

RISK ASSESSMENT AND RISK MANAGEMENT PLAN

Risk Description	Rating	Mitigation Measures	Responsibility
Political instability in the country could disrupt delivery of improved SWM services	Substantial	The attached TA and project will provide additional capacity building support to WAMCO and island councils to ensure timely delivery of sustainable SWM services.	Government of Maldives
Technical			
Weak technical capacity of implementing agencies for designing and supervising project works	Moderate	The project includes technical design and supervision consultants to support the implementing agency (MEE), which has successfully implemented World Bank funded projects in solid waste management.	PMU
Weak technical capacity of WAMCO and island councils for O&M	Substantial	Capacity building in O&M for WAMCO and island councils is included in the terms of reference for consultants under the project.	PMU, WAMCO, island councils
Extreme weather conditions and price surges of materials beyond projections and contingencies result in cost overruns and delays in project completion	Moderate	Longer implementation period will accommodate project delays including those caused by heavy monsoon. The project cost incorporates sufficient contingencies to cover cost overruns.	PMU, MEE, MOFT
Economic and financial			
No regular tariff revisions for solid waste because of political pressure constraining sustainability of services	Moderate	The MOFT and the MEE agreed to cover any O&M funding shortfalls as an assurance in the grant agreement. MOUs signed between island councils and the MEE will confirm funding for O&M. TA household survey showed high willingness to pay higher tariffs for improved solid waste services. ^a The IEC campaigns will raise awareness about the benefits of improved services.	PMU, WAMCO, MEE, MOFT
Governance			
Procedural delays in project approvals	Moderate	The existing MEE director general will serve as project director to facilitate smooth implementation and avoid procedural delays. Weekly meetings with the MEE minister will identify and address key issues. The project also includes a steering committee with MOFT and other key departments for troubleshooting and expediting approvals.	PMU, MEE, MOFT
Weak capacity of the MEE in procurement and project	Moderate	The MEE has in-house project implementation experience gained from earlier and ongoing World Bank funded solid	PMU, ADB

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management leading to delays		waste management projects, as well as experience implementing ADB energy projects. ^b The PMU will receive consultant support in project management and additional support in ADB requirements (procurement, safeguards, etc.) from the attached TA to ensure smooth implementation.	
Start-up delays after project approval and timely completion of works	Moderate	Advanced project readiness (i.e., advanced preparation of bid and safeguard documents, and advanced procurement actions) is achieved with the support of MEE engineering consultants and project preparatory TA consultants, along with further inception support by experts recruited under the attached TA. More than 60% of contract value is expected to be awarded within 6 months of loan signing. The remaining contracts will be in a high state of readiness and awarded within 12–14 months after signing.	PMU, MEE
Rapid turnover of WAMCO staff compromises capacity building efforts	Moderate	Gradual strengthening results in WAMCO becoming a more attractive employer.	WAMCO, PMU, MEE
Poverty, social, and gender aspects Poor and marginal groups do not benefit from improved urban services under the program	Moderate	Under output 2, the project will support solid waste management services for poor outer island communities subject to complying with eligibility criteria to ensure operational sustainability. Consultations and community participation is part of the design. A gender action plan was prepared and includes awareness and capacity building of island councils and community leaders to support the poor to benefit from the project.	PMU
Safeguards Resettlement	Moderate	The project is <i>category C</i> for involuntary resettlement. For the outer island component under output 2, the eligibility criteria require no land acquisition, no resettlement, no livelihood loss, and community consultation as a condition for receiving support. This will be confirmed through a signed MOU between the island council and the MEE. A resettlement framework with grievance redress mechanism was prepared and agreed with the government.	PMU
Environmental impacts	Moderate	The project is <i>category B</i> for environmental safeguards. An EARF with grievance redress mechanism and monitoring system was agreed, and IEEs were prepared in consultation with key stakeholders. The	PMU

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		project also includes technical design and supervision consultants including environmental and social safeguard experts to support the PMU.	

ADB = Asian Development Bank, DBO = design–build–operate, EARF = environmental assessment review framework, IEC = information, education and communication, MEE = Ministry of Environment and Energy, MOFT = Ministry of Finance and Treasury, MOU = memorandum of understanding, O&M = operation and maintenance, PMU = project management unit, SWM = solid waste management, TA = technical assistance, WAMCO = Waste Management Corporation Limited.

^a ADB. 2016. *Technical Assistance to the Republic of Maldives for Greater Malé Environmental Improvement and Waste Management Project*. Manila.

^b ADB. 2014. *Report and Recommendation of the President to the Board of Directors: Proposed Grant and Administration of Grant to the Republic of Maldives for Preparing Outer Islands for Sustainable Energy Development Project*. Manila.

Source: Asian Development Bank.