

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	Co-financier(s):	Asian Development Bank
ES category:	A	Borrowing Entity:	Ministry of Finance and Treasury, 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:	Dec, 2021 .Lead Co-financier (ADB) had physical review mission from Dec 5-Dec 14. AIIB joined partly virtually. 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. 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.		
Planned Site Visits by AIIB:	Dec, 2022 Subject to the pandemic situation, physical/virtual mission shall be planned in Q3 2022.		
Current Red Flags Assigned:	0		
Current Monitoring Regime:	Regular Monitoring		
Previous Red Flags Assigned:	0		
Previous Red Flags Assigned Date:	2021/12		

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 facility, including construction of a 500-ton per day (tpd) Waste-to-Energy (WTE) plant with flue gas treatment, emissions monitoring, bottom ash processing plant, and 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:	4.05	Most recent disbursement (amount/date):	4.05/Mar. 08, 2022
Undisbursed:	35.95	Disbursement Ratio (%) ¹ :	10.12

5. Project Implementation Update

Main Design Build Operate (DBO) contract for construction and operation of the Waste-to-energy (WTE) plant has been executed on October 10, 2021 after the comprehensive tendering process. The site has been handed over to the contractor in March 2022. Detailed designs for the WTE plant are expected by July 31, 2022 and the physical construction is expected to commence in September, 2022.

Disbursement of USD4.05 million was done in February 2022 towards advance under the DBO contract.

Components	Physical Progress	Environmental & Social Compliance	Procurement
Component 1: Establishment of disaster and climate resilient regional waste management facility	The site has been handed over to the DBO contractor in March 2022, physical work is expected to commence by September 2022.	The EIA including an EMP has been prepared and disclosed. The PMU has obtained a "Decision Statement" for the WTE plant from the Maldives Environment Protection Agency (EPA). The current EIA report needs to be updated by the DBO contractor based on detailed designs and no construction can start before the EIA is updated and published.	The site has been handed over to the DBO contractor in March 2022, physical work is expected to commence by September 2022.

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.

Financial Management:

The first disbursement has happened in February 2022. Audited Project Financial Statements are due by June 30, 2022 covering the period upto December 2021.

6. Status of the Grievance Redress Mechanism (GRM)

The Project GRM has three tiers – an individual or an interest group can contact DBO Contractor (1st tier), PMU/MOE (2nd tier), Judiciary (3rd tier). As the DBO Contractor is yet to set-up the full GRM, only PMU (2nd tier) has been set up and able to receive grievances.

No complaints have been received.

7. Results Monitoring

N/A

Project Objective Indicators #1

Solid waste treated with residuals safely disposed or recycled (%)

Year	Target	Actual	Comments, if any
Mar. 31, 2025	50	-	
Mar. 31, 2025	50	-	
Mar. 31, 2026	70	-	
Mar. 31, 2026	70	-	
Mar. 31, 2027	80	-	

Project Objective Indicators #2

Reduction in estimated annual GHG emissions (tons)

Year	Target	Actual	Comments, if any
Mar. 31, 2025	20,000	-	
Mar. 31, 2025	20,000	-	
Mar. 31, 2026	20,000	-	
Mar. 31, 2026	20,000	-	
Mar. 31, 2027	20,000	-	

Project Objective Indicators #3

Installed capacity of WTE plant (50% is renewable energy).

Year	Target	Actual	Comments, if any
Mar. 31, 2025	8 (4)	-	
Mar. 31, 2025	8 (4)	-	
Mar. 31, 2026	8 (4)	-	
Mar. 31, 2026	8 (4)	-	
Mar. 31, 2027	8 (4)	-	

Intermediate Result Indicators #1

Electricity generated from WTE (50% is renewable energy)

Year	Target	Actual	Comments, if any
Mar. 31, 2025	16,000 (8,000)	-	
Mar. 31, 2025	16,000 (8,000)	-	
Mar. 31, 2026	32,000 (16,000)	-	
Mar. 31, 2026	32,000 (16,000)	-	
Mar. 31, 2027	32,000 (16,000)	-	

Intermediate Result Indicators #2

500 tpd WTE plant (with extended O&M contract) is constructed and operational.

Year	Target	Actual	Comments, if any
Mar. 31, 2024	Constructed	-	
Mar. 31, 2024	Constructed	-	
Mar. 31, 2025	Operational	-	
Mar. 31, 2025	Operational	-	
Mar. 31, 2026	Operational	-	
Mar. 31, 2026	Operational	-	
Mar. 31, 2027	Operational	-	

Intermediate Result Indicators #3

Landfill for safe disposal of WTE air pollution control residues and nonmarketable bottom ashes is constructed and operational.

Year	Target	Actual	Comments, if any
Mar. 31, 2024	Constructed	-	
Mar. 31, 2024	Constructed	-	
Mar. 31, 2025	Operational	-	
Mar. 31, 2025	Operational	-	
Mar. 31, 2026	Operational	-	
Mar. 31, 2026	Operational	-	
Mar. 31, 2027	Operational	-	

Intermediate Result Indicators #4

Adoption of disaster and climate resilience measures in the design and construction phases of WTE

Year	Target	Actual	Comments, if any
Mar. 31, 2022	Adopted	-	
Mar. 31, 2022	Adopted	-	

Mar. 31, 2023	Adopted	-	
Mar. 31, 2023	Adopted	-	
Mar. 31, 2024	Adopted	-	
Mar. 31, 2024	Adopted	-	
Mar. 31, 2025	Adopted	-	
Mar. 31, 2025	Adopted	-	
Mar. 31, 2026	Adopted	-	
Mar. 31, 2026	Adopted	-	
Mar. 31, 2027	Adopted	-	

Remarks:
