

ADB GEF PROJECT IMPLEMENTATION REPORT (PIR)

(This report covers implementation period from July 1, 2021, to June 30, 2022, including recently closed projects covering the reporting period)

ADB Official Project Title: Outer Island Renewable Energy Project (OIREP)

ADB Project Number: 43452-022/023/024 and 49450-006

I. GEF PROJECT SUMMARY

Project Ratings:

Development Objective Rating (DO): Highly Satisfactory

Implementation Progress Rating (IP): Highly Satisfactory

Risk Rating: Low Risk

The GEF grant is cofinancing the construction of a new mini-grid and service lines on the outer island of Niuatoputapu and the upgrading of the existing electric service lines and mini-grids on the outer islands of Uiha, Nomuka, Ha'ano, and Ha'afeva in the Ha'apai Group, under Phase 4 of the project.

As of 30 June 2022, the overall project continued to be rated 'on track' in ADB's project performance monitoring system. Of the \$2.64 million GEF grant, \$2.63 million in contracts have been awarded, of which \$1.81 million has been disbursed.

Access to Tonga was impacted by the coronavirus disease (COVID-19) pandemic with supply chain difficulties resulting in delays with the receipt of imported goods and equipment. When COVID-19 breached the Tongan borders in 2020, several lockdowns involving various restrictions on local movement and business operations were imposed and again when the first community cases were recorded in February 2022. Also, some local contractors contracted COVID-19 in March 2022.

On 15 January 2022, the Hunga Tonga-Hunga Ha'apai (HTHH) undersea volcano in the Ha'apai Group erupted, producing an ash cloud which rose 30 kilometers in altitude, launched an estimated one cubic kilometer of material in the atmosphere, and triggered a tsunami which resulted in inundation of Tonga. A thick layer of volcanic ash was deposited on the solar panels, powerhouses, and on the electricity pole equipment on the 4 Ha'apai outer islands, as well as on Niuatoputapu. Soon after the volcanic events, the contractors started their clean-up work, which caused some delays to their planned works.

Due to these delays, the Government of Tonga requested for an extension of the project closing date to 31 December 2023, which all cofinanciers agreed to and ADB approved on 29 March 2022.

Local travel restrictions were lifted in May 2022 after which all contractors returned to the outer islands, to resume work. The shipment of the remaining materials and equipment to the outer islands, commenced in June 2022.

During the 19-31 May 2022 Virtual Review Mission, ADB was advised of an alleged conflict of interest, involving TPL's Project Manager, which occurred during the procurement process for 2 local contracts totaling \$0.27 million, which is being fully-funded by an ADB grant. TPL's Project Manager was a member of the Bid Evaluation Committee (BEC) but did not declare that the owners of the 2 winning bidders were close relatives and that he was assisting them with their documentation. Along with TPL's Project Manager, the BEC for one contract comprised the (i) Director, Energy Division, MEIDECC; (ii) Deputy CEO, Project and Aid Management Division, MOF; and (iii) the previous Project Manager, PMU, MEIDECC. For the second contract, there were only 3 members of the BEC from MEIDECC, TPL and MOF, as the Project Manager, PMU position in MEIDECC was vacant. TPL have since replaced their



Project Manager and are conducting an investigation, after which they will share their report with ADB. The case has been reported to ADB's Office of Anticorruption and Integrity, as well as to the cofinanciers of the Project, and ADB awaits the outcome of TPL's investigation.

Information on Progress, challenges and outcomes on Environment and Social Safeguards

Due to COVID-19 local travel restrictions in Tonga, the monitoring of the environmental and social safeguards requirements during the reporting period was affected. Monitoring work resumed in May 2022, after the restrictions were lifted. During the 19-31 May 2022 Virtual Review Mission, ADB was updated that there are no unresolved safeguards issues and that the Grievance Redress Mechanism is working well. There are 5 safeguards covenants, of which 2 are not applicable (involuntary resettlement and indigenous peoples) and 3 are being complied with (safeguards-related provisions in the bidding documents and civil works contracts; safeguards monitoring and reporting; and prohibited list of investments).

Information on Progress, challenges and outcomes on Stakeholder Engagement

Due to COVID-19 local travel restrictions in Tonga, the stakeholder engagements were affected but these engagements continued when the restrictions were lifted in May 2022.

A grievance redress mechanism (GRM) is in place which sets out the process for resolving concerns or complaints and provides guidance on how communities and other stakeholders can file complaints.

The project steering committee meetings continue to be held quarterly and is chaired by the Minister of MEIDECC, co-chaired by CEO of MEIDECC, with members including CEOs of Ministry of Finance, Ministry of Public Enterprise, TPL; Director Energy of MEIDECC; Project Manager, PMU in MEIDECC. Observers are ADB, Government of Australia and the European Union.

Information on Progress on Gender-Responsive Measures

During the May 2022 Review Mission, the number of targets and activities in the GAP was revisited and these totaled 18 and 10, respectively. As of 30 June 2022, of the 18 targets in the GAP, 22% have already been achieved and 78% are on track to be achieved. Of the 10 activities, 50% have already been achieved and 50% are on track to be achieved.

Due to COVID-19 local travel restrictions in Tonga, gender training and the monitoring of the GAP were affected but these resumed when the restrictions were lifted in May 2022.

Knowledge activities/Products

1. How ADB is Driving Gender Equality in Tonga's Energy Sector | Asian Development Bank



GEO LOCATION INFORMATION

Location Name	Latitude (WGS84 Format)	Longitude (WGS84 Format)	GEO Name ID	Location Description	Activity Description
Phase 1 Lifuka	- 19.81451	- 174.35045	Lifuka Solar Plant	Solar plant	Boompaon
Phase 1 'Eua	- 21.34908	- 174.95356	'Eua Solar Plant	Solar plant	
Phase 1 Vava'u	- 18.64473	- 173.97474	Vava'u Solar Plant	Solar plant	Existing solar plant SCADA upgrade
Phase 2 Nomuka, Ha'apai	- 20.25641	- 174.79703	Nomuka Solar Plant	Solar plant	, ,
Phase 2 Ha'afeva, Ha'apai	- 19.94913	- 174.70928	Ha'afeva Solar Plant	Solar plant	
Phase 2 'Uiha, Ha'apai	- 19.89632	- 174.40512	'Uiha Solar Plant	Solar plant	
Phase 2 Ha'ano, Ha'apai	- 19.67435	- 174.28358	Ha'ano Solar Plant	Solar plant	
Phase 2 Niuatoputapu	- 15.95669	- 173.79001	Niuatoputapu Solar Plant	Solar plant	
Phase 3 'Eua	- 21.37439	- 174.95384	'Eua Electrical Network Upgrade	Electrical Network	Electrical network rehabilitation
Phase 3 Vava'u	- 18.64796	- 173.98027	Vavau Electrical Network Upgrade	Electrical Network	Electrical network rehabilitation
Phase 4 Nomuka, Ha'apai	- 20.25885	- 174.79735	Nomuka Electrical Network Upgrade	Electrical Network	Electrical network rehabilitation
Phase 4 Ha'afeva, Ha'apai	- 19.94716	- 174.70850	Ha'afeva Electricity Network Rehabilitation	Electrical Network	Electrical network rehabilitation
Phase 4 'Uiha, Ha'apai	- 19.89040	- 174.40766	'Uiha Electrical Network Rehabilitation	Electrical Network	Electrical network rehabilitation
Phase 4 Ha'ano, Ha'apai	- 19.66159	- 174.29226	Ha'ano Electrical Network Rehabilitation	Electrical Network	Electrical network rehabilitation
Phase 4 Niuatoputapu	- 15.95400	- 173.79480	Niuatoputapu New Electrical Network	Electrical Network	New electrical network



PROJECT N	PROJECT MINOR CHANGE IN SCOPE/MINOR AMMENDMENTS					
	Results framework					
	Components and cost					
	Institutional and implementation arrangements					
	Financial management					
٧	Implementation schedule					
	Executing Entity					
	Executing Entity Category					
	Minor project objective change					
	Safeguards					
	Risk analysis					
	Increase of GEF project financing up to 5%					
	Co-financing					
	Location of project activity					
	Other					

Delays were faced due to COVID-19 and the HTHH volcanic events, so on 10 March 2022, the Government of Tonga requested for an extension of the project closing date to 31 December 2023. All cofinanciers agreed and ADB provided its approval on 29 March 2022.



FOR SCCF/LDCF INDICATORS: NA

Total Number of Beneficiaries	
Ha of land better managed to withstand the effects of climate change	
No. of risk and vulnerability assessments, and other relevant scientific and	
technical assessments carried out and updated	
No. of people trained to identify, prioritize, implement, monitor and/or	
evaluate adaptation strategies and measures	
No. of regional, national and sub-national institutions with strengthened	
capacities to identify, prioritize, implement, monitor and/or evaluate	
adaptation strategies and	
measures	
Contribute towards public awareness of climate change impacts,	
vulnerability and adaption (Tick if relevant)	
Expand access to improved climate information services (Tick if relevant)	
Expand access to improved climate related early-warning information (Tick	
if relevant)	
No. of regional, national and sector-wide policies, plans and processes	
developed or strengthened to identify, prioritize and integrate adaptation	
strategies and measures	
No. of sub-national plans and processes developed or strengthened to	
identify, prioritize and integrate adaptation strategies and measures	



II. Project Profile

II. Projec	t Profil	e	
	1	GEF ID	9355
1. General Information	2	Focal Area(s)	Energy
	3	Region	Pacific
	4	Country	Tonga
	5	GEF Project Title	Outer Island Renewable Energy Project
	6	Project Size (FSP; MSP)	FSP
	7	Trust Fund (GEFTF; SCCF; LDCF)	GEFTF
	8	GEF CEO Endorsement Date (mm/dd/yy)	09/11/17
	9	ADB Approval Date if the GEF Fund (mm/dd/yy) 07/31/18	
	10	GEF Grant Signing of the GEF Fund (mm/dd/yy)	08/08/18
	11	Implementation Start Date of the Project and of the GEF Component (mm/dd/yy)	09/20/18
2. Milestone Dates	12	Date of 1st GEF Grant Disbursement (mm/dd/yy)	07/01/19
	13	Final date of GEF Grant Disbursement (mm/dd/yy)	Ongoing
	14	Proposed/Revised Implementation End (mm/dd/yy)	Ongoing
	15	Actual Implementation End (mm/dd/yy)	Ongoing
	16	Expected Financial Closure Date (mm/dd/yy)	04/30/24
	17	Actual Financial Closure Date (mm/dd/yy	Ongoing
	18	PPG/PDF Funding (USD)	N/A
	19	GEF Grant (USD)	2,639,269.00
3. Funding	20	Total GEF Fund Disbursement as of 30 June 2022(USD)	2,627,856.07
5. Fulluling	21	Confirmed Co-Finance at CEO Endorsement (USD)	25,070,731.00
	21	Materialized Co-Finance at project mid-term (USD)	27,236,840.37
	22	Materialized Co-Finance at project completion (USD)	N/A
	23	Proposed Mid-term date (mm/dd/yy)	N/A
	24	Actual Mid-Term date - if applicable (mm/dd/yy)	18-23May15, 6-10Feb17, 24-28Sep18 & 24- 30Mar21
4. Evaluations	25	Proposed Terminal Evaluation date (mm/dd/yy)	12/31/23
	26	Actual Terminal Evaluation Date (mm/dd/yy)	N/A
	27	Tracking Tools Required (Yes/No/ Focal Area TT)	N/A
	28	Tracking Tools Date - if applicable (mm/dd/yy)	N/A
		Midterm Tracking Tool Terminal Evaluation Tracking Tool	
		. C	



III. Project Implementation

A. Project Description:

On 27 June 2013, ADB approved the original project comprising a grant of \$2.00 million from ADB's Special Funds resources (grant no. 0347) and the administration of a Government of Australia (GOA) grant cofinancing of \$4.50 million (grant no. 0348). Both grants were declared effective on 9 June 2014. On 20 October 2015, ADB approved a first additional financing comprising a grant of \$1.44 million from ADB's Special Funds resources (grant no. 0444) and the administration of a European Union (EU) grant of \$3.57 million (grant no. 0445) and a Second Danish Cooperation Fund for Renewable Energy and Energy Efficiency for Rural Areas (SDCF) grant of \$0.75 million (grant no. 0446), as additional cofinancing for the original project. The 3 grants became effective on 13 November 2015. On 14 December 2016, ADB approved a second additional financing of a loan of \$2.50 million (loan no. 3509) and a grant of \$2.50 million (grant no. 0528), from ADB's Special Funds resources. The loan and grant were declared effective on 28 March 2017. On 31 July 2018, ADB approved a third additional financing comprising a grant of \$5.50 million from ADB's Special Funds resources (grant no. 0586) and the administration of a Global Environment Facility (GEF) grant not exceeding \$2.64 million (grant no. 0587) and a GOA grant of \$0.74 million (grant no. 0588) as additional cofinancing for the original project. The 3 grants were declared effective on 20 September 2018. On 1 December 2020, ADB approved a fourth additional financing comprising the administration of a GOA grant of \$1.91 million (grant no. 0768) as additional cofinancing for the original project. The grant was declared effective on 16 December 2020.

Grants 0445 (EU) and 0446 (SDCF) were financially closed on 10 December 2020, while Grants 0444 and 0528 (ADB) were financial closed on 8 March 2021. GOA Grants 0348, 0588 and 0768 will close on 31 October 2023. Grants 0347 and 0586 and Loan 3509 (ADB), along with Grant 0587 (GEF) will close on 31 December 2023.

The impact of the project is the reduction of Tonga's dependence on imported fossil fuel for power generation and the outcome of the project is the provision of on-grid and off-grid solar power generation at a reduced cost. The project has 3 major outputs: (i) construct and install solar power systems with a total capacity of 1.32 megawatt-peak (MWp) on 9 outer islands of Tonga and rehabilitate the existing electricity distribution network on the islands of Vava'u and 'Eua; (ii) operations and maintenance knowledge transferred through training; and (iii) project implemented and managed efficiently.

The Ministry of Finance (MOF) is the executing agency and is responsible for the overall implementation of the project. MEIDECC and TPL are the implementing agencies. Through the project management unit (PMU), MEIDECC is responsible for the overall implementation of the project, including day-to-day project activities, project administration, preparation of grant/loan withdrawal applications, and maintenance of records.

B. Implementation Progress (IP) Rating:

As of 30 June 2022, the overall project was rated 'on track' in ADB's project performance monitoring system. Of the overall \$28.08 million project, \$25.36 million comprising 85 contracts have been awarded, of which \$21.84 million has been disbursed. Of the 85 contracts that have already been awarded: (i) 57 contracts totaling \$14.39 million have already been closed; and (ii) 28 contracts totaling \$10.98 million are ongoing.

Under Output 1 of the project, there are 4 phases:

(a) Phase 1 funded by Grants 0347/0348:



- (i) installation and connection of new solar photovoltaic generators to the existing TPL-owned/managed generation plants in 'Eua and Ha'apai completed; and
- (ii) repair of the supervisory control and data acquisition program in Vava'u completed.

(b) Phase 2 funded by Grants 0347/0348/0768:

- (i) installation of a new solar system for the Health Clinic in Niuafo'ou, and installation of batteries across 130 solar home systems in Niuafo'ou completed;
- (ii) installation and connection of new solar photovoltaic generators to the existing community-owned/managed generation plants in Niuatoputapu and 4 Ha'apai outer islands revised completion date is 31 December 2022;
- (iii) international project management consultant firm that is facilitating project management and implementation, as well as strengthening operational capacity of the EA/IAs work is ongoing and revised completion date is 31 October 2023; and
- (iv) institutional setup activities in Niuatoputapu and 4 Ha'apai outer islands by MEIDECC with the reopening of the local borders, these activities have resumed and will be completed by 31 December 2023

(c) Phase 3 funded by Grants 0444/0445/0528/0768 and Loan 3509:

- (i) rehabilitation of 100% of the 'Eua grid network completed; and
- (ii) rehabilitation of the Vava'u grid network with the reopening of local borders in May 2022, materials and equipment have been shipped to Vava'u and all works will be completed by 30 June 2023.
- (d) Phase 4 funded by Grants 0586/0587: upgrading of existing service lines and mini-grids on 4 Ha'apai outer islands and construction of new service lines and a mini-grid in Niuatoputapu with the reopening of local borders in May 2022, the first shipment to Niuatoputapu departed Tongatapu in June 2022, so the revised completion date for all works is 30 June 2023.
- (e) Contracts for 4 PMU consultants funded by Grants 0446/0588/0768: contracts for the (i) project manager; (ii) project accountant; (iii) project safeguards specialist; and (iv) operations and maintenance specialist – revised completion date is 31 October 2023 and funding for the 2 months, to the overall project closing date of 31 December 2023, will be from ADB TA6765-REG.

Under Output 2, a manual for solar electric equipment has been completed. The transfer of operations and maintenance (O&M) knowledge through training will form part of the MEIDECC-TPL contract for the O&M work of the Phase 2 and 4 assets, which will be handled by the O&M consultant, after the commissioning of these assets by June 2023. The O&M consultant is required to produce 8 reports and has completed the (i) Status and Assessment Report; (ii) Interim Report; and (iii) draft of the Final Report (design and performance-based contract), where consultations are continuing. The (i) Final Report (design and performance-based contract); (ii) Final Performance-based Contract; and the (iii) Implementation Report are being prepared and will be completed by 31 October 2023. The last 2 Reports (iv) Stakeholders Report; and (v) Training Report will be completed after the commissioning of the Phase 2 and 4 assets by 31 December 2023.

Under Output 3, a project management consultant firm, continues to support the PMU with supervising the Phase 2 work. The PMU, which was established in MEIDECC in 2016, comprises a project manager, a project accountant, a safeguards specialist, and the O&M consultant. A case of suspected fraud, against the previous project manager, was submitted to ADB's Office of Anticorruption and Integrity (OAI) in March 2021 and investigations are ongoing. The annual audit reports bi-annual safeguards reports are up-to-date but only the project quarterly progress reports are outstanding and will be submitted in Q3 2022.

a. GEF Grant Disbursement

Delays were faced during the initial procurement processes, due to supply chain difficulties during COVID-19, lockdowns in Tonga when COVID-19 breached the borders in 2020 and when the first



community cases were recorded in February 2022, and when the contractors contracted COVID-19 in March 2022. Local travel restrictions were lifted in May 2022, which is when the contractors mobilized back to the outer islands. The shipment of the remaining materials and equipment to the outer islands commenced in June 2022 and their payment will be made in the next reporting period. As the work on Niuatoputapu has also resumed, to be followed by the work on the 4 Ha'apai outer islands, more disbursements will follow in the next reporting periods.

b. Stakeholders Engagement

Due to COVID-19 local travel restrictions in Tonga, stakeholder engagements were affected but these resumed when the restrictions were lifted in May 2022.

A grievance redress mechanism (GRM) is in place which sets out the process for resolving concerns or complaints and provides guidance on how communities and other stakeholders can file complaints.

Also due to the COVID-19 lockdowns, the project steering committee meetings could only be held as needed and were chaired by the Minister of MEIDECC, co-chaired by CEO of MEIDECC, with members including CEOs of Ministry of Finance, Ministry of Public Enterprise, TPL; Director Energy of MEIDECC; Project Manager, PMU in MEIDECC. Observers are ADB, Government of Australia and the European Union.

c. Gender Action Plan Implementation Status

The monitoring of the GAP continues and during the 19-31 May 2022 Review Mission, the number of targets and activities in the GAP were revisited and these totaled 18 and 10, respectively. As of 30 June 2022, of the 18 targets in the GAP, 22% have already been achieved and 78% are on track to be achieved. Of the 10 activities, 50% have already been achieved and 50% are on track to be achieved.

Due to COVID-19 local travel restrictions in Tonga, gender training were affected but these resumed when the restrictions were lifted in May 2022.

Under Output 1, 1 target have already been achieved, 6 targets are on track to be achieved and 2 activities are on track to be achieved.

Under Output 2, 1 target has already been achieved and 5 targets are on track to be achieved. Under Output 3, 2 targets have already been achieved, 1 target is on track to be achieved, 4 activities have already been achieved and 1 activity is on track to be achieved.

Under Output 4, 1 target has already been achieved, 2 targets are on track to be achieved, and 2 activities are on track to be achieved.

Under Output 1, Target 5 is to provide services and meters to at least 20% of female-headed households (FHH). There was no record of the number of FHHs in the population census or with TPL, so the MEIDECC Team worked with the Town Officers to collect this information – 156 in the Ha'apai Group and 51 in the Niuatoputapu Group.

d. Social and Environmental Safeguard Plan Implementation Status

Due to COVID-19 local travel restrictions in Tonga, the monitoring of the environmental and social safeguards requirements was affected but these resumed after the restrictions were lifted in May 2022. During the 19-31 May 2022 Virtual Review Mission, ADB was updated that there are no unresolved safeguards issues and that the Grievance Redress Mechanism is working well. Only the safeguards monitoring report for July-December 2021 is available on ADB's website: Environmental and Social Monitoring Report July-December 2021 - Outer Island Renewable Energy Project: Environmental and Social Monitoring Report (July-December 2021) | Asian Development Bank (adb.org)

There are 5 safeguards covenants, of which 2 are not applicable (involuntary resettlement and indigenous peoples) and 3 are being complied with (safeguards-related provisions in the bidding documents and civil works contracts; safeguards monitoring and reporting; and prohibited list of investments).



C. Global Environmental Benefits (GEB) Objective/ Development Objective (DO) Rating:

The project is expected to achieve all its major global environmental objectives and yield substantial global environmental benefits, without major shortcomings. The project is on track to complete the construction and installation of solar power systems with a total capacity of 1.32 MWp on 9 outer islands in Tonga and to complete the rehabilitation of 100% of the electricity distribution network on the islands of 'Eua and Vava'u, by the overall project closing date of 31 December 2023. This will result in 2,310 tons of carbon dioxide emissions being avoided, on an annual basis.

D. Risk Rating:

Despite the delays faced due to the COVID-19 and HTHH volcanic events, the remaining works under Phases 2-4 will be completed by the overall project closing date of 31 December 2023.

E. Overall Rating of the Project:

Overall Rating: On track to achieve the project outputs.

F. Additional Comments – Good Practices And Lessons Learned:

Tonga closed its borders to international travel in March 2020 and no in-country Review Missions could be carried out by ADB, so regular virtual meetings were held with the PMU in MEIDECC and a virtual review Mission was conducted in May 2022.

G. Knowledge activities / products:

1. How ADB is Driving Gender Equality in Tonga's Energy Sector | Asian Development Bank

H. Location Data:

- 1. Phase 1 Lifuka, Ha'apai solar plant 19.81451. -174.35045.
- 2. Phase 1 'Eua solar plant 21.34908 174.95356.
- 3. Phase 1 Vava'u existing solar plant SCADA upgrade -18.64473. -173.97474.
- 4. Phase 2 Nomuka, Ha'apai solar plant 20.25641. -174.79703.
- 5. Phase 2 Ha'afeva, Ha'apai solar plant 19.94913. -174.70928.
- 6. Phase 2 'Uiha, Ha'apai solar plant 19.89632. -174.40512.
- 7. Phase 2 Ha'ano, Ha'apai solar plant 19.67435. -174.28358.
- 8. Phase 2 Niuatoputapu solar plant 15.95669. -173.79001.
- 9. Phase 3 'Eua electrical network rehabilitation 21.37439. -174.95384.
- 10. Phase 3 Vava'u electrical network rehabilitation 18.64796. -173.98027.
- 11. Phase 4 Nomuka, Ha'apai electrical network rehabilitation 20.25885. -174.79735.
- 12. Phase 4 Ha'afeva, Ha'apai electrical network rehabilitation 19.94716. -174.70850.
- 13. Phase 4 'Uiha, Ha'apai electrical network rehabilitation 19.89040. -174.40766.
- 14. Phase 4 Ha'ano, Ha'apai electrical network rehabilitation 19.66159. -174.29226.
- 15. Phase 4 Niuatoputapu new electrical network 15.95400. -173.79480.

Signature:

Name of Project Officer: Grace King

Position: Senior Project Officer
Date: 25 August 2022

Endorsed by: James Webb

Officer-in-Charge



ANNEX B. Project Contacts

ADB Project Officer: Ms. Grace King
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Name and Agency: Chief Executive Officer

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