

RISK ASSESSMENT AND RISK MANAGEMENT PLAN

Risk Description	Rating	Mitigation Measures	Responsibility
Start-Up			
1. Project implementation is delayed because of slow recruitment of the PMC ^a	M	Minimize the number of procurement packages and adopt open competitive bidding. The YCDC will engage the PMC, and ADB will train PMO staff on ADB's procurement requirements and procedures.	ADB, YCDC
2. Civil works start-up is delayed because of the time taken to meet ADB procurement and safeguards requirements.	M	Train YCDC staff early, conduct safeguard and procurement clinics, and support additional consultations.	ADB, PMC
Governance			
3. Limited YCDC staff resources do not allow sufficient staff time to support the project and inhibit efficient operation of the PMU.	M	Provide targeted support and training under the Institutional Capacity Development Road Map to improve the efficiency and effectiveness of available staff, particularly those assigned to the PMU.	YCDC, PMU, PMC
4. Insufficient development partner coordination results in duplication of effort and ineffective use of funds.	M	Conduct regular dialogue between development partners involved in YCDC projects. Coordinate strategies and facilitate dialogue.	ADB, YCDC YCDC
5. The transition from the Engineering Department (Water and Sanitation) to the WRWSA is slow for administrative or other reasons, delaying project implementation.	M	ADB will support the YCDC in managing the transition from the Engineering Department (Water and Sanitation) to the WRWSA by developing a strategy road map to define planning and operational processes for the WRWSA.	ADB, PMU, PMC
6. The YCDC and/or the YRG fail to secure timely and/or legally enforceable commitments from the relevant authorities for on-	S	The assurances from the relevant authorities will be formalized as loan covenants. ADB will assist the YCDC to the extent practicable in negotiations with the relevant authorities.	ADB ADB

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demand water allocation, provision of power supplies, and access to right-of-way.			
7. Political influence or conflicts of interest affect project management leading to poor project implementation.	L	Provide anticorruption training. Include anticorruption clauses in bidding documents. Conduct loan covenant monitoring and enforcement.	ADB PMU, PMC
Procurement			
8. The YCDC has no experience with ADB procurement procedures.	S	The number of procurement packages will be minimized, and an open competitive bidding process will be adopted. The PMC will include procurement specialists experienced in ADB's procurement procedures. Procurement training will be provided while developing the strategy road map for the YCDC on planning and operational management.	ADB, PMC PMC PMC
9. Suitable companies are not interested in bidding for civil works contracts.	M	Conduct discussions with appropriate companies before launching the bidding process to gauge and generate interest. Arrange a procurement road show to explain ADB procedures to local contractors. Conduct a market study.	ADB, YCDC, PMU, PMC ADB YCDC, PMC
Implementation			
10. Protracted approvals from the YCDC associated with civil works and other activities cause delays to the schedule.	M	Develop detailed protocols between the YCDC and the contractor on all approval processes providing for time limits on approvals and allowing appropriate flexibility for the contractor to progress works.	YCDC, PMU, PMC

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11. Project implementation is delayed because of poor contractor performance or lack of implementation capacity.	M	Conduct robust procurement processes for contractor and selection of PMU personnel and implementation consultants. Provide training in contract management.	PMU, PMC ADB, PMC
12. The project is delayed because of protracted resolution of land and compensation issues.	M	Establish a comprehensive and inclusive stakeholder communication plan and ensure its implementation. Ensure the detailed design of the pipeline follows the right-of-way to minimize impacts.	PMU, PMC PMC
13. COVID-19 impacts adversely on the contractor's workforce, subcontractors, suppliers, consultants, government and ADB staff, and general public (particularly vulnerable people).	S	The contractor will maintain vigilance in the management of COVID-19 health risks in all siteworks to allow for a safe working environment, including in adjacent areas used by the general public. Health and safety protocols will be enforced for working in trenches and other confined spaces.	
Stakeholder, Social, Gender			
14. The YCDC's approach to compensation payment, support, and resettlement of affected persons leads to noncompliance with ADB policies and procedures; and delays in allocation of funds for implementation of the resettlement plan lead to construction delay.	S	ADB has discussed its Safeguard Policy Statement (2009) requirements with the YCDC, and the draft resettlement plan prepared complies with ADB's Safeguard Policy Statement requirement. ADB has sensitized the YCDC on the requirements of resettlement costs as part of its responsibilities.	ADB
15. Weak stakeholder coordination results in slow gender action plan implementation.	M	Appoint dedicated staff within the PMU to ensure appropriate stakeholder coordination and gender action plan monitoring.	YCDC, PMC
Financial Management			

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16. The YCDC's revenue is insufficient to cover the O&M of new infrastructure and repay the loan through the YRG. Also, the YRG's capacity for the YCDC budget support is not confirmed and, hence, financial arrangements may be unsustainable.	S	The loan agreement includes the YRG's guarantee of budget allocation, subsidy, fiscal transfer, or any other financial support to the YCDC to cover any shortfall. A socioeconomic survey will inform the financial sustainability road map for the YCDC, which will include recommendations on the water tariff.	YCDC
17. The YCDC staff has weak capacity to manage project funds and comply with ADB's financial reporting requirements.	S	Develop a project-specific financial management manual for the PMU and provide financial management training to YCDC staff.	ADB, PMC
18. Placement of the Internal Audit Division under the Budget and Accounts Department creates structural weaknesses in the YCDC's internal audit system.	S	Provide a capacity-building program to strengthen the internal audit function.	ADB, YCDC
19. The coverage and timeliness of the Yangon Region auditor general's project audit are deficient.	S	ADB-endorsed audit terms of reference, scope, and requirement will be shared with the Yangon Region auditor general in advance for the project financial statement audit.	YCDC, OAG
20. The MS Excel-based accounting system in use in the YCDC leads to improper record-keeping and mistakes.	H	The project will support the installation of financial management information system software and training in its use.	YCDC, PMC
Operation and Maintenance			
21. The technical capability of the YCDC is insufficient to operate and maintain the new water supply facilities.	S	The YCDC staff will be trained in O&M through formal programs and on-the-job training.	PMU, PMC YCDC

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		The YCDC will ensure that adequate numbers of suitable staff are assigned to O&M.	
Climate Change			
22. Water availability declines because of climate change.	L	<p>Support improvements in management of reservoirs, pumping stations, and other facilities.</p> <p>Provide support to the Ministry of Agriculture, Livestock and Irrigation to improve irrigation efficiency.</p>	<p>Ministry of Agriculture, Livestock and Irrigation; YCDC; PMU</p> <p>ADB</p>

ADB = Asian Development Bank, H = high, L = low, M = moderate, OAG = Office of Auditor General, O&M = operation and maintenance, PMC = project management consultant, PMU = project management unit, S = substantial, WRWSA = Water Resource and Water Supply Authority, YCDC = Yangon City Development Committee, YRG = Yangon Region Government.

^a The PMC is anticipated to be contracted under a single contract for the pipeline project and will be responsible for detailed design, project management support, supervision, and institutional capacity development.

Source(s): ADB staff based on City Development Initiative Asia. 2019. *Yangon Urban Improvement Project TA-8556 REG, Final Report*. Manila.