

# Increasing Access to Renewable Energy in Tuvalu

Review CEO Endorsement and Make a recommendation

## Basic project information

**GEF ID**

10788

**Countries**

Tuvalu

**Project Name**

Increasing Access to Renewable Energy in Tuvalu

**Agencies**

ADB

**Date received by PM**

5/11/2023

**Review completed by PM**

5/15/2023

**Program Manager**

Ming Yang

**Focal Area**

Climate Change

**Project Type**

FSP

# PIF □

## CEO Endorsement □

### Part I ? Project Information

#### Focal area elements

**1. Does the project remain aligned with the relevant GEF focal area elements as presented in PIF (as indicated in table A)?**

Secretariat Comment at CEO Endorsement Request  
5/13/2023 MY:

Yes. The project remains aligned with the GEF CCM focal area elements as presented in PIF.

5/26/2023 MY:

Please address the following comments of the PPO:

1. Core indicators:

- Core Indicators targets are missing in the Project?s Results Framework (Annex A). GEF Core Indicators need to be aligned with the results framework and need to be explicitly mentioned in the Results Framework in Annex A.

- The target for core indicator 11 has reduced from 9,000 at PIF to ?zero? at CEO endorsement. Please provide justification why this target became ?0? at the CEO endorsement. In case of error, please do include indicator 11 target in the core indicator table and the results framework (annex A).

2. Current expected implementation start date and completion date in Portal means a 48-month implementation period for this project, while the duration said 60 months, please amend accordingly:

Submission Date 5/11/2023	Expected Implementation Start 1/1/2024	Expected Completion Date 12/31/2027
Duration ⓘ 60 In Months	Agency Fee(\$) 247,706.00	

- Gender: The project notes that "there is an ongoing process to update the gender assessment and GAP". In this regard, the Agency is requested in the update of the GAP, to increase the percentage of women beneficiaries to greater than 30%, in line with good practice. This includes activities that would benefit women from constructed-related jobs, number of women staff in the TEC, CSC team, among others. The Agency is requested to share a summary of the updated gender assessment and GAP in the PIR, as appropriate.

6/27/2023 MY:

Yes, comments were address and the project document was revised.

## Agency Response

### **ADB Response 20 June 2023**

- Core indicator no. 11 has been included into Annex F and Table E. The total number of beneficiaries is now 6,000 - the same as at the PIF stage (the quoted figure of 9,000 is erroneous).

Core indicator targets have been fully incorporated into Annex A (the Project Results Framework).

- Portal entry corrected to 60 months

- Revised gender assessment and gender action plan is included in Appendix 4[AA1] a and Appendix 4b. The gender assessment identifies many long-term, institutional barriers to achieving gender equity, including in the energy sector. These cannot be removed either quickly or easily. The revised GAP aims to contribute to tackling these.

However, based on previous experience, and due to the obstacles referred to above, the project team feel that 30% is too ambitious a target and success could not be guaranteed. Hence, the project, realistically but ambitiously, aims to ensure that the project hires "at least

20% women in both technical and non-technical work, with at least 30% in the PMU, and the ambition of 30% all round?.

See revised section II.3, Gender Equality and Women's Empowerment.

**Project description summary**

**2. Is the project structure/design appropriate to achieve the expected outcomes and outputs as in Table B and described in the project document?**

Secretariat Comment at CEO Endorsement Request  
5/13/2023 MY:

Yes. Per Table B, the project will deliver more investment outputs in the CEO endorsement stage than in the PIF stage, with higher co-financing.

Agency Response

**3. If this is a non-grant instrument, has a reflow calendar been presented in Annex D?**

Secretariat Comment at CEO Endorsement Request  
5/13/2023 MY:

N/A

Agency Response

**Co-financing**

**4. Are the confirmed expected amounts, sources and types of co-financing adequately documented, with supporting evidence and a description on how the breakdown of co-financing was identified and meets the definition of investment mobilized, and a description of any major changes from PIF, consistent with the requirements of the Co-Financing Policy and Guidelines?**

Secretariat Comment at CEO Endorsement Request  
5/13/2023 MY:

Not completed.

Regarding the ADB co-financing letter, please provide a government co-financing letter showing that the government is willing to provide \$1.18 million of in-kind contribution. See below:

Source of Funds	Amount (in US\$ million)	Relevance to IAREP
ADB (Asia Development Fund)	8.00	This contributes to the two phases of IAREP. This contributes to all three Outputs of the program, notably investing in floating photovoltaic (PV), rooftop and ground-mounted PV, and battery energy storage system.
ADB (Ireland Trust Fund)	0.80	This contributes to Output 2: Sustainable blue economy and productive use of energy infrastructure installed.
Government of Tuvalu	1.18	This contributes to the two phases of IAREP. This contributes to all three Outputs of the program, notably by providing in-kind support, project sites, and taxes and duties by exemption.
<b>TOTAL</b>	<b>9.98</b>	

In Table C in the CEO endorsement document, it shows the following:

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
GEF Agency	Asian Development Bank	Grant	Investment mobilized	8,000,000.00
GEF Agency	Asian Development Bank	Grant	Investment mobilized	800,000.00
Donor Agency	World Bank	Grant	Investment mobilized	7,000,000.00
Recipient Country Government	Government of Tuvalu	In-kind	Recurrent expenditures	1,180,000.00
<b>Total Co-Financing(\$)</b>				<b>16,980,000.00</b>

The co-financing letter for this \$7 million is signed by the Ministry of Finance of Tuvalu. The letter and Table C are not consistent. Please either ask the World Bank to issue a co-financing letter or revise Table C to make them consistent.

## Agency Response

### ADB Response 20 June 2023

4. New co-financing letter from MOF Government of Tuvalu is in the Roadmap.

Table C has been revised to indicate WB as GEF Agency.

Regarding the World Bank Co-financing. In order to strengthen the support documentation we have added: i) email trail between ADB and the World Bank officer responsible for ESDP Mr Alain Ouedraogo, ii) the original WB PAD document which allocates the \$ 7 million and

iii) the restructured WB agreement with GoT for the project. **Please look at Roadmap for this additional support.**

#### **GEF Resource Availability**

**5. Is the financing presented in Table D adequate and does the project demonstrate a cost-effective approach to meet the project objectives?**

Secretariat Comment at CEO Endorsement Request  
5/13/2023 MY:

Yes. The GEF financing presented in Table D is adequate and the project demonstrates a cost-effective approach to meet the project objectives.

#### **Agency Response Project Preparation Grant**

**6. Is the status and utilization of the PPG reported in Annex C in the document?**

Secretariat Comment at CEO Endorsement Request  
5/13/2023 MY:

N/A. The ADB did not request PPG for the project.

#### **Agency Response Core indicators**

**7. Are there changes/adjustments made in the core indicator targets indicated in Table E? Do they remain realistic?**

Secretariat Comment at CEO Endorsement Request  
5/13/2023 MY:

Yes. Core Indicator Table shows that the targeted GEBs remain realistic, which are reasonably increased with the enlarged co-financing.

Agency Response

**Part II ? Project Justification**

**1. Is there a sufficient elaboration on how the global environmental/adaptation problems, including the root causes and barriers, are going to be addressed?**

Secretariat Comment at CEO Endorsement Request

5/13/2023 MY:

Yes. There is more detailed elaboration on climate change mitigation problems including root causes and barriers in the project endorsement stage than in the PIF stage.

Agency Response

**2. Is there an elaboration on how the baseline scenario or any associated baseline projects were derived?**

Secretariat Comment at CEO Endorsement Request

5/13/2023 MY:

Yes. The baseline scenario and relevant associated baseline projects are elaborated.

Agency Response

**3. Is the proposed alternative scenario as described in PIF/PFD sound and adequate? Is there sufficient clarity on the expected outcomes and components of the project and a description on the project is aiming to achieve them?**

Secretariat Comment at PIF/Work Program Inclusion

5/13/2023 MY:

Yes. The proposed alternative scenario with a brief description of expected outcomes/outputs and components, as well as Theory of Change of the project are well presented.

Agency Response

**4. Is there further elaboration on how the project is aligned with focal area/impact program strategies?**

Secretariat Comment at CEO Endorsement Request

5/13/2023 MY:

Yes. There is further elaboration on how the project is well aligned with National Priorities and the GEF CCM focal area.

Agency Response

**5. Is the incremental reasoning, contribution from the baseline, and co-financing clearly elaborated?**

Secretariat Comment at CEO Endorsement Request

5/13/2023 MY:

Yes. With detailed project outcomes and outputs, there is a section elaborating incremental/additional cost reasoning and expected contributions from the baseline.

Agency Response

**6. Is there further and better elaboration on the project's expected contribution to global environmental benefits or adaptation benefits?**

Secretariat Comment at CEO Endorsement Request

5/13/2023 MY:

Not completed.

Please justify how the project's expected mitigation of CO<sub>2</sub> increases from 46302 tonnes in the PIF stage to 67958 tonnes in the CEO endorsement stage. Please also elaborate why there is no indirect emission mitigation. The Agency may need to revise the project document and add indirect emission reductions.

**Core Indicators**

**Indicator 6 Greenhouse Gas Emissions Mitigated**

Total Target Benefit	(At PIF)	(At CEO Endorsement)
Expected metric tons of CO <sub>2</sub> e (direct)	46302	67958
Expected metric tons of CO <sub>2</sub> e (Indirect)	0	0



## Agency Response

### ADB Response 20 June 2023

The estimation of avoided emissions in the PIF was purposely conservative in order to avoid creating high expectations. As more details of the technology have become available, more precise estimations have been made with increased certainty. This has led to three factors increasing the estimated avoided CO<sub>2</sub> emissions:

1. The estimation now counts for 25 years or reductions, whereas the previous calculation in PIF accounted for only 20 years. This leads to an increase of almost 20 %.

2. Since PIF approval, the expected installed FPV capacity has increased from 750 kWp to 1200 kWp (and ground/roof fixed PV has decreased by a similar amount). Due to cooling effect of water under FPV, FPV is estimated to be 15% more efficient than ground/roof fixed). Hence increase in floating/decrease in fixed, leads to more renewably produced electricity and more displaced diesel.

3. Improvements in (i) conversion factor: in the PIF it was assumed that generating 1 kWh from fossil fuels (diesel) would lead to avoiding 716g of CO<sub>2</sub>e emissions, the updated figure is 720g (ii) load factor ? in the PIF a figure of 17% was used, the revised, more accurate figures are almost 21% for fixed/rooftop PV and just over 25% for FPV.

This has been detailed in section II.1.a.6 (global benefits).

With regards to ?indirect? emissions mitigation, these are expected, however it has not been possible to estimate. These are expected from at least two sources (i) reduced shipping to transport diesel and (ii) use of clean electricity powered motors instead of fossil fuel powered motors, e.g. with boats and motorbikes.

**7. Is there further and better elaboration to show that the project is innovative and sustainable including the potential for scaling up?**

Secretariat Comment at CEO Endorsement Request

5/13/2023 MY:

Yes. There is further and better elaboration to show that the project is innovative and sustainable including the potential for scaling up.

Agency Response

**Project Map and Coordinates**

**Is there an accurate and confirmed geo-referenced information where the project intervention will take place?**

Secretariat Comment at CEO Endorsement Request

5/13/2023 MY:

Yes, Annex D presents the project map and coordination.

Agency Response

**Child Project**

**If this is a child project, is there an adequate reflection of how it contributes to the overall program impact?**

Secretariat Comment at CEO Endorsement Request

5/13/2023 MY:

N/A

Agency Response

**Stakeholders**

**Does the project include detailed report on stakeholders engaged during the design phase? Is there an adequate stakeholder engagement plan or equivalent documentation for the implementation phase, with information on Stakeholders who will be engaged, the means of engagement, and dissemination of information?**

Secretariat Comment at CEO Endorsement Request

5/13/2023 MY:

Yes. Section "Stakeholder Engagement Plan or Equivalent Assessment" in the CEO Endorsement document shows how the agency has engaged and will further engage the relevant stakeholders of the project.

Agency Response

**ADB Comment 20 June 2023**

It is noted that an updated stakeholder and engagement plan has been prepared. See Section II.2 (stakeholder engagement) and new Appendix 3

**Gender Equality and Women's Empowerment**

**Has the gender analysis been completed? Did the gender analysis identify any gender differences, gaps or opportunities linked to project/program objectives and activities? If so, does the project/program include gender-responsive activities, gender-sensitive indicators and expected results?**

Secretariat Comment at CEO Endorsement Request

5/13/2023 MY:

Yes. Section "3. Gender Equality and Women's Empowerment" shows that the agency completed the gender assessment, identified gender gaps. The agency indicates that project includes gender-responsive activities, gender-sensitive indicators and expected results.

Agency Response

**ADB Comment 20 June 2023**

It is noted that an updated gender assessment and action plan have been prepared. See response above (under Project Description, Gender), and revised Appendix 4a and 4b.

**Private Sector Engagement**

**If there is a private sector engagement, is there an elaboration of its role as a financier and/or as a stakeholder?**

Secretariat Comment at CEO Endorsement Request

5/13/2023 MY:

Yes. There is section elaborating how the private sector will be involved in specific project outputs.

Yes. The targeted outputs are related to individual financiers and stakeholders.

Agency Response

**Risks to Achieving Project Objectives**

**Has the project elaborated on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved? Were there proposed measures that address these risks at the time of project implementation?**

Secretariat Comment at CEO Endorsement Request

5/13/2023 MY:

Yes. The ADB submitted an attached document entitled " Climate Risk and Vulnerability Assessment" to address the risk related issues and measures to deal with the issues. .

Agency Response

**Coordination**

**Is the institutional arrangement for project implementation fully described? Is there an elaboration on possible coordination with relevant GEF-financed projects and other bilateral/multilateral initiatives in the project area?**

Secretariat Comment at CEO Endorsement Request

5/13/2023 MY:

Yes. The institutional arrangement for project implementation is well described.

Yes, there is an elaboration on possible coordination with relevant GEF-financed projects and other bilateral/multilateral initiatives in the project area.

Agency Response

**Consistency with National Priorities**

**Has the project described the alignment of the project with identified national strategies and plans or reports and assessments under the relevant conventions?**

Secretariat Comment at CEO Endorsement Request

5/13/2023 MY:

Yes. The ADB has described the alignment of the project with identified national strategies, plans/reports and assessments of Tuvalu under the UNFCCC.

## Agency Response

### **Knowledge Management**

**Is the proposed Knowledge Management Approach for the project adequately elaborated with a timeline and a set of deliverables?**

Secretariat Comment at CEO Endorsement Request

5/13/2023 MY:

Not completed.

In the section of "8. Knowledge Management", please propose a knowledge management approach with adequate elaboration against project deliverables and the project implementation timeline.

## Agency Response

### **ADB Response 20 June 2023**

Section 8 has been modified to include a strong attention to communications, and notably support of GEF policy on Communication and Visibility.

Under project activity 3.5, a communications strategy will be elaborated and implemented. Full details are not yet known. Overall allocation specifically to this, from all sources, is estimated to be in the order of \$50,000

### **Environmental and Social Safeguard (ESS)**

**Are environmental and social risks, impacts and management measures adequately documented at this stage and consistent with requirements set out in SD/PL/03?**

Secretariat Comment at CEO Endorsement Request

5/13/2023 MY:

Yes. The ADB undertook an ESS analysis and submitted a PDF document "ESSSupportingDocument\_5-10-2023 Appendix 6 - Social due diligence

report.pdf" to show the results. Some results are also presented in the CEO Endorsement Document (11. Environmental and Social Safeguard (ESS) Risks, on page 78).

## Agency Response

ADB Comments 20 June 2023

It is noted that updated results of the safeguards assessment are now available and included. See documents dated 23-06-20:

Revised section II.11

- ? Appendix 5 ? Summary presentations on ESS and Social
- ? Appendix 6 - Due Diligence Report (including any resettlement issues[AA1] )
- ? Appendix 7 ? Poverty and Social Assessment
- ? Appendix 8 ? Grievance Redress Mechanism

## Monitoring and Evaluation

**Does the project include a budgeted M&E Plan that monitors and measures results with indicators and targets?**

Secretariat Comment at CEO Endorsement Request

5/13/2023 MY:

Not completed.

Section "9. Monitoring and Evaluation" presents an M&E plan but it seems that the plan does not show monitored results with indicators and targets. Please consider add the information in the plan.

## Agency Response

ADB Response 20 June 2023

Full details of monitoring, including performance indicators, targets, baselines, data sources etc, are included in Annex A ? the project results framework.

**Benefits**

**Are the socioeconomic benefits at the national and local levels sufficiently described resulting from the project? Is there an elaboration on how these benefits translate in supporting the achievement of GEBs or adaptation benefits?**

Secretariat Comment at CEO Endorsement Request  
5/13/2023 MY:

Yes. Section "10. Benefits" describes social-economic benefits that are related to global environment benefits.

Agency Response  
**Annexes**

**Are all the required annexes attached and adequately responded to?**

Secretariat Comment at CEO Endorsement Request  
5/13/2023 MY:

Yes.

Agency Response  
**Project Results Framework**

Secretariat Comment at CEO Endorsement Request  
5/13/2023 MY:

Yes. Annex A presents the Project Results Framework.

Agency Response  
**GEF Secretariat comments**

Secretariat Comment at CEO Endorsement Request  
5/13/2023 MY:

N/A

Agency Response

**Council comments**

Secretariat Comment at CEO Endorsement Request  
5/13/2023 MY:

Yes. The council comments were well addressed.

Agency Response

**STAP comments**

Secretariat Comment at CEO Endorsement Request  
5/13/2023 MY:

Yes. The STAP comments were well addressed.

Agency Response

**Convention Secretariat comments**

Secretariat Comment at CEO Endorsement Request  
5/13/2023 MY:

N/A

Agency Response

**Other Agencies comments**

Secretariat Comment at CEO Endorsement Request  
5/13/2023 MY:

N/A



Agency Response  
**CSOs comments**

Secretariat Comment at CEO Endorsement Request  
5/13/2023 MY:

N/A

Agency Response  
**Status of PPG utilization**

Secretariat Comment at CEO Endorsement Request  
5/13/2023 MY:

N/A

Agency Response  
**Project maps and coordinates**

Secretariat Comment at CEO Endorsement Request  
5/13/2023 MY:

Yes. The Project maps and coordinates are shown in Annex D.

Agency Response  
**Does the termsheet in Annex F provide finalized financial terms and conditions? Does the termsheet and financial structure address concerns raised at PIF stage and that were pending to be resolved ahead of CEO endorsement? (For NGI Only)**

Secretariat Comment at CEO Endorsement Request  
5/13/2023 MY:

N/A

Agency Response

**Do the Reflow Table Annex G and the Trustee Excel Sheet for reflows provide accurate reflow expectations of the project submitted? Assumptions for Reflows can be submitted to explain expected reflows. (For NGI Only)**

Secretariat Comment at CEO Endorsement Request  
5/13/2023 MY:

N/A

Agency Response

**Did the agency Annex H provided with information to assess the Agency Capacity to generate and manage reflows? (For NGI Only)**

Secretariat Comment at CEO Endorsement Request  
5/13/2023 MY:

N/A

Agency Response

**GEFSEC DECISION**

**RECOMMENDATION**

**Is CEO endorsement recommended? (applies only to projects and child projects)**

Secretariat Comment at CEO Endorsement Request  
5/13/2023 MY:

Not yet.

5/26/2023 MY:

Please address the following comments of the PPO:

1. Core indicators:

- Core Indicators targets are missing in the Project's Results Framework (Annex A). GEF Core Indicators need to be aligned with the results framework and need to be explicitly mentioned in the Results Framework in Annex A.

- The target for core indicator 11 has reduced from 9,000 at PIF to ?zero? at CEO endorsement. Please provide justification why this target became ?0? at the CEO endorsement. In case of error, please do include indicator 11 target in the core indicator table and the results framework (annex A).

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3. Gender: The project notes that "there is an ongoing process to update the gender assessment and GAP". In this regard, the Agency is requested in the update of the GAP, to increase the percentage of women beneficiaries to greater than 30%, in line with good practice. This includes activities that would benefit women from constructed-related jobs, number of women staff in the TEC, CSC team, among others. The Agency is requested to share a summary of the updated gender assessment and GAP in the PIR, as appropriate.

6/27/2023 MY:

Yes, comments were address and the project document was revised.

**Review Dates**

	Secretariat Comment at CEO Endorsement	Response to Secretariat comments
<b>First Review</b>	5/13/2023	
<b>Additional Review (as necessary)</b>	5/26/2023	
<b>Additional Review (as necessary)</b>	6/27/2023	
<b>Additional Review (as necessary)</b>		
<b>Additional Review (as necessary)</b>		

## **CEO Recommendation**

### **Brief reasoning for CEO Recommendations**

The objective of the project is to increase the utilization of renewable energy and reduce greenhouse gas emissions by promoting a 100% renewable energy system in Tuvalu. The project has one component: investment in renewable energy technologies to generate and use renewable energy?. The project will deliver three major outcomes: (1) a 224-kW solar photovoltaic system installed on three outer islands; (2) a 2.4 MW solar photovoltaic system and a 4.5 MWh battery energy storage system installed on Funafuti Island; and (3) institutional capacity development for inclusive renewable energy project development and implementation enhanced. With \$2.75 million GEF CCM funding, this project will mobilize \$15 million capital investment, in addition to \$0.48 in-kind contribution from the government of Tuvalu. The project aims at reducing 67,958 tonnes of CO<sub>2</sub> in its lifetime. More importantly, the project will transform the energy system of the country from fossil fuel-based systems to 100% renewable energy-based ones in the above-mentioned islands. The project will directly benefit 3000 female and 3000 male residents in terms of zero-carbon energy generation/utilization and job creation in the country.