

Environmental and Social Safeguard Monitoring Report

Project No. 46122-003
Semestral Report
July 2022

Maldives: Preparing Outer Islands for Sustainable Energy Development Project

Prepared by the Ministry of Environment and Energy for the Ministry of Finance and Treasury,
Republic of Maldives and the Asian Development Bank.

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Environmental and Social Safeguards Monitoring Report

Reporting Period January – June 2022
Date July 2022

Preparing Outer Islands for Sustainable Energy Development (POISED)

Prepared by the Ministry of Environment, Climate Change and Technology for the Asian Development Bank

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LIST OF ABBREVIATIONS

ADB	Asian Development Bank
CC	City Council
dB	decibel
EA	Executing Agency
EARF	Environmental Assessment and Review Framework
EIA	Environment Impact Assessment
EIB	European Investment Bank
EMP	Environment Management Plan
EPP	Environment Protection and Preservation
GRM	Grievance Redress Mechanism
IC	Island Council
IEE	Initial Environmental Examination
MECCT	Ministry of Environment, Climate Change and Technology
MOF	Ministry of Finance
NEAP	National Environmental Action Plan
NGO	non-government organisation
O&M	Operation and maintenance
PIU	Project Implementation Units
PMU	Project Management Unit
POISED	Preparing Outer Islands for Sustainable Energy Development
PTA	Parent Teacher Association
PV	Photovoltaic
RE	Renewable Energy
RF	Resettlement Framework
RP	Resettlement Plan
SPS	Social Protection Safeguards
STELCO	State Electric Company
TBC	To be contracted
WDC	Women development Committee

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EXECUTIVE SUMMARY

All on-site activities under the current contracts have been completed and is at the O&M stage except Haa Dhaalu and Thaa atoll islands. On-site work in Haa Dhaalu has been completed and currently rectification of issues identified in the pre-commissioning is being done. Work in Thaa has started on the detailed design and on-site work will commence after the designs have been approved. Other EIB sub-projects of POISED and additional financing sub-projects are at the tendering and evaluation stages.

Project Name	
Executing Agency	Ministry of Finance
Implementing Agency	Ministry of Environment
Environment Safeguards Categorization	B
Environment Safeguards Documentation	EARF/IEE/EMP
Project Stage Obtained	<p>POISED ADB sub-projects:</p> <ul style="list-style-type: none"> • 5 pilot islands – completed • Haa Alifu – O&M • Shaviyani & Noonu – completed • 8MW Genset in Male’ – completed <p>POISED EIB sub-projects:</p> <ul style="list-style-type: none"> • Haa Dhaalu – Pre-Commissioning • Raa and Baa – TBC (Bid evaluation in progress) • Kaafu, Alifu Alifu, Alifu Dhaalu, and Vaavu – TBC (bid evaluation in progress) • Meemu, Faafu & Dhaalu – TBC (Tender process in progress) <p>POISED JFJCM component:</p> <ul style="list-style-type: none"> • Addu Battery –O&M <p>AF sub-projects:</p> <ul style="list-style-type: none"> • Thaa – Pre-Construction (detail design in progress) • Solar-powered ice plant – TBC (Tender process in progress) • Solar ferry – TBC (Bid evaluation in progress)
Detailed Design Required Post-Approval	<p>Yes, detailed designs of all completed subprojects were approved for POISED sub-projects</p> <p>Thaa Atoll in the AF is in the detail design stage and other AF subprojects are in the tendering process and need to be contracted for design</p>
Contract(s) Awarded	Yes, as of 30 th June 2022, 27 contracts awarded under POISED. 1 subproject awarded under AF.
Bidding Document(s) Include EMP Cleared by ADB	The following Clauses on environmental protection have been included in the bidding and contract documents.

	<p>9.6 . Protection of the Environment</p> <p>(a) The Contractor shall take all reasonable steps to protect the environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise, and other results of his operations.</p> <p>The Contractor shall ensure that emissions, surface discharges, and effluent from the Contractor’s activities shall not exceed the values stated in the Specification or prescribed by applicable Laws.</p> <p>However, approved EMP has not been included in previous bid documents. The EMP has been drafted and will be included in the future AF and POISED subproject contracts once finalised.</p>
Contract(s) Awarded Include EMP Cleared by ADB	<p>Clauses on measures for environmental protection included in contracts for all completed POISED subprojects (as above).</p> <p>An EMP has not been shared in contract documents for previous subprojects. The EMP has been drafted and will be included in the future AF and POISED subproject contracts once finalised. For Thaa Atoll an MOU will be agreed with the contractor for adoption before their detailed design approved by PMU and works start on site.</p>
National Environment, Health and Safety Clearance(s) Obtained	Obtained for POISED and AF sub-projects with works on site
Contractor(s) Given Access to Site	Yes, given to all sub-projects awarded under POISED. Contract for Thaa under AF is in pre-construction stage completing the detailed design. On-site work will begin after detail design is approved.
Construction Progress (%)	<p>Work in 5 pilot islands and 40 islands in 3 atolls and site in Male’ under POISED completed.</p> <p>A total of 46 islands out of 151 islands completed (30%)</p> <p>No. On-site work contracted under AF has yet started. 0% complete</p>
Unanticipated Impacts including Change of Scope or Design	Scope of change in some islands, with main changes being changing to ground mounting as roofs which were available during feasibility study were not available during implementation. There were major changes in Haa Dhaalu as feasibility studies were done in 2016 but the sub-project had to be on hold till November 2019 until the EIB loan was effective. A detailed list of scope changes is being prepared and will be given in a separate attachment ‘IEE Addendum’ to the next EMR.
Number of Site Inspections and Audits Undertaken by	2

Environment Safeguards Staff in Reporting Period	
Corrective Action Required from Previous Reporting Period	Yes, in relation to Thaa contract
Outstanding Corrective Action this Reporting Period	Yes, finalizing EMP for Thaa atoll and variation to contract still in progress
Non-Compliances Recorded this Reporting Period	None
Corrective Action Required	Yes, finalizing EMP for Thaa atoll and variation to contract still in progress
Number of Health and Safety Incidents	None
GRM Functional	Yes
Number of Unresolved Grievances from Prior Reporting Period	None
Number of Grievances Received in Reporting Period	None
Number of Grievances Resolved this Reporting Period	None
Number of Grievances Still Outstanding	None
Number of Grievances referred to Court of Law	None
Number of Grievances referred to the Accountability Mechanism	None

1.0 Introduction

1.1 *Brief Project Description*

The project 'Preparing Outer Islands for Sustainable Energy Development (POISED)' is implemented in the Maldives by the Ministry of Environment, Climate Change and Technology and executed by the Ministry of Finance (MECCT). The Maldives located 750 km southwest of Sri Lanka, is an archipelago consisting of 26 atolls, 1192 islands with a total land area of about 300 sq. km. About two thirds of the country's population live on the outer islands, about 190 islands. The Maldives has about 100 MW of installed diesel generation capacity on the inhabited islands and another 100 MW on the tourism islands. Given the geographic location of islands, each island is electrified with its own diesel-powered mini grid system resulting in expensive and not very reliable supply. The cost of diesel power is unaffordable at 30-70 cents/kWh and requires government subsidies in excess of \$50 million annually (POISED Project Administration Manual, Ministry of Environment and Energy, 2014). The high diesel dependence of Maldives also makes its carbon emissions per unit of electricity among the highest in the region.

The Maldives has significant renewable energy (RE) resources namely solar and in some pockets wind energy. The POISED project is among one of the initiatives by the government to transition to renewable energy-based systems in order to achieve its energy sector target of installing RE technologies at least up to 70% of daily peak load in all inhabited islands by end of 2030 and Net Zero 2030 target. The POISED project is aimed at cleaner and more energy efficient energy generation in the Maldives.

The POISED project is aligned to ADB's Strategy 2020 of supporting sustainable energy growth, Energy Policy 2009 and is a part of the Maldives COBP for 2013-2015. Based on the government's investment plan for the outer islands and the characteristics of the electricity systems, a sector lending approach would support the transition of those islands that meet the investment criteria. The project would transform the existing mini grids on the outer islands through physical investments in renewable energy, energy management and control systems, and energy storage and distribution networks. The private sector would have a role in supporting the renewable energy investments in identified outer islands.

The main outputs of the POISED project are 1) develop solar PV-hybrid systems, 2) increase efficiency of grid and generation system and 3) develop local capacity in 160 inhabited outer

islands of the country. This involves mainly installation of PV panels on rooftops and where such roofs are not available ground mounting will be done in allocated areas. Other works include replacing inefficient generators and grid systems. The physical works in the project are not heavy and are not likely to have significant adverse environmental or social impacts. Adverse impacts will be site-specific and few if any irreversible impacts and can be mitigated with appropriate measures. Hence, activities under the POISED and its sub-projects are categorized as B in the ADB environmental safeguards. At the national level, under the Environmental Impact Assessment (EIA) regulation, the project is considered to be having minimal adverse effects and having positive impacts that outweigh the adverse. Hence for both ADB and national compliance an Initial Environmental Examination (IEE) and an Environmental Management Plan (EMP) is required.

The executing agency is the Ministry of Finance (MOF) and the implementing agency is the Ministry of Environment, Climate Change and Technology (MECCT). MECCT is supported by FENAKA and STELCO in the implementation. A Project Management Unit (PMU) comprising the officials from MECCT, FENAKA and STELCO has been setup for coordination of activities under the project. The PMU is strengthened with external experts in the areas of finance, procurement, contract management, renewable energy (RE), Solar-Diesel hybrid system, social, gender and environment. Project Implementation Units (PIU) are also established in FENAKA and STELCO to assist in preparing an overall implementation plan, contract packing and annual budgets.

Figure 1 shows the initial implementation schedule of the POISED PROJECT. The AF components, which were added later, are included in the progress timeline in Figure 2.

POISED Project Implementation Schedule

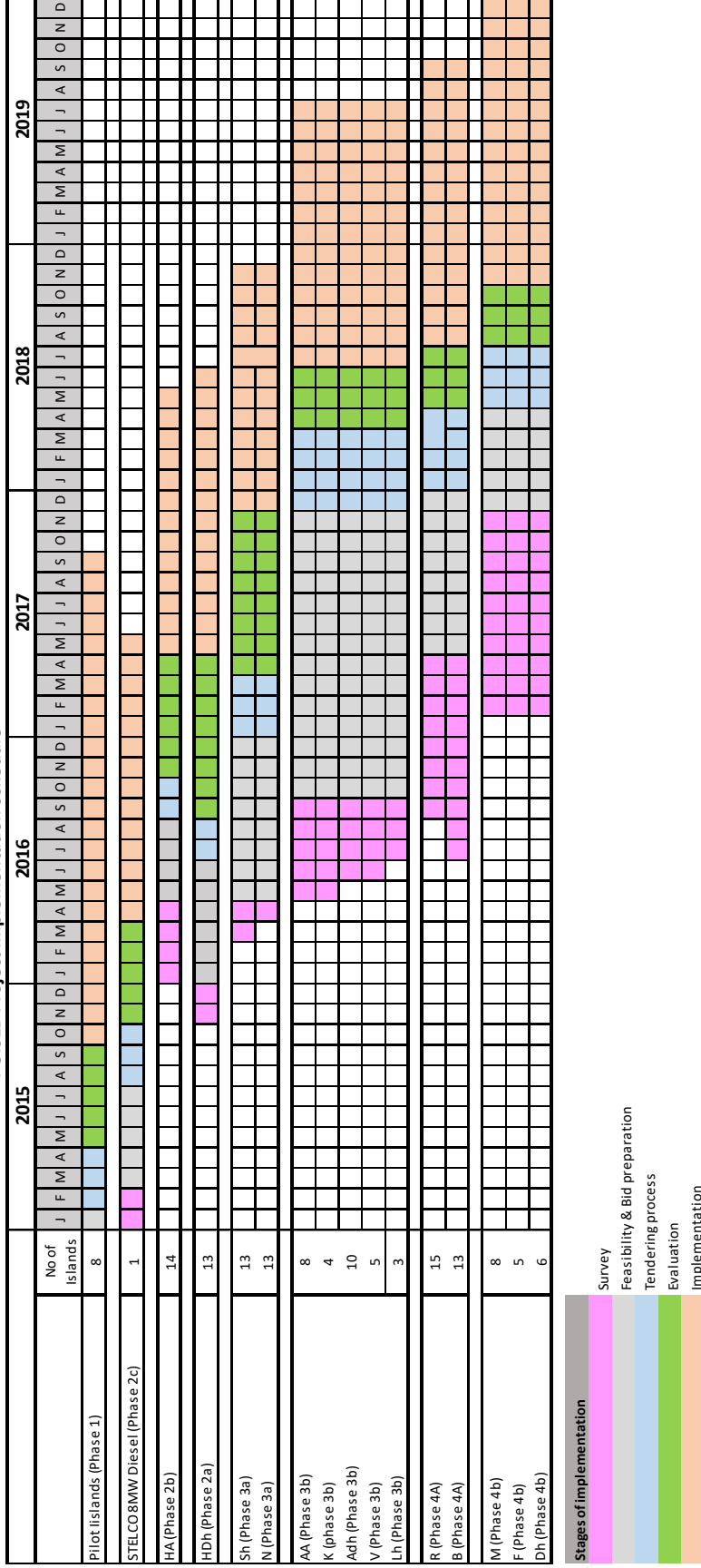


Figure 1. Initial Implementation Schedule for POISED sub-projects

POISED ADDITIONAL FINANCING (AF)

The POISED additional funding (AF), with an estimated value of US\$ 130 million, will scale up and change the scope of the POISED project by (i) scaling up of hybrid renewable energy systems in more outer islands; (ii) introducing disaster resilient project components and gender inclusive livelihood activities; and (iii) accelerating the pace of reform initiatives introduced in the ongoing project through pilot projects and policy actions.

While maintaining the overall outcome and impact of the POISED, the AF will scale up Output 1 of the POISED project (Renewable-energy-ready grid systems developed for outer islands and greater Male' region) by introducing solar photovoltaic-battery-diesel hybrid systems with grid upgrades, energy management system and Supervisory Control and Data Acquisition (SCADA) system in an additional 12 outer islands. The output's scope will also be expanded to include:

- (i) Installation of solar photovoltaic-based ice making machines for 4 outer islands to support fisheries, the main economic activity in outer islands;
- (ii) Development of a disaster resilient distribution system in identified outer islands; and
- (iii) Pilot testing of a renewable energy-operated ferry for transport.

The AF will also contribute to scaling up Output 2 of POISED (Capacity of MOECCT, STELCO and FENAKA to implement renewable energy grid interventions enhanced). The AF will continue to support the PMU within MOECCT to ensure close project monitoring and implementation of the overall project. Capacity-building support to MOECCT, FENAKA and STELCO will be included in areas such as project monitoring and implementation, planning, designing and implementing disaster resilient project components.

1.2 Project Progress Status and Implementation Schedule

Original POISED project:

The ADB components of the POISED project have gone ahead with good progress. These include the sub-projects 5 pilot islands, 8MW diesel generator installation in Male' and installation of PV and upgrading of power generation systems in islands of Haa Alifu, Shaviyani and Noonu. All construction work has been completed and commissioned. The

pilot islands, Shaviyani and Noonu and STELCO sub-projects have been handed over to FENAKA and STELCO respectively. Haa Alifu islands are in O&M stage during this operational period. Work on replacing and installation of batteries in Haa Alifu islands were completed during this reporting period.

Work on the EIB sub-projects have also been going on well since the EIB loan effectiveness in 21st November 2019. Work to revise the initial feasibility studies in these islands had to be done as the circumstances in many islands have changed between the initial feasibility study and the loan effectiveness. These were completed in the last Quarter of 2020 for all islands. The activities undertaken for the EIB projects during this reporting period are as follows:

- Haa Dhaalu islands: All civil works in the islands, except Naavaidhoo and three roofs of Kulhudhuffushi, Kumundhoo and Neykurendhoo (one from each), have been completed and three pre-commissioning and supervision visits were made in the 1st Quarter of this year (1 February 2022, 19-23 March 2022 and 27-29 June 2022) by PMU. The PMU has been in discussions with the Contractor to rectify the identified issues and currently rectification work is ongoing during the 2nd Quarter. The rectifications include correcting energy management system (EMS) related issues, replacing some of the faulty inverters, painting, guttering, applying sealants for control room outer walls and roofing sheets.
 - Work on Naavaidhoo, and three of Kulhudhuffushi, Kumundhoo and Neykurendhoo (one from each) is on hold due to delays in alternative land and roofs allocation. As this is delaying closing of the Contract, ground mounting work in Naavaidhoo and PV installation on the three roofs have been decided to be removed from the scope of the work of the Contractor and close the contract once, the rectification work in other islands is completed. The works remained will be carried out by FENAKA once alternative land and roofs have been identified.
- Bids for the islands in Faafu, Meemu, Dhaalu, Kaafu, Alifu Alifu, Alifu Dhaalu and Vaavu atolls were floated during this reporting period. The bid call for the sub-projects in Kaafu, Alifu Alifu, Alifu Dhaalu and Vaavu atolls closed on 13th June 2022 and preparation for bid evaluation has started during the reporting period. The call for the Faafu, Meemu and Dhaalu sub-project is due on 1st August 2022.

- The technical evaluations for the submitted bids of Raa and Baa sub-projects were completed, and approval obtained by the Ministry of Finance. The technical evaluation is awaiting approval by EIB to go ahead to the financial evaluation.
- Work on the JFJCM funded Addu battery and EMS has resumed and the work has been completed and commissioned. Currently O&M is ongoing. Ongoing work include correcting the EMS related issues. Further maintenance work in the roof PV installation sites at the schools have also been identified during this reporting period. These works include trimming of trees providing shade in Hithadhoo School and moving the inverter room, currently located in the school office building of Sharafudhdheen School to a new location given by the school.

Additional Financing:

- Thaa sub-project: The initial payment disbursement has been made to the contractor and the detailed design work is currently in progress. Issues over PV site locations in the Thaa islands were also resolved and PV installation sites were finalised. The EMP has been drafted and once approved will be included in the Contract as an Annex.
- Solar-powered ice plant: The call for the floated bid ended on 13th January 2022. Evaluation was started but due to lack of qualifying bids in the technical evaluation, it was decided to re-tender the bid. Work is in progress for re-tendering. The main issue was that there were no parties meeting criteria for both ice plant construction and solar PV installation. The new tendering process is looking into splitting these into 2 bids.
- Solar ferry: Due to a lack of bid submissions the project was re-tendered for a 3rd time and the deadline for bid-submission is 20th July 2022. Currently the inquiry period is ongoing.

Impact of Work on POISED from COVID19

The COVID-19 situation in Maldives has been declared normalized during this reporting period and most restrictions are lifted. Work has been ongoing as normal during this reporting period without any COVID-19 related impacts. However, some cases still exist and occurred across the country.

The project implementation status as of 30th June 2022 is shown in Figure 2.

Source of Funds	Project Component/Stage	Target Completion Date	Progress Status	Percent Completed	Remarks
ADB Original Project	<p>Design, supply, installation & maintenance of generator & grid infrastructure in 5 pilot islands of Maldives; Baa. Goidhoo, Lhaviyani. Kurendhoo, Thaa. Buruni, Gaafu Alifu. Villingili and Seenu. Hithadhoo (POISED 001)*</p> <p>Contract award (POISED 001) to China GEO - CCE OASIS Joint Venture, China on 22nd October 2015</p> <p>Construction (site clearance, earthworks, civil works, installation of PV panels, battery)</p> <p>*Preparing Outer Islands for Sustainable Energy Development (adb.org)</p>	<p>Work completed and commissioned in October 2017 but project closed in Sep 2018</p>	Completed and handed over to the utility	100%	<p>As this was the first pilot phase some delays occurred. The main delays in project closing included rectifying roof leakage issues in some of the islands. EMS training was conducted and monitoring of sites was continued by contractor till September 2018 when the project was closed.</p>
ADB Original Project	<p>Design, supply, installation & maintenance of generator & grid infrastructure in 5 pilot islands of Maldives; Baa. Goidhoo, Lhaviyani. Kurendhoo, Thaa. Buruni, Gaafu Alifu. Villingili and Seenu. Hithadhoo (POISED 002)*</p> <p>Contract award (POISED 002) to Ceylex Engineering Pvt Ltd, Sri Lanka on 25th October 2015</p>	<p>Work completed and commissioned in October 2017 but project closed in Sep 2018</p>	Completed and handed over to the utility	100%	<p>As this was the first pilot phase some delays occurred. The main delays in project closing included rectifying</p>

	<p>Construction (site clearance, earthworks, civil works, installation of PV panels, battery)</p> <p>*Preparing Outer Islands for Sustainable Energy Development (adb.org)</p>				<p>roof leakage issues in some of the islands. EMS training was conducted and monitoring of sites was continued by contractor till September 2018 when the project was closed.</p>
	<p>Design, Supply and Installation of 8MW of Diesel Generator in Male' Capital City of Maldives (POISED 003)</p> <p>Contract award (POISED 003) to Lakdhanavi Ltd, Sri Lanka on 17th April 2017</p> <p>Construction (installation of generator)</p> <p>*Preparing Outer Islands for Sustainable Energy Development (adb.org)</p>	<p>Work completed and commissioned in June 2017</p>	<p>Completed and handed over to the utility</p>	<p>100%</p>	<p>Work handed over to STELCO after completion</p>
<p>ADB Original Project</p>	<p>Design, supply, installation & maintenance of grid-tied solar PV-diesel hybrid power generation plant and generator & grid Infrastructure in Haa Alifu Atoll (POISED 004)</p> <p>Contract award (POISED 004) to Trina Solar Co., China on 30th April 2017</p> <p>Construction (site clearance, earthworks, civil works,</p>	<p>Work completed and commissioned in September 2018</p>	<p>Completed</p>	<p>100%</p>	<p>Contractors were not able to connect PV systems in 4 islands as new powerhouses were not finished and available. Hence, the</p>

	<p>installation of PV panels, battery)</p> <p>*Preparing Outer Islands for Sustainable Energy Development (adb.org)</p>				<p>remaining connection on these 4 islands were assigned to FENAKA. PV connections in these islands have been completed by FENAKA</p> <p>Currently O&M ongoing</p>
EIB	<p>Design, supply, installation & maintenance of grid-tied solar PV-diesel hybrid power generation plant and generator & grid Infrastructure in Haa Dhaalu Atoll (POISED 005)*</p> <ul style="list-style-type: none"> • Contract award (POISED 005) to Trina Solar Co., China on 24th May 2017 • Revised contract signed on 10th September 2020 • Construction (site clearance, earthworks, civil works, installation of PV panels, battery) completed • Pre-commissioning visits made to 6 islands and rectification work identified during pre-commissioning is ongoing <p>* IEE link: https://www.eib.org/en/registers/all/56630346</p>	<p>Target completion date: November 2022 (planned to complete by November 2019)</p>	<p>Pre-commissioning visits made to 6 islands</p>	90%	<p>Rectification of issues identified during pre-commissioning visit is ongoing.</p>
ADB Original Project	<p>Design, supply, installation & maintenance of grid-tied solar PV-diesel hybrid power generation plant and generator</p>	<p>Work completed and commissioned in</p>			<p>Currently O&M ongoing</p>

	<p>& grid Infrastructure in Shaviyani & Noonu Atolls (POISED 006)*</p> <p>Contract award (POISED 006) to Sinomac International-Sungrow Joint Venture, China on 6th December 2018</p> <p>Construction (site clearance, earthworks, civil works, installation of PV panels, battery)</p> <p>* IEE link: https://www.adb.org/projects/46122-003/main</p>	January 2020	Completed	100%	
JFJCM	<p>Procurement of design, supply and installation of EMS and BESS for PV-diesel hybrid system in Addu City</p> <p>Contracts revised to extend project duration to 31st March 2022</p> <p>Construction (site clearance, earthworks, civil works, installation of PV panels, battery)</p>	<p>Targeted completion date: December 2020</p> <p>Revised target completion date: 31st March 2021</p> <p>Second revision: 31st March 2022</p>	Completed	100%	O&M ongoing
EIB	<p>Design, Supply, Installation & Maintenance of grid-tied solar PV-diesel hybrid power generation plant and Generator & Grid Infrastructure in Raa & Baa Atolls</p> <p>No contract awarded</p> <p>Construction (site clearance, earthworks, civil works, installation of PV panels, battery)</p>	<p>target completion date: December 2021</p> <p>Revised target completion date: 31st May 2023</p>	Not yet started		Technical evaluation completed and awaiting EIB approval to continue with financial evaluation.
EIB	<p>Design, Supply, Installation & Maintenance of grid-tied solar PV-diesel hybrid power generation plant and Generator</p>	target completion date:	Not yet started		Bid evaluation has started.

	<p>& Grid Infrastructure in K, AA, ADh and V Atolls</p> <p>No contract awarded</p> <p>Construction (site clearance, earthworks, civil works, installation of PV panels, battery)</p>	<p>December 2021</p> <p>Revised target completion date: 31st December 2022</p>			
EIB	<p>Design, Supply, Installation & Maintenance of grid-tied solar PV-diesel hybrid power generation plant and Generator & Grid Infrastructure in M, F & Dh Atolls</p> <p>No contract awarded</p> <p>Construction (site clearance, earthworks, civil works, installation of PV panels, battery)</p>	<p>target completion date: December 2021</p> <p>Revised target completion date: 30th June 2023</p>	Not yet started		Bid floated and awaiting submissions
AF	<p>Design, Supply, Installation & Maintenance of grid-tied solar PV-diesel hybrid power generation plant and Generator & Grid Infrastructure in Th Atoll</p> <p>Contract award (POISED-AF 001) to Sino Soar Hybrid (Beijing) Technology Co. Ltd. on 29th November 2021</p> <p>Construction (site clearance, earthworks, civil works, installation of PV panels, battery)</p>	<p>target completion date: August 2021</p> <p>Revised target completion date: 31st January 2023</p>	Not yet started (pre-construction work in progress)		<p>Detailed design work is in progress</p> <p>EMP not included by variation to be agreed</p>

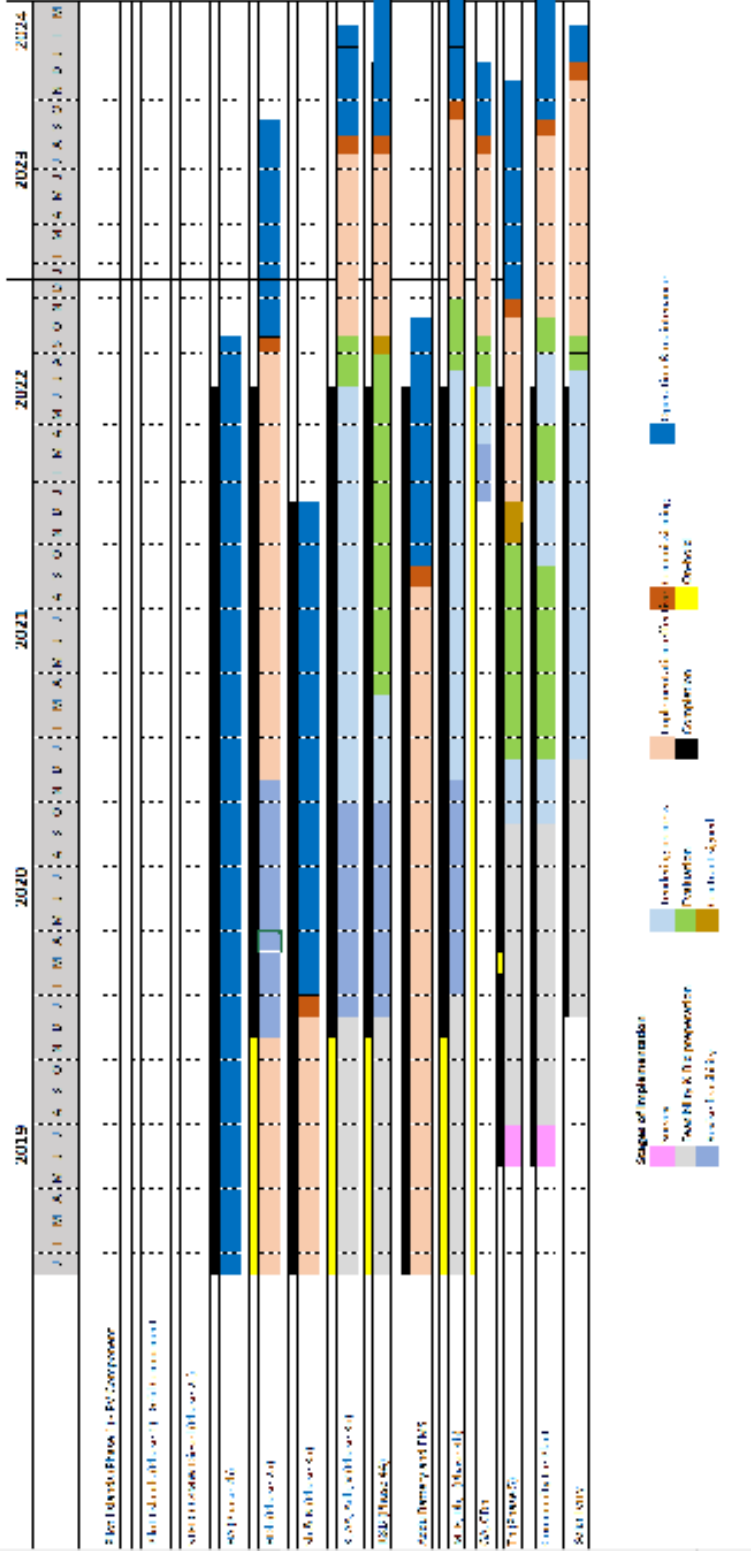


Figure 2. POISED project implementation status (as of 30th June 2022)

2.0 Compliance to National Regulations and International Agreements

The project loan agreement requires the Executing Agency to implement the project in compliance with all agreed relevant provisions stipulated in the environmental documentation of the project, for example: Initial Environmental Examination (IEE), Environmental Assessment and Review Framework (EARF), ADB's Safeguards Policy Statement (2009), Environmental Covenants as stipulated in the Loan Agreement, EMMP applicable to the subprojects.

The IEE and EARF prepared for the project had identified the environmental regulatory requirements of the project undertaken as per the country's laws and regulations, especially the Environment Protection and Preservation Act of Maldives (4/93), Environmental Damage Liabilities Regulation 2011, National Environmental Action Plan III (NEAP III) and Environmental Impact Assessment Regulation 2012. The Environmental regulatory requirements of the project with the compliance status are summarized and presented in the Table below.

	Relevant government and notifications and regulations	Compliance requirement under the regulations	Compliance status
1	EIA process, the legal requirement as stipulated in EPP Act (4/93) Article 5 and according to EIA Regulation 2012	- Conducted IEE and submitted to the EPA for approval	IEE approved on 13 th August 2013 for POISED Approval for Thaa sub-project under the Additional Financing was obtained from EPA on 23 rd June 2022. IEE to be prepared for solar ice plant and solar ferry sub-project will undergo a screening for IEE by EPA as development of sea vessels are not in the list of development needing an EIA
2	Managing and disposing of wastes, oil and gases as stipulated in EPP Act (4/93)	- Use the Environmental Management Plan for this project which specifies how the wastes, oil and gases generated by the project shall be disposed	The conditions in the approval for EIA for powerhouses are followed in the disposal of wastes and oils. These are long term storage and re-exporting (Figure 3).

3	Management, handling and disposal of hazardous waste according to regulations and standards as stipulated in EPP Act (4/93)	- Ensure safe disposal of chemical, hazardous and industrial waste	Disposal of waste oil is given above. Faulty batteries in Haa Alifu sub-project were taken back by supplier.
4	Safe disposal of chemical, hazardous and industrial waste	- Ensure safe disposal of chemical, hazardous and industrial waste	Disposal of waste oil is given above. Subprojects have not been handling anything else as such so far
5	Protecting protected areas and natural reserves	- Avoid protected areas and natural reserves	Sites have been selected carefully considering all the requirements therefore, no project site is located at any protected area or natural reserves.
6	Uprooting, removal, cutting and transportation of palms and trees as in the Regulation on Uprooting, Cutting and Transportation of Palms and Trees 2006 and Regulations of Conservation of Old Trees and National Biodiversity 2002 Strategy and Action Plan 2002	- Avoid/minimise large-scale uprooting, removal, cutting and transportation of palms and trees and include in the EIA - Conserve and protect old trees which are rare and are in extinct at island, atoll and national level - Foster community participation, ownership and support for biodiversity conservation	No vegetation removal, cutting or transportation work was carried out during this period by the POISED project. Locations for ground mounting have been chosen based on island use plans and where land has been allocated for other purposes. For example, in Finey, Kurinbi and Nolhivarmfaru in Haa Dhaalu, new land for powerhouses had been allocated and required trees were cleared for expansion of the powerhouse land. Any tree removal was carried out by FENAKA after obtaining required approvals and giving compensations where required to owners of coconut palms if needed. In Naavaidhoo, the Council has not been able to get approvals for clearing of some areas, and we have not installed any ground mounting in the island and have installed PV on available rooftops.

7	Safe disposal of solid waste and encourage recycling and reduction of waste generated as in the Waste Management Policy and Waste Regulations 2013	<ul style="list-style-type: none"> - Ensure safe disposal of solid waste and encourage recycling and reduction of waste generated - Develop guidelines on waste management and disposal and advocate to enforce such guidelines through inter-sectoral collaboration - Encourage waste reduction, reuse, recycling and recover 	Waste generated during site construction was disposed of at the designated areas by the Island Councils according to the island regulations. The waste mainly included packaging of materials (cement bags, paint can, wrapping) and civil works waste.
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3.0 Compliance to Environmental Covenants from the ADB Loan Agreement

MEE is implementing projects under loan agreement no: 46122 (AUGUST 2014) for the original project and loan agreement no: 46122 (NOVEMBER 2020) for the AF which also requires compliance with the covenants of the original project. According to the loan agreements, EA has to ensure that subprojects are not located within protected areas, natural reserves and areas of cultural and historical importance should be avoided. The subprojects were designed after detailed field surveys to ensure strict compliance with the above conditions. No sensitive areas of cultural and historical importance are affected by the project activities and no sites located within protected area and natural reserves. The projects are being planned, designed, and implemented in compliance to the other conditions of the loan agreement. Environment and its compliance status is summarized and presented in the Table below.

Agreement	Covenant	Environmental compliance requirements	Compliance status
POISED/AF	Sched. 4, Para. 16	The Recipient, FENAKA, and STELCO shall ensure that the preparation, design, construction, implementation, operation and decommissioning of the Project and all Project facilities comply with (a) all applicable laws and regulations of the Recipient relating to environment, health and safety; (b) the Environmental Safeguards; and (c) all measures and requirements set forth in the IEE, the EMP, the Environment Assessment Review	- Conducted detailed technical, social and environmental assessment prior to design of the project and complied with the plans although there was some oversight in relation to IEE for Thaa atoll not being

		Framework and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	completed before the contract awarded. - Regular monitoring has been conducted and corrective actions taken where needed.
POISED/AF	Sched. 4, Para. 20	The Recipient, FENAKA and STELCO shall make available necessary budgetary and human resources to fully implement the EMP.	- Staff within the powerhouses are utilized for monitoring of environmental aspects and O&M
POISED/AF	Sched. 4, Para 21	The Recipient shall ensure or cause FENAKA and STELCO to ensure that all bidding documents and contracts for Works contain provisions that require contractors to: (a) comply with the measures relevant to the contractor set forth in the IEE, and the EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report; (b) make available a budget for all such environmental measures; (c) provide the Recipient with a written notice of any unanticipated environmental risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE and the EMP; (d) adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction; and (e) reinstate pathways, other local infrastructure, and agricultural land to at least their pre-Project condition upon the completion of construction.	- Bidding documents and contract contain some environment provisions. - The EMP has not been included or is not referred to in the bidding and contract documents for previous subprojects. For the ongoing Thaa Contract that has already been awarded the EMP has been drafted and once approved it will be added as an Annex in the Contract. For future AF and POISED works the EMP will be included.
POISED/AF	Sched. 4, Para 22	The Recipient, FENAKA and STELCO shall do the following: (a) submit semi-annual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission; (b) if any unanticipated environmental risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEE and the EMP, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; (c) no later than 6 months after the Effective Date, engage qualified and experienced external experts or qualified NGOs under a selection process and	- No issues were reported during the reporting period.

		terms of reference acceptable to ADB, to verify information produced through the Project monitoring process, and facilitate the carrying out of any verification activities by such external experts; and (d) report any actual or potential breach of compliance with the measures and requirements set forth in the EMP promptly after becoming aware of the breach.	
POISED/AF	Sched. 4, Para 23	The Recipient, FENAKA and STELCO shall ensure that no proceeds of the grant are used to finance any activity included in the list of prohibited investment activities provided in Appendix 5 of the SPS.	Complied
POISED/AF	Sched. 4, Para 26	26. The Recipient, FENAKA and STELCO shall ensure that the contractors, comply with all applicable labor, health, and safety laws and regulations of the Recipient and, in particular, (a) do not employ child labor for construction and maintenance activities; and (b) provide appropriate facilities (latrines, etc.) for workers at construction sites. The Recipient shall require contractors not to differentiate wages between men and women for shall be included in bidding documents to ensure adherence to these provisions, and that compliance shall be strictly monitored during project implementation.	Complied Workers stay either at guesthouses on the island or rented rooms in households. No separate staff facilities are made on the islands.
AF	Sched. 3, Para 2	The Borrower, through the Project Executing Agency and MECCT, shall ensure that the Project activities to be financed from the Loan and ADB Grant do not have any environmental, indigenous peoples or involuntary resettlement impacts, all within the meaning of the Safeguard Policy Statement. In the event that such Project activities do have any such impact, the Borrower shall take all steps required to ensure that such Project activities comply with the applicable laws and regulations of the Borrower and with the SPS	Activities not started, the ice making component has been determined to have more than minimal environmental impact and so an assessment of its environmental impacts has been included in the IEE for Thaa atoll with the EMP to be included in the bidding and contract documentation

4.0 Compliance to Project Administration Manual (PAM)

Organization	Tasks	Compliance Status	Remarks
Executing Agency - Ministry of Finance	Monitoring of project and assisting in project grants	Complied.	Quarterly monitoring reports are sent to the Ministry
Implementing Agency – Ministry of Environment	Procurement, bid preparation, all administrative support, support to technical experts etc.	Complied	Tender documents and process is reviewed and approved by the Ministry of Finance Regular annual audits of the project, FENAKA and STELCO are made and reports are published and sent to ADB by the Auditor General's office.
Consultants	Provide technical expertise for design, conduct baseline studies, social and environmental monitoring and advice	Complied <ul style="list-style-type: none"> • Consultant local – Ahmed Marsoom • Social Expert (Gender and Community Development) – Dr. Ahmed Shukry Hussain • Financial Expert – Thaalooth Rasheed • Environmental Specialist – Dr. Mizna Mohamed 	Regular reporting to project Manager. Outputs and reports by technical staff and consultants reviewed by PMU.

5.0 Compliance to Contract

Source of Funds	Contract Package	Contract Provisions	Compliance Status	Remarks
ADB Original Project	Contract award (POISED 001) to China GEO - CCE OASIS Joint Venture,	Design, supply, installation & maintenance of generator & grid infrastructure in 5	Complied	Contract closed

	China on 22nd October 2015	pilot islands of Maldives		
ADB Original Project	Contract award (POISED 002) to Ceylex Engineering Pvt Ltd, Sri Lanka on 25th October 2015	Design, supply, installation & maintenance of generator & grid infrastructure in 5 pilot islands of Maldives		Contract closed
ADB Original Project	Contract award (POISED 003) to Lakdhanavi Ltd, Sri Lanka on 17th April 2017	Design, Supply and Installation of 8MW of Diesel Generator in Male'	Complied	Contract closed
ADB Original Project	Contract award (POISED 004) to Trina Solar Co., China on 30th April 2017	Design, supply, installation & maintenance of grid-tied solar PV-diesel hybrid power generation plant and generator & grid Infrastructure in Haa Alifu Atoll	Complied	Project activities completed and system commissioned in 2018. O&M by Contractor has ended in March 2022. O&M by utility staff is ongoing
EIB	Contract award (POISED 005) to Trina Solar Co., China on 24th May 2017	Design, supply, installation & maintenance of grid-tied solar PV-diesel hybrid power generation plant and generator & grid Infrastructure in Haa Dhaalu Atoll	Contract revised on 10 th September 2020 with revised scope of work	Most of the work has been completed and pre-commissioning visit has been undertaken to 6 islands. Currently Contractor is rectifying issues identified during pre-commissioning visits.
ADB Original Project	Contract award (POISED 006) to Sinomac International-Sungrow Joint Venture, China on 6th December 2018	Design, supply, installation & maintenance of grid-tied solar PV-diesel hybrid power generation plant and generator & grid Infrastructure in Shaviyani & Noonu Atolls (POISED 006)	Complied	Project activities completed and system commissioned in January 2020. O&M by Contractor has ended in March 2021. O&M by utility staff is ongoing

JFJCM	Contract awarded to Nishizawa Limited, Japan on 18th December 2018	Procurement of design, supply and installation of EMS and BESS for PV-diesel hybrid system in Addu City	Complied Contract period extended to 31 st March 2022	Project activities completed and system commissioned in August 2021. O&M is ongoing under the contract period and will end in October 2022.
AF	Contract award (POISED-AF 001) to Sino Soar Hybrid (Beijing) Technology Co. Ltd. on 29 th November 2021	Design, supply, installation & maintenance of grid-tied solar PV-diesel hybrid power generation plants for 12 islands in Thaa Atoll (POISED-AF 001)	Contract signed on 29 th November 2021	Work has commenced on detail design. On-site work has not started yet.

6.0 Compliance to Environmental Management Plan

No major site works has occurred during this reporting period. On-site work was being done only in Haa Dhaalu (EIB) where the Contractor has completed the major works early in the year. PMU conducted pre-commissioning visits to Haa Dhaalu islands in (1 February 2022, 19-23 March 2022 and 27-29 June 2022). Following this, discussions had been ongoing with Contractor to address identified issues. Rectification work, including correcting EMS related issues, replacing faulty inverters, painting, guttering, applying sealants for control room outer walls and roofing sheets, are ongoing in the 2nd Quarter of 2022. In Haa Alifu, battery replacement work was ongoing under O&M and similarly, EMS issues were being resolved under O&M in Addu. Other issues such as need for relocation of the inverter room in Sharafudhdeen School and trimming of trees shading the PV panels in Hithadhoo school have been identified are planned for the next quarter.

No incidences, including occupational health incidents, were reported during this reporting period. Monitoring of noise and air quality measurements for operational sites was not possible during this reporting period. However, there were no complaints or issues regarding these during the reporting period. The environmental monitoring outlined in IEE¹ and

compliance of the sub-projects is given in section 7.2 Quantitative Environmental Monitoring. Completed contracts are not included in this table, as there monitoring is now with the utility.

The environmental mitigation outlined in the applicable IEE as disclosed on the ADB website or if no separate EMP was included the original POISED IEE EMP requirements². Compliance of the ongoing sub-projects is given in the tables below, including retrospectively for the construction period. For the AF EMP compliance will be reported in the next quarter.

Table 1. Review of EMP implementation for pilot islands, Haa Alif, Haa Dhaalu, Shaviyani & Noonu, and Addu Battery sub-projects

Project activity /stage	Potential impact	Proposed mitigation measure	Mitigation Cost	Institutional responsibility	Implementation schedule	Implementation Status
A. Pre-construction						
Location	Encroachment into precious ecological and protected areas	Careful site selection to avoid encroachment of ecological sensitive areas including protected areas and areas of historical and cultural importance.	Project Cost	EA, IA through PMC	Detailed design	Complied
	Topography and visual impacts	Careful selection of site away from inhabited areas.	Project Cost	EA, IA through PMC	Detailed design	Complied
Access	Impacts due to construction of new access roads and wharfs	Proposed sites are accessible by existing wharf and road network. Therefore, no need to construct new access roads or wharfs. In case requirement arises for new roads/wharfs, this EMP will be updated to address associated impacts.	Project Cost	EA, IA through PMC	Detailed design	No new roads/wharfs constructed
	Project design	Negligence of environmental mitigation measures	Ensure that EMP is included in the bidding documents	Project cost	EA, IA through PMC	Tendering process
		Updating EMP	Mitigation measures defined in this EMP will be updated and incorporated into the detailed design to minimize adverse impacts	Project cost	EA, IA through PMC	Detailed design

		Prepare environmental contract clauses for contractors, namely the special conditions (e.g. reference EMP and monitoring table)	Project cost	EA, IA through PMC	Tendering process	Environmental clauses were added in the bidding documents and contracts, but references to the EMP and monitoring table were omitted. EMP will be included for any future POISED sub-projects.
Climate Change	Risk of climate change	Provided solar PV plants with resilience to climate change through compact and preassembled systems resistant to marine/coastal environments.	Project cost	EA, IA through PMC	Detailed design	Completed
Equipment design and selection	Release of toxic chemicals and gases in receptors (air, water, land) Noise from equipment/machineries	<ul style="list-style-type: none"> The new diesel generator will be designed to comply with World Bank's EHS guidelines for small combustion facilities and EHS guidelines for ambient noise both for day time and night time. PCBs should not be used in transformers and other project facilities or equipment. Ensure equipment and machinery used for construction will not release any toxic chemicals, such as CFCs. 	Project Cost	EA, IA through PMC	Tendering process	Completed
Statutory clearances/permits	Delay in the project process	Ensure that all necessary permits and clearances i.e. environmental permit from EPA, Island Environment Authority) are obtained prior to commencement of civil work.	Project Cost	EA, IA through PMC	Prior to commencement of civil work	Permits obtained

Involuntary resettlement or land acquisition	Social inequities	Compensation paid for temporary/ permanent loss of productive land as per entitlement framework and its process, if necessary.	Project Cost	EA, IA through PMC	Prior to commencement of civil work	Not Applicable
Site clearing	Cutting/trimming of trees and removal of vegetative cover	Compensatory afforestation as per government policies.	To be included in EPC Contractor cost.	EPC Contractor & PMC	Preparation of site prior to civil work	Complied
Use of drones for surveying rooftops	Disturbances to avifauna (mainly crows which are considered a pest) Impacts on privacy of nearby residents	Careful use during operations Time for survey is based on consultancy with Island Councils and nearby residents are informed earlier of the survey.	-	Technical survey team	During technical survey	Unknown Only applicable to HA, Sh. and N. subprojects
B. Construction						
Construction of access road	- Increase in airborne dust particles - Increased land requirements for temporary accessibility	All proposed sites are accessible with existing road. These roads will be used for construction and maintenance access to the sites wherever possible to avoid dust emission. In case new access roads required, it will be limit to the minimum width required to avoid land acquisition.	To be included in Contractor cost.	EPC Contractor, EA/IA through PMC	During civil work construction	No access roads constructed
Installation of Solar Panels, and Storage of construction material and movement of vehicles	Topography and visual impacts	Selection of suitable storage areas for materials or plant with minimum visibility from residences and roads with screening where necessary.	To be included in EPC Contractor cost.	EPC Contractor & PMC	During civil work construction	Complied

Construction activities	Generation of dust by construction activities	- Vehicles carrying soil, sand, or other fine materials to and from the sites must be covered. - Water will be spread on construction sites and access roads each day.	To be included in EPC Contractor cost.	EPC Contractor & PMC	During civil work construction	Complied
Installation of PV panels	Noise disturbances to residents	- Select machinery that will minimize noise - Times of work are chosen after discussion with Island Councils to minimize disturbances to residents.	Contractor cost	EPC & PIU	During civil works	Unknown Only applicable to HA, Sh. and N. subprojects
	Difficulty to access public buildings during construction	Schedule of work will be discussed with Island Council and will accommodate their suggestion on best times for work.	-	PIU	During civil works	Unknown Only applicable to HA, Sh. and N. subprojects
Digging trenches for grid works	Disturbances due to traffic to and from sites	This will not be a lot. Complete as soon as possible	-	Contractors & PIU Supervision	During civil works	Unknown Only applicable to HA, Sh. and N. subprojects
	Difficulty in road access during trench digging for cable upgrades	Work will be carried out as fast as possible Whole roads will not be blocked	-	Contractors & PIU Supervision	During civil works	Unknown Only applicable to HA, Sh. and N. subprojects
Construction debris and wastewater	Adverse impacts on surrounding environment due to construction waste. Pollution of water bodies due to disposal of waste material into water bodies.	- Construction waste that cannot be reused will be regularly transported offsite for disposal, and not allowed to accumulate on site over long periods. - Provision of adequate drainage system including controlled collection and preliminary treatment of wastewater.	To be included in EPC Contractor cost.	EPC Contractor & PMC	During civil work construction	Complied except for provision of drainage system, such a drainage system was considered unnecessary as there is no wastewater generated by the subprojects

All construction related work	Waste generated	<ul style="list-style-type: none"> - Disposed as instructed by Island Council. - Waste that cannot be managed at the islands will be removed to a facility such as Thilafushi by contractors. - Work will be carefully overseen by powerhouse managers and Island Councils 	Contractors cost	Contractors & PIU Supervision	During civil works	Unknown Only applicable to HA, Sh. and N. subprojects
	Occupational health and safety	Careful monitoring and training of workers on safety issues	Contractors cost	Contractors & PIU Supervision	During civil works	Unknown Only applicable to HA, Sh. and N. subprojects
Movement and operation of construction equipment	Noise generated from operation and movement of trucks and cranes	<ul style="list-style-type: none"> - Construction techniques and machinery selection seeking to minimize ground disturbance. - Machines noise level not more than 85dB(A) at avg. 8 hrs. 	To be included in EPC Contractor cost.	EPC Contractor (preparation and implementation) PMC (approval)	During land clearing and civil work construction	Complied
	Visual impacts from storage and haulage of construction material	Selection of suitable storage areas for materials or plant with minimum visibility from residences and roads with screening where necessary.	To be included in EPC Contractor cost.	EPC Contractor (preparation and implementation) PMC (approval)	During land clearing and civil work construction	Complied
Transportation of equipment and construction material.	Dust and particulate emission from movement of construction vehicles transporting equipments and construction material.	<ul style="list-style-type: none"> - Truck wheels cleaning - Road covering (if possible), cleaning and spraying water (if necessary) and watering 	To be included in EPC Contractor cost.	EPC Contractor	During land clearing and civil work construction	Complied

Cutting of trees and clearing / trimming of trees and vegetative cover	Loss of trees and vegetative covers	<ul style="list-style-type: none"> - Removal of only those trees, which are necessary. - Transplanting of trees if this is possible. - Prohibiting illegal cutting of trees by construction workers for domestic uses. - Planting of trees in coordination with the Island Authorities of target island 	To be included in EPC Contractor cost.	EPC Contractor	During land clearing and civil work construction	Complied
Public access	Hindrance to public access due to project construction activities	<ul style="list-style-type: none"> - Consultation with residents to reach agreements - Development of temporary access roads and traffic diversion plan, if required - Adequate safety measures like traffic controller, erect and maintain barricades, signs, markings, flags, lights etc. 	To be included in EPC Contractor cost.	Contractor, PMC, Island Council	During land clearing and civil work construction	Complied
Occupational Health and Safety	Impacts on workers health due to working with trucks and piling cranes, Building construction, high voltage work	<ul style="list-style-type: none"> - Provide Safety Manual - Provide Safety Plan - Supervision and Inspection - Protection PPEs/gears - Fuel and other hazardous materials securely stored at least 100m away from the high tide line. <p>To minimize health impacts, following additional measures would be implemented.</p> <ul style="list-style-type: none"> - Construction activities only undertaken during the day and local communities informed of the construction schedule. - Construction workforce facilities to include proper sanitation, water supply and waste disposal facilities. 	To be included in EPC Contractor cost.	Contractor (preparation and implementation) PMC (approval)	During land clearing and civil work construction	Unknown

			<ul style="list-style-type: none"> - Protect /preserve topsoil and reinstatafter construction completed. - Contract provisions specifying minimum requirements for workers camps. - Contractor to prepare and implement ahealth and safety plan including safety manual. - Contractor to arrange for health and safety training sessions. - World Bank's EHS guidelines will be followed to ensure health and safety ofworkers. 						
Construction activities	Unexpected environmental impacts	If unexpected environmental impacts occur during project construction phase, the PMC will update the EMP, and the environmental protection measures will be designed and resources will be utilized to cope with these impacts.	Project cost	EA, PMC	During construction	Unknown			
C. Operation and Maintenance									
Reflection and glare from Solar arrays	Visual impacts and glare	Design of solar arrays to absorb incidentsolar radiation. Proper orientation of arrays.	To be included in EPC Contractor O&M cost.	EPC Contractor	During tendering, operation and maintenance	Unknown			
Cleaning of Solar Panels	Wastewater Generated from cleaning of solar panels	Provision and cleaning of adequatedrainage system.	To be included in EPC Contractor O&M cost.	EPC Contractor	During operation and maintenance	Unknown			
Natural Disasters	Damage from cyclones andstrong winds.	Design of foundations and racking system to withstand powerful cyclones and strongwinds, which will reduce any potential hazard of panels being lifted up and blown onto adjacent properties.	To be included in EPC Contractor O&M cost.	EPC Contractor	During construction and operation and maintenance	Unknown			

Health and Safety	Health hazards in the event of accidents (cyclones, weather related events) and emergency	Emergency Response Plan Health and Safety Plan World Bank's EHS Guidelines will be followed.	Emergency during operation and maintenance	Unknown
Disposal and management of batteries	Impacts from used batteries and panels	Adequate storage and handling system.	During operation and maintenance	Unknown
Operation of project facilities	Unexpected environmental impacts	If unexpected environmental impacts occur during project operation phase, the IA will update the EMP, and the environmental protection measures will be designed in compliance with World Bank's EHS Guidelines and resources will be utilized to cope with these impacts.	During operation	Unknown
Running of the hybrid system	Changes in noise and pollution from powerhouses	Monitoring of these parameters according to Environmental Monitoring Plan	During operations	Unknown Only applicable to HA, Sh. and N. subprojects
	Disturbances to avifauna from glare of PV panels	This will be low as there are few birds in the islands. Most of the birds in the residential areas are crows which are considered a pest.	-	Unknown Only applicable to HA, Sh. and N. subprojects
	Occupational health and safety from battery units	Buy high quality battery units with build in automatic fire alarms Location away from normal work areas Proper training of staff on the risks Set up water and wash	Before operation commences and during operation for replacement of batteries	Unknown Only applicable to HA, Sh. and N. subprojects

		areas near battery storage area					
D. Decommissioning							
Dismantling of PV panels	Impacts from disposal of PV panels and batteries.	Contract agreements with PV panel suppliers for dismantling and disposal of panels and batteries.	Maintenance cost	EA	Post operation	Unknown	

Table 2. EMP for 8MW Diesel Generator Sub-Project

Project Stage / Activity	Proposed Mitigation Measures / Procedures	Responsibility	Implementation Timeframe	Monitoring Methods	Performance Indicators	Mitigation Cost (USD)	Implementation Status
A. Design Phase							
Engine Design	The diesel generator will be designed to comply with World Bank Group's Environmental, Health, and Safety Guidelines for Thermal Power Plants and World Bank's Environmental, Health, and Safety General Guidelines (for Noise levels).	Contractor, in consultation with STELCO Project Manager	Design	Review plans		Project cost	Standards met
	Design engine to meet World Bank and IMO exhaust emission standards.						
	Design engine with exhaust system including 45 m stack.						
	Ensure that EMP is included in the bidding documents	PMU and STELCO	Design	Review plans		Project cost	Not included but environmental clauses have been included in the bidding document and contract.
Statutory permits / clearances	Ensure that all necessary permits and clearances i.e. environmental permit from EPA etc. are obtained prior to commencement of civil work.	PMU and STELCO	Pre-installation	-		Project cost	Complied
B. Installation Phase							
Pre-installation	Inform adjacent residents and business owners at least one month before installation activities will start in a	Contractor, in consultation with	1 month before		Record of meetings, notifications and/or	Project cost	Complied

Project Stage / Activity	Proposed Mitigation Measures / Procedures	Responsibility	Implementation Timeframe	Monitoring Methods	Performance Indicators	Mitigation Cost (USD)	Implementation Status
activities	particular section.	STELCO Project Manager	intended commencement of installation		interactions		
	<p>Undertake awareness training to ensure that all staff are aware of environmental management of installation activities and the stipulations of the EMP, particularly:</p> <ul style="list-style-type: none"> • Spill protocols (fuel) and emergency procedures; • Run-off management; and • Waste management. <p>Consider implementing a penalty system if required, e.g. contractors are liable for the remediation of sites they pollute and, in the case of repeat offences, consider issuing a stop work order.</p>	Contractor	<ul style="list-style-type: none"> • Regularly, throughout installation • At regular toolbox talks • When new personnel comes on site 	<p>Keep a record of attendance at all training sessions</p>	<ul style="list-style-type: none"> • Training records • Awareness of staff 	Project cost	Complied
Project site	<ul style="list-style-type: none"> • Ensure that access to the project site is restricted and sign-posted. • Control access to all working areas such that only approved vehicles and persons have access. 	Contractor operating sites	Throughout installation	Security and entry logs	Number of breaches of access restrictions	Project cost	Complied
	<p>Ensure that the site office, toilets and storage areas for building materials are located at least 50 m away from the lagoon and sea shore.</p>			Review site layout	Suitable distance	Project cost	Complied
	<p>Ensure that storage and laydown areas are provided with appropriate bunds to prevent runoff from these areas towards lagoon.</p>			Visual inspection of areas surrounding construction site	<ul style="list-style-type: none"> • Bund in place • No runoff observed from site or in adjacent areas / water bodies 	Project cost	Complied
	Keep a copy of the EMP at the site.			Check availability of		Project cost	Complied

Project Stage / Activity	Proposed Mitigation Measures / Procedures	Responsibility	Implementation Timeframe	Monitoring Methods	Performance Indicators	Mitigation Cost (USD)	Implementation Status
	Keep work sites tidy and all activities, material and machinery contained within an area that is as small as possible.			EMP			
	Keep sufficient fire fighting equipment on site at all times, especially where activities such as welding are performed.			Visual inspection of site	Construction site is neatly arranged	Project cost	Complied
	Design and construct hazardous material storage facilities, especially fuel storage, with suitable impermeable materials and a minimum bund containment capacity equal to 110% of the largest container.			Check availability of firefighting equipment		Project cost	Complied
Hazardous Materials	Locate hazardous material storage facilities, especially fuel storage, as far as practically possible from the lagoon.	Contractor	Throughout installation	Visual inspection of hazardous materials handling and storage area	<ul style="list-style-type: none"> Number of incidents of non-compliance with safety procedures concerning hazardous materials, including waste materials Number of spills of hazardous materials, including waste materials Cost of cleaning up spills Evidence of contamination and leaks. 	Project cost	Complied
	Ensure that contaminants are not placed directly on the ground.						Complied
	Develop (or adapt and implement) procedures for the safe transport, handling and storage of potential pollutants.						Complied
	Avoid unnecessary use and transport of hazardous substances.						Complied
	Keep Material Safety Data Sheets for all hazardous materials on site and ensure that they are available for reference by staff responsible for handling and storage of materials.						Complied
Transportation	Undertake regular maintenance of vehicles and machinery to identify and repair minor leaks and prevent	Contractor	Throughout	Visual inspection of	Number of incidents of non-	Project cost	Complied

Project Stage / Activity	Proposed Mitigation Measures / Procedures	Responsibility	Implementation Timeframe	Monitoring Methods	Performance Indicators	Mitigation Cost (USD)	Implementation Status
and refueling	equipment failures.		installation	vehicles, barges, machinery and refueling/maintenance areas	compliance <ul style="list-style-type: none"> Number of leaks and spills Cost of cleaning up spills 		Complied
	Undertake any on-site refueling and maintenance of vehicles/machinery in designated areas. Line these areas with an impermeable clay surface and install oil traps.						Complied
	Use appropriately sized drip trays for all refueling and/or repairs done on machinery – ensure these are strategically placed to capture any spillage of fuel, oil, etc.						Complied
	Ensure that boats and barges do not release pollutants into the water and have adequate mooring or anchoring facilities.						Complied
	Ensure compliance with international safety standards in barge and tanker operations.						Complied
	Clean up any spills immediately, through containment and removal of free product and appropriate disposal of contaminated soils.						Complied
	Keep spill containment and clean-up equipment at all work sites and for all polluting materials used at the site.						Complied
Activities near lagoon and water bodies	Stabilise exposed surfaces if required to avoid soil erosion.	All Contractors	Throughout installation	Visual inspection of construction site and surrounding / downstream land and river areas	Visible erosion	Project cost	N/A
	Avoid dumping of material on, or within 50 m of, the lagoon.						Complied
	<ul style="list-style-type: none"> Avoid any discharge of effluents or polluted water into the lagoon. Contain contaminated storm water runoff and all wastewater generated from construction areas and treat prior to discharge as far as practicable. 						Complied

Project Stage / Activity	Proposed Mitigation Measures / Procedures	Responsibility	Implementation Timeframe	Monitoring Methods	Performance Indicators	Mitigation Cost (USD)	Implementation Status
	Avoid washing of vehicles and machinery near the lagoon.				<ul style="list-style-type: none"> Dedicated wash place Indication of runoff into lagoon 	Project cost	Complied
Noise and air emissions	<ul style="list-style-type: none"> Limit the use of heavy machinery and construction activities associated with high noise levels to 08h00 to 17h00 from Sunday to Thursday, particularly where residential areas or sensitive institutions are situated close to the power plant. Notify any nearby residents if construction work is planned outside of those times. <p>Maintain all generators, vehicles, vessels and other equipment in good working order to minimise exhaust fumes and excess noise.</p> <p>If complaints regarding noise are received from residents, consider installing partial screening around the noisiest activities and/or mufflers on noisy equipment.</p>	Contractor operating machinery	Throughout installation	<ul style="list-style-type: none"> Visual assessment of dust plumes Random machinery checks 	<ul style="list-style-type: none"> Number of registered complaints Number of days that dust plumes are visible Visibility of dust coming off work site 		Complied
							Complied
							No complaints
Waste management	<p>Develop a waste management plan or implement the waste management plan applied to the entire STELCO power plant.</p> <p>Aim to minimise waste through reducing and re-using (packaging) material.</p> <ul style="list-style-type: none"> Collect all waste in bins and/or skips at the work site Prevent littering by construction staff at work sites by providing bins or waste bags in sufficient locations. Provide separate bins for hazardous / polluting materials and mark these clearly. Store hazardous / polluting materials on impermeable ground until it is disposed of / collected. 	STELCO	Before establishment	Availability of plan	-	Project cost	Complied
		Contractor	Throughout installation	<p>Visual inspection of waste collection and disposal areas</p> <p>Visual inspection of construction</p>	<ul style="list-style-type: none"> Presence of litter Availability of rubbish bins and skips Degree to which rubbish bins and skips are filled Frequency of 	Project cost	Complied
							Complied
							Complied

Project Stage / Activity	Proposed Mitigation Measures / Procedures	Responsibility	Implementation Timeframe	Monitoring Methods	Performance Indicators	Mitigation Cost (USD)	Implementation Status
	Dispose of waste appropriately to prevent pollution of soil and groundwater. Do not allow any burning or burying of waste on site.			areas (litter)	waste collection • Area of land used for waste		Complied Complied
Occupational Health and Safety	<ul style="list-style-type: none"> • Provide Safety Manual • Provide Safety Plan • Supervision and Inspection • Protection PPEs/gears • Fuel and other hazardous materials securely stored at least 100m away from the high tide line. <p>To minimize health impacts, following additional measures would be implemented.</p> <ul style="list-style-type: none"> • Installation activities only undertaken during the day and local communities informed of the construction schedule. • Construction workforce facilities to include proper sanitation, water supply and waste disposal facilities. • Protect /preserve topsoil and reinstate after construction completed. • Contractor to prepare and implement a health and safety plan including safety manual. • Contractor to arrange for health and safety training sessions. • World Bank's EHS guidelines will be followed to ensure health and safety of workers. 	Contractor	Throughout installation	Review of records and reports	Number of incidences	Project cost	Complied
Sea and road traffic management	<p>Manage construction sites and activities so as to minimise impacts on road traffic as far as possible, e.g.:</p> <ul style="list-style-type: none"> • Attempt to arrange delivery of materials when it will least disrupt traffic; • Deliver large pieces of equipment via the sea; and • Keep construction materials and machinery at the construction site throughout the construction period, 	All contractors operating vehicles or barges	Throughout installation	Keep record of incidences and complaints	Number of incidences and complaints	Project cost	Complied

Project Stage / Activity	Proposed Mitigation Measures / Procedures	Responsibility	Implementation Timeframe	Monitoring Methods	Performance Indicators	Mitigation Cost (USD)	Implementation Status
	where possible.						Complied
	Ensure that all safety measures are observed and that drivers comply with the rules of the road.						Complied
	Ensure that trucks transporting large equipment or hazardous material are clearly marked and accompanied by safety vehicles, if necessary.						Complied
	<ul style="list-style-type: none"> Attempt to maximise the occupancy rate of vehicles to minimise the number of required vehicles. Encourage personnel to carpool when driving to and from the site. 						Complied
	Ensure compliance with international and national safety standards and procedures for barge and tanker operations.			<ul style="list-style-type: none"> Inspection of required papers Visual inspection of vessels 	<ul style="list-style-type: none"> Availability of all required papers and certificates Condition of vessels 	Project cost	Complied
	<ul style="list-style-type: none"> Inform all potentially affected parties of any restrictions to road use. Clearly mark areas to which restrictions apply. 	Contractor, in consultation with STELCO Project Manager	2 weeks before restrictions become effective	<ul style="list-style-type: none"> Keep record of communications 	<ul style="list-style-type: none"> Frequency and type of restrictions Number of incidents and complaints 	Project cost	Complied
Employment	<p>Consider maximising the employment of local workers.</p> <p>Work closely with the local community to identify and communicate required skills and resources that the local community could provide.</p>	STELCO Project Director	Throughout installation	<ul style="list-style-type: none"> Keep record of employed staff split by origin 	Number of Suriname nationals employed	Project cost	Complied
Community interaction	Consider implementing labour-intensive rather than capital-intensive work methods wherever possible.	STELCO Project Director	Throughout installation	<ul style="list-style-type: none"> Keep record of inductions 	<ul style="list-style-type: none"> Availability of communications 	Project cost	Considered

Project Stage / Activity	Proposed Mitigation Measures / Procedures	Responsibility	Implementation Timeframe	Monitoring Methods	Performance Indicators	Mitigation Cost (USD)	Implementation Status
	<p>Consider purchasing resources from local sources wherever possible.</p> <p>Provide construction workers living in camps with an induction and clear guidance on community interaction.</p> <p>Maintain a complaints register.</p>			and complaints.	<p>policy</p> <ul style="list-style-type: none"> • Awareness of policy • Number of non-compliances with policy • Availability of complaints register on site • Number of complaints or compliments received 		<p>Considered</p> <p>N/A.</p> <p>Maintained</p>
Work site rehabilitation	<p>Remove all materials and obsolete structures (if any) from the site after installation.</p> <p>Ensure soil stability by e.g. re-profiling or re-vegetating the site or using stabilisation measures such as geotextiles if required and possible.</p> <ul style="list-style-type: none"> • Check site for contaminated soil • Treat any contaminated soil with remediation products 	Contractors operating sites	At end of installation activities	<ul style="list-style-type: none"> • Visual inspection of site by PMU Project Manager before site hand-over to STELCO • If required, sampling of portions of the site to determine contamination • Keep records of clean-up activities / 	<p>Material and structures remaining on site and in adjacent areas</p> <ul style="list-style-type: none"> • Contamination of soil (e.g. discoloration, test results) • Indications of erosion 	Project cost	<p>Complied</p> <p>N/A</p> <p>Complied</p>

Project Stage / Activity	Proposed Mitigation Measures / Procedures	Responsibility	Implementation Timeframe	Monitoring Methods	Performance Indicators	Mitigation Cost (USD)	Implementation Status
				disposal of contaminated material			
C. Operation Phase							
Plant maintenance	Adapt and implement the power plant monitoring and maintenance programme in line with international standards and STELCO guidelines and to cover newly installed engines.	STELCO Operations Manager	Before new DGU becomes operational	Review monitoring programme	Compliance with relevant standards	Project cost	Complied
	Perform regular internal and external audits of the power plant maintenance programme to ensure it is implemented effectively.		Throughout operations	Regularly review audit reports and schedule	<ul style="list-style-type: none"> Compliance with audit schedule Outcome of audit 	Project cost	Complied
Disposal of Sludge Oil and Oily Water	Provide oily water separator to reliably achieve less than 10 ppm oil.	STELCO Operations Manager	Throughout operations	Regularly review audit reports and schedule	<ul style="list-style-type: none"> Compliance with relevant standards 	Project cost	Complied
	Store and dispose oily waste in designated places only.						
Disposal of Waste Lube Oil	Provide lube oil separators.	STELCO Operations Manager	Throughout operations	Regularly review audit reports and schedule	<ul style="list-style-type: none"> Compliance with relevant standards 	Project cost	Complied
	Leaking oil from engines should be collected and in the majority of cases led into the leak oil tanks. This leak oil is collected together with sludge from lube oil separators and should be transported to Thilafushi.						
Discharging of Cooling Water	Provide appropriate cooling water system.	STELCO Operations Manager	Throughout operations	Regularly review audit reports and schedule	<ul style="list-style-type: none"> Compliance with relevant standards 	Project cost	Complied
	Discharge cooling water through outfall pipes.						

Project Stage / Activity	Proposed Mitigation Measures / Procedures	Responsibility	Implementation Timeframe	Monitoring Methods	Performance Indicators	Mitigation Cost (USD)	Implementation Status
Wastewater from Heat Recovery Boiler	Acidic wastewater from boiler cleaning will be collected in a neutralization tank and given prior treatment before discharge.	STELCO Operations Manager	Throughout operations	Regularly review audit reports and schedule	<ul style="list-style-type: none"> Compliance with relevant standards 	Project cost	N/A no boiler in site
Health and Safety	<ul style="list-style-type: none"> Emergency Response Plan Health and Safety Plan World Bank's EHS Guidelines will be followed. 	STELCO Operations Manager	Throughout operations	Regularly review audit reports and schedule	<ul style="list-style-type: none"> Compliance with relevant standards 	Project cost	Complied
Monitoring	Conduct annual stack monitoring to confirm the accuracy of flow rate, temperature and emission data from the power plant and refinery.	STELCO Operations Manager	Annual throughout operations	<ul style="list-style-type: none"> Review monitoring programme Regularly review audit reports and schedule 	<ul style="list-style-type: none"> Compliance with programme Outcome of audits 	30000	Complied
	Conduct passive monitoring of ambient SO ₂ and NO ₂ of the expanded power plant twice a year (dry and wet season) at the nearest residential area and along the plant perimeter to ensure ground-level concentrations are within the relevant limits until relevant limits are not exceeded for two consecutive sampling campaigns.		Twice a year throughout operations				Complied
Operation of sub-project facilities	If unexpected environmental impacts occur during project operation phase, the IA will update the EMP, and the environmental protection measures will be designed in compliance with World Bank's EHS Guidelines and resources will be utilized to cope with these impacts.	STELCO Operations Manager	throughout operations	<ul style="list-style-type: none"> Review monitoring programme Regularly review audit reports and schedule 	<ul style="list-style-type: none"> Outcome of audits 	-	Unknown

7.0 Environmental Supervision and Monitoring Results

7.1 Environmental Supervision

The following table sets out the training undertaken from Jan-Jun 2022:

Trainings	Number and Position of Participant/s	Location/s and Date/s	Remarks
Supervisors training of Th. atoll	24 participants	Th. Vilufushi, 25 th January 2022	

There is no allocated budget to monitor spend against, budget of PIU is spent as follows:

Activity	Allocated Budget	% Spend	Remarks
Overseeing of compliance during construction and operation; liaison with powerhouse staff and contractors to ensure compliance, reporting	N/A	N/A	EMP implementation and monitoring activities included in consultant and contractor contracts. Overseeing of work and environmental and social compliance assigned to on-site powerhouse staff.

The following environment safeguard supervision visits have been undertaken from Jan-Jun 2022:

Date	Type and Purpose of Visit	Location/s Visited	EA, IA, Consultant Staff Participating	Remarks
None				

7.2 Quantitative Environmental Monitoring

Quantitative monitoring of noise at construction sites and at powerhouses during operation are to be measured 2-3 times a year during construction and 1-2 times per year during operation depending on the subproject IEE. The applicable daytime and nighttime

limit is <70 dB for the powerhouse boundary, with a daytime limit of <55dB and nighttime limit of < 45 dB at the nearest residential receptor.

Most subprojects have completed construction, and for HDh no major construction work was done during this reporting period, hence measurements during construction are not reported.

In small islands like the Maldives, residential areas are quite close to powerhouses, and it is difficult to maintain the safer distance. Powerhouses at Shaviyani and Noonu have been handed over to FENAKA and hence, O&M noise measurements were not conducted. For Haa Alif and Addu, O&M noise measurements will be undertaken next quarter after training the utilities staff. For future monitoring specific locations will be identified before operations of the facilities start to compare before and after measurements.

Air quality was qualitatively observed, and no issues were identified in the operational islands.

Environmental Features	Aspect to be Monitored	Pilot Islands 001 (ADB)	Pilot Islands 002 (ADB)	HA (ADB)	Sh (ADB)	N (ADB)	HDh (EIB)	8MW DG (ADB)	Addu (JFJCM)
Construction stage									
Noise	Noise levels in dB(A) At the start of concerned activities. At least 2-3 times during construction/installation period (see IEE for details of period required as differs by subproject).	N/A	N/A	N/A	N/A	N/A	Unknown	N/A	N/A
Air	Emission of dust and particulate matter For 5 pilot IEEs and 8 MW diesel generation also NOx, Sox. At the start of concerned activities. At least 2-3 times during construction/installation period (see IEE for details of period required as differs by subproject).	N/A	N/A	N/A	N/A	N/A	Unknown	N/A	N/A
Physical Progress	As specified in contractors' plan Project site monthly	N/A	N/A	N/A	N/A	N/A	Unknown	Not required for this subproject	N/A
Occupational Health and Safety	As specified in project OHS plan Project site Weekly	N/A	N/A	N/A	N/A	N/A	Unknown	N/A	N/A
Operations stage									
Occupational Health and Safety	As specified in project OHS plan Project site Weekly	Unknown	Unknown	None reported	None reported	None reported	N/A	Unknown	None reported

Environmental Features	Aspect to be Monitored	Pilot Islands 001 (ADB)	Pilot Islands 002 (ADB)	HA (ADB)	Sh (ADB)	N (ADB)	HDh (EIB)	8MW DG (ADB)	Addu (JFJCM)
Noise	Noise levels in dB(A) At least 1-2 times in a year (see IEE for details of period as it differs by subproject, for 8 MW diesel generation to be monitored for two years).	Unknown	Unknown	Will be measured in next reporting	Unknown	Unknown	N/A	Unknown	Will be measured in next reporting
Air	Emission from DG sets. For 5 pilot IEEs and 8 MW diesel generation parameters noted as SPM, NOx, and Sox. At least 1-2 times in a year (see IEE for details of period as it differs by subproject, for 8 MW diesel generation to be monitored for two years).	Unknown	Unknown	Will be measured in next reporting	Unknown	Unknown	N/A	Unknown	Will be measured in next reporting
Escape of Hazardous Pollutants from transportation of used batteries	Monitoring of routes of transportation of used batteries. Once in a year. Shipping route.	Unknown	Unknown	Not required for this subproject	Not required for this subproject	Not required for this subproject	N/A	Not required for this subproject	Unknown
PV panel	Need to be cleaned (e.g. bird droppings). Cleaned during rainfall and without use of detergent or chemicals.	Not required for this subproject	Not required for this subproject	Not required for this subproject	Unknown	Unknown	N/A	Not required for this subproject	Not required for this subproject
Water temperature at outfall (for 8 MW diesel generation only)	Temperature of seawater Project site At least 2 times in a year for 2 years	Not required for this subproject	Not required for this subproject	Not required for this subproject	Not required for this subproject	Not required for this subproject	Not required for this subproject	Unknown	Not required for this subproject

7.3 Pollution Control Monitoring

No pollution issues arose during this reporting period.

Waste oil from power generation is safely stored in airtight barrels and re-exported. No other hazardous materials were used during the reporting period.

The solar panels installed are according to the specifications and PV modules are specified to be aluminium frame and silicone crystalline type. Further information of chemicals used are not available. Any hazardous chemicals leaching to soils would be an issue during disposal stage. Currently, under project, FENAKA and STELCO will be responsible for shipping the panels and batteries at end-of life to manufacturers for disposal. FENAKA and STELCO have sufficient storage space to keep these till re-exportation. The area will be constructed to avoid any leakage into the soil.



Figure 3. Barrels of waste oil

7.4 Occupational and Community Health and Safety Monitoring

No occupational health incidences were reported during this reporting period. However, a health and safety guidelines for working under the COVID19 situation was drafted and submitted to ADB in June 2020. The following trainings were provided during Jan-June 2022:

Trainings/Drills/ Inspections	Number and Position of Participant/s	Location/s and Date/s	Remarks
None			

The incident record for Jan-June 2022 is as follows:

	Number and Position of Person/s Involved	Location/s and Date/s of Incident	Detailed Description of Incident	Time-bound Corrective Action
Fatality	None			
Non-fatal Injury (Lost Time)	None			
Non-fatal Injury (Minor)	None			
Near-miss	None			
Illness	None			
Other Incidents	None			

8.0 Social Safeguards Compliance

Utmost attention is given while conducting the performance monitoring as to achieve the objectives of ADB's SPS 2009 with regard to social safeguards and involuntary resettlement. Hence, monitoring is made to observe the subprojects compliance with legal and policy requirements, social safeguard covenants, and resettlement plan requirements.

9.0 Compliance with Legal and Policy Requirements

The Social Safeguard parameters including Resettlement Framework (RF), land acquisition, eligibility and entitlements and compensations are set corresponding ADB's SPS 2009 and Maldives laws and regulations. The purpose of regular performance monitoring is to assess potential environmental, health, safety and social impacts of the subproject activities and any interventions undertaken under the POISED project. This enables to enforce all elements of Social Safeguard parameters set in the project documents and ensures that they are conducted in compliance with the ADB's SPS 2009 and Maldives laws and regulations.

No stakeholders or anyone from any of these subproject islands have formally lodged any complaint relating to any activity or any component implemented under the project being against or breached any law or regulation of the Maldives during this reporting period.

Mainly, solar PVs were installed on the roof top of government owned or FENAKA owned buildings and state owned land is used for the ground mounting if required due to the lack of adequate roof space in all islands with the permission of relevant agencies.

9.1 Compliance with Social Safeguard Covenants

The project activities were carried out as they align with social safeguard covenants and complying with ADB’s Social and Environmental Safeguards policy and the country’s laws and regulations. Meaningful consultations, pre and during project implementation, were conducted with subproject communities including women and Women Development Committees (WDCs), NGOs and individuals or youth from women and Women Development Committees and NGOs as appropriate. They were provided with opportunities to participate in information dissemination sessions. Particular attention was given to the needs of vulnerable groups and they will be provided with just and lawful compensation if they are affected from any of the project activities. Required information and documents are disclosed and additional consultations are conducted when needed.

Table 3. Social Compliance Requirements as per Grant Agreement

Covenant	Social compliance requirements	Compliance status
Sched. 4, Para. 17	The Recipient, shall ensure or cause STELCO and FENAKA to ensure that all land and all rights-of-way required for the Project, each Subproject and all Project facilities are made available to the Works contractor in accordance with the schedule agreed under the related Works contract and all land acquisition and resettlement activities are implemented in compliance with (a) all applicable laws and regulations of the Recipient relating to land acquisition and involuntary resettlement; (b) the Involuntary Resettlement Safeguards; (c) the RF; and (d) all measures and requirements set forth in the respective RP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	Have been complied
Sched. 4, Para 18	Without limiting the application of the Involuntary Resettlement Safeguards, the RF or the RP, the Recipient shall ensure or cause STELCO and FENAKA to ensure that no physical or economic displacement takes place in connection with the Subprojects until: (a) compensation and other entitlements have been provided to affected people in accordance with the RP; and (b) a comprehensive income and livelihood restoration	N/A

	program has been established in accordance with the RP.	
Sched. 4, Para 19	The Recipient shall ensure that the Project does not have any indigenous people impact, within the meaning of ADB's SPS. In the event that the Project does have any such impact, the Recipient shall take all steps required to ensure that the Project complies with the applicable laws and regulations of the Recipient and with ADB's SPS.; and (iii) the developed EMP with adequate budget is implemented for each subproject	N/A
Sched. 4, Para 22	(a) submit semi-annual Safeguards Monitoring Reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission;	Have been complied (all past monitoring reports have been submitted to ADB)

9.2 Compliance with Resettlement Plan Requirements

State owned land and buildings are utilised for solar panel installation, hence, not required voluntary or involuntary resettlement process to be undertaken in any of the subproject sites. All Island Councils (ICs) and City Councils (CCs) and government agencies agreed to provide necessary land and building structures for the project. Pre-approvals were sought and obtained for utilisation of roofs and the land allocation was made in early consultation process. New land allocation for solar PV ground mounting was sought from Naavaidhoo Island Council as initially allocated land was not available due to the harbour expansion work in progress. However, the newly allocated land was not approved by EPA, hence, the second request was made for land allocation and still the process is pending during this reporting period. And also was initiated the same process in Raa and Baa atolls during the previous reporting period and was completed during this reporting period. The same process also was completed in Kaafu, Alifu Alifu, Alifu Dhaalu, Vaavu, Meemu, Faafu and Dhaalu atolls during this reporting period. No land acquisition disputes arose. There are no indigenous people or communities identified in Maldives. However, the Resettlement Framework (RF) prepared for the project will guide the preparation of other phases of the project.

10.0 Meaningful Consultation and Grievance Redress

No on-site or online consultations were conducted during this reporting period as no site works were in progress during the reporting period. PMU work was mainly on preparatory works for the upcoming sub-projects. However, community consultation and GRM processes

are continued through phone and other online platforms, such as individual Viber groups for sub-projects, during the implementation of the projects.

The complaints received are set out in the following table, there was no complaint lodged during this reporting period.

Complainant/s or Affected Persons	Location/s and Date/s of Complaint	Description of Grievance/Complaint	Timeline*	Time-bound Corrective Action
None				

* To be solved within 2 weeks

11.0 Conclusions and Recommendations

All on-site activities under the current contracts have been completed and is at the O&M, except in Haa Dhaalu where work is ongoing to rectify issues identified during pre-commissioning. Overall, subproject activities are complying with the environmental and social safeguards. Of the AF projects only the Thaa sub-project has been contracted and currently detailed design work is in progress. The other sub-projects are at the bidding stage. Due to lack of qualifying bids, the solar-powered ice plant is being re-tendered and the solar ferry bid has been floated and is in the bidder inquiry period.

Annex 1: Pictures from pre-commissioning visits



Figure 4. Ground mounting in Kurinbi



Figure 5. Inverter room in Nolhivaram



Figure 6. BESS at Vaikaradhoo



Figure 7. Inside a BESS unit