

Maldives : Greater Male Waste-to-Energy Project

1. Project Information

Project ID:	P000278	Instrument ID:	L0278A
Member:	Maldives	Region:	Southern Asia
Sector:	Urban	Sub-sector:	Integrated waste management
Instrument type:	<input checked="" type="checkbox"/> Loan:40.00 US Dollar million <input type="checkbox"/> Guarantee	Lead Co-financier(s):	Asian Development Bank
ES category:	A	Borrowing Entity:	Ministry of Finance, Maldives
Implementing Entity:	Ministry of Environment, Maldives		
Project Team Leader:	Toshiaki Keicho		
Responsible DG:	Rajat Misra		
Responsible Department:	INF1		
Project Team Members:	Zhixi Zhu, OSD - Environment & Social Development Specialist; Liu Yang, Project Counsel; Bernardita Saez, Alternate Counsel; Shonell Robinson, OSD - Financial Management Specialist; Jurminla Jurminla, OSD - Procurement Specialist; Ankur Agrawal, Back-up PTL; Jinghui Li, Project admin		
Completed Site Visits by AIIB:	<p>Mar, 2021 .Virtual Inception Mission was held instead of site visit due to the Covid-19 pandemic. Discussions were held with the officials of Ministry of Finance, Ministry of Environment, Waste Management company (WAMCO) etc.</p> <p>Dec, 2021 .Lead Co-financier (ADB) had physical review mission from Dec 5-Dec 14. AIIB joined partly virtually.</p> <p>May, 2022 ADB team (lead co-financier), conducted the site visit during the mission from May 8 - May 19, 2022. AIIB team attended some mission meetings virtually.</p> <p>Nov, 2022 AIIB joined the physical implementation support mission led by ADB including the field visit to the WTE site to review the implementation progress.</p> <p>Mar, 2023 AIIB joined the physical implementation support mission led by ADB including the field visit to the WTE site to review the implementation progress</p>		
Planned Site Visits by AIIB:	<p>May, 2023 Field visit to the WTE plant site is planned in August, 2023 to review the implementation progress.</p>		
Current Red Flags Assigned:	0		
Current Monitoring Regime:	Regular Monitoring		
Previous Red Flags Assigned:	0		
Previous Red Flags Assigned Date:	2022/12		

2. Project Summary and Objectives

The main objective of the project is to establish a regional solid waste treatment system in the Greater Malé capital region. The project is designed to reduce disaster risk and improve climate change resilience while creating a cleaner environment and reducing greenhouse gas emissions. The project has two components: Component 1 - Establishment of climate resilient regional waste management facilities, including construction of a 500-ton per day (tpd) Waste-to-Energy (WTE) plant with flue gas treatment, emissions monitoring, a bottom ash processing plant, and an ash disposal landfill with leachate treatment ponds and Component 2 - Institutional capacity building in sustainable waste management, environmental monitoring and public awareness. AIIB is financing only Component 1.

The project will be implemented during the period October 2020 to September 30, 2026.

The Project cost is USD151.13 million which would be financed through AIIB loan of USD40.00 million, ADB loan of USD38.21 million, ADB grant of USD35.18 million, Japan Fund for the Joint Crediting Mechanism (JFJCM) grant of USD10.00 million and counterpart funds (Government of Maldives) of USD27.74 million.

3. Key Dates

Approval:	Sep. 10, 2020	Signing:	Sep. 29, 2020
Effective:	Dec. 11, 2020	Restructured (if any):	
Orig. Closing:	Mar. 31, 2027	Rev. Closing (if any):	

4. Disbursement Summary (USD million)

Contract Awarded:		Cancellation (if any):	0.00
Disbursed:	4.33	Most recent disbursement (amount/date):	0.18/Apr. 03, 2022
Undisbursed:	35.67	Disbursement Ratio (%) ¹ :	10.83

5. Project Implementation Update

A Design-Build-Operate (DBO) contract for the construction and operation of the Waste-to-Energy (WTE) plant was executed on October 10, 2021 and the site was handed over to the contractor in March 2022. Post initial delays in conducting geotechnical surveys, site activities have started in July 2022. The conceptual design for the WTE plant has been approved by the Project Management, Design and Construction Supervision Consultants (PMDSCS) supporting the PMU. Construction of fences surrounding the construction site has been completed. Currently, the works are going on for construction of workers accommodation, office building, on-site medical clinic and an on-site wastewater treatment facility. Further, resources for the piling works for the main WTE plant have been mobilized and the contractor is ready to start the works.

Components	Physical Progress	Environmental & Social Compliance	Procurement
Component 1:	Construction of fences	The Contractor's Environmental	The only procurement

¹ Disbursement Ratio is defined as the volume (e.g. the dollar amount) of total disbursed amount as a percentage of the net committed volume.

<p>Establishment of disaster and climate resilient regional waste management facility</p>	<p>surrounding the construction site has been completed. Currently, the works are going on for construction of workers accommodation, office building, on-site medical clinic and an on-site wastewater treatment facility. Further, resources for the piling works for the main WTE plant have been mobilized and the contractor is ready to start the works.</p>	<p>Management Plan (CEMP) was given a conditional approval on December 7, 2022 by the PMDCSC and the PMU. Necessary revisions to the CEMP will be finalized prior to WTE plant construction.</p> <p>The Environment Impact Assessment (EIA) report is being updated by the DBO contractor based on the approved designs; no construction can start before the EIA is updated and published.</p> <p>The Quarterly Environmental Monitoring Reports up to December 2022 have been approved by the ADB and disclosed.</p>	<p>package under the Bank financing was the DBO contract for the WTE plant and the same has already been awarded in the year 2021; the contractor is on board and the work is in progress.</p>
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Financial Management:

The project's disbursement ratio is about 10%, that comes mainly from the advance payment made to the DBO Contractor of the WTE plant in March 2022. The first Audited Project Financial Statements (APFS) is due by June 30, 2023, covering the period from project effectiveness on December 11, 2020, up to December 31, 2022. The audit is currently underway and is expected to be completed on time.

6. Status of the Grievance Redress Mechanism (GRM)

The Project GRM has multiple tiers – an individual or an interest group can contact DBO Contractor (1st tier), PMU/MOE (2nd tier), and if not resolved, the complainant could use judiciary approach. PMU (2nd tier) has been set up and able to receive grievances. A Grievance Redress Mechanism plan has been prepared by the DBO Contractor and will be implemented once it's approved. No complaints have been received.

7. Results Monitoring (please refer to the full RMF, which can be found on the last page of this PIMR)

Results monitoring shall be done in due course.

Remarks:

Project Objective Indicators	Indicator level	Unit of Measure	Cumulative Target Values																				Frequency	Responsibility	Comments			
			Baseline		2020		2021		2022		2023		2024		2025		2026		2027		End Target							
			Year	Value	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Year	Target				Actual		
Solid waste treated with residuals safely disposed or recycled	Project	%	2020												50		70		80									
Reduction in estimated annual GHG emissions	Project	tons	2020												20,000		20,000		20,000									
Installed capacity of WTE plant (50% is renewable energy)	Project	Number	2020												8 (4)		8 (4)		8 (4)									

Project Intermediate Indicators	Indicator level	Unit of Measure	Cumulative Target Values																				Frequency	Responsibility	Comments			
			Baseline		2020		2021		2022		2023		2024		2025		2026		2027		End Target							
			Year	Value	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Year	Target				Actual		
Electricity generated from WTE (50% renewable energy)	Project	Number	2020												16,000 (8,000)		32,000 (16,000)		32,000 (16,000)									
500 tpd WTE plant (with extended O&M contract) is constructed and operational	Project	Text	2020										Constructed		Operational		Operational		Operational									
Landfill for safe disposal of WTE air pollution	Project	Text	2020										Constructed		Operational		Operational		Operational									

