which identifies resilient housing and livable settlements as one of its three strategic goals.<sup>2</sup>

### A. Rationale

2. As climate change leads to increasingly severe and frequent devastation around the world, shoring up the resilience of clean energy infrastructure in Palau has become an urgent priority. Since 2012, Palau experienced several major disasters that caused cumulative losses estimated at \$51 million.<sup>3</sup> Palau is exposed to an average annual loss of \$2.7 million from typhoons, earthquakes, and tsunamis, with probable maximum losses of \$16.8 million from a 1-in-50-year event and \$46.7 million from a 1-in-100-year event.<sup>4</sup> Given its centralized electricity network and concentration of power supply<sup>5</sup>, Palau energy is most vulnerable infrastructure not just to hurricanes, but also to other weather events such as earthquakes, storms and rising sea levels.<sup>6</sup>

3. The Palau government has taken some important steps to improve the country's resilience to calamities and disaster risks. Approved in 2010, the National Disaster and Risk Management Framework (NDRMF) sets out a vision of "safe, resilient and prepared communities in Palau" harmonizing planning for disaster resiliency, risk mitigation and recovery measures integrated into national planning. The NDRMF draws special attention to women in livelihood recovery and to strengthening disaster risk management for local communities. In 2015, the government adopted the Palau Climate Change Policy (PCCP) for Climate and Disaster Resilient Low Emissions Development with additional objective to mitigate global climate change by working toward low-carbon emission development, maximizing energy efficiency, protecting carbon sinks, and minimizing greenhouse gas emissions. The PCCP advocates a proactive approach to community-level disaster risk management and includes specific interventions for (i) funding support to expand the NDBP energy efficiency program through finance for constructing new and retrofitting

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<sup>1</sup> ADB Pacific Approach is overall country partnership strategy for the 11 smaller Pacific island countries, including Palau. The project was requested by the Government of Palau and proposed for ADB's country operations business plan for Palau, 2021–2023.

<sup>2</sup> TA for strategy developed and background sector papers provided through ADB, 2016, *Strengthening Urban Infrastructure Investment Planning in the Pacific* (output 1), Manila.

<sup>3</sup> ADB. 2018. *Report and Recommendation of the President to the Board of Directors. Proposed Policy-Based Loan Republic of Palau: Disaster Resilience Program*. Manila.

<sup>4</sup> Pacific Catastrophe Risk Assessment and Financing Initiative. 2011. Country Risk Profile: Palau. <http://pcrafi.spc.int/documents/46/download>. Losses refer to the direct costs to repair or replace damaged assets plus the emergency costs that governments may sustain as a result of providing necessary relief and recovery efforts.

<sup>5</sup> Off-grid power supply is limited to rural areas with about 4% of total country's generation. Most of public infrastructure (i.e. hospitals, schools) are connected to grid with limited emergency or off-grid generation capacity.

<sup>6</sup> Most recently, Typhoon Bopha struck Palau in 2012, bringing winds of 185 km/h. A state of emergency was declared and electricity and water service in many areas was lost during the storm and remained so for over a week in the hardest hit areas.

existing homes; and (ii) developing, adopting and implementing a climate/disaster resilient energy efficient building code.<sup>7</sup>

4. **Lack of funding for disaster resilient financing.** Palau has no dedicated financing available for disaster resilient clean energy or disaster response, early recovery, and reconstruction. Current domestic financial system cannot meet the demand for such investments.<sup>8</sup> Created by state and operated independently under its Board of Directors, the NDBP is only financing agency that operationalized disaster resilient and energy efficiency compliance requirements for its housing loan products.<sup>9</sup> Funded by the state capital and government backed loans, the NDBP supports (i) sustainable housing finance (about 80% of country's housing market), (ii) renewable energy (roof-top solar generation), and (iii) energy efficiency programs with various state agencies. NDBP's financing is coupled with technical assistance to borrowers in preparing proposals and implementation of projects.<sup>10</sup> NDBP's disaster resilient, energy efficiency and clean energy financing has declined over the past three years representing only half of the bank's loan portfolio, mostly due to limited funding and increasing cost of capital.

5. Palau, as with many other Pacific DMCs, is highly vulnerable to international energy market and price volatility, depending on imported fossil fuel for power generation contributing to over 95% of electricity demand. High cost of fuel imports undermines the balance of payments position and affects the environment and Palau's commitments to the global climate agenda. About 50% of all imported diesel is used for generation on the main islands of Babeldoab and Koror. In 2019, the Palau Public Utilities Corporation (PPUC) spent \$16 million (65% per cent of total expenditures) on fuel and lubricant. Under present tariff settings the fuel cost is not reflected at full amount undermining financial position of PPUC.<sup>11</sup> PPUC's is compensated by ad-hoc state subsidies and liquidity gap is managed by deferred maintenance that resulted in over 20% technical losses.

6. **Limited liquidity for clean energy financing.** A key government development priority set in Energy Policy (2010) and Energy Act (2016) is to diversify energy generation mix including more indigenous, renewable energy resources. Introduced in 2012, net metering intended to benefit consumers for off-grid and on-grid roof-top PV solar generation.<sup>12</sup> However, high cost of capital remains key constraint for households to install renewable energy systems. The current electrification rate is 95%, but installed renewable energy is estimated to cover less than 3% of today's national electricity demand.

7. **Lack of incentives for energy efficiency.** Although present retail tariffs are set below cost recovery, they are among highest in the Pacific DMCs. Average household consumption is

<sup>7</sup> Draft Palau Housing Policy (2019) includes a section on minimum standards for housing construction options including provisions for newly developed homes (e.g., standards set forth in the International Residential Code, 2015 Edition be satisfied, and new homes are designed to maximize energy efficiency, and produce and/or utilize renewable energy sources.

<sup>8</sup> Palau relies only on general reserve fund (\$14 million) that is not intended for disaster resilient infrastructure or mitigation measures and may be tapped only after a disaster in the absence of alternative financing. Although PCCP is expected to create a \$25 million disaster contingency fund to respond in times of emergency and an \$11 million National Disaster Recovery Fund and Insurance Program, neither of which is in place.

<sup>9</sup> Palau does not have own building code and energy efficiency requirements. However, NDPB requires all loan applications for review and validation by an independent architect and PPUB on Australia's and US building code and energy efficiency requirements.

<sup>10</sup> Palau's banking sector consists of 12 commercial banks, including 3 branches of U.S.-based banks, 11 nonbank financial institutions and credit unions. The U.S. branches are insured by the FDIC and follow U.S. prudential regulations. One other bank is a branch of an Asian bank, and the remaining eight banks (of which four are controlled by foreign nationals) are locally chartered. Of the 11 non-bank financial institutions, three are reportedly not in operation and eight provide limited services. Capital markets are nonexistent.

<sup>11</sup> An estimate of cost recovery tariff in 2019 was about \$0.25 versus approved one at \$0.19.

<sup>12</sup> This model allows customers to offset the consumed power with the electricity they generate from their rooftop solar photovoltaic (PV) systems. At the end of monthly billing cycle, if the customers consume more than they have generated from their rooftop PVs, they are billed at tariff rates based on their net consumption level. If the customers generate more power than they consume, the surplus balance is carried over to the next month and can be kept for up to 1 year. PPUC will not pay cash to customers for generated surplus electricity by solar PVs.



about 550 kWh of electricity per month and electricity bills over 35% of disposable household incomes. Households have a range of energy saving options<sup>13</sup>, however, anecdotal evidence in Palau shows that people tend to purchase appliances that have the lowest purchase price without considering energy consumption and operational costs. About 52% of households use electricity for their primary means of cooking with obsolete home appliances. Women are usually responsible for household appliances once they are purchased so they would be key stakeholders to increase efficiency. With limited access to credit, households have modest or no incentives to replace old and inefficient appliances or to retrofit homes for improved energy efficiency.

8. **Low access to financing for women.** Apart from government-led social assistance, the present lending in Palau is mainly geared toward higher-income groups and no financing for women. In rural areas, potential female borrowers are even more disadvantaged in accessing financing for disaster resilient energy projects, as the majority of rural women are occupied in informal self-employed activities (such as the food, agriculture, and trade industries) and cannot afford bank loans. Furthermore, with lower income levels, they face higher collateral requirements for obtaining loans. Enabling such female borrowers' access to disaster resilient financing products, given that real estate remains a preferred type of collateral, will substantially improve quality of housing infrastructure particularly in rural areas. This is relevant also for homebound and small businesswomen (prevalent in rural areas) who face challenges in accessing finance because of the informal and/or irregular nature of their income and their higher credit risk categorization.

9. **Demand analysis.** The project is built upon a strong government commitment to create a conducive environment to enable disaster resilient clean energy financing to address concerns on (i) lack of financing for disaster resilient energy infrastructure under ongoing and future housing commitments, and (ii) unmet demand among female borrowers for longer-term loans, in particular in the rural areas to finance preventive measures mitigating impact of disasters caused by natural hazards. A preliminary indicative pipeline from the NDBP indicates a demand for approximately \$3 million for 2020-2021. A list of the sub-loans by NDBP and lending criteria will be assessed at due diligence stage to ascertain sufficient market size under proposed financing based on electricity tariffs at various lending rates applied by the NDBP. From the suppliers' side, Palau has established links with key private sector renewable energy companies with a track record to provide rooftop solar systems installation and maintenance.

## B. Proposed Solutions

10. The proposed ADB grant to create DRCEF by the MOF and administered by the NDBP will be first in its kind project to mainstream disaster resilient clean energy financing. While the ADB funding is a grant basis, however, it will be on-lent at cost of administration and risk premium, enabling NDBP to diversify its funding sources, expand its loan products and enhance its standing and reputation as the premier development finance institution. Structured as a revolving facility, DRCEF will ensure sustainability of proposed project for potential co-financing by other development partners.<sup>14</sup> NDBP will use proceeds from the ADB FI grant to provide affordable financing to low income and women customers for disaster resilient clean energy projects. Sub-loans provided by NDBP will be used by the borrowers for: (i) acquisition of housing units or renovation of existing units compliant with international building codes and energy efficiency standards (85% of loans funded by ADB FI grant); and (ii) purchase and installation of roof-top

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<sup>13</sup> Options include tinted or high-performance glass, water heaters, hot water piping insulation, exterior window shading, more efficient lights, and energy star appliances.

<sup>14</sup> Development partners provided grant financing to subsidize the NDBP's loans for off-grid/grid connected solar PV by households. All provided funds were utilized and programs were suspended due to high cost of capital for NDBP.

solar generation (15% of loans funded by ADB FI grant). A minimum 30% of all loans funded by the ADB will be used to finance low-income borrowers. Furthermore, at least 20% of loans funded by ADB and disbursed by NDBP will be to women borrowers. A ceiling for a single loan amount per borrower under the ADB project will be determined at due diligence stage.

11. The proposed project will deliver two key outputs: (i) disaster resilient clean energy financing for eligible borrowers made available, and (ii) accessibility to disaster resilient clean energy loans for eligible women borrowers improved. These outputs will result in the following outcome: consumers' energy expenditures reduced by use of disaster resilient energy sources.<sup>15</sup> The project will be aligned with the following impacts: (i) access to disaster resilient clean energy for consumers increased (Palau Energy Policy); (ii) safe, resilient and prepared communities for calamities and women livelihood recovery enhanced (NDRMF); and (iii) resilience of Palau communities to climate change and disasters enhanced (PCCP).

### C. Proposed Financing Plans and Modality

12. The grant of up to \$3 million is requested from ADB to finance the project. ADB will provide the grant financing to the MOF to create DRCEF as a revolving facility on-lent by the NDBP on terms and conditions set forth in grant and project agreements. The pricing and tenor of the proposed on-lending by the NDBP will include its administration charge and risk premium based on loan application valuation to be reviewed at due diligence stage. FI grant financing modality is proposed due to the investment scale and the experience of the proposed executing and implementing agencies (the MOF and NDBP).

13. Climate mitigation is estimated to cost \$2 million and climate adaptation is estimated to cost \$1 million. ADB will finance 100% of mitigation costs and 100% of adaptation costs.

**Table 1: Indicative Financing Plan**

<b>Source</b>	<b>Amount (\$ million)</b>	<b>Share of Total (%)</b>
Asian Development Bank	0.0	0.0
Japan Fund for Poverty Reduction grant	3.0	95.2
Government's equity contribution <sup>a</sup>	0.15	4.8
<b>Total</b>	<b>3.15</b>	<b>100.0</b>

<sup>a</sup> Palau government is to provide inflation protection assurance estimated as a present value of the country's projected 5-year average inflation for 2021-2026.

Source: ADB staff estimates

### D. Implementation Arrangements

14. The MOF will be the executing agency and NDBP will be the implementing agency responsible for the administration and on-lending the proceeds of the ADB grant. A project management unit at NDBP will administer the project, provide progress reports, and manage any issues in coordination with ADB. The implementation period will be 2 years. Indicative arrangements are reflected in Table 2.

**Table 2: Indicative Implementation Arrangements**

<b>Aspects</b>	<b>Arrangements</b>
Indicative implementation period	October 2020 – October 2022
Indicative completion date	November 2022
<b>Management</b>	
(i) Executing agency	Ministry of Finance
(ii) Key implementing agencies	National Development Bank of Palau

Source: ADB staff estimates

<sup>15</sup> The design and monitoring framework is in Appendix 1.

## II. ATTACHED TECHNICAL ASSISTANCE

15. The grant will be accompanied by a \$400,000 transaction technical assistance (TA) to provide capacity building support to (i) NDBP, primarily in the areas of risk, internal audit, compliance, and establishing a tracking system for performance; (ii) Bureau of Budget and Planning of the Ministry of Finance (or equivalent agency) for developing national climate/disaster resilient building codes for residential properties that promote energy efficiency and would be used to verify structural compliance prior to sub-loans; and (iii) PPUC to develop maintenance service for disaster resilient energy facilities. ADB will engage consultants in accordance with ADB's Procurement Policy (2017, as amended from time to time) and the associated PAIs/TA Staff Instructions. Consultants to be engaged and detailed terms of reference will be developed during grant fact-finding mission. Disbursements under the TA will be done in accordance with ADB's Technical Assistance Disbursement Handbook (2010, as amended from time to time).

## III. PROJECT PREPARATION AND READINESS

16. Project preparatory activities are expected to be carried out by ADB staff. The project will not involve any retroactive financing.

## IV. DELIBERATIVE AND DECISION-MAKING ITEMS

### A. Risk Categorization

17. The project risk is categorized as "low" because (i) the grant amount (\$3 million) does not exceed \$50 million, (ii) the MOF and NDBP have sufficient experience with implementing externally financed projects that will be verified during due diligence, (iii) safeguard categorization is expected to be FI-C<sup>16</sup>, and (iv) no significant integrity concern, climate risk, waiver of applicable policy, or high-level technology.

### B. Project Procurement Classification

18. There will be no procurement as the ADB project will fund—through loans provided by NDBP — residential housing units that have already been built.

### C. Scope of Due Diligence

19. Identified below are the project risks, which will be reviewed during the due diligence as proposed in Table 3:

- (i) Potential demand for the proposed loan products under the ADB project.
- (ii) Financial soundness of NDBP as evidenced by adequate capital, asset quality, liquidity, profitability, adequate credit and risk management policies, operating systems, procedures, compliance with regulations, including exposure limits, corporate, financial governance and management practices including, among other things, transparent financial disclosure policies and practices, sound business objectives and strategy and/or plan and autonomy in lending and pricing decisions.
- (iii) NDBP's policies, systems, and procedures to assess and monitor the economic, social, and environmental impact of sub-loans in accordance with parameters established by ADB for this purpose.

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<sup>16</sup> Proposed investment comprises the setting up of a Disaster Resilient Energy Facility (procedures, products and terms) creating new financing standards that are energy efficient, resilient, built to code, and aligned with the national housing policy. The provision of this critical transaction guidance as such will pose no adverse social impacts or environmental risks.

**Table 3: Scope of Due Diligence**

<b>Due Diligence Outputs</b>	<b>To be undertaken by</b>
Development coordination	Staff
Financial management assessment, financial and economic analysis	Staff, TA grant,
Gender analysis, collection of baseline data and gender action plan	Staff, TA grant
Safeguard screening and categorization results	Staff
Initial poverty and social analysis	Staff
IDD and/or AML/CFT checklist(s)	Staff
Project administration manual	Staff
Risk assessment and management plan	Staff
Safeguard documents on environment, involuntary resettlement, and/or indigenous peoples	Staff
Sector assessment	Staff, TA grant
Summary poverty reduction and social strategy	Staff
Attached TA	Staff

AML/CFT = anti-money laundering/combating the financing of terrorism, IDD = integrity due diligence, TA = technical assistance.

Source: ADB staff estimates

#### **D. Processing Schedule and Sector Group's Participation**

**Table 4: Processing Schedule by Milestone**

<b>Milestones</b>	<b>Expected Completion Date</b>
1. Concept approval	April 2020
2. Grant fact finding	June 2020
3. Staff review meeting	July 2020
4. Grant negotiations	Sept 2020
5. Board consideration (no-objection procedure)	Oct 2020
6. Grant effectiveness	Nov 2020

Source: ADB staff estimates.

#### **E. Key Processing Issues and Mitigation Measures**

**Table 5: Issues, Approaches, and Mitigation Measures**

<b>Key Processing Issues</b>	<b>Proposed Approaches and/or Mitigation Measures</b>
1. The housing sector requires a set of national building codes that integrates climate/disaster resilience and emphasizes energy efficiency/renewable energy use for constructing new and retrofitting existing homes.	The TRTA will develop climate/disaster resilient building codes for residential properties that incorporates energy efficiency. The piggyback technical assistance will support the government agency prepare and implement these codes, including an action plan on rollout of these codes to the states for enforcement. Meantime, the International Residential Code, 2015 Edition will be used until Palau approves its national building codes (as per draft Palau Housing Policy).
2. NDBP's lending compliance with disaster resilient energy efficiency financing requirements	Due diligence will focus on NDBP's quality of lending procedures. Compliance verification will be confirmed via a Letter of Commitment by NDBP. Also, the project will support NDBP to calibrate its loan products and requirements for disaster resilient energy financing that provides the right incentives to NDBP while maintaining market principles. Market reference rates will be used where possible.
3. The demand for NDBP loans is substantially less than anticipated which might lead to slow disbursements.	The ADB team will carry out demand analysis to ensure that the interest by prospective borrowers in the loan products by NDBP is in response to a real demand.
4. Availability and timely approval of government equity contribution for inflation protection of proposed facility	Inflation protection assurance and availability of funds will be confirmed via a memorandum of understanding

## PRELIMINARY DESIGN AND MONITORING FRAMEWORK

<b>Impacts the Project is Aligned with</b>			
Access to disaster resilient energy for consumers increased (Palau Energy Policy) <sup>a</sup> Safe, resilient and prepared communities for calamities and women livelihood recovery enhanced (National Disaster and Risk Management Framework) <sup>b</sup> Resilience of Palau communities to climate change and disasters enhanced (Palau Climate Change Policy for Climate and Disaster Resilient Low Emissions Development) <sup>c</sup>			
<b>Results Chain</b>	<b>Performance Indicators with Targets and Baselines</b>	<b>Data Sources and Reporting Mechanisms</b>	<b>Risks</b>
<b>Outcome</b> Consumers' energy expenditures reduced	a. Consumers' expense on electricity reduced by 15% by 2025 (2020 baseline: 35%)  b. Palau greenhouse gas emissions reduced by at least XX tCO <sub>2</sub> /year by 2025 (2020 baseline: 0) (RFI A)	a. NDBP's survey report  b. Palau National Statistics Annual Report	NDBP's ability to develop affordable finance for eligible customers is not sustained
<b>Outputs</b> 1. Disaster resilient clean energy financing for eligible borrowers made available	1a. Disaster Resilient Energy Financing Facility (escrow account) created and operationalized by 2020. (2020 baseline: NA)  1b. 85% of loans funded by ADB and disbursed by NDBP for the acquisition and/or renovation of housing complying with disaster resiliency and energy efficiency requirements by 2022 (2020 baseline: XX)  1c. 15% of loans funded by ADB and disbursed by NDBP for the acquisition and/or installation of roof-top solar generation complying with disaster resiliency and energy efficiency requirements by 2022 (2020 baseline: XX)	1a, b: NDBP annual audited reports	Insufficient demand for disaster resilient clean energy sub-loans from private Palauan homeowners  Deterioration of NDBP's credit standing as result of the additional lending under the ADB project

	1d. At least 30% of all loans financed by the ADB disbursed to low-income borrowers with a household income of less than XX per annum by 2022 (2020 baseline: XX)		
2. Accessibility to disaster resilient clean energy loans for eligible women borrowers improved	2a. At least 20% of loans funded by ADB and disbursed by NDBP targeted women borrowers by 2022 (2020 baseline: NA)	2a. NDBP annual audited reports	
	2b. NDBP adopts gender inclusive lending policy by 2021 (2020 baseline: NA)	2b. NDBP's gender inclusive lending policy	
	2c. NDBP conducts at least 3 nationwide public awareness campaigns on disaster resilient clean energy finance products for women by 2021 (2020 baseline: NA)	2c. Campaign completion reports	

### Key Activities with Milestones

#### 1. Disaster resilient energy financing for eligible borrowers made available

- 1.1 Ministry of Finance creates Disaster Resilient Energy Financing Facility (escrow account) at NDBP and operationalize it (by Dec 2020).
- 1.2 ADB provides \$3 million for qualified sub-loans issued by NDBP via Disaster Resilient Energy Financing Facility (by Dec 2020)

#### 2. Accessibility to NDBP's lending products for eligible women borrowers improved

- 2.1 NDBP develops at least one lending product exclusively targeted at women borrowers (by June 2021)
- 2.2 NDBP adopts a gender inclusive lending policy (by Jan 2022)
- 2.3 NDBP conducts at least 3 nationwide public awareness campaigns on disaster resilient energy finance products for women (by Nov 2022)

#### Inputs

Japan Fund for Poverty Reduction: \$3 million (grant)  
 ADB: \$0.4 million TA grant  
 Government: \$0.15 million

#### Assumptions for Partner Financing

Not Applicable

<sup>a</sup> Palau Energy Policy. 2010

<sup>b</sup> The National Disaster and Risk Management Framework: Palau. 2010 (amended in 2016).

<sup>c</sup> Palau Climate Change Policy for Climate and Disaster Resilient Low Emissions Development. 2015

<sup>d</sup> ADB TA on *Strengthening Urban Infrastructure Investment Planning in the Pacific* for preparing the Koror-Babeldaob Urban Development Strategy and Action Plan.

#### Contribution to the ADB Results Framework:

RFI A: Total annual greenhouse gas emissions reduction (tCO<sub>2</sub> equivalent/year). Target: **XX** tCO<sub>2</sub> equivalent/year.

Source: Asian Development Bank.

## PROJECT PROCUREMENT CLASSIFICATION

Characteristic	Assessor's Rating:
Is the procurement environment risk for this project assessed as "High" based on the country and sector/agency procurement risk assessment?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are multiple (typically more than three) and/or diverse executing and/or implementing agencies envisaged during project implementation? Do these agencies lack prior experience in ADB project implementation?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
Are multiple contract packages and/or complex and high-value contracts expected (compared to recent donor-funded projects in the country)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
Does the project plan to use innovative contracts (e.g., public-private partnership; performance-based; design and build; design, build, and operate; etc.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
Are contracts distributed in more than three geographical locations?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
Are there significant ongoing contractual and/or procurement issues under ADB- (or other donor-) funded projects? Have instances of noncompliance been declared in respect of the executing and/or implementing agencies?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
Does the government or its executing or implementing agencies have prolonged procurement lead times, experience implementation delays, or otherwise consistently fail to meet procurement time frames?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
Do executing or implementing agencies lack capacity to manage new and ongoing procurement? Have executing or implementing agencies requested ADB for procurement support under previous projects?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Unknown
Does the relevant market in the country have characteristics that may materially limit reasonable competition and/or potentially expose the executing or implementing agency to any prohibited practices (e.g., fraud, corruption, collusion, etc.)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
Where electronic government procurement is mandated, <sup>a</sup> do executing agencies face any challenges in its effective implementation (e.g., poor connectivity, technical, capacity of executing agencies and bidders, security, assessment and third-party audit compliance, policy/legal framework, underuse)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
<b>Regional department's overall recommendation (R. Abbasov)</b>	
Overall project categorization recommended	<input type="checkbox"/> Category A <input checked="" type="checkbox"/> Category B
<b>Procurement, Portfolio and Financial Management Department's recommendation (Rafael Nadyrshin, Senior Procurement Specialist)</b>	
Confirmed.	

Source: Asian Development Bank.

### TECHNICAL ASSISTANCE FACILITY UTILIZATION UPDATE

1. The technical assistance (TA) facility for Preparing the Pacific Renewable Energy Investment Facility (Phase 2) was approved on 19 July 2019 in an amount of \$4 million, of which (i) \$3 million will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF 6) and (ii) \$1 million will be financed on a grant basis by the Strategic Climate Fund and administered by ADB.<sup>17</sup> As of 11 February 2020, contract awards totaled \$991,131 and disbursements totaled \$109,826.

2. The TA facility will deliver outputs specifically for the ensuing Disaster Resilient Clean Energy Financing. The major outputs and activities are summarized in Table A3.1.

**Table A3.1: Summary of Major Outputs and Activities**

Output	Delivery Dates	Key Activities with Milestones
Feasibility study and due diligence documents	Within 1 month Within 1 month Within 2 months	1.1 Optimize project design and scope 1.2 Conduct technical, financial, economic, gender, governance, and safeguards due diligence 1.3 Conduct financial management, and risk management assessments 1.4 Submit facility financing proposal and linked documents

Source: Asian Development Bank.

3. **Resources under the technical assistance facility.** The updated consultants' input allocation from the TA facility is presented in Table A3.2. It is confirmed that (i) the TA facility has adequate resources and (ii) the existing terms of reference for consultants are sufficient to undertake the activities required to deliver the outputs for the ensuing Disaster Resilient Clean Energy Financing.

**Table A3.2: Updated Consultants' Input Allocation from the Technical Assistance Facility (person-month)**

Item	Total	Projects						
		KIR	PAL <sup>a</sup>	RMI	COO	FSM	NAU	TUV
Updated risk category		Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Renewable energy engineer/team leader	33.0	3.0	9.0	6.0	2.5	12.0	0.5	
Hydropower expert	6.0					6.0		
Power systems engineer	4.5	2.5	2.0					
Power system planning expert	3.0		3.0					
Utility management expert	1.0		1.0					
Battery energy storage engineer	3.0	2.0			1.0			
Solar/floating solar expert	4.0		2.0					2.0
Wind power engineer	3.0		2.0		1.0			
Civil engineer	13.0		2.0			6.0	4.0	1.0
Legal and regulatory expert	2.0	2.0						
Financial specialist	8.5	1.5	4.0	1.0	1.0	1.0		
Economist	5.5	1.5	1.0	1.0	1.0	1.0		
Procurement specialist	10.0	2.0	2.0	1.0	1.0	4.0		

<sup>17</sup> Under the Scaling Up Renewable Energy Program in Low Income Countries.



Item	Total	Projects						
		KIR	PAL <sup>a</sup>	RMI	COO	FSM	NAU	TUV
Updated risk category		Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Transaction advisor	2.0	2.0						
Environment specialist	16.5	1.5	2.0	1.0	1.0	6.0	4.0	1.0
Social safeguards specialist	12.0	2.0	2.0	1.0	1.0	6.0		
Gender specialist	7.0	2.0	2.0	1.0		2.0		
Climate change expert	2.0	1.0			1.0			
Project manager	15.0	15.0						
Renewable IPP and PPA Advisor	1.0		1.0					
<b>Total international experts</b>	<b>152.0</b>	<b>38.0</b>	<b>35.0</b>	<b>12.0</b>	<b>10.5</b>	<b>44.0</b>	<b>8.5</b>	<b>4.0</b>
<b>Total national experts</b>	<b>78.0</b>	<b>71.0</b>					<b>7.0</b>	

COO = Cook Islands, FSM = Federated States of Micronesia, KIR = Kiribati, NAU = Nauru, PAL = Palau, RMI = Republic of the Marshall Islands, and TUV = Tuvalu.

Source: Asian Development Bank estimates.

**Table A3.3: Updated Budget Allocation from the Technical Assistance Facility**  
\$'000

Item	ADB <sup>a</sup>	External Source <sup>b</sup>
A. Consultants		
1. Remuneration and per diem		
a. International consultants	2,045.0	520.0
b. National consultants	30.0	179.0
2. Out-of-pocket expenditures		
a. International and local travel	555.0	92.0
b. Surveys	195.0	50.0
c. Training, seminars, and conferences	35.0	100.0
d. Reports and communications	15.0	0.0
e. Miscellaneous administration and support costs	25.0	14.0
B. Contingencies	100.0	45.0
<b>Total</b>	<b>3,000.0</b>	<b>1,000.0</b>

Note: The technical assistance is estimated to cost \$4 million, of which contributions from the Asian Development Bank (ADB) and the Strategic Climate Fund under the Scaling Up Renewable Energy Program in Low Income Countries are presented in the table. The beneficiary governments will provide counterpart support in the form of counterpart staff, office supplies, office space and communication facilities for consultants, and other in-kind contributions. The value of the government contribution is estimated to account for 30% of the total technical assistance cost.

<sup>a</sup> Financed by ADB's Technical Assistance Special Fund (TASF 6).

<sup>b</sup> Financed by the Strategic Climate Fund under the Scaling Up Renewable Energy Program in Low Income Countries. Administered by ADB.

Source: Asian Development Bank estimates.

**INITIAL POVERTY AND SOCIAL ANALYSIS**

Country:	Republic of Palau	Project Title:	Disaster Resilient Clean Energy Financing Facility
Lending/Financing Modality:	Financial Intermediation (F1)	Department/Division:	PARD/PAEN

<b>I. POVERTY IMPACT AND SOCIAL DIMENSIONS</b>
<p><b>A. Links to the National Poverty Reduction Strategy and Country Partnership Strategy</b></p> <p>The proposed Palau Disaster Resilient Clean Energy Financing Facility Project supports a core development priority of the 2020 Palau National Master Development Plan<sup>18</sup>, which is “mainstreaming disaster risk reduction.” The program is aligned with the vision in the National Disaster and Risk Management Framework (NDRMF),<sup>19</sup> initially published in 2010 and amended in 2016, of “safe, resilient and prepared communities in Palau”. In 2015, the Palau government adopted the Palau Climate Change Policy for Climate and Disaster Resilient Low Emissions Development (PCCP) with additional objective to mitigate global climate change by working toward low-carbon emission development, maximizing energy efficiency, protecting carbon sinks, and minimizing greenhouse gas emissions. The PCCP also advocates a proactive approach to community-level disaster risk management, to build knowledge and understanding of the hazards and risks to which communities may be exposed.</p> <p>The project is also in line with the Framework for Resilient Development in the Pacific 2017–2030,<sup>20</sup> which (i) recognizes that climate change and disaster risks increase the vulnerability of Pacific Island people, undermining the sustainable development of the Pacific region, and (ii) provides high-level strategic guidance to different stakeholder groups on how to enhance resilience to climate change and disasters, in ways that contribute to sustainable development. The proposed project in this context supports goal 1 (strengthened integrated adaptation and risk reduction to enhance resilience to climate change and disasters) and goal 3 (strengthened disaster preparedness, response, and recovery).</p> <p>The project is consistent with the objectives of the Asian Development Bank (ADB) Pacific Approach, 2016–2020,<sup>21</sup> which serves as the operational framework of ADB for the Pacific region and the overall country partnership strategy for the 11 smaller Pacific island countries, including Palau. The Pacific Approach emphasizes the importance of expanding ADB work in climate change and disaster risk management (DRM) to mobilize more financing for the Pacific region and to introduce innovative solutions to strengthen disaster preparedness, address vulnerability, and build resilience.</p>
<p><b>B. Poverty Targeting</b></p> <p><input checked="" type="checkbox"/> General Intervention <input type="checkbox"/> Individual or Household (TI-H) <input type="checkbox"/> Geographic (TI-G) <input type="checkbox"/> Non-Income MDGs (TI-M1, M2, etc.)</p> <p>The proposed project does not target a specific segment of the population of Palau. It is intended to benefit the general public through improved and more effective DRM criteria and targets to reduce and manage disaster and climate risks as part of the process for identifying priority infrastructure investments and incentives for energy efficiency.</p>
<p><b>C. Poverty and Social Analysis</b></p> <p>1. <i>Key issues and potential beneficiaries.</i> Palau has one of the highest standards of living of Pacific countries, with an FY2016 GDP of \$310.3 million, an adult literacy rate of 99.5% and life expectancy of 71. However, the island nation still relies heavily on United States foreign aid through the Compact of Free Association. The compact includes a wide range of federal programs set to continue until 2030. Hardship is persistent, especially for disadvantaged groups and populations in rural areas, fast-growing urban settlements, and outer islands. The smallness, remoteness, geographic dispersion, with among the world’s highest exposure to climate change and natural hazards, and narrow economic base magnifies the effects of economic shocks. GDP growth is generally low and volatile. The program will benefit the overall population of Palau through improved DRM, and particularly the poorer and more vulnerable groups (including women) who tend to be more affected by disasters.</p>

<sup>18</sup> Palau National Master Plan Task Force. 1996. Palau 2020: National Master Development Plan. Koror.  
<sup>19</sup> Government of Palau. 2016. National Disaster and Risk Management Framework 2010 (Amended 2016). Koror.  
<sup>20</sup> Pacific Community. 2016. Framework for Resilient Development in the Pacific, 2017–2030. Suva.  
<sup>21</sup> ADB. 2016. Pacific Approach, 2016–2020. Manila.

2. *Impact channels and expected systemic changes.* Palau has no dedicated financing available for disaster resilient clean energy or disaster response, early recovery, and reconstruction so a key government development priority is to diversify the existing energy generation mix to include more indigenous, renewable energy resources. The project thus is expected to create a conducive environment through the National Development Bank of Palau (NDBP) and the Palau Public Utilities Corporation (PPUC) to enable disaster resilient clean energy financing to address concerns on (i) lack of financing for disaster resilient energy infrastructure under ongoing and future housing commitments and (ii) unmet demand among female borrowers for longer-term loans, in particular in the rural areas to finance preventive measures mitigating impact of disasters caused by natural hazards.

3. *Focus of (and resources allocated in) the PPTA or due diligence.* Due diligence will look to enhance NDBP's and PPUC's ability to provide affordable financing to low income and women customers for disaster resilient clean energy projects. Assessment will essentially improve the disaster resilient clean energy financing criteria for eligible borrowers, as well as improve accessibility to disaster resilient clean energy loans for eligible women borrowers.

4. *Specific analysis for policy-based lending.* The focus is to provide capacity building support to (i) NDBP, primarily in the areas of risk management, internal audit, product compliance, establishing a tracking system for performance (borrowers and disbursement) and streamlining of credit processes; and (ii) PPUC to develop operations and maintenance service for disaster resilient energy facilities.

## II. GENDER AND DEVELOPMENT

1. *What are the key gender issues in the sector/subsector that are likely to be relevant to this project or program?*

As women are the primary carers and household managers, they are disproportionately impacted by challenges in accessing affordable and disaster resilient energy. The average electricity bill is about 35% of disposable income (due to a number of factors include the high cost of imported fuel, lack of awareness of energy efficient approaches, old appliances etc.). Even with knowledge of energy efficient and disaster resilient approaches, households are not incentivized to pay upfront for more energy efficient appliances or retrofit homes to make them more efficient and disaster resilient. There are barriers to women accessing finance for these activities; lending products are mainly aimed at higher income groups; even where financial products target women they continue to be unaffordable for most women; and the collateral required for obtaining loans is not feasible for most women. This is particularly true for female headed households. The 2014 census notes that about a third of all households are headed by women and they are more likely to be below the basic needs poverty line.

2. *Does the proposed project or program have the potential to make a contribution to the promotion of gender equity and/or empowerment of women by providing women's access to and use of opportunities, services, resources, assets, and participation in decision making?*

Yes  No Please explain. A gender action plan will be prepared during due diligence.

3. *Could the proposed project have an adverse impact on women and/or girls or widen gender inequality?*

Yes  No

The project will contribute to improved DRM which will benefit both men and women.

4. *Indicate the intended gender mainstreaming category:*

GEN (gender equity)  EGM (effective gender mainstreaming)  
 SGE (some gender elements)  NGE (no gender elements)

The program will explore design measures to benefit women such as; development of new financial products to increase women's access to disaster resilient financing; support to NDBP to adopt gender inclusive policies and practices (including collection of sex disaggregated data; outreach programs to raise awareness of disaster resilient clean energy finance products; loans for solar generation targeted to female headed households; and gender sensitive training for households on energy efficiency and household decision making.

## III. PARTICIPATION AND EMPOWERMENT

1. *Who are the main stakeholders of the project, including beneficiaries and negatively affected people? Identify how they will participate in the project design.*

The main stakeholders are the Ministry of Finance, the NDBP and the PPUC responsible for the administration and on-lending the proceeds of the ADB grant. The ultimate beneficiaries will be the people of Palau. The main stakeholders will participate in the project design through consultation and focus group discussion. The project objectives are aligned with the 2020 Palau National Master Development Plan, and the vision of the National Disaster and Risk Management Framework which was consulted within Palau.

2. How can the project contribute (in a systemic way) to engaging and empowering stakeholders and beneficiaries, particularly, the poor, vulnerable and excluded groups? What issues in the project design require participation of the poor and excluded?

Information will be shared with the public as appropriate. Through consultations with nongovernment organizations, potentially excluded and vulnerable groups will be identified to enable their effective participation in DRM plans and activities.

3. What are the key, active, and relevant civil society organizations in the project area? What is the level of civil society organization participation in the project design?

Information generation and sharing  Consultation  Collaboration  Partnership

Low level of NGOC participation

4. Are there issues during project design for which participation of the poor and excluded is important? What are they and how shall they be addressed?  Yes  No

The project design requires participation of the poor and excluded groups specifically to enable their effective participation in DRM plans and activities.

#### IV. SOCIAL SAFEGUARDS

**A. Involuntary Resettlement Category**  A  B  C  FI

1. Does the project have the potential to involve involuntary land acquisition resulting in physical and economic displacement?  Yes  No

The project will only provide selection criteria for financing and not involve civil works and result in any involuntary resettlement impacts.

2. What action plan is required to address involuntary resettlement as part of the PPTA or due diligence process?

Resettlement plan  Resettlement framework  Social impact matrix  
 Environmental and social management system arrangement  None

**B. Indigenous Peoples Category**  A  B  C  FI

1. Does the proposed project have the potential to directly or indirectly affect the dignity, human rights, livelihood systems, or culture of indigenous peoples?  Yes  No

2. Does it affect the territories or natural and cultural resources indigenous peoples own, use, occupy, or claim, as their ancestral domain?  Yes  No

3. Will the project require broad community support of affected indigenous communities?  Yes  No

4. What action plan is required to address risks to indigenous peoples as part of the PPTA or due diligence process?

Indigenous peoples plan  Indigenous peoples planning framework  Social Impact matrix  
 Environmental and social management system arrangement  None

#### V. OTHER SOCIAL ISSUES AND RISKS

1. What other social issues and risks should be considered in the project design? NA

Creating decent jobs and employment  Adhering to core labor standards  Labor retrenchment  
 Spread of communicable diseases, including HIV/AIDS  Increase in human trafficking  Affordability  
 Increase in unplanned migration  Increase in vulnerability to disasters  Creating political instability  
 Creating internal social conflicts  Others, please specify \_\_\_\_\_

2. How are these additional social issues and risks going to be addressed in the project design? NA

#### VI. PPTA OR DUE DILIGENCE RESOURCE REQUIREMENT

1. Do the terms of reference for the PPTA (or other due diligence) contain key information needed to be gathered during PPTA or due diligence process to better analyze (i) poverty and social impact; (ii) gender impact, (iii) participation dimensions; (iv) social safeguards; and (v) other social risks. Are the relevant specialists identified?

Yes  No If no, please explain why

2. What resources (e.g., consultants, survey budget, and workshop) are allocated for conducting poverty, social and/or gender analysis, and participation plan during the PPTA or due diligence?