

Te Tarai Vaka Activity Progress Report: ADB Loan 3193/Grant 0415-COO Renewable Energy Sector Project

Summary

Activity information

Activity Title	Cook Islands Renewable Energy Sector Project
Goal	Increased energy security in an environmentally sustainable manner.
Intended outcomes	The outcome will be increased access to a higher share of electricity generated by renewable energy sources.

Funding information

Start and end dates	9 February 2015 – 31 December 2017
Total cost	NZD33.22 million* Note that all reported costs will be in NZD
Reporting period	1 January – 31 March 2016

* conversion rate (19/6/2015)

Progress report preparation

Prepared by	Entura Team
Others involved or consulted during this reporting period	REDD staff, MFEM,DCD staff, ADB, Steering Group, Outer Islands Mayors, Councils Members, Aronga Mana, land owners and various stakeholders, TAU staff and Board of Directors, Environment Service, Ministry of Justice, CIIC Staff and Board of Directors, Audit Office, Crown Law. Ged McCombie, Willis New Zealand (Government Insurers), Woo Lee, ADB Energy Specialist Deputy Director General Jim Lynch and ADB officer, S. Beatrice Olsson
Date of report	Mid-April 2016

Key Conclusions and Necessary Actions

This third Progress Report has been prepared by Entura, Project Owners Engineers, (POE) in cooperation with the Cook Islands Government (CIG), Project Management Unit (PMU), Project Steering Group (PSG) for the ADB funded Loan 3193/Grant 0415-COO Renewable Energy Sector Project. The Progress Report provides an update to the ADB and all relevant stakeholders on project progress between 1 January (commencement of reporting period) and 31st March 2016 (end of reporting period).

Activities undertaken in the reporting period focused on finalising Invitation for Bid Phase 1 turnkey package, registration of bidders, organising site visit for bidders and providing clarifications during the bid period. Bid Opening for Phase 1 turnkey package was held on the 18th March 2016. Discussions were also held on the draft GEF scoping report with the commencement of the due diligence report during this quarter. As well, comments and feedback on the CIRECIP have been ongoing. REDD Director visited Aitutaki with ADB officials and discussed with the Island Council and Aitutaki Power Supply the Phase 2 project which is expected to be available for presentation and confirmation early in the next quarter.

Review of Progress to Date

A. Project Implementation

1. Administration

The POE works directly with the Implementing Agency, REDD, and during this reporting period the POE team used the REDD office intermittently. POE provided two specialists in March, a Procurement Specialist attending and supporting the Bid Opening and reporting requirements for the Phase 1 turnkey package held on the 18th March and a Distribution Specialist, who visited Mitiaro and Mauke, from the 17th – 24th March. Other international staff were working from their home offices.

The PMU is now staffed by the Project Manager and PEC fund Coordinator who are taking on the major responsibility for the project with oversight by the REDD Director in close consultation with the POE. The Finance Specialist position was not filled and MFEM is providing finance services to the PMU.

The PMU team visited Kobe, Japan to inspect the PEC solar panels prior to the first shipment – the visit was well received and the contractor confirmed the first shipment was already on its way. The total shipment was expected to be received by early April.

2. Procurement.

It was agreed and confirmed by ADB that National Competitive Bidding (NCB) modality would be used for Phase 1 civil works contract. To ensure consistent contractual arrangements with phase 1 turnkey package ADB document template was recommended.

Aitutaki Feasibility Study commenced this period and is due for presentation and confirmation by the Island Council in early April. CIG is expected to then sign off with the bid package ready for ADB review by the end of May and advertised by June with contract award by October. POE has recommended that there should be one NCB turnkey package that will include electrical installation and civil works of 1MWp solar array with a total value of US1.5 – 2m. This will be reviewed after the team visit to Aitutaki in April. There will be a separate tender package for the diesel equipment supply.

The scope of the Rarotonga subproject is yet to be firmed up. The remaining ADB funds will provide the available budget for the Rarotonga project which can only be confirmed after completion of Phase 1 projects and the final cost of Phase 2, Aitutaki. It has been suggested that consideration might be given to include these funds, given they may be less than \$1m, with the GEF project.

3. Financial disbursements.

The financial disbursements recorded during the period of this report are as follows:

- Under Loan 3193-COO reference WA004 Enutra
 - Not applicable till next quarter
- Under the Loan 3193-COO reference
 - Project Manager position PMU costs \$33,000
 - Finance Manager Office Operations cost \$434 for the purchase of a Financial accounting system
- Local Budget Contribution
 - No payments processed
- PECF – Under the Grant funds Not applicable till next quarter – 70% payment, this includes the 10% bank guarantee from the Supplier.

4. Field work.

Field investigations during this period included

- Land valuation reports were completed for Atiu, Mauke and Mitiaro. No valuation report is required for Mangaia.
- Report from electrical inspector for house wiring requirements on Atiu, Mauke and Mitiaro completed
- Entura distribution engineer arrived on Rarotonga Friday 18th March and completed initial household and distribution upgrade assessment for Mitiaro and Mauke. He met with PMU for briefing and finalising scope of the Distribution and Upgrade report and to confirm where the project stops, at the pillar box or up to the power points/switches like in the Northern Group. He was accompanied by an Energy Division Inspector. Report is due by end of April and an update from CI Inspector will be included.
- Environmental Technical Reports have been completed and confirmation of these reports with the Island Councils commenced late March by the Environment Specialist.
- Geotech Reports have been completed for each of the islands and the Summary Report from the Geotechnician suggests that extensive site work is necessary for Mitiaro and Mauke as expected.
- Site Clearance plans have been agreed and confirmed with the Executive Officer on Atiu, Mauke, Mangaia and Mitiaro however Island Council elections as well as delays in confirming land agreements has further delayed commencement of any work in this area.
- REDD Director visited Aitutaki to discuss Phase 2 project.
- PEC PV Storage Site confirmed with landowners for rental. First lot containers arrived early in 16th March with second lot arriving in April.

5. Safeguards and monitoring

- Environment.** The Environment Technical Reports have been submitted to Environment Service by the Environment Specialist has commenced consultations with Island Councils. He met with Mauke land Council in the last week of March and will continue to meet with Islands Councils on Atiu, Mitiaro and Mangaia to complete consultations by mid April. Reports are expected to be confirmed by each of the Island Councils during these discussions.
- Land Acquisition/Resettlement Plan.** Mauke and Atiu applications are awaiting Land Court Approvals Tribunal (LAT) sitting which is expected in early April 2016. Mitiaro Ariki has drafted a new land agreement that CIG raised concerns and an appropriate agreement is pending. Mangaia and Mitiaro land agreements will be translated and PMU are awaiting receipt of signed copies of the these land agreements.

The Due Diligence / Social Compliance Report (DDR) for the proposed Phase 2 GEF-funded subproject on the island of Rarotonga and the proposed Phase 2 project on Aitutaki have been completed. The original project Resettlement Plan (RP) covers Phase 1 subprojects on the islands of Atiu, Mitiaro, Mauke, and Mangaia.

6. ADB Turnkey Tender Packaging.

The Phase 1 Package 1 a single ICB turnkey (1S1E) that included design, supervision, electrical procurement and commissioning of solar plants for the four entire islands was published on Friday 22nd January on the ADB website. There were 79 registered bidders and 102 questions were received and 10 clarifications (covering all questions) were sent to the registered bidders. Eight (8) registered bidders confirmed their interest in the charter flight site visit to Mauke, Mitiaro, Atiu and Mangaia from 9th - 11th February with the pre-site meeting held on 8th February. Tender Bid Opening was held on Friday 18th March 2016 at 12pm. Representatives from OPM, PMU, MFEM, REDD, Audit,

Police, Entura, MFEM, DCD, NZHC, Legal advisor and some members of the public were in attendance. Also members and representatives from all bidding companies were present. A total of 7 registered bidders submitted tenders ranging from the lowest bid NZD5,298,612.65 and the highest bid NZD26,283,805.90. The Evaluation Report is expected to be submitted by end of April.

7. Cook Islands Renewable Energy Chart Implementation Plan (CIRECIP)

CIRECIP Plan for feedback has been ongoing during this reporting period. POE identified milestones to be achieved under the CIRECIP and TAU will include a proposed implementation plan to 2020 so that it can be aligned with the CIRECIP milestones. NZHC will receive a copy of the CIRECIP and will provide feedback. Further work is required in this area including feedback from outer islands. ADB requires CIG Cabinet endorsement after wider consultation within a 2 week period from the end of March.

Progress against Results Measurement Table

Finalisation of a Results Measurement Table is identified as an action for further discussion at PSG meetings.

Changes to Activity Context in the Reporting Period

The ADB Mission in November discussed the proposed change order for the contract with the POE due to the expected incremental scope associated with (i) site preparation specification, (ii) PEC solar panel procurement, (iii) due diligence for the GEF grant, and (iv) rehabilitation of the distribution network. CIG and POE have revised the contract variation offer based on comments from ADB and submitted to ADB for clearance at the end of December after clearance from the Procurement Steering Group. ADB issued a no-objection to this variation, and the variation has now been executed.

Relationship between Implementing Agencies, Beneficiaries and Other Stakeholders

Pacific Environmental Community (PEC) Procurement

The first shipment of solar panels manufactured by Shinyo Koeki Co. Ltd and Mitsubishi Electric Asia Pte Ltd were received on the 16th March 2016. The panels will be part of the free issue for the Phase 1 turnkey project, as well as a 1 MWp installation for Aitutaki and the remainder approx. 1.3 MWp for Rarotonga to be installed by TAU. The Rarotonga PEC panel installation plan is due in April and will include government roof space and other potential sites.

Seventeen (17) expressions of interest (EOI) were received for the storage of the PEC panels in February. The EOI list was reduced to nine (9) with the primary location criteria, within 500m from Avatiu harbour, being applied. The PMU has identified the most suitable site and a rental agreement for use of site for PEC panel storage was signed on the 24th March 2016. A variation with the POE was signed to cover assistance with the PEC procurement process.

Cofinancing from GEF

GEF due diligence has received major inputs during this reporting period. Battery energy storage system at Airport is the major component of the GEF project with the battery containers to be located within the fenced boundary on the northern side. This location provides the least amount of shading issues for the PV array with further modelling required. Critical for the GEF funding is the

need for the due diligence report to be completed by mid April and confirmed during the April ADB Review Mission. A draft has been provided to PMU, ADB and REDD for comment.

The following proposed additional financing and processing milestones have been updated and will be confirmed during the April ADB Review Mission.

Table 2: Indicative Additional Financing Processing Schedule/Milestones

Milestone	Expected Completion Date
Due diligence	Nov 2015–April 2016
Co-financing fact-finding mission	April 2016
Submission of the CEO’s endorsement to GEF	April 2016
GEF CEO’s endorsement	May 2016
Grant negotiations	May/Jun 2016
ADB’s Board consideration	Aug 2016
Grant signing	Aug 2016
Grant effectiveness	Sep 2016

Updates to Key TTV Activity Management Documents

The Activity Results Framework is replaced with the Indicative Implementation Plan for this section.

The updated Indicative Implementation Plan for the next 18 months is provided in the Table below. **The Table** includes key deliverables due during the next reporting period (highlighted) with the activities above having been completed during this reporting period.

Table 3: Indicative Project Implementation Action Plan for the Next 18 Months

Activity	Responsibility	Target Date/Completed
Completed		
Advertise Phase 1 contract	PMU	Jan 2016
Engagement of Finance Resource	MFEM/ADB/PMU	Mar 2016
Confirm GEF scope	MFEM/ADB	Jan 2016
3 rd quarterly progress report	Entura/MFEM	Jan 2016
Approval of NCB method for civil works by ADB	ADB/Entura/MFEM/PMU	Jan 2016
Landowner Agreements confirmed	REDD/CIIC/Entura	Jan 2016
PEC Storage Confirmed	PMU	Jan2016
Site Visit for Tenderers Package 1	PMU/Entura	Jan 2016
PEC Contract Milestone 2 Payment	PMU/REDD/MFEM	Feb 2016
PEC Factory Inspection Kyoto and Kobe Port	REDD	Jan 2016
PEC Delivery Milestone 3	REDD/PMU	Mar/Apr 2016
Draft Due diligence for GEF scope	Entura	Mar 2016
Draft Due diligence for Aitutaki project	Entura	Mar/Apr 2016
Q 2 2016 Next reporting period		
ADB Review Mission	ADB/Entura	Apr 2016

Activity	Responsibility	Target Date/Completed
Presentation of Phase 2 project	PMU/Aitutaki Island Council, REDD, Entura	Apr 2016
Firming up and stakeholder consultation of CIRECIP	Entura/PMU/REDD	Apr 2016
Procurement Plan Distribution Upgrade	Entura	Apr 2016
Network upgrade Design Mauke and Mitiaro	PMU Entura	Apr 2016
Land Agreements for Mitiaro, Mangaia	PMU/CIIC	Apr 2016
Land Court confirmation for Mauke, Atiu	PMU/CIIC	Apr 2016
Site Clearance Plans for each island	REDD/PMU/ENTURA	Apr/May 2016
Submission of BER: Package I	PMU/Entura	Apr/May 2016
GEF Mission	PMU/Entura/TAU	May 2016
Approval of BER: Package I	MFEM/ADB	May 2016
Contract Award: Package I	PMU/Entura	May 2016
Submission for GEF's CEO Endorsement	ADB/MFEM	May 2016
Feasibility study for Phase 2*	PMU/Entura	Apr 2016
Power distribution network – bidding documents	PMU/ENTURA	Jun 2016
Rarotonga project	PMU/Entura	
Submission of draft BD for turnkey package (Phase 2) Aitutaki	PMU/Entura	May/Jun 2016

Subsequent Activities

Advertisement of NCB civil works bidding documents for Phase 1	PMU/Entura/ADB	Jul/Aug 2016
Submission of BER for NCB civil works bidding documents for Phase 1	PMU/Entura	Oct 2016
Contract Award of NCB civil works bidding documents for Phase 1	PMU/Entura	Nov 2016
Submission of NCB civil works bidding documents for Phase 2*	PMU/Entura	Dec 2016
Advertisement of NCB civil works bidding documents for Phase 2*	PMU/Entura	Dec 2016
Submission of BER for NCB civil works bidding documents for Phase 2*	PMU/Entura	Mar 2017
Contract Award of NCB civil works bidding documents for Phase 2*	PMU/Entura	Mar/Apr 2017

* Currently Aitutaki only

Costed workplan

There is currently no detailed costed workplan. This will be completed this quarter under the guidance of the Treasury department.

The following expenditures are planned in the subsequent period.

- POE invoice milestone 2 (15%): NZD198,386.85
 - *Milestone 2 deliverables: Developing energy efficiency policy implementation plan; Tariff and subsidy recommendations; electricity load demand up to 2020.*

- POE invoice milestone 4 (10%): NZD132257.90
 - *Schedule task 9 – review point with PMU, Tender documents for Phase 1 projects of Mauke, Mangaia, Mitiaro and Atiu approved for issue.*
- POE invoice for PEC variation: NZD 38,800
- PMU staffing commencement: NZD50,000
- PEC Coordinator: NZD45,000
- Land: NZD79,7805
- PEC modules: USD3,350,000
- PEC insurance and storage: USD150,000

Risk management

Key risks identified for the project, including current actions, are identified in Appendix C.

Governance and management arrangements

As the PMU is fully staffed it was confirmed that PSG meetings would be held fortnightly. The members of the PSG were confirmed as Chair, Elizabeth Wright-Koteka (OPM), Tangi Tereapii (REDD), Joseph Mayhew (NZHC), Garth Henderson (MFEM), Apii Timoti (TAU), Andreas Demmke (DCD), Tamarii Tutangata (CIIC) and Romani Katoa (PMU) .The PMU provides secretariat services for the PSG.

Authorisation

I declare that the information contained in this report is true and correct and confirm:

- Funds were received and used only for the agreed purpose(s); and
- All conditions attached to Funding have been met; and
- Funds have been fully utilised for the intended purpose

Full Name (in block capitals)

Title / Position

Signature

Date

Appendices

This report includes the following appendices:

- Appendix A: Progress Against Agreed Workplan and Budget (table)
- Appendix B: Progress against Results Framework (table)
- Appendix C: Risk matrix (table)
- Appendix D: Project specific covenants - as displayed in legal agreements (table)

Appendix A: Progress Against the Agreed Workplan and Budget

Output	Planned Expenditure	Actual Expenditure	Variance	Reason for Variance
Output 0. Non-output specific costs / Management costs	462,902	462,902	0	
Output 1. Three core subprojects on Mangaia, Mauke, and Mitiaro islands				
1.1 Bidding for single turnkey contract completed (Q1 2016)				
1.2 Turnkey contractor award (by Q2 2016)				
1.3 Commencement of construction (by Q3 2016)				
1.4 Systems commissioning including test run. (by Q2 2016)				
1.5 O&M training by turnkey contractor complete (by Q 2 2017)				
Output 2. Three non-core subprojects on Atui, Aitutaki, and Rarotonga				
2.1 Feasibility studies completed. (by Q2 2016)				
2.2 Bidding for two turnkey contracts completed (by Q3 2016)				
2.3 Turnkey contractor award (by Q 4 2016)				
2.4 Start of Construction (by Q3 2016)				
2.5 Systems commissioning including test run. (by Q3 2017)				
2.6 O&M training by turnkey contractor complete (by Q4 2017)				
Output 3 Institutional strengthening and project management support				
3.1 Selection of consultant and contract award (by Q3 2015)				
3.2 Complete capacity development for project management (by Q2 2017)				
3.3 Updating CIRECIP complete (Q3 2016)				
3.4 Implementation of the environment and social safeguard actions (2014-2017)				
TOTALS				

Appendix B: Progress Against Results Framework

This table shows progress of the Activity against the intended outcomes and outputs defined in the (draft) Results Framework and the Project Administration Manual (PAM). Note that this framework still requires finalisation with the Steering Group Committee.

Note: Planned and actual indicators and targets should be sex-disaggregated where possible.

<i>From agreed Results Measurement Table in the Activity Design Document</i>				<i>Data up to and including this reporting period</i>	
Outcomes and outputs	Planned indicators	Planned targets	Planned methodology and data sources	Actual measurement against targets (using indicators)	Actual methodology and data sources
Impact Increased energy security in an environmentally sustainable manner	100% of islands convert energy system from diesel fuel to renewable energy source. (baseline: 0% in 2012)	By 2020	Government Statistics	6 of 15 islands commissioned with renewable energy generation systems	Project completion reports held by REDD
Medium-term outcome Increased access to a higher share of electricity generated by renewable energy sources	Four islands in the Southern group fully convert energy system from diesel fuel to renewable energy. (base line:0% in 2012)	By end of 2018	Government statistics Project Completion Report		
Short-term outcome					
Output 1. Solar photovoltaic power system for three core subprojects developed on Mangaia, Mauke, and Mitiaro islands.	Solar photovoltaic power system of core subprojects (with 780 kW installed capacity) connected to the existing power grid on Mangaia, Mauke, and Mitiaro islands. (baseline: 0% in 2012)	By the end of 2017	Project Progress Reports Project Completion Report		
Output 2. Solar photovoltaic power system for three non-core subprojects developed on	Solar photovoltaic power system of non-core subprojects (2400kW) connected to the existing power grid on Aitu, Aitutaki, and Rarotonga islands. (baseline 0% in	By end-2017	Project Progress Reports Project Completion Report		

Aitu, Aitutaki, and Rarotonga.	2012)				
Output 3. Institutional and project management capacity strengthened.	<p>Energy efficiency policy implementation plan is developed (2012 baseline 0%)</p> <p>Capacity of OEC and REDD (10 staff in total) for renewable energy technology assessments and tariff setting in private sector-funded developed (2012 baseline: 0%)</p> <p>The updated CIRECIP which incorporates load demand update, viable renewable technology choice, and least-cost investment plan, developed. (2012 baseline: 0%)</p> <p>Project management support for REDD and TAU to implement core and non-core subprojects (6 in total) completed (2012 baseline: 0%</p>	By end-2017	<p>Project Progress Reports</p> <p>Project Completion Report</p>		

Appendix C: Project Risk Table

ID	Discipline	Category	Risk description	Prior to implementing mitigating actions			Mitigation	After mitigating actions implemented			Risk Status	Risk Trend	Review Date
				Likelihood	Consequence	Risk ranking		Likelihood	Consequence	Risk Ranking			
1	Project management	Human resources management	PMU Recruitment not commenced on time and delays implementation or reduces effectiveness	C. Possible	3. Moderate	M	Early completion of recruitment process by Tender Evaluation Committee and and contract negotiation by OPM REDD and POE agrees to provide further support as necessary.	C. Possible	2. Minor	L	✓	↓	12/04/2016
2	Project management	Contract procurement management	Approval of PEC tender documents is delayed or insufficient capacity to finalise contracts.	C. Possible	2. Minor	L	Crown Law and Tender Committee gives priority to confirming PEC documents and evaluation. POE provides necessary capacity during contract negotiation	C. Possible	2. Minor	L	✓	↓	12/04/2016
3	Project management	Contract procurement management	Solar Modules insurance and storage delayed and delivery delayed.	C. Possible	3. Moderate	M	Contract negotiations include Government insurers and CIIC confirms storage prior to modules being shipped.	C. Possible	2. Minor	L	✓	↓	12/04/2016
4	Project management	Time management	Land payment confirmation report cannot be completed due to delays in land acquisition payments. Impact on preparation of site and civil works and turnkey contract timing (and liquidated damages) Specific issue at Mauke raises potential increase in risk.	C. Possible	4. Major	H	Emphasis on completing negotiations and discovery process asap. Travel to islands as required to facilitate.	C. Possible	4. Major	H	🌀	↑	12/04/2016
5	Project management	Time management	Atiu sub-project due diligence not approved in time for bidding documents	C. Possible	3. Moderate	M	Atiu feasibility progressing satisfactorily, hence risk reducing. Enable Atiu to be removed from bidding documents if necessary (tender separately) Accommodate small delays in issue of bidding documents (<1 month); taking into account safeguards may form critical path for construction.	D. Unlikely	2. Minor	L	✓	↓	12/04/2016
6	Engineering	Social and cultural	Island Project Site Preparation is delayed due to capacity on island	C. Possible	3. Moderate	M	PMU to oversee site preparation and engineering implementation plans. Include procurement of local civil engineer Island councils are consulted and understand requirements	C. Possible	3. Moderate	M	🌀	→	12/04/2016

ID	Discipline	Category	Risk description	Prior to implementing mitigating actions			Mitigation	After mitigating actions implemented			Risk Status	Risk Trend	Review Date
				Likelihood	Consequence	Risk ranking		Likelihood	Consequence	Risk Ranking			
7	Project management	Contract procurement management	Selection of ADB Works Procurement Packages for turnkey work - use of two envelope approach increases evaluation time and reduces technical flexibility to evaluate performance or compatibility preferences	C. Possible	3. Moderate	M	Risk acknowledged and incorporated into bidding documents and schedule to the extent possible. One envelop approach now being used	C. Possible	2. Minor	L	✓	↓	12/04/2016
8	Project management	Risk management	If selecting turnkey packages for individual islands: High premium paid for relatively low value individual ICT works contracts	C. Possible	4. Major	H	Steering Committee gives priority to managing the smaller ICT packages with POE and PMU/REDD. One turnkey package being used Possible likelihood of fewer funds for Phase 2.	C. Possible	2. Minor	L	✓	↓	12/04/2016
9	Project management	Risk management	Key equipment is incompatible if a turnkey tender is offered for each island	C. Possible	4. Major	H	Procurement of critical set of components such as batteries, battery inverters and controllers as a single lot, which would require them to be compatible. One turnkey package is being used	C. Possible	2. Minor	L	✓	↓	12/04/2016
10	Science	Political	Local contractors do not have sufficient opportunity to participate in works	C. Possible	3. Moderate	M	REDD undertake early discussions with private sector informing them of the proposed works contracts Chamber of Commerce is involved in supporting local contractors through the business mentor programme CITTI commences training programme prior to procurement packages being advertised. Skills set of local staff on each island to be provided to international bidders	C. Possible	3. Moderate	M	🌀	↓	12/04/2016
11	Project management	Contract procurement management	Scoping work for distribution rehabilitation not included in ICT process due to schedule constraints	C. Possible	2. Minor	L	Prepare alternative procurement structure for distribution works.	C. Possible	2. Minor	L	🌀	↓	12/04/2016

ID	Discipline	Category	Risk description	Prior to implementing mitigating actions			Mitigation	After mitigating actions implemented			Risk Status	Risk Trend	Review Date
				Likelihood	Consequence	Risk ranking		Likelihood	Consequence	Risk Ranking			
12	Project management	Contract/procurement management	Equipment performance testing is not possible as required if separate works and goods contracts are let	B. Likely	4. Major	E	Preference for Turnkey contract. If not turnkey, detailed contractual backing and conventional system specification is required. Detailed quality and workmanship auditing -for Works also required to ensure best practice is followed. Include time based warranties where possible. One turnkey package being used	C. Possible	2. Minor	L	🌀	↓	12/04/2016
13	Project management	Contract/procurement management	System performance and equipment integration is unlikely to be able to have a full market test of the least cost system configuration if separate goods and works contracts are let.	B. Likely	4. Major	E	Preference for Turnkey contract. POE will base equipment specifications on the latest understanding of the market and market test will occur within each equipment specification. Novate civil works contract under turnkey contract.	C. Possible	3. Moderate	M	🌀	↓	12/04/2016
14	Project management	Contract/procurement management	Compatibility of equipment may not be achievable if separate goods and works contracts are let	B. Likely	4. Major	E	Preference for Turnkey contract. POE will make every effort to provide full and complete specification. Consider plant contract to integrate diesel in powerhouse. One turnkey contract is now being used	C. Possible	2. Minor	L	🌀	→	12/04/2016
15	Engineering	Electrical - Primary	Connection of solar PV hybrid systems to remote grids has unforeseen technical difficulties	C. Possible	4. Major	H	Ensure grid assessment reviews the issues and risks and ensure contractual clauses in place for these eventualities in Turnkey contract.	C. Possible	3. Moderate	M	🌀	→	12/04/2016
16	Engineering	Renewable energy	Turnkey contractors designs, construction and commissioning have unforeseen difficulties on site	C. Possible	4. Major	H	Ensure sites assessment reviews the issues and risks and ensure contractual clauses in place for these eventualities in contract for Turnkey suppliers	C. Possible	3. Moderate	M	🌀	→	12/04/2016
17	Project management	Scope management	Environmental & Social Safeguards scope or site visits highlights significant issues arising or mitigation required.	C. Possible	3. Moderate	M	Ensure sites assessment reviews the issues and risks early, and mitigations are put in place through EMP.	C. Possible	3. Moderate	M	✓	→	12/04/2016
18	Technical	Environment	Environmental issues are not identified resulting in environmental impacts	D. Unlikely	4. Major	M	Use local expert support through the POE; follow NES and ADB requirements	D. Unlikely	2. Minor	M	✓	→	12/04/2016

ID	Discipline	Category	Risk description	Prior to implementing mitigating actions			Mitigation	After mitigating actions implemented			Risk Status	Risk Trend	Review Date
				Likelihood	Consequence	Risk ranking		Likelihood	Consequence	Risk Ranking			
19	Project management	Contract procurement management	REDD and TAU has sufficient capacity to implement and maintain the project.	C. Possible	3. Moderate	M	The government adopts policy actions recommended under the institutional strengthening and project management that will support the performance and service delivery of TAU and REDD.	D. Unlikely	3. Moderate	L	☺	↓	12/04/2016
20	Project management	Human resources management	To deliver project may require assistance from others outside of the project team that is not currently costed .	C. Possible	3. Moderate	M	PMU recruitment underway. Consideration and requests in-place for capacity support between government departments	D. Unlikely	2. Minor	L	☺	→	12/04/2016

KEY

Risk status (column L)

Symbol	Definition
✓	Satisfactory - everything necessary and possible is being done
☺	Some concerns - actions are in place but are not fully implemented or effective - close monitoring required
✗	Unsatisfactory - current actions are not sufficient, or actions still to be commenced - immediate attention required

KEY

Risk trend (column M)

Symbol	Definition
↓	Risk is likely to reduce
→	Risk is likely to remain the same
↑	Risk is likely to become moderately worse
↑	Risk is likely to become significantly worse

Appendix D: Project specific covenants - as displayed in legal agreements

Product	Schedule	Para No.	Description	Remarks/Issues	Type
Loan 3193	Article IV	1	(a) The Borrower shall cause the Project to be carried out with due diligence and efficiency and in conformity with sound applicable technical, financial, business, and development practices.	Being complied with.	Others
Loan 3193	Article IV	2	The Borrower shall make available, or cause to be made available, promptly as needed, and on terms and conditions acceptable to ADB, the funds, facilities, services, land and other resources, as required, in addition to the proceeds of the Loan, for the carrying out of the Project.	Being complied with.	Others
Loan 3193	5	2	The Borrower shall ensure, and shall cause the Implementing Agencies and other involved agencies to ensure, that the preparation, design, construction, implementation, operation and decommissioning of the Project, and that all Project facilities comply with (a) all applicable laws and regulations of the Borrower relating to environment; (b) the Environmental Safeguards as set out in the SPS; and (c) all measures and requirements set forth in the IEE, the EMP, the EARF, and any corrective or preventative actions (i) set forth in a Safeguards Monitoring Report, or (ii) as subsequently agreed among ADB, the Borrower, and the Implementing Agencies.	Being complied with.	Safeguards
Loan 3193	Article IV	3	The Borrower shall ensure that the activities of its departments and agencies with respect to the carrying out of the Project and operation of the Project facilities are conducted and coordinated in accordance with sound administrative policies and procedures.	Being complied with.	Others
Loan 3193	5	3	The Borrower shall ensure and cause the Implementing Agencies to ensure that all land and all rights-of-way required for the Project are made available to the Works contractors in a manner and within timeframes compliant with the RP, the RF and all land acquisition and resettlement activities are implemented in compliance with (a) all applicable laws and regulations of	Being complied with.	Safeguards

Product	Schedule	Para No.	Description	Remarks/Issues	Type
			the Borrower relating to land acquisition and involuntary resettlement; (b) the Involuntary Resettlement Safeguards; and (c) all measures and requirements set forth in the RP and the RF, and any corrective or preventative actions (i) set forth in the Safeguards Monitoring Report, or (ii) as subsequently agreed among ADB, the Borrower, and the Implementing Agencies.		
Loan 3193	5	4	Without limiting the application of the Involuntary Resettlement Safeguards or the RP, the Borrower shall ensure, or cause the Implementing Agencies to ensure, that no physical or economic displacement takes place until: (a) compensation and other entitlements have been provided to the displaced persons under Involuntary Resettlement Safeguards as described in and in accordance with the RP and the RF, and (b) a comprehensive income and livelihood restoration program has been established in accordance with the RP and the RF.	Being complied with.	Safeguards
Loan 3193	Article IV	4	The Borrower shall enable ADB's representatives to inspect the Project, the Goods and Works, and any relevant records and documents.	Being complied with.	Others
Loan 3193	Article IV	5	(b) ADB shall disclose the annual audited financial statements for Parts B and C the Project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website.	waiver on requirement approved as no financial disbursements in financial year ending 30 June 2015.	Financials
Loan 3193	5	5	The Borrower shall ensure and cause the Implementing Agencies to ensure that the provisions of the IEE, EMP and RP as well as any requirements under the SPS also apply to the portion of the Project to be financed by the Borrower.	Being complied with.	Safeguards
Loan 3193	Article IV	5	(c) The Borrower shall enable ADB, upon ADB's request, to discuss the financial statements for Parts B and C of the Project and the Borrower's financial affairs where they relate to Parts B and C of the Project with the auditors appointed pursuant to subsection (a)(iii) hereinabove, and shall authorize and require any representative of such auditors to participate in any such discussions requested by ADB. This is provided that such		Financials

Product	Schedule	Para No.	Description	Remarks/Issues	Type
			discussions shall be conducted only in the presence of an authorized officer of the Borrower, unless the Borrower shall otherwise agree.		
Loan 3193	Article IV	5	(a) The Borrower shall (i) maintain accounts and records for Parts B and C of the Project (separate from those for Part A, which will be maintained by TAU); (ii) prepare annual financial statements for Parts B and C of the Project in accordance with accounting principles acceptable to ADB; (iii) have such financial statements audited annually by independent auditors whose qualifications, experience and terms of reference are acceptable to ADB, in accordance with international standards for auditing or the national equivalent acceptable to ADB; (iv) as part of each such audit, have the auditors prepare a report (which includes the auditors' opinion on the financial statements and use of the Loan proceeds) and a management letter (which sets out the deficiencies in the internal control of Parts B and C of the Project that were identified in the course of the audit, if any); and (v) furnish to ADB, no later than 6 months after the end of each related fiscal year, copies of such audited financial statements, audit report and management letter, all in the English language, and such other information concerning these documents and the audit thereof as ADB shall from time to time reasonably request.	Being complied with	Financials
Loan 3193	4	6	The Borrower shall ensure that the Implementing Agencies shall not award any Works contracts until all land and related rights for the construction of the Project facilities, to be handed over to the contractor before construction commences, have been acquired or rights to access and use the land for the purposes of constructing and operating the Project facilities on an ongoing basis have been secured by the Borrower. (d) reinstate pathways and other local infrastructure to at least their pre-project condition as soon as possible and no later than the completion of construction.	Being complied with.	Safeguards
Loan 3193	Article IV	7	(a) The Borrower shall exercise its rights under the Subsidiary Loan Agreement in such a manner as to protect the interests of the Borrower and ADB and to accomplish the purposes of the Loan. (b) No rights or	Subsidiary Loan Agreement not yet finalized/effective.	Others

Product	Schedule	Para No.	Description	Remarks/Issues	Type
			obligations under the Subsidiary Loan Agreement shall be assigned, amended, abrogated or waived without the prior concurrence of ADB.		
Loan 3193	4	8	(a) The Borrower shall cause the Implementing Agencies to ensure that all Goods and Works procured (including without limitation all computer hardware, software and systems, whether separately procured or incorporated within other goods and services procured) do not violate or infringe any industrial property or intellectual property right or claim of any third party. (b) The Borrower shall cause the Implementing Agencies to ensure that all contracts for the procurement of Goods and Works contain appropriate representations, warranties and, if appropriate, indemnities from the contractor or supplier with respect to the matters referred to in subparagraph (a) of this paragraph.	Being complied with.	Others
Loan 3193	5	8	The Borrower shall do, or cause the Implementing Agencies to do, the following: (a) submit Safeguards Monitoring Reports to ADB: (i) in respect of implementation of and compliance with Environmental Safeguards and the EMP, annually during construction and the implementation of the Project and the EMP until the issuance of ADB's project completion report unless a longer period is agreed in the EMP; and (ii) in respect of implementation of and compliance with Involuntary Resettlement Safeguards and of the RP, semiannually during the implementation of the Project, and the RP until the issuance of ADB's project completion report unless a longer period is agreed in the RP; and disclose relevant information from such reports to respective affected people under Environmental Safeguards, Involuntary Resettlement Safeguards, and Indigenous Peoples Safeguards promptly upon submission; (b) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation, or operation of the Project that were not considered in the IEE, the EMP and the RP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and	Being complied with.	Safeguards

Product	Schedule	Para No.	Description	Remarks/Issues	Type
			(c) report any actual or potential breach of compliance with the measures and requirements set forth in the EMP or the RP promptly after becoming aware of the breach.		
Loan 3193	4	9	The Borrower shall cause the Implementing Agencies to ensure that all ADB-financed contracts with consultants contain appropriate representations, warranties and, if appropriate, indemnities from the consultants to ensure that the Consulting Services provided do not violate or infringe any industrial property or intellectual property right or claim of any third party.	Being complied with.	Others
Loan 3193	5	10	The Borrower shall cause the Implementing Agencies to ensure that Works contracts include provisions to require the contractors (a) not to discriminate against people seeking work on the basis of age, provided they are capable of doing such work; (b) to provide equal pay for equal work, regardless of gender or ethnicity; (c) to comply with core labor standards and the applicable labor laws and regulations, including stipulations related to employment, such as health, safety, welfare, the workers' rights and anti-trafficking laws; (d) not to force the labor to work against their will; and (e) not to employ child labor.	Being complied with.	Social
Loan 3193	5	11	The Borrower shall cause the Implementing Agencies to ensure that the Works contractors (a) implement HIV/AIDS and STIs awareness and prevention training for all employees; (b) provide necessary measures to ensure the safety and health of their employees; and (c) together with the local centers of disease control, disseminate information on the risks, hazards, impacts and prevention know-how on HIV/AIDS and STIs among the staff, workers on the construction sites and the local community by means of information disclosure, education and consultation.	Being complied with.	Social
Loan 3193	5	12	The Borrower shall ensure to provide Counterpart Funds in a timely manner, including any additional Counterpart Funds required for any shortfall of funds or cost overruns. The Borrower shall also ensure to ensure that O&M of all Project facilities is fully funded without any delay.	Being complied with.	Financials

Product	Schedule	Para No.	Description	Remarks/Issues	Type
Loan 3193	5	13	The Borrower shall, and shall cause the Implementing Agencies to, establish and maintain sound financial management systems in accordance with ADB's Financial Management and Analysis of Projects (July 2005), including the establishment of separate Project accounts.	Being complied with.	Financials
Loan 3193	5	14	The Borrower shall, and shall cause the Implementing Agencies to, (a) comply with ADB's Anticorruption Policy (1998, as amended to date); (b) acknowledge ADB's right to investigate, directly or through its agents, any alleged corrupt, fraudulent, collusive or coercive practices relating to the Project; and (c) agree to cooperate, and shall cause the Implementing Agencies and all other government offices, organizations and entities involved in implementing the Project to cooperate, fully with any such investigation, and to extend all necessary assistance, including providing access to all relevant books and records, as may be necessary for the satisfactory completion of any such investigation. In particular, the Borrower shall ensure, or cause to be ensured, that (i) periodic inspections of the Project contractors' activities related to fund withdrawals and settlements are carried out; (ii) relevant provisions of ADB's Anticorruption Policy (1998, as amended to date) are included in all bidding documents for the Project; and (iii) contracts, financed under the Project, include provisions specifying the right of ADB to audit and examine the records and accounts of the Implementing Agencies, contractors, suppliers, consultants, and other service providers as they relate to the Project.	Being complied with.	Others
Loan 3193	5	15	In the event of (a) any change in ownership of the Project facilities, or (b) any sale, transfer or assignment of shares or interest or other change of control in the Implementing Agencies is anticipated, the Borrower shall consult with ADB at least 6 months prior to the implementation of such change. The Borrower shall ensure that such change be carried out in a lawful and transparent matter. The Borrower shall further ensure that the new controlling management of Implementing Agencies complies with (a) all Project-related agreements executed between ADB or the Borrower and the Implementing Agencies; and (b) the policies of ADB relevant to the Project.	Being complied with.	Others
Loan	5	16	Within 90 days following effectiveness of the Loan Agreement and Grant	Project website	Others

Product	Schedule	Para No.	Description	Remarks/Issues	Type
3193			Agreement, the Borrower shall establish and maintain a Project website which will be regularly updated to include information on the following general matters: (a) bidding procedures, bidders and contract awards for Works, Goods, and Consulting Services; (b) physical progress of the Works and procurement of Goods; and (c) audited Project financial accounts, Project review reports (e.g. mid-term review), and quarterly progress reports, consolidated annual reports and post-completion report, in each case promptly after submission to ADB (unless, in the case of Project review reports and quarterly progress reports, ADB considers these to be exempt from disclosure under ADB's Public Communications Policy (2011)).	established Government procurement website utilised (www.procurement.gov.ck)	
Loan 3193	5	17	The Borrower shall cause the Implementing Agencies to ensure that (a) the Project facilities are installed in accordance with design specifications and construction norms; and (b) construction supervision, quality control and contract management are performed in accordance with best international industry practices. The Borrower shall cause the Implementing Agencies to install, equip, operate, maintain and manage the project facilities in compliance with applicable standards and best international practices. The Borrower shall cause the Implementing Agencies to operate and maintain, and continue to operate and maintain, the Project facilities in accordance with an O&M framework that is satisfactory to ADB.		Sector
Loan 3193	5	18	The Borrower shall cause the Implementing Agencies to do the following: (a) acquire all rights necessary to use the parcels of land constituting the Project site at least 30 days prior to the award of the turnkey contract; and (b) install or otherwise secure road access sufficient for the purposes of the Project at least 30 days prior to the award of the turnkey contract.	Being complied with.	Sector
Loan 3193	5	19	The Borrower shall ensure ongoing operational financial sustainability of the Project, either through adjustment of electricity tariffs, or budgetary allocations.	Being complied with.	Sector
Loan 3193	5	20	The Borrower shall cause the Implementing Agencies to ensure that adequate staffing will be planned and allocated for the implementation and O&M of the Project facilities, and that relevant staff members will attend	Being complied with.	Sector

Product	Schedule	Para No.	Description	Remarks/Issues	Type
			training provided under the Project in relation to O&M.		