

FINANCIAL ANALYSIS

A. Introduction

1. A financial analysis has been conducted for the Yangon City Water Resilience Project following the guidelines for Financial Management and Analysis of Projects of the Asian Development Bank (ADB).¹
2. About 66% of the water delivered to the service area of the Yangon City Development Committee (YCDC) comes from the Ngamoeyeik reservoir system. The transfer of this water from the reservoir to the treatment plant at Nyaungnhapin is by open canal, the main section of which is under the control of the Ministry of Agriculture, Livestock and Irrigation. The system is not resilient as the open canal is vulnerable to water seepage and pollution. Hence, there is an urgent need for an enclosed, secure pipeline under the management of the YCDC.
3. The project is designed to reinforce the security of water supply and enhance the availability of a reliable water service. ADB will support the YCDC in financing the proposed project to achieve the intended impact through following outputs: (i) bulk water transmission system constructed and (ii) institutional sustainability strengthened.

B. Methodology

4. The objective of the financial analysis is to assess whether the proposed investment is financially sustainable. As this project is classified as non-income-generating, the financial analysis focused on projecting incremental recurrent costs and assessing the YCDC's capacity to absorb these costs.
5. Also, the ring-fenced water account under the YCDC was analyzed separately to assess its financial performance and forecast its financials based on a proposed new tariff structure that will be considered during project implementation.²
6. The financial analysis includes (i) financial performance analysis of the YCDC, (ii) financial projection of the YCDC to confirm the project's financial sustainability and the YCDC's capacity to meet its debt service obligation, (iii) financial performance analysis of the water account, and (iv) the water account's financial projection based on the proposed new tariff structure.

C. Financial Analysis of Yangon City Development Committee

1. Financial Performance

7. The YCDC's summarized financial performance for fiscal year (FY) 2015 (ending March 2015) to (FY) 2019 (ending September 2019) is in Table 1.³

¹ ADB. 2005. Financial Management and Analysis of Projects. Manila.

² Financial account of Engineering Department of Water and Sanitation.

³ Since 1 October 2018, the fiscal year for Myanmar is from 1 October to 30 September. Prior to this it was from has been changed from 1 April to 31 March.

Table 1: Summary of Yangon City Development Committee's Financial Performance
(MK million)

Item	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Income	134,232	141,795	140,820	154,318	156,176
Tax	30,792	41,340	42,268	43,982	65,414
Tariff	9,008	11,021	11,555	12,743	13,000
Other	94,431	89,433	86,996	97,594	77,762
Operating expenditure	67,693	79,779	89,043	94,046	118,542
Operating margin	66,539	62,016	51,777	60,272	37,634
Capital inflow	118,397	164,749	44,066	36,241	161,098
Capital expenditure	184,898	202,232	81,596	120,853	271,020
Loan repayment	870	893	12,293	2,900	6,800
Surplus/deficit	(832)	(6,360)	1,954	(27,240)	(79,088)

() = negative, FY = fiscal year, MK = kyat.

Note: Based on Yangon City Development Committee Financial Statement for fiscal year (FY) 2015 to FY2018 and the budget estimate for FY2019.

Source: YCDC and Asian Development Bank estimates.

8. The YCDC's total current income for FY2019 is MK156 billion. Average income for the FY 2015-FY 2019 period comprises taxes (31%), such as wheel tax and property tax; tariff (8%); and other current incomes (61%) from various sources such as permits and licenses, land and building rental, and stamp taxes. The YCDC does not receive any intergovernmental transfer, except for a balancing subsidy from the Yangon Region Government (YRG) for capital investment. Annual tax income has increased by an average of 22% over the FY2015–FY2019 assessment period while the annual tariff income has increased by 10% during the same period.

9. Salaries and wages account for almost 40% of the operational expenditure (OPEX). Repairs and maintenance account for 33% of the OPEX, with road maintenance taking up half of the amount and the rest supporting water, drainage, and sanitation. Electricity charges account for 10% of the OPEX, which is largely spent on water supply services. Other costs, such as fuel, transport, and office equipment costs, take up the remaining 17% of the OPEX.

10. During FY2015-FY2019 period, the YCDC has maintained an operating surplus and an average operating profit ratio of 38%. However, the average annual capital investment of MK172,120 million far exceeds the YCDC's self-financing capacity and drives the cash deficit. Following the Yangon City Municipal Law, 2013, the YRG has financed the capital expenditure (CAPEX) shortfall.⁴

2. Financial Projections

11. The following assumptions were made to project the YCDC's financials in a "do-nothing" or "business as usual" scenario:

- (i) annual income growth of 3.5%, reflecting the growth rate from of FY2017- FY2019;
- (ii) annual OPEX growth rate of 6.7% considering inflation;
- (iii) CAPEX based on the loan disbursement schedule and investment schedule up to 2026;
- (iv) CAPEX growth rate of 5% of the average of the past 10-years in 2026;
- (v) CAPEX growth rate of 5% every 5 years thereafter; and
- (vi) debt service obligation based on existing and proposed loans, considering the prevailing loan terms.

⁴ Yangon City Municipal Law 2013, Section 13 Financial and Funds, Clause 35.

12. The YCDC's financial projections are in Table 2.

Table 2: Financial Projections of Yangon City Development Committee (MK million)

Item	FY 2020	FY 2023	FY 2025	FY 2030	FY 2035
Income	161,642	179,216	191,980	228,012	270,807
Operating expenditure	126,484	153,649	174,928	241,925	334,582
Operating margin	35,158	25,566	17,052	(13,913)	(63,775)
Capital inflow	375,495	225,254	44,398	164,294	181,134
Capital expenditure	394,270	236,516	46,617	200,952	221,549
Debt service	70	1,292	15,830	73,419	71,871
Surplus/deficit	16,314	13,011	(997)	(123,990)	(176,062)

() = negative, FY = fiscal year, MK = kyat.

Source: Yangon City Development Committee and Asian Development Bank estimates.

13. Because the average growth rate of income is limited to 3.5%, which is half current inflation rate, the gap between income and OPEX drives the operating margin into deficit from FY2030. The debt service burden starts to rise from FY2025 onward and increases substantially when the Japan International Cooperation Agency loan is scheduled to be repaid. This further increases the financial outflow for the YCDC and drives its financials into a net deficit.

14. Forecasts indicate that the YCDC will experience enhanced financial stress in the mid- to long term, reaching a deficit of MK176 billion in FY2035. Because of consistently rising OPEX and CAPEX, the YCDC will experience a deficit from FY2025 onward and will require budgetary support thereafter to sustain its operations.

3. Financial Sustainability

15. Based on the project's technical feasibility study, the estimated OPEX is MK209 million per annum, which is equivalent to 0.1% of the overall OPEX in FY2019. Combined with the financial projections indicated in paragraph 13, the YCDC is not financially capable of covering its OPEX for the project from a mid- to long-term perspective.

16. The YCDC's deficit is expected to be financed by the YRG in accordance with the Yangon City Municipal Law, 2013. The financial sustainability of the project relies on budgetary support from the YRG, which is guaranteed through the project agreement.

D. Financial Analysis of Water Accounts

1. Financial Performance

17. To facilitate financial oversight of water supply services, the project appraisal ring-fenced income and expenditure commensurate with water supply services as part of the water account. Table 3 summarizes the financial performance over the FY2015–FY2019 assessment period.

Table 3: Summary of Financial Performance of Water Accounts (MK million)

Item	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
Income	9,288	11,753	12,104	13,773	13,519
Tariff	8,515	10,193	10,908	12,102	12,419
Other	773	1,559	1,196	1,671	1,100
Operating expenditure	13,624	16,496	18,153	18,150	22,319
Operating margin	(4,336)	(4,743)	(6,049)	(4,377)	(8,800)
Capital expenditure	49,362	65,461	14,920	40,247	153,515
Surplus/deficit	(53,699)	(70,205)	(20,969)	(44,624)	(162,315)
Balancing subsidy	53,699	70,205	20,969	44,624	162,315

() = negative, FY = fiscal year, MK = kyat.

Source: Yangon City Development Committee and Asian Development Bank estimates.

18. About 95% of the total income of the water account is from tariffs. Most of the OPEX comprises electricity charges (54%), followed by salary and labor charges (20%). On average, income grew by 10% per annum during the FY2015–FY2019 period while OPEX grew by 22% per annum during FY2018–FY2019.

19. During the FY2015-FY2019 period, the water account has consistently recorded a negative operating margin. The operating deficit is a result of the stagnant income arising from the current tariff structure, which was established in 2012 and has not been increased even though OPEX has risen sharply. It is therefore essential to improve the revenue stream through tariff reforms to strengthen the financial health of the water account.

2. Financial Projections

20. The water account exhibits weak financial capacity because of a negative operating margin that is offset by surpluses from other YCDC business lines. Based on historical trends, the water account's financial health will only worsen over the years if income streams are not strengthened. The project proposes a new water tariff structure that includes a stepped tariff for domestic users and a multiplier tariff for commercial users. The water tariff structure and the outcomes of socioeconomic surveys will form part of the financial sustainability road map to improve the YCDC's finances. The financial sustainability road map will be established during project implementation.

21. Financial projections were based on a new (project-proposed) tariff structure with the following assumptions:

- (i) tariff increases by 75% in FY2022 and by 15% every 2 years afterward, with a stepped tariff applied from FY2024;
- (ii) multiplier tariff for commercial customers set at 4 times the domestic tariff;
- (iii) OPEX increase by 7%–12% as per the annual growth rate of each OPEX item;
- (iv) an additional OPEX at 2% of new CAPEX considered from FY2022 and growing at 5% annually; and
- (v) implementation of a nonrevenue water (NRW) reduction plan to reduce NRW from 47% in 2018 to 35% in 2025, 25% in 2030, and 20% in 2035 to make water available for additional customers and thereby increase income.

22. The new tariff structure adopted for domestic customers is shown in Table 4.

Table 4: New Tariff Structure—Domestic Customers (MK per cubic meter)

Volume (m ³)	Existing Tariff (FY2019)	Proposed Tariff (FY2021–FY2022)	Proposed Stepped Tariff (FY2023–FY2024)
<15	88	154	177
15–20	88	154	230
20–25	88	154	299
25–30	88	154	389
30–35	88	154	506
35–40	88	154	658
40–45	88	154	855
>45	88	154	1,111

> = greater than, < = less than, FY = fiscal year, m³ = cubic meter, MK = kyat.

Source: Yangon City Development Committee and Asian Development Bank estimates.

23. Table 5 details financial projections of the water account based on the new tariff structure.

Table 5: Financial Projection of the Water Account (MK million)

Item	FY 2020	FY 2022	FY 2024	FY 2030	FY 2035
Income	13,096	15,127	27,813	90,439	154,310
Tariff	11,726	13,698	26,147	87,747	151,846
Other	1,370	1,430	1,666	2,692	2,464
Operating expenditure	23,139	28,188	59,625	108,077	163,217
Operating margin	(10,044)	(13,060)	(31,812)	(17,638)	(8,906)
Capital inflow	236,962	115,344	247,086	16,227	
Capital expenditure	236,962	115,344	247,086	16,228	
Debt service	20	63	93	55,857	106,653
Surplus/deficit	(10,064)	(13,123)	(31,905)	(73,496)	(115,560)
Required subsidy	10,064	13,123	31,905	73,496	115,560

() = negative, FY = fiscal year, MK = kyat.

Source: Yangon City Development Committee and Asian Development Bank estimates.

24. The proposed tariff structure assumes increasing the tariff to a politically acceptable level. The Japan International Cooperation Agency proposed new tariff increases of 75% of the prevailing rates in FY2022 given that the existing tariff has not been revised since 2012. Thereafter, the tariff increases by 15% every 2 years, reflecting the annual inflation rate of about 7%. Under this proposed scenario, the tariff income and the operating margin improve gradually; however, the water account would still require a balancing subsidy of MK15 billion on average per annum until FY2024 and MK74 billion on average thereafter, when the official development assistance loan repayment begins.

E. Conclusion

25. The YCDC will be obliged in the coming years to place their water supply operations on a sustainable financial footing. Incremental recurrent costs analysis was conducted for the project to ascertain its financial sustainability. This concluded that the existing tariff structure is insufficient to support cost recovery. Hence, the project's sustainability depends on viability gap funding.

26. To ensure financial sustainability, a budget transfer from the YRG to the YCDC will be guaranteed to cover the O&M costs and the debt obligation. The YCDC will also revise the water tariffs to help cover the shortfall. The tariff reform should be combined with improvements in operational performance, including reducing NRW, decreasing power consumption, and adopting best practices of well-performing water utilities.