LILONGWE WATERBOARD

ANNUAL REPORT 2020 - 2021









DECEMBER 2021

LILONGWE WATER BOARD

ANNUAL REPORT

2020 - 2021

December 2021

ANNUAL REPORT AND STATEMENT OF ACCOUNTS

For the year ended 30th June 2021

(Submitted in accordance with section 32F of the Finance and Audit Act, Cap. 37.01)

LILONGWE WATER BOARD AT A GLANCE

1. Created in 1947 by Government of Malawi.
2. State owned Parastatal Organization.
3. Produces more than 100 million litres of drinking water every day.
4. Serves over 870,000 residents within the City of Lilongwe and designated supply areas.
5. Operates and maintains 3 water treatment Plants, 6 booster pumping stations and 2 groundwater plants.
6. Delivers water through an estimated 2,000 kilometers of Pipelines.

OUR VISION

To be a leading, customer-focused, financially viable water and sanitation utility in Africa."

OUR MISSION

Provide sufficient water supply and safely managed sanitation services in a sustainable, efficient, and customer-responsive manner

OUR CORE VALUES

Customer Focus

Integrity

Collaboration

Teamwork

Inclusiveness

Innovation

OUR MOTTO

Potable water all the time for all.

BUSINESS ADDRESS

HEAD OFFICE

Madzi House
Off Likuni Road
P.O. Box 96
LILONGWE
MALAWI.
Tel: +265 1 750 366
Fax: + 265 1 752 294
Email: madzi@lwb.mw
Website: www.lwb.mw

ZONE OFFICES

1. Northern Zone
Off M1 Road
Kanengo

2. Central Zone
Area 10
Behind MCA

3. Southern Zone
Old Kalikuti Hotel Building
Opposite LUANAR Offices
Off Chidzanja Road

LWB BOARD OF DIRECTORS AND CORPORATE MANAGEMENT TEAM

As of 30th June, 2021

BOARD OF DIRECTORS

1.	Engineer George Kajanga	Board Chairperson
2.	Mrs. Lenia Banda Bonongwe	Chairperson of Operations and Projects Committee (OPC)
3.	Ms. Lingalireni Mihowa	Chairperson of Human Resources and Appointments Committee (HRAC)
4.	Mr. Henry Chete	Chairperson of Finance and Audit Committee (FAC)
5.	Mr. Innocent Mphote	Board Member (OPC)
6.	Mr. Patrick Chilondola	Board Member (OPC)
7.	Fr. Mphatso Luzwano	Board Member (HRAC)
8.	Inkosi T/A Chilikumwendo	Board Member (HRAC)
9.	Mr. Greenwell Mwamondwe	Board Member (FAC)

EX-OFFICIO MEMBERS

1.	Comptroller of statutory corporations
2.	Secretary for Water Development and Irrigation
3.	Chief Executive – Lilongwe City Council
4.	Secretary to the Treasury

CORPORATE MANAGEMENT TEAM

1.	Chief Executive	Mr. Silli Mbewe
2.	Director of Technical Services	Eng. Maclenan Nyang'wa
3.	Director of Production and Distribution	Eng. Gustaff Chikasema
4.	Acting Director of Finance	Mr. Gladwell Mphande
5.	Director of Administration and Human Resource	Vacant

AUDITION

Grant Thornton	Chartered Accountant and Business Advisors

LILONGWE WATER BOARD

11th February 2022

The Minister, Hon Abida Mia, MP
Minister of Irrigation and Water Development

Honorable Minister,

I have the honor to present the Annual Report and Statement of Accounts of the Lilongwe Water Board for the year ended 30th June 2022. The report is submitted in accordance with the provisions of the Public Finance Management Act, (No. 7 of 2003) and the Public Audit Act, (No.6 of 2003).

Yours faithfully

Eng. George Kajanga
BOARD CHAIRMAN=

Board Chairs Statement

Chief Executive Officer's Statement

The year in review

During the 2020 – 2021 Financial Year, Lilongwe Water Board performed well in key performance areas on which its successes are measured. These include water production, service delivery, reduction of Non-Revenue Water, financial management and staff welfare. Several challenges were encountered in the year key among them being the negative effects of the COVID-19 pandemic on LWB operations.

WATER PRODUCTION AND DISTRIBUTION

Storage in the Reservoirs

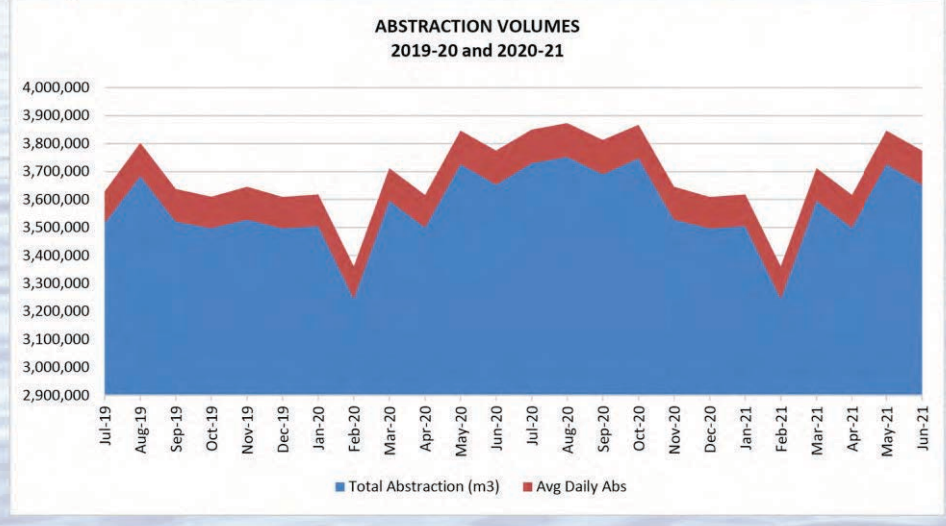
During the year there was adequate raw water storage for production owing to the good rains that the country received during the 2019-2020 rain season. At the beginning of 2021, there was a total reserved volume of 22 million m3 in Kamuzu Dam I & II against dams combined full capacity of 24 million m3.



Good rainfall in 2020-2021 resulted in adequate water in Kamuzu Dam

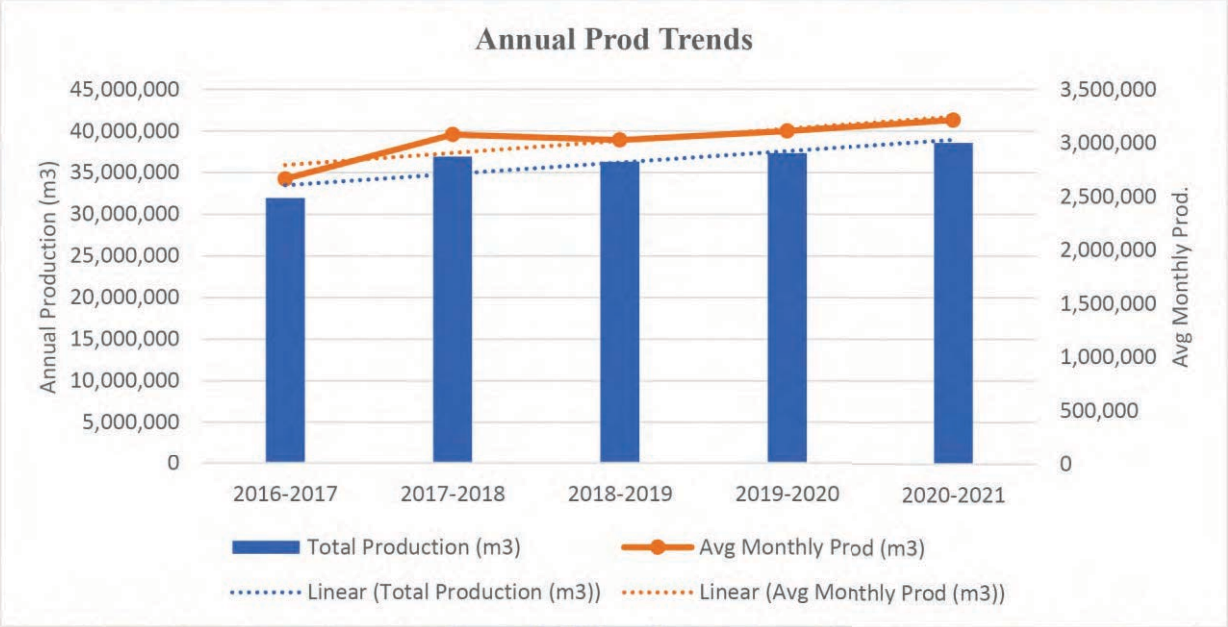
Abstraction

A total volume of 43.2 million cubic meters of raw water was abstracted from the Treatment Works (TW) 1 & 2 intake point and Bunda Plant, representing 1.7% increase compared to previous year's 42.5 million cubic meters. Monthly abstractions varied between 3,244,888 cubic meters in February 2021 and 3,751,955 in August 2020 as shown in figure below.



Production

A total of 38.6 million cubic meters of water was produced in 2020/2021 compared to 37.4 million cubic meters produced in the prior year against a target of 40.2 million cubic meters. The production efficiency was 96% compared to 93% registered in the 2019/2020 financial year. The average daily production was 105,821 cubic meters compared to 102,000 cubic meters registered in the 2019/2020 financial year against a target of 110,000 m3 per day.



Annual Water Production Trends

Power costs for the reporting period

The average energy cost of MK56.00 / m3 of water produced or repumped at a station. An insignificant rise from the target of MK55.00 /m3. However, the power usage rate to produce 1 m3 at Bunda was MK161.00 which was way above the target. The station is earmarked for rehabilitation to improve its efficiency in water production and the procurement process the improvement works have commenced. Average power usage rate was 0.48 Kwh/m3 against a target of 0.52Kwh/m3 which was at 1.34 Kwh/m3.sed in 2020/2021 were compliant to water quality standards.

Raw water Quality

Raw water was continuously being checked for physical, chemical, and bacteriological parameters in the year under review. Faecal coliform counts ranged between 180 and 62,500 per 100 ml with the highest faecal coliform count recorded in December 2020. The high range of faecal coliform indicates increasing pollution in our water source.

Treated water quality

Four parameters of major importance were analysed in the year from treated water: pH, residual chlorine, turbidity, and faecal coliforms. A total of 1,095 treated water samples were analysed for physiochemical and bacteriological quality. 98.4% of the samples analysed in 2020/2021 were compliant to water quality standards.



LWB maintained quality control to ensure that our water remains safe for consumption

TW I and TW II Chemical costs

Total expenses on chemicals at the treatment works in 2020/2021 financial year was MK1,329,068,402.00 compared to MK1,020,663,117 in 2019/2020 financial year. More chemicals were used in 2019/2020 than in 2020/2021 because of the algae blooms that infested the raw water quality resulting in increased dosages of both the coagulant and the disinfectant in 2019/202.

TW I and TW II Chemical costs

Several catchment management activities were undertaken during the year. Tree planting was conducted with Lilongwe Lions, Rotary Club, Catholic Youth club and Madzi Wildlife Club (MAWIC) along the Kamuzu Dam I. These clubs planted a total of 4,000 tree seedlings.

Another tree planting exercise was conducted at Katete Farm on 1st March 2021 and was graced by the Hon Minister of Forestry and Natural Resources, Hon. Nancy Tembo (MP). A total of 20,000 tree seedlings and 1,000 bamboo seedlings have been planted. Of the 20000 seedlings planted at Katete Farm 10,000 were indigenous tress. Firebreaks have been created around the areas where the trees were planted, and patrols are conducted by LWB security officers to ensure that the trees are protected. Total number of seedlings planted along Kamuzu Dam I is 50,000.



Former Minister of Forestry and Natural Resources Ho. Nancy Tembo led LWB's tree planting season

Rehabilitation and Commision of the OSEC Plant

The OSEC plant which is used to generate Chlorine for water treatment on site was rehabilitated after procurement of the spares in the year. The Plant is currently running, and the hypochlorite is being used for water disinfection at TW II. Currently, the output of the plant is not adequate for the entire treatment plant. The proposal is to procure a new OSEC Plant that will cater for the entire treatment plant including the proposed TW III.

Lilongwe Water Efficiency Program

Lilongwe Water Efficiency Program

The rehabilitation and upgrading of the pipe distribution system under Lilongwe Water Efficiency Program has helped to sustain water quality in the areas it has been implemented and commissioned. The frequent failures of the pumping mains that used to occur in the southern part of the Lilongwe City and part of the northern side negatively impacting on the treated water quality have completely been eliminated.



Pipe replacement has been a major achievement in improving water quality in the city

Implementation of a Water Safety Plan

Lilongwe Water Board in the year under review has been going through training on Water Safety Plan (WSP). A WSP Team comprising of technical officers from Zones, production and Water Quality has been put in place to champion the implementation of the plan. The objective is to safeguard the water from source to the point of use.

Research and Development

LWB partnered with LUANAR, through an MOU that was signed between the two institutions to be carrying out research on different aspects. Currently LUANAR and Lilongwe Water Board are conducting research on Water Quality Assessment in Lilongwe River and major tributaries. The objective of the research is to identify possible pollution sources in the rivers and propose mitigation measures.

WATER DISTRIBUTION

Service Coverage

As at the end of the period under review (July 2020 -June 2021), the service coverage was 84.12% from 82.2% at the end of the previous period (July 2019 -June 2020). The current population served is estimated at 930,770 against projected/ estimated city population of 1,106,441.

Water Distribution.

A total of 22.4 m3 was billed consumption for the Period under review Jul-Jun 2020/21), which represents a 0.18% decrease from the 22.5 m3 in the same period last year.

New Connections.

A total of 6,707 new water connections were installed in the period (Jul-Jun 2020/21) against a target of 5,436 NWC and 4,538 connections done in the same period last year. This is a 39.90% increase from last period' connections.

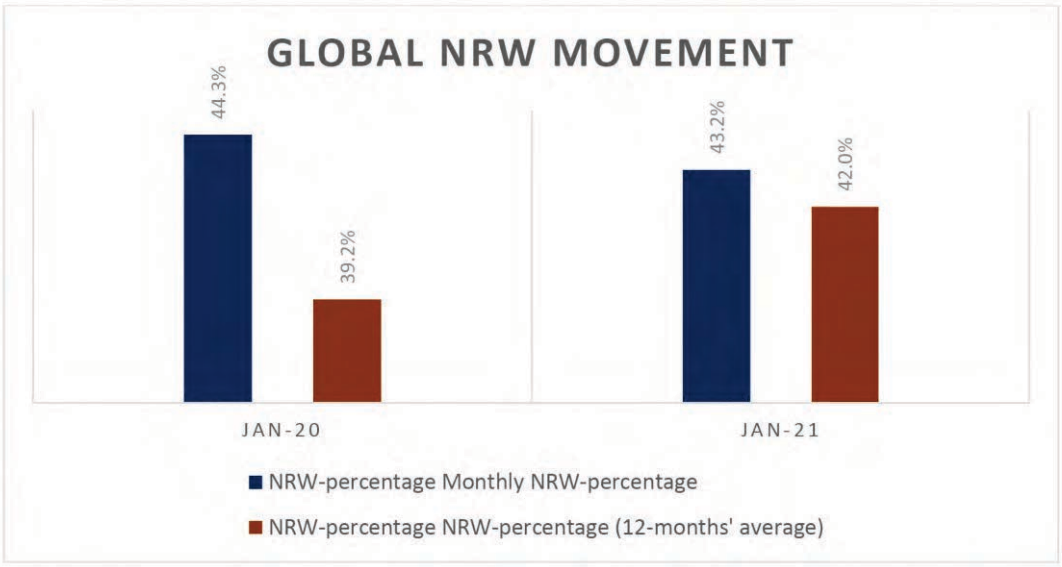
Connection rate

The 2020-21 financial year target for installation of paid-up applicants was to be within 21 days. At the end of the period under review, the average connection rate for connections for all the zones was 16 days.

Non-Revenue Water (NRW)

a) NRW Movement

At the close of the 2020/21 financial year the overall monthly NRW ratio and annual rolling average NRW ratio were at 43.2% and 42% respectively, while at the end of the 2019/20 financial year, the ratios were at 44.3% and 39.2% respectively. This represents 2.9% increase in the overall annual NRW.



A downward trend in NRW reduction has been established

b) Illegal Connections

Illegal water connections continue to be a major challenge in the efforts to reduce NRW. The total number of confirmed illegal connection cases went up by 61% in the year. There has been an increase of 119% in reported illegal connection cases triggered by a series of awareness campaigns carried out in the year, particularly the daily water situation updates being aired through Zodiak radio. Collection efficiency for the illegal connection charges averaged 19% in 2020/21, a decrease from 21% collected in 2019/2020. However, MK 30.8 million was collected in penalties, 35% more than the MK 22.8 million collected last year. During the year, two publications to name and shame confirmed illegal connections were made and in turn this further increased awareness illegal water connections as a deterrent.



Illegal connections remain a key challenge for LWB

Key Water Production and Distribution highlights in the year

i. Increase in service coverage from 82% to 84%

ii. Addition of 6,707 new customers to the network surpassing target by 23%

iii. The OSEC Plant was also commissioned towards the end of June 2021 and this resulted into a reduction of HTH usage (38%) at the treatment plant and at Northern Booster Station (50%) as well.

iv. Secured a billion-kwacha funding for COVID-19 support

v. Completion of Prepaid Meter Survey

Water Production and Distribution Challenges encountered inthe year

i. Non-Revenue Water

ii. Catchment degradation affecting raw water quality

iii. Lack of coordination between stakeholders (Ministry of Lands, Lilongwe City Council) on how to provide water services to r

iv. COVID 19 Pandemic

v. Cost of chemicals because of buying from suppliers or agents (middlemen) instead of the manufacturers

Pipe replacement has been a major achievement in improving water quality in the city

INFRASTRUCTURE SERVICES

Several capital infrastructure projects were initiated, in progress or completed within the year. These capital projects support LWB's strategic goals and vision. Key projects are highlighted below.

LWB Funded Projects

The table below provides update status to projects financed by LWB that were prepared in the year.

Project	Status
Refurbishment of old operator's house at Likuni plant into temporary customer care service.	Preparation of Bill of Quantities and cost estimates
Mbavi groundwater development Project	Procurement Stage
Supply and installation of a Bottling Plant	Procurement Stage
Rehabilitation and upgrading of Bunda Plant	Design Stage
Perimeter fences for LWB Sites	Procurement Stage
Feasibility studies for Inter-basin transfers	Procurement stage
Rehabilitation and reorientation work at Kamuzu Dam Viewing Area	Procurement Stage

Estate Development Funded Projects

The table below provides update status to reticulation projects that are financed by Estate Developers.

Project	Project Details
Relocation of services in Area 49 sector 1	
	Project Area: Area 49 Sector 1 Project Cost: MK42 Million Funding Agency: Malawi Housing Corporation Project Scope: • Project design • Construction of pipe network • Connection to proposed tapping points • Sterilization and pressure testing • Commissioning **Project 100% completed**
Area 49 Sector 1 Water Distribution Network Project	
	Project objectives: To provide safe, portable, adequate, and efficient water supply facilities for the people surrounding the Project Area: Area 49 Sector 1. Project Cost: MK142 Million

Project Period: 90 Days
Funding Agency: Malawi Housing Corporation
area.
Contractor: China Civil Engineering Construction Corporation Malawi LTD
Project Scope:

- Project design
- Construction of pipe network
- Connection to proposed tapping points
- Sterilization and pressure testing
- Commissioning

Project 50% completed.

Pipe Relocation Works Along Dual Carriage Way from Maula to Lubani

Project objectives: Relocation of pipes to allow construction of a Dual Carriage Way along M001 Road from Maula to Lubani

Project Area: Maula to Lubani
Project Cost: MK770.6 Million
Funding Agency: Roads Authority
Contractor: Emmac Civil Engineering Contractors
Project Scope:

- Network design
- Construction of a water supply distribution network
- Connection to proposed tapping points
- Sterilization and pressure testing
- Commissioning

Project 40% completed, Commenced on 24th May, 2021 and planned to finish by 22nd August, 2021.

The table below provides update to Estate Developer Funded projects that are at preparation stage.

Project	Status
MHC-Henan Guoji Dream Town water distribution network extension (Covering commercial buildings currently under construction)	Preparation of BoQ and cost estimates
Reticulation of Area 45 (Likuni Forest) to be developed	Invoice submitted to developer
Reticulation of Area 45/88 (InnoBuild)	Design stage completed; Issuance of invoice pended awaiting clearance/approval on land title ownership
Reticulation of Area 51 (Behind Sulsdec Village)	Design Stage
Reticulation of Njewa Farm	Design Stage
Reticulation of Area 32-Ministry of Lands	Design Stage; Invoice submitted to developer
Reticulation of Area 27 (Goshen Valley)	Design Stage; Invoice submitted to developer
Relocation of pipes along M1 Road for Expansion Crossroads to Kanengo	Design Stage. – Invoice submitted to Developer
Area 49 sector 5 (new MHC houses) water supply distribution service	Quotation submitted to developer
Reticulation of Airwing-Acacia- phase 2	Quotation submitted to residents
Reticulation of Area 30 (Police New flats)	Design stage
Integrity Assessment of Water Reticulation System at Area 30	Assessment ongoing

1.1 Development Partner Funded Projects

1.1.1 Lilongwe Water Resources Efficiency Programme (LWREP)

This project is being financed by the European Investment Bank (EIB) with a total funding of €24 Million covering June 2015 to 31 October 2021. The Loan became effective on 12th June 2015 with the initial closing date of 31st October 2019. The Lilongwe Water Resources Efficiency Improvement Program was conceptualised with the following objectives:

a)	To raise and rehabilitate Kamuzu Dam 1 to increase the yield by storage capacity from 5.1 to 25.1 Million cubic meters;
b)	To reduce NRW from 35% to 25%;
c)	To extend and improve water supply and sanitation services to unserved areas; and
d)	To improve management information system for timely and appropriate decision making.



Left Embankment – Placing Fine and Coarse Filters on Dam Foundation



Spillway Block 3 – Drilling and Installation of Anchor Bars in Rock Foundation



General View: Existing + New Spillway, Left Retaining Wall Complete & Left Embankment

Lilongwe Water and Sanitation Project

Lilongwe Water and Sanitation Project

The objective of the LWSP is to increase access to improved water services and safely managed sanitation in Lilongwe city, and improve LWB's operational efficiency and capacity to plan future investments. Lilongwe Water Board (LWB) and Lilongwe City Council (LCC) are the implementing entities with LWB taking the lead.

The project's effective start date is 26th March 2018, with closing date of 30th June 2023 and a total budget of US$102 Million.

The investment programme is broken down into three broad components, and the following is the overall progress report implementation for the year;



Trenchless Pipe Installation



Dzenza Tower, Area 25



Trenches for sewerage pipelines in Area 49

Lilongwe Drought Resilience Program

The project is being financed with a € 15 million loan from the European Investment Bank and co-financing from the World Bank under the Lilongwe Water and Sanitation Project. A financing contract for the project was signed in December 2020 between EIB, Government of Malawi and the Lilongwe Water Board.

The project entails construction of a new 50,000m3/day Water Treatment Works primarily using reinforced concrete. The following will be the specific facilities:

i.	Construction of a new raw water intake and pump station (one)
ii.	Raw water tank (one)
iii.	Mixing basin (two)
iv.	Flocculation basin (two)
v.	Sedimentation basin (two)
vi.	Rapid Sand Filters (Four)
vii.	Clear Water Tank (one)
viii.	Pipework and Valves Connecting the Purification facilities to the existing system.
ix.	Auxilliary Structures and Buildings complete with sanitary facilities, Drainage and Access Roads

Planning for Long Term Expansion of LWB's Water Supply System

Institutions and stakeholders (e.g. Lilongwe City Council, Office of Commissioner for Regional of Physical Planning, various Estate Agents and Land Developers, etc.) responsible for the land use development of Lilongwe city and surrounding areas were consulted to provide useful data for the Board to appreciate physical development trends. This data allowed the Board to assess investment requirement to meet the projected service demand. The said areas are grouped in schemes as presented in the table below.

Scheme	Area Coverage (ha)	Daily Water Demand (m^3)	Estimated Pipe Length (km)	Estimated Cost (Million USD)
Lilongwe South	8,125.27	6.915	381.654	23.81
Lilongwe West	3,845.26	15.647	128.98	10.41
Lumbadzi South	7,220.59	11.994	156.785	7.96
Lilongwe Central	1,185.95	4.638	119.283	6.37
Lumbadzi North	1,701.24	10.966	38.055	5.73
Likuni	9,703.97	7.269	83.13	4.56

Geographical Information System (GIS)

Customer Meter Update

The GIS database currently stands at 92,807 customers. Additional data is mainly added monthly based on new water connections, and from Bilu Pompo meter reading database.

Financial Year	GIS	Active Customers (Billing Database)	Percentage Captured
2017-18	70,658	74,067	95.4%
2018-19	76,219	82,528	92.4%
2019-20	82,931	89,110	93.1%
2020 – 2021 (September, 2020	83,098	90,310	92%
2020 – 2021 (December 2020)	86,858	92,849	93.5%
2020-2021 (March 2021)	89,893	93,497	95.6%
2020-2021 (June 2021)	92,807	95,751	96.9%

Survey and Geo-Referencing of Pipe Installations

LWB's pipe network currently is 2160km (diameters ranging from 50mm to 800mm). Geo-referencing of network is mainly focused on new installations and verification of already digitized network, as well as surveying and updating data on proposed reticulation projects. The GIS survey team currently surveys and updates network extensions carried out by Zones and Projects division

Financial Year	Quarter	Length (km)
2019-2020	Q1	1946.42
	Q2	1971.6
	Q3	1988.1
	Q4	2016.31
2020-2021	Q1	2056.85
	Q2	2084.6
	Q3	2119.91
	Q4	2160.17

HUMAN RESOURCES AND ADMINISTRATION

Gender Mainstreaming and Staff Welfare

During the year, LWB made strides in areas of administration and human resources by improving staff productivity, welfare, and gender mainstreaming. The number of female employees grew by 30% from the 2019-2020 financial year. Staff vacancies were also reduced to less than 10% at the end of the financial year.



Female engineers interacting with the Minister of Forestry and Natural Resources



LWB's Football Team Madzi Socials was active in the year

COVID-19 Response

The COVID-19 pandemic negatively affected LWB's operations in four principal ways:

1. Disrupting labour Force
2. Disrupting supply chains
3. Reduced Revenue Collection

To counter these effects, LWB developed a comprehensive Business Continuity Plan. The BCP addressed each risk that the pandemic posed to ensure continuity of LWB service in the face of the pandemic.



LWB has and continues to ensure safety of all its staff by adhering to COVID-19 preventive guidelines

JICA Support

JICA supported LWB under Covid 19 interventions by procuring 150 tons of HTH, 6 months cover of detergents and sanitizers, 20 non-contact thermometers, 2 PA systems and Residual Chlorine digital analyzers at a cost of MK 515,174,400.00.



HTH Chlorine donated by JICA

CSR Activities

Lilongwe Water Board implemented several initiatives under its Corporate Social Responsibility (CSR) as part of its social obligation to support the community that it operates in Key CSR activities conducted in the year were:



HTH Chlorine donated by JICA



LWB donated Assorted COVID-19 Items to Bwaila and Kamuzu Central Hospitals

OTHER ACHIEVEMENTS

The 2020 – 2021 Financial Year was an overall success for LWB. Several innovations were successfully launched. Some of the notable achievements in the year are detailed below.

1. Three of the five Public Sector Reforms programs were completed within the year.
2. Lilongwe Water Board launched its 2020 – 2025 Strategic Plan in the year.
3. Lilongwe Water Board's innovation drive was recognized by the Information and Communication Technology Association of Malawi (ICTAM) with the 2021 ICT Award Public company for best.



Thirty-five eMadzi Kiosks were launched, the innovative kiosks were part of the Public Sector Reforms



Launch of the 2020-2025 Strategic Plan was launched

Board Chairs Statement

LILONGWE WATER BOARD
FINANCIAL STATEMENTS
30 JUNE 2021

LILONGWE WATER BOARD
FINANCIAL STATEMENTS

FOR THE YEAR ENDED 30 JUNE 2021

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LILONGWE WATER BOARD

DIRECTORS REPORT
FOR THE YEAR ENDED 30 JUNE 2021

The directors of the Lilongwe Water Board ("LWB" or "the Board") have the pleasure in submitting their report together with the audited financial statements for the year ended 30 June 2020.

INCORPORATION AND MANDATE

Lilongwe Water Board (LWB) is a utility established in 1947 and constituted as a Statutory Corporation mandated to serve the City of Lilongwe and its surrounding peri-urban areas in accordance with the Water Works Act No 17 of 1995.

BUSINESS ACTIVITIES

The core business of Lilongwe Water Board is the provision of potable water for household, institutional and commercial consumption in Lilongwe City. There was no change in the business of the Board in the year under review.

FINANCIAL PERFORMANCE

General Outlook

The economic environment within which the Board operated in the year was not very favourable amidst the Covid-19 pandemic. Production costs increased against water tariffs that had remained unrevised for three (3) consecutive financial years. Nevertheless, LWB recorded a satisfactory profit after tax of MK1.2 billion at the end of the financial year (MK2.5 billion in 2020).

Revenue Performance

The Board realised total revenue of MK21.2 billion in 2021. This represented a decrease of 4% relative to total revenue of MK22.2 billion realised in 2020. The Board experienced reduced water sales by volume in the year specifically from its main corporate and institutional customers whose consumption patterns reduced due to reduced trading activities and operations as a direct impact of the Covid-19 pandemic. Revenue realised in the year registered a negative variance of 22% relative to the budget. While the budget had been formulated on the basis of revised water tariffs, the tariffs were never revised in the year.

Expenditure performance

Cost of production in 2021 was MK14.3 billion relative to MK12.5 billion in 2020 representing an increase of 14%. Energy and water treatment costs increased over the period from adjusted energy tariffs and increased importation costs amidst the Covid-19 pandemic. The Board continued to implement a cash-based budget management system in the year which resulted in administrative expenses in 2021, at MK6.5 billion, being 9% lower than in 2020, at MK7.1 billion. Finance costs however were at MK2.6 billion relative MK1.3 billion in 2020 arising from increased interest on long term loans and financial transaction expenses.

Capital Projects

During the year, LWB continued to implement the Lilongwe Water and Sanitation Project (LWSP), being financed by the World Bank, and the Lilongwe Water Resource Efficiency Programme (LWREP) financed by the European Investment Bank. Under the LWSP, the Board is expanding and rehabilitating its transmission network as well as improving sanitation infrastructure while under the LWREP the Board is raising its Kamuzu Dam 1 to increase the water storage capacity. The Board also implemented the Project for Strengthening the Capacity for Reduction of Non-Revenue Water with support from JICA.

CHALLENGES

Some of the challenges that were encountered by the Board in the year included the following:

i. Increased urban population against a limited and diminishing water source,
ii. Reduced revenue generation capacity arising from effects of the Covid-19 pandemic and non-cost recovery tariffs.
iii. Increased cost of production with high energy and water treatment costs against static water tariffs.
iv. Dzalanyama forest reserve and buffer zone catchment degradation resulting into excess siltation and increased water treatment costs.
v. Non-Revenue Water (NRW) due to an aged infrastructure, vandalism and illegal connections.
vi. High finance costs including the impact of discounting Promissory Notes that had been issued by Government in settlement of accrued water bills.
vii. A Business Continuity Plan (BCP) has been developed to mitigate the impact of Covid-19 on business operations.

LOOKING AHEAD

Looking ahead, the Board has lined up several initiatives aimed at improving service delivery and financial performance including the following:

i. A new Strategic Plan has been developed to provide renewed strategic direction in the period to 2025.
ii. A Business Management Strategy has been developed to provide a business orientation in the Board's operations.
iii. The Kamuzu Dam 1 Raising project is due for commissioning in 2021 with an increased water storage capacity.
iv. The new Water Treatment Works 3 is due for implementation in 2022 with an additional production capacity of 50,000 cubic meters per day.
v. Most components of the LWSP are due for commissioning in 2022 with enhanced hydraulic capacity for improved water distribution to customers and expanded water supply to unserved areas.
vi. NRW management from implementation of the LWSP as well as the Project for Strengthening the Capacity for Reduction of NRW.
vii. Development and implementation of a Catchment Management and Conservation Strategy.

LILONGWE WATER BOARD

DIRECTORS REPORT
FOR THE YEAR ENDED 30 JUNE 2021

DIRECTORS

The following directors and secretary served during the year:

Engineer George Kajanga	Board Chairperson	Full year
Mr. Patrick Chilondola	Member	Full year
Fr. Mphatso Luzuwano	Member	Full year
Mr Henry Chete	Member	Full year
T/A Chilikumwendo	Member	Full year
Mr Innocent Mphote	Member	Full year
Mr Greene Luliro Mwamondwe	Member	Full year
Mrs Lenia Banda Bonongwe	Member	Full year
Ms Lingalireni Mihowa	Member	Full year
Mr Moses Mwenye	Secretary	Full year
Lilongwe City Assembly	Member	Full year
Representative from National Audit Office	Member	Full year
Secretary to Treasury	Member	Full year
Secretary to Ministry of Forestry and Natural Resources	Member	Full year

AUDITORS

Graham Carr
Chartered Accountants
ADL House, Third Floor
P. O. Box 898
Lilongwe, MALAWI

The auditors, Graham Carr, have signified their willingness to continue in office and a resolution is to be proposed at the forthcoming Annual General Meeting in relation to their appointment as auditors in respect of the year ending 30 June 2022.

CHAIRMAN

DIRECTOR

LILONGWE WATER BOARD

STATEMENT OF DIRECTORS' RESPONSIBILITIES FOR THE YEAR ENDED 30 JUNE 2021

The Directors are responsible for the preparation and fair presentation of the financial statements of Lilongwe Water Board comprising of the statement of financial position as at 30 June 2021, and the statements of profit or loss and other comprehensive income, change in funds and cashflows for the year then ended, and the notes to the financial statements which comprise a summary of significant accounting policies and other explanatory information, in accordance with International Financial Reporting Standards and the provisions of the Public Finance Management Act 2003.

The Directors are required to ensure that the Board keeps proper accounting records which disclose with reasonable accuracy at any time the financial position of the Board and enable them to ensure that the financial statements comply with International Financial Reporting Standards, and the provisions of the Public Finance Management Act, 2003.

In preparing these financial statements the directors accept responsibility for the following:

- Maintenance of proper accounting records;
- Selection of suitable accounting policies and consistent application thereof;
- Making judgements and estimates that are reasonably prudent;
- Compliance with applicable accounting standards when preparing financial statements subject to any material departures being disclosed and explained in the financial statements;
- Preparation of financial statements on a going concern basis unless it is inappropriate to presume that the Board will continue in business.

The Directors accept responsibility for taking such steps as are reasonably open to them to safeguard the assets of the Board and to maintain adequate systems of internal control to prevent and detect fraud and other irregularities.

Nothing has come to the attention of the Directors to indicate that the Board will not remain a going concern for at least the next twelve months from the date of these statements.

The Directors are of the opinion that the financial statements give a true and fair view of the state of the financial affairs of the Board and its operating results.

Approval of the financial statements

The financial statements of the Board have been approved by the Board of Directors on 3rd November 21 and is signed on its behalf by:

CHAIRMAN

DIRECTOR

Graham Carr

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P.O.Box 898, Lilongwe, Malawi
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AUDITOR'S REPORT TO THE MEMBERS OF LILONGWE WATER BOARD

ON THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 30 JUNE 2021

Opinion

We have audited the financial statements of Lilongwe Water Board (" the Board") set out on pages 11 to 50, which comprise the statement of financial position as at 30 June 2021, and the statement of profit or loss and other comprehensive income, statement of changes in funds and statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies and other explanatory information.

In our opinion, the financial statements give a true and fair view of the financial position of Lilongwe Water Board as at 30 June 2021, and of its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRSs), the provisions of the Public Finance Management Act 2003 and the provisions of Water Works Act 1995.

Basis of Opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report. We are independent of the Board in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code) and we have fulfilled our ethical responsibilities in accordance with the IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significant in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. Below are key audit matters that are applicable to the Board.

Audit . Tax . Advisory

Directors: Cornwell Banda, Dorothy Ngwira Mrs, Victoria Nkhoma Mrs

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INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF LILONGWE WATER BOARD

ON THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 30 JUNE 2021

Key audit matters (Continued)

Key audit matters	How our audit addressed the key audit matter
Valuation of property , plant and equipment *See notes 4.1,5 and 7 to the financial statements*	
The value of property, plant and equipment as at 30 June 2021 stood at MK97 billion which is 78% of the total assets of the Board's financial statements. The Board accounts for its property, plant and equipment using the revaluation model with the last revaluation conducted in the financial year ended June 2019.	An external independent valuation of property, plant and equipment was carried at 30th June 2019.
The valuation of the Board's property, plant and equipment was a key audit matter due to:	For the current year we carried out the following procedures:
• The significance to the financial statements.	• Reviewed and corroborated the management impairment assessment of properties, plant and equipment.
• The Board used a valuation expert to determine the carrying value of property, plant and equipment. In determining the carrying values the expert used unobservable assumptions which are derived by applying significant judgement and estimates.	• Reviewed the assumptions used in prior year valuation for any significant change.

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INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF LILONGWE WATER BOARD

ON THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 30 JUNE 2021

Key audit matters (Continued)

Key audit matters	How our audit addressed the key audit matter
• During the current year, an impairment assessment was carried out hence requiring judgement in reviewing assets values	• Used our understanding of the property market and also reviewed the market indicators that could impact the values of the property such as inflation rates, exchange rates, interest rates and rental growth. We assessed whether the accounting treatment and related disclosure required by IAS 16 - Property, plant and equipment have been met.
Valuation of trade receivables *See notes 2.9 and 7 to the financial statements*	Our audit procedures to assess the valuation of trade receivables included the following:
Trade receivables amounts due from various customers of the Board through provision of water to its customers.	• We evaluated and tested the Board's processes for trade receivables and un-billed revenue, including the provisioning and collection process.
Trade receivables as at 30 June 2021 amounted to MK6.5 billion (2020:MK13 billion) which is 5% (2020: 12%) of total assets.	• We checked the completeness and accuracy of the ageing of trade receivables.
Trade receivable are recognised initially at fair value and subsequently, measured at amortised cost using the effective interest rate method, less allowances for impairment.	• We verified the reasonableness of the probability of default rates applied on private customers balances by checking the accuracy of the historical data used to develop historical patterns of default and payments of private customers of the Board.

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Key audit matters (Continued)

Key audit matter	How our audit addressed the key audit matter
The impairment of trade receivables was considered to be a matter of most significant to the audit as it required the significant application of judgement and assumptions by management including forward looking assumptions.	• We re-computed the probability of default rates based on the information provided by management in order to ensure that the rates are accurate. • We verified the classification of government debtors by the Board as low risk facilities by checking with the requirement of IFRS 9. • We reviewed and checked the accuracy for all stages of expected credit losses, by assessing whether conditions existed where credit risk increased. • We recomputed the provision on government facilities and checked the reasonableness and accuracy of the discount rate applied. • We checked compliance with the requirements of IFRS 9 on classification and measurement, expected credit losses forward looking assumptions, disclosure requirements and stages of provisions.

Other information

The Directors are responsible for the other information. The other information comprises of the Directors' Report and the Statement of the Directors' Responsibilities. The other information does not include the financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the other information and we do not express an audit opinion or any form of assurance conclusion thereon.

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INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF LILONGWE WATER BOARD

ON THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 30 JUNE 2021

Other information (continued)

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Directors and those charged with governance for the financial statements

The Directors are responsible for the preparation of the financial statements that give a true and fair view in accordance with International Financial Reporting Standards and the provision of Public Finance Management Act, 2003 and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Directors are responsible for assessing the Board's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Board or cease operations, or has no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

Auditor's responsibilities for the audit of the financial statements- continued

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Board's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Directors.
- Conclude on the appropriateness of the Board's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Board's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Board to cease to continue as a going concern.

We communicate with the Directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

From the matters communicated with directors, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless the law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Graham Carr
Chartered Accountants (Malawi)
Cornwell Banda

Date: 25th November 2021

Audit . Tax . Advisory

Directors: Cornwell Banda, Dorothy Ngwira Mrs, Victoria Nkhoma Mrs

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LILONGWE WATER BOARD

STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME FOR THE YEAR ENDED 30 JUNE 2021

	Note	2 021 K'000	2 020 K'000
Revenue	20	21,183,251	22,136,266
Cost of sales	21	(14,266,772)	(12,547,039)
Gross profit		**6,916,479**	**9,589,227**
Administrative expenses	22	(6,817,278)	(7,068,460)
Other income	23	889,678	71,126
Operating profit		**988,879**	**2,591,893**
Finance income	24	46,906	46,677
Finance costs	24	(2,551,273)	(1,268,899)
Amortised capital contribution	16.1	2,710,093	1,256,401
Profit before income tax		1,194,604	2,626,072
Income tax expense	26	**(31,636)**	**(123,346)**
Profit for the year		1,162,969	2,502,726
Other comprehensive income			
Deferred tax (charged)/released on revaluation surplus		(144,685)	199,563
Total comprehensive income for the year		1,018,284	2,702,289

The notes on pages 15 to 50 form part of these financial statements
Independent auditor's report - page 5 - 10

LILONGWE WATER BOARD

STATEMENT OF FINANCIAL POSITION
AS AT 30 JUNE 2021

ASSETS	Note	2021 K'000	2020 K'000
Non current assets			
Property, plant and equipment	7	97,385,002	71,448,945
Amounts recoverable (Salima -Lilongwe Water Project)	9	4,835,102	15,075,384
Other longterm receivables	10	1,965,413	38,351
Total non current assets		**104 185 517**	**86 562 680**
Current assets			
Inventories	8	3,806,739	3,972,257
Trade and other receivables	10	6,727,465	13,131,225
Cash and cash equivalents	11	10,697,827	9,902,184
Income tax recoverable	22	825,742	-
Total current assets		**22,057,773**	**27,005,666**
Total assets		**126,243,291**	**113,568,346**
FUNDS AND LIABILITIES			
Funds			
Capital reserve	12	3,103,413	3,103,413
Revaluation reserve	13	13,880,570	14,392,273
Home ownership fund	14	154,855	152,684
Revenue reserve	15	20,842,205	19,312,218
Total funds		**37 981 043**	**36 960 588**
Non-current liabilities			
Deferred tax	22	7,502,112	7,357,428
Capital contributions	16	4,194,744	3,078,094
Deferred income/grants	17	11,027,408	9,638,623
Long term borrowings	18	62,096,139	48,224,026
Total non current liabilities		**84,820,404**	**68,298,172**
Current liabilities			
Short term borrowings	18	1,115,172	1,115,172
Trade and other payables	19	2,326,673	5,398,112
Income tax	22	-	1,796,304
Total current liabilities		**3,441,844**	**8,309,588**
Total liabilities		**88,262,248**	**76,607,759**
Total funds and liabilities		**126,243,291**	**113,568,346**

The financial statements were approved by the Board on 3rd November 2021 and are signed on their behalf by:

CHAIRMAN **DIRECTOR**

The notes on pages 15 to 50 form part of these financial statements
Independent auditor's report - page 5 - 10

LILONGWE WATER BOARD

STATEMENT OF CHANGES IN FUNDS
FOR THE YEAR ENDED 30 JUNE 2021

	Capital reserve K'000	Revaluation reserve K'000	Home ownership fund K'000	Revenue reserve K'000	Total K'000
Year ended 30 June 2021					
Balance at 1 July 2020	3,103,413	14,392,273	152,684	19,312,218	36,960,588
Profit for the year	-	-	-	1,162,969	1,162,969
Depreciation transfer to retained earnings	-	(511,703)		511 703	-
Deferred tax on revalued assets	-	-	-	(144,685)	(144,685)
Income on home ownership fund	-	-	2,171	-	2,171
Balance at 30 June 2021	**3,103,413**	**13,880,570**	**154,855**	**20,842,205**	**37,981,043**
Year ended 30 June 2020					
Balance at 1 July 2019	3,103,413	14,704,413	150,184	16,300,290	34,258,300
Profit for the year	-	-	-	2 502 725	2 502 725
Depreciation transfer on revalued assets	-	(511,703)		511 703	-
Deferred tax on revalued assets	-	199,563	-	-	199 563
Income on home ownership fund	-	-	2,500	(2,500)	-
Balance at 30 June 2020	**3,103,413**	**14,392,273**	**152,684**	**19,312,218**	**36,960,588**

The notes on pages 15 to 50 form part of these financial statements
Independent auditor's report - page 5 - 10

LILONGWE WATER BOARD

STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED 30 JUNE 2021

	Note	2021 K'000	2020 K'000
Cash flows from operating activities			
Profit before income tax		1,194,604	2,626,072
Adjustments for:			
Depreciation	5	2,836,271	2,276,674
Amortisation of grants/capital contributions			
- capital contributions	10	(82,716)	(82,716)
- grants	11	(2,710,093)	(1,173,682)
Profit on disposal of property, plant and equipment	17	(5,751)	(22,298)
Unrealised foreign exchange loss		(209,240)	(1,060,654)
Interest paid	18	2,430,893	1,268,899
Interest received	18	(46,906)	(46,677)
		3,407,062	**3,785,618**
Movements in working capital			
Changes in inventories		165,518	(2,307,933)
Changes in trade and other receivables		4,476,698	(1,199,397)
Changes in amount recoverable from Salima-Lilongwe Water Project		13,872,985	-
Changes in trade and other payables		(3,071,439)	4,127,359
Cash inflow from operations		**18,850,824**	**4 405 647**
Income tax paid		(2.560.675)	(520.764)
Net cash generated from operating activities		**16,290,149**	**3,884,883**
Cash flows from investing activities			
Purchases of property, plant and equipment	5	(28,772,328)	(22,158,688)
Proceeds from sale of property, plant and equipment		5,751	22,298
Interest received		46,906	46,677
Net cash used before financing		**(28 719 671)**	**(22 089 713)**
Cash flows from financing activities			
Capital contributions received during the year		1,199,366	354,169
Armotisation of grants	11	2,710,093	1,173,682
Proceeds from borrowings	17	21,891,363	16,650,337
Proceeds from Grants (deferred income)		3,520,163	6,343,513
Interest payable	18	(2,430,893)	(1,268,899)
Repayment of borrowings		(13,664,928)	(2,683,305)
Net cash from financing activities		13,225,164	20,569,497
Net increase in cash and cash equivalents		795 642	2,364,667
Cash and cash equivalents at the beginning of the year		9,902,184	7,537,517
Cash and cash equivalents at the end of the year	**11**	**10,697,826**	**9,902,184**

The notes on pages 15 to 50 form part of these financial statements
Independent auditor's report - page 5 - 10

1. GENERAL INFORMATION

Lilongwe Water Board is a Statutory Corporation domiciled in Malawi. It was established initially under its own Act of Parliament in 1947 subsequently incorporated under the Water Works Act, No 17 of 1995. The core business of Lilongwe Water Board is the provision and sale of potable water to the city of Lilongwe. The address of the Board's registered office is Post Office Box 96, Lilongwe. The financial statements of the Board are for the year ended 30 June 2021.

2 Basis of preparation

(a) Statement of compliance

The financial statements have been prepared in accordance with the International financial Reporting Standards issued by the International Accounting Standards Boards(IASB), interpretations issued by the International Financial Reporting Interpretations committee and the provision of Public Finance management Act 2003.

(b) Basis of preparation

These financial statements have been prepared at historical cost except for property, plant and equipment which are measured at fair value. See policy note 4.1.

(c) Functional and presentation currency

The financial statements are presented in Malawi Kwacha which is the Board's functional currency and presentation currency. All financial information presented in Malawi Kwacha has been rounded to the nearest thousand unless otherwise indicated.

(d) Use of estimates and judgements

The preparation of financial statements which are in conformity with International Financial Reporting Standards requires management to make judgement, estimates and assumptions that affect the application of accounting policies and the reported amounts assets, liabilities, income and expenses. Actual results may differ from these

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised prospectively.

Information about significant areas of estimation uncertainty and critical judgments in applying accounting policies that have significant effect on amounts recognized in the financial statements.

- Notes 4.1, 5 and 7 Estimates of useful lives and residual; values and revaluations of property, plant and equipment and equipment.
- Notes 4.5 Impairment of trade and other receivables.

(d) Going Concern

The financial statements have been prepared on a going concern basis as the directors have made an assessment of the Board's ability to continue as a going concern and have a reasonable expectation that the Board has adequate resources to continue operational existence for the foreseeable future. For this reason, they continue to adopt the going concern basis in preparing these financial statements.

3 Adoption of New and Revised International Financial Reporting Standards/ (IFRSs)

These financial statements have been prepared in accordance with International Financial Reporting Standards. These financial statements have also been prepared on the historical cost convention basis as modified by the revaluation of land and buildings, and financial assets and financial liabilities at fair value through profit or loss. The principal accounting policies adopted are set out below:-

3.1 Standards and Interpretations affecting amounts reported and/or disclosed in the financial statements

The Board has adopted those new and revised standards and interpretations issued by the International Accounting Standards Board and the International Financial Reporting Interpretations Committee of the International Accounting Standards Board that are relevant to its operations and are effective for annual reporting periods beginning on 1 January 2020.

The new and revised standards adopted in the current year are as follows:

IFRS 16 Leases

Issued in January 2016. IFRS 16 specifies how an IFRS reporter will recognize, measure, present and disclose leases. The standard provides a single lessee accounting model, requiring lessees to recognize assets and liabilities for all leases unless the lease term is 12 months or less or the underlying asset has a low value. Lessors continue to classify leases as operating or finance, with IFRS 16's approach to lessor accounting substantially unchanged from its predecessor, IAS 17. Effective for annual reporting periods beginning on or after 1 January 2020.

The directors anticipate that the new standards, amendments and interpretations will be adopted in the financial statements when they become effective. The Board has assessed where practicable, the potential impact of these new standards, amendments and interpretations that will be effective in future periods.

4 Significant accounting policies

The accounting policies set out below have been applied consistently to all periods presented in these financial statements.

4.1 Property, plant and equipment

Initial recognition and measurement

Property, plant and equipment is stated at cost less accumulated depreciation and impairment losses. Cost includes expenditure that is directly attributable to the acquisition of the item.

Subsequent costs

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Board and the cost of the items can be measured reliably. All other repairs and maintenance are charged to profit or loss during the financial period in which they are incurred.

Revaluation

Revaluation of property, plant and equipment is carried out with sufficient regularity such that the carrying amount does not differ materially from fair values at the reporting date as economic conditions dictate, by independent valuers. The basis of valuation used is current markets value. Surpluses on revaluations are recognized in other comprehensive income in the revaluation reserve. On realization of the asset, the appropriate portion of the reserve is transferred to retained earnings. Revaluation decreases are charged to the profit or loss except to the extent that they relate to revaluation surpluses previously transferred to the revaluation reserve. An amount equivalent to the additional depreciation arising from revaluations is transferred annually, net of deferred tax, from the revaluation reserve to revenue reserves.

The Boards assets were last revalued in June 2019.

Depreciation

Land and capital work in progress is not depreciated. Depreciation on other assets is calculated using the straight line method to allocate their cost to their residual values over their estimated useful lives as follows:

Dams	150 years
Buildings and structures	10-60 years
Reticulation	20-80 years
Motor vehicle and bicycles	5-8 years
Furniture and equipment	3-8 years
Kiosk	1 year
Meters	5 years
Plant and equipment	3 -5 years

Significant accounting policies (continued)

Property, plant and equipment (continued)

The assets residual values and useful lives are reviewed, and adjusted if appropriate, at each reporting date. An asset carrying amount is written down immediately to its recoverable amount if the assets carrying amount is greater than the estimated recoverable amount.

Gains and losses on disposal are determined by comparing the proceeds with the carrying amount and are recognised in profit or loss.

Impairment of non-financial assets

At each reporting date, the Board reviews the carrying amounts of its non-financial assets other than its deferred tax assets to determine whether there is any indication that those assets are impaired. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). The recoverable amount is the higher of value in use and fair value less costs of disposal.

For impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that is largely independent of the cash inflows of other assets or cash generating units (CGUs).

The 'recoverable amount' of an asset or CGU is the greater of its value in use and its fair value less costs to sell. 'Value in use' is based on the estimated future cash flows, discounted to their present values using pre-tax discount rate that reflects current market assessments of the value of money and risks specific to the asset or CGU.

An impairment loss is recognised if the carrying amount of an asset or CGU exceeds its recoverable amount impairment losses are recognised in the profit or loss.

As at 30 June 2021 the Board, carried out an impairment test of all the other assets which indicated increases in values.

Financial Instruments

Recognition and derecognition

Financial assets and financial liabilities are recognised when the Board becomes a party to the contractual provisions of the financial instrument. Financial assets are derecognised when the contractual rights to the cash flows from the financial assets expire, or when the financial asset and substantially all the risks and rewards are transferred.

A financial liability is derecognised when it is extinguished, discharged, cancelled or expires.

Financial Instruments (Continued)

Recognition and derecognition (continued)

Assets in this category are measured at fair value with gains or losses recognized in profit or loss. The fair values of financial assets in this category are determined by reference to active market transactions or using a valuation technique where no active market exists.

Impairment of financial assets

IFRS 9's impairment requirements use more forward-looking information to recognize expected credit losses - the 'excepted credit loss (ECL) model: Instruments within the scope of the new requirements included loans and other debt-type financial assets measured at amortized cost and FVOCI, trade receivables, contract assets recognized and measured under IFRS 15 and loan commitments and some financial guarantee contracts(for the issuer) that are not measured at fair value through profit or loss.

Recognition of credit losses is no longer dependent on the Board first identifying a credit loss event. Instead the Board considers a broader range of information when assessing credit risk and measuring expected credit losses, incurring past events, current conditions, reasonable and supportable forecasts that affect the expected collectability of the future cash flows of the instrument.

In applying this forward-looking approach, a distinction is made between:

- financial instruments that have not deteriorate significantly in credit quality since initial recognition or that have low credit (Stage 1) and
- financial instruments that have deteriorated significantly in credit quality since initial recognition and whose credit risk is not low (Stage 2)
- Stage 3 would cover financial assets that have objective evidence of impairment at the reporting date.
- 12 month expected credit losses are recognised for the first category while 'lifetime expected credit losses are recognised for the second category.

Measurement of the expected credit losses is determined by a probability-weighted estimate of credit losses over the expected life of the financial instrument.

Trade and other receivables and contract assets

The Board makes use of simplified approach in accounting for trade and other receivables and records the loss allowance as lifetime expected credit losses. These are the expected shortfalls in contractual cash flows, considering the potential for default at any point during the life of the financial instrument. In calculating , the Board uses its historical experience, external indicators and forward looking information to calculate the expected credit losses using provision matrix.

The Board assess impairment of trade receivables on a collective basis as they possess shared credit risk characteristics, they have been grouped based on the days past due.

Financial Instruments (Continued)

Classified and measurement of financial liabilities

As the accounting for financial liabilities remains largely the same under IFRS 9 compared to IAS 39, the group's financial liabilities were not impacted by the adoption of IFRS9. However, for completeness, the accounting policy is disclosed below.

The Board's financial liabilities include borrowings, trade and other payables. Financial liabilities are initially measured at fair value and where applicable, adjusted for transaction costs unless the Board designated a financial liability at fair value through profit or loss.

Subsequently, financial liabilities are measured at amortized cost using the effective interest method except for derivatives and financial labilities designated at FVTPL, which are carried subsequently at fair value with gains or losses recognized in profit or loss(other than derivative financial instruments that are designated and effective as hedging instruments).

All interest -related charges and, If applicable, changes in an instrument's fair value that are reported in profit or loss are included within finance costs or finance income

4.4 Inventories

Inventories are stated at the lower of cost and net realisable value. Cost comprises direct materials and, where applicable, direct labour costs and those overheads that have been incurred in bringing the inventories to their present location and condition. Consumables are valued at cost on a weighted average cost basis.

4.5 Trade receivables

Trade receivables are amounts due from various customers for water supplied in the ordinary course of business. If collection is expected in one year or less they are as classified as current assets. If not, they are presented as non - current assets. Trade receivable are recognised initially at fair value and subsequently measured at amortised cost using the effective interest rate method, less allowance for impairment.

4.6 Cash and cash equivalents

In the statement of cash flows, cash and cash equivalents includes cash in hand, deposits held on call with banks, other short-term highly liquid investments with original maturities of three months or less, and bank overdrafts. In the statement of financial position, bank overdrafts are shown in current liabilities.

4.7 Trade payables

Trade payables are obligations to pay for goods that have been acquired in the ordinary course of business from suppliers. Trade payables are classified as current liabilities if payment is due within one year or less, if not, they are presented as non-current liabilities.

Trade payables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest rate method.

4.8 Provisions

Provisions are recognised when the Board has a present legal or constructive obligation as a result of past events; it is probable that an outflow of resources will be required to settle the obligation; and the amount has been reliably estimated.

Where there are a number of similar obligations, the likelihood that an outflow will be required in settlement is determined by considering the class of obligations as a whole. A provision is recognised even if the likelihood of an outflow with respect to any one item included in the same class of obligations may be small.

Provisions are measured at the present value of the expenditures expected to be required to settle the obligation using pre-tax rates that reflect current market assessments of the time value of money and risks specific to the obligation. The increase in the provision due to passage of time is recognised as an interest expense.

4.9 Borrowings

Borrowings are recognised initially at fair value, net of transaction costs incurred. Borrowings are subsequently carried at amortised cost; any difference between the proceeds (net of transaction costs) and the redemption value is recognised in the income statement over the period of the borrowings using the effective interest rate method.

Fees paid on establishment of loan facilities are recognised as transactions costs of the loan to the extent that it is probable that some or all of the facility will be drawn down. In this case, the fee is deferred until the draw down occurs. To the extent there is no evidence that it is probable that some or all of the facility will be drawn down, the fee is capitalised as a prepayment for liquidity services and amortised over the period of the facility to which it relates.

Borrowings are classified as current liabilities unless the Board has an unconditional right to defer settlement of the liability for at least 12 months after the reporting date.

General and specific borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

4.10 Employment and post-employment benefits

a) Short-term employee benefits

Short-term benefits consist of salaries, education allowances, accumulated leave payments, bonuses and any non-monetary benefits such as medical aid contributions. Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided. A liability is recognised for the amount expected to be paid if the Board has a present legal or constructive obligation to pay this amount as result of past service provided by the employee and the obligation has been reliably estimated.

b) Pension obligations

The Board is contributing to a defined contributing pension fund for its employees. The charge to the profit or loss for the period ended 30 June 2021 is K825 million (2020: K693 million). A defined contribution plan is a pension plan under which the Board pays fixed contributions into a separate entity. The Board has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods.

4.11 Revenue

Revenue is measured at the fair value of the consideration receivables and represents amounts receivables for water and service charge provided in the normal course of business.

IFRS 15 establishes the principle that an entity applies when reporting information about the nature, amount, timing and uncertainty of revenue and cash flows from a contract with a customer. Applying IFRS 15, an entity recognizes revenue to depict the transfer of promise goods or services to the customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services.

The adoption of IFRS mainly affected the following areas:

i) Water sales

Water charges are raised at the date meter readings are taken. Accruals of water consumption from the date of the last meter reading to the year end are therefore not brought into account.

ii) Meter testing fees

Meter testing fees are recognised and charged when customers request the testing of their meters in resolution of billing disputes.

iii) Reconnection fees

Reconnection fees are recognised and charged when customers request the reconnection of water supply that was disconnected due to non payment.

Revenue (Continued)

iv) Interest income

Interest income is accrued on a time basis by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts estimated cash receipts through the expected life of the financial asset to the net carrying amount of the financial instrument.

v) Foreign currency gains and losses

Foreign currency gains and losses are reported in the statement of comprehensive income within finance costs and finance income.

vi) Deferred income

All income that has not been earned in the current period but has been received is treated as deferred revenue to the extent of the unearned portion. This includes capital and revenue grants for future periods and revenue from operations received in advance (capital contributions).

vii) Capital contributions

Capital represent cash payments received from customers towards the cost of pipes. The receipts are amortised over the lives of the assets they have financed.

viii) Grants

Grants from donors are recognised at their fair value where there is a reasonable assurance that the grant will be received and the Board will comply with all conditions attached to the grant. Grants relating to costs are deferred and recognised in the profit or loss over the period necessary to match them with the costs that they are intended to compensate. Grants relating to property, plant and equipment are included in non-current and current liabilities as deferred income and are credited to the profit or loss on a straight-line basis over the expected lives of the related assets.

4.12 Revaluation reserve

Surplus on revaluation of assets is transferred to a non-distributable revaluation reserve. Depreciation on revalued property plan and equipment is charged to statement of changes in equity. On the subsequent sale or retirement of a revalued property, the attributable revaluable surplus remaining in the property revaluation reserve is transferred directly to the surplus/deficit reserve.

4.13 Capital reserve

This represents the initial funds injected into the Board by Malawi Government. The capitalization of loans into equity as at 30th June 2010 and assets taken over from Central Region Water Board.

4.14 Home ownership fund

These are loans granted to all permanent and pensionable members of staff who have been in service with the Board for three years for purposes of construction or purchase of houses. The Board pumped in seed money in a separate designated account from where disbursements are made. The fund is administered by a committee which implements the home ownership scheme.

4.15 Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax.

Current tax

The tax currently payable is based on taxable profit for the year. Taxable profit differs from net profit as reported in the statement of profit or loss and other comprehensive income because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. The Board's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax

Deferred tax is recognised on difference between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of the taxable profit.

Deferred tax liabilities are generally recognized for all taxable temporary difference and deferred tax assets are generally recognized for all deductible temporary differences to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilized. Such deferred tax assets and liabilities are not recognized if the temporary difference arises from goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

Taxation

Deferred tax

Deferred tax liabilities are recognised for taxable temporary differences associated with investments in subsidiaries, except where the Board is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary difference associated with such investments and interests are only recognised to the extent that it is probable that there will be sufficient taxable profits against which to utilize the benefits of the temporary differences ad they are expected to reverse in the foreseeable future.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the year in which the liability is settled or the asset realized, based on tax rates (and tax laws) that have been substantively enacted by the end of the reporting period. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the the manner in which the Board expects, at the reporting date, to recover or settle the carrying amount of its assets and liabilities.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient a taxable profits will be available to allow all or part of the asset to be recovered. Unrecognised deferred tax assets are reassessed at each reporting date and recognised to the extent that it has become probable that future taxable profit will be available against which they can be used.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the Board intends to settle its current tax assets and liabilities on a net basis.

Current and deferred tax for the year

Current and deferred tax are recognised as an expense or income in profit or loss, except when the relate to items that are recognised in other comprehensive income or directly in equity, in which case the tax is also recognised in other comprehensive income or directly in equity respectively.

5 **Critical accounting estimates and judgements**

The Board makes estimations and assumptions concerning the future. The estimates and judgements are continually evaluated and are based on historical experience and other factors including expectations of future events that are believed to be reasonable under the circumstances. The resulting accounting estimates will by definition, seldom equal actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to carrying amounts of assets and liabilities within the next financial year are discussed below:

Critical accounting estimates and judgements (continued)

Impairment of receivables

The Board's receivables comprises of outstanding bills from various customers. Management is aware that certain debts due to the Board may not be paid. Estimates based on historical experiences are used in determining the level of debts that management believes may not be collected. When coming up with these estimates, the Board has used the expected credit loss model under IFRS 9, and factors such as the current state of the Malawi economy, significant financial difficulties of the debtor, probability that the debtor will default or financial re-organisation and delinquency in paying or post collection history and expected cash flows from the debts that are overdue are considered.

For private receivables each category of aging has been impaired using probability of default based on past experience and trends to arrive at the amount of provision. Receivables between current and 90 days 1% was used while those from 180 days and beyond 18% was used. The variation is because the longer it takes without being settled the more likehood that it may become doubtful. While for Government receivables have been discounted to present value using treasury yield being the amount the Board could have earned if the cash received was invested to represent the true value of money on these balances if not settled promptly.

6 FINANCIAL RISK MANAGEMENT AND FAIR VALUE MEASUREMENT

6.1 Financial risk factors

The Board's activities expose it to a variety of financial risks: market risk (including cash flow and fair value interest rate risk, and foreign exchange risk), credit risk and liquidity risk. The Board's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the Board's financial performance. Risk management is carried out under policies approved by the Board of Directors ("the Board"). The Board provides written principles for overall risk management, as well as written policies covering specific areas, such as foreign exchange risk, interest rate risk, credit risk, and the investment of excess liquidity.

(a) Market risk

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. The Board's market risks arise from open positions in (a) foreign currencies and (b) interest bearing assets and liabilities to the extent that these are exposed to general and specific market movements.

i) Price risk

Price risk is the risk that fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices '(other than those arising from interest rate risk or currency risk), whether those changes are caused by factors specific to the individual instrument or its issuer, or factors affecting all similar financial instruments traded in the market.

The Board is not exposed to commodity or equity securities price risks because it had no assets nor obligations that exposed the Board to these risks at the reporting date.

ii) Interest rate risk

Cash flow and fair value interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates.

iii) Foreign exchange risk

Foreign exchange risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of the changes in foreign exchange rates.

The Board is exposed to foreign currency risk on borrowings that are denominated in a currency other than Malawi Kwacha until repayment. The currencies giving rise to the risk are Euro and USD.

The table below summarises the Board's exposure to foreign currency exchange risk at the reporting date. Included in the table are the Board's foreign currency denominated financial instruments categorised by currency.

	USD/K equivalent 2021 K'000	Euro/K equivalent 2021 K'000	Euro/K equivalent 2020 K'000	USD/K equivalent 2020 K'000
Financial liabilities				
Borrowings	(31,638,461)	(24,871,939)	(24,339,624)	(15,673,962)
Net foreign currency position	(31,638,461)	(24,871,939)	(24,339,624)	(15,673,962)

FINANCIAL RISK MANAGEMENT AND FAIR VALUE MEASUREMENT (CONTINUED)

iii) Foreign exchange risk

At 30 June 2021, if the USD/EURO currency had weakened/ strengthened by 10% against the foreign currencies with all other variables held constant, post tax profit for the year would have responded in the same way mainly as a result of foreign exchange gains/losses on translation of foreign currency denominated balances. Exchange rates used to translate balances at the reporting date are as follows:

	2021	2020
Euro	1,033	848
USD	802	745

(b) Credit risk

Credit risk is the risk of financial loss to the Board if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Board's receivables from customers and short-term deposits.

Trade and other receivables

The Board's exposure to credit risk is influenced mainly by the individual characteristics of each customer. The Board's credit customer base, including the default risk based on the business experience, has less of an influence on credit risk. The Board has a credit policy under which each new customer is analysed individually for creditworthiness before the Board's standard payment and water supply terms and conditions are offered.

Short-term deposits

The Board limits its exposure to credit risk by depositing its excess cash only with reputable established commercial banks and discount houses accredited by the Reserve Bank of Malawi. Considering their high credit ratings and Reserve Bank's close monitoring of these financial institutions, management does not expect any institution to fail to meet its obligations.

(b) Credit risk

	2021 K'000	2020 K'000
The Board's exposure to credit risk by class of financial asset is as follows:		
Trade and other receivables (excluding prepayments)	6,543,579	12,863,090
Amounts due from related parties	1,234,828	7,613,236
Cash and cash equivalents	10,697,827	9,902,184
	18,476,234	30,378,510

The fair value of financial assets at 30 June 2021 approximates the carrying amount as the impact of discounting is not significant.

There is no significant risk with respect to cash and cash equivalents as the Board holds bank accounts with large financial institutions with sound financial and capital cover.

FINANCIAL RISK MANAGEMENT AND FAIR VALUE MEASUREMENT (CONTINUED)

(c) Liquidity risk

Liquidity risk is the risk that the Board may fail to meet its payment obligations when they fall due, the consequences of which may be the failure to meet the obligations to creditors. The Board identifies this risk through periodic liquidity gap analysis and the maturity profile of assets and liabilities. Where major gaps appear, action is taken in advance to close or minimise the gaps.

The table below analyses the maturity profile of the Board's financial assets and liabilities based on the remaining period at the 'reporting date to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows.

	Up to3 months K'000	3 - 6 months K'000	Over '6 - 9 months K'000	Over 12 months K'000	Total K'000
At 30 June 2021					
Assets					
Trade and other receivables (excluding prepayments)	3,117,127	1,244,356	2,182,096		6,543,579
Recoverable-Salima-Lilongwe Water Project	-	-	-	4,835,102	4,835,102
Cash and cash equivalents	10,697,827	-	-	-	10,697,827
	13,814,954	1,244,356	2,182,096	4,835,102	22,076,508
Liabilities					
Trade and other payables (excluding statutory liabilities and	1,330,201	-	13,436	-	1,343,637
Amount due to related parties	-	-	-	1,115,172	1,115,172
Total liabilities	1,330,201	-	13,436	1,115,172	2,458,809
Liquidity gap	12,484,753	1,244,356	2,168,660	3,719,930	19,617,699
Cumulative liquidity gap	12,484,753	13,729,109	15,897,769	19,617,699	

FINANCIAL RISK MANAGEMENT AND FAIR VALUE MEASUREMENT (CONTINUED)

(c) Liquidity risk (continued)

At 30 June 2021	Up to3 months K'000	3 - 6 months K'000	Over '6 - 9 months K'000	Over 12 months K'000	Total K'000
Assets					
Trade and other receivables (excluding prepayments)	6,281,594	(3,673,710)	-	-	2,607,884
Amount due from related parties	-	3,673,710	-	-	3,673,710
Cash and cash equivalent:	10,697,827	-	-	-	10,697,827
Total assets	16,979,421	-	-	-	16,979,421
Liabilities					
Trade and other payables (excluding statutory liabilities and provisions)	3,546,487	-	-	-	3,546,487
Amount due to related parties	-	1,115,172	-	-	1,115,172
Total liabilities	3,546,487	1,115,172	-	-	4,661,659
Liquidity gap	13,432,934	(1,115,172)	-	-	12,317,762
Cumulative liquidity gap	13,432,934	12,317,762	12,317,762	12,317,762	

The Board determines ideal weights for maturity time buckets which are used to benchmark the actual maturity profile. Maturity mismatches across the time buckets are managed through borrowings.

6.2 Capital risk management

The Board's objectives when managing capital are to safeguard the Board's ability to continue as a going concern in order to provide returns for stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Board may adjust the amount of excess revenue funds paid to the Government.

Consistent with others in the industry, the entity monitors capital on the basis of the gearing ratio. This ratio is calculated as net debt divided by total capital. Net debt is calculated as total borrowings (including 'current and non-current borrowings' as shown in the statement of financial position) less cash and cash equivalents. Total capital is calculated as 'equity' as shown in the statement of financial position plus net debt.

	2021 K'000	2020 K'000
Total debt	59,268,806	49,339,198
less: Cash and cash equivalents (Note 9)	(10,697,827)	(9,902,184)
Net debt	48,570,979	39,437,014
Total equity	37,013,178	37,287,356
Total capital	85,584,157	76,724,370
Debt to capital ratio as at 30 June	57%	51%

6.3 Fair value measurement

Fair value hierarchy

IFRS 13 specifies a hierarchy of valuation techniques based on whether the inputs to those valuation techniques are observable or unobservable. Observable inputs reflect market data obtained from independent sources; unobservable inputs reflect the Board's market assumptions. These two types of inputs have created the following fair value hierarchy:

Quoted market prices - Level 1

Assets and liabilities are classified as Level 1 if their value is observable in an active market. Such instruments are valued by reference to unadjusted quoted prices for identical assets or liabilities in active markets where the quoted price is readily available, and the price represents actual and regularly occurring market transactions. An active market is one in which transactions occur with sufficient volume and frequency to provide pricing information on an ongoing basis. This level includes listed equity securities traded on the Malawi Stock

Fair value estimation

Valuation technique using observable inputs - Level 2

Assets and liabilities classified as Level 2 have been valued using models whose inputs are observable in an active market either directly (that is, as prices) or indirectly (that is, derived from prices).

Valuation technique using significant and unobservable inputs - Level 3

Assets and liabilities are classified as Level 3 if their valuation incorporates significant inputs that are not based on observable market data (unobservable inputs). A valuation input is considered observable if it can be directly observed from transactions in an active market, or if there is compelling external evidence demonstrating an executable exit price.

The hierarchy requires the use of observable market data when available. The Board considers relevant and observable market prices in its valuations where possible.

The Board had no financial assets or liabilities carried at fair value as at 30 June 2021 (2020: K nil).

Comparison of carrying amounts and fair values for assets and liabilities not held at fair value

The fair value is an estimate of the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

The carrying amounts of other financial liabilities carried at amortised cost closely approximate their fair values. The impact of discounting on trade and other payables is not significant because the instruments are short term in nature (trade and other 'payables).

The carrying amount of financial assets not held at fair value approximate the respective fair values as the instruments are short term in nature.

7 PROPERTY, PLANT AND EQUIPMENT

	Land	Buildings and structures	Dams	Kiosks	Plant and equipment	Reticulation	Software	Motorcycles/ vehicles	Office furniture and equipment	Meters	Capital work in progress	Total
Year ended 30 June 2021												
At beginning of the year	4,239,322	17,936,300	8,603,974	491,321	1,493,254	7,799,984	319,988	2,425,718	1,123,201	2,954,326	27,501,194	74,888,582
Additions during the year	-	-	-	-	-	-	233,406	50,660	184,563	760,882	27,542,816	28,772,328
Transfers from work in progress		1,339,287	-	159,201	302,214	2,951,311	-	-	79,945		(4,831,959)	(0)
Disposals	-	-	-	-	-	-	-	(20,111)	-	-	-	(20,111)
At end of year	4,239,322	19,275,587	8,603,974	650,522	1,795,468	10,751,295	553,394	2,456,267	1,387,709	3,715,208	50,212,051	103,640,798
Accumulated depreciation												
At the beginning of the year	-	579,540	57,360	49,132	57,521	488,340	271,310	1,328,160	136,208	472,066	-	3,439,637
Charge for the year	-	610,378	57,360	102,199	152,500	525,776	124,698	388,398	187,536	687,425	-	2,836,271
Depreciation on disposals	-	-	-	-	-	-	-	(20,111)	-	-	-	(20,111)
At end of year	-	1,189,918	114,720	151,331	210,021	1,014,116	396,008	1,716,558	323,744	1,159,491	-	6,255,797
Carrying amount	4,239,322	18,085,668	8,489,254	499,191	1,585,447	9,737,179	157,386	739,709	1,063,965	2,555,717	50,212,051	97,385,002
Year ended 30 June 2020												
At beginning of the year	3,829,486	17,716,130	8,603,974	491,321	700,330	7,459,611	319,988	1,613,508	677,912	2,161,000	9,285,727	52,858,987
Additions during the year	409,836	220,170	-	-	921,015	340,373	-	812,210	446,291	793,326	18,215,467	22,158,688
Disposals	-	-	-	-	(128,091)	-	-	-	(1,002)	-	-	(129,093)
At end of year	4,239,322	17,936,300	8,603,974	491,321	1,493,254	7,799,984	319,988	2,425,718	1,123,201	2,954,326	27,501,194	74,888,582
Accumulated depreciation												
At the beginning of the year	-	-	-	-	-	-	186,959	976,204	-	-	-	1,163,163
Charge for the year		579,540	57,360	49,132	57,521	488,340	84,351	351,956	136,408	472,066		2,276,674
Depreciation on disposal	-	-	-	-	-	-	-	-	(200)	-	-	(200)
At end of year	-	579,540	57,360	49,132	57,521	488,340	271,310	1,328,160	136,208	472,066	-	3,439,637
Carrying amount	4,239,322	17,356,760	8,546,614	442,189	1,435,733	7,311,644	48,678	1,097,558	986,993	2,482,260	27,501,194	71,448,945

In 2019 the board engaged Real properties and development consultant. The lead consultant was Mr. Kamtema a registered valuation surveyor with BSC Hon (Land administration, BSC MSIM). The valuation was done based on open market values.

PROPERTY, PLANT AND EQUIPMENT(CONTINUED)

Fair value hierarchy of the Property, Plant and equipment

	Level 1	Level 2	Level 3	Total
2021 (revaluation basis)				
Property and civil works	-	-	97 385 002	97 385 002
2020 (revaluation basis)				
Property and civil works	-	-	71,448,945	71,448,945

If property, plant and equipment were stated on the historical cost basis, the carrying amounts would be as follows:

	2 021	2 020
Cost	43,226,042	43,226,042
Accumulated depreciation and impairment losses	(3,168,328)	(3,168,328)
Net carrying amount	40,057,714	40,057,714

		2021 K'000	2020 K'000
8	**INVENTORIES**		
	Pipe fittings	3,199,213	3,638,615
	Goods in transit	193,676	-
	Stationery	64,144	19,981
	Chemicals	185,763	137,317
	Fuel	5,936	6,052
	Electrical and mechanical spares	5,909	5,895
	Consumables	14,278	25,869
	Project stock	197,277	203,876
	Motor vehicle spares	-	1,502
	Provision for obsolescence	(59,457)	(66,850)
		3,806,739	3,972,257

9 AMOUNTS RECOVERABLE-SALIMA-LILONGWE WATER PROJECT

Amount Recoverable from Malawi Government on account of National Bank of Malawi loan for Salima-Lilongwe Water Supply Project. The variations in interest charge as per statement are based on comparison between LWB computations and NBM bank loan statement as interest on this loan forms part of the long-term receivables from Malawi Government.

	2021 K'000	2020 K'000
Opening balance	15,075,384	13,342,896
Khato Civils payments (Work-in-Progress Salima-Lilongwe Water Project)		
Interest on NBM loan (Khato Civils)	3,424,646	2,511,882
Receipt from Government	(13,664,928)	
Interest adjustments due to variations between LWB and NBM	-	(779,394)
Total at year end	4,835,102	15,075,384

Government settled the loan direct to NBM and issued a loan clearance letter.

10 TRADE AND OTHER RECEIVABLES

Water debtors	6,543,579	13,356,554
Provision for doubtful debts	(182,096)	(1,064,301)
	6,361,483	12,292,253
Staff receivables	795,205	570,837
Other receivables	1,611,006	322,335
Provision for doubtful debts		
- staff	(20,847)	(319)
- sundry	(53,969)	(15,530)
Total receivables as at year end	8,692,878	13,169,576

		2021 K'000	2020 K'000
TRADE AND OTHER RECEIVABLES (Continued)			
Long-term receivables			
Malawi Government		1,474,320	-
Staff receivables		491,093	38,351
		1,965,413	38,351
Short-term receivables		6,727,465	13,131,225
Ageing of debtors			
Neither past due nor impaired		1,972,060	939,063
Past due (1-30 days)		1,145,067	1,180,601
Past due (31-90 days)		1,244,356	2,085,288
Past due (90-120 days)		2,182,096	9,151,602
		6,543,579	13,356,554
Less provision		(182,096)	(1,064,301)
		6,361,483	12,292,253
Net Other (staff) receivables		2,331,395	877,323
Total trade and other receivables		8,692,878	13,169,576
Break down of water trade receivables by category			
Government		1,234,828	7,613,236
Private customers		5,308,751	5,743,318
Total debtors		6,543,579	13,356,554
Less provision for doubtful debts:	Private customers	(73,217)	(606,652)
	Government	(108,879)	(457,649)
Total trade receivables as at year end		6,361,483	12,292,253
Net other (staff) receivables		2,331,395	877,323
Total trade and other receivables		8,692,878	13,169,576

IFRS 9 Applicability to LWB

The application of IFRS 9 by LWB will significantly relate to trade receivables, which essentially are from the two customer categories of private and Government institutional customers.

The determination of impaired amounts/credit losses is on the basis of probability of default of customers. Trade receivables (mostly form water sales) are derecognized when there is no reasonable expectation of recovery. For private customers the board assesses customers debt settlement abilities when disconnected for reasonable period of time without coming back.

IFRS 9 Applicability to LWB (continued)

In case of Government Trade Receivables, for the 2020- 2021 financial statements, LWB has considered that no financial difficulties are expected from Government as it does not have any arising going concern issues. Further, LWB has taken into account the alternative bill payment arrangement that have been made between Government and LWB which include:

Recovery through installed pre-paid meters

LWB installed pre-paid water meters in most of the Government institutions. Under the imitative, LWB recovers 60% from any water purchase made by any institution with accrued water debtors. Under this arrangement, the Board has been able to recover amounts that were owing by institutions like Kamuzu Central Hospital, Bwaila District Hospital, and public primary and secondary schools amongst others.

The Board has completed the installation of pre-paid meters in Malawi Defence Force establishments and will be installing the same at Malawi Police Services establishments based on an already agreed installation plan backed up by written instructions from both the Chief Secretary to Government and the Secretary to the Treasury.

		2021 K'000	2020 K'000
11	**CASH AND CASH EQUIVALENTS**		
	Bank balances	7,872,732	9,509,853
	Call deposits	2,825,335	392,061
	*Overdraft	(453)	-
	Cash balances	213	270
		10,697,827	9,902,184

* This amount represent an overdrawn cash position due to delays in transfers. This situation has been normalised in subsequent period

12	**CAPITAL RESERVE**		
	At 1 July 2020	3,103,413	3,103,413
	Receipts during the period	-	-
	At 30 June 2021	3,103,413	3,103,413
13	**REVALUATION RESERVE**		
	At 1 July 2020	14,392,273	14,704,413
	Depreciation transfer on revalued assets	(511,703)	(511,703)
	Deferred tax on revalued assets	-	199,563
	At 30 June 2021	13,880,570	14,392,273

		2021 K'000	2020 K'000
14	**HOME OWNERSHIP FUND**		
	At 1 July 2020	152,684	150,184
	Income on home ownership fund	2,171	2,500
	At 30 June 2021	154,855	152,684
15	**REVENUE RESERVE**		
	At 1 July 2020	19,312,218	16,300,289
	Profit for the year	1,162,969	2,502,726
	Depreciation transfer on revalued assets	511,703	511,703
	Income on home ownership fund	-	(2,500)
	Deferred tax on revalued assets	(144,685)	-
	At 30 June 2021	20,842,205	19,312,218
16	**CAPITAL CONTRIBUTIONS**		
	At 1 July 2020	3,078,094	2,806,641
	Receipts during the period	1,199,366	354,169
	Amortisation	(82,716)	(82,716)
	At 30 June 2021	4,194,744	3,078,094
16.1	**Amortisation during the year**		
	International Development Association	106,672	106,672
	European Investment Bank Peri-Urban	57,891	57,891
	Lilongwe Water Sanitation Grant	2,131,561	677,869
	JICA Grant	331,253	331,253
	Capital Contribution	82,716	82,716
	Total	2,710,093	1,256,401

Capital contribution represent cash payments received from customers towards the cost of pipes. The receipts ae amortized over the lives of the assets they have financed. During the period the Lilongwe Water Sanitation Grant under City Council was also amortized.

17 DEFERRED INCOME

	At 1 July K'000	Receipts K'000	Amortization to income statement K'000	At 30 June K'000
Year ended 30 June 2021				
IDA grant	2,786,783	-	(106,672)	2,680,111
Peri-Urban Grant	658,892	-	(57,891)	601,001
Water Aid Grant	1,904	-	-	1,904
LL Water sanitation grant A/C	4,345,249	2,568,302	(1,572,363)	5,341,187
Malawi Government Grant RAP Account (contribution)	307,989	742,000	-	1,049,989
JICA grant - NRW	1,512,798	-	(331,253)	1,181,545
GSMA Grant	25,009	-	-	25,009
WORLDBANK COVID RESPONSE GRANT	-	209,862	(63,199)	146,662
	9,638,623	3,520,163	(2,131,378)	11,027,408
Year ended 30 June 2020				
IDA grant	2,893,454	-	(106,671)	2,786,783
Peri-Urban Grant	716,781	-	(57,889)	658,892
Water Aid Grant	1,904	-	-	1,904
LL Water sanitation grant A/C	831,644	4,191,473	(677,869)	4,345,249
Malawi Government Grant RAP Account (contribution)	-	307,989		307,989
JICA grant - NRW	-	1,844,051	(331,253)	1,512,798
GSMA Grant	25,009	-	-	25,009
	4,468,792	6,343,513	(1,173,682)	9,638,623

18 BORROWINGS

	Currency	Agreed date redemption commences Year	Agreed date redemption finishes Year	2021 K'000	2020 K'000
Non-current liabilities					
IDA NWDP II (World Bank Loan)	$	2007	2016	4,503,728	4,503,728
EIB Peri Urban Loan	€	2009	2034	2,070,247	2,070,247
Salima-Lilongwe Project (NBM) - Local	MK	2018	2023	-	3,062,024
Salima-Lilongwe Project (NBM) - Foreign	$	2018	2021	-	4,666,376
Lilongwe Water Sanitation Project	$	2017		27,653,044	15,169,520
Accrued EIB long term loan interests			2034	5,067,427	5,148,416
Lilongwe Water Efficiency Resource Program (EIB)	€	2016	2041	22,801,692	13,603,715
				62,096,138	48,224,026
Current liabilities					
Malawi Government loan - EIB Credit	K	1996	2026	1,115,172	1,115,172
Total loans				63,211,310	49,339,198
Long term loan interest liability					
Opening balance				5,148,416	1,591,709
Charge during the year				5,855,540	4,339,600
Repayment during the year				(5,936,529)	(782,893)
Accumulated interest to				5,067,427	5,148,416

BORROWINGS (continued)

	At 1 July K'000	Draw downs K'000	Repayments K'000	Interest, currency and other movements K'000	At 30 June K'000
Year ended 30 June 2021					
EIB PERI-URBAN LOAN	2,070,247	-	-	-	2,070,247
EIB LOAN - LWREP	13,603,715	9,197,977	-	-	22,801,692
MG - IDA LOAN	4,503,728	-	-	-	4,503,728
Lilongwe-Salima Project - Local currency	4,666,376	-	(4,666,376)	-	-
Lilongwe-Salima Foreign	3,062,024	-	(3,062,024)	-	-
LL WATER SANITATION PROJECT	15,169,520	12,693,386	-	(209,862)	27,653,045
Accrued long term loan interests	5,148,416	-	(5,936,529)	5,855,540	5,067,428
	48,224,026	21,891,363	(13,664,928)	5,645,678	62,096,139
Year ended 30 June 2020					
IDA NWDP II (World Bank Loan)	2,070,244	-	-	-	2,070,244
EIB Peri Urban Loan	5,208,123	8,491,620	-	(96,028)	13,603,715
MG - IDA LOAN	4,503,728	-	-	-	4,503,728
Salima-Lilongwe Project (NBM) - Local	6,702,585	-	(1,294,865)	(741,344)	4,666,376
Lilongwe Water Sanitation Project	4,986,349	-	(605,548)	(1,318,777)	3,062,024
Lilongwe Water Efficiency Resource Program (EIB)	7,338,217	8,158,717		(327,415)	15,169,519
Accrued EIB long term loan interests	1,591,709	-	(782,893)	4,339,604	5,148,420
	32,400,955	16,650,337	(2,683,306)	1,856,040	48,224,026

BORROWINGS (continued)

Loan	Description	Repayment period	Interest rate	Collateral
EIB Peri-Urbarn	Financed for a specific project	Years from 2015 to 2038	12%	Guarantee by Malawi Government
EIB LWREP loan	Financed for a specific project	Years from 2018 to 2035	0.75%	Guarantee by Malawi Government
NBM-Salima Lilongwe Water-Foreign	Financing of feasibility studies	Years from 2018 to 2020	21%	Guarantee by Malawi Government and Treasury consent
NBM-Salima Lilongwe Water-Local	Financing of feasibility studies	Years from 2018 to 2020	3%	Guarantee by Malawi Government and Treasury consent

Information on financial risk management is included in note 6.

			2021 K'000	2020 K'000
19	**TRADE AND OTHER PAYABLES**			
	Local trade creditors		1,343,637	3,017,872
	Other payables		778,282	2,175,487
	Meter deposits		204,753	204,753
			2,326,673	5,398,112
20	**REVENUE**			
	Water sales			
	Central zone		8,627,059	8,062,712
	Northern Zone		6,238,190	6,228,246
	Southern Zone		6,259,006	7,823,696
			21,124,255	22,114,654
	Meter testing fee		84	42
	Reconnection fee		58,912	21,570
			21,183,251	22,136,266
21	**COST OF SALES**			
	Chemicals		1,382,652	982,352
	Sampling and testing		5,821	-
	Depreciation	5	2,836,270	2,276,675
	Electricity		2,651,786	2,318,543
	Meter reading services		452,855	474,030
	Plant, motor vehicle and other operating expenses			
		21.1	3,608,243	3,681,068
	Staff costs (Operational staff)	21.2	3,329,146	2,814,372
			14,266,772	12,547,039
21.1	**Plant, motor vehicle and other operating expenses**			
	Pipes and fittings maintenance		2,306,564	2,169,555
	Fuel		323,441	353,177
	Motor vehicle expenses		191,541	191,923
	Licences		344,376	431,787
	Loose tools		98,922	214,328
	Environment and catchment protection		47,444	22,494
	Transport		269,948	270,597
	Equipment hire		8,348	27,207
	Penalty charges		17,659	-
			3,608,243	3,681,068

		2021 K'000	2020 K'000
21.2 Staff cost for technical staff			
Salaries		2,449,363	2,104,187
Pension		600,726	464,678
Stand by allowance		124,012	122,482
Leave grant		39,369	43,832
Shift allowance		93,787	49,910
Fringe benefit tax		3,980	4,822
School fees - staff dependants		11,887	10,434
Severance pay provision/contract gratuity		1,887	1,743
Service gratuity		4,135	12,285
		3,329,146	2,814,372
22 ADMINISTRATIVE EXPENSES			
Travel and subsistence		139,228	139,189
Advertising, sales promotion & general administration		295,055	344,652
Corporate Social responsibility		23,804	49,578
Board expenses		310,428	330,253
Security		404,859	325,221
Computer expenses		11,310	132,440
Property and equipment maintenance		382,069	395,423
Telephone		83,229	74,001
Insurance		307,953	158,882
Building and landscape maintenance		100,886	98,336
Subscription fees		26,764	24,171
Hospitality expenses		2,408	7,994
Legal and professional fees		180,272	59,366
Printing and stationery		187,016	119,539
Consumables		147,913	77,652
Call centre operations		47,503	78,158
Office teas and refreshments		9,079	7,883
Recruitment costs		35,056	1,722
Workshop and study tours		17,272	107,849
Rent and rates		34,058	22,122
Kiosk commission		51,972	49,954
Audit fees current year		36,121	12,000
Uniforms & Protective clothing		66,187	103,779
Postage		2,336	3,843
Donor project expenses		1,572,363	1,713,835
Newspaper & Publications		5,776	8,524
Consultancy		103,922	227,671
WASAMA expenses		17,049	27,442
AFWA/IWA		5,475	88,885
Staff costs-administration	22.1	2,188,590	2,073,796
Provision for doubtful debts (Specific)		-	167,419
Fraud & Corruption Prevention		11,241	35,639
Customer Care (Meetings)		38	1,240
Tip off Anonymous program Exp		10,049	-
		6,817,278	7,068,460

		2021 K'000	2020 K'000
22.1	**Staff costs - Administration**		
	Salaries	1,071,839	1,045,154
	Pension	257,666	228,242
	Stand by allowance & Overtime	56,920	14,254
	Severance pay	320	1,726
	Medical expenses	72,904	193,677
	Staff welfare	182,612	133,804
	Leave grant	19,633	16,086
	Shift allowance	26,338	12,102
	Fringe benefit tax	138,706	136,426
	Staff training	96,039	142,589
	TEVET training levy	37,510	32,561
	School fees - staff dependants	2,125	8,453
	Water allowance	75,955	69,882
	Contract Gratuity	3,704	6,948
	Staff Incentive Scheme	123,584	18,179
	HIV/AIDS policy expenses	19,925	9,678
	Service gratuity	2,810	4,035
		2,188,590	2,073,796
23	**OTHER INCOME**		
	Staff loan interest	34,783	19,745
	Rent receivable	5,014	9,863
	Profit on asset disposal	5,751	22,298
	Proceeds from sale of bid documents	11,885	19,220
	Malingunde welfare collection account	17,146	-
	Bad debt recovery from Treasury	457,673	-
	Write off of payables	357,426	-
		889,678	71,126
24	**FINANCE INCOME AND EXPENSE**		
	Bank interest received	46,906	46,677
	Finance costs		
	Unrealised exchange loss	209,240	780,302
	Bank charges	(329,620)	(221,483)
	Long term loan interest	(2,430,893)	(1,827,718)
		(2,551,273)	(1,268,899)

25 RELATED PARTY TRANSACTIONS

The Board transacts with government in the form of borrowings and supplies water to Malawi Government institutions. These transactions are at arm's length basis.

	2021 K'000	2020 K'000
The following are the balances for:		
Government institutions included in water debtors	1,234,828	7,613,236
Key management personnel		
Salary	151,014	143,277
Gratuity	5,911	7,159
Loans and advances	10,950	3,900
Non cash benefits	33,301	19,948
	201,176	174,284

The Board has the following related parties:

The Malawi Government - The Board is 100% owned by Malawi Government ministries, departments and other parastatals - These are also 100 % owned by Malawi Government.

Board of Directors - Board expenses
Executive management

Nature of transactions

The Malawi Government, government ministries, departments and other parastatals- borrowing from the Malawi Government, Capital Contributions and supply of water to Government institutions.

Board of Directors - Board expenses
Executive management - Remuneration

Related party transactions

Directors expenses of MK310,428 (2020: MK330,253) in form of sitting, subsistence, travel and meal allowances were paid during the year.

Emoluments paid to employees in key positions during the reporting period were as follows:

Salaries and benefits	151,014	143,277

		2021 K'000	2020 K'000
26	**INCOME TAX EXPENSE**		
	Current tax expense		
	Current tax on profits for the year	31,636	362,250
	Deferred tax on profits for the year	144,685	(238,903)
	Total current tax expense	176,321	123,347
	Numerical reconciliation of income tax expense to prima facie tax payable		
	Reconciliation of tax charge		
	Profit before income tax	1,194,604	2,626,072
	Tax calculated at 30% (2020: 30%)	358,381	787,822
	Difference between depreciation charge and capital allowances	(114,123)	(91,079)
	Exchange differences	(62,772)	-
	Expenses not allowable for tax purposes	(149,850)	(425,573)
	Temporary differences	144,685	(147,824)
		176,321	123,346

Deferred income tax

The analysis of deferred income tax assets and deferred income tax liabilities is as follows:

	2021 K'000	2020 K'000
Deferred income tax assets:		
Deferred income tax assets to be recovered after more than 12 months	-	-
Deferred income tax assets to be recovered within 12 months		-
	-	-
Deferred income tax liabilities:		
Deferred income tax liability to be recovered after more than 12 months	7,357,426	7,795,894
Deferred income tax liability to be recovered within 12 months	144,685	(438,466)
	7,502,112	7,357,428
The gross movement in the deferred tax account is as follows:		
At beginning of year	7,357,428	7,795,894
Income statement charge (credit)	344,247	(238,903)
Charge to the statement of changes in equity	(199,563)	(199,563)
At end of year	7,502,112	7,357,428

The movement in deferred income tax assets and liabilities during the year without taking into consideration the offsetting of balances is as follows:

	Other K'000	Revaluation K'000	Accelerated K'000	Total K'000
At 1 July 2020	(132,858)	7,361,220	129,066	7,357,428
(Credit) Charge to the income statement	(295,969)		241,090	(54,879)
Charge to the statement of changes in equity	-	199,563	-	199,563
As at 30 June 2021	(428,827)	7,560,783	370,156	7,502,112
At 1 July 2019	14,966	7,560,783	220,145	7,795,894
Charge to the income statement	(147,824)	-	(91,079)	(238,903)
(Credit) Charge to the statement of changes in equity	-	(199,563)	-	(199,563)
As at 30 June 2020	(132,858)	7,361,220	129,066	7,357,428

31 SUBSEQUENT EVENTS

Lilongwe Water Board has not been spared from the COVID-19 disruption. The pandemic has affected LWB in four principal ways;

1. Reduced LWB's human resource.
2. Disrupted supply chains of essential goods and raw materials.
3. Increased demand for portable water in peri-urban areas.
4. Reduced revenue collection due to shutting down of major consumers resulting in financial strain on operations and capital projects.

Table below shows specific effects of COVID and how the effects have been mitigated:

Risk Area	How LWB has been affected	Mitigation measure
Reduced Human Resource due to staff / relatives contracting COVID-19 and isolating from work	Slowdown in work productivity.	Provision of PPE to staff Arrange for vaccination of 290 staff Working in shift & / working from home to decongest the work place
Disruption of supply chains	Failure to procure essential materials e.g. water chemicals due to closure of factories in South Africa.	Procured materials in bulk.
	Delayed delivery of materials due to closure of borders. Suspension of some CAPEX projects that require material importation.	Got assistance of 600 tins of HTH (Chlorine) and other items from Japanese Government through JICA.
Increased demand for potable water in peri-urban areas	Low Income Areas that do not have water needed water, this increased pressure on LWB to supply water to these areas	Procured a water Bowser with funding from World Bank under LWSP that distributed water to areas of need. Installed 35 e-Madzi kiosks with funding from World Bank under LWSP.
Reduced revenue	Low water sales collection due to slow economic activity. Increased OPEX due to COVID-19 interventions.	Increased payment platforms, encouraged electronic payments. Debt restructuring for customers. Reduced /postponed some CAPEX projects.

General Lessons

The COVID-19 pandemic has amplified the need for LWB to have a Business Continuity Plan. Consequently, a BCP is being developed specifically looking at how LWB should respond during and post COVID-19. The BCP is also building LWB's resilience against general disruptive events to ensure business sustainability in the face of an ever-changing global landscape.

LWB needs to leverage off technology in its operations and service delivery. The pandemic has taught us that reliance on human intervention in operations can have setbacks too. Hence, the need for innovative solutions such as e-Madzi, SCADA etc.



ANNUAL REPORT 2023

BLANTYRE WATER BOARD

(Incorporated under the Waterworks Act, No.17 of 1995)

ANNUAL REPORT
AND
STATEMENT OF ACCOUNTS

For the year ended 31st March 2023

(Submitted in accordance with Section 99 (1) of the Public Finance and Management Act, 2022)

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VISION

“To be a dynamic, reliable, effective, efficient and good quality water supply and sanitation services provider.”

MISSION STATEMENT

“To provide reliable and affordable water supply services to our customers whilst effectively contributing to the development of the national economy and sustenance of the environment”

CORPORATE VALUES

The Board's operations are guided by the following corporate values in achieving its Vision and Mission:

Professionalism and Integrity

Quality Service

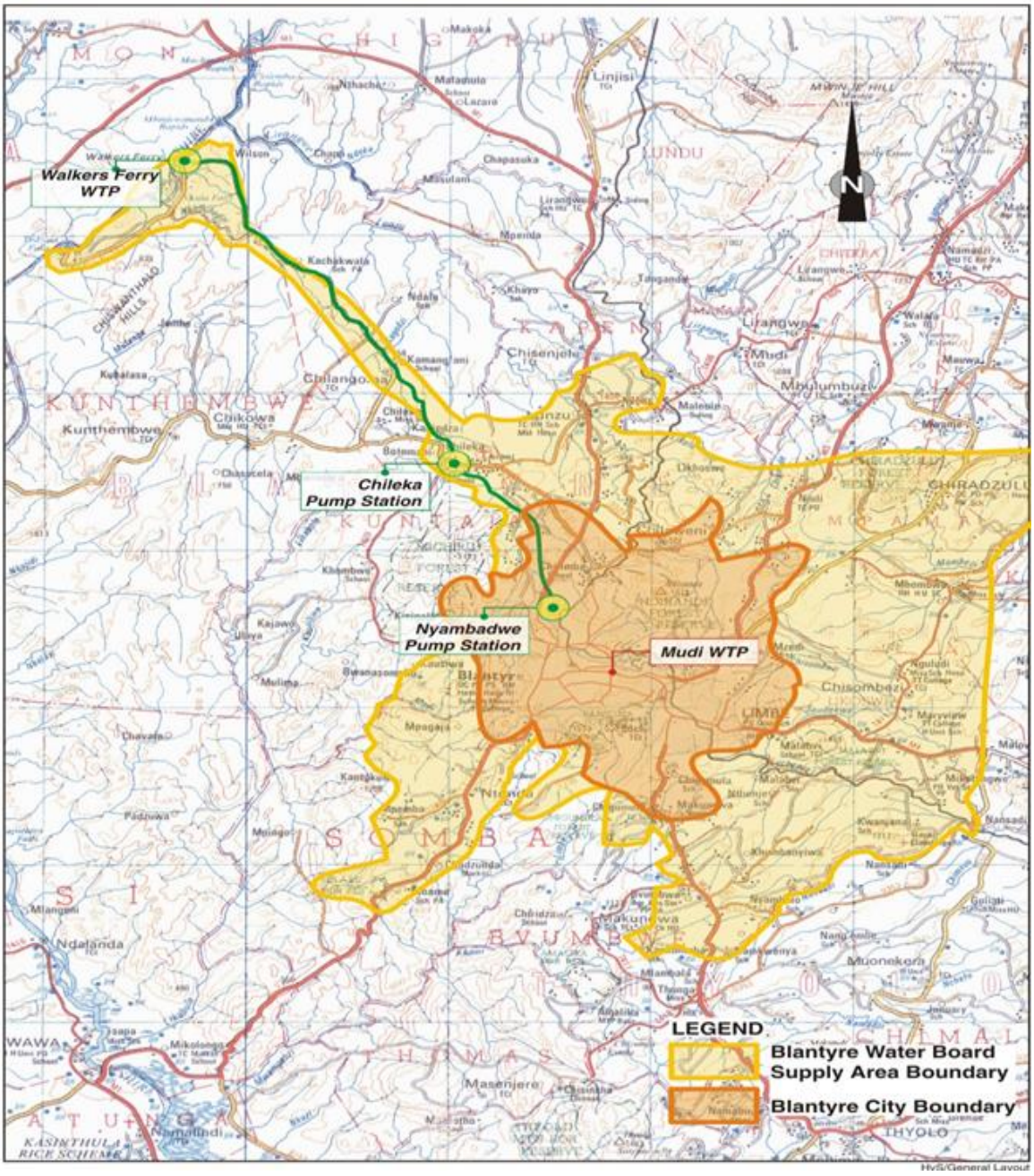
Customer Satisfaction

Transparency and Accountability

Conducive Work Environment

Teamwork and Networking

BLANTYRE WATER BOARD AREA OF OPERATIONS



P.O Box 30369
Chichiri
Blantyre 3

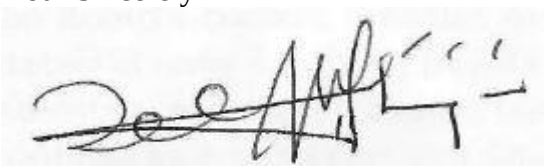
31st March 2023

Hon. Minister
Ministry Water and Sanitation

Hon. Minister,

I have the honour to present the Annual Report and Statement of Accounts of the Blantyre Water Board for the year ended 31st March 2023. The report is submitted in accordance with provisions of the Public Finance Management Act, (2022).

Your Sincerely



Engineer Joe Ching' ani

Chairperson

EXECUTIVE MANAGEMENT TEAM



Dr Robert.T. Hanjahanja

Chief Executive Officer



Mr.P.K.M Chiumia

Director of Finance



Mr. V.J. Kafodya

Director of Distribution and Commerce



Mrs M. Phiri

Director of Human Resources and Administration



Mr. M.M Chiipanthenga

Director of Technical Services

APPOINTMENTS

DIRECTORS OF THE BOARD

Name	Designation
Eng. Joe Ching'ani	Board Chairperson
Ms. Linda Kabwato	Board Member
Ms. Falluna Chauwa	Board Member
Mr. Malinda Chinyama	Board Member
Mr. Ronald Chanthunya	Board Member
Dr. Faides Mwale	Board Member
Dr. Mathilda Chithira Munthali	Board Member
Rev. Alexander Kambiri	Board Member
Rev. Edward Masona Kaluluma Tembo	Board Member
Mr. Foster Ntandama	Board Member

EXECUTIVE OFFICERS

Chief Executive Officer
Dr. R.T. Hanjahanja, PhD in Environmental Engineering, MSC in Planning and Management, BSC (Civil) - From 13/9/2021

Director of Technical Services
Mr. M M. Chiipanthenga, MSC in Integrated Water Resources Management, B.Sc. (Civil) - From 24/6/2012

Director of Finance
Mr. P.K.M. Chiumia, MBA, ACCA, BAC – From 13/2/2019

Director of Distribution and Commerce
Mr. V.J. Kafodya, MSC in Mun. Water & Infrastructure, B.Sc. (Civil) - From 03/05/2016

Director of Human Resources and Administration
Mrs. M. Phiri, MBA, B. Public Administration -From 03/02 2022

KEY SERVICE PROVIDERS

AUDITORS
Ernst & Young

SOLICITORS
Mlauzi Legal Solutions

BANKERS
National Bank of Malawi

HEAD OFFICE
Off Makata Road
P.O. Box 30369
Chichiri, Blantyre 3

Tel. : Blantyre (265) 1 872 000
Fax : Blantyre (265) 1 872 026
E-Mail : bwb@bwb.mw
Website : www.bwb.mw

CORPORATE PROFILE

Blantyre Water Board was established in January 1929 after the construction of Hynde Dam Scheme. It provided the first piped water to residents of Blantyre Town in 1930. Following the completion of Mudi Dam in 1953, the Board was given an additional responsibility of supplying water to Limbe and was reconstituted in 1954 as the Mudi River Water Board mandated to supply water to the combined town of Blantyre/Limbe. On 1st April 1970, the Board's name changed again to Blantyre Water Board.

Demand for water increased rapidly after the commissioning of Mudi Scheme in 1953. This necessitated the construction of Walker's Ferry Pumping Station on the banks of Shire River to supply water to the town of Blantyre. Walker's Ferry Works were commissioned in 1963.

The town of Blantyre/Limbe became the City of Blantyre in 1966 and subsequently on 1st January 1972, the Board's water area was extended from the former Municipal Boundary to the new City Boundary, an area of 39,000 hectares. Currently the Board, in addition to serving the City of Blantyre, supplies parts of Thyolo and Chiradzulu Districts making over 85,000 hectares the total area of coverage.

Blantyre Water Board supplies potable water to the City of Blantyre and surrounding areas. Ninety percentage of the water comes from Walker's Ferry on the Shire River and ten percent is extracted from the Mudi Dam and Likhubula. It supplies a population of about 1,264,000 in its area of operations.

The Board's core business is of abstracting, treating and supplying potable water to customers in its area of operations. It serves the whole City of Blantyre as well as other surrounding areas of Chiradzulu and Thyolo districts through 71,974 metered connections.

Blantyre Water Board is one of the five government owned water utilities in Malawi. It has a staff complement of 625 translating to 9 employees per thousand connections.

The Board continues to collaborate with water resources management institutions such as the Southern Africa Development Corporation - Global Water Operators Partnership Alliance (GWOPA), African Water Association (AfWA), the International Water Association (IWA) and Water Operators Partnerships for Africa.

BUSINESS REVIEW

Chairperson's Report

Chief Executive's Report

Performance Measurement

CHAIRPERSON'S REPORT



As Chairperson of the Board of Blantyre Water Board, it gives me much pleasure to present the organization's Annual Report for the 2022/23 financial year, which ended on 31st March 2023. The year under review has been a challenging one for the Organization in terms of operational and financial performance. However, on customer perspective the Board managed to utilise all the available resources to provide the services that meets our customer expectations and satisfaction.

The entity's operational resilience has been demonstrated by our total commitment to work as a team to improve service delivery that meet the expectations and aspirations of all valued customers and stakeholders. The work of turning around the Board operationally and financially has been kept constantly in our mind throughout the year. I am confident that we are on the right path of responding to operational excellence as we are building and strengthening new capabilities that will enable achieving our long-term commitment in line with our vision and mission.

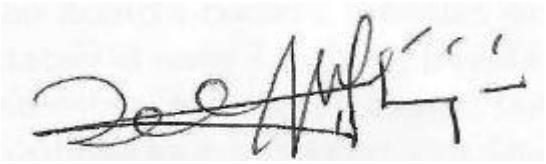
Let me share the experiences we went through during Cyclone Freddy. It was team commitment, hard work, resilience and excellent coordination that took us through the emergency period where our operations at Walker's Ferry were completely stopped due to heavy siltation and debris because of heavy rainfall and flooding. I would like to express my gratitude to all our customers for their understanding, patience and resilience during the emergency period when the Board was fixing its damaged infrastructure.

Despite the year's mixed financial and operational results, the performance of the institution has been improving, yet there is room for improvement to increase efficiencies and relevance to the shareholder expectations. The Board of Directors continued providing strategic direction and ensure effective oversight and accountability to improve the operational and financial performance of the Board. I am proud to indicate that Board members shown strong commitment to matters affecting the institution. The Board and Executive Management must be given credit for having steered the ship in the year . Robust engagements and hard decisions had to be taken in the best interest of the organisation and customers we serve.

The Board's continued growth and success depend on the commitment and loyalty of our achievements to our shareholder, customers and stakeholders. I would like to express the Board's appreciation for their support.

Let me appreciate the support we received from Ministry of Water and Sanitation, Ministry of Finance and Economic Affairs, Department of Statutory Corporations and cooperating partners during the year under review.

Finally, I am grateful to members of the Board, management and employees of Blantyre Water Board for their commitment and hard work during the past financial year. It is through your concerted efforts that we have succeeded once again in delivering effective and efficient services to all our customers.



Engineer Joe Ching' ani

Board Chairperson

CHIEF EXECUTIVE'S REPORT



This Annual Report provides an overview of the operational and financial performance of Blantyre Water for the year ended 31st March 2023. The 2022/23 financial year has been underscored by economic shocks at micro and macro levels and have resulted into mixed financial results for the Board. It is worthy acknowledging that the performance recovery we started experiencing in the previous financial year because of the implementation of turnaround strategy has been affected by the economic and climate change shocks encountered in the year.

It is pleasing to note that the Board through the government has secured a grant worthy USD 145 million from World Bank. This grant will enable the Board implement Malawi Water and Sanitation Project 1 (MWSP-1 whose overall objective is to increase access to improved water supply and sanitation services in Blantyre City while enhancing the operational and financial efficiency of Blantyre Water Board. This project will be implemented in the next financial year of 2023/24. The key organizations that will be involved in the MWSP-1 include Ministry of Water and Sanitation, Blantyre City Council and Blantyre Water Board as a key implementing agency. It is the expectations of the Board that the MWSP 1 will modernise and turn around Blantyre Water Board's operations so that it is transformed into an efficient and effective utility.

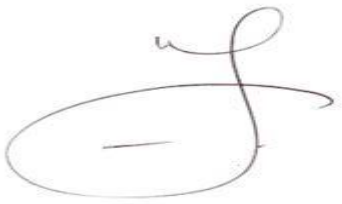
During the period under review, the Board operated in a volatile economic environment which led to increases in all inputs and services. This situation resulted in the Board continuing experience very high operating costs to produce and supply water to its customers. In the year the Board also suffered the effects of tropical Cyclone Fredy which hit Blantyre City and most areas of the Southern Region of Malawi between February and March 2023. The cyclone caused extensive infrastructure damage, with heavy rainfall, flooding, and landslides leading to widespread pipeline damage and destruction. This resulted in an unprecedented increase in non-revenue water, impeding the Board's capacity to achieve the set target for the year. Restoration of the damaged infrastructure required substantial capital investment due to the scale of destruction. This affected the financial performance in the reporting year.

The Financial Statements for the year ending 31st March 2023 indicates that the Board incurred a net loss of K13.7 billion due to unfavourable micro and macroeconomic operating environment and the operational challenges experienced in the year.

However, the Board continued implementing wide range of recovery initiatives to improve the operational and financial performance. We re-commit ourselves to recover and be back on good performance record.

I would like to express my sincere thanks to the Chairperson and Board of Directors for their continued support during the 2022/23 financial year. Your guidance, leadership and involvement empowered Blantyre Water Board not only to successfully address the challenges related to the ever-changing and demanding water services environment, but also to excel in optimising organisational efficiency and operational performance. I express my gratitude to stakeholders and customers. I regard you as partners in our quest for service excellence.

Finally, I would like to thank my management team for their support during 2022/23 and all the staff for their continued commitment, drive and enthusiasm to deliver improved levels of service to our customers. Together we will achieve our dream of becoming an efficient and effective utility.



Dr. Robert T. Hanjahanja

Chief Executive Officer

PERFORMANCE MEASUREMENT

Blantyre Water Board aligns annual strategic objectives and targets to the Strategic Plan and government's annual performance areas. The annual targets cover all critical areas of operation to ensure organization's improved operational and financial efficiency.

The following table shows the achievement towards the planned key targets for financial year ended 31st March 2023.

Performance Target	**Measure**	**Planned (Budgeted) Target**	**Actual (Achieved) Target**
Service Delivery			
Level of Service Delivery	%	85	87
Coverage	%	85	87
Hours of Supply	Hrs	22	22
Number of Active Customers	No.	78,212	71,974
New Connections	No.	13,637	2,160
Volume Produced	(million m^3)	31.4	33.1
Sales	(million m^3)	17.9	14.2
Operational Efficiency			
Non-Revenue Water	%	43	55
Debtors Days	Days	111	130
Number of Connection Days	Days	28	-
Financial Efficiency			
Total Revenue	MK' million	38,158.7	23,704.5
Total Expenditure	MK' million	26,414.3	44,099.6
Net Profit (after tax)	MK' million	(451.5)	(13,736.3)
Current Ratio	:	0.20	0.46
Working Ratio	:	0.98	1.62
Compliance with Approved Budget	%	100	100

REVIEW OF OPERATIONS

Financial Performance

Human Resources Matters

Our Business

Public Affairs and Customer Service

Our Responsibility to the Environment

Our Responsibility to the communities we serve

FINANCIAL PERFORMANCE

Below is a summary of the overall performance against the set financial related targets.

KEY FINANCIAL PERFORMANCE INDICATORS AND TARGETS FOR THE YEAR ENDING 31st MARCH 2023				
Indicator	**Actual**	**Budget Target**	**Variance**	**Favourable/Adverse**
Revenue (MK' million)	23,704.40	38,158.70	-14,454.30	Adverse
Expenditure (MK' million)	44,099.60	26,414.30	-17,685.30	Adverse
Debtors Days	130	111	-19.00	Adverse
Current Ratio	0.46	0.2	-0.26	Adverse
Working Ratio	1.62	0.98	0.64	Adverse
Net Profit (MK' million)	-13,736.30	-451.50	13,284.80	Adverse

Financial Performance Result

The Board registered a net loss of MK 13.7 billion at the end of March 2023 as compared to a net loss of K8.2 billion in financial year ending 31st March 2022.

In the year, there was no adjustment of water tariff. However, all major operating expenses increased in the year under review due to local currency devaluation, increase in inflation and other macro-economic factors. The graph shows the trend of Board's financial position in relation to major operating expenses.



Tariff Increase

In the year under review, there was no tariff adjustment. The Board continued to use the previous year's tariff structure as follows: -

Tariff Code	Category	Approved Tariff (MK)
A.1	**Domestic in all areas**	
a.	Communal Water Points (Kiosks)	
A.1.1	Served from water kiosks for 10 litres	4.54
b.	**Domestic Consumption**	
A.1.2	For the first 5 cubic metres or part thereof,	3,622.81
A.1.3	Exceeding 5 cubic metres up to 10 cubic metres	816.88
A.1.4	Exceeding 10 cubic metres up to 40 cubic metres	956.34
A.1.5	Exceeding 40 cubic metres	1055.97
A.2	**Institution**	
A.2.1	For the first 10 cubic metres or part thereof,	17,155.23
A.2.2	Exceeding 10 cubic metres up to 40 cubic metres	1,938.42
A.2.3	Exceeding 40 cubic metres	2,047.32
A.3	**Commercial Establishments**	
A.3.1	For the first 10 cubic metres or part thereof,	22,470.31
A.3.2	Exceeding 10 cubic metres up to 40 cubic metres	2,461.14
A.3.3	Exceeding 40 cubic metres	2,722.50
A.4	**Industrial Establishments**	
A.4.1	For the first 10 cubic metres or part thereof,	31,505.07
A.4.2	Exceeding 10 cubic metres up to 40 cubic metres	3,571.92
A.4.3	Exceeding 40 cubic metres	3,942.18

OVERVIEW OF HUMAN RESOURCES MATTERS

Human Resources

Our employees remain central to our success. The Board continued to work on human resources initiatives to improve business efficiencies and productivity to support the high-performance culture for the sustainability of our business. As at 31st March 2023, the staff strength stood at 625 and this translated to 9 employees per a thousand connections.

Performance Management

Annual organizational and individual targets which were set out at the beginning of the period under review were aligned to key strategic goals to ensure achievement of the overall corporate objectives and targets. Monitoring of the targets were done throughout the period to track and document the performance against the set targets and the challenges encountered.

People and Skills Development

Training and development of staff assist in increasing job knowledge and refining the skills of employees at every level. Also, it allows for expanding the horizons of human intellect, interpersonal skills and the overall character building of employees.

During the year under review, the Board identified the skills needs of the entity to ensure that skills training and development is effective. The Board made an extensive investment in the training, skilling and development of its employees to enable them to excel in their individual and organizational roles and function to deliver the organization's mission and vision. A range of programmes and interventions were implemented aimed at equipping employees with knowledge and skills to perform their work assignments competently.

The Board also conducted in- house courses to provide opportunities to its employees to continuously develop themselves on initiatives that improve business efficiencies and productivity per the Annual Training Plan. The organization will continue to focus on providing learning and development opportunities that are value-adding to improve business efficiencies and effectiveness.

During the year, a total of 435 employees at all levels attended various kinds of training to build a dynamic and learning organization. The Board put much effort in areas that were deemed to influence mind set change to ensure compliance to Board's policies and procedures. Trainings that were conducted included code of conduct, customer service, supervisory management training, and team building sessions.

These trainings were aimed at mind set change and change management initiatives that the Board had embarked in improving understanding and perception in delivering the quality service to customers.

Employee Relations

The labour relations climate in the organization continued to be stable. The Staff Union and Management mutually implemented various conditions of employment to improve staff motivation and welfare.

Occupational Safety Management

During the year, the Board continued promoting the workplace safety programmes through its Safety Committee to accomplish a workplace free of hazards and occupational risks. The safety program aims at improving working environment and safety of all staff.

HIV/AIDS

The Board's HIV/AIDS Workplace Programme provides HIV counselling and testing (HCT) services as well as support, treatment and care through our disease management programme that is offered as part of the medical aid benefit. The HIV/AIDS Workplace Programme offers food supplements like peanut butter, Sibusiso and Likuni Phala to members of staff and their dependants who are living with HIV/AIDS. The programme has positively contributed to the improved health welfare of the staff and their spouses and has led to improved productivity.

In the year under review the Board participated in the HIV/AIDS national events like candle lighting, VCT Week and World Aids Day. The Board undertakes the VCT campaign annually to maintain the momentum of ensuring that testing remains a regular part of health seeking behaviour.

Internal Control

The Executive Management through the Internal Audit continued monitoring and reviewing the effectiveness of the internal controls in the year. Remedial actions were taken where gaps were identified.

Corruption Prevention

The Board continued streamlining the anti- corruption culture in the organization. The Board's Institutional Integrity Committee in collaboration with the Anti-Corruption Bureau has been implementing the corruption prevention action plan in the year.

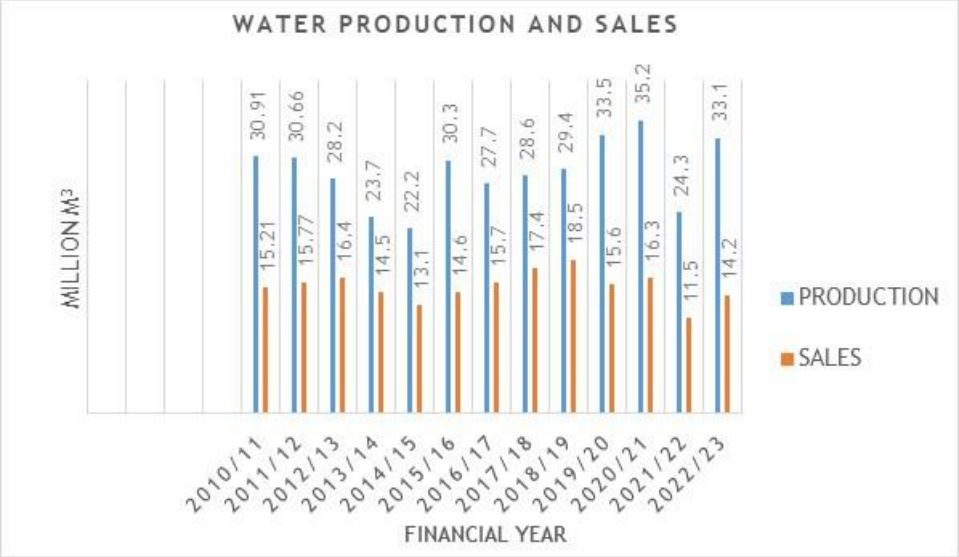
Corporate Governance

In supporting the Code of Corporate Practices, training in Corporate Governance of the Board of Directors and Executive Management was done to promote corporate governance best practices.

OUR BUSINESS

Water Production

In 2022/23 financial year, the Board produced a total of 33.1 million cubic meters of treated water and sold 14.2 million cubic meters. Figure below shows the trend of production and sales from 2011 to 2023.



Distribution

Non-Revenue Water (NRW) for the year was 55% up from 53% in the previous financial year. The increase in NRW mainly was the result of the impact of tropical Cyclone Fredy which hit Blantyre City and most areas of the Southern Region of Malawi between February and March 2023. The cyclone caused extensive infrastructure damage, with heavy rainfall, flooding, and landslides leading to widespread pipeline damage and destruction. This resulted in an unprecedented increase in non-revenue water, impeding the Board's capacity to achieve the set target for the year. Restoration of the damaged infrastructure required substantial capital investment due to the scale of destruction. In addition, high commercial losses arising from prepaid meters and aged network infrastructure as well as vulnerability of the system to illegal connections exacerbated the NRW situation.

For the year under review, a total of 11,786 faults were reported and repaired in the distribution system as compared to 9,756 in the previous year representing an increase of 21%. The jump in the number of faults was the result of the impact of Cyclone Freddy that washed away water infrastructure in many areas. In the year, The Board replaced and lower a total of 64.6 km of frequently bursting pipes against a yearly target of 103 km.

The following table gives the summary of the number of faults, new connections, mains laying and cumulative length of mains laid (Km) from 2005 to 2025.

Number of Faults, New Connections and New Mains Added in the Year

Year	Number of faults occurred in a year	Number of new connections made in year	Length of new mains laid (Km) (From 50mm diameter and above)	Cumulative length of mains laid (From 50mm diameter and above)
2004/05	10,967	771	25	1028
2005/06	9,964	322	5	1033
2006/07	7,403	501	7	1040
2007/08	8,853	1,165	23	1063
2008/09	10,054	1,355	39	1102
2009/10	9,574	1,370	19	1121
2010/11	11,458	1,502	26	1147
2011/12	12,945	1,824	83	1230
2012/13	13,368	1,806	74	1304
2013/14	12,885	1,792	67	1371
2014/15	8,971	2,098	17	1388
2015/16	16,619	3,842	14	1,402
2016/17	12,815	2,857	11	1,413
2017/18	11,780	3,274	10	1,423
2018/19	11,989	4,195	75	1.498
2019/20	10,802	6,285	63	1,561
2020/21	12,604	5,458	27	1,588
2021/22	9,756	2,043	23	1,611
2022/23	11,786	2160	45	1,656

Water Quality

In the year, all physical and chemical parameters for both raw water and treated water in the distribution system were done as per requirements. A total of 3,272 samples were done. The test results for both raw and treated water showed satisfactory results of physical and chemical quality. Analyses of microbiological parameters were also carried out at recommended intervals and the results met the Malawi Bureau of Standards Quality and World Health Organization Quality Standards requirements.

The continuous routine surveillances and monitoring along Lake Malawi and Shire River to trace early warning of possible raw water quality violations was done in the year. This was done to ensure that drinking water quality is always met. All the samples that were collected in the year for the monitoring of potential toxic heavy metals like phosphate and chromium in the Shire River showed no significant changes in the levels of heavy materials

Projects

In the year under review, the Board was implementing the following projects;

Construction of a New Water Source on Shire River and associated Infrastructure

The Board continued working with the financer of the project the EXIM Bank of India during the year under review. The Board submitted additional information to EXIM bank justifying the proposal to change goods and services of Indian origin from 75% to 65%. In addition, the Board conducted community sensitization meetings to project affected persons on the status of implementation of Project Resettlement

There had been delays in responding to the request to change the Indian content by the EXIM Bank. The Board received an official communication from EXIM Bank that the request to change goods and services of Indian content from 75% to 65% had been accepted in the month of March 2023. This delay in response to the request stopped the implementation of the project activities for the New Water Source from Shire River in the period under review.

Construction of 30 Megawatts Independent Power Generation Plant

In the year, the Board signed a Contract with TATA Consulting Engineers to undertake feasibility study, detailed design, and construction supervision for the IPP project in June 2022. The consultant was mobilized and commenced work. A detailed project report was submitted. However, there were also delays by the consultant to submit the revised schedule for Project Management Consultancy (PMC) due to non-payment of the completed tasks by EXIM Bank due the revision of loan covenants.

Rehabilitation of Sanjika Palace Water Supply Distribution System

During the year, the Board took over the works from the contractor and continued with the rehabilitation of Sanjika Palace Water Supply Distribution System whose purpose was to improve water supply system and reduce water losses that has been leading to high bills. By the end of the reporting period the new reticulation system at Sanjika was completed and was fully operational. However, the procurement process of the pumping equipment was still not concluded.

Malawi Water and Sanitation Project 1

In the year, the Board finalized the preparatory works for the Malawi Water and Sanitation Project 1 to be financed with World Bank grant amounting to USD 145 million. The project will be effected in 2023/24 next financial year. The overall objective of the project is to increase access to improved water supply and sanitation services in Blantyre City while enhancing the operational and financial efficiency of Blantyre Water Board.

PUBLIC AFFAIRS AND CUSTOMER SERVICE

In the year, the Board enhanced its public affairs and customer initiatives in the quest of improving service delivery and organizational imaging. Blantyre Water Board improved its reach out through its communication strategy and tremendous success and impact was experienced through positive feedback from the customers and other stakeholders. The Board had in place three Customer WhatsApp groups for the Board's three Zones. This approach has positively enhanced interaction between customers and Board's staff. In total there were 3,100 customers registered in these three WhatsApp groups. This has resulted in the improved response time to customer queries and complaints on Board's service.

In the year, the Board, through JICA program developed and implemented community reach and education program. The Board engaged 7 primary schools in Blantyre City and fellow water boards in the country through JICA treasure forestry model.

Furthermore, the Board conducted 2 customer tours programs to its Walker's Ferry Pumping Station. These tours provided open days where customers and Board staff interact and allow customers to tour and appreciate water treatment processes and operations. These tours tremendously changed customers' mindset on the Board's operations and appreciate the organization's efforts in improving its service delivery to meet its stakeholders' expectations.

OUR RESPONSIBILITY TO THE ENVIRONMENT

In the year, the Board continued implementing its catchment plans for Mudi Catchment and Chambe basin in Mulanje. A total of 88,160 indigenous trees were planted covering 55.05 hectares in Ndirande Mudi catchment. While a total of 22,370 native seeds were planted covering an area of 14 hectares in Chambe Basin. Cumulatively a total of 110,530 were planted in the year in both Board's catchment areas.

OUR RESPONSIBILITY TO THE COMMUNITIES WE SERVE

The Board identifies and participates in sponsorships that are aligned to the Corporate Strategic objectives. The sponsorships are applied with the purpose of creating and improving corporate brand awareness and image, partnering and fostering relations with key stakeholders, supporting the corporate strategy and build brand value, enhancing the quality of life of the communities and customer groups within the Board's area of service and fostering goodwill and positive attitudes towards good corporate governance and citizenry.

In fostering goodwill as an organization that demonstrates good corporate governance and citizenry, the Board made donation of Cyclone Freddy relief items to affected areas of Soche and Lunzu.

Audited Annual Financial Statement

DIRECTORS' REPORT
FOR THE YEAR ENDED 31 MARCH 2023

The Directors submit their report for the year ended 31 March, 2023.

1 Review of activities

Main business and operations

Blantyre Water Board is a statutory corporation established initially under its own Act of Parliament and subsequently incorporated under the Water Works Act No. 17 of 1995 to provide potable water within Blantyre and surrounding areas.

2 Financial performance

The results and state of affairs of the Board are set out in the accompanying statement of financial position, statement of profit or loss and other comprehensive income, statement of changes in funds, statement of cash flows and notes to the financial statements which include a summary of significant accounting policies.

The Board's performance for the year ended 31st March 2023 was below the budget owing to non- implementation of the tariff adjustment and increase in Non -Revenue Water (NRW). This significantly affected the revenue generated from water sales and service delivery. On the macro-economic front, the 25% devaluation of Malawi Kwacha effected in May 2022 increased operating costs as most suppliers increased their prices and increase exchange losses on long-term borrowing that is denominated in foreign currency. The increase in policy rate also increased the finance costs emanating from the increased cost of borrowing.

However, the Malawi Water and Sanitation Project -1 that was approved by the World Bank during the year will help address the high NRW and improve the operational efficiency. This presents a positive future outlook as the gains from reduced NRW and improved efficiency will be invested into further improvement and better service delivery.

3 Directors

The directors of the Board who served during the year are as follows:

Name	Designation	Period served
Eng. Joe Ching'ani	Board Chairperson	Full year
Ms. Linda Kabwato	Board Member	Full year
Ms. Falluna Chauwa	Board Member	Full year
Mr. Malinda Chinyama	Board Member	Full year
Mr. Ronald Chanthunya	Board Member	Full year
Dr. Faides Mwale	Board Member	Full year
Dr. Mathilda Chithira Munthali	Board Member	Full year
Rev. Alexander Kambiri	Board Member	Full year
Rev. Edward Masona Kaluluma Tembo	Board Member	Full year
Mr. Foster Ntandama	Board Member	Full year
Chief Executive Officer for Blantyre City Council	Ex-officio member	Full year
Secretary for Water and Sanitation	Ex-officio member	Full year
Secretary to the Treasury	Ex-officio member	Full year
Comptroller of Statutory Corporations	Ex-officio member	Full year

4 Secretary

The Secretary of the Board is Mercy Phiri (Director of Human Resources and Administration).

5 Principal place of business

Blantyre Water Board,
P.O. Box 30369,
Blantyre.

6 Independent auditor

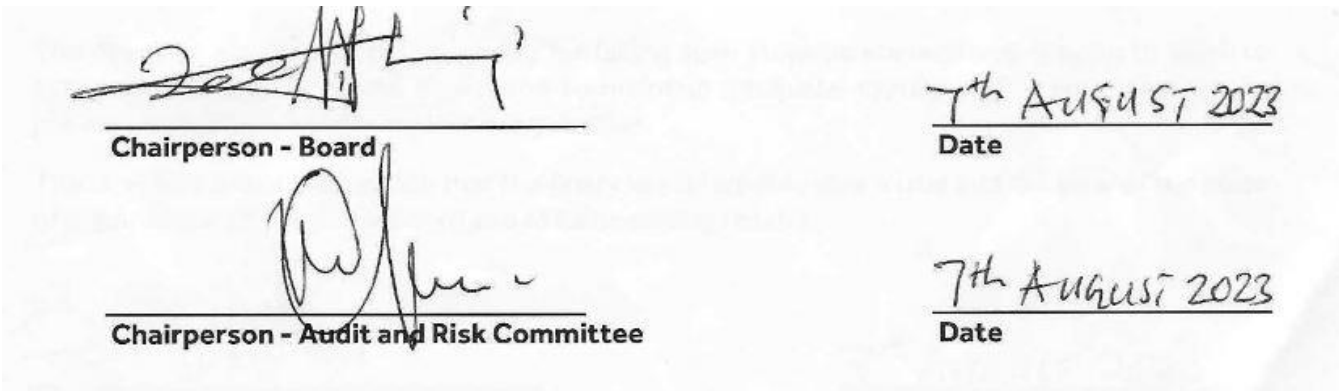
Graham Carr,
P.O. Box 1411,
Blantyre.

7 Principal banker

National Bank of Malawi,
Chichiri Service Centre,
P.O. Box 30365,
Chichiri, Blantyre 3.

8 Legal advisers

Mlauzi Legal Solutions,
P.O. Box 31121,
Blantyre 3.



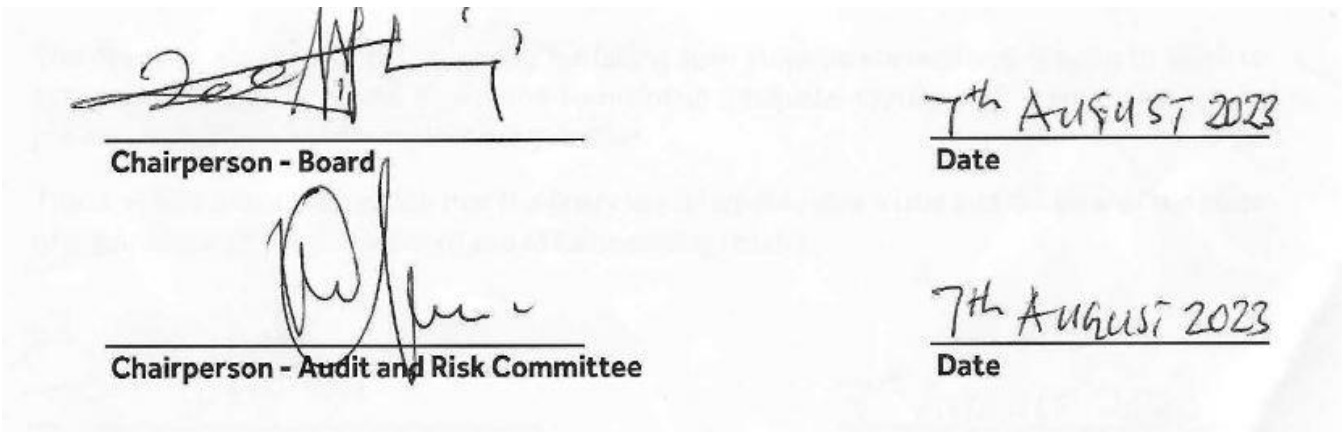
STATEMENT OF DIRECTORS' RESPONSIBILITIES
FOR THE YEAR ENDED 31 MARCH 2023

Section 44 of the Water Works Act No.17 of 1995 states that the Board shall cause a true account to be kept of all it's financial transactions during each financial reporting period.
In terms of the Public Finance Management Act (2022) Section 99 (1) a statutory body shall keep proper accounts correctly made and properly authorised and shall maintain adequate internal controls over its assets, or assets in its custody and over the incurring of liabilities by it.
The Act also requires the Board to keep the accounts and records referred to in subsection (1) in such a way to facilitate the preparation of financial statements and enable them to be conveniently and properly audited. These accounts and records shall be kept in accordance with International Financial Reporting Standards (IFRS).
The directors of the statutory body shall retain all the accounts and records referred to in subsection (1) for at least seven years after the completion of the transactions to which they relate.

In preparing the financial statements the directors accept responsibility for the following:

- maintenance of proper accounting records;
- selection of suitable accounting policies and applying them consistently;
- making judgements and estimates that are reasonable and prudent;
- compliance with applicable accounting standards, when preparing financial statements, subject to any material departures being disclosed and explained in the financial statements; and
- preparation of financial statements on a going concern basis unless it is inappropriate to presume that the Board will continue in business.

The directors also accept responsibility for taking such steps as are reasonably open to them to safeguard the assets of the Board and to maintain adequate systems of internal controls to prevent and detect fraud and other irregularities.
The directors are of the opinion that the financial statements give a true and fair view of the state of the financial affairs of the Board and of its operating results.



INDEPENDENT AUDITOR'S REPORT
TO THE DIRECTORS OF
BLANTYRE WATER BOARD

ON THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 MARCH 2023

Opinion

We have audited the financial statements of Blantyre Water Board, which comprise the statement of financial position as at 31 March 2023, the statement of profit or loss and other comprehensive income, statement of changes in funds and statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements give a true and fair view of the financial position of Blantyre Water Board as of 31 March 2023 and of its financial performance and cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRS) and comply with the provisions of the Water Works Act, 1995 and the Public Finance Management Act, 2022.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report. We are independent of the Board in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code) and we have fulfilled our ethical responsibilities in accordance with the IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Material uncertainty related to going concern

We draw attention to note 33 in the financial statements which indicates that the Board made a loss of K20.5 billion during the year ended 31 March 2023 (2022: K8.2 billion) and as of that date, the Board's current liabilities exceeded current assets by K50.5 billion (2022: K38.23 billion). As stated in note 33, these events or conditions, along with other matters as set forth in note 33, indicate that a material uncertainty exists that may cast significant doubt on the Board's ability to continue as a going concern. Our opinion is not qualified in respect of this matter.

Key Audit Matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period. The matter noted below was addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on the matter. For the key audit matter noted below, our description of how our audit addressed the matter is provided in that context.

Key Audit Matters - continued

We have fulfilled the responsibilities described in the Auditor's responsibilities for the audit of the financial statements section of our report, including in relation to the key audit matter. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial statements.
The results of our audit procedures, including the procedures performed to address the matter below, provide the basis for our audit opinion on the financial statements.

Credit risk

The credit risk concentration profile of the Board's trade receivables at the end of the reporting period is 54% concentrated in the Government departments and agencies that owed the Board K5.3 billion at that date. The remaining 46% of trade receivables related to private entities and individuals amounting to K4.5 billion.

Because of the Board's high credit risk, expected credit loss assessment was key in the determination of the carrying amounts of receivables. The expected credit loss (ECL) determination involved estimation process taking into account the historical trends for the past three years in respect of the Government and private revenues and collections to determine proportion of bad debts and also the economic factors impacting the Board's operations.

How the matter was addressed in the audit

In the assessment of credit risk and evaluation of the reasonableness of the expected credit losses (ECL), our procedures included:
Checking adequacy of data for the past three years used to establish applicable ratios and trends that were input in the computation of ECL.

Evaluating whether the model and framework including reasonableness of the input data were in line with International Financial Reporting Standard 9 (IFRS 9).

Assessing the adequacy of disclosures in relation to the ECL.

Based on our procedures, no exceptions were noted and considered the key assumptions in the ECL model to be reasonable and disclosures appropriate and in line with IFRS 9.

Other matter

The financial statements of Blantyre Water Board for the period ended 31 March 2022 were audited by another auditor who issued an unqualified of opinion on that report on 20 March 2023.

INDEPENDENT AUDITOR'S REPORT
TO THE DIRECTORS OF
BLANTYRE WATER BOARD

Responsibilities of the Directors for the Financial Statements

The directors are responsible for the preparation of these financial statements which give a true and fair view in accordance with International Financial Reporting Standards and in a manner required by the Water Works Act, 1995 and the Public Finance Management Act (2022), and for such internal control as the directors determines is necessary to enable the preparation of financial statements which comply with ethical standards and are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the Boards's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Board or to cease operations, or has no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Board's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by members of the directors.

INDEPENDENT AUDITOR'S REPORT
TO THE DIRECTORS OF
BLANTYRE WATER BOARD

Auditor's Responsibilities for the Audit of the Financial Statements - continued

- Conclude on the appropriateness of members of the Board's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Board's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Board to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves a true and fair view.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Board to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the audit. We remain solely responsible for our audit opinion.

We communicate with the directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during the audit.
We also provide the directors with a statement that we have complied with the relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.
From the matters communicated with the directors, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Graham Carr
Chartered Accountants (Malawi)
Cornwell Banda

Date: 20 September 2023

BLANTYRE WATER BOARD

STATEMENT OF FINANCIAL POSITION
AS AT 31 MARCH 2023

	Note	2023	2022
		K'000	K'000
ASSETS			
Non-current assets			
Property, plant and equipment	6	76,964,864	69,495,855
Intangible assets	7	51,907	53,503
Home ownership loans	8	22,096	9,744
		77,038,867	69,559,102
Current assets			
Home ownership loans	8	10,403	4,358
Inventories	9	2,100,066	732,757
Receivables	10	3,089,682	2,761,210
Amounts due from related parties	11	3,610,106	3,385,315
Income tax asset	12	98,883	59,541
Cash and cash equivalents	13	805,454	1,167,103
Total current assets		9,714,594	8,110,284
Total assets		86,753,461	77,669,386
FUNDS AND LIABILITIES			
Funds			
Revaluation reserve	14	37,184,496	30,299,218
Accumulated loss	15	(65,069,953)	(44,599,523)
Capital contributions	16	1,433,961	1,433,961
Total funds		7,700,223	(12,866,344)
Non-current liabilities			
Deferred tax	17	16,574 000	13,610,699
Deferred income	18	1,320,854	1,389,084
Long term loans	19	32,624,841	29,174,214
Employee benefits liability	20	27,840	21,713
		50.547,535	44,195,710

The financial statements and the notes were approved by the Board on 7 AUGUST 2023 and signed on its behalf by:

Chairperson - Board

Chairperson - Audit and Risk Committee

BLANTYRE WATER BOARD

STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME
FOR THE YEAR ENDED 31 MARCH 2023

	Note	12 months to 31/03/2023 K'000	9 months to 31/03/2022 K'000
Revenue	22	23,704,485	15,417,388
Cost of sales	23	(17,202,872)	(11,022,163)
Gross profit		6,501,613	4,395,225
Other income	24	440,346	421,547
Operational, repairs and maintenance costs	25	4,957,823	2,669,615
Administrative expenses	26	21,938,873	9,904,660
Finance costs	27	3,015,143	1,188,887
		29,911,839	13,763,162
Loss before tax		(22,969,880)	(8,946,390)
Income tax expense	28	2,277,028	758,430
Loss for the year/period		(20,692,852	(8,187,960)
Other comprehensive income			
Surplus on revaluation		12,196,872	-
Deferred tax on revalued assets		(5,240,330)	-
Total comprehensive loss for the year/period		(13,736,310)	(8,187,960)

BLANTYRE WATER BOARD

STATEMENT OF CHANGES IN FUNDS
FOR THE YEAR ENDED 31 MARCH 2023

	Revaluation reserve K'000	Accumulated losses K'000	Capital contributions K'000	Total funds K'000
Balance at 01 April, 2021	30,299,218	(36,411,563)	1,433,961	(4,678,384)
Loss for the period	-	(8,187,960)	-	(8,187,960)
Balance at 31 March, 2022	30,299,218	(44,599,523)	1,433,961	(12,866,344)
Balance at 01 April, 2022	30,299,218	(44,599,523)	1,433,961	(12,866,344)
Surplus on revaluation	12,196,872	-	-	12,196,872
Recapitalization*	-	-	34,302,877	34,302,877
Revaluation on disposed off assets	(71,264)	-	-	-)
Deferred tax on revalued assets	(5,240,330)	-	-	(5,240,330)
Loss for the year	-	(20,470,430)	-	(20,692,852)
Balance at 31 March 2023	37,184,496	(65,069,953)	35,736,838	(7,700,223)

*****The recapitalization follows the Boards request for a Government bailout on ESCOM arrears as at 31 December 2022. The Government of Malawi through the Ministry of Finance granted this bailout through a letter dated 15 August 2023 with reference number PFMS/3/BWB/1 and the amount has been capitalized as part of Government of Malawi equity as at the reporting date.

BLANTYRE WATER BOARD

STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED 31 MARCH 2023

	Note	12 months to 31/03/2023	9 months to 31/03/2022
		K'000	K'000
Loss before taxation Adjustments for:	6	(22,752,980)	(8,946,390)
Depreciation and amortisation	27		
Interest expense		5,587,123	4,234,498
Interest income		3,051,470	1,188,887
Unrealised exchange loss (Exim bank loan)		(56,722)	(30,116)
Loss on sale of property, plant and equipment		5,187,851	270,137
Grant amortisation		316,258	30,039
		(141,403)	(214,576)
Operating cash flows before movements in working capital			
		(8,979,182)	(3,467,521)
(Increase)/decrease in home ownership loans		(18,397)	1,834
Increase in inventories		(1,382,314	(35,417)
Increase in receivables		(327,595)	(1,202,878)
Net movement in related parties		(23,714,194)	6,113,411
Increase in prepaid water sales and consumer contributions		1,150,202	81,771
Increase in employee benefit obligations		6,127	1,517
Increase in payables		3,521,511	841,811
Cash generated by operations		29,743,842	2,334,528
Interest paid		(1,204,684)	(1,087,965)
Interest received		56,722	30,116
Income tax		(39,342)	(5,031)
Net cash from operating activities			
Investing activities		(30,931,146)	1,271,648
Payments to acquire tangible assets	6	(1,275,999)	(510,132)
Proceeds from disposals	24	56,519	11,404
Net cash used in investing activities		(1,219,480)	(498,728)
Financing activities			
Recapitalization		34,302,877	-
Long term loans		(2,058,966)	(1,236,682)
Net cash from financing activities		32,243,911	(1,236,682)
Net increase/(decrease) in cash and cash equivalents		93,287	(463,762)
Cash & cash equivalents at beginning of year		(225,762)	238,000
Cash and cash equivalents at end of year		(132,475)	(225,762)

1 GENERAL INFORMATION

Blantyre Water Board is a statutory corporation engaged in the business of supplying piped water within the city of Blantyre. It was established initially under its own Act of Parliament and subsequently incorporated under the Water Works Act No. 17 of 1995.

2 BASIS OF PREPARATION

2.1 Statement of compliance

The financial statements have been prepared in accordance with International Financial reporting Standards (IFRS) adopted by the International Accounting Standards Board (IASB) and interpretations issued by the Standard Interpretations committee of IASB and also in accordance with requirements of the Public Finance Management Act 2022 and the Water Works Act, 1995.

2.2 Basis of preparation

The financial statements have been prepared on the historical cost basis except for the revaluation of certain assets, financial assets and liabilities that have been measured at fair value.

2.3 Functional and presentation currency

The financial statements are presented in Malawi Kwacha which is the Board's functional and presentation currency. All financial information presented in Malawi Kwacha has been rounded to the nearest thousand.

2.4 Use of estimates and judgements

The preparation of financial statements requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.
Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised and in any future periods affected.
In particular, information about significant areas of estimation, uncertainty and critical judgements in applying accounting principles that have the most significant effect on the amounts recognized in the financial statements are described below and in the following notes.

Note 4.1 Determination of fair value of financial instruments with significant unobservable inputs.

Note 4.1 Identification and measurement of impairment of financial instruments.

2 BASIS OF PREPARATION (CONTINUED)

2.4 Use of estimates and judgements-continued

Trade receivables, held to maturity investments and loans and receivables

Trade receivables, held to maturity loans and other receivables are stated at their fair value less impairment losses. The Board assesses its Trade receivables, held to maturity investments and loans and receivables for impairment at the end of each reporting period. In determining whether an impairment loss should be recorded in profit or loss, the Board makes judgements as to whether there is observable data indicating a measurable decrease in the estimated future cash flows from a financial asset.

Impairment testing

The Board reviews and tests the carrying value of assets when events or changes in circumstances suggest that the carrying amount may not be recoverable. In addition, assets are grouped at the lowest level for which identifiable cash flows are largely independent of cash flows of other assets and liabilities. If there are indications that impairment may have occurred, estimates are prepared of expected future cash flows for each group of assets. Expected future cash flows used to determine the value in use of goodwill and tangible assets are inherently uncertain and could materially change over time.

3 ADOPTION OF NEW AND REVISED INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS)

3.1 New and revised IFRSs

In the current year, the Board has adopted new and revised Standards and Interpretations issued by the International Accounting Standards Board (IASB) and International Financial Reporting Interpretations Committee (IFRIC) of the IASB that are relevant to the Board's operations and are effective for annual reporting periods beginning 1 January 2022. The changes did not have a material impact on the Board's financial performance/statements.

The Conceptual Framework for Financial Reporting (Revised)	The Board has adopted the revised Conceptual Framework for Financial Reporting which was issued in March 2018 and effective for annual periods beginning on or after 1 January 2022.
Amendments to IAS 16 Property, Plant and Equipment- Proceed before intended use.	The Board has adopted the amendments to IAS 16 Property, Plant and Equipment for the first time in the current year. The amendments prohibit deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced before that asset is available for use, i.e. proceeds while bringing the asset to the operating in the manner intended by management. Consequently, an entity recognises such sales proceeds and related costs in profit or loss. The entity measures the cost of those items in accordance with IAS 2 inventories. The amendments also clarify the meaning of 'testing whether an asset is functioning properly '. IAS 16 now specifies this as assessing whether the technical and physical performance of the asset is such that it is capable of being used in the production or supply of goods or services, for rental to others, or for administrative purposes. If not presented separately in the statement of comprehensive income, the financial statements shall disclose the amounts of proceeds and cost included in profit or loss that relate to items produced that are not an output of the entity's ordinary activities, and which line item(s) in the statement of comprehensive income include(s) such proceeds and cost and effective for annual periods beginning on or after 1 January 2022.
Amendments to IAS 37 Onerous	The Board has adopted the amendments to IAS 37 for the first time in the current year. The amendments specify that the cost of fulfilling a contract comprises the costs that relate directly to the contract. Costs that relate directly to a contract consist of both the incremental costs of fulfilling that contract (example would be the allocation of the depreciation charge for an item of property, plant and equipment used in fulfilling the contract) and effective for annual periods beginning on or after 1 January 2022.

3 ADOPTION OF NEW AND REVISED INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRSs) (CONTINUED)

3.2 Standards and Interpretations in issue not yet adopted

Amendments to IAS 1Presentation of Financial	The amendments replace all instances of the term 'significant accounting policies' with material accounting policy information. Accounting policy information is material if, when considered together with other information included in an entity's financial statements, it can reasonably be expected to influence decisions that primary users of general - purpose financial statements make as the basis of those financial statements. Effective for annual periods beginning on or after 1 January 2023.
Amendments to IAS 8- Accounting Policies,	The amendments replace the definition of a change in accounting estimates with a definition of accounting estimates. Under the new definition, accounting estimates are "monetary amounts in financial statements that are subject to measurement uncertainty. Effective for annual periods beginning on or after 1 January 2023.

The Board anticipates that the new standards, amendments and interpretations will be adopted in the Board's financial statements when they become effective. The Board has assessed where practicable, the potential impact of these new standards, amendments and interpretations that will be effective in future periods.

4 SIGNIFICANT POLICIES

4.1 Property, plant and equipment

(i) Recognition and measurement

Items of property, plant and equipment are measured at cost less accumulated depreciation and accumulated impairment losses.

Cost includes expenditure directly attributable to the acquisition of the asset. The cos.t or self-constructed assets includes the cost of materials and direct labour, any other costs directly attributable to bringing the assets to a working condition for their intended use and the cost of dismantling and removing the items and restoring the site on which they are located, and capitalised borrowing costs.

Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment. When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Certain leasehold land, buildings, plant and equipment are revalued every three years and/or when there are significant economic change.

4 SIGNIFICANT POLICIES (CONTINUED)

4.1 Property, plant and equipment (continued)

(i) Recognition and measurement (continued)

Surpluses and deficits on revaluation of certain property, plant and equipment are recognised in other comprehensive income and transferred to revaluation reserve. On realisation of the asset, the appropriate portion of the capital reserve is transferred to the accumulated loss account. Surpluses on revaluation of property, plant and equipment included in the revaluation reserve are amortised over the lives of the assets.

Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the amount of property, plant and equipment, and are recognised net within other income in profit or loss. When revalued assets are sold, the amounts included in the revaluation reserve are transferred to retained earnings.

(ii) Subsequent costs

The cost of replacing a part of an item of property, plant and equipment is recognised in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the Board, and its cost can be measured reliably. The carrying amount of the replaced part is derecognised. The costs of the day-to-day servicing of property, plant and equipment are recognised in profit or loss as incurred.

(iii) Depreciation

Depreciation is calculated over the depreciable amount, which is the cost of an asset, or other amount substituted for cost, less its residual value.
Depreciation is recognised in profit or loss on a straight-line basis over the estimated useful lives of each part of an item of property, plant and equipment, since this most closely reflects the expected pattern of consumption of the future economic benefits embodied in the asset. Leased assets are depreciated over the shorter of the lease term and their useful lives unless it is reasonably certain that the Board will obtain ownership by the end of the lease term. Land and capital work in progress are not depreciated.
The estimated useful lives for the current and comparative periods are as follows:

Buildings and structures	50 - 150 years
Plant and equipment	8 - 25 years
Reticulation	20 - 100 years
Vehicles	5 years
Other office equipment	5 - 25 years

Depreciation methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate.

4 SIGNIFICANT POLICIES (CONTINUED)

4.2 Home ownership loans

Home ownership loans are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market and that the Board does not intend to sell immediately or in the near term. Home ownership loans are initially measured at fair value, plus incremental direct transaction costs, and subsequently measured at their amortised cost using the effective interest method.

4.3 Inventories

Inventories are measured at lower of cost and net realisable value less allowance for obsolescence. The cost of inventories is based on weighted average principle, and includes expenditure incurred in acquiring inventories, production or conversion costs and other costs incurred in bringing them to their existing location and condition. Net realisable value is the estimated replacement cost less estimated selling expenses.

4.4 Trade and other receivables

The Board's exposure to credit risk is influenced mainly by the individual characteristics of each customer. However, management also considers the demographics of the Board's customer base including the default risk of the industry in which customers operate, as these factors may have an influence on credit risk, particularly in the current deteriorating economic circumstances.

Trade and other receivables relate mainly to the Board's water customers. The Board does not require collateral in respect of trade and other receivables. The Board establishes an allowance for impairment that represents its estimate of incurred losses in respect of trade and other receivables. The main components of this allowance are a specific loss component established for customers of similar risk characteristics in respect of losses that have been incurred but not yet identified. The collective loss allowance is determined based on historical data of payment statistics for similar financial assets.

An impairment loss is calculated as the difference between the carrying amount and the present value of the estimated future cash flows discounted at the effective interest rate.

4.5 Impairment

(i) Financial assets

A financial asset not carried at fair value through profit or loss is assessed at each reporting date to determine whether there is objective evidence that it is impaired. A financial asset is impaired if objective evidence indicates that a loss event has occurred after the initial recognition of the asset, and that the loss event had a negative effect on the estimated future cash flows of that asset that can be estimated reliably.

4 SIGNIFICANT POLICIES (CONTINUED)

4.5 Impairment (continued)

(i) Financial assets (continued)

Objective evidence that financial assets are impaired can include:

a) default or delinquency by a debtor;
b) restructuring of an amount due to the Board on terms that the Board would not consider otherwise; and
c) indications that a debtor or issuer will enter bankruptcy.

The Board considers evidence of impairment for receivables at a collective level. All receivables are collectively assessed for impairment that have been incurred but not yet identified. Receivables are collectively assessed for impairment by grouping together receivables with similar risk characteristics.
In assessing collective impairment, the Board uses historical trends of the probability of default, timing of recoveries and the amount of loss incurred, adjusted for management's judgement as to whether current economic and credit conditions are such that the actual losses are likely to be greater or less than suggested by historical trends.

An impairment loss in respect of a financial asset measured at amortised cost is calculated as the difference between its carrying amount and the present value of the estimated future cash flows discounted at the asset's original effective interest rate. Losses are recognized in profit or loss and reflected in an allowance account against receivables.

When a subsequent event causes the amount of impairment loss to decrease, the decrease in impairment loss is reversed through profit or loss.

(ii) Non-financial assets

The carrying amount of the Board's non-financial assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset’s recoverable amount is estimated.
The recoverable amount of an asset or cash-generating unit is the greater of fair value less costs of disposal and their value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

For the purpose of impairment testing, assets that cannot be tested individually are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or groups of assets (the "cash-generating unit, or CGU").

4 SIGNIFICANT POLICIES (CONTINUED)

(ii) Non-financial assets (continued)

The Board's corporate assets do not generate separate cash inflows. If there is an indication that a corporate asset may be impaired, then the recoverable amount is determined for the CGU to which the corporate asset belongs.

An impairment loss is recognised if the carrying amount of an asset or its CGU exceeds its estimated recoverable amount. Impairment losses are recognised in profit or loss. Impairment losses recognised in prior year periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An Impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

4.6 Cash and cash equivalents

Cash and cash equivalents comprise cash at bank, on hand and short-term deposits with a maturity period of three months or less. For cash flow purposes cash and cash equivalents consists of cash and cash equivalents as defined above less bank overdrafts.

4.7 Income tax and deferred tax

Income tax expense is the aggregate amount of income tax payable in respect of the taxable profit for the year and deferred tax. Income tax is recognised in profit or loss except to the extent that it relates to items recognised directly to equity, in which case it is recognised in other comprehensive income.

(i) Current income tax

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantially enacted at the reporting date, and any adjustment to tax payable in respect of previous years.

(ii) Deferred income tax

Full provision is made for deferred tax as calculated under the liability method. Deferred tax arising from timing differences on the inclusion of income or expenditure in the statement of comprehensive income and the related tax computation is taken to profit or loss. Deferred tax which would have arisen if the revalued fixed assets were sold at their enhanced carrying value is transferred from the related reserves to deferred tax provision as a movement in the statement of financial position and disclosed in the note relating to taxation.

Deferred tax assets are only recognised where there is a reasonable expectation that they will be realised in the foreseeable future.

4 SIGNIFICANT POLICIES (CONTINUED)

4.8 Borrowings (other than leases)

Borrowings are recognised initially at fair value, less any directly attributable transaction costs. Subsequent to initial recognition, they are measured at amortised cost using the effective interest method.

The Board derecognises a borrowing when its contractual obligations are discharged, cancelled or expired.

4.9 Employee benefits

Employee entitlements to gratuity are recognised when they accrue to employees. An accrual is made for the estimated liability for such entitlements as a result of services rendered by employees up to the reporting date.

The estimated liability for employees' accrued annual leave entitlement at the reporting date is recognised as an expense.

Employee entitlements to gratuity define an amount of benefit that an employee will receive on retirement usually dependent on one or more factors, such as age, periods of service and compensation.

(i) Defined contribution pension plans

A defined contribution plan is a post-employment benefit plan under which an entity pays fixed contributions into a separate entity and will have no legal or constructive obligations to pay further amounts.

The Board operates a Defined Contribution Pension Scheme based on a percentage of pensionable earnings, the assets of which are generally held in separate trustee administered fund. Contributions to defined contributions pension plans are recognised as an expense in profit or loss when they are due in respect of service rendered before the end of the reporting period. Prepaid contributions are recognised as an asset to the extent that a cash refund or reduction in future payments is available.

(ii) Termination benefits

Termination benefits are recognised as an expense when the Board is committed demonstrably, without realistic possibility of withdrawal, to a formal detailed plan to either terminate employment before the normal retirement date, or to provide termination benefits for voluntary redundancy. Termination benefits for voluntary redundancies are recognised if the Board has made an offer of voluntary redundancy, it is probable that the offer will be accepted, and the number of acceptances can be estimated reliably. If benefits are payable more than 12 months after the reporting period, then they are discounted to their present value.

(iii) Accrual for leave pay

Employee benefits in the form of annual leave entitlements are provided for with reference to services rendered up to the reporting date.

4 SIGNIFICANT POLICIES (CONTINUED)

4.10 Trade and other payables

Trade payables are initially measured at fair value, being the amount expected to be incurred on settlement plus directly attributable transaction costs. Subsequent measurement is at amortised cost using the effective interest method.

4.11 Provisions

A provision is recognised in the statement of financial position when the Board has a constructive obligation as a result of a past event, and it is probable that an outflow of funds will be required to settle the obligation.

4.12 Leased assets

Leases in terms of which the Board assumes substantially all the risks and rewards of ownership are classified as finance leases. Upon initial recognition the leased asset is measured at an amount equal to the lower of its fair value and the present value of the minimum lease payments. Subsequent to initial recognition, the asset is accounted for in accordance with the accounting policy appropriate to that asset. Other leases are operating leases and are not recognised in the Board's statement of financial position.

4.13 Revenue

Revenue comprises water sales, meter reading fees, meter rental and testing fees and reconnection fees. Water charges/sales are recognised on the day meter readings are taken and charges calculated. Accruals of water consumption from the date of last meter reading to the reporting period are not taken into account.

Meter reading fees which are recognised in profit or loss on a monthly basis as the Board takes meter readings to determine the water sales. Derecognising is due when the Board permanently disconnects meter supply from customers such that no meter readings will be taken.

Meter rental fees are recognised in profit or loss on a monthly basis are rentals to customers for using Board's water meters. Derecognition is done when the Board permanently disconnect water supply from customers. Testing fees are recognised in profit or loss upon request for the Board, to test their meters.

Reconnection fees are recognised in profit or loss upon customers' request to the Board to have water supply reconnected after disconnection.

4.14 Government grants

A government grant is recognised in the statement of financial position initially as deferred income when there is reasonable assurance that it will be received and that the Board will comply with the conditions attaching to it. Grants that compensate the Board for expenses incurred are recognised as revenue in the statement of comprehensive income on a systematic basis in the same years in which the expenses are incurred. Grants that compensate the Board for the cost of an asset are recognised in the statement of comprehensive income as revenue on a systematic basis over the useful life of the asset.

4 SIGNIFICANT POLICIES (CONTINUED)

4.15 Finance income and finance costs

Finance income comprises interest income on funds invested. Interest income is recognised as it accrues in profit or loss, using the effective interest method.
Finance costs comprise interest expense on borrowings. Borrowing costs that are not directly attributable to the acquisition, construction or production of a qualifying asset are recognised in profit or loss using the effective interest method.

Foreign currency gains and losses are reported on a net basis.

4.16 Onerous contracts

A provision for onerous contracts is recognised when the expected benefits to be derived by the Board from a contract are lower than the unavoidable cost of meeting its obligations under the contract.

4.17 Foreign currency transaction

Transactions in foreign currencies are translated to Malawi Kwacha at exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are retranslated to the functional currency at the exchange rate at that date. Non-monetary assets and liabilities denominated in foreign currencies that are measured at fair value are retranslated to Malawi Kwacha at the exchange rate at the date that the fair value was determined. Foreign currency differences arising on retranslation are recognized in profit or loss. Non-monetary items in a foreign currency that are measured based on historical cost are translated using the exchange rate at the date of transaction.

4.18 Rental income

Rental income is recognised in profit or loss on a straight-line basis over the term of the lease.

4.19 Deferred income

One-off new customer contributions are credited to the deferred income account in the statements of financial position and released to the profit or loss.

4.20 Intangible assets

Software
Software acquired by the Board is measured at cost less accumulated amortisation and accumulated impairment losses.
Amortisation is recognised in profit or loss on a straight-line basis over the estimated useful life the software, from the date it is available for use. Amortisation methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate. Intangible assets have an estimated useful of 4-5 years.

4 SIGNIFICANT POLICIES (CONTINUED)

4.20 Intangible assets (continued)

The carrying amount of intangible assets is reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. An impairment loss is recognised if the carrying exceeds its recoverable amount.

5 SIGNIFICANT ACCOUNTING ESTIMATES AND ASSUMPTIONS

The preparation of the Board's financial statements requires management to make judgments, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and the accompanying disclosures, and the disclosure of contingent liabilities. Uncertainty about these assumptions and estimates could result in outcomes that require a material adjustment to the carrying amount of assets or liabilities affected in future periods.

The key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year, are also described in the individual notes of the related financial statement line items below. The Board based its assumptions and estimates on parameters available when the financial statements were prepared. Existing circumstances and assumptions about future developments, however, may change due to market changes or circumstances arising that are beyond the control of the Board. Such changes are reflected in the assumptions when they occur.

Property, plant and equipment

Management has made an estimate of the useful lives and residual values of depreciable assets. Residual value estimates are based on comparisons with similar assets in the expected condition of the assets at the end of their useful lives. Due to the estimates and assumptions of the condition of the assets at the end of their useful lives, residual values and useful lives are subject to uncertainty.

Provision for expected credit losses of trade receivables and contract assets.

The Board uses a provision matrix to calculate ECLs for trade receivables and contract assets. The provision rates are based on days past due for groupings of various customer segments that have similar loss patterns.

The provision matrix is initially based on the Board's historical observed default rates. The Board will calibrate the matrix to adjust the historical credit loss experience with forward looking information. For instance, if forecast economic conditions (i.e., gross domestic product) are expected to deteriorate over the next year which can lead to an increased number of defaults, the historical default rates are adjusted. At every reporting date, the historical observed default rates are updated and changes in the forward-looking estimates are analysed.

5 SIGNIFICANT ACCOUNTING ESTIMATES AND ASSUMPTIONS (CONTINUED)

Provision for expected credit losses of trade receivables and contract assets (continued)

The assessment of the correlation between historical observed default rates, forecast economic conditions and ECLs is a significant estimate. The amount of ECLs is sensitive to changes in circumstances and of forecast economic conditions. The Board's historical credit loss experience and forecast of economic conditions may also not be representative of customer's actual default in the future. The information about the ECLs on the Board's trade receivables is disclosed in Notes 8 and 10.

Deferred taxes

Deferred taxation is provided using the liability method on all temporary differences between the tax base of assets or liabilities and their carrying amounts in the statement of financial position for financial reporting purposes

BLANTYRE WATER BOARD

NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 MARCH 2023

6. PROPERTY, PLANT AND EQUIPMENT

	Land	Building & structures	Plant & machinery	Reticulation	Vehicles	Office equipment	Work in progress	Total
	K'000	K'000	K'000	K'000	K'000	K'000	K'000	K'000
Cost/valuation								
As at 01.04.2021	1,932,936	10,073,840	19,389,424	53,070,777	1,520,613	782,430	56,268	86,826,288
Additions	-	-	1,480	108,568	307,991	56,790	35,303	510,132
Disposals	-	-	-	-	(112,929)	-	-	(112,929)
As at 31.03.2022	1,932,936	10,073,840	19,390,904	53,179,345	1,715,675	839,220	91,571	
As at 01.04.2022	1,932,936	10,073,840	19,390,904	53,179,345	1,715,675	839,220	91,571	87,223,491
Revaluation	9,266,854	-	(2,067,746)	-	-	-	-	7,199,109
Transfers	-	(1,219,495)	1,178,795	-	-	40,700	-	-
Additions	-	-	87,525	252,024	115,140	163,472	647,285	1,291,140
Disposals	-	-	(443,376)	-	(98,472)	-	-	(541,848)
As at 31.03.2023	11,199,790	8,854,345	18,146,102	53,431,369	1,732,343		738,856	95,146,197
Depreciation								
As at 01.04.2021	-	739,699	3,365,142	8,286,234	791,296	390,669	-	13,573,040
Charge for the year	-	151,108	687,634	3,195,115	113,690	78,535	-	4,226,082

Disposals	-	-	-	-	(71,486)	-	-	(71,486)
As at 31.03.2022		890,807	4,052,776	11,481,349	833,500	469,204		17,727,636
As at 01.04.2022	-	890,807	4,052,776	11,481,349	833,500	469,204	-	17,727,636
Transfers	-	(115,071)	108,587	-	-	6,483	-	-
Revaluation	-	-	(4,997,771)	-	-	-	-	(4,997,771)
Charge for the year	-	177,087	920,154	4,272,287	183,800	80,273	-	5,646,230
Disposals	-		(83,746)	15,753,636	(85,321)		-	18,194,399
As at 31.03.2023		952,823			931,979	555,960		
Carrying amount								
As at 31.03.2023	11,199,790	7,901,521	18,146,102	37,677,733	800,364	487,432	738,856	76,951,798
	1,932,936	9,183,033	15,338,128	41,697,996	882,175	370,016	91,571	69,495,855
As at 30.06.2022								

* Work in progress represents buildings and structures under construction.

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6 PROPERTY, PLANT AND EQUIPMENT (Continued)

Blantyre Water board revalued its land as at 31st March 2023 by Elizabeth Tizola of Ministry of Lands, a member of Surveyors Institute of Malawi. The valuation which conforms with International Valuation Standards, was determined by reference to recent open market value transactions on an arm's length term. This valuation was adopted as a true reflection of property values as at 31st March 2023.

Measurement of fair values

The Board's plant and machinery was valued as at 31 March 2023 by a task team appointed by management. The team comprised of the following:

Name	Occupation	Organisation
Eng, George Chidulo	Mechanical Engineer	BWB
Owen Mahlon	Civil Engineer	BWB
Lon Zizwe	Accountant	BWB
Tonney Chiphwanya	Administrator	BWB
Chisomo Chilimani	Electrical Engineer	CRWB
Harrings Banda	Property Valuation Officer	Ministry of Lands

The Board is of the opinion that the carrying value does not differ materially from the fair values.

Valuation techniques and significant unobservable inputs

The valuation expert adopted a Cost Valuation Approach (i.e. Depreciated Replacement Cost).

Depreciated Replacement Cost (DRC)

DRC basis of valuation is interpreted as the current cost of replacing an asset of equivalent utility taking into account the physical, functional and economic obsolescent factors. It estimates the replacement cost of the required capacity rather than the actual asset. This approach is applied to properties of such specialist nature for which there is no active market so that it is impossible to find evidence of market transactions, except by way of a sale of the business or entity of which it is part, due to the uniqueness arising from its specialised nature and design.

Significant unobservable inputs

In arriving at the valuation figures, necessary adjustments have been made in order to reflect perceived market conditions. For the purpose of this report, necessary considerations have been made to reflect such important factors such as type of construction and condition of buildings.

Fair value Measurement of reticulation according to IFRS 13

assets	Fair value as at 31-Mar-23 K'000	31-Mar-22	Fair value hierarchy	Valuation techniques and key inouts K'000
Reticulation	53,431,369	53,179,345	Level 3	Current replacement cost

The categorisation of fair value measurements as level 3 inputs of the fair value hierarchy is based on the inputs other than quoted prices that are observable. The fair value of the financial assets and financial liabilities included in the level 3 above have been determined in accordance with generally accepted pricing models.

7	**INTANGIBLE ASSETS**	**2023**	**2022**
	Computer software	**K'000**	**K'000**
	Cost		
	Opening balance	120,631	120,631
	Disposal	(2,898)	-
	Additions	10,554	-
		128,287	120,631
	Amortisation		
	Opening balance	(67,128)	(58,712)
	Disposal	2,898	-
	Amortisation for the year	(11,214)	(8,416)
		(75,444)	(67,128)
	Carrying amount		
	At 31 March 2023	52,843	53,503
8	**HOME OWNERSHIP LOANS**		
	Gross amount receivable	64,975	24,107
	Less: Fair value adjustment	(32,475)	(10,005)
		32,499	14,102
	Payable as follows:		
	Within 1 year	10,403	4,358
	After 1 year	22,096	9,744
		32,499	14,102
	Movement in the impairment of home ownership loans		
	Opening balance	10,005	11,484
	Less: fair value adjustment	22,470	(1,479)
		32,475	10,005

Home ownership loans attract an interest of 8% annually and have an average repayment period of 21 years. The impairment on the home ownership loans is due to the time value of money. As such the receivable amounts have been discounted accordingly.

9	**INVENTORIES**		
	Pipes and fittings	1,631,240	655,208
	Consumables	557,073	131,839
	Spares for meters	15,004	-
		2,203,317	787,047
	Provision for obsolete inventories	(88,246)	(54,290)
	Total inventories	2,115,071	732,757

		2023	2022
		K'000	K'000
10 RECEIVABLES			
Trade receivables		4,491,794	4,569,929
Accumulated impairment losses		(2,341,174)	(2,674,154)
Other receivables	Government	480,058	423,708
		3,088,805	2,761,210
		2,150,620	1,895,775
Cash in transit		167,211	171,495
Prepayments		268,084	268,084
Sundry receivables		12,949	2,148
Customer balances in advance		9,883	-
Total receivables			

	Gross 2023 K'000	Impairment 2023 K'000	Gross 2022 K'000	Impairment 2022 K'000
Not past due	1,135,177	-	1,549,761	-
Past due 1-30 days	1,366,552	-	1,082,266	-
Past due 31-120	443,535	563,626	533,545	291,449
Past due 120+ days	6,927,142	1,777,548	5,540,276	2,382,705
Total trade receivables	9,872,405	2,341,174	8,705,848	2,674,154

11 RELATED PARTIES	2023 K'000	2022 K'000
	720,816	790,846
Statutory	4,546,304	3,678,334

BLANTYRE WATER BOARD

Accumulated impairment losses	(1,657,014)	(1,083,865)
Total related party receivables		
ESCOM	3,610,106	3,385,315
Lilongwe water	3,130,418	26,652,694
Consumer balances (Advance	-	55,835
	240,118	151,411
Total related party payables	3,370,536	26,859,940

		2023	2022
12	**INCOME TAX ASSET**	**K'000**	**K'000**
	Balance as at 31 March 2023	98,883	59,541
13	**CASH AND CASH EQUIVALENTS**		
	Cash and bank balances		
	Cash balances	1,718	2,893
	Bank balances	279,465	344,199
	Fixed deposits	550,844	820,011
		832,026	1,167,103
	Bank overdrafts		
	Bank overdrafts	(964,501)	(1,392,865)
	Net cash and cash equivalents shown in the statement of cash flows	(132,475)	(225,762)

The Board had the following bank facilities as at 31 March 2023;

1) National Bank of Malawi:

Overdraft banking facility of MK500 million, secured by:
i) Letter of consent from Government for the MK500 Million overdraft facility.

2) First Capital Bank:

Overdraft banking facility of MK500 million, secured by:
i) Letter of consent from the Malawi Government to borrow.

		2023 K'000	2022 K'000
14	**REVALUATION RESERVE**		
	Balance as at 01 April 2022	30,299,218	30,299,218
	Surplus on revaluation	12,196,872	-
	Deferred tax on revalued assets	(5,240,330)	-
	Excess depreciation on revalued assets	(71,264)	-
	Balance as at 31 March 2023	37,184,496	30,299,218

The revaluation arises on the revaluation of land and buildings reduced by excess depreciation on the assets revalued.

15	**ACCUMULATED DEFICIT**		
	Balance as at 01 April 2022	(44,599,523)	(36,411,563)
	Revaluation of disposed off assets	71,264	-
	Loss for the year/period	(20,692,852)	(8,187,960)
	Balance as at 31 March 2023	(65,221.111)	(44,599,523)

This represents cumulative profit and losses over the years.

16	**CAPITAL CONTRIBUTIONS**		
	Government equity	185,508	185,508
	Conversion of loans to equity	35,551,330	1,248,453
	Balance as at 31 March 2023	35,736,838	1,433,961

Conversion of loans to equity is in line with the conditions precedent to the financing agreement of the Second National Water Development Project. Accordingly, the loans in respect of that amount were deemed not repayable and converted to equity as additional capital contribution in 2010. The Board issued an Investment Certificate to Malawi Government in respect of the K35.551 billion

17 DEFERRED TAX

Deferred tax liabilities/(asset)		
Other timing differences	4,087,122	(1,153,207)
Deferred tax (asset)/liabilities		
Property, plant and equipment	13,725,381	1,604,628
Revaluation surplus	(1,244,025)	13,159,278
Total deferred tax (asset)/liabilities	12,486,878	14,763,906
Net deferred taxes	16,574,000	13,610,699

	2023	2022
	K'000	K'000

18 DEFERRED INCOME

	Grants	Consumer contributions	Prepaid water sales	Total
Balance at 01 July 2021	1,818,236	1,211,116	-	3,029,352
Additions during the year	-	224,490	3,678,974	3,903,464
Released to the statement of profit or loss	(214,576)	(151,801)	(3,669,892)	(4,036,269)
Balance at 31 March 2022	1,603,660	1,283,805	9,082	2,896,547
Within one year	214,576	1,283,805	9,082	1,507,463
After one year	1,389,084	–	–	1,389,084
Balance at 01 July 2023	1,603,660	1,283,805	9,082	2,896,547
Additions during the year	-	1,346,732	-	1,346,732
Released to the statement of Profit or loss	(141,403)	(187,447)	(9,082)	(337,932)
Balance at 31 March 2023	1, 462,257	2,443,089	-	,905,347
Within one year	141,403	2,443,089	-	2,584,492
After one year	1,320,854		–	1,320,854

Prepaid water relates to the amount purchased by consumers in the current year but not yet consumed as at the end of the financial year. This will be amortised in the period the water is consumed.

The Board was awarded grants under European Union (EU) and European Investment Bank (EIB) and the international Development Association (IDA). They were used to:

i) Procure pumping and electrical equipment at Walkers Ferry.
ii) The rehabilitation and upgrading of Walker's Ferry Water Treatment Plant.iii) Construction of Kiosks in Peri-Urban areas.

The grants are recognised as deferred income over the useful lives of the related assets.

Consumer contributions relate to the payments made by customers for application of new water connections. These payments are released to the statement of profit or loss when the connection is made.

	2023	2022
	K'000	K'000
19 BORROWINGS		
a) Malawi Government		
As at 01.07.2022	36,458,105	35,021,893
Interest accrued during the year	1,234,080	1,166,075
Unrealized exchange loss (Exim Bank)	5,187,851	270,137
As at 31.03.2023	42,880,036	36,458,105

The Board's loan relates to the loans awarded by International Development Agency (IDA), European Investment Bank (EIB) and Exim Bank of India through the Malawi Government. The IDA and EIB loans were on lent to the Board in Malawi Kwacha by the Malawi Government. The IDA loan commenced in November 2011 and is repayable over a period of 35 years from January 2016. The EIB loan commenced in December 2009 and is repayable over a period of 20 years from February 2015. The Exim Bank loan commenced in March 2019 and is repayable over a period of 20 years from March 2023. All loans are to be repaid in bi-annual instalments from the day the first instalment is due. The IDA, EIB and Exim Bank loans attract interest of 10%, 12% and 1.5% respectively.

b) FDH Bank		
As at 01.07.2022	2,385,121	2,828,169
Interest accrued during the year	444,403`	357,673
Repayments - capital	(591,236)	(430,998)
Repayments - interest	(444,403)	
		(369,723)
As at 31.03.2023	1,793,885	2,385,121

The loan was obtained to finance on going investments and operations of the Board and is repayable over a period of 6 years up to 30 May 2025 and attracts interest at base rate plus 5.1% per annum. The loan is secured by the Government letter of guarantee, Board resolution authorizing BWB to borrow the said amount from FDH Bank and revenue collection agreement between BWB and FDH Bank Limited.

c) First Capital Bank

As at 01.07.2022	501,690	703,183
Interest accrued during the year	72,396	69,711
Repayments - capital	(228,121)	(201,493)
Repayments - interest	(72,396)	(69,711)
As at 31.03.2023	273,569	501,690

The loan financed pre-paid meters and is repayable over a period of 79 months up to 31 March 2024 and attracts interest at 3.25% below the banks base rate per annum. The loan is secured by the Government letter of guarantee and security agreement of K700 million over the prepaid water meters being acquired using the facility from the bank.

	2023	2022
	K'000	K'000
19 BORROWINGS		
d) NBM		
As at 01.07.2022	3,342,143	4,062,770
Interest accrued during the year	528,565	420,603
	(528,565)	(116,855)
	2,703,678	3,342,143
	47,651,168	42,687,059
Repayments - capital	(638,465)	(1,024,375)
Repayments - interest		
As at 31.03.2023		
Total financial liabilities		

The National bank loan of K4.8 billion is repayable over a period of 8 years until November 2026 and attracts interest at base rate plus 2.6% per annum. The loan is secured by Board Resolution authorizing the board to borrow K6.9 billion from local banks, Treasury consent from the ministry of Finance authorizing the board to access K6.9 billion from NBM, Fresh letter of no objection from the Solicitor and Letter of undertaking by the board to route 65% of all revenue collections through NBM.

Within one year	15,026,326	13,512,845
	32,624,841	29,174,214
After one year		

20 EMPLOYEE BENEFITS		
At beginning of the year	21,713	20,196
Addition during the year	8,813	3,849
Payments during the year	(2,686)	(2,332)
Balance at 31 March 2023	27,840	21,713

NOTES TO THE FINANCIAL STATEMENTS (CONTINUED)
FOR THE YEAR ENDED 31 MARCH 2023

		2023 K'000	2022 K'000
21	**PAYABLES**		
	Trade payables	3,069,309	1,295,626
	VAT control account	664,522	23,089
	Customer balances in advance	-	325,962
	Insurance claims payable	1,100	601
	Audit fees accrual	21,373	42,984
	Accrued rent rates and water bills	-	15,353
	Pension payable	1,830,087	863,996
	PAYE	286,612	129,033
	Uncleared deposits	132,348	-
	Other accruals	583,066	370,263
	Total payables	6,588,418	3,066,907
22	**REVENUE**		
	Water sales - post paid	17,080,246	10,967,454
	Water sales - pre-paid	5,596,509	3,678,974
	Meter reading fees	387,152	281,002
	Meter rental income and testing fees	499,111	362,564
	Reconnection fees	141,467	127,394
	Total revenue	23,704,485	15,417,388
23	**COST OF SALES**		
	Electricity	14,229,470	9,393,809
	Chemicals	1,483,790	431,326
	Depreciation on plant and machinery	-	687,634
	Maintenance of plant and machinery	747,479	-
	Laboratory expenses	7,263	4,931
	Salaries and wages (Production staff)	734.870	504,463
	Total cost of sales	17,202,872	11,022,163
24	**OTHER INCOME**		
	Recoveries on doubtful debts	743	2,070
	Rent receivable	7,933	6,259

Sundry income	46,098	16,725
Transfers from deferred income	187,447	151,801
Interest received	56,722	30,116
Grant income	141,403	214,576
Total other income	440,346	421,547

		12 months to 2023 K'000	9 months to 2022 K'000
25	**OPERATIONAL, REPAIRS AND MAINTENANCE COSTS**		
	Salaries and wages (revenue distribution and zones)	2,785,349	1,745,097
	Pipes and fittings for maintenance of mains	1,888,326	691,024
	Meter validation expenses	1,990	65,343
	Commissions on collection	141,115	115,357
	Maintenance of meters	31,238	-
	Transport for sales agents	40,206	10,465
	Advertising and sales promotion	69,599	42,329
	Total operational, repairs and maintenance costs	4,957,823	2,669,615

		12 months to 31/03/2023 K'000	9 months to 31/03/2022 K'000
26	**ADMINISTRATIVE EXPENSES**		
	Staff costs	5,399,790	3,202,782
	Depreciation and amortisation	5,644.813	3,546,863
	Impairment loss (recovery) on trade receivables	353,662	639,922
	Motor vehicle expenses	1,058,272	451,053
	Penalties and fines	667,779	-
	Maintenance of plant and buildings	391,557	170,449
	Travel and accommodation expenses	574,569	228,865
	Rent and rates	384,410	370,454
	Hire of vehicles	158,218	57,973
	Insurance expenses	154,207	81,692
	Other expenses	89,024	50,036
	Licenses	113,208	43,752
	Telephone and postage expenses	219,917	116,064
	Security expenses	204,919	183,033
	Printing and stationery expenses	164,155	71,409
	Board members' expenses	100,948	71,733
	Consumable expenses	143,521	68,525
	Audit fees	23,327	39,192
	Consultancy fees	7,701	50
	Loss on disposal of property, plant and equipment	316,258	30,039
	World water day expenses	95,974	29,818
	Bank charges	28,528	22,736
	Bad debts - home ownership loans	22,470	(1,479)
	Donations	5,000	15,189
	Legal and professional fees	277,258	141,592
	Provision for obsolete stocks	33,956	(51,838)
	PPDA levy	14,017	9,004
	Research and development	-	2,374
	Laboratory expenses	738	-
	Cleaning Services	11,902	-
	ICT and Systems expenses	24,984	-
	Exchange loss	5,253,791	283,104
		21,938,873	9,904,660

		12 months to 31/03/2023 K'000	9 months to 31/03/2022 K'000
27	**FINANCE COSTS**		
	Overdraft interest	177,997	111,493
	Malawi Government - IDA loan interest	674,015	674,015
	Malawi Government - EIB loan interest	195,719	205,858
	Malawi Government - India Exim loan interest	339,587	286,203
	Local bank's loan interest	1,045,365	847,988
	Other finance costs	582,460	(936,670)
		3,015,143	1,188,887
28	**INCOME TAX EXPENSE**		
	Deferred tax movement	(2,277,028)	(758,430)

29 RISK MANAGEMENT

Financial risk management

Financial risk

Blantyre Water Board (BWB) faces financial risks such as default risk on loans and suppliers of goods and services. The current levels of water tariff is not adequate enough to service both loan repayment and loan interest payment. BWB is also struggling to honour credit terms offered by suppliers of goods and services.

Liquidity risk

BWB faces liquidity risk due to excessive delays BWB experiences in settlement of water bills by its esteemed customers largely on account of liquidity challenges the Malawi economy is going through. This risk is being managed by carrying out regular disconnection campaigns; in addition the Board intends to be engaging customers on the importance of timely settlement of water bills. However, permanent solution to this risk would be installation of prepaid meters to its customers.

Interest rate risk

The Board has overdraft facility of MK1 billion with National Bank of Malawi and First Capital Bank which attracts interest at the monthly reference rate. BWB faces the interest rate risk on this facility, especially when reference rate rises. The interest rate risk is being managed by limiting the amount of the facility to only MK1 billion when BWB’s requirement is in excess of that amount.

As for the Malawi Government loans, the loan interest rate is fixed at 10% per annum.

Credit risk

Credit risk consists mainly of cash deposits, cash equivalents and trade receivables. The Board only deposits cash with major banks with high quality credit standing and limits exposure to any one counter-party.

29 RISK MANAGEMENT (CONTINUED)

Credit risk-continued

The Board does not require collateral in respect of financial assets. Management has a credit policy in place and the exposure to credit risk is monitored on an ongoing basis. Credit evaluations are performed on all customers requiring credit over a certain amount except for government institutions. At the statement of financial position date there was no significant concentration of credit risk except for government recoverables. The maximum exposure to credit risk is represented by the carrying amount of each asset in the statement of financial position.

Financial instrument

Financial assets exposed to credit risk at year end were as follows:

	2023 K'000	2022 K'000
Trade receivables	4,491,794	4,569,929
Impairment losses	(2,341,174)	(2,674,154)
Net trade receivables	2,150,620	1,895,775
Bank balances	(132,475)	(225,762)
The ageing of trade receivables at the reporting date was:-		
Not past due	1,135,177	1,549,761
0 to 60 days	1,366,552	1,082,266
61 to 90 days	443,535	533,545
Over 90 days	6,927,142	5,540,276
Gross trade receivables	9,872,405	8,705,848

30 CONTINGENT LIABILITIES

Potential liabilities may arise in respect of court cases whose damages are estimated to be MK1.6 billion should the board be unable to defend their cases. (2022:MK85 million)

31 CAPITAL COMMITMENTS

The Board had capital commitments for capital works and capital expenditure amounting to K11.795 billion, (2022: K5.548 billion).

32 EVENTS AFTER THE REPORTING PERIOD

The Board requested for a Government bailout on ESCOM arrears of K 34.3 billion as at 31 December 2022. The Government of Malawi through Ministry of Finance granted this bailout., in form of re-capitalisation as at 31 March 2023, through a letter dated 15 August 2023 and the amount has been capitalized as part of Government of Malawi equity as at the reporting date.

33 GOING CONCERN ASSESSMENT

The Board incurred a loss of K20.7 billion during the year ended 31st March 2023 (2022: K8.2 billion), and as of that date current liabilities exceeded its total current assets by K18.8 billion (2022: K38.30 billion). For the past three years, the Board has been reporting losses before tax and has also been in a net current liability position. These conditions indicate that a material uncertainty exists that may cast significant doubt on the Board's ability to continue as a going concern.

The Board has/will put in place the following measures and strategies to turn around the Board's financial position and performance:

- K34.3 billion out of the related party payables (ESCOM) has been paid by Government. Capitalising this amount should substantially improve the total funds of the Board.
- Government has granted a substantial tariff increase in a bid to move toward cost reflective tariff.
- The Water and Sanitation Project-1 with funding from the World Bank aims at reducing Non-Revenue Water. The project became effective in June 2023. This will improve sales hence financial position.
- The Independent Power Plant Project (the solar project) is expected to reduce the Board’s reliance on ESCOM energy that is very expensive the Board being a maximum demand customer.
- The Board is working with the National Water Resources Authority to have boreholes sealed in its supply area so that the commercial, institutional and industry customers currently on boreholes should revert to the Board’s network.

34 EXCHANGE RATES

The average of the year end buying and selling rates of the major foreign currencies affecting the performance of the Board are stated below together with the increase in the National Consumer Price Index, which represent an official measure of inflation.

	2023	2022
	MK	MK
Kwacha/US$	1,036.25	817.30
Kwacha/GBP	1,305.99	1,205.08
Inflation rate %	27.0%	14.1%

QUESTIONNAIRE ON PERFORMANCE AND MANAGEMENT PRACTICES

Country:	Samoa
Utility Name:	Samoa Water Authority (SWA)
Service area:	
Latest fiscal year of the data and information provided:	FY2022-2023

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3.5 Human Resources Management and Development エラー! ブックマークが定義されていません。

4. Laws, Regulations and Governance ... エラー! ブックマークが定義されていません。

5. Assistance of Development Partners (DPs) エラー! ブックマークが定義されていません。

6. Documents requested 11

NOTE:

1. **Please click ☐ to change it turn to ☒ in the questionnaire if applicable.**
2. **We would appreciate it if you could first send the following.**
   a. **Audited/ unaudited financial statements (Income Statement (Profit and Loss Statement), Balance Sheet and Cash Flow Statement) for financial year ending June 2021, 2022, 2023, 2024 or latest available**

b. Annual reports for 2021, 2022 and 2023

1. Utility Characteristics

1.1 Basic Information

INDICATOR	CATEGORIES
1. What is the structure of the Utility? (Select one)	☐ Inside of local or national government water department (i.e. finances for water/wastewater function are not reported separately from other government activities) ☐ Local or National Government Water Department – Ring fenced; (i.e., finances for water/wastewater function are reported separately from other government activities) ☐ Statutory body ☒ Local or National Government wholly owned service provider operating under commercial law ☐ Jointly (Government and Private) owned provider operating under commercial law ☐ Privately owned provider operating under commercial law ☐ Not for profit provider operating under commercial law ☐ Other (Please describe: _____)
2. What is the mode of the ownership of the water supply infrastructure?	☒ Own all assets ☐ Own only part of the assets (Please specify the owned assets: _____ _____) ☐ Not own and only responsible for operations ☐ Leased ☐ Concessioned ☐ Other (Please specify: _____) ☐ Other (Please specify: _____) If you own only part of the assets, who is the owner of the remaining assets? ☐ Local government ☐ National government ☐ Private company ☐ Other (Please specify: _____)
3. Who has general oversight of the utility's services and tariff?	☒ Local, regional or national government department ☐ Independent board of stakeholders ☐ Independent service & price regulator ☐ Other (Describe: _____)
4. Services provided other than water	☒ Wastewater ☐ Electricity ☐ Other. Describe: _____
5. Nature of service area	☐ Only urban ☐ Urban and peri-urban mixed ☒ Urban and rural mixed

1.2 Basic Indicators

Indicator	Unit	Water services
1. Total population in service area (under utility's nominal responsibility)	persons	190195
2. Population served by water supply services	persons	190195
3. Number of connections of water supply services	connections	27790
4. Number of Public tap stand	Nos.	0
5. Number of towns/cities served with water services	Nos.	297 villages
6. Production Capacity	m3/day	
7. Volume of water produced	m3/year	27,111,344
8. Volume of water sold or billed*1	m3/year	14,042,792
9. Kind of water sources	m3/year	Ground water 4,479,749 Surface water 22,839,967 Purchase from bulk supplier none
10. Total length of transmission and distribution network	km	1417.38

*1: "Total water volume billed" refers to the volume of water billed irrespective of whether the bill is paid or not. Any unmetered volume must be estimated from other information.

2. Performance Data

2.1 Performance Indicators (PIs) and Data

Please provide available values of PIs in the last 3 year with fiscal year of data.

Note: JICA has complied the values of some PIs below from your annual reports. Please review them and make any necessary correction.

No.	INDICATOR	UNIT	Value		
			Year1 (2021)	Year2 (2022)	Year3 (2023)
A.	**Service Coverage**				
A1	(Population served by water supply services) /(total population under utility's nominal responsibility)	%	87.9	90.5	90
B.	**Drinking Water Quality**				
B.1	How many **water samples** in a year were taken in 2023? This refers to the number of samples of drinking water that were taken from the system based on the local standard. Please include all unique test types (e.g., chemical, biological, etc.) in this figure.	Nos.	1734	2256	2482
B.2	How many water samples **met all required guidelines/standards**?	Nos.	1734	2256	2482

No.	INDICATOR	UNIT	Value		
			Year1 (2021)	Year2 (2022)	Year3 (2023)
	This refers to the number of samples of drinking water taken from the system that have been tested AND comply with the local standard.				
B.3	Compliance rate of water quality (B.2/B.1)	%	100	100	100
C.	**Quality of Service**				
C.1	Average continuity of service hours per day for water supply on average	Hrs/day	24	24	24
C.2	Water supply pressure The approximate percentage of the customers in low water pressure area	%	No designated low pressure areas	No designated low pressure areas	No designated low pressure areas
D.	**Customer satisfaction**				
D.1	Does your utility carry out customer satisfaction survey? What is the rating by customers of your service?	-	Data not available	Data not available	Data not available
E.	**Non-Revenue Water (NRW)**				
E.1	Non-Revenue Water Ratio (Difference between water supplied and water sold or billed expressed as a percentage of net water supplied.)	%	43.75	47.09	41%
E.2	Pipe breaks Total number of pipes breaks per year	Breaks/ year	1047	979	1169
F.	**Meters**				
F.1	Metering ratio (Total number of connections with operating meter)/ (total number of connections)	%	94.83	95.38	99.24
G.	**Operating Costs & Staff**				
G.1	Total annual operating cost for water service [1] Note 1: Annual operating cost excludes depreciation, amortization, interest	Currency/year	$SAT25,269,847 (water and wastewater)	$SAT24,377,881 (water and wastewater)	$SAT27,490,183 (water and wastewater)
G.2	Annual operating cost other than water service (i.e. wastewater service, electricity, etc.) if any	Currency/year	All combined in G.1	All combined in G.1	All combined in G.1
G.3	Labor and staff costs vs Operating costs (Labor and staff costs)/(Operating costs)	%	47	10	47
G.4	Electrical energy costs vs Operating costs (Electrical energy costs)/(Operating costs)	%	49	12	49

No.	INDICATOR	UNIT	Value		
			Year1 (2021)	Year2 (2022)	Year3 (2023)
G.5	Number of staff What was the total number of full-time staff?	Nos.	302	290	275
G.6	Staff number per 1,000 connections	Persons/ 1000 connections	9.35	8.59	9.85
H.	**Billings & Collections**				
H.1	Total annual revenue (excluding subsidy)	Currency/year	$SAT 32,076,762 (water and wastewater)	$SAT 29,297,861 (water and wastewater)	$SAT 27,178,927 (water and wastewater)
H.2	Total annual revenue of water service from customers, if you have other services (i.e. wastewater service, electricity, etc.)	Currency/year			
H.3	Other annual revenue of other services (excluding subsidy), if you have other services	Currency/year			
H.4	Subsidy for water service	Currency/year			
H.5	Connection charge -– water service	Currency /connection			
H.6	Collection ratio Collected revenue / Billed revenue as a %	%	67.86	69.03	78.73
I.	**Financial Performance**				
I.1	Operating cost coverage Total annual revenue from water service*1 /Total annual operating costs of water service*2 *1 Same as H.2 *2 Same as G.1	Ratio (%)	91%	83%	83%
I.2	What is the target of the operating cost coverage in the target year, if any?	Ratio and target year	93%	93%	92%
I.3	Net profit*1 from water service*2 *1: Profit after tax *2 If it is possible to separate the net profit for water services from other services such as wastewater service and electricity, please specify. If not, please write the net profit of your utility as a whole	Currency	$752,377	($1,133,435)	($6,677,711)
I.4	Return on asset (Profit after tax/total asset)	%	0.37%	- 0.54%	- 3.27%
I.5	Profit margin (Profit before tax/total income)	%	2.35	- 3.87	- 24.57
I.6	Equity ratio (Total equity/ Total assets)	%	32.31	30.91	28.75
I.7	Fixed asset to fixed liability ratio	%	1.29	1.24	1.22

2.2 Questions to performance

Please answer the following question by indicator with Yes or No and specify the reasons or factors if you answer "No".

No: The percentages, values and states in the question are assumed as a good practice.

No.	Question by indicator	Yes or No	If No, please specify reasons/factors.
A.	**Service Coverage**		
	Is the coverage of water service higher than **80%**?	Yes	
B.	**Drinking Water Quality**		
	Is the compliance rate of water quality with the standards higher than **80%**?	Yes	
C.	**Quality of Service**		
C.1	Is the water supply continuous (**24hour/day**)?	Yes	
C.2	In general, is the water supply pressure adequate?	Yes	
C.3	Is customer satisfaction moderate or high?	Yes	
E.	**Non Revenue Water (NRW)**		
	Is the NRW ratio lower than **25%**?	No	Ageing infrastructure
F.	**Meters**		
	Is the metering ratio higher than **90%**?	Yes	
G.	**Staff Performance**		
	Is the staff capacity sufficient to meet the organization's requirements in terms of both number and quality? If not, please specify the areas where additional capacity is needed.	Yes	
H.	**Billings & Collections**	Yes or No	If No, please specify reasons/factors
H.1	Is collection ratio higher than **90%**?	Yes	
H.2	Is water tariff revised periodically or according to inflation?	Periodically	
H.3	Is connection charge adequate, which does not hinder to increase connection?	No	No, connection costs are heavily subsidised but new charges are being reviewed for increase
I.	**Financial Performance**		
I.1	Are operating costs of water service fully covered by revenue from water service?	No	Please also mention how the deficit is covered (e.g. subsidy from general account budget). SWA relies on CSO grants from government to compensate for cso costs such as electricity, leases, diesel for boreholes, land compensation.
I.2	Are the current water tariff rates adequate for cost recovery?	No	New tariff rates are being reviewed.

No.	Question by indicator	Yes or No	If No, please specify reasons/factors.
I.3	Is the operating cost coverage of water service higher than **130%**?	No	Around 83%

3. Management Practices

3.1 Organization and Strategy

OS1	**Performance Tracking**	
OS1.1	How many key performance indicators (KPIs) were monitored at your utility? Please select one answer. Examples of KPI: - Revenue collection rate (%) - Operation cost coverage (%)	☐ 0 key performance indicators ☐ 1-2 key performance indicators ☐ 3-9 key performance indicators ☐ 10-15 key performance indicators ☒ 16 or more key performance indicators
OS1.2	Please list KPIs, the targets and the latest realized KPIs.	Refer to the attached Annual reports contains the KPIs, targets and the results at the end of each FY.
OS1.3	How much percentage of KPIs meets the target set?	%81 (52 KPIs in total, 42 KPIs achieved 100% compliance against their targets)
OS1.4	How are KPIs set, monitored and evaluated?	☒ In accordance with utility's rules ☒ In accordance with government regulation ☐ Based on performance contract with central or local government ☐ Regulated by independent regulator ☐ Other (Please specify; _____ _____)
OS1.5	Does your organization have the annual evaluation and feedback cycle of Plan, Do, Check and Action (PDCA).	☒ Yes ☐ No
OS1.6	If Yes in OS1.5. Is PDCA cycle well functioned? If not, please specify the reasons.	☒ Yes ☐ No If No, (specify the reasons: _____

3.2 Commercial

CO1	**Customer complaint management**	
CO1.1	Please explain the complaint redressal process, and the ratio of solved complaints.	All complaints are lodged through the Call Centre. Once the customer calls, the CC team raises a Service order for the complaint and assign to the Division responsible for that service area.
CO1.2	Please list the five main complaints from the largest to smallest.	1. Connection Burst Pipe 2. No Water 3. Main Burst Pipe 4. Bill Dispute 5. Pressure Issue

CO1.3	Do you record response time? If Yes, please answer average response time.	Average response time for water issues depends on the complaints. If it is No Water, Connection Burst Pipe or Pressure Issue then it is within 1-2 hours. For Wastewater issues it is within 1 hour
CO2	**Collection method**	
CO2.1	Please explain the process of meter reading to bill issuance.	Customers water meters are read monthly. Bills are also issued on a monthly basis.
CO2.2	Please list the payment methods of water charge.	- Cash Payments - Online payment (through the SWA Website) - Payment through mobile apps (M-tala)
CO2.3	Please explain meter management method.	☐ Meters are regularly inspected for performance and accuracy, and calibrated or replaced if necessary. ☒ Replace water meter at regular intervals as meters deteriorate over time and their measurement accuracy decreases ☐ Others (Specify: _____)
CO2.4	Please explain disconnection process.	Yes, customers with arrears over 60days due are disconnected. Need to pay 75% of arrears to be reconnected.
CO2.5	What do you plan to improve the collection rate?	We have advertised for new collection officers to do the follow-up process with customers but will also look at strengthening our disconnection services by early disconnecting of customers with high arrears without delay.

3.3 Operations

OP1	**Water Asset Maintenance**	
OP1.1	Which best describes the maintenance practices of essential **water assets**? Please select one answer.	☐ Water assets are **not maintained** ☐ Water asset maintenance is **primarily reactive**. The Utility replaces or repairs when things break or fall into disrepair. ☒ Water asset maintenance is **partially periodic, partially reactive**. ☐ Water asset maintenance is **primarily preventive.** ☐ Water asset maintenance is **preventive** AND is **informed** by risk assessments and equipment monitoring.
OP1.2	Do you have an updated inventory (ledger) of facilities for facility O&M?	☒ Yes ☐ No
OP1.3	Do you have a fixed asset ledger for financial management?	☒ Yes ☐ No
OP2	**O & M**	
OP2.1	Is there a O&M plan for which the budget is secured?	☒ Yes ☐ No

OP2.2	Are there any problems regarding the O&M of water supply facilities? If yes, what are the problems and why?	☒ Yes ☐ No If Yes, Describe: - Ageing infrastructure (some assets need to be replaced at the water treatment plants). But has not yet been replaced due to limited funding. - Limited knowledge of Operators when it comes to operating the Rapid Sand Filtration plants For example, Problem1: Lack of human resources. Reason: the utility cannot afford to hire personnel due to lack of financial resources. Problem2: there are differences in competence among staff. Reason: Due to the lack of standard operation manuals and staff training. Problem3: Lack of sufficient finance for maintenance.
OP3	**Non-Revenue Water (NRW)**	
OP3.1	What kinds of measures are implemented to reduce non-revenue water?	☐ None ☒ Active leak detection programs ☒ Pressure management ☒ District metered areas (DMAs) ☒ Aged pipeline replacement and rehabilitation ☒ Installation of accurate meters ☐ Regular meter testing and calibration ☒ Metering of all users ☒ Tackling illegal connections ☒ NRW audits to quantify the volume and identify causes of NRW ☐ Distribution monitoring systems with SCADA ☒ Improve record-keeping and GIS mapping ☒ Staff training for NRW management ☐ Other (Describe: _____)
OP3.2	What are the major causes of NRW. Note: Can select plural answers.	☐ Do not know ☐ Leakage due to high distribution pressure ☒ Leakage due to aged pipeline ☐ Inaccurate meters ☐ Without meters ☐ Illegal connections ☐ Other (Describe: _____)
OP3.3	Do you have any section responsible for NRW management?	☒ Yes ☐ No
OP3.4	Is there an action plan for reducing NRW and is it being implemented?	☒ Yes ☐ No
OP4	**Use of DX (Digital technology) and IT**	
OP4.1	Do you have any strategy of	☒ Yes

	introduction of Digital Transformation to your utility?	☐ No
OP4.2	Do you use any digital technology in your operation and services (e.g., SCADA, GIS, user-friendly payment methods, advanced customer database, smart meter)? If yes, please specify.	☒ Yes. (if yes, please explain: SCADA – for monitoring levels of distribution tanks GIS – for mapping our assets MEX - for generating work orders and scheduling maintenance activities Daffron – customer information and finance system ☐ No

3.4 Financial

FI1	**Tariff Analysis**	
FI1.1	Does your Utility conduct full-cost recovery tariff analysis that includes operating expenditures, depreciations, interests and profits? Please select one answer. Definitions: "Full Cost Recovery" refers to the generation of revenue through appropriate pricing of services to cover the full cost of service provision.	☐ Don't Know ☐ There is **no** cost recovery tariff analysis conducted ☐ The **minimum** level of cost recovery tariff analysis is conducted. ☒ There is **some** cost recovery tariff analysis conducted, but the analysis is **irregular.** ☐ There is **extensive** cost recovery tariff analysis conducted **regularly.** ☐ There is **exhaustive** cost recovery tariff analysis conducted **regularly** including for short-, medium-, and long-term investment needs.
FI2	**Financial Forecasting**	
FI2.1	Does the Utility conduct financial forecasting for short-, medium-, and long- term funding needs? Definitions: "Financial forecasting" refers to the formal process of estimating or predicting the funding requirements for the activities conducted by the Utility.	☐ Don't Know ☐ **No** financial forecasting is conducted. ☐ Financial forecasting is conducted for **short-term** needs (< 1 year) ☐ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** needs (1-2 years), but the analysis is **irregular.** ☐ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** (1-2 years) needs **regularly.** ☒ Financial forecasting is conducted for **short-term, medium-term,** AND **long- term** (> 2 years) needs **regularly.**
FI2.2	What are the priority areas for capital investment in the next 3 years?	☐ Cannot specify ☒ Water resource development ☐ Water treatment plants ☒ Network expansion ☒ Rehabilitation of existing facilities ☐ Others, please specify ___
FI3	**Financial resources**	
FI3.1	What are the sources of finance for major investment?	☒ Grants or Government transfers to the utility? ☐ Concessional borrowing from international financial institutions (multi or bi laterals)? ☐ Government owned banks? ☐ Commercial banks or bond holders?

		☐ Internal resources such as profit earned from revenue ☐ None or almost none
FI3.3	If you have any subsidy system from local and/or central governments, please specify the type and objectives of the subsidy	☐ Yes ☐ Compensation for deficit in operation ☐ Pro-poor water provision ☐ Construction of facilities ☐ Others, please specify: _____ ☒ No
FI3.2	Is your utility allowed to borrow from commercial banks or finance through bond issuance for investment in capital project (construction/rehabilitation) without seeking approval from other entities such as regulators/ governments?	☐ Yes ☒ No
FI4	**Accounting**	
FI4.1	What kind of accounting system do your utility apply; corporate, public enterprise accounting or any other?	Public enterprise accounting
FI4.2	Do you have separate accounting for services other than water, if your utility provides other services?	No

4. Documents requested

We would appreciate it if you could provide us with the following available documents. If URLs (web pages) are available, please simply share the links.

Note: JICA has already obtained the documents marked ☒, so there is no need for you to send them.

No.	Documents	JICA collected
1.	Audited/ unaudited financial statements (Income Statement (Profit and Loss Statement), Balance Sheet and Cash Flow Statement) for financial year ending June 2021, 2022, 2023, 2024 or latest available	☒
2.	National policy documents including water supply sector	☒
3.	Laws and regulations related to water supply (4.1 above)	☒
4.	Regulations to set water tariff rate	☐
5.	Water tariff rate with structure	☒
6.	Mid and long-term water supply development plan if any	☐
7.	The latest business plan of utility	☐
8.	The latest 3 years annual report of utility Note: Your Annual Report 2019, 2020 and 2021 have been obtained. Please provide us with more recent version (2022 and 2023) , if available.	☒
9.	Organization chart	☒

10.	IWA Water balance table filled - Breakdown of Non-Revenue Water, if available	☐

QUESTIONNAIRE

Country:	Bangladesh
Utility Name:	Dhaka Water Supply and Sewerage Authority
Service area:	Dhaka City
Latest fiscal year of the data and information provided:	2022-23 to 2020-21

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NOTE:

1. **Please click ☐ to change it turn to ☒ in the questionnaire if applicable.**
2. **We would appreciate it if you could first send the following.**
   a. **Audited/ unaudited financial statements (Income Statement (Profit and Loss Statement), Balance Sheet and Cash Flow Statement) for 2021, 2022, 2023 and financial account up to September 2024 or latest available**
   b. **Annual reports for 2021, 2022 and 2023**

1. Utility Characteristics

1.1 Basic Information

INDICATOR	CATEGORIES
1. What is the structure of the Utility? (Select one)	☐ Inside of local or national government water department (i.e. finances for water/wastewater function are not reported separately from other government activities) ☐ Local or National Government Water Department – Ring fenced; (i.e., finances for water/wastewater function are reported separately from other government activities) ☐ Statutory body ☐ Local or National Government wholly owned service provider operating under commercial law ☐ Jointly (Government and Private) owned provider operating under commercial law ☐ Privately owned provider operating under commercial law ☐ Not for profit provider operating under commercial law ☐ Other (Please describe: autonomous body Under Local Government Division of Bangladesh Government)
2. What is the mode of the ownership of the water supply infrastructure?	☒ Own all assets ☐ Own only part of the assets (Please specify the owned assets: _____ _____) ☐ Not own and only responsible for operations ☐ Leased ☐ Concessioned ☐ Other (Please specify: _____) ☐ Other (Please specify: _____) If you own only part of the assets, who is the owner of the remaining assets? ☐ Local government ☐ National government ☐ Private company ☐ Other (Please specify: _____)
3. Who has general oversight of the utility's services and tariff?	☐ Local, regional or national government department ☐ Independent board of stakeholders ☐ Independent service & price regulator ☐ Other (Describe: Bangladesh Government)
4. Services provided other than water	☒ Wastewater ☐ Electricity ☐ Other. Describe: Sewerage
5. Nature of service area	☐ Only urban ☒ Urban and peri-urban mixed

	☐ Urban and rural mixed

1.2 Basic Indicators

Indicator	Unit	Water services
1. Total population in service area (under utility's nominal responsibility)	persons	22 million
2. Population served by water supply services	persons	22 million
3. Number of connections of water supply services	connections	387366 (22-23)
4. Number of Public tap stand	Nos.	500
5. Number of towns/cities served with water services	Nos.	Dhaka City
6. Production Capacity	m3/day	2680000 (22-23)
7. Volume of water produced	m3/year	978200000 (22-23)
8. Volume of water sold or billed*1	m3/year	780969675 (22-23)
9. Kind of water sources	m3/year	Ground water 655349 ML Surface water 322806 ML
10. Total length of transmission and distribution network	km	3462 (22-23)

*1: "Total water volume billed" refers to the volume of water billed irrespective of whether the bill is paid or not. Any unmetered volume must be estimated from other information.

2. Performance Data

2.1 Performance Indicators (PIs) and Data

Please provide available values of PIs in the last 3 year with fiscal year of data.

Note: JICA has complied the values of some PIs below from your annual reports. Please review them and make any necessary correction.

No.	INDICATOR	UNIT	Value		
			Year1 (2022-23)	Year2 (2021-22)	Year3 (2020-21)
A.	**Service Coverage**				
A1	(Population served by water supply services) /(total population under utility's nominal responsibility)	%	100	100	100
B.	**Drinking Water Quality**				
B.1	How many **water samples** in a year were taken in 2023? This refers to the number of samples of drinking water that were taken from the system based on the local standard. Please include <u>all</u> unique test types (e.g., chemical, biological, etc.) in this figure.	Nos.	4212 (Jan-Oct, 2024)	5608 (2023)	5976 (2022)
B.2	How many water samples **met all required guidelines/standards?** This refers to the number of samples of	Nos.	3853 (Jan-Oct, 2024)	5000 (2023)	5395 (2022)

No.	INDICATOR	UNIT	Value		
			Year1 (2022-23)	Year2 (2021-22)	Year3 (2020-21)
	drinking water taken from the system that have been tested AND comply with the local standard.				
B.3	Compliance rate of water quality (B.2/B.1)	%	91.48	89.16	90.28
C.	**Quality of Service**				
C.1	Average continuity of service hours per day for water supply on average	Hrs/day	24	24	24
C.2	Water supply pressure The approximate percentage of the customers in low water pressure area	%	1 bar	1 bar	1 bar
D.	**Customer satisfaction**				
D.1	Does your utility carry out customer satisfaction survey? What is the rating by customers of your service?	-	We have a complain resolve redressal system. Through that all the complain is resolved. If required survey is conducted.		
E.	**Non-Revenue Water (NRW)**				
E.1	Non-Revenue Water Ratio (Difference between water supplied and water sold or billed expressed as a percentage of net water supplied.)	%	Less than 18%	Less than 18%	Less than 18%
E.2	Pipe breaks Total number of pipes breaks per year	Breaks/ year	395 (23-24)	320 (22-23)	380 (21-22)
F.	**Meters**				
F.1	Metering ratio (Total number of connections with operating meter)/ (total number of connections)	%	98	98	98
G.	**Operating Costs & Staff**				
G.1	Total annual operating cost for water service [1] Note 1: Annual operating cost excludes depreciation, amortization, interest	BDT/year	10,902,786,044.00	9,069,014,066.46	10,058,694,614.00
G.2	Annual operating cost other than water service (i.e. wastewater service, electricity, etc.) if any	Currency/ year	-	-	-
G.3	Labor and staff costs vs Operating costs (Labor and staff costs)/(Operating costs)	%	18	19	19
G.4	Electrical energy costs vs Operating costs (Electrical energy costs)/(Operating costs)	%	34	34	29
G.5	Number of staff What was the total number of full-time staff?	Nos.	5173 2662	5160 2765	5138 2900
G.6	Staff number per 1,000 connections	Persons/ 1000 connections	14	14	14
H.	**Billings & Collections**				
H.1	Total annual revenue (excluding subsidy)	BDT/year	25,562,124,911.00	19,374,075,356.31	17,531,673,622.00

No.	INDICATOR	UNIT	Value		
			Year1 (2022-23)	Year2 (2021-22)	Year3 (2020-21)
H.2	Total annual revenue of water service from customers, if you have other services (i.e. wastewater service, electricity, etc.)	BDT/year	20,508,816,289.00	18,634,773,681	17,531,673,622.00
H.3	Other annual revenue of other services (excluding subsidy), if you have other services	BDT/year	1,200,436,068.00	871,713,316.00	1,606,002,232.00
H.4	Subsidy for water service	Currency/ year	Indirect Subsidy		
H.5	Connection charge -- water service	Currency /connection	DMA 3/4"- 14,628.4/- 1"- 20,684.4/- 1.5"- 56,011.4/- Non- DMA 3/4"- 10,316/- 1"- 14,836/- 1.5"- 41,196/-		
H.6	Collection ratio Collected revenue / Billed revenue as a %	%	99.98	100	100
I.	**Financial Performance**				
I.1	Operating cost coverage Total annual revenue from water service*1 /Total annual operating costs of water service*2 *1 Same as H.2 *2 Same as G.1	Ratio (%)	188%	205%	174%
I.2	What is the target of the operating cost coverage in the target year, if any?	Ratio and target year	65	65	65
I.3	Net profit*1 from water service*2 *1: Profit after tax *2 If it is possible to separate the net profit for water services from other services such as wastewater service and electricity, please specify. If not, please write the net profit of your utility as a whole	Currency	(5,258,668,815.00)	(3,789,847,406.94)	496,491,046.00
I.4	Return on asset (Profit after tax/total asset)	%	-2%	-2%	0.26%
I.5	Profit margin (Profit before tax/total income)	%	-13%	-17%	2%
I.6	Equity ratio (Total equity/ Total assets)	%	28%	12%	16%
I.7	Fixed asset to fixed liability ratio	%	132%	106%	93%

2.2 Questions to performance

Please answer the following question by indicator with Yes or No and specify the reasons or factors if you

answer "No".

No: The percentages, values and states in the question are assumed as a good practice.

No.	Question by indicator	Yes or No	If No, please specify reasons/factors.
A.	**Service Coverage**		
	Is the coverage of water service higher than **80%**?	Yes	
B.	**Drinking Water Quality**		
	Is the compliance rate of water quality with the standards higher than **80%**?	Yes	
C.	**Quality of Service**		
C.1	Is the water supply continuous (**24hour/day**)?	Yes	
C.2	In general, is the water supply pressure adequate?	Yes	
C.3	Is customer satisfaction moderate or high?	Yes (moderate)	
E.	**Non Revenue Water (NRW)**		
	Is the NRW ratio lower than **25%**?	Yes	
F.	**Meters**		
	Is the metering ratio higher than **90%**?	Yes	
G.	**Staff Performance**		
	Is the staff capacity sufficient to meet the organization's requirements in terms of both number and quality? If not, please specify the areas where additional capacity is needed.	Yes	
H.	**Billings & Collections**		
H.1	Is collection ratio higher than **90%**?	Yes	
H.2	Is water tariff revised periodically or according to inflation?	no	According to the WASA Act, Dhaka WASA is permitted to increase its tariff by up to 5% annually. However, considering that inflation has consistently exceeded more than 5% in recent years, coupled with the need to adjust tariffs in line with rising operation and maintenance costs, the tariff rates have been revised. These adjustments, which range from 20% to 30%, have been made with the approval of the Local Government Division of the Bangladesh Government, based on the prevailing economic conditions and financial requirements of the organization.
H.3	Is connection charge adequate, which does not hinder to increase connection?	Yes	
I.	**Financial Performance**		
I.1	Are operating costs of water service fully covered by revenue from water service?	Yes	
I.2	Are the current water tariff rates adequate for cost recovery?	No	

No.	Question by Indicator	Yes or No	If No, please specify reasons/factors.
			The cost of treating 1,000 liters of water is approximately 30 taka, while the current domestic water tariff is around 16 taka per 1,000 liters. This creates a significant deficit, as the tariff does not fully cover the production and treatment costs. To ensure sustainability and cost recovery, there is a pressing need to revise the tariff rates in accordance with the actual production costs.
I.3	Is the operating cost coverage of water service higher than **130%**?	Yes	

3. Management Practices

3.1 Organization and Strategy

OS1	Performance Tracking	
OS1.1	How many key performance indicators (KPIs) were monitored at your utility? Please select one answer. Examples of KPI: - Revenue collection rate (%) - Operation cost coverage (%)	☐ 0 key performance indicators ☐ 1-2 key performance indicators ☒ 3-9 key performance indicators ☐ 10-15 key performance indicators ☐ 16 or more key performance indicators
OS1.2	Please list KPIs, the targets and the latest realized KPIs.	- Revenue collection rate (%)- 100% -Operation cost coverage (%)- minimum 0.65 -Non-Revenue Water (NRW)- Below 10% - Number of total connections provided under the scheme-100% coverage - Water supplied during a year- 100% of the calculated demand - Total consumption of water per zone per month-100% data recover based on the connection number - Functioning time (hours/day) and function consistency (days/month)- 24/7 - Percentage of complaints resolves - 100% - Percentage of completed repair works against the total repair requests per year-100%
OS1.3	How much percentage of KPIs meets the target set?	- Revenue collection rate (%)- 100% -Operation cost coverage (%)- minimum 0.66 (22-23) -Non-Revenue Water (NRW)- Below 10% in DMA Area, And other Non-DMA service area is below 18% - Number of total connections provided under the scheme-100% coverage - Water supplied during a year- 100% of the calculated demand - Total consumption of water per zone per month-100% data recover based on the connection number - Functioning time (hours/day) and function consistency (days/month)- 24/7 - Percentage of complaints resolves - 100%

		- Percentage of completed repair works against the total repair requests per year-100%
OS1.4	How are KPIs set, monitored and evaluated?	☐ In accordance with utility's rules ☐ In accordance with government regulation ☐ Based on performance contract with central or local government ☐ Regulated by independent regulator ☐ Other (Please specify; International/World Standard & Local Standard)
OS1.5	Does your organization have the annual evaluation and feedback cycle of Plan, Do, Check and Action (PDCA).	☒ Yes ☐ No
OS1.6	If Yes in OS1.5. Is PDCA cycle well functioned? If not, please specify the reasons.	☒ Yes ☐ No If No, (specify the reasons:

3.2 Commercial

CO1	**Customer complaint management**	
CO1.1	Please explain the complaint redressal process, and the ratio of solved complaints.	Dhaka WASA has a dedicated redressal system known as "WASA Link 16162." This call center connects Dhaka WASA with its valued customers, allowing them to report complaints at any time. The system is designed to forward these complaints to the appropriate offices and stakeholders for resolution. There are established timeframes to address complaints as quickly as possible. Additionally, competent authorities supervise and monitor the process to ensure the best service to customers. The average complaint resolution rate is 100%.
CO1.2	Please list the five main complaints from the largest to smallest.	1. Pipe leakage 2. Water trolley demand 3. Customer complaint regarding bill amount 4. Water is not reaching the remote end of the service line 5. Water scarcity complaint from areas affected by pump repair and maintenance
CO1.3	Do you record response time? If yes, please answer average response time.	Yes. 5 to 10 Sec
CO2	**Collection method**	
CO2.1	Please explain the process of meter reading to bill issuance.	Manual Reading
CO2.2	Please list the payment methods of water charge.	Online Billing payment through various online Banking

CO2.3	Please explain meter management method.	☒ Meters are regularly inspected for performance and accuracy, and calibrated or replaced if necessary. ☐ Replace water meter at regular intervals as meters deteriorate over time and their measurement accuracy decreases ☐ Others (Specify: _____)
CO2.4	Please explain disconnection process.	1. If someone apply for disconnection 2. If someone bill is due beyond the stipulated time and warning 3. Trace of Illegal connection
CO2.5	What do you plan to improve the collection rate?	1. Conduct Billing procedure timely 2. Warning message to the customer to pay their due 3. If customer bill is due beyond the stipulated time, warning for disconnection to collect the due bill with delay charge 4. Periodic investigation for illegal connection 5. Buildup customer awareness 6. Train the Dhaka WASA employee for efficient billing management and revenue collection

3.3 Operations

OP1	**Water Asset Maintenance**	
OP1.1	Which best describes the maintenance practices of essential **water assets**? Please select one answer.	☐ Water assets are **not maintained** ☒ Water asset maintenance is **primarily reactive**. The Utility replaces or repairs when things break or fall into disrepair. ☒ Water asset maintenance is **partially periodic, partially reactive.** ☒ Water asset maintenance is **primarily preventive.** ☒ Water asset maintenance is **preventive** AND is **informed** by risk assessments and equipment monitoring.
OP1.2	Do you have an updated inventory (ledger) of facilities for facility O&M?	☒ Yes ☐ No
OP1.3	Do you have a fixed asset ledger for financial management?	☒ Yes ☐ No
OP2	**O & M**	
OP2.1	Is there a O&M plan for which the budget is secured?	☒ Yes ☐ No
OP2.2	Are there any problems regarding the O&M of water supply facilities? If yes, what are the problems and why?	☒ Yes ☐ No If Yes, Describe: Dhaka's dense population makes operation and maintenance (O&M) activities challenging, with coordination among multiple stakeholders often causing delays. For

		example, repair work under roads requires City Corporation approval to cut through, complicating timely execution. Additionally, the city lacks clearly defined residential and commercial zones, as areas can switch between the two, making it difficult to accurately set water tariffs. The implementation of smart metering technology is still in its early stages. Another problem is Very low return for O&M activity.
OP3	**Non-Revenue Water (NRW)**	
OP3.1	What kinds of measures are implemented to reduce non-revenue water?	☐ None ☒ Active leak detection programs ☒ Pressure management ☒ District metered areas (DMAs) ☒ Aged pipeline replacement and rehabilitation ☒ Installation of accurate meters ☒ Regular meter testing and calibration ☒ Metering of all users ☒ Tackling illegal connections ☐ NRW audits to quantify the volume and identify causes of NRW ☒ Distribution monitoring systems with SCADA ☒ Improve record-keeping and GIS mapping ☒ Staff training for NRW management ☐ Other (Describe: _____)
OP3.2	What are the major causes of NRW. Note: Can select plural answers.	☐ Do not know ☐ Leakage due to high distribution pressure ☒ Leakage due to aged pipeline ☒ Inaccurate meters ☐ Without meters ☒ Illegal connections ☐ Other (Describe: _____)
OP3.3	Do you have any section responsible for NRW management?	☒ Yes ☐ No
OP3.4	Is there an action plan for reducing NRW and is it being implemented?	☒ Yes ☐ No
OP4	**Use of DX (Digital technology) and IT**	
OP4.1	Do you have any strategy of introduction of Digital Transformation to your utility?	☒ Yes ☐ No
OP4.2	Do you use any digital technology in your operation and services (e.g., SCADA, GIS, user-friendly payment methods, advanced customer database, smart meter)? If yes, please specify.	☒ Yes. (if yes, please explain: 1. All the Treatment Plant are SCADA Controlled, 2. Transmission and distribution line flow meter, PSV SCADA controlled 3. GIS for record Keeping 4. User Friendly payment method for billing 5. Pilots projects for smart meter implementation 6. Computerized customer databased 7. Online water line connection procedure 8. Smart meter

		☐ No

3.4 Financial

FI1	Tariff Analysis	
FI1.1	Does your Utility conduct full-cost recovery tariff analysis that includes operating expenditures, depreciations, interests and profits? Please select one answer. Definitions: "Full Cost Recovery" refers to the generation of revenue through appropriate pricing of services to cover the full cost of service provision.	☐ Don't Know ☐ There is **no** cost recovery tariff analysis conducted ☒ The **minimum** level of cost recovery tariff analysis is conducted. ☐ There is **some** cost recovery tariff analysis conducted, but the analysis is **irregular.** ☐ There is **extensive** cost recovery tariff analysis conducted **regularly.** ☐ There is **exhaustive** cost recovery tariff analysis conducted **regularly** including for short-, medium-, and long-term investment needs.
FI2	**Financial Forecasting**	
FI2.1	Does the Utility conduct financial forecasting for short-, medium-, and long- term funding needs? Definitions: "Financial forecasting" refers to the formal process of estimating or predicting the funding requirements for the activities conducted by the Utility.	☐ Don't Know ☐ **No** financial forecasting is conducted. ☐ Financial forecasting is conducted for **short-term** needs (< 1 year) ☐ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** needs (1-2 years), but the analysis is **irregular.** ☐ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** (1-2 years) needs **regularly.** ☒ Financial forecasting is conducted for **short-term, medium-term,** AND **long- term** (> 2 years) needs **regularly.**
FI2.2	What are the priority areas for capital investment in the next 3 years?	☐ Cannot specify ☒ Water resource development ☒ Water treatment plants ☒ Network expansion ☒ Rehabilitation of existing facilities ☐ Others, please specify Sewerage Treatment Plant, Sewerage management, Established DMA basis distribution network system in all the service area, Establish water distribution line in the newly included area under the jurisdiction of the Dhaka City.
FI3	**Financial resources**	
FI3.1	What are the sources of finance for major investment?	☒ Grants or Government transfers to the utility? ☒ Concessional borrowing from international financial institutions (multi or bi laterals)? ☐ Government owned banks? ☐ Commercial banks or bond holders? ☒ Internal resources such as profit earned from revenue ☐ None or almost none

FI3.3	If you have any subsidy system from local and/or central governments, please specify the type and objectives of the subsidy	☒ Yes ☐ Compensation for deficit in operation ☐ Pro-poor water provision ☐ Construction of facilities ☐ Others, please specify: Need to avoid the indirect subsidy by adjusting the tariff
FI3.2	Is your utility allowed to borrow from commercial banks or finance through bond issuance for investment in capital project (construction/rehabilitation) without seeking approval from other entities such as regulators/ governments?	☐ Yes ☒ No
FI4	**Accounting**	
FI4.1	What kind of accounting system do your utility apply; corporate, public enterprise accounting or any other?	Corporate
FI4.2	Do you have separate accounting for services other than water, if your utility provides other services?	No

3.5 Human Resources Management and Development

HR1	**Human Resources Management**	
	If the management of your utility undertakes the followings, please select what applied to your organization.	☐ Has an annual appraisal and target setting system for managers ☒ Has an annual appraisal and target setting system for all staff ☒ Has a reward and recognition program for all staff ☒ Has the ability to recruit and dismiss staff (within an agreed plan) ☒ Has a skills and training strategy or plan for all staff
HR2	**Human Resources Development**	
	What are the main training curricula currently in place? Please provide examples such as leakage survey techniques, financial management, etc.	1. SDG 2. Leadership 3. Innovation 4. Project management 5. Negotiation and conflict management 6. Office Management 7. ICT in office Management 8. E-Gp, E-nothi etc. 9. Preparation of DPP/TPP/Concept Paper 10. Internal Audit 11. Income Tax 12. Vat Tax 13. Citizen charter 14. Public Procurement Rules 15. DWASA Service Rules, WASA Act 16. O &M of DMA 17. DMA Management

		18. NRW Management 19. Benchmark 20. KPI 21. GIS System 22. Excel, Power point 23. AutoCAD, water gems etc. 24. Financial Management 25. English Learning

4. Laws, Regulations and Governance

4.1	Please list all **laws and regulations related to water supply** and, if possible, provide the documents or URL (web page). The laws and regulation to be listed should cover topics such as roles of water utilities and related authorities, water service provider's license system, water tariff setting, water quality standards, facility design standards, water asset ownership and management etc.
	List:

Sl no.	Description	URL/Link
1	WASA Act	https://dwasa.portal.gov.bd/sites/default/files/files/dwasa.portal.gov.bd/page/fd5dffa2_8363_41ae_838f_1d439c712544/2021-01-19-15-44-fe59acbdfe01056cfd3f89bd4ceca087.pdf
2	Water connection Rules	https://dwasa.org.bd/site/page/3c0b32c2-984e-4970-a2b0-4fe8e36df9d9/-
3	Service Rule	https://dwasa.portal.gov.bd/sites/default/files/files/dwasa.portal.gov.bd/page/0e5d0a49_f4ec_4ff9_a664_a691ca20f10f/2021-01-19-15-57-a0a3034ed6eeafc80fd04b97e8077283.pdf
4	Finance Rule	https://dwasa.portal.gov.bd/sites/default/files/files/dwasa.portal.gov.bd/page/b93b9b91_5dd5_4ac7_aaf9_091695a5c3b2/2021-01-19-15-59-0c504a1242bb16bac09e4638e1b1937e.pdf
5	Others Document Related to WASA	https://dwasa.org.bd/site/page/0a28a6c5-ca07-4574-98f2-3d7ec15d4098/-

4.2	If there are any **challenges in the laws and regulations** which affect your utility's performance or hinder your utility to improve performance, please explain.
	No
4.3	What law or regulation is your utility regulated by?
	WASA Act
4.4	Is water tariff setting regulated by law?
	WASA Act

4.5	Is your utility operation influenced by politics? If yes, how??
	☐ Yes ☒ No If Yes, please describe:
4.6	Is the relationship with the competent authorities specified by law? What relationship is?
	Response: Dhaka WASA (Water Supply and Sewerage Authority) is a fully commercial-run autonomous body. It operates under the governance of a board and is monitored and reports to the Local Government Division under the Ministry of Local Government, Rural Development and Cooperatives (LGRD&C).

5. Assistance of Development Partners (DPs)

5.1	Please provide a list of on-going assistants from DPs below. Or please provide us with the documents including DPs assistance.
	Response: Infrastructure projects: a. Dhaka Water Supply Network Improvement Project b. Saidabad Water Treatment Plant Project (phase- III) c. Dhaka Environmentally Sustainable Water Supply Project d. Dhaka Sanitation Improvement Project e. Restoration of water bodies for sustainable water management in Dhaka Watershed d. Expended Dhaka Water Supply Resilience Project (EDWSRP) Capacity development project /training: a.DWASA International Training and Research Center b. Restoration od waterbodies for sustainable water management in Dhaka watershed
5.2	What kind of assistance do you wish to receive from DPs in terms of technical assistance, infrastructure development, and financial assistance?
	Dhaka WASA requires comprehensive support from Development Partners (DPs) in technical assistance, infrastructure development, and financial assistance to enhance water supply and sewerage services. **Technical assistance** is needed for capacity building, engineering expertise, and the adoption of advanced technologies. **Infrastructure development** support is crucial for expanding water treatment plants, sewerage systems, and upgrading aging infrastructure to meet growing demand. **Financial assistance**, including grants and concessional loans, is necessary to fund large-scale projects, improve resource management, and implement sustainable solutions. These forms of support will help Dhaka WASA ensure reliable, efficient, and sustainable water and sanitation services for the city's population. (1) Infrastructure projects: A. Construction of Sewage Collection Network System under Dasherkandi STP Catchment of Dhaka City.

	B. Dhaka International Training & Research Center C. Construction of STP and Sewage Collection Network in Uttara Catchment. D. Construction of STP and Sewage Collection Network in Rayerbazar Catchment. E. Construction of STP and Sewage Collection Network in Mirpur Catchment. F. Gandharbpur Water Treatment Plant Project (Phase-II) G. Padma Water Treatment Plant Project (Phase-II) H. Compact STP and Collection Networks for Pagla Catchment Project (Phase II) I. Well Field Construction Project at Singair Upazilla (part-2) (2) Capacity development project /training: a.DWASA International Training and Research Center
5.3	DP assistance in the last fiscal year (BDT)
	Loan: **15,224,378,853.00 BDT** Grant: 90,00,00,000 BDT

6. Documents requested

We would appreciate it if you could provide us with the following available documents. If URLs (web pages) are available, please simply share the links.

Note: JICA has already obtained the documents marked ☒, so there is no need for you to send them.

No.	Documents	URL	JICA collected
1.	The latest 3 years of audited financial statements (Income Statement (Profit and Loss Statement), Balance Sheet and Cash Flow Statement)	https://dwasa.portal.gov.bd/sites/default/files/files/dwasa.portal.gov.bd/page/b5e42944_f9c0_430e_add7_b0888ba9e0d2/2024-06-06-00-20-65e02f070e8741342e1cd3b006300d1b.pdf	☐
2.	National policy documents including water supply sector	WASA Act: https://dwasa.portal.gov.bd/sites/default/files/files/dwasa.portal.gov.bd/page/fd5dffa2_8363_41ae_838f_1d439c712544/2021-01-19-15-44-fe59acbdfe01056cfd3f89bd4ceca087.pdf	☐
3.	Laws and regulations related to water supply (4.1 above)	Provided in 4.1 above	☐
4.	Regulations to set water tariff rate	WASA Act: https://dwasa.portal.gov.bd/sites/default/files/files/dwasa.portal.gov.bd/page/fd5dffa2_8363_41ae_838f_1d439c712544/2021-01-19-15-44-fe59acbdfe01056cfd3f89bd4ceca087.pdf	☐
5.	Water tariff rate with structure	1. Annual Report 2022-23- Page -19 https://dwasa.portal.gov.bd/sites/default/fil	☐

		es/files/dwasa.portal.gov.bd/page/b5e4294 4_f9c0_430e_add7_b0888ba9e0d2/2024-06-06-00-20-	
6.	Mid and long-term water supply development plan if any	https://dwasa.portal.gov.bd/sites/default/files/files/dwasa.portal.gov.bd/page/c0a3b947_9ad9_429a_8a3f_e320e33fea06/2021-01-17-16-51-f23ad05cc0f676fe25cca345e2def230.pdf	☐
7.	The latest business plan of utility		☐
8.	The latest 3 years annual report of utility	1. https://dwasa.portal.gov.bd/sites/default/files/files/dwasa.portal.gov.bd/page/b5e4294 4_f9c0_430e_add7_b0888ba9e0d2/2024-06-06-00-20-65e02f070e8741342e1cd3b006300d1b.pdf 2. https://dwasa.portal.gov.bd/sites/default/files/files/dwasa.portal.gov.bd/page/b5e4294 4_f9c0_430e_add7_b0888ba9e0d2/2023-06-25-10-03-4042600531df75ec4033601b23e7f4ec.pdf 3. https://dwasa.portal.gov.bd/sites/default/files/files/dwasa.portal.gov.bd/page/b5e4294 4_f9c0_430e_add7_b0888ba9e0d2/2022-08-11-09-09-60b874cbb0a32c32b0a65d7f60894703.pdf	☐
9.	Organization chart	Organogram : https://dwasa.org.bd/sites/default/files/files/dwasa.portal.gov.bd/download/7808ed06_715f_4efa_9883_aba9c1bb7cf1/2021-01-18-10-51-5df5528d90feb1a62ccdc2cec103b462.jpg	☐
10.	IWA Water balance table filled - Breakdown of Non-Revenue Water, if available	-	☐

Mohammad Badrul Alam
Deputy Project Director
Expanded Dhaka Water Supply Resilience Project (EDWSRP)
Dhaka WASA

Engr. Quamrun Naher Laily
Additional Chief Engineer (RP&D)
Dhaka WASA.

QUESTIONNAIRE

Country:	Bangladesh
Utility Name:	Rajshahi Water Supply & Sewerage Authority (RWASA)
Service area:	Rajshahi Municipal Area
Latest fiscal year of the data and information provided:	2023-2024

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NOTE:

1. **Please click ☐ to change it turn to ☒ in the questionnaire if applicable.**
2. **We would appreciate it if you could first send the following.**
   a. **Audited/ unaudited financial statements (Income Statement (Profit and Loss Statement), Balance Sheet and Cash Flow Statement) for 2021, 2022, 2023 and financial account up to September 2024 or latest available**
   b. **Annual reports for 2021, 2022 and 2023**

1. Utility Characteristics

1.1 Basic Information

INDICATOR	CATEGORIES
1. What is the structure of the Utility? (Select one)	☒ Inside of local or national government water department (i.e. finances for water/wastewater function are not reported separately from other government activities) ☐ Local or National Government Water Department – Ring fenced; (i.e., finances for water/wastewater function are reported separately from other government activities) ☒ Statutory body ☐ Local or National Government wholly owned service provider operating under commercial law ☐ Jointly (Government and Private) owned provider operating under commercial law ☐ Privately owned provider operating under commercial law ☐ Not for profit provider operating under commercial law ☐ Other (Please describe: _____)
2. What is the mode of the ownership of the water supply infrastructure?	☐ Own all assets ☐ Own only part of the assets (Please specify the owned assets: _____ _____) ☐ Not own and only responsible for operations ☐ Leased ☐ Concessioned ☐ Other (Please specify: _____) ☒ Other (Please specify: Ministry of Local Government, Rural Development, and Cooperatives in Bangladesh. If you own only part of the assets, who is the owner of the remaining assets? ☐ Local government ☐ National government ☐ Private company ☐ Other (Please specify: _____)
3. Who has general oversight of the utility's services and tariff?	☒ Local, regional or national government department ☐ Independent board of stakeholders ☐ Independent service & price regulator ☐ Other (Describe: _____)
4. Services provided other than water	☐ Wastewater ☐ Electricity ☒ Other. Describe: Water Supply
5. Nature of service area	☒ Only urban ☐ Urban and peri-urban mixed

	☐ Urban and rural mixed

1.2 Basic Indicators

Indicator	Unit	Water services
1. Total population in service area (under utility's nominal responsibility)	persons	0.644 Million
2. Population served by water supply services	persons	0.564 Million
3. Number of connections of water supply services	connections	51,124
4. Number of Public tap stand	Nos.	853
5. Number of towns/cities served with water services	Nos.	1
6. Production Capacity	m3/day	39069600
7. Volume of water produced	m3/year	107040
8. Volume of water sold or billed*1	m3/year	27553850
9. Kind of water sources	m3/year	Ground water 35780950 Surface water 3285000 Purchase from bulk supplier 0
10. Total length of transmission and distribution network	km	859.53

*1: "Total water volume billed" refers to the volume of water billed irrespective of whether the bill is paid or not. Any unmetered volume must be estimated from other information.

2. Performance Data

2.1 Performance Indicators (PIs) and Data

Please provide available values of PIs in the last 3 year with fiscal year of data.

Note: JICA has complied the values of some PIs below from your annual reports. Please review them and make any necessary correction.

No.	INDICATOR	UNIT	Value		
			Year1 (2021-22)	Year2 (2022-23)	Year3 (2023-24)
A.	**Service Coverage**				
A1	(Population served by water supply services) /(total population under utility's nominal responsibility)	%	83.60%	86.83%	87.58%
B.	**Drinking Water Quality**				
B.1	How many **water samples** in a year were taken in 2023? This refers to the number of samples of drinking water that were taken from the system based on the local standard. Please include all unique test types (e.g., chemical, biological, etc.) in this figure.	Nos.	500	571	580
B.2	How many water samples **met all required guidelines/standards**?	Nos.	398	487	467

No.	INDICATOR	UNIT	Value		
			Year1 (2021-22)	Year2 (2022-23)	Year3 (2023-24)
	This refers to the number of samples of drinking water taken from the system that have been tested AND comply with the local standard.				
B.3	Compliance rate of water quality (B.2/B.1)	%	79.60%	85.29%	80.52%
C.	**Quality of Service**				
C.1	Average continuity of service hours per day for water supply on average	Hrs/day	12	12	12
C.2	Water supply pressure (The approximate percentage of the customers in low water pressure area)	bar	1.7 bar	1.8 bar	2 bar
D.	**Customer satisfaction**				
D.1	Does your utility carry out customer satisfaction survey? What is the rating by customers of your service?	-	N/A	N/A	N/A
E.	**Non-Revenue Water (NRW)**				
E.1	Non-Revenue Water Ratio (Difference between water supplied and water sold or billed expressed as a percentage of net water supplied.)	%	26.73%	29.47%	29.47%
E.2	Pipe breaks Total number of pipes breaks per year	Breaks/ year	740	700	810
F.	**Meters**				
F.1	Metering ratio (Total number of connections with operating meter)/ (total number of connections)	%	N/A	N/A	N/A
G.	**Operating Costs & Staff**				
G.1	Total annual operating cost for water service [1] Note 1: Annual operating cost excludes depreciation, amortization, interest	Currency /year	278357300.00 Taka/year	246985080.00 Taka/year	235088645.20 Taka/year (This is provitional data. Actual Data will be provided after the audit report)
G.2	Annual operating cost other than water service (i.e. wastewater service, electricity, etc.) if any	Currency /year	203597077.00 Taka/year	160553786.00 Taka/year	138247704.20 Taka/year (This is provitional data. Actual Data will be provided after the audit report)
G.3	Labor and staff costs vs Operating costs (Labor and staff costs)/(Operating costs)	%	35.27	39.03	43.46 (This is provitional data. Actual Data will be provided after the audit report)
G.4	Electrical energy costs vs Operating costs (Electrical energy costs)/(Operating costs)	%	26.86	34.99	41.19 (This is provitional data. Actual Data will be provided after the audit report)

No.	INDICATOR	UNIT	Value		
			Year1 (2021-22)	Year2 (2022-23)	Year3 (2023-24)
G.5	Number of staff What was the total number of full-time staff?	Nos.	284	277	280
G.6	Staff number per 1,000 connections	Persons/ 1000 connections	5.91	5.65	5.49
H.	**Billings & Collections**				
H.1	Total annual revenue (excluding subsidy)	Currency /year	88381713.00 Taka/year	203184186.00 Taka/year	183200000.00 Taka/year
H.2	Total annual revenue of water service from customers, if you have other services (i.e. wastewater service, electricity, etc.)	Currency /year	88381713.00 Taka/year	203184186.00 Taka/year	183200000.00 Taka/year
H.3	Other annual revenue of other services (excluding subsidy), if you have other services	Currency /year	23969134.00 Taka/year	30485493.00 Taka/year	11900000.00 Taka/year
H.4	Subsidy for water service	Currency /year	0	0	0
H.5	Connection charge -– water service	Currency /connection	4704875	10044548	4745655
H.6	Collection ratio Collected revenue / Billed revenue as a %	%	43%	62%	67%
I.	**Financial Performance**				
I.1	Operating cost coverage Total annual revenue from water service*1 /Total annual operating costs of water service*2 *1 Same as H.2 *2 Same as G.1	Ratio (%)	31.75%	82.26%	77.92%
I.2	What is the target of the operating cost coverage in the target year, if any?	Ratio and target year	98.67 (Target year 2022)	97.01 (Target year 2023)	88.50 (Target year 2024)
I.3	Net profit*1 from water service*2 *1: Profit after tax *2 If it is possible to separate the net profit for water services from other services such as wastewater service and electricity, please specify. If not, please write the net profit of your utility as a whole	Currency	6118892.00 Taka	87156775.00 Taka	This data can't be given at this moment. Data will be provided after final audit report.
I.4	Return on asset (Profit after tax/total asset)	%	0.36%	2.08	This data can't be given at this moment. Data will be provided after final audit report.
I.5	Profit margin (Profit before tax/total income)	%	6.92%	42.89%	This data can't be given at this moment. Data will be provided after final audit report.

No.	INDICATOR	UNIT	Value		
			Year1 (2021-22)	Year2 (2022-23)	Year3 (2023-24)
I.6	Equity ratio (Total equity/ Total assets)	%	97.91%	98.01%	This data can't be given at this moment. Data will be provided after final audit report.
I.7	Fixed asset to fixed liability ratio	%	7.78%	1.08%	This data can't be given at this moment. Data will be provided after final audit report.

2.2 Questions to performance

Please answer the following question by indicator with Yes or No and specify the reasons or factors if you answer "No".

No: The percentages, values and states in the question are assumed as a good practice.

No.	Question by indicator	Yes or No	If No, please specify reasons/factors.
A.	**Service Coverage**		
	Is the coverage of water service higher than **80%**?	Yes	
B.	**Drinking Water Quality**		
	Is the compliance rate of water quality with the standards higher than **80%**?	Yes	
C.	**Quality of Service**		
C.1	Is the water supply continuous (**24hour/day**)?	No	12hour/day
C.2	In general, is the water supply pressure adequate?	Yes	
C.3	Is customer satisfaction moderate or high?	Yes	
E.	**Non Revenue Water (NRW)**		
	Is the NRW ratio lower than **25%**?	No	29.47%
F.	**Meters**		
	Is the metering ratio higher than **90%**?	N/A	N/A
G.	**Staff Performance**		
	Is the staff capacity sufficient to meet the organization's requirements in terms of both number and quality? If not, please specify the areas where additional capacity is needed.	No	1. Rajshahi WASA needs to recruit manpower for direct employable vacant positions in 10 categories. 2. Rajshahi WASA needs to recruit a total of 10 (ten) posts in 2 (two) categories (Revenue Supervisor, Office Assistant cum Computer Typist).
H.	**Billings & Collections**		
H.1	Is collection ratio higher than **90%**?	No	85%
H.2	Is water tariff revised periodically or according to inflation?	Yes	

No.	Question by indicator	Yes or No	If No, please specify reasons/factors.
H.3	Is connection charge adequate, which does not hinder to increase connection?	Yes	
I.	**Financial Performance**		
I.1	Are operating costs of water service fully covered by revenue from water service?	No	Not fully covered because of the following factors: 1. Large Operation and maintenance cost. (Example: Repairing of pipe leakage, Repairing of motor, Expense of Electricity Bill, Fuel Bill.) 2. Current water tariff rate.
I.2	Are the current water tariff rates adequate for cost recovery?	No	Current water tariff rate is not adequate for cost recovery because of large Operation and maintenance cost. (Example: Repairing of pipe leakage, Repairing of motor, Expense of Electricity Bill, Fuel Bill.)
I.3	Is the operating cost coverage of water service higher than **130%**?	No	1. Ratio of (Non-Revenue water) is 29.47% which is higher than standard rate. 2. The metering system is currently unavailable under RWASA.

3. Management Practices

3.1 Organization and Strategy

OS1	**Performance Tracking**	
OS1.1	How many key performance indicators (KPIs) were monitored at your utility? Please select one answer. Examples of KPI: - Revenue collection rate (%) - Operation cost coverage (%)	☐ 0 key performance indicators ☐ 1-2 key performance indicators ☐ 3-9 key performance indicators ☒ 10-15 key performance indicators ☐ 16 or more key performance indicators
OS1.2	Please list KPIs, the targets and the latest realized KPIs.	1. Water Service Coverage 2. Water Consumption 3. Water Production 4. Network Performance 5. Billings and Collections 6. Operating Costs and Staff 7. Non-Revenue water 8. Metering Level 9. Financial Performance 10. Assets 11. Electricity Consumption
OS1.3	How much percentage of KPIs meets the target set?	14.30 %
OS1.4	How are KPIs set, monitored and evaluated?	☒ In accordance with utility's rules ☒ In accordance with government regulation ☐ Based on performance contract with central or local government ☐ Regulated by independent regulator ☐ Other (Please specify; _____ _____)
OS1.5	Does your organization have the annual	☒ Yes

	evaluation and feedback cycle of Plan, Do, Check and Action (PDCA).	☐ No
OS1.6	If Yes in OS1.5. Is PDCA cycle well functioned? If not, please specify the reasons.	☒ Yes ☐ No If No, (specify the reasons: _____

3.2 Commercial

CO1	**Customer complaint management**	
CO1.1	Please explain the complaint redressal process, and the ratio of solved complaints.	Development of complain management: 1.Complain management by One stop service , 2. Complain management through written application 3. Complain management through email (rajshahiwasa@gmail.com and Website of RWASA (rajshahiwasa.portal.gov.bd) 4. Grievance Redress Service (GRS) 5. Complain management through 24/7 mobile phone -01872679100) etc.
CO1.2	Please list the five main complaints from the largest to smallest.	1. Pipe leakage 2. Pipe Break 3. Dirty water due to hardness and excessive iron. 4. Shortage of water in household. 5. Illegal Connections.
CO1.3	Do you record response time? If Yes, please answer average response time.	Yes.
CO2	**Collection method**	
CO2.1	Please explain the process of meter reading to bill issuance.	Not Applicable
CO2.2	Please list the payment methods of water charge.	Bank Payment (OTC),Mobile Banking Method: Bkash, Rocket, Ekpay.
CO2.3	Please explain meter management method.	☐ Meters are regularly inspected for performance and accuracy, and calibrated or replaced if necessary. ☐ Replace water meter at regular intervals as meters deteriorate over time and their measurement accuracy decreases ☐ Others (Specify:) ☒ Not Applicable
CO2.4	Please explain disconnection process.	To have the water connection from Rajshahi WASA disconnected, the outstanding water bill must be paid first. A disconnection application should be submitted manually on a white piece of paper, clearly stating the reasons for the request. The responsible officer will then conduct an on-site investigation and prepare a report. After the report is completed, a letter will be sent to the customer with the authority's approval, provided that the disconnection fee has to be paid.

CO2.5	What do you plan to improve the collection rate?	1. Ensure timely dispatch of water bills to customers. 2. Send notices for outstanding water bills. 3. If the customer does not respond to the notice, a reminder notice will be issued. 4. Conduct campaigns for the payment of arrears through mosques, public announcements, and local newspapers.

3.3 Operations

OP1	**Water Asset Maintenance**	
OP1.1	Which best describes the maintenance practices of essential **water assets**? Please select one answer.	☐ Water assets are **not maintained** ☒ Water asset maintenance is **primarily reactive**. The Utility replaces or repairs when things break or fall into disrepair. ☐ Water asset maintenance is **partially periodic, partially reactive**. ☐ Water asset maintenance is **primarily preventive.** ☐ Water asset maintenance is **preventive** AND is **informed** by risk assessments and equipment monitoring.
OP1.2	Do you have an updated inventory (ledger) of facilities for facility O&M?	☒ Yes ☐ No
OP1.3	Do you have a fixed asset ledger for financial management?	☒ Yes ☐ No
OP2	**O & M**	
OP2.1	Is there a O&M plan for which the budget is secured?	☒ Yes ☐ No
OP2.2	Are there any problems regarding the O&M of water supply facilities? If yes, what are the problems and why?	☒ Yes ☐ No If Yes, Describe: (1) Lack of human resources: the utility cannot afford to hire personnel due to lack of financial resources. (2) Lack of sufficient finance for maintenance.
OP3	**Non-Revenue Water (NRW)**	
OP3.1	What kinds of measures are implemented to reduce non-revenue water?	☐ None ☒ Active leak detection programs ☐ Pressure management ☐ District metered areas (DMAs) ☒ Aged pipeline replacement and rehabilitation ☐ Installation of accurate meters ☐ Regular meter testing and calibration ☐ Metering of all users ☒ Tackling illegal connections ☐ NRW audits to quantify the volume and identify causes of NRW ☒ Distribution monitoring systems with SCADA ☐ Improve record-keeping and GIS mapping ☐ Staff training for NRW management

		☐ Other (Describe: _____)
OP3.2	What are the major causes of NRW. Note: Can select plural answers.	☐ Do not know ☒ Leakage due to high distribution pressure ☒ Leakage due to aged pipeline ☐ Inaccurate meters ☒ Without meters ☒ Illegal connections ☐ Other (Describe: _____)
OP3.3	Do you have any section responsible for NRW management?	☒ Yes ☐ No
OP3.4	Is there an action plan for reducing NRW and is it being implemented?	☒ Yes ☐ No
OP4	**Use of DX (Digital technology) and IT**	
OP4.1	Do you have any strategy of introduction of Digital Transformation to your utility?	☒ Yes ☐ No
OP4.2	Do you use any digital technology in your operation and services (e.g., SCADA, GIS, user-friendly payment methods, advanced customer database, smart meter)? If yes, please specify.	☒ Yes. (if yes, please explain: RWASA has taken an initiative of pump automation activities of all the pumps. Pump automation allows the pump to be started and stopped online. Moreover, electricity is being saved by controlling and monitoring voltage-current, frequency, water layer, etc. Zone-based monitoring teams have been formed for electricity saving. Monitoring teams submit reports every month and monitor electricity meters on-site. They monitor electrical faults in the pump and take action.) ☐ No

3.4 Financial

FI1	**Tariff Analysis**	
FI1.1	Does your Utility conduct full-cost recovery tariff analysis that includes operating expenditures, depreciations, interests and profits? Please select one answer. Definitions: "Full Cost Recovery" refers to the generation of revenue through appropriate pricing of services to cover the full cost of service provision.	☐ Don't Know ☐ There is **no** cost recovery tariff analysis conducted ☒ The **minimum** level of cost recovery tariff analysis is conducted. ☐ There is **some** cost recovery tariff analysis conducted, but the analysis is **irregular.** ☐ There is **extensive** cost recovery tariff analysis conducted **regularly.** ☐ There is **exhaustive** cost recovery tariff analysis conducted **regularly** including for short-, medium-, and long-term investment needs.
FI2	**Financial Forecasting**	
FI2.1	Does the Utility conduct financial forecasting for short-, medium-, and long- term funding needs? Definitions: "Financial forecasting" refers to the formal process of estimating	☐ Don't Know ☒ **No** financial forecasting is conducted. ☐ Financial forecasting is conducted for **short-term** needs (< 1 year) ☐ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** needs (1-2 years), but the analysis is

	or predicting the funding requirements for the activities conducted by the Utility.	**irregular.** ☐ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** (1-2 years) needs **regularly.** ☐ Financial forecasting is conducted for **short-term, medium-term,** AND **long- term** (> 2 years) needs **regularly.**
FI2.2	What are the priority areas for capital investment in the next 3 years?	☐ Cannot specify ☐ Water resource development ☒ Water treatment plants ☒ Network expansion ☒ Rehabilitation of existing facilities ☐ Others, please specify ___
FI3	**Financial resources**	
FI3.1	What are the sources of finance for major investment?	☐ Grants or Government transfers to the utility? ☐ Concessional borrowing from international financial institutions (multi or bi laterals)? ☒ Government owned banks? ☒ Commercial banks or bond holders? ☐ Internal resources such as profit earned from revenue ☐ None or almost none
FI3.3	If you have any subsidy system from local and/or central governments, please specify the type and objectives of the subsidy	☒ Yes ☒ Compensation for deficit in operation ☐ Pro-poor water provision ☐ Construction of facilities ☐ Others, please specify: _____ ☐ No
FI3.2	Is your utility allowed to borrow from commercial banks or finance through bond issuance for investment in capital project (construction/rehabilitation) without seeking approval from other entities such as regulators/ governments?	☐ Yes ☒ No
FI4	**Accounting**	
FI4.1	What kind of accounting system do your utility apply; corporate, public enterprise accounting or any other?	Public enterprise accounting system
FI4.2	Do you have separate accounting for services other than water, if your utility provides other services?	No

3.5 Human Resources Management and Development

HR1	**Human Resources Management**	
	If the management of your utility undertakes the followings, please select what applied to your organization.	☐ Has an annual appraisal and target setting system for managers ☐ Has an annual appraisal and target setting system for all staff ☐ Has a reward and recognition program for all staff

		☐ Has the ability to recruit and dismiss staff (within an agreed plan) ☒ Has a skills and training strategy or plan for all staff
HR2	**Human Resources Development**	
	What are the main training curricula currently in place? Please provide examples such as leakage survey techniques, financial management, etc.	1. Training of GIS, Water Supply Network Modeling, ESIA and Financial Rules; 2. Training of e-PMIS, e-GP 3. Training of D-nothi, GRS, NIS 4. Training of e-Governance 5. Training of SDG tracker Software

4. Laws, Regulations and Governance

4.1	Please list all **laws and regulations related to water supply** and, if possible, provide the documents or URL (web page). The laws and regulation to be listed should cover topics such as roles of water utilities and related authorities, water service provider's license system, water tariff setting, water quality standards, facility design standards, water asset ownership and management etc.
	Water Supply and Sewerage Authority Act, 1996. URL of webpage: https://rajshahiwasa.portal.gov.bd/site/gazette/9ca5494a-2a73-4c65-aee9-135559263554/-
4.2	If there are any **challenges in the laws and regulations** which affect your utility's performance or hinder your utility to improve performance, please explain.
	Response: 1. "**Section 24: Water supply, sewage disposal, etc. to anyone other than the authority is prohibited."** Many government offices or institutions in the Rajshahi metropolitan area are extracting water under their own management. Letters have been sent to all these institutions but no response has been received. 2. "**Section 25: Rebates and Taxes"** Although there is the power to provide rebates and taxes, it is not clear what percentage can be provided.
4.3	What law or regulation is your utility regulated by?
	Response: Water Supply and Sewerage Authority Act, 1996.
4.4	Is water tariff setting regulated by law?
	Response: Yes.
4.5	Is your utility operation influenced by politics? If yes, how??
	☐ Yes ☒ No If Yes, please describe:
4.6	Is the relationship with the competent authorities specified by law? What relationship is?
	Response: Yes. RWASA operates under Ministry of Local Government, Rural Development and Co-operatives. The ministry provides approval for major policies, budgets, and projects. Coordination is required for setting water tariffs, operational regulations, and infrastructure development. The relationship between RWASA and competent authorities is controlling, evaluation & monitoring.

5. Assistance of Development Partners (DPs)

5.1	Please provide a list of on-going assistants from DPs below. Or please provide us with the documents including DPs assistance.
	Response: (1) Infrastructure projects: Rajshahi WASA Surface Treatment Plant. Development partner for this project: Chinese Government G to G funding. (2) Capacity development project /training: Capacity development project: (a) Ensuring customer satisfaction according to water demand up to 2035 through increasing population coverage by water supply from 71 % to 100% , average daily consumption from 65lpcd to 140 lpcd & improving water quality by producing 200 MLD potable water. (b) To make the water supply system sustainable through improvement of water resource management by 100% water supply from surface water source. (c) Technical Collaboration with Hunan Construction Engineering Group, China—RWASA has partnered with this group for technical expertise in water treatment and network expansion, which includes on-site capacity-building programs for RWASA staff.
5.2	What kind of assistance do you wish to receive from DPs in terms of technical assistance, infrastructure development, and financial assistance?
	Response: (1) Infrastructure projects: Rajshahi WASA Surface Treatment Plant. (2) Capacity development project /training: (1) **Technical Assistance:** (a) Project Design: Expert guidance on project designing with an emphasis on sustainability and cost efficiency. (b) Automation and Monitoring: Deployment of SCADA systems for real-time water quality and supply monitoring. (c) Skill Development and Knowledge Sharing: Training programs for engineers and operational staff of RWASA in advanced water treatment, pipeline management, and environmental sustainability. (2) **Infrastructure Development:** (a) Surface Water Treatment Plant: Establishing a surface water treatment plant with the capacity to process 200 MLD (millions of liter per day). Ensuring customer satisfaction according to water demand up to 2035 through increasing population coverage by water supply from 71 % to 100% . (b) Pipeline and Distribution Networks: Constructing 53 km (2 pipes each of 26.5 km) of main pipelines and 48 km of primary and secondary pipelines for a strong distribution network. (3) **Financial Assistance:** (a) Grants and Subsidies (b) Concessional Loans
5.3	DP assistance in the last fiscal year (USD)
	Loan: 28.23 Million USD Grant: No Grant from China Exim Bank

6. Documents requested

We would appreciate it if you could provide us with the following available documents. If URLs (web pages) are available, please simply share the links.

Note: JICA has already obtained the documents marked ☒, so there is no need for you to send them.

QUESTIONNAIRE

Country:	Bangladesh
Utility Name:	Khulna Water Supply & Sewerage Authority(KWASA)
Service area:	Khulna City Corporation Area, Khulna
Latest fiscal year of the data and information provided:	2023-2024

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NOTE:

1. **Please click ☐ to change it turn to ☒ in the questionnaire if applicable.**
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   a. **Audited/ unaudited financial statements (Income Statement (Profit and Loss Statement), Balance Sheet and Cash Flow Statement) for 2021, 2022, 2023 and financial account up to September 2024 or latest available**
   b. **Annual reports for 2021, 2022 and 2023**

1. Utility Characteristics

1.1 Basic Information

INDICATOR	CATEGORIES
1. What is the structure of the Utility? (Select one)	☒ Inside of local or national government water department (i.e. finances for water/wastewater function are not reported separately from other government activities) ☐ Local or National Government Water Department – Ring fenced; (i.e., finances for water/wastewater function are reported separately from other government activities) ☐ Statutory body ☐ Local or National Government wholly owned service provider operating under commercial law ☐ Jointly (Government and Private) owned provider operating under commercial law ☐ Privately owned provider operating under commercial law ☐ Not for profit provider operating under commercial law ☐ Other (Please describe: _____)
2. What is the mode of the ownership of the water supply infrastructure?	☒ Own all assets ☐ Own only part of the assets (Please specify the owned assets: _____ _____) ☐ Not own and only responsible for operations ☐ Leased ☐ Concessioned ☐ Other (Please specify: _____) ☐ Other (Please specify: _____) If you own only part of the assets, who is the owner of the remaining assets? ☐ Local government ☐ National government ☐ Private company ☐ Other (Please specify: _____)
3. Who has general oversight of the utility's services and tariff?	☒ Local, regional or national government department ☒ Independent board of stakeholders ☐ Independent service & price regulator ☐ Other (Describe: _____)
4. Services provided other than water	☐ Wastewater ☐ Electricity ☒ Other. Describe: Sewerage System _____
5. Nature of service area	☒ Only urban ☐ Urban and peri-urban mixed

	☐ Urban and rural mixed

1.2 Basic Indicators

Indicator	Unit	Water services
1. Total population in service area (under utility's nominal responsibility)	persons	About 1.5 Million
2. Population served by water supply services	persons	1.1 Million
3. Number of connections of water supply services	connections	42000
4. Number of Public tap stand	Nos.	N/A
5. Number of towns/cities served with water services	Nos.	1
6. Production Capacity	m3/day	140000
7. Volume of water produced	m3/year	19822384.4
8. Volume of water sold or billed*1	m3/year	16601987
9. Kind of water sources	m3/year	Ground water 6000000 Surface water 12522384.4 Purchase from bulk supplier N/A
10. Total length of transmission and distribution network	km	740

*1: "Total water volume billed" refers to the volume of water billed irrespective of whether the bill is paid or not. Any unmetered volume must be estimated from other information.

2. Performance Data

2.1 Performance Indicators (PIs) and Data

Please provide available values of PIs in the last 3 year with fiscal year of data.

Note: JICA has complied the values of some PIs below from your annual reports. Please review them and make any necessary correction.

No.	INDICATOR	UNIT	Value		
			Year1 (2024)	Year2 (2023)	Year3 (2022)
A.	**Service Coverage**				
A1	(Population served by water supply services) /(total population under utility's nominal responsibility)	%	78	78	78
B.	**Drinking Water Quality**				
B.1	How many **water samples** in a year were taken in 2023? This refers to the number of samples of drinking water that were taken from the system based on the local standard. Please include all unique test types (e.g., chemical, biological, etc.) in this figure.	Nos.	365	365	365

No.	INDICATOR	UNIT	Value		
			Year1 (2024)	Year2 (2023)	Year3 (2022)
B.2	How many water samples **met all required guidelines/standards**? This refers to the number of samples of drinking water taken from the system that have been tested AND comply with the local standard.	Nos.	365	365	365
B.3	Compliance rate of water quality (B.2/B.1)	%	1	1	1
C.	**Quality of Service**				
C.1	Average continuity of service hours per day for water supply on average	Hrs/day	16	16	16
C.2	Water supply pressure The approximate percentage of the customers in low water pressure area	%	5	5	5
D.	**Customer satisfaction**				
D.1	Does your utility carry out customer satisfaction survey? What is the rating by customers of your service?	-	Most of the customer	Most of the customer	Most of the customer
E.	**Non-Revenue Water (NRW)**				
E.1	Non-Revenue Water Ratio (Difference between water supplied and water sold or billed expressed as a percentage of net water supplied.)	%	About 20	About 20	About 20
E.2	Pipe breaks Total number of pipes breaks per year	Breaks/ year	About 400	500	300
F.	**Meters**				
F.1	Metering ratio (Total number of connections with operating meter)/ (total number of connections)	%	100	100	100
G.	**Operating Costs & Staff**				
G.1	Total annual operating cost for water service [1] Note 1: Annual operating cost excludes depreciation, amortization, interest	Currency/ year			
G.2	Annual operating cost other than water service (i.e. wastewater service, electricity, etc.) if any	Currency/ year			
G.3	Labor and staff costs vs Operating costs (Labor and staff costs)/(Operating costs)	%			
G.4	Electrical energy costs vs Operating costs (Electrical energy costs)/(Operating costs)	%			
G.5	Number of staff What was the total number of full-time staff?	Nos.			
G.6	Staff number per 1,000 connections	Persons/ 1000 connections			
H.	**Billings & Collections**				

No.	INDICATOR	UNIT	Value		
			Year1 (2024)	Year2 (2023)	Year3 (2022)
H.1	Total annual revenue (excluding subsidy)	Currency/ year			
H.2	Total annual revenue of water service from customers, if you have other services (i.e. wastewater service, electricity, etc.)	Currency/ year			
H.3	Other annual revenue of other services (excluding subsidy), if you have other services	Currency/ year			
H.4	Subsidy for water service	Currency/ year			
H.5	Connection charge -– water service	Currency /connecti on			
H.6	Collection ratio Collected revenue / Billed revenue as a %	%			
I.	**Financial Performance**				
I.1	Operating cost coverage Total annual revenue from water service*1 /Total annual operating costs of water service*2 *1 Same as H.2 *2 Same as G.1	Ratio (%)			
I.2	What is the target of the operating cost coverage in the target year, if any?	Ratio and target year			
I.3	Net profit*1 from water service*2 *1: Profit after tax *2 If it is possible to separate the net profit for water services from other services such as wastewater service and electricity, please specify. If not, please write the net profit of your utility as a whole	Currency			
I.4	Return on asset (Profit after tax/total asset)	%			
I.5	Profit margin (Profit before tax/total income)	%			
I.6	Equity ratio (Total equity/ Total assets)	%			
I.7	Fixed asset to fixed liability ratio	%			

2.2 Questions to performance

Please answer the following question by indicator with Yes or No and specify the reasons or factors if you answer “No”.

No: The percentages, values and states in the question are assumed as a good practice.

No.	Question by indicator	Yes or No	If No, please specify reasons/factors.
A.	**Service Coverage**		
	Is the coverage of water service higher than **80%**?	No	

No.	Question by indicator	Yes or No	If No, please specify reasons/factors.
B.	**Drinking Water Quality**		
	Is the compliance rate of water quality with the standards higher than **80%**?	YES	
C.	**Quality of Service**		
C.1	Is the water supply continuous (**24hour/day**)?	No	
C.2	In general, is the water supply pressure adequate?	Yes	
C.3	Is customer satisfaction moderate or high?	Yes	
E.	**Non Revenue Water (NRW)**		
	Is the NRW ratio lower than **25%**?	yes	
F.	**Meters**		
	Is the metering ratio higher than **90%**?	yes	
G.	**Staff Performance**		
	Is the staff capacity sufficient to meet the organization's requirements in terms of both number and quality? If not, please specify the areas where additional capacity is needed.	NO	Need more staff and capacity development
H.	**Billings & Collections**		
H.1	Is collection ratio higher than **90%**?	Yes	
H.2	Is water tariff revised periodically or according to inflation?	No	Local and political problem
H.3	Is connection charge adequate, which does not hinder to increase connection?	Yes	
I.	**Financial Performance**		
I.1	Are operating costs of water service fully covered by revenue from water service?	No	Please also mention how the deficit is covered (e.g. subsidy from general account budget).
I.2	Are the current water tariff rates adequate for cost recovery?	no	
I.3	Is the operating cost coverage of water service higher than **130%**?	yes	

3. Management Practices

3.1 Organization and Strategy

OS1	**Performance Tracking**	
OS1.1	How many key performance indicators (KPIs) were monitored at your utility? Please select one answer.	☐ 0 key performance indicators ☐ 1-2 key performance indicators ☐ 3-9 key performance indicators ☐ 10-15 key performance indicators

	Examples of KPI: - Revenue collection rate (%) - Operation cost coverage (%)	☐ 16 or more key performance indicators
OS1.2	Please list KPIs, the targets and the latest realized KPIs.	
OS1.3	How much percentage of KPIs meets the target set?	%
OS1.4	How are KPIs set, monitored and evaluated?	☐ In accordance with utility's rules ☐ In accordance with government regulation ☐ Based on performance contract with central or local government ☐ Regulated by independent regulator ☐ Other (Please specify; _____ _____)
OS1.5	Does your organization have the annual evaluation and feedback cycle of Plan, Do, Check and Action (PDCA).	☐ Yes ☐ No
OS1.6	If Yes in OS1.5. Is PDCA cycle well functioned? If not, please specify the reasons.	☐ Yes ☐ No If No, (specify the reasons: _____

3.2 Commercial

CO1	**Customer complaint management**	
CO1.1	Please explain the complaint redressal process, and the ratio of solved complaints.	Response
CO1.2	Please list the five main complaints from the largest to smallest.	
CO1.3	Do you record response time? If Yes, please answer average response time.	
CO2	**Collection method**	
CO2.1	Please explain the process of meter reading to bill issuance.	Response
CO2.2	Please list the payment methods of water charge.	Response

CO2.3	Please explain meter management method.	☐ Meters are regularly inspected for performance and accuracy, and calibrated or replaced if necessary. ☐ Replace water meter at regular intervals as meters deteriorate over time and their measurement accuracy decreases ☐ Others (Specify: _____)
CO2.4	Please explain disconnection process.	Response
CO2.5	What do you plan to improve the collection rate?	yes

3.3 Operations

OP1	**Water Asset Maintenance**	
OP1.1	Which best describes the maintenance practices of essential **water assets**? Please select one answer.	☐ Water assets are **not maintained** ☐ Water asset maintenance is **primarily reactive**. The Utility replaces or repairs when things break or fall into disrepair. ☒ Water asset maintenance is **partially periodic, partially reactive**. ☐ Water asset maintenance is **primarily preventive.** ☐ Water asset maintenance is **preventive** AND is **informed** by risk assessments and equipment monitoring.
OP1.2	Do you have an updated inventory (ledger) of facilities for facility O&M?	☐ Yes ☒ No
OP1.3	Do you have a fixed asset ledger for financial management?	☐ Yes ☒ No
OP2	**O & M**	
OP2.1	Is there a O&M plan for which the budget is secured?	☐ Yes ☒ No
OP2.2	Are there any problems regarding the O&M of water supply facilities? If yes, what are the problems and why?	☒ Yes ☐ No If Yes, Describe: Problem1: Lack of human resources. Reason: the utility cannot afford to hire personnel due to lack of financial resources. Problem2: there are differences in competence among staff. Reason: Due to the lack of standard operation manuals and staff training. Problem3: Lack of sufficient finance for maintenance.
OP3	**Non-Revenue Water (NRW)**	
OP3.1	What kinds of measures are	☐ None

	implemented to reduce non-revenue water?	☐ Active leak detection programs ☒ Pressure management ☒ District metered areas (DMAs) ☒ Aged pipeline replacement and rehabilitation ☒ Installation of accurate meters ☒ Regular meter testing and calibration ☒ Metering of all users ☒ Tackling illegal connections ☒ NRW audits to quantify the volume and identify causes of NRW ☒ Distribution monitoring systems with SCADA ☒ Improve record-keeping and GIS mapping ☒ Staff training for NRW management ☐ Other (Describe: _____)
OP3.2	What are the major causes of NRW. Note: Can select plural answers.	☐ Do not know ☐ Leakage due to high distribution pressure ☐ Leakage due to aged pipeline ☒ Inaccurate meters ☐ Without meters ☒ Illegal connections ☐ Other (Describe: Pipe Damaged by other authority)
OP3.3	Do you have any section responsible for NRW management?	☐ Yes ☒ No
OP3.4	Is there an action plan for reducing NRW and is it being implemented?	☒ Yes ☐ No
OP4	**Use of DX (Digital technology) and IT**	
OP4.1	Do you have any strategy of introduction of Digital Transformation to your utility?	☒ Yes ☐ No
OP4.2	Do you use any digital technology in your operation and services (e.g., SCADA, GIS, user-friendly payment methods, advanced customer database, smart meter)? If yes, please specify.	☒ Yes. (if yes, please explain: ☐ No

3.4 Financial

FI1	**Tariff Analysis**

FI1.1	Does your Utility conduct full-cost recovery tariff analysis that includes operating expenditures, depreciations, interests and profits? Please select one answer. Definitions: "Full Cost Recovery" refers to the generation of revenue through appropriate pricing of services to cover the full cost of service provision.	☐ Don't Know ☒ There is **no** cost recovery tariff analysis conducted ☐ The **minimum** level of cost recovery tariff analysis is conducted. ☐ There is **some** cost recovery tariff analysis conducted, but the analysis is **irregular.** ☐ There is **extensive** cost recovery tariff analysis conducted **regularly.** ☐ There is **exhaustive** cost recovery tariff analysis conducted **regularly** including for short-, medium-, and long-term investment needs.
FI2	**Financial Forecasting**	
FI2.1	Does the Utility conduct financial forecasting for short-, medium-, and long- term funding needs? Definitions: "Financial forecasting" refers to the formal process of estimating or predicting the funding requirements for the activities conducted by the Utility.	☐ Don't Know ☐ **No** financial forecasting is conducted. ☐ Financial forecasting is conducted for **short-term** needs (< 1 year) ☐ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** needs (1-2 years), but the analysis is **irregular.** ☐ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** (1-2 years) needs **regularly.** ☐ Financial forecasting is conducted for **short-term, medium-term,** AND **long- term** (> 2 years) needs **regularly.**
FI2.2	What are the priority areas for capital investment in the next 3 years?	☐ Cannot specify ☐ Water resource development ☐ Water treatment plants ☐ Network expansion ☐ Rehabilitation of existing facilities ☐ Others, please specify ___
FI3	**Financial resources**	
FI3.1	What are the sources of finance for major investment?	☐ Grants or Government transfers to the utility? ☐ Concessional borrowing from international financial institutions (multi or bi laterals)? ☐ Government owned banks? ☐ Commercial banks or bond holders? ☐ Internal resources such as profit earned from revenue ☐ None or almost none
FI3.3	If you have any subsidy system from local and/or central governments, please specify the type and objectives of the subsidy	☐ Yes ☐ Compensation for deficit in operation ☐ Pro-poor water provision ☐ Construction of facilities ☐ Others, please specify: _____ ☐ No
FI3.2	Is your utility allowed to borrow from commercial banks or finance through bond issuance for investment in capital project (construction/rehabilitation) without seeking approval from other entities such as regulators/	☐ Yes ☐ No

	governments?	
FI4	**Accounting**	
FI4.1	What kind of accounting system do your utility apply; corporate, public enterprise accounting or any other?	
FI4.2	Do you have separate accounting for services other than water, if your utility provides other services?	

3.5 Human Resources Management and Development

HR1	**Human Resources Management**	
	If the management of your utility undertakes the followings, please select what applied to your organization.	☐ Has an annual appraisal and target setting system for managers ☐ Has an annual appraisal and target setting system for all staff ☐ Has a reward and recognition program for all staff ☐ Has the ability to recruit and dismiss staff (within an agreed plan) ☐ Has a skills and training strategy or plan for all staff
HR2	**Human Resources Development**	
	What are the main training curricula currently in place? Please provide examples such as leakage survey techniques, financial management, etc.	

4. Laws, Regulations and Governance

4.1	Please list all **laws and regulations related to water supply** and, if possible, provide the documents or URL (web page). The laws and regulation to be listed should cover topics such as roles of water utilities and related authorities, water service provider's license system, water tariff setting, water quality standards, facility design standards, water asset ownership and management etc.
	List:
4.2	If there are any **challenges in the laws and regulations** which affect your utility's performance or hinder your utility to improve performance, please explain.
	Response:
4.3	What law or regulation is your utility regulated by?

	Response:
4.4	Is water tariff setting regulated by law?
	Response:
4.5	Is your utility operation influenced by politics? If yes, how??
	☐ Yes ☐ No If Yes, please describe:
4.6	Is the relationship with the competent authorities specified by law? What relationship is?
	Response:

5. Assistance of Development Partners (DPs)

5.1	Please provide a list of on-going assistants from DPs below. Or please provide us with the documents including DPs assistance.
	Response: (1) Infrastructure projects: (2) Capacity development project /training:
5.2	What kind of assistance do you wish to receive from DPs in terms of technical assistance, infrastructure development, and financial assistance?
	Response: (1) Infrastructure projects: (2) Capacity development project /training:
5.3	DP assistance in the last fiscal year (USD)
	Loan: Grant:

6. Documents requested

We would appreciate it if you could provide us with the following available documents. If URLs (web pages) are available, please simply share the links.

Note: JICA has already obtained the documents marked ☒, so there is no need for you to send them.

No.	Documents	JICA collected
1.	The latest 3 years of audited financial statements (Income Statement (Profit and Loss Statement), Balance Sheet and Cash Flow Statement)	☐
2.	National policy documents including water supply sector	☐
3.	Laws and regulations related to water supply (4.1 above)	☐
4.	Regulations to set water tariff rate	☐
5.	Water tariff rate with structure	☐
6.	Mid and long-term water supply development plan if any	☐
7.	The latest business plan of utility	☐
8.	The latest 3 years annual report of utility	☐
9.	Organization chart	☐
10.	IWA Water balance table filled - Breakdown of Non-Revenue Water, if available	☐

QUESTIONNAIRE ON PERFORMANCE AND MANAGEMENT PRACTICES

Country:	Pakistan
Utility Name:	Water and Sanitation Agency, Lahore (WASA-L)
Service area:	248.5 Sq km
Latest fiscal year of the data and information provided:	2023-24

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NOTE:

1. **Please click ☐ to change it turn to ☒ in the questionnaire if applicable.**
2. **We would appreciate it if you could first send the following.**
   a. **Audited/ unaudited financial statements (Income Statement (Profit and Loss Statement), Balance Sheet and Cash Flow Statement) for financial year ending June 2021, 2022, 2023, 2024 or latest available**
   b. **Annual reports for 2021, 2022 and 2023**

1. Utility Characteristics

1.1 Basic Information

INDICATOR	CATEGORIES
1. What is the structure of the Utility? (Select one)	☐ Inside of local or national government water department (i.e. finances for water/wastewater function are not reported separately from other government activities) ☒ Local or National Government Water Department – Ring fenced; (i.e., finances for water/wastewater function are reported separately from other government activities) ☐ Statutory body ☐ Local or National Government wholly owned service provider operating under commercial law ☐ Jointly (Government and Private) owned provider operating under commercial law ☐ Privately owned provider operating under commercial law ☐ Not for profit provider operating under commercial law ☐ Other (Please describe: _____)
2. What is the mode of the ownership of the water supply infrastructure?	☒ Own all assets ☐ Own only part of the assets (Please specify the owned assets: _____ _____) ☐ Not own and only responsible for operations ☐ Leased ☐ Concessioned ☐ Other (Please specify: _____) ☐ Other (Please specify: _____) If you own only part of the assets, who is the owner of the remaining assets? ☐ Local government ☐ National government ☐ Private company ☐ Other (Please specify: _____)
3. Who has general oversight of the utility's services and tariff?	☒ Local, regional or national government department ☐ Independent board of stakeholders ☐ Independent service & price regulator ☐ Other (Describe: _____)
4. Services provided other than water	☒ Wastewater ☐ Electricity ☐ Other. Describe: _____
5. Nature of service area	☒ Only urban ☐ Urban and peri-urban mixed ☐ Urban and rural mixed

1.2 Basic Indicators

Indicator	Unit	Water services
1. Total population in service area (under utility's nominal responsibility)	persons	8.7 million
2. Population served by water supply services	persons	8.7 million
3. Number of connections of water supply services	connections	806,460
4. Number of Public tap stand	Nos.	-
5. Number of towns/cities served with water services	Nos.	1 No. (Lahore City)
6. Production Capacity	m3/day	360 MGD= 597356080 m3/year
7. Volume of water produced	m3/year	321MGD = 532,642,310 m3/year
8. Volume of water sold or billed*1	m3/year	NA
9. Kind of water sources	m3/year	Only Ground Water
10. Total length of transmission and distribution network	km	4400

*1: "Total water volume billed" refers to the volume of water billed irrespective of whether the bill is paid or not. Any unmetered volume must be estimated from other information.

2. Performance Data

2.1 Performance Indicators (PIs) and Data

Please provide available values of PIs in the last 3 year with fiscal year of data.

Note: JICA has complied the values of some PIs below from your annual reports. Please review them and make any necessary correction.

No.	INDICATOR	UNIT	Value		
			Year1 (2021-22)	Year2 (2022-23)	Year3 (2023-24)
A.	**Service Coverage**				
A1	(Population served by water supply services) /(total population under utility's nominal responsibility)	%	100	100	100
B.	**Drinking Water Quality**				
B.1	How many **water samples** in a year were taken in 2023? This refers to the number of samples of drinking water that were taken from the system based on the local standard. Please include all unique test types (e.g., chemical, biological, etc.) in this figure.	Nos.	9301	8175	4365
B.2	How many water samples **met all required guidelines/standards**? This refers to the number of samples of drinking water taken from the system that have been tested AND comply with the local standard.	Nos.	9280	8133	4290

No.	INDICATOR	UNIT	Value		
			Year1 (2021-22)	Year2 (2022-23)	Year3 (2023-24)
B.3	Compliance rate of water quality (B.2/B.1)	%	99.8	99.5	98.3
C.	**Quality of Service**				
C.1	Average continuity of service hours per day for water supply on average	Hrs/day	Summer : 12 Winter : 10 Avg: 11	Summer : 14 Winter : 8 Avg: 11	Summer : 14 Winter : 8 Avg: 11
C.2	Water supply pressure The approximate percentage of the customers in low water pressure area	%	1-3m 20%	1-3m 20%	1-3m 20%
D.	**Customer satisfaction**				
D.1	Does your utility carry out customer satisfaction survey? What is the rating by customers of your service?	Yes	89%	88%	90%
E.	**Non-Revenue Water (NRW)**				
E.1	Non-Revenue Water Ratio (Difference between water supplied and water sold or billed expressed as a percentage of net water supplied.)	%	21	18.8	16.9
E.2	Pipe breaks Total number of pipes breaks per year	Breaks/ year	18682	24330	26510
F.	**Meters**				
F.1	Metering ratio (Total number of connections with operating meter)/ (total number of connections)	%	3	2	1
G.	**Operating Costs & Staff**				
G.1	Total annual operating cost for water service [1] Note 1: Annual operating cost excludes depreciation, amortization, interest	Million PKR/year	7660	9230	11430
G.2	Annual operating cost other than water service (i.e. wastewater service, electricity, etc.) if any	Million PKR /year	4979	6117	7370
G.3	Labor and staff costs vs Operating costs (Labor and staff costs)/(Operating costs)	%	43.002	40.523	38.282
G.4	Electrical energy costs vs Operating costs (Electrical energy costs)/(Operating costs)	%	49.758	50.272	51.809
G.5	Number of staff What was the total number of full-time staff?	Nos.	7027	6444	6525
G.6	Staff number per 1,000 connections	Persons/ 1000 connections	4.76	4.28	4.25
H.	**Billings & Collections**				
H.1	Total annual revenue (excluding subsidy)	Currency/ year	7008.84 (Rs in Million)	8135.53 (Rs. in Million)	14514.00 (Rs in Million)

No.	INDICATOR	UNIT	Value		
			Year1 (2021-22)	Year2 (2022-23)	Year3 (2023-24)
H.2	Total annual revenue of water service from customers, if you have other services (i.e. wastewater service, electricity, etc.)	Currency/ year	4065.12 (Rs in Million)	4718.60 (Rs in Million)	8418.12 (Rs in Million)
H.3	Other annual revenue of other services (excluding subsidy), if you have other services	Currency/ year	N/A	N/A	N/A
H.4	Subsidy for water service	Currency/ year	1533.701 (Rs. in million)	1941.260 (Rs. in million)	3285.632 (Rs. in million)
H.5	Connection charge -– water service	Currency /connecti on	N/A	N/A	N/A
H.6	Collection ratio Collected revenue / Billed revenue as a %	%	81	83	91
I.	**Financial Performance**				
I.1	Operating cost coverage Total annual revenue from water service*1 /Total annual operating costs of water service*2 *1 Same as H.2 *2 Same as G.1	Ratio (%)	53	51	73
I.2	What is the target of the operating cost coverage in the target year, if any?	Ratio and target year	N/A	N/A	N/A
I.3	Net profit*1 from water service*2 *1: Profit after tax *2 If it is possible to separate the net profit for water services from other services such as wastewater service and electricity, please specify. If not, please write the net profit of your utility as a whole	Currency	(903.112)	14.139	2162.298
I.4	Return on asset (Profit after tax/total asset)	%	(1.739)	0.024	3.423
I.5	Profit margin (Profit before tax/total income)	%	(5.544)	(1.633)	6.927
I.6	Equity ratio (Total equity/ Total assets)	%	(24.772)	(22.088)	(16.917)
I.7	Fixed asset to fixed liability ratio	%	480.265	530.032	535.709

2.2 Questions to performance

Please answer the following question by indicator with Yes or No and specify the reasons or factors if you answer “No”.

No: The percentages, values and states in the question are assumed as a good practice.

No.	Question by indicator	Yes or No	If No, please specify reasons/factors.
A.	**Service Coverage**		
	Is the coverage of water service higher than **80%**?	Yes	-
B.	**Drinking Water Quality**		

No.	Question by indicator	Yes or No	If No, please specify reasons/factors.
	Is the compliance rate of water quality with the standards higher than **80%**?	Yes	-
C.	**Quality of Service**		
C.1	Is the water supply continuous (**24hour/day**)?	No	WASA Lahore is currently relying on Ground water, and continuous extraction was leading towards declination in water table. Therefore, as water conservation practice, now water is being supplied on intermittent basis.
C.2	In general, is the water supply pressure adequate?	Yes	-
C.3	Is customer satisfaction moderate or high?	High	-
E.	**Non Revenue Water (NRW)**		
	Is the NRW ratio lower than **25%**?	Yes	-
F.	**Meters**		
	Is the metering ratio higher than **90%**?	No	A project related to installation of water meters at 7 lac connections is currently in pipeline
G.	**Staff Performance**		
	Is the staff capacity sufficient to meet the organization's requirements in terms of both number and quality? If not, please specify the areas where additional capacity is needed.	Yes	-
H.	**Billings & Collections**		
H.1	Is collection ratio higher than **90%**?	Yes	-
H.2	Is water tariff revised periodically or according to inflation?	Yes	-
H.3	Is connection charge adequate, which does not hinder to increase connection?	Yes	-
I.	**Financial Performance**		
I.1	Are operating costs of water service fully covered by revenue from water service?	No	THE DEFICIT COVERED BY SUBSIDY FROM GOVT. OF PUNJAB TO MEET BUDGETERY SHORTFALL.
I.2	Are the current water tariff rates adequate for cost recovery?	No	-
I.3	Is the operating cost coverage of water service higher than **130%**?	No	-

3. Management Practices

3.1 Organization and Strategy

OS1	**Performance Tracking**	
OS1.1	How many key performance indicators (KPIs) were monitored at your utility? Please select one answer. Examples of KPI: - Revenue collection rate (%) - Operation cost coverage (%)	☐ 0 key performance indicators ☐ 1-2 key performance indicators ☐ 3-9 key performance indicators ☐ 10-15 key performance indicators ☒ 16 or more key performance indicators

OS1.2	Please list KPIs, the targets and the latest realized KPIs.	There are almost 20 indicators which are calculated regularly comprising following categories; • Coverage • Water Quality • Metering Practices • Customer Services • Human Resource • Water Conservation • Waste Water Treatment • Finance Billing & Recovery
OS1.3	How much percentage of KPIs meets the target set?	90 % (As WASA Lahore is performing as per targets in almost every area, except following; Waste Water Treatment Metering Practices)
OS1.4	How are KPIs set, monitored and evaluated?	☒ In accordance with utility's rules ☒ In accordance with government regulation ☐ Based on performance contract with central or local government ☐ Regulated by independent regulator ☐ Other (Please specify; _____ _____)
OS1.5	Does your organization have the annual evaluation and feedback cycle of Plan, Do, Check and Action (PDCA).	☒ Yes ☐ No
OS1.6	If Yes in OS1.5. Is PDCA cycle well functioned? If not, please specify the reasons.	☒ Yes ☐ No If No, (specify the reasons: _____

3.2 Commercial

CO1	**Customer complaint management**	
CO1.1	Please explain the complaint redressal process, and the ratio of solved complaints.	WASA Lahore has digitalized complaint management system, which works 24/7. Customers can submit complaint through following sources; • 1334 helpline • Whatsapp message • Sub-divisional office • Android Application Almost 99% complaints get resolved.
CO1.2	Please list the five main complaints from the largest to smallest.	1. Sewerage Blockage 2. Water Shortage 3. Water leakage 4. Manhole Cover replacement 5. Billing complaints
CO1.3	Do you record response time? If Yes, please answer average response time.	Yes Average Response Time: 20.7 hrs
CO2	**Collection method**	

CO2.1	Please explain the process of meter reading to bill issuance.	1 Meter Reading. 2 Consumption Calculation. 3 Posting of Collection and calculation of Arrears. 4 Bill Print File Creation. WASA Lahore has only 1% functional meters. So for rest of connections fixed slab rate process is followed.
CO2.2	Please list the payment methods of water charge.	Consumers can pay bills via online channels including Banks (Bank Apps), Jazz Cash, NADRA as well as over the counter.
CO2.3	Please explain meter management method.	☒ Meters are regularly inspected for performance and accuracy, and calibrated or replaced if necessary. ☐ Replace water meter at regular intervals as meters deteriorate over time and their measurement accuracy decreases ☐ Others (Specify:
CO2.4	Please explain disconnection process.	1. In case if consumer wants to disconnect his/her WASA Water/Sewerage facility , they submit an application in the concerned office of WASA. After processing of application. WASA Field Staff disconnects service and reports to the concerned officer, so that disconnection challan may be issued. After payment of challan Billing is stopped. 2. In cases where a consumer is deemed a defaulter due to non-payment of three consecutive bills or more, WASA issues a formal notice to the consumer. If payment is not received following this notice, WASA field staff disconnect water & sewer services until all outstanding dues are cleared / or consumer regularly pay the installments.
CO2.5	What do you plan to improve the collection rate?	1. WASA Lahore has already developed recovery app for Digital Monitoring of filed activates 2 . WASA Lahore also developed Dash Board which enables Management to directly monitor daily progress of staff. 3. WASA Lahore has developed an installment module for ease of consumers to pay in installment increasing the payee substantially. 4 Regular performance review meetings by Higher Management to improve efficiency.

3.3 Operations

OP1	**Water Asset Maintenance**

OP1.1	Which best describes the maintenance practices of essential **water assets**? Please select one answer.	☐ Water assets are **not maintained** ☐ Water asset maintenance is **primarily reactive**. The Utility replaces or repairs when things break or fall into disrepair. ☒ Water asset maintenance is **partially periodic, partially reactive**. ☐ Water asset maintenance is **primarily preventive.** ☐ Water asset maintenance is **preventive** AND is **informed** by risk assessments and equipment monitoring.
OP1.2	Do you have an updated inventory (ledger) of facilities for O&M?	☒ Yes ☐ No
OP1.3	Do you have a fixed asset ledger for financial management?	☒ Yes ☐ No
OP2	**O & M**	
OP2.1	Is there a O&M plan for which the budget is secured?	☒ Yes ☐ No
OP2.2	Are there any problems regarding the O&M of water supply facilities? If yes, what are the problems and why?	☐ Yes ☒ No If Yes, Describe: For example, Problem1: Lack of human resources. Reason: the utility cannot afford to hire personnel due to lack of financial resources. Problem2: there are differences in competence among staff. Reason: Due to the lack of standard operation manuals and staff training. Problem3: Lack of sufficient finance for maintenance.
OP3	**Non-Revenue Water (NRW)**	
OP3.1	What kinds of measures are implemented to reduce non-revenue water?	☐ None ☐ Active leak detection programs ☐ Pressure management ☐ District metered areas (DMAs) ☒ Aged pipeline replacement and rehabilitation ☐ Installation of accurate meters ☐ Regular meter testing and calibration ☐ Metering of all users ☒ Tackling illegal connections ☐ NRW audits to quantify the volume and identify causes of NRW ☐ Distribution monitoring systems with SCADA ☐ Improve record-keeping and GIS mapping ☐ Staff training for NRW management ☒ Other (Describe: regulating supply hours)
OP3.2	What are the major causes of NRW. Note: Can select plural answers.	☐ Do not know ☒ Leakage due to high distribution pressure ☐ Leakage due to aged pipeline ☐ Inaccurate meters ☒ Without meters

		☒ Illegal connections ☒ Other (Describe: limited pursuance for accounts receivables))
OP3.3	Do you have any section responsible for NRW management?	☐ Yes ☒ No
OP3.4	Is there an action plan for reducing NRW and is it being implemented?	☐ Yes ☒ No
OP4	**Use of DX (Digital technology) and IT**	
OP4.1	Do you have any strategy of introduction of Digital Transformation to your utility?	☒ Yes ☐ No
OP4.2	Do you use any digital technology in your operation and services (e.g., SCADA, GIS, user-friendly payment methods, advanced customer database, smart meter)? If yes, please specify.	☒ Yes. (if yes, please explain: WASA Lahore has primary focus on digitalization. Following actions have been taken so far; • SCADA installed on 573 Filtration plants • Fuel monitoring devices installed on 124 Generator • Vehicle Tracking system installed on 194 Vehicles • All installations and infrastructure has been integrated in GIS maps and • Customers can pay bill through Jazz cash or any banking app. • Customers can submit complaints through online system • Customers can apply connection through whatsapp no or through email. ☐ No

3.4 Financial

FI1	Tariff Analysis	
FI1.1	Does your Utility conduct full-cost recovery tariff analysis that includes operating expenditures, depreciations, interests and profits? Please select one answer. Definitions: "Full Cost Recovery" refers to the generation of revenue through appropriate pricing of services to cover the full cost of service provision.	☐ Don't Know ☐ There is **no** cost recovery tariff analysis conducted ☐ The **minimum** level of cost recovery tariff analysis is conducted. ☒ There is **some** cost recovery tariff analysis conducted, but the analysis is **irregular.** ☐ There is **extensive** cost recovery tariff analysis conducted **regularly.** ☐ There is **exhaustive** cost recovery tariff analysis conducted **regularly** including for short-, medium-, and long-term investment needs.
FI2	**Financial Forecasting**	
FI2.1	Does the Utility conduct financial forecasting for short-, medium-, and long- term funding needs? Definitions: "Financial forecasting" refers to the formal process of estimating or predicting the funding requirements for the activities conducted by the Utility.	☐ Don't Know ☐ **No** financial forecasting is conducted. ☐ Financial forecasting is conducted for **short-term** needs (< 1 year) ☒ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** needs (1-2 years), but the analysis is **irregular.** ☐ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** (1-2 years) needs **regularly.** ☐ Financial forecasting is conducted for **short-term, medium-term,** AND **long- term** (> 2 years) needs **regularly.**
FI2.2	What are the priority areas for capital investment in the next 3 years?	☐ Cannot specify ☒ Water resource development ☒ Water treatment plants ☐ Network expansion ☒ Rehabilitation of existing facilities ☐ Others, please specify ___
FI3	**Financial resources**	
FI3.1	What are the sources of finance for major investment?	☒ Grants or Government transfers to the utility? ☒ Concessional borrowing from international financial institutions (multi or bi laterals)? ☐ Government owned banks? ☐ Commercial banks or bond holders? ☒ Internal resources such as profit earned from revenue ☐ None or almost none
FI3.3	If you have any subsidy system from local and/or central governments, please specify the type and objectives of the subsidy	☒ Yes ☒ Compensation for deficit in operation ☐ Pro-poor water provision ☐ Construction of facilities ☒ Others, please specify: GRANT IN AID FROM GOVT. OF PUNJAB (FOR PAYMENT OF ELECTRICITY BILLS) ☐ No

FI3.2	Is your utility allowed to borrow from commercial banks or finance through bond issuance for investment in capital project (construction/rehabilitation) without seeking approval from other entities such as regulators/ governments?	☐ Yes ☒ No
FI4	**Accounting**	
FI4.1	What kind of accounting system do your utility apply; corporate, public enterprise accounting or any other?	MODIFIED CASH BASIS OF ACCOUNTING
FI4.2	Do you have separate accounting for services other than water, if your utility provides other services?	NO

3.5 Human Resources Management and Development

HR1	**Human Resources Management**	
	If the management of your utility undertakes the followings, please select what applied to your organization.	☒ Has an annual appraisal and target setting system for managers ☒ Has an annual appraisal and target setting system for all staff ☒ Has a reward and recognition program for all staff ☒ Has the ability to recruit and dismiss staff (within an agreed plan) ☒ Has a skills and training strategy or plan for all staff
HR2	**Human Resources Development**	
	What are the main training curricula currently in place? Please provide examples such as leakage survey techniques, financial management, etc.	WASA Lahore has its own training center. Training curriculum covers all training requirements of a water utility (Including technical and non-technical courses for set targeted audience including (beginners and middle management) from office and field staff. Regularly following subjects are covered; 1. O&M of Electro-mechanical equipment 2. O&M of water supply system 3. O&M of sewerage and drainage system 4. Elementary and advance public financial management

4. Laws, Regulations and Governance

4.1	Please list all **laws and regulations related to water supply** and, if possible, provide the documents or URL (web page). The laws and regulation to be listed should cover topics such as roles of water utilities and related authorities, water service provider's license system, water tariff setting, water quality standards, facility design standards, water asset ownership and management etc.
	List: • Lahore Development Authority Act 1975 • (Water and Sanitation Agency)Sewerage and drainage Amended Regulations 2017

	• WHO guidelines and National Environmental Quality Standards
4.2	If there are any **challenges in the laws and regulations** which affect your utility's performance or hinder your utility to improve performance, please explain.
	Response: NA
4.3	What law or regulation is your utility regulated by?
	Response: • Lahore Development Authority Act 1975
4.4	Is water tariff setting regulated by law?
	Response: • (Water and Sanitation Agency)Sewerage and drainage Amended Regulations 2017
4.5	Is your utility operation influenced by politics? If yes, how??
	☐ Yes ☒ No If Yes, please describe:
4.6	Is the relationship with the competent authorities specified by law? What relationship is?
	Response: -

5. Assistance of Development Partners (DPs)

5.1	Please provide a list of on-going assistantance from DPs below. Or please provide us with the documents including DPs assistance.
	Response: (1) Infrastructure projects: 1.1 Construction of surface water treatment plant -AIIB 1.2 Laying of trunk sewer from LARECH colony to Gulshan-e-Ravi Lahore-AIIB 1.3 Construction of Wastewater Treatment Plant at Babu Sabu, Lahore-AFD 1.4 Construction of Wastewater Treatment Plant at Babu Sabu, Lahore-DANIDA (2) Capacity development project /training: 1.1 Water operators partnership between Budapest Waterworks and the water utilities of Lahore and Mardan, Lahore 1.2 Capacity building project for performance improvement of the Lahore and Faisalabad Water and Sanitation
5.2	What kind of assistance do you wish to receive from DPs in terms of technical assistance, infrastructure development, and financial assistance?

	Response: (1) **Infrastructure projects**: Design & Development of DMZ & DMA in Pilot Zone in WASA Lahore **(2) Capacity development project /training:** Leakage Detection of Water Supply Network
5.3	DP assistance in the last fiscal year (USD)
	Loan: NA Grant: NA

6. Documents requested

We would appreciate it if you could provide us with the following available documents. If URLs (web pages) are available, please simply share the links.

Note: JICA has already obtained the documents marked ☒, so there is no need for you to send them.

No.	Documents	JICA collected
1.	Audited/ unaudited financial statements (Income Statement (Profit and Loss Statement), Balance Sheet and Cash Flow Statement) for financial year ending June 2021, 2022, 2023, 2024 or latest available	☒
2.	National policy documents including water supply sector	☒
3.	Laws and regulations related to water supply (4.1 above)	☒
4.	Regulations to set water tariff rate	☒
5.	Water tariff rate with structure	☒
6.	Mid and long-term water supply development plan if any	☒
7.	The latest business plan of utility	☐
8.	The latest 3 years annual report of utility	☐
9.	Organization chart	☒
10.	IWA Water balance table filled - Breakdown of Non-Revenue Water, if available	☒

QUESTIONNAIRE ON PERFORMANCE AND MANAGEMENT PRACTICES

Country:	Zambia
Utility Name:	Lusaka Water Supply & Sanitation (LWSC)
Service area:	Lusaka Luangwa Chongwe Kafue Rufunsa Shibuyunji
Latest fiscal year of the data and information provided:	2023

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NOTE:

1. **Please click ☐ to change it turn to ☒ in the questionnaire if applicable.**
2. **We would appreciate it if you could first send the following.**
   a. **Audited/ unaudited financial statements (Income Statement (Profit and Loss Statement), Balance Sheet and Cash Flow Statement) for financial year ending June 2021, 2022, and 2023**

b. Annual reports for 2021, 2022 and 2023

1. Utility Characteristics

1.1 Basic Information

INDICATOR	CATEGORIES
1. What is the structure of the Utility? (Select one)	☐ Inside of local or national government water department (i.e. finances for water/wastewater function are not reported separately from other government activities) ☐ Local or National Government Water Department – Ring fenced; (i.e., finances for water/wastewater function are reported separately from other government activities) ☐ Statutory body ☐ Local or National Government wholly owned service provider operating under commercial law ☐ Jointly (Government and Private) owned provider operating under commercial law ☒ Privately owned provider operating under commercial law ☐ Not for profit provider operating under commercial law ☐ Other (Please describe: _____)
2. What is the mode of the ownership of the water supply infrastructure?	☒ Own all assets ☐ Own only part of the assets (Please specify the owned assets: _____ _____) ☐ Not own and only responsible for operations ☐ Leased ☐ Concessioned ☐ Other (Please specify: _____) ☐ Other (Please specify: _____) If you own only part of the assets, who is the owner of the remaining assets? ☐ Local government ☐ National government ☐ Private company ☐ Other (Please specify: _____)
3. Who has general oversight of the utility's services and tariff?	☐ Local, regional or national government department ☐ Independent board of stakeholders ☒ Independent service & price regulator ☐ Other (Describe: _____)
4. Services provided other than water	☒ Wastewater ☐ Electricity ☐ Other. Describe: _____
5. Nature of service area	☐ Only urban ☐ Urban and peri-urban mixed ☒ Urban and rural mixed

1.2 Basic Indicators

Indicator	Unit	Water services
1. Total population in service area (under utility's nominal responsibility)	persons	3,003739
2. Population served by water supply services	persons	2871574
3. Number of connections of water supply services	connections	144370
4. Number of Public tap stand	Nos.	784
5. Number of towns/cities served with water services	Nos.	6
6. Production Capacity	m3/day	344,529
7. Volume of water produced	m3/year	101,857,002
8. Volume of water sold or billed*1	m3/year	46,854,220
9. Kind of water sources	m3/year	Ground water 35% Surface water 65% Purchase from bulk supplier n/a
10. Total length of transmission and distribution network	km	2722.403

*1: "Total water volume billed" refers to the volume of water billed irrespective of whether the bill is paid or not. Any unmetered volume must be estimated from other information.

2. Performance Data

2.1 Performance Indicators (PIs) and Data

Please provide available values of PIs in the last 3 year with fiscal year of data.

Note: JICA has complied the values of some PIs below from your annual reports. Please review them and make any necessary correction.

No.	INDICATOR	UNIT	Value		
			Year1 (2021)	Year2 (2022)	Year3 (2023)
A.	**Service Coverage**				
A1	(Population served by water supply services) /(total population under utility's nominal responsibility)	%	93.7	95.3	94.8
B.	**Drinking Water Quality**				
B.1	How many **water samples** in a year were taken in 2023? This refers to the number of samples of drinking water that were taken from the system based on the local standard. Please include all unique test types (e.g., chemical, biological, etc.) in this figure.	Nos.	28,382	31,814	29,008
B.2	How many water samples **met all required guidelines/standards**? This refers to the number of samples of drinking	Nos.	22,049	25,146	24,129

No.	INDICATOR	UNIT	Value		
			Year1 (2021)	Year2 (2022)	Year3 (2023)
	water taken from the system that have been tested AND comply with the local standard.				
B.3	Compliance rate of water quality (B.2/B.1)	%	78.1%	79.1%	82.2%
C.	**Quality of Service**				
C.1	Average continuity of service hours per day for water supply on average	Hrs./day	16	17.8	17.0
C.2	Water supply pressure The approximate percentage of the customers in low water pressure area	%			
D.	**Customer satisfaction**				
D.1	Does your utility carry out customer satisfaction survey? What is the rating by customers of your service?	-	-	53%	-
E.	**Non-Revenue Water (NRW)**				
E.1	Non-Revenue Water Ratio (Difference between water supplied and water sold or billed expressed as a percentage of net water supplied.)	%	47%	54%	57%
E.2	Pipe breaks Total number of pipes breaks per year	Breaks/ year	4907	870	683
F.	**Meters**				
F.1	Metering ratio (Total number of connections with operating meter)/ (total number of connections)	%	72	65	68
G.	**Operating Costs & Staff**				
G.1	Total annual operating cost for water service [1] Note 1: Annual operating cost excludes depreciation, amortization, interest	Currency/year	170,274,513.72	184,621,491.91	241,407,078.22
G.2	Annual operating cost other than water service (i.e. wastewater service, electricity, etc.) if any	Currency/year	1,754,037	2,692,954.72	2,865,231.60
G.3	Labor and staff costs vs Operating costs (Labor and staff costs)/(Operating costs)	%	43	43	39
G.4	Electrical energy costs vs Operating costs (Electrical energy costs)/(Operating costs)	%	87%	78%	77%
G.5	Number of staff What was the total number of full-time staff?	Nos.	756	812	722
G.6	Staff number per 1,000 connections	Persons/ 1000 connections	5.8	6	5
H.	**Billings & Collections**				
H.1	Total annual revenue (excluding subsidy)	Currency/year	386,332,091.91	467,235,935.14	487,235,097.73
H.2	Total annual revenue of water service from customers, if you have other services (i.e. wastewater service, electricity, etc.)	Currency/year	413,015,614.71	442,033,706.29	361,684,335.81
H.3	Other annual revenue of other services (excluding subsidy), if you have other services	Currency/year			
H.4	Subsidy for water service	Currency/year			

No.	INDICATOR	UNIT	Value		
			Year1 (2021)	Year2 (2022)	Year3 (2023)
H.5	Connection charge -– water service	Currency /connection	2800	2800	2800
H.6	Collection ratio Collected revenue / Billed revenue as a %	%	107	94.6	74.2
I.	**Financial Performance**				
I.1	Operating cost coverage Total annual revenue from water service*1 /Total annual operating costs of water service*2 *1 Same as H.2 *2 Same as G.1	Ratio (%)			
I.2	What is the target of the operating cost coverage in the target year, if any?	Ratio and target year	113%	113%	100%
I.3	Net profit*1 from water service*2 *1: Profit after tax *2 If it is possible to separate the net profit for water services from other services such as wastewater service and electricity, please specify. If not, please write the net profit of your utility as a whole	Currency (	539,415,373.00	746,311,727.00	(51,620,702)
I.4	Return on asset (Profit after tax/total asset)	%	3.0%	31%	-1.8%
I.5	Profit margin (Profit before tax/total income)	%	133%	146%	-10%
I.6	Equity ratio (Total equity/ Total assets)	%	-7.6%	24%	18%
I.7	Fixed asset to fixed liability ratio	%	101.3%	130%	128%

2.2 Questions to performance

Please answer the following question by indicator with Yes or No and specify the reasons or factors if you answer “No”.

No: The percentages, values and states in the question are assumed as a good practice.

No.	Question by indicator	Yes or No	If No, please specify reasons/factors.
A.	**Service Coverage**		
	Is the coverage of water service higher than **80%**?	Yes	
B.	**Drinking Water Quality**		
	Is the compliance rate of water quality with the standards higher than **80%**?	Yes	
C.	**Quality of Service**		
C.1	Is the water supply continuous (**24hour/day**)?	No	Production not able to meet demand
C.2	In general, is the water supply pressure adequate?	No	High demand and low relatively low production
C.3	Is customer satisfaction moderate or high?	No	
E.	**Non Revenue Water (NRW)**		
	Is the NRW ratio lower than **25%**?	No	Low metering ratio, Aged and dilapidated water network

No.	Question by indicator	Yes or No	If No, please specify reasons/factors.
F.	**Meters**		
	Is the metering ratio higher than **90%**?	No	Insufficient investment in meter installations and replacement
G.	**Staff Performance**		
	Is the staff capacity sufficient to meet the organization's requirements in terms of both number and quality? If not, please specify the areas where additional capacity is needed.	No	The number of staff is no adequate to meet the demands of the organisation. This is because of liquidity challenges; the Company has not filled all the staff as per organizational structure
H.	**Billings & Collections**		
H.1	Is collection ratio higher than **90%**?	No	The collection ratio is not more than 90% because of the slow payment from the government
H.2	Is water tariff revised periodically or according to inflation?	No	This is supposed to revised every after three years but not necessarily in response to the frequency of inflationary changes
H.3	Is connection charge adequate, which does not hinder to increase connection?	Yes	It has not been enough until may 2024 when the Regulator (NWASCO) revised the connection fee to be covered 100% by the customer. This now will not hinder connections on account charges.
I.	**Financial Performance**		
I.1	Are operating costs of water service fully covered by revenue from water service?	No	Please also mention how the deficit is covered (e.g. subsidy from general account budget). The deficit is covered by delayed payment for Energy costs particularly electricity
I.2	Are the current water tariff rates adequate for cost recovery?	No	No because they have not adjusted since 2019
I.3	Is the operating cost coverage of water service higher than **130%**?	No	It is not possible for the utility to reach 130% cost coverage by revenue because of the low tariffs

3. Management Practices

3.1 Organization and Strategy

OS1	**Performance Tracking**	
OS1.1	How many key performance indicators (KPIs) were monitored at your utility? Please select one answer. Examples of KPI: - Revenue collection rate (%) - Operation cost coverage (%)	☐ 0 key performance indicators ☐ 1-2 key performance indicators ☐ 3-9 key performance indicators ☒ 10-15 key performance indicators ☐ 16 or more key performance indicators

OS1.2	Please list KPIs, the targets and the latest realized KPIs.	▪ # of water connection made ▪ # of sewer connections made ▪ Billing (ZMW) ▪ Collections (ZMW) ▪ Water Quality(%) ▪ Effluent Quality ▪ Weighted Hours of Supply ▪ Staff Productivity(%) ▪ Operational Cost Covered by Revenue(%) ▪ Volume of Water Produced ▪ Level of Non Revenue Watetr(%) ▪ Complaint Resolution Efficiency
OS1.3	How much percentage of KPIs meets the target set?	45 %
OS1.4	How are KPIs set, monitored and evaluated?	☒ In accordance with utility's rules ☐ In accordance with government regulation ☐ Based on performance contract with central or local government ☒ Regulated by independent regulator ☐ Other (Please specify; _____ _____)
OS1.5	Does your organization have the annual evaluation and feedback cycle of Plan, Do, Check and Action (PDCA).	☒ Yes ☐ No
OS1.6	If Yes in OS1.5. Is PDCA cycle well functioned? If not, please specify the reasons.	☒ Yes ☐ No If No, (specify the reasons: _____

3.2 Commercial

CO1	Customer complaint management	
CO1.1	Please explain the complaint redressal process, and the ratio of solved complaints.	The utility has Physical presence in the communities and core centre • Customer complaints logged in the customer relationship platform • Responsible downloads from their station and resolve • The core center makes follow up on issues not resolved in accordance with service level agreements • The unresolved complaints are escalated through weekly reports • Intervention made by top management
CO1.2	Please list the five main complaints from the largest to smallest.	• Water Supply related complaints (No Water and Low pressure) • Sewer Related Complaints due to abuse of system • Billing Related Complaints (Bills too high) • Leakages • Leaking meters

CO1.3	Do you record response time? If Yes, please answer average response time.	The response time
CO2	**Collection method**	
CO2.1	Please explain the process of meter reading to bill issuance.	Response The utility has moved from using meter reading sheets to real time meter reading where: • Capture and upload into the system on site • Analysis for discrepancy • Verification for eliminate discrepancy • Approval billing • Billing and issuance of bills
CO2.2	Please list the payment methods of water charge.	The utility has now gone cashless. The payment methods in place now are through mobile money and through banks
CO2.3	Please explain meter management method.	☐ Meters are regularly inspected for performance and accuracy, and calibrated or replaced if necessary. ☒ Replace water meter at regular intervals as meters deteriorate over time and their measurement accuracy decreases ☐ Others (Specify: _____)
CO2.4	Please explain disconnection process.	Response • Analysis of debt of debt to priorities debt management efforts. • Issuance of payment demand notices • If customer has not paid, disconnection is carried out and a disconnection notice issued • Follow are made to capture illegal reconnections.
CO2.5	What do you plan to improve the collection rate?	The utility is planning to use Litigations and Credit Reference Bureau to improve collections

3.3 Operations

OP1	**Water Asset Maintenance**	
OP1.1	Which best describes the maintenance practices of essential **water assets**? Please select one answer.	☐ Water assets are **not maintained** ☐ Water asset maintenance is **primarily reactive**. The Utility replaces or repairs when things break or fall into disrepair. ☐ Water asset maintenance is **partially periodic, partially reactive**. ☐ Water asset maintenance is **primarily preventive.** ☐ Water asset maintenance is **preventive** AND is **informed** by risk assessments and equipment monitoring.
OP1.2	Do you have an updated inventory (ledger) of facilities for	☐ Yes ☐ No

	facility O&M?	
OP1.3	Do you have a fixed asset ledger for financial management?	☐ Yes ☐ No
OP2	**O & M**	
OP2.1	Is there a O&M plan for which the budget is secured?	☐ Yes ☐ No
OP2.2	Are there any problems regarding the O&M of water supply facilities? If yes, what are the problems and why?	☐ Yes ☐ No If Yes, Describe: For example, Problem1: Lack of human resources. Reason: the utility cannot afford to hire personnel due to lack of financial resources. Problem2: there are differences in competence among staff. Reason: Due to the lack of standard operation manuals and staff training. Problem3: Lack of sufficient finance for maintenance.
OP3	**Non-Revenue Water (NRW)**	
OP3.1	What kinds of measures are implemented to reduce non-revenue water?	☐ None ☒ Active leak detection programs ☐ Pressure management ☒ District metered areas (DMAs) ☐ Aged pipeline replacement and rehabilitation ☒ Installation of accurate meters ☒ Regular meter testing and calibration ☒ Metering of all users ☒ Tackling illegal connections ☒ NRW audits to quantify the volume and identify causes of NRW ☐ Distribution monitoring systems with SCADA ☐ Improve record-keeping and GIS mapping ☒ Staff training for NRW management ☐ Other (Describe: _____)
OP3.2	What are the major causes of NRW. Note: Can select plural answers.	☐ Do not know ☐ Leakage due to high distribution pressure ☒ Leakage due to aged pipeline ☒ Inaccurate meters ☒ Without meters ☒ Illegal connections ☐ Other (Describe: _____)
OP3.3	Do you have any section responsible for NRW management?	☒ Yes ☐ No
OP3.4	Is there an action plan for reducing NRW and is it being implemented?	☒ Yes ☐ No

OP4	Use of DX (Digital technology) and IT	
OP4.1	Do you have any strategy of introduction of Digital Transformation to your utility?	☒ Yes ☐ No
OP4.2	Do you use any digital technology in your operation and services (e.g., SCADA, GIS, user-friendly payment methods, advanced customer database, smart meter)? If yes, please specify.	☒ Yes. (if yes, please explain: The utility is using different payment platforms such Mobile money with all the mobile service providers, other platforms are from the banks and EDAMS. At the moment the utility is implementing integration with of systems (Enterprise Resource Planning). GIS is also being used at the utility. ☐ No

3.4 Financial

FI1	Tariff Analysis	
FI1.1	Does your Utility conduct full-cost recovery tariff analysis that includes operating expenditures, depreciations, interests and profits? Please select one answer. Definitions: "Full Cost Recovery" refers to the generation of revenue through appropriate pricing of services to cover the full cost of service provision.	☐ Don't Know ☐ There is **no** cost recovery tariff analysis conducted ☐ The **minimum** level of cost recovery tariff analysis is conducted. ☒ There is **some** cost recovery tariff analysis conducted, but the analysis is **irregular.** ☐ There is **extensive** cost recovery tariff analysis conducted **regularly.** ☐ There is **exhaustive** cost recovery tariff analysis conducted **regularly** including for short-, medium-, and long-term investment needs.
FI2	**Financial Forecasting**	
FI2.1	Does the Utility conduct financial forecasting for short-, medium-, and long- term funding needs? Definitions: "Financial forecasting" refers to the formal process of estimating or predicting the funding requirements for the activities conducted by the Utility.	☐ Don't Know ☐ **No** financial forecasting is conducted. ☐ Financial forecasting is conducted for **short-term** needs (< 1 year) ☒ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** needs (1-2 years), but the analysis is **irregular.** ☐ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** (1-2 years) needs **regularly.** ☐ Financial forecasting is conducted for **short-term, medium-term,** AND **long- term** (> 2 years) needs **regularly.**
FI2.2	What are the priority areas for capital investment in the next 3 years?	☐ Cannot specify ☒ Water resource development ☒ Water treatment plants ☒ Network expansion ☐ Rehabilitation of existing facilities ☒ Others, please specify Sewer Treatment Plants
FI3	**Financial resources**	
FI3.1	What are the sources of finance for major investment?	☒ Grants or Government transfers to the utility? ☒ Concessional borrowing from international financial institutions (multi or bi laterals)? ☐ Government owned banks?

		☐ Commercial banks or bond holders? ☐ Internal resources such as profit earned from revenue ☐ None or almost none
FI3.3	If you have any subsidy system from local and/or central governments, please specify the type and objectives of the subsidy	☐ Yes ☐ Compensation for deficit in operation ☐ Pro-poor water provision ☐ Construction of facilities ☐ Others, please specify: _____ ☒ No
FI3.2	Is your utility allowed to borrow from commercial banks or finance through bond issuance for investment in capital project (construction/rehabilitation) without seeking approval from other entities such as regulators/ governments?	☐ Yes ☒ No
FI4	**Accounting**	
FI4.1	What kind of accounting system do your utility apply; corporate, public enterprise accounting or any other?	Corporate Accounting
FI4.2	Do you have separate accounting for services other than water, if your utility provides other services?	No

3.5 Human Resources Management and Development

HR1	**Human Resources Management**	
	If the management of your utility undertakes the followings, please select what applied to your organization.	☒ Has an annual appraisal and target setting system for managers ☒ Has an annual appraisal and target setting system for all staff ☐ Has a reward and recognition program for all staff ☒ Has the ability to recruit and dismiss staff (within an agreed plan) ☐ Has a skills and training strategy or plan for all staff
HR2	**Human Resources Development**	
	What are the main training curricula currently in place? Please provide examples such as leakage survey techniques, financial management, etc.	

4. Laws, Regulations and Governance

4.1	Please list all **laws and regulations related to water supply** and, if possible, provide the documents or URL (web page). The laws and regulation to be listed should cover topics such as roles of water utilities and

	related authorities, water service provider's license system, water tariff setting, water quality standards, facility design standards, water asset ownership and management etc.
	List: • -Water Supply and Sanitation Act No. 28 of 1997 • Water Resources Management Act No. 21 of 2011 • The Water Supply and Sanitation (Licensing of Utilities and Services Providers) Regulations, Statutory Instrument No. 63 of 2000 and Statutory Instrument No. 18 of 2003 • The Water Supply and Sanitation (Transfer of Property) Order, Statutory Instrument No. 26 of 2003
4.2	If there are any **challenges in the laws and regulations** which affect your utility's performance or hinder your utility to improve performance, please explain.
	Response: Tariff adjustments are entirely dependent on guidelines developed by the regulator, the Water Supply and Sanitation Council (NWASCO) and this has hindered tariff increments for many years, thereby affecting improved performance.
4.3	What law or regulation is your utility regulated by?
	Response: Water Supply and Sanitation Act No. 28 of 1997
4.4	Is water tariff setting regulated by law?
	Response: Yes, section 4(2) (d) of the Water Supply and Sanitation Act No.28 of 1997 prescribes that NWASCO shall develop guidelines for setting of tariffs.
4.5	Is your utility operation influenced by politics? If yes, how??
	☐ Yes ☒ No If Yes, please describe:
4.6	Is the relationship with the competent authorities specified by law? What relationship is?
	Response: Yes. The Regulator-Regulatee relationship with NWASCO is specified by the Water Supply and Sanitation Act No.28 of 1997. Also, the shareholding relationship with the local authorities, is equally specified by the same law.

5. Assistance of Development Partners (DPs)

5.1	Please provide a list of on-going assistants from DPs below. Or please provide us with the documents including DPs assistance.

	Response: (1) Infrastructure projects: ▪ Lusaka Sanitation Programme (USD$300million) ▪ Consultancy services for Detailed Feasibility Study and Development of engineering Designs for Water Supply Improvement in Chongwe District ▪ Emergency Works in Selected Peri – Urban Areas of Lusaka Province ▪ Urban Renewal Project – Upgrade of Unplanned Settlements in Kanyama Project ▪ Drilling and Development of 20 Boreholes in Kanyama and George Compound ▪ Construction of 24 Commercial Boreholes in Lusaka ▪ Bulk Water Supply Main to Kabanana Township in Mandevu Constituency Lusaka Zambia Phase One (1) ▪ Water Supply Improvement to Bauleni Compound, Lusaka District – Construction of Dn200 Main Transmission Pipeline (Phase1) ▪ Lusaka City Water Improvement Project ▪ Kafue Water Supply Improvement Project Zmw2.9 Million Drought Mitigation Interventions (2) Capacity development project /training: N/A
5.2	What kind of assistance do you wish to receive from DPs in terms of technical assistance, infrastructure development, and financial assistance?
	Response: (1) Infrastructure projects: **Infrastructure projedcts include**: ▪ Enhancing Water Supply in peri urban areas of Lusaka in areas such as Kanyama, Garden House and George Compounds ▪ Bulk Water Supply into Lusaka through implementation of Kafue Bulk Phase II ▪ Enhancing Sanitation coverage in peri urban areas(On site sanitation) **(2) Capacity development project /training:** ▪ Climate adaptation and mitigation ▪ Water and Sewer modelling and design ▪ Project Management ▪ Contract Management ▪ PublicPrivate Partnership framework
5.3	DP assistance in the last fiscal year (USD)
	Loan: Grant:

6. Documents requested

We would appreciate it if you could provide us with the following available documents. If URLs (web pages) are available, please simply share the links.

Note: JICA has already obtained the documents marked ☒, so there is no need for you to send them.

No.	Documents	JICA collected
1.	Audited/ unaudited financial statements (Income Statement (Profit and Loss Statement), Balance Sheet and Cash Flow Statement) for 2021, 2022, 2023 and financial account up to September 2024 or latest available	☐
2.	National policy documents including water supply sector	☐
3.	Laws and regulations related to water supply (4.1 above)	☐
4.	Regulations to set water tariff rate	☐
5.	Water tariff rate with structure	☐
6.	Mid and long-term water supply development plan if any Note: Your Strategic Plan 2023-2027 has been collected.	☒
7.	The latest business plan of utility	☐
8.	The latest 3 years annual report of utility	☐
9.	Organization chart Note: It is extracted from the Strategic Plan 2023-2027. Please provide us with the more recent version, if available.	☐
10.	IWA Water balance table filled - Breakdown of Non-Revenue Water, if available	☐

QUESTIONNAIRE

Country:	Philippines
Utility Name:	Metropolitan Cebu Water District (MCWD)
Service area:	MCWD is serving the following cities and municipalities: 1. Cebu City – This is where the main office MCWD is situated. 2. Talisay City – Situated approximately 8 km. (approximately 12 km. driving route) to the south of Cebu City. 3. Mandaue City – Situated to the north of Cebu City at approximately 13 km. (20 km. driving route) 4. Lapu-Lapu City – Located in another island called Mactan. It is 22 km. to the east of Cebu City (approximately 35 km. driving route). 5. Municipality of Cordova – A municipality in Mactan, situated approximately 23 km. to the west of Cebu City (approximately 41 km. driving route). 6. Municipality of Consolacion – Approximately 28 km. north of Cebu City (approximately 29 km. driving route). 7. Municipality of Liloan – Approximately 29 km. north of Cebu City (approximately 40 km driving route). 8. Municipality of Compostela – Approximately 38 km. north of Cebu City (approximately 53 km. driving route)
Latest fiscal year of the data and information provided:	

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NOTE:

1. Please click ☐ to change it turn to ☒ in the questionnaire if applicable.

2. We would appreciate it if you could first send the following.
   a. Audited/ unaudited financial statements (Income Statement (Profit and Loss Statement), Balance Sheet and Cash Flow Statement) for 2021, 2022, 2023 and financial account up to September 2024 or latest available
   b. Annual report for 2023

1. Utility Characteristics

1.1 Basic Information

INDICATOR	CATEGORIES
1. What is the structure of the Utility? (Select one)	☐ Inside of local or national government water department (i.e. finances for water/wastewater function are not reported separately from other government activities) ☒ Local or National Government Water Department – Ring fenced; (i.e., finances for water/wastewater function are reported separately from other government activities) ☐ Statutory body ☐ Local or National Government wholly owned service provider operating under commercial law ☐ Jointly (Government and Private) owned provider operating under commercial law ☐ Privately owned provider operating under commercial law ☐ Not for profit provider operating under commercial law ☐ Other (Please describe: _____)
2. What is the mode of the ownership of the water supply infrastructure?	☐ Own all assets ☐ Own only part of the assets (Please specify the owned assets: _____ _____) ☐ Not own and only responsible for operations ☐ Leased ☐ Concessioned ☐ Other (Please specify: _____) ☐ Other (Please specify: _____) If you own only part of the assets, who is the owner of the remaining assets? ☐ Local government ☒ National government ☐ Private company ☐ Other (Please specify: _____)
3. Who has general oversight of the utility's services and tariff?	☒ Local, regional or national government department ☐ Independent board of stakeholders ☐ Independent service & price regulator ☐ Other (Describe: _____)
4. Services provided other than water	☒ Wastewater ☐ Electricity ☐ Other. Describe: _____
5. Nature of service area	☒ Only urban ☒ Urban and peri-urban mixed ☐ Urban and rural mixed

1.2 Basic Indicators

Indicator	Unit	Water services
1. Total population in service area (under utility's nominal responsibility)	persons	912
2. Population served by water supply services	persons	706,326
3. Number of connections of water supply services	connections	208,625
4. Number of Public tap stand	Nos.	0
5. Number of towns/cities served with water services	Nos.	4 Cities, 4 Municipalities
6. Production Capacity	m3/day	316,126 m3/day
7. Volume of water produced	m3/year	275,906 m3/day
8. Volume of water sold or billed*1	m3/year	56,237,955 cu.m/year
9. Kind of water sources	m3/year	Ground water : 63,859,789 Surface water : 24,637,500 Purchase from bulk supplier : 40,606,000
10. Total length of transmission and distribution network	km	979.5 kM

*1: "Total water volume billed" refers to the volume of water billed irrespective of whether the bill is paid or not. Any unmetered volume must be estimated from other information.

2. Performance Data

2.1 Performance Indicators (PIs) and Data

Please provide available values of PIs in the last 3 year with fiscal year of data.

Note: JICA has complied the values of some PIs below from your annual reports. Please review them and make any necessary correction.

No.	INDICATOR	UNIT	Value		
			Year1 (2021)	Year2 (2022)	Year3 (2023)
A.	**Service Coverage**				
A1	(Population served by water supply services) /(total population under utility's nominal responsibility)	%	31%	31%	32%
B.	**Drinking Water Quality**				
B.1	How many **water samples** in a year were taken in 2023? This refers to the number of samples of drinking water that were taken from the system based on the local standard. Please include all unique test types (e.g., chemical, biological, etc.) in this figure.	Nos.			
B.2	How many water samples **met all required guidelines/standards**? This refers to the number of samples of	Nos.			

No.	INDICATOR	UNIT	Value		
			Year1 (2021)	Year2 (2022)	Year3 (2023)
	drinking water taken from the system that have been tested AND comply with the local standard.				
B.3	Compliance rate of water quality (B.2/B.1)	%			
C.	**Quality of Service**				
C.1	Average continuity of service hours per day for water supply on average	Hrs/day	21.97	21.45	
C.2	Water supply pressure The approximate percentage of the customers in low water pressure area	%			
D.	**Customer satisfaction**				
D.1	Does your utility carry out customer satisfaction survey? What is the rating by customers of your service?	-	4.65/5.00		
E.	**Non-Revenue Water (NRW)**				
E.1	Non-Revenue Water Ratio (Difference between water supplied and water sold or billed expressed as a percentage of net water supplied.)	%	30.05	32.7	33.38%
E.2	Pipe breaks Total number of pipes breaks per year	Breaks/ year	10,013	8,989	12,382
F.	**Meters**				
F.1	Metering ratio (Total number of connections with operating meter)/ (total number of connections)	%	100%	100%	100%
G.	**Operating Costs & Staff**				
G.1	Total annual operating cost for water service [1] Note 1: Annual operating cost excluding depreciation, amortization, interest	Currency/ year			
G.2	Annual operating cost other than water service (i.e. wastewater service, electricity, etc.) if any	Currency/ year			
G.3	Labor and staff costs vs Operating costs (Labor and staff costs)/(Operating costs)	%			
G.4	Electrical energy costs vs Operating costs (Electrical energy costs)/(Operating costs)	%			
G.5	Number of staff What was the total number of full-time staff?	Nos.	829	846	860
G.6	Staff number per 1,000 connections	Persons/ 1000 connections	3.94	3.93	4.18
H.	**Billings & Collections**				
H.1	Total annual revenue (excluding subsidy)	Currency/ year			

No.	INDICATOR	UNIT	Value		
			Year1 (2021)	Year2 (2022)	Year3 (2023)
H.2	Total annual revenue of water service from customers, excluding other services (i.e. wastewater service, electricity, etc.)	Currency/ year			
H.3	Other annual revenue of other services (i.e. wastewater service, electricity, etc.) (excluding subsidy), if you have other services	Currency/ year			
H.4	Subsidy for water service	Currency/ year			
H.5	Connection charge -– water service	Currency /connecti on			
H.6	Collection ratio Collected revenue / Billed revenue as a %	%	79	80	81.2%
I.	**Financial Performance**				
I.1	Operating cost coverage Total annual revenue from water service*1 /Total annual operating costs of water service*2 *1 Same as H.2 *2 Same as G.1	Ratio (%)			
I.2	What is the target of the operating cost coverage in the target year, if any?	Ratio and target year			
I.3	Net profit*1 from water service*2 *1: Profit after tax *2 If it is possible to separate the net profit for water services from other services such as wastewater service and electricity, please specify. If not, please write the net profit of your utility as a whole	Currency			
I.4	Return on asset (Profit after tax/total asset)	%	0.7%	0.3%	
I.5	Profit margin (Profit before tax/total income)	%	2.5%	1.4%	
I.6	Equity ratio (Total equity/ Total assets)	%	76.6%	77.1%	
I.7	Fixed asset to fixed liability ratio	%	68.1%	68.5%	

2.2 Questions to performance

Please answer the following question by indicator with Yes or No and specify the reasons or factors if you answer “No”.

No: The percentages, values and states in the question are assumed as a good practice.

No.	Question by indicator	Yes or No	If No, please specify reasons/factors.
A.	**Service Coverage**		
	Is the coverage of water service higher than **80%**?	No	No, 32%, Due to limited number of water resources, and competition, and illegal deep wells in communities.
B.	**Drinking Water Quality**		

No.	Question by indicator	Yes or No	If No, please specify reasons/factors.
	Is the compliance rate of water quality with the standards higher than **80%**?		100%
C.	**Quality of Service**		
C.1	Is the water supply continuous (**24hour/day**)?	No	No
C.2	In general, is the water supply pressure adequate?		Yes
C.3	Is customer satisfaction moderate or high?	Yes	Yes
E.	**Non Revenue Water (NRW)**		
	Is the NRW ratio lower than **25%**?	No	NO
F.	**Meters**		
	Is the metering ratio higher than **90%**?		Yes, 100%
G.	**Staff Performance**		
	Is the staff capacity sufficient to meet the organization's requirements in terms of both number and quality? If not, please specify the areas where additional capacity is needed.		Yes
H.	**Billings & Collections**		
H.1	Is collection ratio higher than **90%**?	No	Yes Collection efficiency, 91.8%
H.2	Is water tariff revised periodically or according to inflation?		Not Revised since 2015.
H.3	Is connection charge adequate, which does not hinder to increase connection?		Limited funds for expansion of distribution lines due no government subsidy.
I.	**Financial Performance**		
I.1	Are operating costs of water service fully covered by revenue from water service? Please also mention how the deficit is covered (e.g. subsidy from general account budget).		
I.2	Are the current water tariff rates adequate for cost recovery?		
I.3	Is the operating cost coverage of water service higher than **130%**?		

3. Management Practices

3.1 Organization and Strategy

OS1	**Performance Tracking**	
OS1.1	How many key performance indicators (KPIs) were monitored at your utility? Please select one answer. Examples of KPI: - Revenue collection rate (%)	☐ 0 key performance indicators ☐ 1-2 key performance indicators ☒ 3-9 key performance indicators ☐ 10-15 key performance indicators ☐ 16 or more key performance indicators

	- Operation cost coverage (%)	
OS1.2	Please list KPIs, the targets and the latest realized KPIs.	Production (cubic meter / day) Billed volume (cubic meter / day) Service connections (number) Non-revenue water
OS1.3	How much percentage of KPIs meets the target set?	25 %
OS1.4	How are KPIs set, monitored and evaluated?	☒ In accordance with utility's rules ☒ In accordance with government regulation ☐ Based on performance contract with central or local government ☐ Regulated by independent regulator ☐ Other (Please specify; _____ _____)
OS1.5	Does your organization have the annual evaluation and feedback cycle of Plan, Do, Check and Action (PDCA).	☒ Yes ☐ No
OS1.6	If Yes in OS1.5. Is PDCA cycle well functioned? If not, please specify the reasons.	☒ Yes ☐ No If No, (specify the reasons: _____

3.2 Commercial

CO1	**Customer complaint management**	
CO1.1	Please explain the complaint redressal process, and the ratio of solved complaints.	Assist complaint thru customer service department thru calls and text taking Job Orders for complaint and transfer to concerned department for feedback.
CO1.2	Please list the five main complaints from the largest to smallest.	No water/ No water Large Area Leaks Abrupt increase/consumption Please deliver the bill on time / no bill delivered
CO1.3	Do you record response time? If Yes, please answer average response time.	Yes. Average Response time for leaks is 3.91 Hrs. after Job Order is received.
CO2	**Collection method**	
CO2.1	Please explain the process of meter reading to bill issuance.	Manual reading and Manual Distribution of Water Bill.
CO2.2	Please list the payment methods of water charge.	Walk in. Gcash/ online Payment. Deputized Partners and Payment Centers

CO2.3	Please explain meter management method.	☒ Meters are regularly inspected for performance and accuracy, and calibrated or replaced if necessary. ☒ Replace water meter at regular intervals as meters deteriorate over time and their measurement accuracy decreases ☐ Others (Specify: _____)
CO2.4	Please explain disconnection process.	No payment of SC after 1 month tagged as inactive, After 2 months of non-payment from due date the inactive SC will be tagged for Permanent Disconnection.
CO2.5	What do you plan to improve the collection rate?	Improved online payment system, and Deputized more payment centers.

3.3 Operations

OP1	**Water Asset Maintenance**	
OP1.1	Which best describes the maintenance practices of essential **water assets**? Please select one answer.	☐ Water assets are **not maintained** ☒ Water asset maintenance is **primarily reactive**. The Utility replaces or repairs when things break or fall into disrepair. ☐ Water asset maintenance is **partially periodic, partially reactive**. ☐ Water asset maintenance is **primarily preventive.** ☐ Water asset maintenance is **preventive** AND is **informed** by risk assessments and equipment monitoring.
OP1.2	Do you have an updated inventory (ledger) of facilities for facility O&M?	☒ Yes ☐ No
OP1.3	Do you have a fixed asset ledger for financial management?	☐ Yes ☐ No
OP2	**O & M**	
OP2.1	Is there a O&M plan for which the budget is secured?	☒ Yes ☐ No
OP2.2	Are there any problems regarding the O&M of water supply facilities? If yes, what are the problems and why?	☒ Yes ☐ No If Yes, Describe: For example, Problem1 : there are differences in competence among staff. Reason: Due to the lack of standard operation manuals and staff training. Problem3: Lack of sufficient finance for maintenance.
OP3	**Non-Revenue Water (NRW)**	
OP3.1	What kinds of measures are implemented to reduce non-	☐ None ☒ Active leak detection programs

	revenue water?	☒ Pressure management ☒ District metered areas (DMAs) ☒ Aged pipeline replacement and rehabilitation ☒ Installation of accurate meters ☒ Regular meter testing and calibration ☒ Metering of all users ☒ Tackling illegal connections ☒ NRW audits to quantify the volume and identify causes of NRW ☒ Distribution monitoring systems with SCADA ☒ Improve record-keeping and GIS mapping ☒ Staff training for NRW management ☐ Other (Describe: _____)
OP3.2	What are the major causes of NRW. Note: Can select plural answers.	☐ Do not know ☒ Leakage due to high distribution pressure ☒ Leakage due to aged pipeline ☒ Inaccurate meters ☐ Without meters ☒ Illegal connections ☐ Other (Describe: _____)
OP3.3	Do you have any section responsible for NRW management?	☒ Yes ☐ No
OP3.4	Is there an action plan for reducing NRW and is it being implemented?	☒ Yes ☐ No
OP4	**Use of DX (Digital technology) and IT**	
OP4.1	Do you have any strategy of introduction of Digital Transformation to your utility?	☒ Yes ☐ No
OP4.2	Do you use any digital technology in your operation and services (e.g., SCADA, GIS, user-friendly payment methods, advanced customer database, smart meter)? If yes, please specify.	☒ Yes. (if yes, please explain: ☐ No

3.4 Financial

FI1	**Tariff Analysis**

FI1.1	Does your Utility conduct full-cost recovery tariff analysis that includes operating expenditures, depreciations, interests and profits? Please select one answer. Definitions: "Full Cost Recovery" refers to the generation of revenue through appropriate pricing of services to cover the full cost of service provision.	☐ Don't Know ☐ There is **no** cost recovery tariff analysis conducted ☐ The **minimum** level of cost recovery tariff analysis is conducted. ☐ There is **some** cost recovery tariff analysis conducted, but the analysis is **irregular.** ☒ There is **extensive** cost recovery tariff analysis conducted **regularly.** ☐ There is **exhaustive** cost recovery tariff analysis conducted **regularly** including for short-, medium-, and long-term investment needs.
FI2	**Financial Forecasting**	
FI2.1	Does the Utility conduct financial forecasting for short-, medium-, and long- term funding needs? Definitions: "Financial forecasting" refers to the formal process of estimating or predicting the funding requirements for the activities conducted by the Utility.	☐ Don't Know ☐ **No** financial forecasting is conducted. ☐ Financial forecasting is conducted for **short-term** needs (< 1 year) ☐ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** needs (1-2 years), but the analysis is **irregular.** ☐ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** (1-2 years) needs **regularly.** ☒ Financial forecasting is conducted for **short-term, medium-term,** AND **long- term** (> 2 years) needs **regularly.**
FI2.2	What are the priority areas for capital investment in the next 3 years?	☐ Cannot specify ☒ Water resource development ☐ Water treatment plants ☒ Network expansion ☒ Rehabilitation of existing facilities ☐ Others, please specify ___
FI3	**Financial resources**	
FI3.1	What are the sources of finance for major investment?	☒ Grants or Government transfers to the utility? ☐ Concessional borrowing from international financial institutions (multi or bi laterals)? ☐ Government owned banks? ☐ Commercial banks or bond holders? ☒ Internal resources such as profit earned from revenue ☐ None or almost none
FI3.3	If you have any subsidy system from local and/or central governments, please specify the type and objectives of the subsidy	☐ Yes ☐ Compensation for deficit in operation ☐ Pro-poor water provision ☐ Construction of facilities ☐ Others, please specify: _____ ☒ No
FI3.2	Is your utility allowed to borrow from commercial banks or finance through bond issuance for investment in capital project (construction/rehabilitation) without seeking approval from other entities such as regulators/	☒ Yes ☐ No

	governments?	
FI4	**Accounting**	
FI4.1	What kind of accounting system do your utility apply; corporate, public enterprise accounting or any other?	
FI4.2	Do you have separate accounting for services other than water, if your utility provides other services?	

3.5 Human Resources Management and Development

HR1	**Human Resources Management**	
	If the management of your utility undertakes the followings, please select what applied to your organization.	☐ Has an annual appraisal and target setting system for managers ☐ Has an annual appraisal and target setting system for all staff ☐ Has a reward and recognition program for all staff ☐ Has the ability to recruit and dismiss staff (within an agreed plan) ☐ Has a skills and training strategy or plan for all staff
HR2	**Human Resources Development**	
	What are the main training curricula currently in place? Please provide examples such as leakage survey techniques, financial management, etc.	

4. Laws, Regulations and Governance

4.1	Please list all **laws and regulations related to water supply** and, if possible, provide the documents or URL (web page). The laws and regulation to be listed should cover topics such as roles of water utilities and related authorities, water service provider's license system, water tariff setting, water quality standards, facility design standards, water asset ownership and management etc.
	List: PD 198
4.2	If there are any **challenges in the laws and regulations** which affect your utility's performance or hinder your utility to improve performance, please explain.
	Response:
4.3	What law or regulation is your utility regulated by?
	Response:

4.4	Is water tariff setting regulated by law?
	Response: Yes, under Local Water Utilities Authority
4.5	Is your utility operation influenced by politics? If yes, how??
	☒ Yes ☐ No If Yes, please describe: The appointing authority for BODs is the mayor if Cebu City.
4.6	Is the relationship with the competent authorities specified by law? What relationship is?
	Response:

5. Assistance of Development Partners (DPs)

5.1	Please provide a list of on-going assistants from DPs below. Or please provide us with the documents including DPs assistance.
	Response: (1) Infrastructure projects: Septage Treatment Facility - JICA Grant (2) Capacity development project /training: Capacity Development on wastewater treatment programs and NRW Programs by JICA.
5.2	What kind of assistance do you wish to receive from DPs in terms of technical assistance, infrastructure development, and financial assistance?
	Response: (1) Infrastructure projects: Water and Wastewater treatment systems, Expansion and distribution lines. (2) Capacity development project /training: Capacity Development on specific areas such as NRW, Wastewater Treatment, Digital Twinning Technologies/ Advance metering system, and Risk Mitigation.
5.3	DP assistance in the last fiscal year (USD)
	Loan: Grant:

6. Documents requested

We would appreciate it if you could provide us with the following available documents. If URLs (web pages) are available, please simply share the links.

Note: JICA has already obtained the documents marked ☒, so there is no need for you to send them.

No.	Documents	JICA collected
1.	Audited/ unaudited financial statements (Income Statement (Profit and Loss Statement), Balance Sheet and Cash Flow Statement) for 2021, 2022, 2023 and financial account up to September 2024 or latest available.	☐
2.	National policy documents including water supply sector	☐
3.	Laws and regulations related to water supply (4.1 above)	☐
4.	Regulations to set water tariff rate	☐
5.	Water tariff rate with structure	☐
6.	Mid and long-term water supply development plan if any Note: We referred to "Philippine Water Supply and Sanitation Master Plan 2019 – 2030" published by the National Economic and Development Authority (NEDA) for this information. Please provide us with your own mid and long-term water supply development plan if available.	☐
7.	The latest business plan of utility	☐
8.	The latest 3 years annual report of utility Note: Annual Reports 2020, 2021, and 2022 have been collected. Please provide us annual report for **2023**.	☐
9.	Organization chart Note: We referred to your Annual Report 2022 for the latest organization chart. Please provide us newer one if available.	☐
10.	IWA Water balance table filled - Breakdown of Non-Revenue Water, if available	☐

QUESTIONNAIRE

Country:	Solomon
Utility Name:	Solomon Water (SW)
Service area:	Honiara, Tulagi, Auki, and Noro
Latest fiscal year of the data and information provided:	2021, 2022 AR and audited statements, Draft FS and Project for 2023 attached (yet to be approved), 2024 Financial Update Sept to Board, Business Plan 2025, Corporate Plan 2024-2028

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NOTE:

1. Please click ☐ to change it turn to ☒ in the questionnaire if applicable.

2. We would appreciate it if you could first send the following.
   a. Audited/ unaudited financial statements (Income Statement (Profit and Loss

Statement), Balance Sheet and Cash Flow Statement) for 2021, 2022, 2023 and financial account up to September 2024 or latest available

b. Annual report for 2022 and 2023

1. Utility Characteristics

1.1 Basic Information

INDICATOR	CATEGORIES
1. What is the structure of the Utility? (Select one)	☐ Inside of local or national government water department (i.e. finances for water/wastewater function are not reported separately from other government activities) ☐ Local or National Government Water Department – Ring fenced; (i.e., finances for water/wastewater function are reported separately from other government activities) ☒ Statutory body ☐ Local or National Government wholly owned service provider operating under commercial law ☐ Jointly (Government and Private) owned provider operating under commercial law ☐ Privately owned provider operating under commercial law ☐ Not for profit provider operating under commercial law ☐ Other (Please describe: _____)
2. What is the mode of the ownership of the water supply infrastructure?	☒ Own all assets ☐ Own only part of the assets (Please specify the owned assets: _____ _____) ☐ Not own and only responsible for operations ☐ Leased ☐ Concessioned ☐ Other (Please specify: _____) ☐ Other (Please specify: _____) If you own only part of the assets, who is the owner of the remaining assets? ☐ Local government ☐ National government ☐ Private company ☐ Other (Please specify: _____)
3. Who has general oversight of the utility's services and tariff?	☒ Local, regional or national government department ☐ Independent board of stakeholders ☐ Independent service & price regulator ☐ Other (Describe: _____)
4. Services provided other than water	☒ Wastewater ☐ Electricity ☐ Other. Describe: _____
5. Nature of service area	☐ Only urban ☒ Urban and peri-urban mixed ☐ Urban and rural mixed

1.2 Basic Indicators

Indicator	Unit	Water services
1. Total population in service area (under utility's nominal responsibility)	persons	Approx. 85,000
2. Population served by water supply services	persons	Approx. 65,000
3. Number of connections of water supply services	connections	18,149
4. Number of Public tap stand	Nos.	nil
5. Number of towns/cities served with water services	Nos.	4
6. Production Capacity	m3/day	36,000
7. Volume of water produced	m3/year	11,816,000
8. Volume of water sold or billed*1	m3/year	4,688,000
9. Kind of water sources	m3/year	Ground water 5,081,000 Surface water 6,728,000 Purchase from bulk supplier _____
10. Total length of transmission and distribution network	km	420km

*1: "Total water volume billed" refers to the volume of water billed irrespective of whether the bill is paid or not. Any unmetered volume must be estimated from other information.

2. Performance Data

2.1 Performance Indicators (PIs) and Data

Please provide available values of PIs in the last 3 year with fiscal year of data.

Note: JICA has complied the values of some PIs below from your annual reports. Please review them and make any necessary correction.

No.	INDICATOR	UNIT	Value		
			Year1 (2021)	Year2 (2022)	Year3 (2023)
A.	**Service Coverage**				
A1	(Population served by water supply services) /(total population under utility's nominal responsibility)	%	63.86 (IBNet)		
B.	**Drinking Water Quality**				
B.1	How many **water samples** in a year were taken in 2023? This refers to the number of samples of drinking water that were taken from the system based on the local standard. Please include all unique test types (e.g., chemical, biological, etc.) in this figure.	Nos.			
B.2	How many water samples **met all required guidelines/standards**? This refers to the number of samples of	Nos.	73.90 (IBNet)	72.19 (IBNet)	

No.	INDICATOR	UNIT	Value		
			Year1 (2021)	Year2 (2022)	Year3 (2023)
	drinking water taken from the system that have been tested AND comply with the local standard.				
B.3	Compliance rate of water quality (B.2/B.1)	%	Coli compliance 99.6%, Coliform compliance 96.2% (Honiara only)	Coli compliance 99.6%, Coliform compliance 96.2% (Honiara only)	Coli compliance 99.6%, Coliform compliance 96.2% (Honiara only)
C.	**Quality of Service**				
C.1	Average continuity of service hours per day for water supply on average	Hrs/day	23.1	23.2	23.4
C.2	Water supply pressure The approximate percentage of the customers in low water pressure area	%	Average 8m, 100m in some areas	Average 8m, 100m in some areas	Average 8m, 100m in some areas
D.	**Customer satisfaction**				
D.1	Does your utility carry out customer satisfaction survey? What is the rating by customers of your service?	-	22.7	23.5 (IBNet)	23
E.	**Non-Revenue Water (NRW)**				
E.1	Non-Revenue Water Ratio (Difference between water supplied and water sold or billed expressed as a percentage of net water supplied.)	%	60	60	60
E.2	Pipe breaks Total number of pipes breaks per year	Breaks/ year			
F.	**Meters**				
F.1	Metering ratio (Total number of connections with operating meter)/ (total number of connections)	%	54.4	60.2 (IBNet)	99
G.	**Operating Costs & Staff**				
G.1	Total annual operating cost for water service [1] Note 1: Annual operating cost excludes depreciation, amortization, interest	Currency/ year	SBD120.3m	SBD114.2m	SBD119.7m
G.2	Annual operating cost other than water service (i.e. wastewater service, electricity, etc.) if any	Currency/ year	Inclusive in G.1	Inclusive in G.1	Inclusive in G.1
G.3	Labor and staff costs vs Operating costs (Labor and staff costs)/(Operating costs)	%	30	34	32
G.4	Electrical energy costs vs Operating costs (Electrical energy costs)/(Operating costs)	%	20	31	28
G.5	Number of staff What was the total number of full-time staff?	Nos.	230	220	217

No.	INDICATOR	UNIT	Value		
			Year1 (2021)	Year2 (2022)	Year3 (2023)
G.6	Staff number per 1,000 connections	Persons/ 1000 connections	12	12	12
H.	**Billings & Collections**				
H.1	Total annual revenue (excluding subsidy)	Currency/ year	SBD131m	SBD136.5m	SBD146.2m
H.2	Total annual revenue of water service from customers, excluding other services (i.e. wastewater service, electricity, etc.)	Currency/ year	Inclusive in H.1 (water & Waste Water)	Inclusive in H.1 (water & Waste Water)	Inclusive in H.1 (water & Waste Water)
H.3	Other annual revenue of other services (excluding subsidy), if you have other services	Currency/ year	SBD12.3m	SBD$15.8m	SBD$13.5m
H.4	Subsidy for water service	Currency/ year	SBD3.1m	SBD4.1m	NIL
H.5	Connection charge -– water service	Currency /connection	Refer tariff schedule	Refer tariff schedule	Refer tariff schedule
H.6	Collection ratio Collected revenue / Billed revenue as a %	%	84	90	96
I.	**Financial Performance**				
I.1	Operating cost coverage Total annual revenue from water service*1 /Total annual operating costs of water service*2 *1 Same as H.2 *2 Same as G.1	Ratio (%)	1.1	1.2	1.2
I.2	What is the target of the operating cost coverage in the target year, if any?	Ratio and target year	1.32 (Actual G.1 /budget)	1.24 (Actual G.1 /budget)	0.94 (Actual G.1 /budget)
I.3	Net profit*1 from water service*2 *1: Profit after tax *2 If it is possible to separate the net profit for water services from other services such as wastewater service and electricity, please specify. If not, please write the net profit of your utility as a whole	Currency	SBD(7.2 m) Operating surplus	SBD9.9m Operating surplus	SBD6.9m Operating surplus
I.4	Return on asset (Profit after tax/total asset)	%	-1.60%	1.28%	0.74%
I.5	Profit margin (Profit before tax/total income)	%	-5.34%	7.07%	4.70%
I.6	Equity ratio (Total equity/ Total assets)	%	49.17%	56.57%	47.71%
I.7	Fixed asset to fixed liability ratio	%	168.60%	204.18%	180.79%

2.2 Questions to performance

Please answer the following question by indicator with Yes or No and specify the reasons or factors if you

answer “No”.

No: The percentages, values and states in the question are assumed as a good practice.

No.	Question by indicator	Yes or No	If No, please specify reasons/factors.
A.	**Service Coverage**		
	Is the coverage of water service higher than **80%**?	Yes	
B.	**Drinking Water Quality**		
	Is the compliance rate of water quality with the standards higher than **80%**?	Yes	
C.	**Quality of Service**		
C.1	Is the water supply continuous (**24hour/day**)?	No	23.5 hours per day
C.2	In general, is the water supply pressure adequate?	Yes	
C.3	Is customer satisfaction moderate or high?	Yes	
E.	**Non Revenue Water (NRW)**		
	Is the NRW ratio lower than **25%**?	No	60%
F.	**Meters**		
	Is the metering ratio higher than **90%**?	Yes	
G.	**Staff Performance**		
	Is the staff capacity sufficient to meet the organization’s requirements in terms of both number and quality? If not, please specify the areas where additional capacity is needed.	No	We need additional technical capacity - Water treatment capacity - Engineering - Hydraulic modelling - Design capabilities
H.	**Billings & Collections**		
H.1	Is collection ratio higher than **90%**?	Yes	
H.2	Is water tariff revised periodically or according to inflation?	No	Next tariff review 2025
H.3	Is connection charge adequate, which does not hinder to increase connection?	Yes	
I.	**Financial Performance**		
I.1	Are operating costs of water service fully covered by revenue from water service?	No	Through previous surplus prior years or subsidies
I.2	Are the current water tariff rates adequate for cost recovery?	No	Only cover operating costs
I.3	Is the operating cost coverage of water service higher than **130%**?	No	

3. Management Practices

3.1 Organization and Strategy

OS1	**Performance Tracking**

OS1.1	How many key performance indicators (KPIs) were monitored at your utility? Please select one answer. Examples of KPI: - Revenue collection rate (%) - Operation cost coverage (%)	☐ 0 key performance indicators ☐ 1-2 key performance indicators ☐ 3-9 key performance indicators ☐ 10-15 key performance indicators ☒ 16 or more key performance indicators
OS1.2	Please list KPIs, the targets and the latest realized KPIs.	Refer to business plan
OS1.3	How much percentage of KPIs meets the target set?	Refer annual report and half year report
OS1.4	How are KPIs set, monitored and evaluated?	☒ In accordance with utility's rules ☐ In accordance with government regulation ☐ Based on performance contract with central or local government ☐ Regulated by independent regulator ☐ Other (Please specify; _____ _____)
OS1.5	Does your organization have the annual evaluation and feedback cycle of Plan, Do, Check and Action (PDCA).	☒ Yes ☐ No
OS1.6	If Yes in OS1.5. Is PDCA cycle well functioned? If not, please specify the reasons.	☒ Yes ☐ No If No, (specify the reasons: _____

3.2 Commercial

CO1	**Customer complaint management**	
CO1.1	Please explain the complaint redressal process, and the ratio of solved complaints.	Customer management system in place – refer to Annual report.
CO1.2	Please list the five main complaints from the largest to smallest.	Price of water, disconnection, supply reliability, restoration of services and high bill
CO1.3	Do you record response time? If Yes, please answer average response time.	Yes – management system in place
CO2	**Collection method**	
CO2.1	Please explain the process of meter reading to bill issuance.	1. Physical reading of water meters 2. Export to Pronto 3. Invoicing 4. Delivery to customer

CO2.2	Please list the payment methods of water charge.	1. Customer care outlets 2. Agents 3. Online 4. Bank transfer / Direct deposit
CO2.3	Please explain meter management method.	☒ Meters are regularly inspected for performance and accuracy, and calibrated or replaced if necessary. ☐ Replace water meter at regular intervals as meters deteriorate over time and their measurement accuracy decreases ☐ Others (Specify: _____)
CO2.4	Please explain disconnection process.	Debt management policy trigger disconnection for non payment
CO2.5	What do you plan to improve the collection rate?	Convert from Postpaid to Prepaid Regular debt follow up Dedicated team to recover debt

3.3 Operations

OP1	**Water Asset Maintenance**	
OP1.1	Which best describes the maintenance practices of essential **water assets**? Please select one answer.	☐ Water assets are **not maintained** ☐ Water asset maintenance is **primarily reactive**. The Utility replaces or repairs when things break or fall into disrepair. ☒ Water asset maintenance is **partially periodic, partially reactive**. ☐ Water asset maintenance is **primarily preventive.** ☐ Water asset maintenance is **preventive** AND is **informed** by risk assessments and equipment monitoring.
OP1.2	Do you have an updated inventory (ledger) of facilities for facility O&M?	☒ Yes ☐ No
OP1.3	Do you have a fixed asset ledger for financial management?	☒ Yes ☐ No
OP2	**O & M**	
OP2.1	Is there a O&M plan for which the budget is secured?	☒ Yes ☐ No
OP2.2	Are there any problems regarding the O&M of water supply facilities? If yes, what are the problems and why?	☒ Yes ☐ No If Yes, Describe: lack of resources, lack of funding for capex and maintenance program implementation above routine O&M reactive works For example, Problem1: Lack of human resources. Reason: the utility

		cannot afford to hire personnel due to lack of financial resources. Problem2: there are differences in competence among staff. Reason: Due to the lack of standard operation manuals and staff training. Problem3: Lack of sufficient finance for maintenance.
OP3	**Non-Revenue Water (NRW)**	
OP3.1	What kinds of measures are implemented to reduce non-revenue water?	☐ None ☒ Active leak detection programs ☒ Pressure management ☒ District metered areas (DMAs) ☒ Aged pipeline replacement and rehabilitation ☒ Installation of accurate meters ☒ Regular meter testing and calibration ☒ Metering of all users ☒ Tackling illegal connections ☒ NRW audits to quantify the volume and identify causes of NRW ☐ Distribution monitoring systems with SCADA ☐ Improve record-keeping and GIS mapping ☒ Staff training for NRW management ☐ Other (Describe: _____)
OP3.2	What are the major causes of NRW. Note: Can select plural answers.	☐ Do not know ☒ Leakage due to high distribution pressure ☒ Leakage due to aged pipeline ☐ Inaccurate meters ☒ Without meters ☒ Illegal connections ☐ Other (Describe: _____)
OP3.3	Do you have any section responsible for NRW management?	☒ Yes ☐ No
OP3.4	Is there an action plan for reducing NRW and is it being implemented?	☒ Yes ☐ No
OP4	**Use of DX (Digital technology) and IT**	
OP4.1	Do you have any strategy of introduction of Digital Transformation to your utility?	☐ Yes ☒ No
OP4.2	Do you use any digital technology in your operation and services (e.g., SCADA, GIS, user-friendly payment methods, advanced customer database, smart meter)? If yes, please specify.	☒ Yes. (if yes, please explain: GIS, payment methods, reporting apps, customer data base, smart meter ☐ No

3.4 Financial

FI1	Tariff Analysis	
FI1.1	Does your Utility conduct full-cost recovery tariff analysis that includes operating expenditures, depreciations, interests and profits? Please select one answer. Definitions: "Full Cost Recovery" refers to the generation of revenue through appropriate pricing of services to cover the full cost of service provision.	☐ Don't Know ☐ There is **no** cost recovery tariff analysis conducted ☒ The **minimum** level of cost recovery tariff analysis is conducted. ☐ There is **some** cost recovery tariff analysis conducted, but the analysis is **irregular.** ☐ There is **extensive** cost recovery tariff analysis conducted **regularly.** ☐ There is **exhaustive** cost recovery tariff analysis conducted **regularly** including for short-, medium-, and long-term investment needs.
FI2	**Financial Forecasting**	
FI2.1	Does the Utility conduct financial forecasting for short-, medium-, and long- term funding needs? Definitions: "Financial forecasting" refers to the formal process of estimating or predicting the funding requirements for the activities conducted by the Utility.	☐ Don't Know ☐ **No** financial forecasting is conducted. ☐ Financial forecasting is conducted for **short-term** needs (< 1 year) ☐ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** needs (1-2 years), but the analysis is **irregular.** ☐ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** (1-2 years) needs **regularly.** ☒ Financial forecasting is conducted for **short-term, medium-term,** AND **long- term** (> 2 years) needs **regularly.**
FI2.2	What are the priority areas for capital investment in the next 3 years?	☐ Cannot specify ☒ Water resource development ☒ Water treatment plants ☐ Network expansion ☒ Rehabilitation of existing facilities ☐ Others, please specify ___
FI3	**Financial resources**	
FI3.1	What are the sources of finance for major investment?	☒ Grants or Government transfers to the utility? ☒ Concessional borrowing from international financial institutions (multi or bi laterals)? ☐ Government owned banks? ☐ Commercial banks or bond holders? ☐ Internal resources such as profit earned from revenue ☐ None or almost none
FI3.3	If you have any subsidy system from local and/or central governments, please specify the type and objectives of the subsidy	☐ Yes ☐ Compensation for deficit in operation ☐ Pro-poor water provision ☐ Construction of facilities ☐ Others, please specify: _____ ☒ No
FI3.2	Is your utility allowed to borrow from commercial banks or finance through bond issuance for investment in capital project (construction/rehabilitation)	☒ Yes ☐ No

	without seeking approval from other entities such as regulators/ governments?	
FI4	**Accounting**	
FI4.1	What kind of accounting system do your utility apply; corporate, public enterprise accounting or any other?	Public enterprise accounting
FI4.2	Do you have separate accounting for services other than water, if your utility provides other services?	No

3.5 Human Resources Management and Development

HR1	**Human Resources Management**	
	If the management of your utility undertakes the followings, please select what applied to your organization.	☐ Has an annual appraisal and target setting system for managers ☒ Has an annual appraisal and target setting system for all staff ☐ Has a reward and recognition program for all staff ☐ Has the ability to recruit and dismiss staff (within an agreed plan) ☐ Has a skills and training strategy or plan for all staff
HR2	**Human Resources Development**	
	What are the main training curricula currently in place? Please provide examples such as leakage survey techniques, financial management, etc.	Leadership training, supply chain training, asset management training, PE welding, safety compliance training, project management training, hydraulic modelling

4. Laws, Regulations and Governance

4.1	Please list all **laws and regulations related to water supply** and, if possible, provide the documents or URL (web page). The laws and regulation to be listed should cover topics such as roles of water utilities and related authorities, water service provider's license system, water tariff setting, water quality standards, facility design standards, water asset ownership and management etc.
	List: SIWA Act 1993, Water Resource Act (currently under review),
4.2	If there are any **challenges in the laws and regulations** which affect your utility's performance or hinder your utility to improve performance, please explain.
	Response: Previously included in the State-Owned Enterprises Act 2007 and State-Owned Enterprises Regulations 2010, now no longer applicable to SIWA Water catchment protection remains an issue
4.3	What law or regulation is your utility regulated by?
	Response: SIWA Act 1993

4.4	Is water tariff setting regulated by law?
	Response: Prescribed in the Act
4.5	Is your utility operation influenced by politics? If yes, how??
	☒ Yes ☐ No If Yes, please describe: Appointment of Board and subsequent directives of Government. Majority of Board members are Public Officers. Increased political interference Reduced governance and compliance
4.6	Is the relationship with the competent authorities specified by law? What relationship is?
	Response: SIWA answers to the responsible Minister

5. Assistance of Development Partners (DPs)

5.1	Please provide a list of on-going assistants from DPs below. Or please provide us with the documents including DPs assistance.
	Response: (1) Infrastructure projects: Refer attached 5-Year Strategic Action Plan, Revised Business Plan for 2025 and %-Year Corporate Strategic Plan (2) Capacity development project /training: Provided as part of UWSSSP project, refer Plans above
5.2	What kind of assistance do you wish to receive from DPs in terms of technical assistance, infrastructure development, and financial assistance?
	Response: (1) Infrastructure projects: Refer Plans above (2) Capacity development project /training: Refer Plans above
5.3	DP assistance in the last fiscal year (USD)
	Loan: Refer to draft Project Audited Financial Statements for 2023 for breakdown of loans and grants Grant:

6. Documents requested

We would appreciate it if you could provide us with the following available documents. If URLs (web pages) are available, please simply share the links.

Note: JICA has already obtained the documents marked ☒, so there is no need for you to send them.

No.	Documents	JICA

		collected
1.	The latest 3 years of audited financial statements (Income Statement (Profit and Loss Statement), Balance Sheet and Cash Flow Statement)	☒
2.	National policy documents including water supply sector	☒
3.	Laws and regulations related to water supply (4.1 above)	☒
4.	Regulations to set water tariff rate	☒
5.	Water tariff rate with structure	☒
6.	Mid and long-term water supply development plan if any	☒
7.	The latest business plan of utility	☒
8.	The latest 3 years annual report of utility Note: The annual reports up to 2021 have been collected from your website. Kindly provide us with the annual reports for 2022 and 2023.	☒
9.	Organization chart	☒
10.	IWA Water balance table filled - Breakdown of Non-Revenue Water, if available	☒

JIRO SY RANO MALAGASY

DIRECTION GENERALE : 149, RUE RAINANDRIAMAMPANDRY – ANTANANARIVO – BP : 200

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TELEPHONE 22 200 31 – ANTANANARIVO

Antananarivo, 08 NOV 2024

General Manager of JIRAMA

to

Mr. Hirotaka SATO
Team Leader
TEC International Co. Ltd

Référence : WP/DG/N°598/2024
Objet : Questionnaire Survey for Study on Growth of Water Utilities

Dear Sir,

To follow up on your request for cooperation, please find attached the questionnaire form duly completed according to the information available, with certain requested documents.

Best regards.

Ron Weiss
Ron WEISS
Directeur Général
Jiro sy Rano Malagasy
8/11/24

QUESTIONNAIRE ON PERFORMANCE AND MANAGEMENT PRACTICES

Country:	Madagascar
Utility Name:	Jiro sy rano Malagasy (JIRAMA)
Service area:	Urban and peri-urban mixed
Latest fiscal year of the data and information provided:	2023

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6. Documents requested 13

NOTE:

1. **Please click ☐ to change it turn to ☒ in the questionnaire if applicable.**
2. **We would appreciate it if you could first send the following.**
   a. **Audited/ unaudited financial statements (Income Statement (Profit and Loss Statement), Balance Sheet and Cash Flow Statement) for 2021, 2022, 2023 and financial account up to September 2024 or latest available**
   b. **Annual reports for 2021, 2022 and 2023**

1. Utility Characteristics

1.1 Basic Information

INDICATOR	CATEGORIES
1. What is the structure of the Utility? (Select one)	☐ Inside of local or national government water department (i.e. finances for water/wastewater function are not reported separately from other government activities) ☐ Local or National Government Water Department – Ring fenced; (i.e., finances for water/wastewater function are reported separately from other government activities) ☐ Statutory body ☒ Local or National Government wholly owned service provider operating under commercial law ☐ Jointly (Government and Private) owned provider operating under commercial law ☐ Privately owned provider operating under commercial law ☐ Not for profit provider operating under commercial law ☐ Other (Please describe: _____)
2. What is the mode of the ownership of the water supply infrastructure?	☐ Own all assets ☒ Own only part of the assets (Please specify the owned assets: _____ The Government) ☐ Not own and only responsible for operations ☐ Leased ☐ Concessioned ☐ Other (Please specify: _____) ☐ Other (Please specify: _____) If you own only part of the assets, who is the owner of the remaining assets? ☐ Local government ☐ National government ☐ Private company ☐ Other (Please specify: _____)
3. Who has general oversight of the utility's services and tariff?	☒ Local, regional or national government department ☐ Independent board of stakeholders ☐ Independent service & price regulator ☐ Other (Describe: _____)
4. Services provided other than water	☐ Wastewater ☒ Electricity ☐ Other. Describe: _____
5. Nature of service area	☐ Only urban ☒ Urban and peri-urban mixed ☐ Urban and rural mixed

1.2 Basic Indicators

Indicator	Unit	Water services
1. Total population in service area (under utility's nominal responsibility)	persons	8 452 639 Estimation (2023)
2. Population served by water supply services	persons	4 081 410 Estimation (2023)
3. Number of connections of water supply services	connections	221 779 (Compteurs) (2023)
4. Number of Public tap stand	Nos.	6 957 (Compteurs Borne Fontaine) (2023)
5. Number of towns/cities served with water services	Nos.	69
6. Production Capacity	m3/day	403 654 (2023)
7. Volume of water produced	m3/year	143 160 398 Brute 134 998 046 Nette (2023)
8. Volume of water sold or billed*1	m3/year	78 827 804 (2023)
9. Kind of water sources	m3/year	Ground water _____ Surface water _____ Purchase from bulk supplier _____
10. Total length of transmission and distribution network	Km	3 291

*1: "Total water volume billed" refers to the volume of water billed irrespective of whether the bill is paid or not. Any unmetered volume must be estimated from other information.

2. Performance Data

2.1 Performance Indicators (PIs) and Data

Please provide available values of PIs in the last 3 year with fiscal year of data.

Note: JICA has complied the values of some PIs below from your annual reports. Please review them and make any necessary correction.

No.	INDICATOR	UNIT	Value		
			Year1 (2021)	Year2 (2022)	Year3 (2023)
A.	**Service Coverage**				
A1	(Population served by water supply services) /(total population under utility's nominal responsibility)	%	57,5	57,3	55,9
B.	**Drinking Water Quality**				
B.1	How many **water samples** in a year were taken in 2023? This refers to the number of samples of drinking water that were taken from the system based on the local standard.	Nos.			216 In Tana

No.	INDICATOR	UNIT	Value		
			Year1 (2021)	Year2 (2022)	Year3 (2023)
	Please include all unique test types (e.g., chemical, biological, etc.) in this figure.				
B.2	How many water samples **met all required guidelines/standards**? This refers to the number of samples of drinking water taken from the system that have been tested AND comply with the local standard.	Nos.	Note: Quality of water supplied: samples passing on residual chlorine		206
B.3	Compliance rate of water quality (B.2/B.1)	%	74		95
C.	**Quality of Service**				
C.1	Average continuity of service hours per day for water supply on average	Hrs/day	24	It is between 2h-16h. It depends on the sites and the period (dry season...)	
C.2	Water supply pressure The approximate percentage of the customers in low water pressure area	%	55%	55%	65%
D.	**Customer satisfaction**				
D.1	Does your utility carry out customer satisfaction survey? What is the rating by customers of your service?	Not yet			
E.	**Non-Revenue Water (NRW)**				
E.1	Non-Revenue Water Ratio (Difference between water supplied and water sold or billed expressed as a percentage of net water supplied.)	%	55,7	56,9	55,1
E.2	Pipe breaks Total number of pipes breaks per year	Breaks/ year			> 8600
F.	**Meters**				
F.1	Metering ratio (Total number of connections with operating meter)/ (total number of connections)	%	100	100	100
G.	**Operating Costs & Staff**				
G.1	Total annual operating cost for water service [1] Note 1: Annual operating cost excludes depreciation, amortization, interest	Billion Ariary /year		83,3	89,01
G.2	Annual operating cost other than water service (i.e. wastewater service, electricity, etc.) if any	Currency/ year			
G.3	Labor and staff costs vs Operating costs (Labor and staff costs)/(Operating costs)	%		36	31
G.4	Electrical energy costs vs Operating costs (Electrical energy costs)/(Operating costs)	%		37	35

No.	INDICATOR	UNIT	Value		
			Year1 (2021)	Year2 (2022)	Year3 (2023)
G.5	Number of staff What was the total number of full-time staff?	Nos.	229		307
G.6	Staff number per 1,000 connections	Persons/ 1000 connections	2.31		1,38
H.	**Billings & Collections**				
H.1	Total annual revenue (excluding subsidy)	Billion Ariary /year			1 096
H.2	Total annual revenue of water service from customers, if you have other services (i.e. wastewater service, electricity, etc.) – **include with tax**	Billion Ariary /year			93,5
H.3	Other annual revenue of other services (excluding subsidy), if you have other services	Billion Ariary /year			1 002
H.4	Subsidy for water service	Currency/ year	0	0	0
H.5	Connection charge -– water service	Currency /connection			
H.6	Collection ratio Collected revenue / Billed revenue as a % **Include collection of previous years**	%	71,2	100	110
I.	**Financial Performance**				
I.1	Operating cost coverage Total annual revenue from water service*1 /Total annual operating costs of water service*2 *1 Same as H.2 *2 Same as G.1	Ratio (%)			83
I.2	What is the target of the operating cost coverage in the target year, if any?	Ratio and target year			2025 : 200%
I.3	Net profit*1 from water service*2 *1: Profit after tax *2 If it is possible to separate the net profit for water services from other services such as wastewater service and electricity, please specify. If not, please write the net profit of your utility as a whole	Currency	0	0	0
I.4	Return on asset (Profit after tax/total asset)	%	0	0	0
I.5	Profit margin (Profit before tax/total income)	%	0	0	0
I.6	Equity ratio (Total equity/ Total assets)	%	0	0	0
I.7	Fixed asset to fixed liability ratio	%	0	0	0

2.2 Questions to performance

Please answer the following question by indicator with Yes or No and specify the reasons or factors if you answer "No".

No: The percentages, values and states in the question are assumed as a good practice.

No.	Question by indicator	Yes or No	If No, please specify reasons/factors.
A.	**Service Coverage**		
	Is the coverage of water service higher than **80%**?	No	Production and distribution capacity are largely insufficient in relation to growing demand Lack of periodic maintenance and servicing of infrastructures
B.	**Drinking Water Quality**		
	Is the compliance rate of water quality with the standards higher than **80%**?	Yes	
C.	**Quality of Service**		
C.1	Is the water supply continuous (**24hour/day**)?	No	Several areas in the upper parts no longer have water during dry season. Some others only have at night Frequent water cuts and lack of pressure at the ends of the lines
C.2	In general, is the water supply pressure adequate?	No	Production and distribution capacity are largely insufficient in relation to growing demand
C.3	Is customer satisfaction moderate or high?	No	Many cuts and lack of water pressure, low quality of service
E.	**Non Revenue Water (NRW)**		
	Is the NRW ratio lower than **25%**?	No	Most of the pipes and meters are obsolete. More than 50 years of service Commercial losses are also very high
F.	**Meters**		
	Is the metering ratio higher than **90%**?	No	
G.	**Staff Performance**		
	Is the staff capacity sufficient to meet the organization's requirements in terms of both number and quality? If not, please specify the areas where additional capacity is needed.	No	The number of permanent agents operating in the water sector is insufficient The academic level of technicians is very low. Lack of engineers Lack of training
H.	**Billings & Collections**		
H.1	Is collection ratio higher than **90%**?	Yes	
H.2	Is water tariff revised periodically or according to inflation?	No	The water tariff is managed by the government
H.3	Is connection charge adequate, which does not hinder to increase connection?	No	The prices of connection materials are very expensive. This slows down the connection
I.	**Financial Performance**		
I.1	Are operating costs of water service fully covered by revenue from water service?	No	Please also mention how the deficit is covered (e.g. subsidy from general account budget).
I.2	Are the current water tariff rates adequate for cost recovery?	No	Input material prices continue to rise The water tariff is managed by the government

No.	Question by indicator	Yes or No	If No, please specify reasons/factors.
I.3	Is the operating cost coverage of water service higher than **130%**?	No	The tariff is very low

3. Management Practices

3.1 Organization and Strategy

OS1	Performance Tracking	
OS1.1	How many key performance indicators (KPIs) were monitored at your utility? Please select one answer. Examples of KPI: - Revenue collection rate (%) - Operation cost coverage (%)	☐ 0 key performance indicators ☐ 1-2 key performance indicators ☒ 3-9 key performance indicators ☐ 10-15 key performance indicators ☐ 16 or more key performance indicators
OS1.2	Please list KPIs, the targets and the latest realized KPIs.	%Quality of water %Availability of water %Efficiency (billing/production) %Collection Delay of treatment of claim
OS1.3	How much percentage of KPIs meets the target set?	50 %
OS1.4	How are KPIs set, monitored and evaluated?	☐ In accordance with utility's rules ☐ In accordance with government regulation ☐ Based on performance contract with central or local government ☐ Regulated by independent regulator ☒ Other (Please specify: Monitored and evaluated by Jirama itself_____ _____)
OS1.5	Does your organization have the annual evaluation and feedback cycle of Plan, Do, Check and Action (PDCA).	☐ Yes ☒ No
OS1.6	If Yes in OS1.5. Is PDCA cycle well functioned? If not, please specify the reasons.	☐ Yes ☐ No If No, (specify the reasons: _____

3.2 Commercial

CO1	Customer complaint management	
CO1.1	Please explain the complaint redressal process, and the ratio of solved complaints.	We have a department that is responsible for collecting customer complaints (call center) These complaints are transmitted to the technical services which handle them in order of priority. After processing, technical services update the troubleshooting date in the system

CO1.2	Please list the five main complaints from the largest to smallest.	- Water cut - Lack of pressure - Meter problem - Leak on pipes - Billing problem
CO1.3	Do you record response time? If Yes, please answer average response time.	Yes, 7 days
CO2	**Collection method**	
CO2.1	Please explain the process of meter reading to bill issuance.	Response : - Monthly manual reading of meter indexes by an agent - Entering these indexes into the system - Control and verification of these indexes - Invoice edition and distribution to the client
CO2.2	Please list the payment methods of water charge.	Response - Mobil bank - Cash to the agency - Bank transfer
CO2.3	Please explain meter management method.	☒ Meters are regularly inspected for performance and accuracy, and calibrated or replaced if necessary. ☐ Replace water meter at regular intervals as meters deteriorate over time and their measurement accuracy decreases ☐ Others (Specify: _____)
CO2.4	Please explain disconnection process.	Response After reminder of non-payment of invoices by the customers, we proceed to remove the meter
CO2.5	What do you plan to improve the collection rate?	Response Replacement of meters with prepaid and smart meters

3.3 Operations

OP1	**Water Asset Maintenance**	
OP1.1	Which best describes the maintenance practices of essential **water assets**? Please select one answer.	☒ Water assets are **not maintained** ☒ Water asset maintenance is **primarily reactive**. The Utility replaces or repairs when things break or fall into disrepair. ☐ Water asset maintenance is **partially periodic, partially reactive**. ☐ Water asset maintenance is **primarily preventive.** ☐ Water asset maintenance is **preventive** AND is **informed** by risk assessments and equipment monitoring.
OP1.2	Do you have an updated inventory (ledger) of facilities for facility O&M?	☒ Yes ☐ No
OP1.3	Do you have a fixed asset ledger for financial management?	☒ Yes ☐ No

OP2	O & M	
OP2.1	Is there a O&M plan for which the budget is secured?	☐ Yes ☒ No
OP2.2	Are there any problems regarding the O&M of water supply facilities? If yes, what are the problems and why?	☒ Yes ☐ No If Yes, Describe: Problem1: Lack of human resources. Reason: we cannot afford to hire personnel due to lack of financial resources. Problem2: there are differences in competence among staff. Reason: Due to the lack of standard operation manuals and staff training. Lack of financial resources Problem3: Lack of sufficient finance for maintenance. Reason : operating costs not covered by incomes
OP3	**Non-Revenue Water (NRW)**	
OP3.1	What kinds of measures are implemented to reduce non-revenue water?	☐ None ☐ Active leak detection programs ☐ Pressure management ☒ District metered areas (DMAs) ☐ Aged pipeline replacement and rehabilitation ☐ Installation of accurate meters ☐ Regular meter testing and calibration ☐ Metering of all users ☒ Tackling illegal connections ☐ NRW audits to quantify the volume and identify causes of NRW ☐ Distribution monitoring systems with SCADA ☐ Improve record-keeping and GIS mapping ☐ Staff training for NRW management ☐ Other (Describe: _____)
OP3.2	What are the major causes of NRW. Note: Can select plural answers.	☐ Do not know ☐ Leakage due to high distribution pressure ☒ Leakage due to aged pipeline ☒ Inaccurate meters ☐ Without meters ☒ Illegal connections ☐ Other (Describe: _____)
OP3.3	Do you have any section responsible for NRW management?	☒ Yes ☐ No
OP3.4	Is there an action plan for reducing NRW and is it being implemented?	☒ Yes ☐ No
OP4	**Use of DX (Digital technology) and IT**	
OP4.1	Do you have any strategy of introduction of Digital	☒ Yes ☐ No

	Transformation to your utility?	
OP4.2	Do you use any digital technology in your operation and services (e.g., SCADA, GIS, user-friendly payment methods, advanced customer database, smart meter)? If yes, please specify.	☒ Yes. (if yes, please explain: ☐ No

3.4 Financial

FI1	Tariff Analysis	
FI1.1	Does your Utility conduct full-cost recovery tariff analysis that includes operating expenditures, depreciations, interests and profits? Please select one answer. Definitions: "Full Cost Recovery" refers to the generation of revenue through appropriate pricing of services to cover the full cost of service provision.	☐ Don't Know ☐ There is **no** cost recovery tariff analysis conducted ☐ The **minimum** level of cost recovery tariff analysis is conducted. ☒ There is **some** cost recovery tariff analysis conducted, but the analysis is **irregular.** ☐ There is **extensive** cost recovery tariff analysis conducted **regularly.** ☐ There is **exhaustive** cost recovery tariff analysis conducted **regularly** including for short-, medium-, and long-term investment needs.
FI2	**Financial Forecasting**	
FI2.1	Does the Utility conduct financial forecasting for short-, medium-, and long- term funding needs? Definitions: "Financial forecasting" refers to the formal process of estimating or predicting the funding requirements for the activities conducted by the Utility.	☐ Don't Know ☐ **No** financial forecasting is conducted. ☐ Financial forecasting is conducted for **short-term** needs (< 1 year) ☒ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** needs (1-2 years), but the analysis is **irregular.** ☐ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** (1-2 years) needs **regularly.** ☐ Financial forecasting is conducted for **short-term, medium-term, AND long- term** (> 2 years) needs **regularly.**
FI2.2	What are the priority areas for capital investment in the next 3 years?	☐ Cannot specify ☐ Water resource development ☒ Water treatment plants ☐ Network expansion ☒ Rehabilitation of existing facilities ☐ Others, please specify ___
FI3	**Financial resources**	
FI3.1	What are the sources of finance for major investment?	☐ Grants or Government transfers to the utility? ☒ Concessional borrowing from international financial institutions (multi or bi laterals)? ☐ Government owned banks? ☐ Commercial banks or bond holders? ☐ Internal resources such as profit earned from revenue ☐ None or almost none

FI3.3	If you have any subsidy system from local and/or central governments, please specify the type and objectives of the subsidy	☐ Yes ☐ Compensation for deficit in operation ☐ Pro-poor water provision ☐ Construction of facilities ☐ Others, please specify: _____ ☒ No
FI3.2	Is your utility allowed to borrow from commercial banks or finance through bond issuance for investment in capital project (construction/rehabilitation) without seeking approval from other entities such as regulators/ governments?	☐ Yes ☒ No
FI4	**Accounting**	
FI4.1	What kind of accounting system do your utility apply; corporate, public enterprise accounting or any other?	Corporate accounting
FI4.2	Do you have separate accounting for services other than water, if your utility provides other services?	Not yet

3.5 Human Resources Management and Development

HR1	**Human Resources Management**	
	If the management of your utility undertakes the followings, please select what applied to your organization.	☒ Has an annual appraisal and target setting system for managers ☒ Has an annual appraisal and target setting system for all staff ☐ Has a reward and recognition program for all staff ☐ Has the ability to recruit and dismiss staff (within an agreed plan) ☐ Has a skills and training strategy or plan for all staff
HR2	**Human Resources Development**	
	What are the main training curricula currently in place? Please provide examples such as leakage survey techniques, financial management, etc.	Basic training in electromechanics and hydroelectric Leak detection Project management Sectorization and DMA Digitalization and Remote Management

4. Laws, Regulations and Governance

4.1	Please list all **laws and regulations related to water supply** and, if possible, provide the documents or URL (web page). The laws and regulation to be listed should cover topics such as roles of water utilities and related authorities, water service provider's license system, water tariff setting, water quality standards, facility design standards, water asset ownership and management etc.
	List: Loi N° 98- 029

4.2	If there are any **challenges in the laws and regulations** which affect your utility's performance or hinder your utility to improve performance, please explain.
	Response:
4.3	What law or regulation is your utility regulated by?
	Response: Prescription N°75-24 creation of JIRAMA
4.4	Is water tariff setting regulated by law?
	Response: Decree No. 2003/791 water tariff regulations
4.5	Is your utility operation influenced by politics? If yes, how??
	☐ Yes ☒ No If Yes, please describe :
4.6	Is the relationship with the competent authorities specified by law? What relationship is?
	Response: The Jirama company is under the supervision of three ministries: - Ministry of Energy and Hydrocarbons - Ministry of Water, Sanitation and Hygiene - Ministry of Economy and Finance

5. Assistance of Development Partners (DPs)

5.1	Please provide a list of on-going assistants from DPs below. Or please provide us with the documents including DPs assistance.
	Response: (1) Infrastructure projects: - Construction of news water treatment plants, tanks - Replacement of old pipes and old meters - Expansion of connection (2) Capacity development project /training: - Training of technicians in preparation - Acquisition of tools in preparation - Acquisition smart meter - pilot project
5.2	What kind of assistance do you wish to receive from DPs in terms of technical assistance, infrastructure development, and financial assistance?
	Response: (1) Infrastructure projects: - Construction of news water treatment plants, tanks - Replacement of old pumps, pipes and meters - Expansion of connection - Total renovation of the existing treatment plant (Mandroseza)

	(2) Capacity development project /training: - Tank Trucks - Replacement of all mechanic meters to smart meter - Cars and Trucks for operations, tanks trucks - Computers and materials for digitalization - Tools and machines for work - Training for Water technicians - Telegestion
5.3	DP assistance in the last fiscal year (USD)
	Loan: 285 millions USD Grant:

6. Documents requested

We would appreciate it if you could provide us with the following available documents. If URLs (web pages) are available, please simply share the links.

Note: JICA has already obtained the documents marked ☒, so there is no need for you to send them.

No.	Documents	JICA collected
1.	Audited/ unaudited financial statements (Income Statement (Profit and Loss Statement), Balance Sheet and Cash Flow Statement) for 2021, 2022, 2023 and financial account up to September 2024 or latest available	☐
2.	National policy documents including water supply sector	☐
3.	Laws and regulations related to water supply (4.1 above)	☐
4.	Regulations to set water tariff rate	☐
5.	Water tariff rate with structure and explanation of the tariff rate setting	☐
6.	Mid and long-term water supply development plan if any	☐
7.	The latest business plan of utility	☐
8.	The latest 3 years annual report of utility	☐
9.	Organization chart Note: Your organization chart 2022 has been obtained. Please provide us if the more recent version is available.	☒
10.	IWA Water balance table filled - Breakdown of Non-Revenue Water, if available	☐

QUESTIONNAIRE ON PERFORMANCE AND MANAGEMENT PRACTICES

Country:	Uganda
Utility Name:	National Water and Sewerage Corporation
Service area:	*Operational/Administrative Areas (70 No.)* : Kampala, Mukono Municipality, Kira Municipality, Nansana TC, Wakiso TC Buloba, Kakiri, Entebbe, Jinja, Lugazi, Iganga, Bugiri, Mityana, Masaka, Kalungu, Sembabule, Mpigi, Buwama, Lower, Nakasongola, Kapok, Mubende, Kigumba, Bweyale, Kamuli, Kyocera, Lwengo Area, Kakumiro, Apac, Arua, Gulu, Lira, Kitgum, Pader, Nebbi, Pakwach, Adjumani, Koboko, Moyo, Male, Bukedea, Tororo, Manafwa, Soroti, Kaberamaido, Kumi, Kapchorwa, Moroto, Kotido, Hoima, Kyankwanzi, Bushenyi, Mitooma, Sheema, Rubirizi, Kisoro, Mbarara, Fort Portal, Kyenjojo, Kasese, Bunyangabo, Masindi, Kabale, Rukiga, Rukungiri, Kanungu, Ibanda, Kamwenge, Lyantonde, Ntungamo, Rushere, Mpondwe, Ruhama-Kitwe, Ntoroko. Total No. of Cities and Towns - 276 (Reference: **NWSC Report, 2023/2024**
Latest fiscal year of the data and information provided:	2023/24

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NOTE:

1. **Please click ☐ to change it turn to ☒ in the questionnaire if applicable.**
2. **We would appreciate it if you could first send the following.**
    a. Audited/ unaudited financial statements (Income Statement (Profit and Loss Statement), Balance Sheet and Cash Flow Statement) for the year ended June 2021, 2022, 2023 and financial statement for the financial year ended June 2024
    b. Annual reports for the financial year ended June 2023

(See separate attached files)

1. UTILITY CHARACTERISTICS

1.1 Basic Information

INDICATOR	CATEGORIES
1. What is the structure of the Utility? (Select one)	☐ Inside of local or national government water department (i.e. finances for water/wastewater function are not reported separately from other government activities) ☐ Local or National Government Water Department – Ring fenced; (i.e., finances for water/wastewater function are reported separately from other government activities) ☐ Statutory body ☒ Local or National Government wholly owned service provider operating under commercial law ☐ Jointly (Government and Private) owned provider operating under commercial law ☐ Privately owned provider operating under commercial law ☐ Not for profit provider operating under commercial law ☐ Other (Please describe: _____)
2. What is the mode of the ownership of the water supply infrastructure?	☐ Own all assets ☐ Own only part of the assets (Please specify the owned assets: _____ _____) ☐ Not own and only responsible for operations ☐ Leased ☐ Concessioned ☐ Other (Please specify: _____) ☐ Other (Please specify: _____) If you own only part of the assets, who is the owner of the remaining assets? ☐ Local government ☐ National government ☐ Private company ☒ Other (Please specify: Own on behalf of Government_____)
3. Who has general oversight of the utility's services and tariff?	☒ Local, regional or national government department ☐ Independent board of stakeholders ☐ Independent service & price regulator ☐ Other (Describe: _____)
4. Services provided other than water	☒ Wastewater ☐ Electricity ☐ Other. Describe: _____
5. Nature of service area	☐ Only urban ☒ Urban and peri-urban mixed ☐ Urban and rural mixed

1.2 Basic Indicators

Indicator	Unit	Water services
1. Total population in service area (under utility's nominal responsibility)	persons	23,522,238
2. Population served by water supply services	persons	18,940,345
3. Number of connections of water supply services	connections	943,984
4. Number of Public tap stand	Nos.	29,926
5. Number of towns/cities served with water services	Nos.	276
6. Production Capacity	m3/day	760,107
7. Volume of water produced	m3/year	175,534,754
8. Volume of water sold or billed*1	m3/year	163,622,750
9. Kind of water sources	m3/year	Ground water Surface water Purchase from bulk supplier
10. Total length of transmission and distribution network	km	23,315

*1: "Total water volume billed" refers to the volume of water billed irrespective of whether the bill is paid or not. Any unmetered volume must be estimated from other information.

NB: NWSC Annual Report 2023/24

2. PERFORMANCE DATA

2.1 Performance Indicators (PIs) and Data

Please provide available values of PIs in the last 3 year with fiscal year of data.

Note: JICA has complied the values of some PIs below from your annual reports. Please review them and make any necessary correction.

No.	INDICATOR	UNIT	Value		
			Year 1 (2022)	Year 2 (2023)	Year 3 (2024)
A.	**Service Coverage**				
A1	(Population served by water supply services) /(total population under utility's nominal responsibility)	**%**	84%	80%	81%
B.	**Drinking Water Quality**				
B.1	How many **water samples** in a year were taken in 2024? This refers to the number of samples of drinking water that were taken from the system based on the local standard. Please include <u>all</u> unique test types (e.g., chemical, biological, etc.) in this figure.	**Nos.**	108,438	130,829	117,446

No.	INDICATOR	UNIT	Value		
			Year 1 (2022)	Year 2 (2023)	Year 3 (2024)
B.2	How many water samples **met all required guidelines/standards**? This refers to the number of samples of drinking water taken from the system that have been tested AND comply with the local standard.	**Nos.**	106,269	128,867	117,329
B.3	Compliance rate of water quality (B.2/B.1)	**%**	98%	98%	97%
C.	**Quality of Service**				
C.1	Average continuity of service hours per day for water supply on average	**Hrs./day**	18	20	20
C.2	Water supply pressure The approximate percentage of the customers in low water pressure area	**%**			Appr. 5 – 10%
D.	**Customer satisfaction**				
D.1	Does your utility carry out customer satisfaction survey? What is the rating by customers of your service?	**%**	75%	80%	78%
E.	**Non-Revenue Water (NRW)**				
E.1	Non-Revenue Water Ratio (Difference between water supplied and water sold or billed expressed as a percentage of net water supplied.)	**%**	35.4%	34.9%	33.9%
E.2	Pipe breaks Total number of pipes breaks per year	**Breaks/ year**	3,768	3,264	4,584
F.	**Meters**				
F.1	Metering ratio (Total number of connections with operating meter)/ (total number of connections)	**%**	99.9%	100%	100%
G.	**Operating Costs & Staff**				
G.1	Total annual operating cost for water service *Note 1: Annual operating cost excludes depreciation, amortization, interest*	**Currency/year**	Ushs.397 billion	Ushs.419 billion	Ushs.480 billion
G.2	Annual operating cost other than water service (i.e. wastewater service, electricity, etc.) if any	**Currency/year**	xx	xx	xx
G.3	Labor and staff costs vs Operating costs (Labor and staff costs)/ (Operating costs)	**%**	42%	42%	42%
G.4	Electrical energy costs vs Operating costs (Electrical energy costs)/ (Operating costs)	**%**	19%	19%	17%
G.5	Number of staff What was the total number of full-time staff?	**Nos.**	4,467	4,600	4,600

No.	INDICATOR	UNIT	Value		
			Year 1 (2022)	Year 2 (2023)	Year 3 (2024)
G.6	Staff number per 1,000 connections	Persons/ 1000 connections	5	5	5
H.	**Billings & Collections**				
H.1	Total annual revenue (excluding subsidy)	Currency/year	Ushs.519 billion	Ushs.550 billion	Ushs.622 billion
H.2	Total annual revenue of water service from customers, if you have other services (i.e. wastewater service, electricity, etc.)	Currency/year	Ushs. 357 billion	Ushs.389 billion	Ushs.449 billion
H.3	Other annual revenue of other services (excluding subsidy), if you have other services	Currency/year	Ushs.71 billion	Ushs.113 billion	Ushs.150 billion
H.4	Subsidy for water service	Currency/year	-	-	-
H.5	Connection charge -– water service	Currency /connection	Ushs.8 billion	Ushs.7 billion	Ushs.7.5 billion
H.6	Collection ratio Collected revenue / Billed revenue as a %	%	96%	91%	95%
I.	**Financial Performance**				
I.1	Operating cost coverage Total annual revenue from water service*1 /Total annual operating costs of water service*2 *1 Same as H.2 *2 Same as G.1	Ratio (%)	131%	131%	130%
I.2	What is the target of the operating cost coverage in the target year, if any?	Ratio and target year	124%	126%	134%
I.3	Net profit*1 from water service*2 *1: Profit after tax *2 If it is possible to separate the net profit for water services from other services such as wastewater service and electricity, please specify. If not, please write the net profit of your utility as a whole	Currency	- Ushs.39 billion	Ushs.41 billion	Ushs.60.4 billion
I.4	Return on asset (Profit after tax/total asset)	%	-1%	1%	1%
I.5	Profit margin (Profit before tax/total income)	%	-2%	4%	4%
I.6	Equity ratio (Total equity/ Total assets)	%	34%	33%	33%
I.7	Fixed asset to fixed liability ratio	%	149%	142%	144%

2.2 Questions to Performance

Please answer the following question by indicator with Yes or No and specify the reasons or factors if you answer “No”.

No: The percentages, values and states in the question are assumed as a good practice.

No.	Question by indicator	Yes or No	If No, please specify reasons/factors.
A.	**Service Coverage**		
	Is the coverage of water service higher than **80%**?	Yes	
B.	**Drinking Water Quality**		
	Is the compliance rate of water quality with the standards higher than **80%**?	Yes	
C.	**Quality of Service**		
C.1	Is the water supply continuous (**24hour/day**)?	No	- Due to inadequate water supply in some areas, water is rationed so that all customers can have some water. - Inadequate infrastructure capacities in some areas to meet the existing demand amidst inadequate infrastructure funding. - Climate change and variability especially during long dry spells in some regions.
C.2	In general, is the water supply pressure adequate?	Yes	
C.3	Is customer satisfaction moderate or high?	Yes	Customer satisfaction is above the acceptable standard of 70%.
E.	**Non-Revenue Water (NRW)**		
	Is the NRW ratio lower than **25%**?	No	NRW averages at 33% mainly attributed to the aged pipe network prone to bursts and leakages, illegal connections, defective meters
F.	**Meters**		
	Is the metering ratio higher than **90%**?	Yes	
G.	**Staff Performance**		
	Is the staff capacity sufficient to meet the organization's requirements in terms of both number and quality? If not, please specify the areas where additional capacity is needed.	Yes	
H.	**Billings & Collections**		
H.1	Is collection ratio higher than **90%**?	Yes	
H.2	Is water tariff revised periodically or according to inflation?	Yes	The water tariff is indexed based on significant changes in the macro-economic indicators that affect the cost of business. These include; domestic Price index, exchange rate, foreign price index and electricity Tariff.
H.3	Is connection charge adequate, which does not hinder to increase connection?	Yes	
I.	**Financial Performance**		
I.1	Are operating costs of water service fully covered by revenue from water service?	Yes	
I.2	Are the current water tariff rates adequate for cost recovery?	No	The current tariff rate are not full cost recovery, however are able to cover operational costs.
I.3	Is the operating cost coverage of water service higher than **130%**?	Yes	

3. MANAGEMENT PRACTICES

3.1 Organization and Strategy

OS1	Performance Tracking	
OS1.1	How many key performance indicators (KPIs) were monitored at your utility? Please select one answer. Examples of KPI: - Revenue collection rate (%) - Operation cost coverage (%)	☐ 0 key performance indicators ☐ 1-2 key performance indicators ☐ 3-9 key performance indicators ☐ 10-15 key performance indicators ☒ 16 or more key performance indicators
OS1.2	Please list KPIs, the targets and the latest realized KPIs.	Please see Corporate Plan 2024 – 2027 attached. Specifically Chapter 5 (Section 5.3 – Strategic Framework) and Appendices 3 – 5.
OS1.3	How much percentage of KPIs meets the target set?	Over 90% performance meets the target set.
OS1.4	How are KPIs set, monitored and evaluated?	☐ In accordance with utility's rules ☐ In accordance with government regulation ☒ Based on performance contract with central or local government ☐ Regulated by independent regulator ☐ Other (Please specify; _____ _____)
OS1.5	Does your organization have the annual evaluation and feedback cycle of Plan, Do, Check and Action (PDCA).	☒ Yes ☐ No
OS1.6	If Yes in OS1.5. Is PDCA cycle well functioned? If not, please specify the reasons.	☒ Yes ☐ No If No, (specify the reasons: _____

3.2 Commercial

CO1	Customer complaint management	
CO1.1	Please explain the complaint redressal process, and the ratio of solved complaints.	**Response:** - The Corporation has designed a Customer Relationship Module, (CRM) to receive complaints or comments from all sources. Once complaints are received, they logged onto the CRM, assigned to the specific task holder, who closes the job in the system once the issue is resolved. NWSC then gives feedback to the customers on how their complaints have been addressed. - The average resolution rate over the past four years has been 99%.
CO1.2	Please list the five main complaints from the largest to smallest.	- Leakages especially in areas with road work. - Unreliable water supply especially in dry zones. - Presumed inaccurate/ high water bills. - Poor customer care especially the field staff. - Irregular updates on services and plans.

CO1.3	Do you record response time? If Yes, please answer average response time.	
CO2	**Collection method**	
CO2.1	Please explain the process of meter reading to bill issuance.	**Response:** The billing cycle is approximately 30 days. A meter reader goes to the customers' premises every 30 days (once a month), reads the meters using the rugged phones, the bill is automatically uploaded onto the billing system, and the customer receives an e-bill instantly.
CO2.2	Please list the payment methods of water charge.	**Response:** The payment options include; Electronic Funds Transfer (EFT), Mobile Banking, Mobile Money Payments (MMP), Direct Debit (DB), NWSC App and direct cash deposits across the counter at the bank.
CO2.3	Please explain meter management method.	☐ Meters are regularly inspected for performance and accuracy, and calibrated or replaced if necessary. ☐ Replace water meter at regular intervals as meters deteriorate over time and their measurement accuracy decreases ☐ Others (Specify): _____
CO2.4	Please explain disconnection process.	**Response:** - Identify customers eligible for disconnection based non-payment, illegal use or on request. - Contact Customers and encourage them to pay - If there is no positive feedback from the customer, issue a disconnection order to authorize disconnection (after 24hrs warning notice). - At the customer premise, verify whether a payment has been made within a day of the order. If payment has been made, withdraw disconnection order and update records, and if no payment has been made, effect disconnection. - Update the office disconnection records and continuously monitor all disconnected accounts.
CO2.5	What do you plan to improve the collection rate?	**Response:** - Update the debt management policy and effective debt management programmes. - Effective stakeholder engagement to reduce arrears. - Implementation of revenue collection enhancement

		programmes.

3.3 Operations

OP1	Water Asset Maintenance	
OP1.1	Which best describes the maintenance practices of essential **water assets**? Please select one answer.	☐ Water assets are **not maintained** ☐ Water asset maintenance is **primarily reactive**. The Utility replaces or repairs when things break or fall into disrepair. ☐ Water asset maintenance is **partially periodic, partially reactive**. ☐ Water asset maintenance is **primarily preventive.** ☒ Water asset maintenance is **preventive** AND is **informed** by risk assessments and equipment monitoring.
OP1.2	Do you have an updated inventory (ledger) of facilities for facility O&M?	☒ Yes ☐ No
OP1.3	Do you have a fixed asset ledger for financial management?	☒ Yes ☐ No
OP2	**O & M**	
OP2.1	Is there a O&M plan for which the budget is secured?	☒ Yes ☐ No
OP2.2	Are there any problems regarding the O&M of water supply facilities? If yes, what are the problems and why?	☒ Yes ☐ No If Yes, Describe: Inadequate cashflow Lengthy procurement procedures Counterfeit items that do not last in some cases The Tariff is not full cost recovery this affects the financing
OP3	**Non-Revenue Water (NRW)**	
OP3.1	What kinds of measures are implemented to reduce non-revenue water?	☐ None ☒ Active leak detection programs ☒ Pressure management ☒ District metered areas (DMAs) ☒ Aged pipeline replacement and rehabilitation ☐ Installation of accurate meters ☐ Regular meter testing and calibration ☒ Metering of all users ☒ Tackling illegal connections ☒ NRW audits to quantify the volume and identify causes of NRW ☒ Distribution monitoring systems with SCADA ☒ Improve record-keeping and GIS mapping ☒ Staff training for NRW management ☐ Other (Describe: _____)
OP3.2	What are the major causes of NRW.	☐ Do not know ☒ Leakage due to high distribution pressure

	Note: Can select plural answers.	☒ Leakage due to aged pipeline ☒ Inaccurate meters ☐ Without meters ☒ Illegal connections ☐ Other (Describe: _____)
OP3.3	Do you have any section responsible for NRW management?	☒ Yes ☐ No
OP3.4	Is there an action plan for reducing NRW and is it being implemented?	☒ Yes ☐ No
OP4	**Use of DX (Digital technology) and IT**	
OP4.1	Do you have any strategy of introduction of Digital Transformation to your utility?	☒ Yes ☐ No
OP4.2	Do you use any digital technology in your operation and services (e.g., SCADA, GIS, user-friendly payment methods, advanced customer database, smart meter)? If yes, please specify.	☒ Yes. (if yes, please explain: - One stop customer interaction center - Interactive website - Mobile app - E-payment options - Social media platforms - E – Bills - GIS - Map kit - SCADA - Asset Management System - NWSC Billing System - Customer Relationship Model (CRM) - Skype for business - Document management and sharing system for the Board - E-inventory systems - Inter-Area stock transfers - E- Procurement System - Electronic procurement - New Connection Application ☐ No

3.4 Financial

FI1	**Tariff Analysis**

FI1.1	Does your Utility conduct full-cost recovery tariff analysis that includes operating expenditures, depreciations, interests and profits? Please select one answer. Definitions: "Full Cost Recovery" refers to the generation of revenue through appropriate pricing of services to cover the full cost of service provision.	☐ Don't Know ☐ There is **no** cost recovery tariff analysis conducted ☐ The **minimum** level of cost recovery tariff analysis is conducted. ☐ There is **some** cost recovery tariff analysis conducted, but the analysis is **irregular.** ☒ There is **extensive** cost recovery tariff analysis conducted **regularly.** ☐ There is **exhaustive** cost recovery tariff analysis conducted **regularly** including for short-, medium-, and long-term investment needs.
FI2	**Financial Forecasting**	
FI2.1	Does the Utility conduct financial forecasting for short-, medium-, and long- term funding needs? Definitions: "Financial forecasting" refers to the formal process of estimating or predicting the funding requirements for the activities conducted by the Utility.	☐ Don't Know ☐ **No** financial forecasting is conducted. ☐ Financial forecasting is conducted for **short-term** needs (< 1 year) ☐ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** needs (1-2 years), but the analysis is **irregular.** ☐ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** (1-2 years) needs **regularly.** ☒ Financial forecasting is conducted for **short-term, medium-term,** AND **long- term** (> 2 years) needs **regularly.**
FI2.2	What are the priority areas for capital investment in the next 3 years?	☐ Cannot specify ☐ Water resource development ☒ Water treatment plants ☒ Network expansion ☒ Rehabilitation of existing facilities ☐ Others, please specify ____
FI3	**Financial resources**	
FI3.1	What are the sources of finance for major investment?	☒ Grants or Government transfers to the utility? ☒ Concessional borrowing from international financial institutions (multi or bi laterals)? ☐ Government owned banks? ☒ Commercial banks or bond holders? ☒ Internal resources such as profit earned from revenue ☐ None or almost none
FI3.3	If you have any subsidy system from local and/or central governments, please specify the type and objectives of the subsidy	☐ Yes ☐ Compensation for deficit in operation ☐ Pro-poor water provision ☒ Construction of facilities ☐ Others, please specify: _____ ☐ No
FI3.2	Is your utility allowed to borrow from commercial banks or finance through bond issuance for investment in capital project (construction/rehabilitation) without seeking approval from	☒ Yes ☐ No

	other entities such as regulators/ governments?	
FI4	**Accounting**	
FI4.1	What kind of accounting system do your utility apply; corporate, public enterprise accounting or any other?	Enterprise Resource Planning (ERP) Accounting.
FI4.2	Do you have separate accounting for services other than water, if your utility provides other services?	No

3.5 Human Resources Management and Development

HR1	**Human Resources Management**	
	If the management of your utility undertakes the followings, please select what applied to your organization.	☐ Has an annual appraisal and target setting system for managers ☒ Has an annual appraisal and target setting system for all staff ☒ Has a reward and recognition program for all staff ☒ Has the ability to recruit and dismiss staff (within an agreed plan) ☒ Has a skills and training strategy or plan for all staff
HR2	**Human Resources Development**	
	What are the main training curricula currently in place? Please provide examples such as leakage survey techniques, financial management, etc.	The Curricular in place covers the main functional areas technical, financial, commercial and managerial. The details are available with the Training and Capacity Development. E.g. NRW Management, Asset Management, O&M Practices for water and waste water treatment facilities, survey & mapping, GIS, Water quality process and quality control, procurement, customer care services etc. We also have curricular accredited under the Directorate of Industrial training for vocational skills Fully Occupational Qualifications, Levels I, II and III for Industrial Plumbers, Levels I, II, III and IV for Electromechanical Technicians etc.

4. LAWS, REGULATIONS AND GOVERNANCE

4.1	Please list all **laws and regulations related to water supply** and, if possible, provide the documents or URL (web page). The laws and regulation to be listed should cover topics such as roles of water utilities and related authorities, water service provider's license system, water tariff setting, water quality standards, facility design standards, water asset ownership and management etc.
	List: - The National Water Policy of Uganda - The Water Act Cap 152 Laws of Uganda 2000 - The NWSC Act Cap 317 Laws of Uganda 2000
4.2	If there are any **challenges in the laws and regulations** which affect your utility's performance

	or hinder your utility to improve performance, please explain.
	Response: Yes, - Bureaucracies/ third party created in approvals that delay the implementation of some activities especially projects.
4.3	What law or regulation is your utility regulated by?
	Response: - The National Water Policy of Uganda - The Water Act Cap 152 Laws of Uganda 2000 - The NWSC Act Cap 317 Laws of Uganda 2000 - The PERD Act Cap 98 Laws of Uganda 2000 - The Public Finance Management Act, 2015 - The terms of the Performance Contract 2024 – 2027 - Any other relevant legislation now or in the future
4.4	Is water tariff setting regulated by law?
	Response: Yes, - The NWSC Act Cap 317 - Water Act Cap 152, - Statutory Instrument No. 50 of 2018.
4.5	Is your utility operation influenced by politics? If yes, how??
	☒ Yes ☐ No If Yes, please describe: - Political interventions take the form of directives and guidelines, supervision of operations, setting the strategic direction and resource allocation.
4.6	Is the relationship with the competent authorities specified by law? What relationship is?
	Response: Yes, - Supervisory role mainly in performance evaluations, setting the strategic direction through the national agenda/international agenda and resource allocation through budgetary approvals. - Regulation of operational activities to ensure they are within the set laws and terms of service.

5. Assistance of Development Partners (DPs)

5.1	Please provide a list of on-going assistants from DPs below. Or please provide us with the documents including DPs assistance.
	Response: **(1) Infrastructure projects:** - Financial Assistance - Technical Assistance - Administration support

	(2) Capacity development project /training: - Financial Assistance
5.2	What kind of assistance do you wish to receive from DPs in terms of technical assistance, infrastructure development, and financial assistance?
	Response: (1) Infrastructure projects: - Technical assistance - Infrastructure development - Financial assistance (2) Capacity development project /training: - Technical assistance - Infrastructure development - Financial assistance
5.3	DP assistance in the last fiscal year (USD)
	Loan: *USD 68.42 million committed* **Grant:** *USD 701.46 million committed*

6. Documents requested

We would appreciate it if you could provide us with the following available documents. If URLs (web pages) are available, please simply share the links.

Note: JICA has already obtained the documents marked ☒, so there is no need for you to send them.

No.	Documents	JICA collected
1.	The latest 3 years of audited financial statements (Income Statement (Profit and Loss Statement), Balance Sheet and Cash Flow Statement)	☐
2.	National policy documents including water supply sector	☐
3.	Laws and regulations related to water supply (4.1 above)	☐
4.	Regulations to set water tariff rate	☐
5.	Water tariff rate with structure Note: Statutory Instrument 2018 No. 50 of 7th December 2018, which stipulates the NWSC water and sewerage rates	☒
6.	Mid and long-term water supply development plan if any Note: Your Corporate Plan 2024-2027 has been obtained.	☒
7.	The latest business plan of utility Note: Your Corporate Plan 2024-2027 has been obtained.	☒
8.	The latest 3 years annual report of utility Note: Your Integrated Annual Report 2019/20, 2020/21 and 2021/22 have been obtained. Please provide us if the more recent version is available.	☒
9.	Organization chart Note: Your Corporate Plan 2024-2027 has been obtained.	☒
10.	IWA Water balance table filled - Breakdown of Non-Revenue Water, if available	☐

QUESTIONNAIRE ON PERFORMANCE AND MANAGEMENT PRACTICES

Country:	Malawi
Utility Name:	Lilongwe Water Board (LWB)
Service area:	690km^2
Latest fiscal year of the data and information provided:	April 2023 to March 2024

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NOTE:

1. **Please click ☐ to change it turn to ☒ in the questionnaire if applicable.**
2. **We would appreciate it if you could first send the following.**
   a. **Audited/ unaudited financial statements (Income Statement (Profit and Loss Statement), Balance Sheet and Cash Flow Statement) for the year ending June 2021, 2022, 2023, 2024 and financial account up to September 2024 or latest available**
   b. **Annual reports for 2021, 2022 and 2023**

1. Utility Characteristics

1.1 Basic Information

INDICATOR	CATEGORIES
1. What is the structure of the Utility? (Select one)	☐ Inside of local or national government water department (i.e. finances for water/wastewater function are not reported separately from other government activities) ☐ Local or National Government Water Department – Ring fenced; (i.e., finances for water/wastewater function are reported separately from other government activities) ☒ Statutory body ☐ Local or National Government wholly owned service provider operating under commercial law ☐ Jointly (Government and Private) owned provider operating under commercial law ☐ Privately owned provider operating under commercial law ☐ Not for profit provider operating under commercial law ☐ Other (Please describe: _____)
2. What is the mode of the ownership of the water supply infrastructure?	☒ Own all assets ☐ Own only part of the assets (Please specify the owned assets: _____ _____) ☐ Not own and only responsible for operations ☐ Leased ☐ Concessioned ☐ Other (Please specify: _____) ☐ Other (Please specify: _____) If you own only part of the assets, who is the owner of the remaining assets? ☐ Local government ☐ National government ☐ Private company ☐ Other (Please specify: _____)
3. Who has general oversight of the utility's services and tariff?	☒ Local, regional or national government department ☐ Independent board of stakeholders ☐ Independent service & price regulator ☐ Other (Describe: _____)
4. Services provided other than water	☒ Wastewater ☐ Electricity ☐ Other. Describe: _____
5. Nature of service area	☐ Only urban ☒ Urban and peri-urban mixed ☐ Urban and rural mixed

1.2 Basic Indicators

Indicator	Unit	Water services
1. Total population in service area (under utility's nominal responsibility)	persons	1,120,085
2. Population served by water supply services	persons	1,120,085 (2024)
3. Number of connections of water supply services	connections	134,338 (2024)
4. Number of Public tap stand	Nos.	1,354 Water Kiosks
5. Number of towns/cities served with water services	Nos.	1 (Lilongwe)
6. Production Capacity	m3/day	125,000 (2024)
7. Volume of water produced	m3/year	41,019,727 (2024)
8. Volume of water sold or billed*1	m3/year	24,413,797 (2024)
9. Kind of water sources	m3/year	Ground water 1% Surface water 99% Purchase from bulk supplier
10. Total length of transmission and distribution network	km	2,852km

*1: "Total water volume billed" refers to the volume of water billed irrespective of whether the bill is paid or not. Any unmetered volume must be estimated from other information.

2. Performance Data

2.1 Performance Indicators (PIs) and Data

Please provide available values of PIs in the last 3 year with fiscal year of data.

Note: JICA has complied the values of some PIs below from your annual reports. Please review them and make any necessary correction.

No.	INDICATOR	UNIT	Value		
			Year1 (2022)	Year2 (2023)	Year3 (2024)
A.	**Service Coverage**				
A1	(Population served by water supply services) /(total population under utility's nominal responsibility)	%	87	90	95
B.	**Drinking Water Quality**				
B.1	How many **water samples** in a year were taken in 2023? This refers to the number of samples of drinking water that were taken from the system based on the local standard. Please include all unique test types (e.g.,	Nos.	6,671	6,983	7,786

No.	INDICATOR	UNIT	Value		
			Year1 (2022)	Year2 (2023)	Year3 (2024)
	chemical, biological, etc.) in this figure.				
B.2	How many water samples **met all required guidelines/standards**? This refers to the number of samples of drinking water taken from the system that have been tested AND comply with the local standard.	Nos.	100 Note: Quality of water supplied: samples passing on residual chlorine 6,465	100 6,782	100 7,786
B.3	Compliance rate of water quality (B.2/B.1)	%	96	97	97
C.	**Quality of Service**				
C.1	Average continuity of service hours per day for water supply on average	Hrs/day	18	22	22
C.2	Water supply pressure The approximate percentage of the customers in low water pressure area	%	7%	3%	3%
D.	**Customer satisfaction**				
D.1	Does your utility carry out customer satisfaction survey? What is the rating by customers of your service?	-	-	76%	
E.	**Non-Revenue Water (NRW)**				
E.1	Non-Revenue Water Ratio (Difference between water supplied and water sold or billed expressed as a percentage of net water supplied.)	%	42	40	40
E.2	Pipe breaks Total number of pipes breaks per year	Breaks/ year	68	66	51
F.	**Meters**				
F.1	Metering ratio (Total number of connections with operating meter)/ (total number of connections)	%	100	100	100
G.	**Operating Costs & Staff**				
G.1	Total annual operating cost for water service [1] Note 1: Annual operating cost excludes depreciation, amortization, interest	Currency/ year			
G.2	Annual operating cost other than water service (i.e. wastewater service, electricity, etc.) if any	Currency/ year			
G.3	Labor and staff costs vs Operating costs (Labor and staff costs)/(Operating costs)	%			
G.4	Electrical energy costs vs Operating costs (Electrical energy costs)/(Operating costs)	%	MK2,995,526030	MK3,464,265,802	MK3,149,01,7502
G.5	Number of staff	Nos.	500	605	635

No.	INDICATOR	UNIT	Value		
			Year1 (2022)	Year2 (2023)	Year3 (2024)
	What was the total number of full-time staff?				
G.6	Staff number per 1,000 connections	Persons/ 1000 connections	5	5	5
H.	**Billings & Collections**				
H.1	Total annual revenue (excluding subsidy)	Currency/ year	MK21,183,251,000	MK29,792,204,000	MK37,959,605,000
H.2	Total annual revenue of water service from customers, if you have other services (i.e. wastewater service, electricity, etc.)	Currency/ year			
H.3	Other annual revenue of other services (excluding subsidy), if you have other services	Currency/ year			
H.4	Subsidy for water service	Currency/ year			
H.5	Connection charge -– water service	Currency /connection	MK38,000	MK38,000	MK38,000
H.6	Collection ratio Collected revenue / Billed revenue as a %	%	100	86	95
I.	**Financial Performance**				
I.1	Operating cost coverage Total annual revenue from water service*1 /Total annual operating costs of water service*2 *1 Same as H.2 *2 Same as G.1	Ratio (%)	126	149	180
I.2	What is the target of the operating cost coverage in the target year, if any?	Ratio and target year			
I.3	Net profit*1 from water service*2 *1: Profit after tax *2 If it is possible to separate the net profit for water services from other services such as wastewater service and electricity, please specify. If not, please write the net profit of your utility as a whole	Currency			
I.4	Return on asset (Profit after tax/total asset)	%			
I.5	Profit margin (Profit before tax/total income)	%			
I.6	Equity ratio (Total equity/ Total assets)	%			
I.7	Fixed asset to fixed liability ratio	%			

2.2 Questions to performance

Please answer the following question by indicator with Yes or No and specify the reasons or factors if you answer "No".

No: The percentages, values and states in the question are assumed as a good practice.

No.	Question by indicator	Yes or No	If No, please specify reasons/factors.
A.	**Service Coverage**		
	Is the coverage of water service higher than **80%**?		Yes (95%)
B.	**Drinking Water Quality**		
	Is the compliance rate of water quality with the standards higher than **80%**?		Yes (100%)
C.	**Quality of Service**		
C.1	Is the water supply continuous (**24hour/day**)?		No (22 hours/Day)
C.2	In general, is the water supply pressure adequate?		Yes (10 to 60 meters)
C.3	Is customer satisfaction moderate or high?		High (76%)
E.	**Non Revenue Water (NRW)**		
	Is the NRW ratio lower than **25%**?		No (40%)
F.	**Meters**		
	Is the metering ratio higher than **90%**?		Yes (100%)
G.	**Staff Performance**		
	Is the staff capacity sufficient to meet the organization's requirements in terms of both number and quality? If not, please specify the areas where additional capacity is needed.		
H.	**Billings & Collections**		
H.1	Is collection ratio higher than **90%**?		Yes (95%)
H.2	Is water tariff revised periodically or according to inflation?		Almost revised annually but not based on rate of inflation. Based on approvals from Government
H.3	Is connection charge adequate, which does not hinder to increase connection?		We are running a Free New Water Connection Program for those who cannot afford to meet the costs of a new water connection which is approximately at USD 162 dollars per connection
I.	**Financial Performance**		
I.1	Are operating costs of water service fully covered by revenue from water service? Please also mention how the deficit is covered (e.g. subsidy from general account budget).		
I.2	Are the current water tariff rates adequate for cost recovery?		
I.3	Is the operating cost coverage of water service higher than **130%**?		

3. Management Practices

3.1 Organization and Strategy

OS1	Performance Tracking	
OS1.1	How many key performance indicators (KPIs) were monitored at your utility? Please select one answer. Examples of KPI: - Revenue collection rate (%) - Operation cost coverage (%)	☐ 0 key performance indicators ☐ 1-2 key performance indicators ☐ 3-9 key performance indicators ☐ 10-15 key performance indicators ☒ 16 or more key performance indicators
OS1.2	Please list KPIs, the targets and the latest realized KPIs.	
OS1.3	How much percentage of KPIs meets the target set?	%
OS1.4	How are KPIs set, monitored and evaluated?	☐ In accordance with utility's rules ☐ In accordance with government regulation ☒ Based on performance contract with central or local government ☐ Regulated by independent regulator ☐ Other (Please specify; _____ _____)
OS1.5	Does your organization have the annual evaluation and feedback cycle of Plan, Do, Check and Action (PDCA).	☒ Yes ☐ No
OS1.6	If Yes in OS1.5. Is PDCA cycle well functioned? If not, please specify the reasons.	☒ Yes ☐ No If No, (specify the reasons: _____

3.2 Commercial

CO1	Customer complaint management	
CO1.1	Please explain the complaint redressal process, and the ratio of solved complaints.	Response Complaints are received through Call Center Toll Freeline, Walkins in Zones, Social Media (WhatsApp and Facebook) Complaints include; Water outages, burst pipes, leakages, dirty water. Billing Queries - High bills, meter inaccuracies, or account discrepancies. Customer Service Issues - Delayed response, misconduct, or service dissatisfaction. Connection Issues -Delays in new connections, disconnections, or reconnections

CO1.2	Please list the five main complaints from the largest to smallest.	1. No water, 2. Leakages, 3. Burst Pipes, 4. Meter theft, 5. Prepaid meter errors
CO1.3	Do you record response time? If Yes, please answer average response time.	3hours
CO2	**Collection method**	
CO2.1	Please explain the process of meter reading to bill issuance.	Response
CO2.2	Please list the payment methods of water charge.	Response
CO2.3	Please explain meter management method.	☐ Meters are regularly inspected for performance and accuracy, and calibrated or replaced if necessary. ☒ Replace water meter at regular intervals as meters deteriorate over time and their measurement accuracy decreases ☐ Others (Specify: _____)
CO2.4	Please explain disconnection process.	Response From the billing system, an extract of all customers accounts with bills of more than 30 days is extracted for physical disconnection of water supply on the meter. Meter Attendants are assigned customers to disconnect based on area and meter reading walk route for easy plot identification and reconnection of supply after payment. Disconnections usually occurs together with meter readings exercise between every 1st and 15th of the Month.
CO2.5	What do you plan to improve the collection rate?	Response Apart from disconnecting overdue accounts, customer sensitizations are carried out on the disadvantages of disconnecting water supply and available payment options which include mobile payments, online bank transfers and over the counter payments. Customer sensitizations include social media, newspaper and radio adverts, but also interactive customer meetings.

3.3 Operations

OP1	**Water Asset Maintenance**	
OP1.1	Which best describes the maintenance practices of essential **water assets**? Please select one answer.	☐ Water assets are **not maintained** ☐ Water asset maintenance is **primarily reactive**. The Utility replaces or repairs when things break or fall into disrepair. ☒ Water asset maintenance is **partially periodic, partially reactive**. ☐ Water asset maintenance is **primarily preventive.** ☐ Water asset maintenance is **preventive** AND is **informed**

		by risk assessments and equipment monitoring.
OP1.2	Do you have an updated inventory (ledger) of facilities for facility O&M?	☒ Yes ☐ No
OP1.3	Do you have a fixed asset ledger for financial management?	☒ Yes ☐ No
OP2	**O & M**	
OP2.1	Is there a O&M plan for which the budget is secured?	☒ Yes ☐ No
OP2.2	Are there any problems regarding the O&M of water supply facilities? If yes, what are the problems and why?	☒ Yes ☐ No If Yes, Describe: 1. Supply chain bottlenecks affecting timely availability of repair materials 2. Vandalism and theft of infrastructure increasing costs of O&M in terms of materials, funds and staff time 3. Limited finances to replace aged infrastructure as proactive mentenance
OP3	**Non-Revenue Water (NRW)**	
OP3.1	What kinds of measures are implemented to reduce non-revenue water?	☐ None ☒ Active leak detection programs ☒ Pressure management ☒ District metered areas (DMAs) ☒ Aged pipeline replacement and rehabilitation ☒ Installation of accurate meters ☒ Regular meter testing and calibration ☒ Metering of all users ☒ Tackling illegal connections ☒ NRW audits to quantify the volume and identify causes of NRW ☒ Distribution monitoring systems with SCADA ☒ Improve record-keeping and GIS mapping ☒ Staff training for NRW management ☐ Other (Describe: _____)
OP3.2	What are the major causes of NRW. Note: Can select plural answers.	☐ Do not know ☒ Leakage due to high distribution pressure ☒ Leakage due to aged pipeline ☒ Inaccurate meters (Including production meters) ☐ Without meters ☒ Illegal connections ☐ Other (Describe: _____)

OP3.3	Do you have any section responsible for NRW management?	☒ Yes ☐ No
OP3.4	Is there an action plan for reducing NRW and is it being implemented?	☒ Yes ☐ No
OP4	**Use of DX (Digital technology) and IT**	
OP4.1	Do you have any strategy of introduction of Digital Transformation to your utility?	☒ Yes ☐ No
OP4.2	Do you use any digital technology in your operation and services (e.g., SCADA, GIS, user-friendly payment methods, advanced customer database, smart meter)? If yes, please specify.	☒ Yes. (if yes, please explain: ☐ No

3.4 Financial

FI1	**Tariff Analysis**	
FI1.1	Does your Utility conduct full-cost recovery tariff analysis that includes operating expenditures, depreciations, interests and profits? Please select one answer. Definitions: "Full Cost Recovery" refers to the generation of revenue through appropriate pricing of services to cover the full cost of service provision.	☐ Don't Know ☐ There is **no** cost recovery tariff analysis conducted ☒ The **minimum** level of cost recovery tariff analysis is conducted. ☐ There is **some** cost recovery tariff analysis conducted, but the analysis is **irregular.** ☐ There is **extensive** cost recovery tariff analysis conducted **regularly.** ☐ There is **exhaustive** cost recovery tariff analysis conducted **regularly** including for short-, medium-, and long-term investment needs.
FI2	**Financial Forecasting**	
FI2.1	Does the Utility conduct financial forecasting for short-, medium-, and long- term funding needs? Definitions: "Financial forecasting" refers to the formal process of estimating or predicting the funding requirements for the activities conducted by the Utility.	☐ Don't Know ☐ **No** financial forecasting is conducted. ☐ Financial forecasting is conducted for **short-term** needs (< 1 year) ☐ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** needs (1-2 years), but the analysis is **irregular.** ☐ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** (1-2 years) needs **regularly.** ☒ Financial forecasting is conducted for **short-term, medium-term,** AND **long- term** (> 2 years) needs **regularly.**
FI2.2	What are the priority areas for capital investment in the next 3 years?	☐ Cannot specify ☒ Water resource development ☒ Water treatment plants ☒ Network expansion ☒ Rehabilitation of existing facilities ☐ Others, please specify ___

FI3	Financial resources	
FI3.1	What are the sources of finance for major investment?	☐ Grants or Government transfers to the utility? ☒ Concessional borrowing from international financial institutions (multi or bi laterals)? ☐ Government owned banks? ☐ Commercial banks or bond holders? ☒ Internal resources such as profit earned from revenue ☐ None or almost none
FI3.3	If you have any subsidy system from local and/or central governments, please specify the type and objectives of the subsidy	☐ Yes ☐ Compensation for deficit in operation ☐ Pro-poor water provision ☐ Construction of facilities ☐ Others, please specify: _____ ☒ No
FI3.2	Is your utility allowed to borrow from commercial banks or finance through bond issuance for investment in capital project (construction/rehabilitation) without seeking approval from other entities such as regulators/ governments?	☒ Yes ☐ No
FI4	**Accounting**	
FI4.1	What kind of accounting system do your utility apply; corporate, public enterprise accounting or any other?	
FI4.2	Do you have separate accounting for services other than water, if your utility provides other services?	

3.5 Human Resources Management and Development

HR1	Human Resources Management	
	If the management of your utility undertakes the followings, please select what applied to your organization.	☐ Has an annual appraisal and target setting system for managers ☒ Has an annual appraisal and target setting system for all staff ☐ Has a reward and recognition program for all staff ☐ Has the ability to recruit and dismiss staff (within an agreed plan) ☐ Has a skills and training strategy or plan for all staff
HR2	**Human Resources Development**	
	What are the main training curricula currently in place? Please provide examples such as leakage survey techniques, financial management, etc.	Training cover all staff and all areas depending on identified gaps during annual appraisals. Training areas include technical/expert and leadership programs

4. Laws, Regulations and Governance

4.1	Please list all **laws and regulations related to water supply** and, if possible, provide the documents or URL (web page). The laws and regulation to be listed should cover topics such as roles of water utilities and related authorities, water service provider's license system, water tariff setting, water quality standards, facility design standards, water asset ownership and management etc.
	List: Water Works Act; National water and Sanitation Policy; National Water Resources
4.2	If there are any **challenges in the laws and regulations** which affect your utility's performance or hinder your utility to improve performance, please explain.
	Response:
4.3	What law or regulation is your utility regulated by?
	Response: Water Works Act
4.4	Is water tariff setting regulated by law?
	Response: Yes
4.5	Is your utility operation influenced by politics? If yes, how??
	☒ Yes ☐ No If Yes, please describe: The Board is appointed by the Office of President and Cabinet
4.6	Is the relationship with the competent authorities specified by law? What relationship is?
	Response: Ministry of Finance (for Budgeting), Ministry of Water and Sanitation (policy and Tariff); Office of President and Cabinet –Performance contract; Economic Planning – Public Sector Investment; Auditor General – Financial Statement audits; Public Procurement Act - procurement

5. Assistance of Development Partners (DPs)

5.1	Please provide a list of on-going assistants from DPs below. Or please provide us with the documents including DPs assistance.
	Response: (1) Infrastructure projects: World Bank/IDA – Lilongwe Water and Sanitation Project European Investment Bank (EIB) – Lilongwe Drought Resilience Project (2) Capacity development project /training: JICA – LisCAP project
5.2	What kind of assistance do you wish to receive from DPs in terms of technical assistance,

	infrastructure development, and financial assistance?
	Response: (1) Infrastructure projects: Lilongwe Water Board has prepared an Infrastructure Investment Program for the period 2025 – 2063. Implementation of priority investments for the period 2025 – 2030 requires a total of $292 million. Among others this covers: • Water supply network extension • Infrastructure rehabilitation • Non-Revenue Water reduction • Sewerage system investments (2) Capacity development project /training: • Dam operations including dam safety measures • Water resources development and management • Design, operation and maintenance of sewerage systems • Non-Revenue Water Reduction • Catchment management • Advanced water treatment including handling of emerging pollutants
5.3	DP assistance in the last fiscal year (USD)
	Loan: World Bank – 8,845,283.00 (disbursement in the year under the Lilongwe Water and Sanitation Project) EIB – 8,900,000.00 (disbursement in the year under the Lilongwe Drought Resilience Programme) Grant: World Bank – 15,730,541.00 (disbursement in the year under the Lilongwe Water and Sanitation Project)

6. Documents requested

We would appreciate it if you could provide us with the following available documents. If URLs (web pages) are available, please simply share the links.

Note: JICA has already obtained the documents marked ☒, so there is no need for you to send them.

No.	Documents	JICA collected
1.	Audited/ unaudited financial statements (Income Statement (Profit and Loss Statement), Balance Sheet and Cash Flow Statement) for the year ending June 2021, 2022, 2023, 2024 and financial account up to September 2024 or latest available	☐
2.	National policy documents including water supply sector	☒
3.	Laws and regulations related to water supply (4.1 above)	☒
4.	Regulations to set water tariff rate and explanation of the tariff rate setting	☐
5.	Water tariff rate with structure Note: "LWB Gazette Tarif 2023" has been obtained from your website.	☒
6.	Mid and long-term water supply development plan if any Note: "Strategic plan 2020-2025" has been obtained from your website. Please provide us if the more recent version is available.	☒
7.	The latest business plan of utility	☒
8.	The latest 3 years annual report of utility	☒

9.	Organization chart	☒
10.	IWA Water balance table filled - Breakdown of Non-Revenue Water, if available	☒

QUESTIONNAIRE ON PERFORMANCE AND MANAGEMENT PRACTICES

Country:	Malawi
Utility Name:	Blantyre Water Board (BWB)
Service area:	85,000 Hectares of Service Coverage
Latest fiscal year of the data and information provided:	2023

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NOTE:

1. **Please click ☐ to change it turn to ☒ in the questionnaire if applicable.**
2. **We would appreciate it if you could first send the following.**
   a. **Audited/ unaudited financial statements (Income Statement (Profit and Loss Statement), Balance Sheet and Cash Flow Statement) for financial year ending June 2021, 2022, 2023, 2024 and financial account up to September 2024 or latest available**
   b. **Annual reports for 2021, 2022 and 2023, 2024**

1. Utility Characteristics

1.1 Basic Information

INDICATOR	CATEGORIES
1. What is the structure of the Utility? (Select one)	☐ Inside of local or national government water department (i.e. finances for water/wastewater function are not reported separately from other government activities) ☐ Local or National Government Water Department – Ring fenced; (i.e., finances for water/wastewater function are reported separately from other government activities) ☒ Statutory body ☐ Local or National Government wholly owned service provider operating under commercial law ☐ Jointly (Government and Private) owned provider operating under commercial law ☐ Privately owned provider operating under commercial law ☐ Not for profit provider operating under commercial law ☐ Other (Please describe: _____)
2. What is the mode of the ownership of the water supply infrastructure?	☒ Own all assets ☐ Own only part of the assets (Please specify the owned assets: _____ _____) ☐ Not own and only responsible for operations ☐ Leased ☐ Concessioned ☐ Other (Please specify: _____) ☐ Other (Please specify: _____) If you own only part of the assets, who is the owner of the remaining assets? ☐ Local government ☐ National government ☐ Private company ☐ Other (Please specify: _____)
3. Who has general oversight of the utility's services and tariff?	☒ Local, regional or national government department ☐ Independent board of stakeholders ☐ Independent service & price regulator ☐ Other (Describe: _____)
4. Services provided other than water	☐ Wastewater ☐ Electricity ☐ Other. Describe: N/A
5. Nature of service area	☐ Only urban ☒ Urban and peri-urban mixed ☐ Urban and rural mixed

1.2 Basic Indicators

Indicator	Unit	Water services
1. Total population in service area (under utility's nominal responsibility)	persons	1,449,279 (2023)
2. Population served by water supply services	persons	1,260,873 (2023)
3. Number of connections of water supply services	connections	71,974 (2023)
4. Number of Public tap stand	Nos.	Not documented separately- part of domestic customers
5. Number of towns/cities served with water services	Nos.	1
6. Production Capacity	m3/day	123,000 (2023)
7. Volume of water produced	m3/year	33,366,384 (2023)
8. Volume of water sold or billed*1	m3/year	14, 209, 659 (2023)
9. Kind of water sources	m3/year	Ground water: 49,388 (2023) Surface water: 33,316,996 (2023) Purchase from bulk supplier N/A
10. Total length of transmission and distribution network	km	1,650 (2023)

*1: "Total water volume billed" refers to the volume of water billed irrespective of whether the bill is paid or not. Any unmetered volume must be estimated from other information.

2. Performance Data

2.1 Performance Indicators (PIs) and Data

Please provide available values of PIs in the last 3 year with fiscal year of data.

Note: JICA has complied the values of some PIs below from your annual reports. Please review them and make any necessary correction.

No.	INDICATOR	UNIT	Value		
			Year1 (2021)	Year2 (2022)	Year3 (2023)
A.	**Service Coverage**				
A1	(Population served by water supply services) /(total population under utility's nominal responsibility)	%	86	86	87
B.	**Drinking Water Quality**				
B.1	How many **water samples** in a year were taken in 2023? This refers to the number of samples of drinking water that were taken from the	Nos.	3,915	3,644	3,191

No.	INDICATOR	UNIT	Value		
			Year1 (2021)	Year2 (2022)	Year3 (2023)
	system based on the local standard. Please include <u>all</u> unique test types (e.g., chemical, biological, etc.) in this figure.				
B.2	How many water samples **met all required guidelines/standards**? This refers to the number of samples of drinking water taken from the system that have been tested AND comply with the local standard.	Nos.	pH: 2,973 Turbidity: 2, 979 Residual Chlorine: 2,017 Colour: 2,996 Bacteriology: 3,003	pH: 3,641 Turbidity: 3,455 Residual Chlorine: 2,718 Colour: 3,618 Bacteriology: 3,641	pH: 2,823 Turbidity:2, 617 Residual Chlorine:2, 105 Colour:3,016 Bacteriology: 3,191
B.3	Compliance rate of water quality (B.2/B.1)	%	pH: 99 Turbidity: 99 Residual Chlorine: 67 Colour: 100 Bacteriology: 100	pH: 100 Turbidity: 95 Residual Chlorine: 75 Colour: 99 Bacteriology:100	pH: 88 Turbidity: 82 Residual Chlorine: 66 Colour: 95 Bacteriology: 100
C.	**Quality of Service**				
C.1	Average continuity of service hours per day for water supply on average	Hrs/day	22	22	22
C.2	Water supply pressure The <u>approximate</u> percentage of the customers in low water pressure area	bar	-1 to 3.0	-1 to 3.0	-1 to 3.0
D.	**Customer satisfaction**				
D.1	Does your utility carry out customer satisfaction survey? What is the rating by customers of your service?	%	-	25%	-
E.	**Non-Revenue Water (NRW)**				
E.1	Non-Revenue Water Ratio (Difference between water supplied and water sold or billed expressed as a percentage of net water supplied.)	%	54	53	55
E.2	Pipe breaks Total number of pipes breaks per year	Breaks/ year	12,604	9,756	11,786
F.	**Meters**				
F.1	Metering ratio (Total number of connections with operating meter)/ (total number of connections)	%	100	100	100
G.	**Operating Costs & Staff**				
G.1	Total annual operating cost for water service [1] Note 1: Annual operating cost excludes depreciation, amortization, interest	MK'000 /year	28,369,573	23,566,399	44,099,568
G.2	Annual operating cost other than water	MK'000 /year	N/A	N/A	N/A

No.	INDICATOR	UNIT	Value		
			Year1 (2021)	Year2 (2022)	Year3 (2023)
	service (i.e. wastewater service, electricity, etc.) if any				
G.3	Labor and staff costs vs Operating costs (Labor and staff costs)/(Operating costs)	%	14%	14%	12%
G.4	Electrical energy costs vs Operating costs (Electrical energy costs)/(Operating costs)	%	40%	40%	32%
G.5	Number of staff What was the total number of full-time staff?	Nos.	587	604	625
G.6	Staff number per 1,000 connections	Persons/ 1000 connections	9	9	9
H.	**Billings & Collections**				
H.1	Total annual revenue (excluding subsidy)	MK'000 /year	16,656,579	15,417,388	23,704,485
H.2	Total annual revenue of water service from customers, if you have other services (i.e. wastewater service, electricity, etc.)	MK/year	N/A	N/A	N/A
H.3	Other annual revenue of other services (excluding subsidy), if you have other services	MK/year	N/A	N/A	N/A
H.4	Subsidy for water service	MK/year			
H.5	Connection charge -– water service	MK /connection	35,000	35,000	35,000
H.6	Collection ratio Collected revenue / Billed revenue as a %	%	82	79	49
I.	**Financial Performance**				
I.1	Operating cost coverage Total annual revenue from water service*1 /Total annual operating costs of water service*2 *1 Same as H.2 *2 Same as G.1	Ratio (%)	59%	65%	54%
I.2	What is the target of the operating cost coverage in the target year, if any?	Ratio and target year	N/A	N/A	N/A
I.3	Net profit*1 from water service*2 *1: Profit after tax *2 If it is possible to separate the net profit for water services from other services such as wastewater service and electricity, please specify. If not, please write the net profit of your utility as a whole	MK'000	13,831,189	8,187,960	13,736,310
I.4	Return on asset (Profit after tax/total asset)	%	(17)	(11)	(16)
I.5	Profit margin (Profit before tax/total income)	%	(81)	(57)	(95)

No.	INDICATOR	UNIT	Value		
			Year1 (2021)	Year2 (2022)	Year3 (2023)
I.6	Equity ratio (Total equity/ Total assets)	%	(6)	(17)	9
I.7	Fixed asset to fixed liability ratio	%	156	157	152

2.2 Questions to performance

Please answer the following question by indicator with Yes or No and specify the reasons or factors if you answer "No".

No: The percentages, values and states in the question are assumed as a good practice.

No.	Question by indicator	Yes or No	If No, please specify reasons/factors.
A.	**Service Coverage**		
	Is the coverage of water service higher than **80%**?	Yes	
B.	**Drinking Water Quality**		
	Is the compliance rate of water quality with the standards higher than **80%**?	Yes	
C.	**Quality of Service**		
C.1	Is the water supply continuous (**24hour/day**)?	Yes	
C.2	In general, is the water supply pressure adequate?	No	Due to low water supply and network bottlenecks.
C.3	Is customer satisfaction moderate or high?		Moderate
E.	**Non Revenue Water (NRW)**		
	Is the NRW ratio lower than **25%**?	No	The NRW is high due to aged network, metering and illegal connection
F.	**Meters**		
	Is the metering ratio higher than **90%**?	Yes	
G.	**Staff Performance**		
	Is the staff capacity sufficient to meet the organization's requirements in terms of both number and quality? If not, please specify the areas where additional capacity is needed.	Yes	
H.	**Billings & Collections**		
H.1	Is collection ratio higher than **90%**?	No	The collection ratio is largely affected by the delay in government payment of bills
H.2	Is water tariff revised periodically or according to inflation?		Water tariff are revised periodically and not according to inflation
H.3	Is connection charge adequate, which does not hinder to increase connection?		The Board charges only MK35,000 and does not hinder to increase
I.	**Financial Performance**		
I.1	Are operating costs of water service fully covered by revenue from water service?		

No.	Question by indicator	Yes or No	If No, please specify reasons/factors.
			Please also mention how the deficit is covered (e.g. subsidy from general account budget). No Deficit is covered by bank overdraft and accounts payables
I.2	Are the current water tariff rates adequate for cost recovery?	No	No. The tariff rates are below cost recovery.
I.3	Is the operating cost coverage of water service higher than **130%**?	Yes	The Working ratio for 2023 was 1.62

3. Management Practices

3.1 Organization and Strategy

OS1	**Performance Tracking**	
OS1.1	How many key performance indicators (KPIs) were monitored at your utility? Please select one answer. Examples of KPI: - Revenue collection rate (%) - Operation cost coverage (%)	☐ 0 key performance indicators ☐ 1-2 key performance indicators ☐ 3-9 key performance indicators ☐ 10-15 key performance indicators ☒ 16 or more key performance indicators
OS1.2	Please list KPIs, the targets and the latest realized KPIs.	

Performance Target	**Measure**	**Planned (Budgeted) Target**	**Actual (Achieved) Target**
Service Delivery			
Level of Service Delivery	%	85	87
Coverage	%	85	87
Hours of Supply	Hrs	22	22
Number of Active Customers	No.	78,212	71,974
New Connections	No.	13,637	2,160
Volume Produced	(million m^3)	31.4	33.1
Sales	(million m^3)	17.9	14.2
Operational Efficiency			
Non-Revenue Water	%	43	55
Debtors Days	Days	111	130
Number of Connection Days	Days	28	-
Financial Efficiency			

		Total Revenue	MK' million	38,158.7	23,704.5
		Total Expenditure	MK' million	26,414.3	44,099.6
		Net Profit (after tax)	MK' million	(451.5)	(13,736.3)
		Current Ratio	:	0.20	0.46
		Working Ratio	:	0.98	1.62
		Compliance with Approved Budget	%	100	100
OS1.3	How much percentage of KPIs meets the target set?	N/A			
OS1.4	How are KPIs set, monitored and evaluated?	☒ In accordance with utility's rules ☐ In accordance with government regulation ☐ Based on performance contract with central or local government ☐ Regulated by independent regulator ☐ Other (Please specify. _____ _____)			
OS1.5	Does your organization have the annual evaluation and feedback cycle of Plan, Do, Check and Action (PDCA).	☒ Yes ☐ No			
OS1.6	If Yes in OS1.5. Is PDCA cycle well functioned? If not, please specify the reasons.	☐ Yes ☒ No If No, (specify the reasons: There are few challenges in the adoption of the improvement plan			

3.2 Commercial

CO1	**Customer complaint management**	
CO1.1	Please explain the complaint redressal process, and the ratio of solved complaints.	Response: Customer complaints are logged in customer service module and fault management system. The logged complaints are assigned to the responsible officers who resolve them and clear them in the systems. The customer service staff then provide feedback to the customers
CO1.2	Please list the five main complaints from the largest to smallest.	- Financial complaints - Engineering complaints - Meter/Connection Complaints
CO1.3	Do you record response time? If Yes, please answer average response time.	No. The Board has no Customer Relationship Management system to track the real time in response time.
CO2	**Collection method**	
CO2.1	Please explain the process of meter reading to bill issuance.	Response: After opening the new billing cycle in the edams system, sales supervisors/ billing officers' uploads books into meter readers' spot billing application. Then meter readers start the meter reading process

		of all assigned books. When meter readers complete a book/books they upload meter reading figures into edams billing system. The meter readers can print spot bill and give it to customers instantly. After completing meter reading, the ICT finalizes the meter reading process by billing customers based on the consumption uploaded and analyzed by the billing team. Then the bills are ready.
CO2.2	Please list the payment methods of water charge.	Response: • Money mobile payments • Bank • Online • Cash • Vendors (Filling Stations)
CO2.3	Please explain meter management method.	☒ Meters are regularly inspected for performance and accuracy, and calibrated or replaced if necessary. ☒ Replace water meter at regular intervals as meters deteriorate over time and their measurement accuracy decreases ☐ Others (Specify:
CO2.4	Please explain disconnection process.	Response: Any amount over 30 days is due for disconnection. This information is extracted from debt management module in the edams system. Then disconnection sheets are produced and assigned to different disconnection driver for disconnection.
CO2.5	What do you plan to improve the collection rate?	Response: • Enhance effective communication with customers on their bills • Mobilize disconnection staff – constantly remind them of their responsibility and targets to achieve. • Monitor the disconnection process to ensure that set target are met. • Resolving financial related complaints timely. • Adhere the disconnection policy

3.3 Operations

OP1	**Water Asset Maintenance**	
OP1.1	Which best describes the maintenance practices of essential **water assets**? Please select one answer.	☐ Water assets are **not maintained** ☒ Water asset maintenance is **primarily reactive**. The Utility replaces or repairs when things break or fall into disrepair. ☐ Water asset maintenance is **partially periodic, partially reactive**. ☐ Water asset maintenance is **primarily preventive.** ☐ Water asset maintenance is **preventive** AND is **informed**

		by risk assessments and equipment monitoring.
OP1.2	Do you have an updated inventory (ledger) of facilities for facility O&M?	☐ Yes ☒ No
OP1.3	Do you have a fixed asset ledger for financial management?	☒ Yes ☐ No
OP2	**O & M**	
OP2.1	Is there a O&M plan for which the budget is secured?	☐ Yes ☒ No
OP2.2	Are there any problems regarding the O&M of water supply facilities? If yes, what are the problems and why?	☒ Yes ☐ No If Yes, Describe: • Lack of standard operation manuals • Inadequate staff training. • Lack of sufficient finance for maintenance.
OP3	**Non-Revenue Water (NRW)**	
OP3.1	What kinds of measures are implemented to reduce non-revenue water?	☐ None ☐ Active leak detection programs ☒ Pressure management ☒ District metered areas (DMAs) ☒ Aged pipeline replacement and rehabilitation ☒ Installation of accurate meters ☒ Regular meter testing and calibration ☒ Metering of all users ☒ Tackling illegal connections ☒ NRW audits to quantify the volume and identify causes of NRW ☐ Distribution monitoring systems with SCADA ☒ Improve record-keeping and GIS mapping ☒ Staff training for NRW management ☐ Other (Describe: _____)
OP3.2	What are the major causes of NRW. Note: Can select plural answers.	☐ Do not know ☐ Leakage due to high distribution pressure ☒ Leakage due to aged pipeline ☒ Inaccurate meters ☐ Without meters ☒ Illegal connections ☐ Other (Describe: _____)
OP3.3	Do you have any section responsible for NRW management?	☒ Yes ☐ No

OP3.4	Is there an action plan for reducing NRW and is it being implemented?	☒ Yes ☐ No
OP4	**Use of DX (Digital technology) and IT**	
OP4.1	Do you have any strategy of introduction of Digital Transformation to your utility?	☒ Yes ☐ No
OP4.2	Do you use any digital technology in your operation and services (e.g., SCADA, GIS, user-friendly payment methods, advanced customer database, smart meter)? If yes, please specify.	☒ Yes. (if yes, please explain: ☐ No

3.4 Financial

FI1	**Tariff Analysis**	
FI1.1	Does your Utility conduct full-cost recovery tariff analysis that includes operating expenditures, depreciations, interests and profits? Please select one answer. Definitions: "Full Cost Recovery" refers to the generation of revenue through appropriate pricing of services to cover the full cost of service provision.	☐ Don't Know ☐ There is **no** cost recovery tariff analysis conducted ☒ The **minimum** level of cost recovery tariff analysis is conducted. ☐ There is **some** cost recovery tariff analysis conducted, but the analysis is **irregular.** ☐ There is **extensive** cost recovery tariff analysis conducted **regularly.** ☐ There is **exhaustive** cost recovery tariff analysis conducted **regularly** including for short-, medium-, and long-term investment needs.
FI2	**Financial Forecasting**	
FI2.1	Does the Utility conduct financial forecasting for short-, medium-, and long- term funding needs? Definitions: "Financial forecasting" refers to the formal process of estimating or predicting the funding requirements for the activities conducted by the Utility.	☐ Don't Know ☐ **No** financial forecasting is conducted. ☐ Financial forecasting is conducted for **short-term** needs (< 1 year) ☒ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** needs (1-2 years), but the analysis is **irregular.** ☐ Financial forecasting is conducted for **short-term** (< 1 year) AND **medium-term** (1-2 years) needs **regularly.** ☐ Financial forecasting is conducted for **short-term, medium-term,** AND **long- term** (> 2 years) needs **regularly.**
FI2.2	What are the priority areas for capital investment in the next 3 years?	☐ Cannot specify ☒ Water resource development ☐ Water treatment plants ☒ Network expansion ☒ Rehabilitation of existing facilities ☐ Others, please specify ___
FI3	**Financial resources**	

FI3.1	What are the sources of finance for major investment?	☒ Grants or Government transfers to the utility? ☒ Concessional borrowing from international financial institutions (multi or bi laterals)? ☐ Government owned banks? ☒ Commercial banks or bond holders? ☒ Internal resources such as profit earned from revenue ☐ None or almost none
FI3.3	If you have any subsidy system from local and/or central governments, please specify the type and objectives of the subsidy	☐ Yes ☐ Compensation for deficit in operation ☐ Pro-poor water provision ☐ Construction of facilities ☐ Others, please specify: _____ ☒ No
FI3.2	Is your utility allowed to borrow from commercial banks or finance through bond issuance for investment in capital project (construction/rehabilitation) without seeking approval from other entities such as regulators/ governments?	☐ Yes ☒ No
FI4	**Accounting**	
FI4.1	What kind of accounting system do your utility apply; corporate, public enterprise accounting or any other?	Corporate
FI4.2	Do you have separate accounting for services other than water, if your utility provides other services?	N/A

3.5 Human Resources Management and Development

HR1	**Human Resources Management**	
	If the management of your utility undertakes the followings, please select what applied to your organization.	☒ Has an annual appraisal and target setting system for managers ☒ Has an annual appraisal and target setting system for all staff ☒ Has a reward and recognition program for all staff ☒ Has the ability to recruit and dismiss staff (within an agreed plan) ☒ Has a skills and training strategy or plan for all staff
HR2	**Human Resources Development**	
	What are the main training curricula currently in place? Please provide examples such as leakage survey techniques, financial management, etc.	There is a five-year training programme covering the skills gap analysis identified in training needs assessment of all staff.

4. Laws, Regulations and Governance

4.1	Please list all **laws and regulations related to water supply** and, if possible, provide the documents or URL (web page). The laws and regulation to be listed should cover topics such as roles of water utilities and related authorities, water service provider's license system, water tariff setting, water quality standards, facility design standards, water asset ownership and management etc.
	List: Waterworks Act 1995 Water Resources Act 2013 Malawi Bureau of Standard Act 1972 (Revised 2012)
4.2	If there are any **challenges in the laws and regulations** which affect your utility's performance or hinder your utility to improve performance, please explain.
	Response: • Lack of independent regulator of water supply. • Legal dichotomy in the provision of sewerage and sanitation services. Currently the Waterworks Act places that responsibility on water boards while the Local Government Act also places the same responsibility on local councils. • Outdated legislation- The waterworks Act was formulated in 1995 and requires urgent review. • Penalties in the Waterworks Act relating to cases of vandalism, illegal connection and meter tempering are not punitive enough to deter offenders. However, currently such cases are handled using the penal code which has some stiff penalties. • Non cost reflective tariffs.
4.3	What law or regulation is your utility regulated by?
	Response: • Waterworks Act 1995 • Water Resources Act 2013 • Environmental Management Act • Malawi Bureau of Standard Act 1972 (Revised 2012)
4.4	Is water tariff setting regulated by law?
	Response: • Yes
4.5	Is your utility operation influenced by politics? If yes, how??
	☒ Yes ☐ No If yes, please describe: Tariff adjustment approvals consider political, social and economic factors making tariffs not cost reflective.
4.6	Is the relationship with the competent authorities specified by law? What relationship is?
	Response: Yes. Governance system.

5. Assistance of Development Partners (DPs)

5.1	Please provide a list of on-going assistants from DPs below. Or please provide us with the documents including DPs assistance.
	Response: (1) Infrastructure projects: • Malawi Water and Sanitation Project 1 (MWSP-1) (2) Capacity development project /training: • Institutional Capacity Strengthening Program which is under the MWSP-1
5.2	What kind of assistance do you wish to receive from DPs in terms of technical assistance, infrastructure development, and financial assistance?
	Response: (1) Infrastructure projects: • Financial assistance – (Grants) to finance the implementation of the projects that are lacking funding • Technical assistance through expert knowledge transfer (2) Capacity development project /training: • Financial assistance • Technical back stopping
5.3	DP assistance in the last fiscal year (USD)
	Loan: N/A Grant: N/A

6. Documents requested

We would appreciate it if you could provide us with the following available documents. If URLs (web pages) are available, please simply share the links.

Note: JICA has already obtained the documents marked ☒, so there is no need for you to send them.

No.	Documents	JICA collected
1.	Audited/ unaudited financial statements (Income Statement (Profit and Loss Statement), Balance Sheet and Cash Flow Statement) for financial year ending June 2021, 2022, 2023, 2024 and financial account up to September 2024 or latest available	☐
2.	National policy documents including water supply sector	☐
3.	Laws and regulations related to water supply (4.1 above)	☐
4.	Regulations to set water tariff rate and explanation of the tariff rate setting	☐
5.	Water tariff rate with structure	☒

	Note: Your “Adjustment in tariff structure” has been obtained.	
6.	Mid and long-term water supply development plan if any	☐
7.	The latest business plan of utility	☐
8.	The latest 3 years annual report of utility Note: Your annual reports 2015, 2016 and 2017 have been obtained as the latest ones. Please provide us if the more recent versions are available.	☐
9.	Organization chart	☐
10.	IWA Water balance table filled - Breakdown of Non-Revenue Water, if available	☐