

Annual Report for Sierra Leone Water Company

2023

SALWACO

Tower Hill, P M Bag 42, Freetown, Sierra Leone

List of Abbreviations and Acronyms

AfDB	-	African Development Bank
AMCOW	-	Africa Ministers Council on Water
CEOs	-	Chief Executive Officers
Const.	-	Construction
CSO	-	Country Status Overviews
DfID	-	Department for International Development
DG	-	Director-General
DMD	-	Deputy Managing Director
DPR		Detailed Project Report
EDMS		Electronic Document Management Solution
Exim Bank	-	Export Import Bank of India
FCDO	-	Foreign, Commonwealth & Development Office
GM	-	General Manager
GoSL		Government of Sierra Leone
GVWC	-	Guma Valley Water Company
IBH	-	Industrial Borehole
IPC	-	Interim Payment Certificate
IsDB	-	Islamic Development Bank
JD	-	Job Description
LCs	-	Local Councils
MD	-	Managing Director
MEP	-	Ministry of Energy and Power
MoW	-	Ministry of Works
MWR	-	Ministry of Water Resources
PMC		Project Management Consultant
PTT	-	Performance Tracking Table
PWD	-	Public Works Department
SALWACO	-	Sierra Leone Water Company
SDG	-	Sustainable Development Goal
SEs		Station Engineers

SL		Sierra Leone
SLMTNDP	-	Sierra Leones's Medium-Term National Development Plan
SMs		Station Managers
STWSP		Six Towns Water Supply Project
ToR	-	Terms of Reference
TTWSSP	-	Three Towns Water Supply and Sanitation Project
UK	-	United Kingdom
WB	-	World Bank
WHO	-	World Health Organization
WSD	-	Water Supply Directorate

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Executive Summary

The Sierra Leone Water Company has 14 Stations (10 operational and 4 under rehabilitation/optimisation) from the 44 that are in the first schedule in the Sierra Leone Water Company Act 2017. This indicates that the Company has about thirty-30 new Water Supply systems to construct to meet the requirements of the Act.

Bo, Kenema, and Makeni stations were constructed by the Three Towns Water Supply and Sanitation Project with funding from the African Development Bank and Government of Sierra Leone. Kailahun, Moyamba, Pujehun, Kambia, Kabala and Magburaka meet less than 50% of their demands and are under optimizations.

Lungi, Port Loko, Lunsar and Mile 91 stations need to be reconstructed because of the high cost of operations, low coverage and aging infrastructure. Blama Station is under construction.

The Sierra Leone Water Company (SALWACO) presents its annual report for 2023, highlighting accomplishments and challenges in implementing key projects to enhance water supply infrastructure across our operational jurisdiction in Sierra Leone. There has prime focus on the impactful Six Towns Water Supply Project, the Bonthe Water Supply Project, the installation of 45 Industrial Boreholes, and the tender processes for Makeni Balancing Reservoir, 4 Towns Water Supply Project with funding from Indian Exim Bank and Kingdom of Saudi 100 Solar Powered Boreholes across 14 Districts.

There have been improvements in operations aspects of the Company which has witnessed increased water supplies, covering of more communities, reduction in Non-Revenue Water, technological and IT innovations, plans for expansions, among others.

The Human Resource Department has the primary mandate to ensure that the right type number, and quality of staff are timely deployed to carry out routine company operations in an efficient and effective manner. It also the responsibility of the Department to objectively advise Management on staff issues and to ensure that staff compliance is well coordinated / managed. The HR department in 2023 did ensure that staff activities are well coordinated among Departmental Heads and other supervisors. In 2023, a good number of staff were promoted to various positions within their original departments. Few were transferred to other departments to ensure that staff have basic fundamental knowledge relating to the general activities of the company. There were few resignations and few administrative actions.

The HR department, with excellent support from Management undertook lots of activities relating to review and modification of policies. The Company held its most inclusive annual retreat in the last quarter of 2023 in Kenema City.

1.0 Corporate Information

1.1 Board of Directors

Details of the Board of Directors are indicated in the table below.

Table 1: Board of Directors

Name of Board Member	Position	Institution Being Represented
Ing. Mohamed A. Jalloh	Chairman	Appointed by H.E. The President of the Republic of Sierra Leone
Ing. Badamasi Savage	Member	Sierra Leone Institution of Engineers
Mr. Joseph M. Bindi	Member, President, Association of Local Councils	Association of Local Councils
Mr. Brima M. Sowa	Member/ Permanent Secretary, Ministry of Water Resources	Ministry of Water Resources
Mr. Nelson Lahai	Member	Private Sector
Mrs. Rosaline M'Carthy	Member	Private Sector
Mr. Abu B.M. Sheriff	Member	Private Sector
Mr. Ansumana Soko	Member	Civil Society dealing with water supply issues
Mr. Sam Aruna, Director, Deputy Financial Secretary/ Multilateral Projects Division	Member	Ministry of Finance
Dr. Philip Kargbo	Member	Ministry of Health
Ing. George L. Vandj	Member/Secretary/ Managing Director	Appointed by H.E. The President of the Republic of Sierra Leone

1.2 Management Team

The management team is indicated in the following table.

Table 2: Management Team

Ing. George Lamin Vandj	- Managing Director
Mr. Albert Harvey	- Deputy Managing Director
Mr. Frank Lahai Kamara	- Director of Finance

Mr. Saffa S K Bockarie	- Director of Planning, Research & Policy
Ing. Abdul Ben Lebbie	- Director of Operations & Maintenance
Ing. Yakuba J Tarawally	- Director of Project Management
Mr. Denis Macavoray	- Director of Administration
Mr. Joe A Foray	- Human Resource Manager
Mr. Mohamed A Waggay	- Marketing Manager

1.3 Address and Bankers

Registered Office: Sierra Leone Water Company (SALWACO)
Tower Hill, Freetown, Sierra Leone

Bankers: Union Trust Bank (SL) Limited
First International Bank (SL) Limited
Rokel Commercial Bank (SL) Limited
Sierra Leone Commercial Bank (SL) Limited
Bank of Sierra Leone

1.4 Vision and Mission

Vision: To be the leading water and sanitation utility in Africa

Mission: To provide quality water and sanitation services to the provinces at a commercial and environmentally sustainable manner to the satisfaction of our customers

1.5 Establishment

SALWACO was established by an Act of Parliament (The SALWACO Act 2001) charged with the responsibility to provide safe and efficient water Supply Services to provincial towns and cities.

The SALWACO Act was amended in 2017 as enacted by Parliament to strengthen the company's financial viability and also added a technical advisory role for SALWACO to Local Councils in rural areas.

1.6 Approved Tariff

The tariff approved by the Sierra Leone Electricity and Water Regulatory Commission is shown in the next two tables.

Table 3: Approved Tariff for stand pipes, domestic, institutions

Approved Tariff by SLEWRC for SALWACO effective 15th June 2022: Stand Pipes, Domestic and Institutions

Customer Class	Description of Charge	Units	Fixed Charges (SLL)	Tariff (SLL)
Stand Pipes	Volumetric	SLL/m ³	-	9,000
Domestic/Residential	Volumetric	SLL/m ³	5,000	15,000
Commercials	Volumetric	SLL/m ³	10,000	32,000
Institutions (Schools and Hospitals)	Volumetric	SLL/m ³	10,000	15,000
Institutions (All others)	Volumetric	SLL/m ³	10,000	20,000
Water Packaging	Volumetric	SLL/m ³	10,000	37,000

Table 4: Approved Tariffs for Browsers

Approved tariff by SLEWRC for SALWACO effective 15th June 2022: Browsers

Browsers	Description of Charge	Units	Domestic/Residential	Institutions Etc.
6,000L	Volumetric	SLL	400,854	509,530
9,000L	Volumetric	SLL	464,210	615,306
10,000L	Volumetric	SLL	475,920	640,336
15,000L	Volumetric	SLL	624,796	806,401
20,000L	Volumetric	SLL	771,163	931,555

1.7 Revenue Obtained in 2023

Government funding analysis during 2023 is shown in the table below:

Table 5: 2023 Funding from Government

Fiscal Year	Budget Ceiling (NLe)	Annual Allocation (NLe)	Revised Annual Allocation (NLe)	Amount Received for Q1 (NLe)	Amount Received for Q2 (NLe)	Amount Received for Q3	Amount Received for Q4
2023	5,000,000	8,800,000	8,800,000	1,320,000	1,320,000	-	-

The Own-Source Revenue in 2023 is shown in the table below.

Table 6: 2023 Own-Source Revenue

No	Activity	Amount (NLe)
1	New Connection	446,397.00
2	Water Rates	5,374,926.00
3	Bower Services	165,413.00
	Total	5,986,736.00

1.8 Revenue Streams

The current revenue streams are:

- Water Rate
- Water Bowser Sales
- Public Stand Post & Water Kiosk
- New Connections/Re-connections
- Government Subvention
- Donor Partner Contribution

1.9 Revenue Projections for 2024

The projected revenue for 2024 is given in the table below:

Table 7: Projected revenue for 2024

Revenue Projections for 2024						
2024 Revenue (NLe)						
No.	District	Location	Service Charges (NLe)	Water Rate (NLe)	Water Browsers (NLe)	Total (NLe)
1	Bo	Bo City	9,370.00	1,688,640.00	57,000.00	1,755,010.00
2	Kenema	Kenema City	13,885.00	2,666,040.00	57,000.00	2,736,925.00
3	Bombali	Makeni City	14,680.00	2,700,180.00	0	2,714,860.00
4	Port Loko	Port Loko City	1,365.00	254,400.00	0	255,765.00
5	Pujehun	Pujehun Town	600.00	108,840.00	0	109,440.00
6	Tonkolili	Magburaka	2,080.00	363,300.00	0	365,380.00
7	Kambia	Kambia Town	1,220.00	268,020.00	0	269,240.00
8	Tonkolili	Mile 91	340.00	68,520.00	0	68,860.00
9	Port Loko	Lungi	1,265.00	247,080.00	57,000.00	305,345.00
TOTAL (NLe)			44,805.00	8,365,020.00	171,000.00	8,580,825.00

1.10 Short-Term Objectives for 2024

The short-term objectives are summarised in the following table:

Table 8: Short-Term Objectives For 2024

No.	Objective	No/%	Strategies
1	To increase revenue generation	30%	<ul style="list-style-type: none"> ❖ Engage in effective and efficient Marketing Campaigns nationwide ❖ Commenced implementation of Smart Metering and Prepaid Metering Systems ❖ Commence SMART Revenue Collection using mobile money payment platforms (AfriMoney or OrangeMoney)
2	Increase customers Connection to SALWACO's Network	30%	<ul style="list-style-type: none"> ❖ Provide connection materials to connect consumers for a free initial connection cost and the cost to be included in their subsequent bills as agreed ❖ Ensure a 24/7 water supply services to our customers

No.	Objective	No/%	Strategies
3	To reduce non-revenue water	30%	<ul style="list-style-type: none"> ❖ Disconnection of illegal connections ❖ Disconnections of non compliant customers ❖ Proactive implementation of the Maintenance Regimes
4	To increase access to safe, affordable and access to water supply within our jurisdictions	40%	<ul style="list-style-type: none"> ❖ Expansion of distributions networks to underserved and unserved communities. ❖ To improve water quality through regular testing and re-treatment
5	To reduce the running costs in the Water Supply Operations and Maintenance of SALWACO	30%	<ul style="list-style-type: none"> ❖ To Optimise the Energy Requirements of Bo, Kenema and Makeni Water Supply Stations using one Megawatt off –grid Solar Power Supply Systems. ❖ Undertake preventive maintenance of major units in the entire Water Treatment Plants in all stations.
6	Completion of at least two major GoSL funded projects	2	<ul style="list-style-type: none"> ❖ To increase water supply to underserved and unserved communities.
7	Commencement of implementation of the following donor funded projects: <ul style="list-style-type: none"> • Saudi funded 100 boreholes project • Exim Bank funded 4 Towns (Daru, Njala Mokonde, Mattru and Mongo) Water Supply project. 	2	<ul style="list-style-type: none"> ❖ Implement rigorous project/ contract management practices

1.11 Statement of Strategic Objectives

In alignment with the Government of Sierra Leone's 2023-2028 Manifesto Priorities, which are the cornerstone of our national development, SALWACO is committed to transforming into an exemplary State-Owned Enterprise (SOE) in the water service utility sector.

Our strategic objectives and direction for the period 2025-2030 are designed to position SALWACO as a provider of safe, reliable, and affordable water supply services, delivering exceptional value to all stakeholders.

Enhancing Water Access and Coverage: By 2030, SALWACO aims to significantly increase safe and reliable water supply coverage across all operational areas. Our water supply access stands at (74%), and we aim to expand this to (84%) by 2030. This effort includes expanding our

distribution networks, particularly in underserved rural and peri-urban communities, which is in line with the government's goal of universal water access. **Agender 1 and 4**

Improving Service Quality and Reliability: We are committed to ensuring the highest water quality and service reliability standards. Our strategy involves modernizing water treatment facilities, adopting advanced water quality monitoring systems, and implementing robust maintenance practices to minimize service disruptions. **Agender 4, 1 and 5**

Promoting Financial Sustainability: SALWACO is unwavering in its commitment to financial sustainability. We will pursue this goal through efficient operations, cost-effective service delivery, and the introduction of smart metering systems. This strategy will enable us to optimize revenue collection while keeping water tariffs affordable, ensuring we can continue investing in infrastructure and service improvements. **Agender 4, 1 and 5**

Strengthening Stakeholder Engagement: We recognize the importance of collaboration with our stakeholders, including communities, customers, government agencies, and development partners. SALWACO will establish stronger partnerships and communication channels to ensure that our services meet the needs and expectations of those we serve, fostering a culture of transparency and accountability. **Agender 4**

Building Organizational Capacity: To achieve our strategic objectives, we will invest in capacity building for our workforce. This strategy includes continuous professional development, adopting best practices in water utility management, and recruiting skilled personnel to drive innovation and efficiency within the company. **Agender 2: Human Capital Development and 3**

Supporting Environmental Sustainability: In line with national priorities for sustainable development, SALWACO will implement environmentally friendly practices in all our operations. These practices include reducing our carbon footprint, implementing a robust maintenance regime, and implementing cost-reduction strategies. They will help us conserve water resources, reduce non-revenue water, and promote renewable energy use in our facilities. **Agender 4**

Driving Innovation and Technology Adoption: SALWACO will embrace digital transformation and technological innovation as key enablers of our strategic goals. We will invest in cutting-edge technologies to improve operational efficiency, customer service, and data management, positioning SALWACO as a leader in the water utility sector. **Agender 5**

As we look ahead to 2030, SALWACO is not just poised, but determined to play a critical role in realizing the Government of Sierra Leone's vision for sustainable water service delivery. Through our strategic focus on service excellence, stakeholder value, and sustainable growth, we are committed to making SALWACO a model of public sector performance and a beacon of reliability in the water utility industry.

2.0 Departments and Units

2.1 Project Management Department

The mission of the directorate is to identify, select, and prioritize water- projects as enshrined in the SALWACO Act of 2017, as well as monitor and control the execution of projects to ensure they align with the company's strategic objectives. This requires Collaboration with various stakeholders such as government agencies, local communities, and international organizations.

A crucial aspect of the mission involves the continuous monitoring and controlling of project execution. This includes overseeing project timelines, budget adherence, and the quality of work performed. Regular project reviews and assessments are conducted to identify any deviations from the approved plans and implement corrective measures promptly. The department works closely with the Directorate of Planning, Research, and Policy to initiate projects.

Recognizing the importance of a skilled project management team, the Directorate is proactively investing in the development of its team members. A training concept with specialized training programs has been developed to enhance skills related to Project Planning, Project Monitoring and Evaluation, and the use of cutting-edge technologies in water management. The Directorate is working assiduously to ensure that all projects adhere to local and international regulations related to water management and infrastructural development. Therefore, developing the skills and capabilities of the project management team by providing training opportunities to enhance overall project delivery is among the key activities in 2024 and beyond.

Figure 1: The Organogram of Project Management Directorate

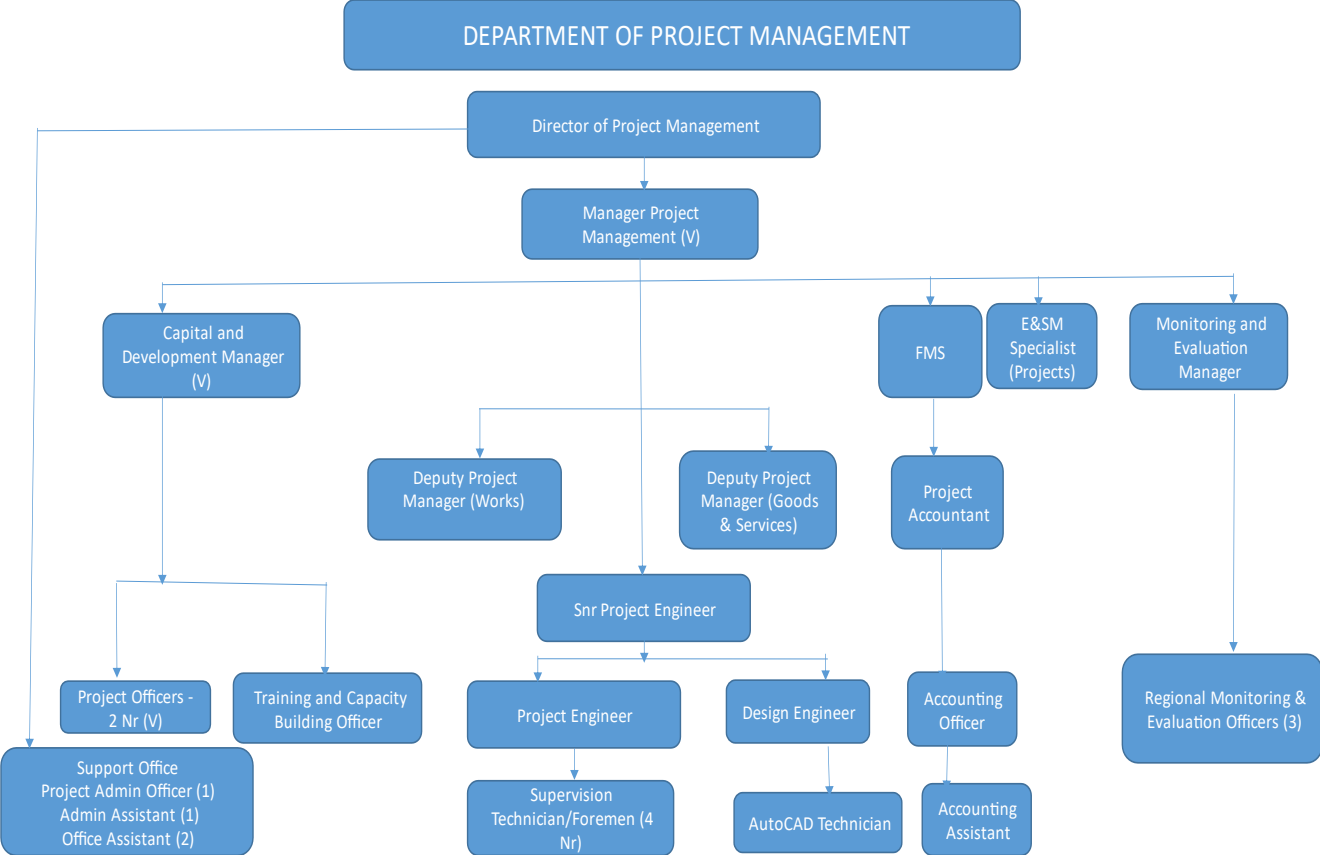


Table 9: Status of Project Management Team

Name	Job Title/Position	Period with Project	
		Start	End
Yankuba J. Tarawally	Director of Project Management & Project Manager -STWSP	01/23/2021	To date
Abu Kallon Marilyn George	Operation & Maintenance Manager & Deputy Project Manager- STWSP	01/23/2021	To date
Mohamed Sankoh	Capital & Development Manager & Project Officer- STWSP	16/07/2021	To date
Yusif Junisa John Hallowel	M&E Manager	17/07/2022	To date
Alex P. Musa Edward J. Toby	Senior WASH Engineer	01/23/2021	To date
Augustine Hutagua Jimmy S. Millar Umaru Bayoh	Senior WASH Engineer	01/23/2023	To date
	Magburaka Station Manager & Site Engineer STWSP		To date
	Kabala Station Manager & Site Engineer STWSP	08/20/2022	To date
	Pujehun Station Manager & Site Engineer STWSP	01/23/2021	To date
	Engineer in charge Kailahun station & Site Engineer STWSP	06/23/2021	To date
	Moyamba Station Manager & Site Engineer-STWSP	01/23/2023	To date

2.1.1 Project Portfolio

2.1.1.1 Government of Sierra Leone Funded Projects

2.1.1.1.1 Six Towns Water Supply Project

Background

The provision of sustainable water supply and sanitation is one of the main priorities of Government of Sierra Leone (GoSL) in the process of laying the foundations for poverty reduction, sustainable economic growth, achieving the Medium-Term Development Plan, and the realization of Sustainable Development Goals (SDGs). The Optimization of Six Towns Water Supply Systems aims to provide improved access to adequate, safe, and reliable water supply services for the township and its environs, and to enhance the institutional, operational and management capabilities of the Sierra Leone Water Company (SALWACO) the main service provider for Water and Sanitation Services in provincial communities, towns, and cities.

In enhancing an effective and successful optimization of the facilities, the Government of Sierra Leone through the Ministry of Water Resources and SALWACO commissioned a Study of the projects in 2019, to assess the water needs in the Six Towns, and to ensure that approximately 100% of the population have access to a potable water supply.

The GoSL has secured funds from domestic revenue towards the implementation of the Six Towns Water Supply Project which involves the rehabilitation/construction of Kailahun, Pujehun, Moyamba, Kabala, Magburaka and Kambia water supply facilities. These towns are district headquarter towns with significant political, economic, social, and cultural importance. A total of 389,193 persons will benefit from this project. SALWACO through the Ministry of Water Resources and with support from the Ministry of Finance recruited two consultants for the design of all facilities {One for the North and North-West Region (M/s Procurement and Project Management Consultancy) and the other for the Southern and Eastern Region (M/s Prime Engineering Solutions).

The broad objective of this project is the redesigning of existing water supply facilities to meet current and future water demand on to 2040, and the intervention is geared towards developing these facilities to be commercially viable and making water available to the people within those communities for domestic, agricultural, industrial, municipal, and environmental uses.

Table 10: Six Towns Water Supply Project Data

<i>Project Title</i>	Six Towns Water Supply Project
<i>Project Cost</i>	Old Le572,660,420,808.23
<i>Sector</i>	Water and Sanitation
<i>Executing Agency</i>	Sierra Leone Water Company (SALWACO)
<i>Project Development Objectives</i>	The project has two broad objectives: (i) the Redesigning of existing water supply facilities to meet current and future water demand up to 2040, which will help provide sustainable access, adequate and reliable water supply to Kailahun, Pujehun and Moyamba Township in the South- East and Kambia, Magburaka and Kabala in the North-North-West Regions. (ii)To help these facilities to be commercially viable.

The overall goal of the project is to contribute to Sierra Leone’s Medium-Term Development Plan, Sub-Cluster 3.3: Improving the water infrastructure system. It is in line with the SALWACO Act 2017, the National Water and Sanitation Policy, and the Sustainable Development Goal - SDG) 6: Ensure availability and sustainable management of water and sanitation for all (6.1: By 2030 achieve universal and equitable access to safe and affordable drinking water for all. A total population of at least 390,000 persons will benefit from the Project. The total budgeted cost is Le 558, 214,219,407.28 (equivalent to US\$55.8m).

<i>Project Components</i>	<p>Design and Supervision Consultancies were awarded to two firms: Lot 1 - Prime Engineering Solutions – PES (Sierra Leone), responsible for detailed design and Construction supervision for Moyamba, Kailahun and Pujehun and Lot 2 - Procurement and Project Management Consultancy – PPMC (Ghana) - responsible for detailed design and construction supervision for Kambia, Kabala and Magburaka.</p>
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The design phase for the two lots has been completed and the supervision stage for three lots has ensued.

Construction of Water Treatment and Distribution Facilities:
 The Project is divided into ten 10 separate contracts for the works, i.e., two per town except for Magburaka and Moyamba that are stand-alone contracts.
 Lot 1 – Rehabilitation/Construction of Water Treatment System and Supply and Installation of Transmission Pipeline, Kabala.
 Lot 2 – Supply and Installation of Distribution and Rehabilitation of Water Supply Facilities in Kabala.
 Lot 3 – Rehabilitation/Construction of Water Treatment System and Supply and Installation of Transmission Pipeline in Kailahun.
 Lot 4 – Supply and Installation of Distribution Networks and Rehabilitation of Water Supply facilities in Kailahun.
 Lot 5 – Rehabilitation/Construction of Water Treatment System and Supply and Installation of Transmission Pipeline in Kambia.
 Lot 6 – Supply and Installation of Distribution and Rehabilitation of Water Supply Facilities in Kambia.

Lot 7 – Rehabilitation/Construction of Water Treatment System, Supply and Installation of Transmission and Distribution Pipelines, and the Construction of Civil Infrastructure, Magburaka.

Lot 8 – Construction of Water Treatment System, Supply and Installation of Transmission and Distribution Pipelines, and the construction of Civil Infrastructure in Moyamba.

Lot 9 – Rehabilitation /Construction of Water Treatment System and Supply and Installation of Transmission Pipeline in Pujehun.

Lot 10 – Supply and Installation of Distribution and Rehabilitation of Water Supply Facilities in Pujehun.

Proposed December, 2024
Completion Date

Challenges and mitigation measures on STWSP Implementation

- Depreciation of the Leone has led to price variation in the original contracts. To mitigate this, SALWACO and MoF have decided to rationalize (dollarize) contractors' contracts as a stability measure that cushions the high inflation rates of the prices of goods and services
- Considerable delay in funds disbursement to contractors by the Ministry of Finance has led to not meeting the proposed completion deadline of the project. Regular follow up with MoF is being made.

Table 11: Details of Contractors and Consultants

Lot No.	Description	Location	Name of Winning Bidder	Contract Price (Le)	Disbursed to Date (SLL)	Disbursement to Date (%)	Progress
1	Rehabilitation /Construction of Water Treatment System and Supply and Installation of Transmission Pipeline	Kabala	Khan Construction And Logistics SI (Ltd) & Skyzone Africa Group Ltd	59,919,007,949.20	11,983,801,590.00	20%	5% of works complete. The contractor has installed the raw water conveyance pipeline, is also constructing the retaining wall with 5m height completed, backfilling of the the slope failure area is ongoing with over 80% of backfilling completed. The damaged raw water conveyance pipe has been removed and procured with the main control valve supplied. Rehabilitation of two boreholes (2) completed and functioning. Also, the contractor has completed the construction of one additional borehole at the presidential lodge in Kabala. Construction of the transfer and sub-station is at 55%.
2	Supply and Installation of Distribution Networks and Rehabilitation of Water Supply facilities	Kabala	Fajalieu Investment Construction and General Services	13,234,166,000.00	3,970,249,800.00	30%	90% of works complete. Construction Works ongoing with 100% network Maintenance complete, network extension in progress. Installation of fittings and household connections ongoing. Rehabilitation of existing building is also at 90%. Doors, Ceiling and CI Sheet Replacement Done
3	Rehabilitation /Construction of Water Treatment System and Supply and Installation of Transmission Pipeline	Kailahun	Electromechanics LLC	94,279,670,525.94	0.00	0.00	None

Lot No.	Description	Location	Name of Winning Bidder	Contract Price (Le)	Disbursed to Date (SLL)	Disbursement to Date (%)	Progress
4	Supply and Installation of Distribution Networks and Rehabilitation of Water Supply facilities	Kailahun	Brunnenbau Conrad SL (Ltd)	53,483,026,011.01	10,696,605,000	20%	100% of pipes and fittings supplied by the contractor and all materials available on site. Rehabilitation of quarters at 90% completion, Installation of pipes and fittings at 70% completion.
5	Rehabilitation /Construction of Water Treatment System and Supply and Installation of Transmission Pipeline	Kambia	Overseas Trading and Construction Company	71,779,220,223.84	28,621,266,000	40%	Construction of all civil infrastructure are at advance stage. The pump house at the intake is at 85%, the receiving tank is at 95% completion, the flash mixing and flocculation chamber is at 95%. Laboratory is at 92% completion; backwash tank is at 40% completion. Filtration system is at 30%.
6	Supply and Installation of Distribution Networks and Rehabilitation of Water Supply facilities	Kambia	Castleton Rhodes Commodities LLC	16,207,143,700.00	12,965,714,960	80%	87% of total Works Complete. Rehabilitation of staff quarters and existing buildings is at 80% complete. 18km distribution pipeline installed. Installation of pipes and fittings is ongoing
7	Rehabilitation/Construction of Water Treatment System, Supply and Installation of Transmission and Distribution Pipelines and the construction of Civil Infrastructure	Magboraka	Secon and C&S Supplies and Building Contractor	64,364,990,705.73	23,141,158,360.00	36%	Total works is 57% Complete. Admin Building is 75% Complete. Staff quarters 80% complete. Concrete works in progress for the installation of Storage tank, Supply of 2 hot pressed-steel tanks completed and available on site. Backwash tank foundation works completed. 6km of pipes supplied by the contractor and excavation for laying of pipes is ongoing. Construction of new treatment Plant is ongoing. 95% complete flocculation tank completed, 90% completed raw water tank

Lot No.	Description	Location	Name of Winning Bidder	Contract Price (Le)	Disbursed to Date (SLL)	Disbursement to Date (%)	Progress
							completed, 25% sedimentation tank completed. Block work for superstructure completed for Admin Building. Contractor has improved on the supply of materials on site and work is ongoing.
8	Construction of Water Treatment System, Supply and Installation of Transmission and Distribution Pipelines and the construction of Civil Infrastructure	Moyamba	Hydronomics Ltd	83,531,184,110.05	16,706,237,000	20%	100% of pipes and fittings supplied and transported by the contractor to the site 100% completion of fence works completion, rehabilitation of staff quarters is at 80%. Construction of workshop and store is at 85%. Foundation works completed for chemical building, excavation and reinforcement works completed for backwash tank and aerator. Excavation works for clarifier and filtration system ongoing. Construction of manager's quarter is also ongoing.
9	Rehabilitation /Construction of Water Treatment System and Supply and Installation of Transmission Pipeline	Pujehun	ABBI Associates	53,967,525,663.97	10,793,505,000	20%	20% of total Works progress. Foundation works for all water treatment system has started with excavation completed, blinding done and reinforcement works started. Material testing as per technical specifications done for fine sand, aggregate, reinforcement and concrete bricks. Also, geotechnical investigation completed for the sites

Lot No.	Description	Location	Name of Winning Bidder	Contract Price (Le)	Disbursed to Date (SLL)	Disbursement to Date (%)	Progress
10	Supply and Installation of Distribution Networks and Rehabilitation of Water Supply facilities	Pujehun	Latco Joint Experts and Supply of Machineries	47,448,284,517.54	17,539,983,000	37%	35% of total Works progress. Administrative Building and staff quarters at 65% progress. Pipes manufactured and confirmation of order received
Total				558,214,219,407.28			
Consultant - Prime Engineering - Sierra Leone (South and East)				6,800,476,000.00	6,040,142,800.00	89%	On-going
Consultant - PPMC Ghana (North)				7,645,725,400.95	3,181,022,577.82	42%	On-going

Grand Total

572,660,420,808.23

2.1.1.1.2 Bonthe Water Supply Project

Background

The Bonthe Water Supply Project is 100% funded by the Government of Sierra Leone. It is geared towards the achievement of Sustainable Development Goal 6 of the United Nations and meeting the Government of Sierra Leone's Medium Term National Development Plan (NMTDP)

The construction/ rehabilitation of Bonthe Water Supply Services started in June, 2020 with a symbolic signing of contract in the Bonthe Municipality Hall in the presence of the Hon. Minister of Finance, the Managing Director of SALWACO, the Mayor, and other distinguished members who attended the ceremony. The contract was awarded to three contractors in order to make sure that the various components of the project are done in parallel with each other thereby completing the project within a very short time which is eleven months.

The total contract amount is SLL 121,739,181,325.37. (One Hundred and Twenty-One Billion, Seven Hundred and Thirty-Nine Million, One Hundred and Eight One Thousand, Three Hundred and Twenty-Five Leones, Thirty-Seven Cents). The three contractors and their scopes are:

Lot 1 - *International Procurement and Construction Services Ltd* for construction of all civil structures.

Lot 2 - *GIS Construction Estates and Logistics Company Limited* for supply and installation of distribution networks and rehabilitation of water tower and clear water tank.

Lot 3 - *Sewa Ventures Limited And Guangjin International Investment & Development Company Limited (JV)* for construction of new desalination plant, supply and installation of transmission pipelines.

Table 12: Bonthe Water Supply Project Data

<i>Project Objectives</i>	<ul style="list-style-type: none">• Increased potable water supply access to approximately 12,000 people by 2021 which is 4.25% of the planned national access for 2021(NMTDP 2019-2023)• Enhanced commercial viability of SALWACO.• Increased operational efficiency and cost optimization
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<i>Project Components</i>	<p>LOT 1: Construction of all Civil infrastructure (Including administrative offices and Staff Quarters)</p> <p>LOT 2: Supply and Installation of Distribution Network and Reconstruction of Old Water Supply Facility</p> <p>LOT 3: Construction of New Plant, Supply and installation of Transmission Pipelines,</p>
<i>Expected Completion Date</i>	December, 2024
<i>Cost (Old Le121,739,181,325.67</i>	<p><i>International Procurement & Construction Services (IPCS) Ltd (Lot 1) - OldLe11,498,702,692.37</i></p> <p><i>GIS Construction Estates and Logistics Company Ltd (Lot 2)- OldLe25,580,965,600.00</i></p> <p><i>Sewa Ventures Limited and Guangjin International Investment & Development Co. Limited (Lot 3) – Old Le84,659,513,033.30</i></p>
<i>Disbursement – Old 62,865,725,367.63 (52%)</i>	<p><i>International Procurement & Construction Services (IPCS) Ltd (Lot 1) – Old Le9,090,643,564.17 (79%)</i></p> <p><i>GIS Construction Estates and Logistics Company Ltd (Lot 2)- Old Le22,996,865,025.87 (90%).</i></p> <p><i>Sewa Ventures Limited and Guangjin International Investment & Development Co. Limited (Lot 3) – Old Le62,865,725,367.63 (52%)</i></p>
<i>Progress</i>	Lot 1:

Construction of Manager's Quarter, Operator's Quarter, Ware House & Store, and Guard House at WTP and rehab. of Pump house - 98% done.

Rehabilitation of the old pump house at Water works Yards - 95% done.

Construction of Guard House at Reservoir, Guard House at Intake and Generator House -no work done

Construction of Toilet and Shower blocks- work done from foundation up to roofing, installation of ceiling joists and plastering/rendering- 70% done.

Total completion: 82%

Lot 2:

Rehabilitation of three production wells and Clear water tank at WTP - 99%

Supply and installation of HDPE Pipes and fittings - 99% completed

Supply and Installation of Electro mechanicals for Onion Tank (Reservoir), including GI flanged gate valves, GI bend, internal ladder, GI flanged sockets and GI pipes are done. – overall completion at 80%

Service Connections: 460 out of 1,200 done.

Total completion: 95%

Lot 3:

Construction of Chemical Building, Pump House and Post Chlorination Building: work done from foundation up to roofing and plastering/rendering, overall completion at 70%.

Construction of 1000m³ Clear Water Tank: work done: Foundation excavation and concrete works for stabilisation of soil. Overall completion at 12%.

Sludge Drying Beds: work done from foundation up to plastering, overall completion at 85%

Construction of Intake, Raw Water Pumping Station, Transmission Line, 1000m³ elevated reservoir – no work done.

Construction of 1000m³ reinforced concrete elevated reservoir: no work

Construction of 2400m³/day RO Desalination Plant; Work done; design of the desalination system completed, ongoing fabrication of the desalination plant in China by SUNUP company, overall progress estimated at 30%.

Site Treatment Works and Environmental Mitigation Works: Work done; 1,140m perimeter fence at WTP- 10%

Total Completion: 22%

The project has created employment for approximately 200 people in Bonthe Municipality. 20 Km of 27.3 Km distribution pipeline has been installed in the Municipality. The overall progress registered by Lots 1 and 2 is 40% whilst Lot 3 is delayed due to the recruitment of a Consultant for Technical Assistance to support with design review for the construction of a Desalination WTP.

Challenges and mitigation measures on BWSP Implementation

- Sea transportation is a major challenge in the implementation of the project.
- Poor soil condition on the Island.
- The COVID-19 pandemic and the abrupt change in prices on equipment, machines and materials which are used in the construction process including civil works, mechanical and electrical components.
- Delays in payments by Ministry of Finance
- Depreciation of the Leones against major international currencies. Ministry of Finance has been approached to help in rationalising the contract amounts.

2.1.1.1.3 Blama, Bandawor and Six Villages Water Supply Project

Background

In view of the challenges to access adequate water supply that is good for human consumption for the people of Blama and Bandawor Towns, the Sierra Leone Water Company (SALWACO) a government institution enacted by parliament with the responsibilities to provide safe, portable and affordable water for the provincial cities, towns and villages of Sierra Leone, designed a project that will benefit over 20,000 people in Blama, Bandawor and six nearby villages from pipe borne water supply. The project is one hundred percent (100%) funded by the government of Sierra Leone. The aim of the project was to provide water which could meet the daily demand of the beneficiary communities.

The contracts were signed by two contractors in 2014 and work commenced in 2015 proposed to be completed in 2015. The overall work of this project covers the design, construction, supply and installation of new automated containerized water treatment plant and the construction/rehabilitation of buildings and other facilities. The project also includes the supply and installation of pipe reticulation system and the construction of a small office in Blama town. The source of raw water for treatment is the Wanjei river. The fully automated containerized water

supply system is designed with a capacity of 50m³/h to supply a 17km distribution network in these towns and villages. Added to this is the rehabilitation of a 55m³ post treatment tank, construction of two storage tanks at Blama and Bandawor. The installation of 55 public standpipes and the construction and rehabilitation of an administrative building.

The containerised water supply system that was installed by lot 1 contractor in this project is a new technology introduced recently in the water sector in the country. It is in this regard it was agreed in the contract that a training in the operations and maintenance of the system should be organised by the contractor for SALWACO technical staff that will be operating the system. As the project is almost at its completion stage and the installed container water supply system has been tested and working as designed, the contractor organised a three days training of trainers' program for SALWACO technical staff on the operation and maintenance of the system. The purpose of this training was for the participants to get a knowledge about the operations of the system.

Although the project is at its advanced stages of completion, it ran into implementation challenges due to delays by the contractor for Lot 1. As a result, the Lot 1 contract was terminated by the Law Officers Department. The procurement process to engage another contractor will ensue in 2024. The project data is given in the table below:

Challenges and mitigation measures

Delays in implementation by the Lot 1 contractor. To address this issue, this contract has been terminated. It will be re-awarded to another contractor.

Table 13: Blama, Bandawor and Six Other Villages Water Supply Project

Project Title	Blama, Bandawor and Six Other Villages Water Supply Project
Scope:	Lot 1:

Lot 1: Design, construction and installation of New Containerized Water Treatment Plant, rehabilitation of buildings and other facilities in the Water works, rehabilitation of existing onion tank at Blama, the installation of 75m³ reservoir at Bandawor and extension of the main pipelines to six additional villages (Yaweima, Dandabu, Kpetema, Ngovokpahun, Lottehla and Tobanda)

Lot 2:

Supply and installation of pipe reticulation system in Blama, Bandawor six additional villages (Yaweima, Dandabu, Kpetema, Ngovokpahun, Lollehla and Tobanda), and construction of administrative building and Station Manager's staff quarters at Blama

Beneficiary	Blama, the sole beneficiary of the System; Bandawor, a major community close to the Treatment Plant; and six villages along the Transmission Mains to Blama town - Lolella, Dandabu, Kpetema, Yaweima, Ngovokpahun and Tobanda. All in the small Bo and Niawa chiefdoms of kenema district in the southern province of Sierra Leone.
Raw Water Source	Wanjei river
Target Population	16,934 with Blama and Bandawor having the greater proportion of 8,603 and 3,505 persons respectively
Design consumption pattern	An average of 40 litres per capita per day (40 l/c/d) was deduced. A total water demand of 940 m ³ /day
Design Horizon	20 years

System	Automated containerized water treatment plant included with a raw water intake well, clear water tank and distribution tanks. Designed with a capacity of 50 m ³ /h to supply a 17 km distribution network in these towns and villages.
Water Distribution Tanks	An oval-shaped distribution tank of 750 m ³ in Blama. A 75 m ³ capacity elevated Braithwaite tank in Bandawor for distribution in that community.
Water supply for Pro-Poor Communities	Fifty-five (55) PSPs were earmarked for Blama town including the beneficiary communities. This arrangement aimed at meeting the needs of those who fell within the very low-income bracket - those who might not afford individual house connections. Private connections, on the other hand, were to be provided at institutional facilities such as health centres, schools, and community centres in Blama and Bandawor.
Expected Completion	December, 2024
Disbursement	<i>Lot 1 - SOTRAD WATER AND LARICA INVESTMENTS SL</i> for the design, construction, supply and installation of new containerized water treatment plant and the rehabilitation of buildings and other facilities Total approved amount: SLL13,780,365,183.50 Disbursed to date (SLL): SLL12,058,771,117 Disbursement to date (%): 88% <i>Lot 2 - LATCO JOINT EXPERT AND SUPPLY OF MACHINERY for the supply and installation of pipe reticulation system and the construction of a small office</i>

Total approved amount: **21,957,059,124.50**

Disbursed to date (SLL): **19,623,105,177**

Disbursement to date (%): **93%**

Progress

Lot 1:

85% complete. Due to undue delays, SALWACO and the Board requested the Law Officers Department (LoD) to terminate the contract. LoD issued the termination letter on 25 Mar 2023. The next steps are: Further advice by LoD and engagement of a new contractor.

Lot 2:

Supply and installation of pipe reticulation system in Blama, Bandawor six additional villages (Yaweima, Dandabu, Kpetema, Ngovokpahun, Lollehla and Tobanda), and construction of administrative building and Station Manager's staff quarters at Blama

95% complete. 15 km Distribution network installed, Blama Office Constructed. Delays in completion of Lot 1 has delayed the works in Lot 2. Remaining works are: Identifying and replacing damaged and exposed PSPs and PSPs service pipelines; Flushing, disinfection and pressure test of the distribution network; Installation of remaining PSPs; Installation of fire hydrants; Operating the network for one month test running.

Value of completed and pending Work by M/s Sotrad Water and Larcia Investments SL

The assessment of the contractor's achievement in the contract agreement has been further analyzed by value of work done according to the contract amount for each component. The table below is a breakdown of the value of completed and pending works.

Table 14: Value of completed and pending works for Sotrad Water

Item No.	Description	Units	Contract Amount	% Completion	Value of Work Done	Value of Remaining Works as per Contract	Current Value of Pending Work
			(OLe)	(%)	(OLe)	(OLe)	(OLe)
Local Works							
1	Manager's Quarters renovation + Furnishing	LS	420,000,000	95	399,000,000	21,000,000	66,862,069
2	2 new junior staff quarters + furnishing	LS	580,000,000	95	551,000,000	29,000,000	92,333,333
3	Storage Building renovation	LS	98,000,000	90	88,200,000	9,800,000	31,202,299
4	Main office + furnishing	LS	248,000,000	95	235,600,000	12,400,000	39,480,460
5	Concrete base for station & generator (2)	LS	168,000,000	100	168,000,000	0	0
6	Trench - station - tank1 (12km) Blama	LS	78,000,000	100	78,000,000	0	0
7	Trench - station - tank2 (3km) Bandawor	LS	35,000,000	100	35,000,000	0	0
8	Pipe laying to tank1 – Blama (12km)	LS	84,000,000	100	84,000,000	0	0
9	Pipe laying to tank2 – Bandawor (3km)	LS	22,000,000	100	22,000,000	0	0
10	Six Villages extensions (local works)	LS	52,000,000	100	52,000,000	0	0
11	Pipe laying and trenches in 6 villages	LS	65,000,000	0	0	65,000,000	206,954,023
12	Overhead tank rehabilitation (Blama)	LS	178,000,000	80	142,400,000	35,600,000	113,347,126
13	Construct 1 small Office by Blama tank	LS	115,000,000	0	0	115,000,000	366,149,425
14	Solar for Office by Blama tank	LS	24,000,000	0	0	24,000,000	76,413,793
15	Cleaning the raw water well at River Wanjei	LS	45,000,000	100	45,000,000	0	0
16	New Pump Installation	LS	40,000,000	80	32,000,000	8,000,000	25,471,264

Item No.	Description	Units	Contract Amount	% Completion	Value of Work Done	Value of Remaining Works as per Contract	Current Value of Pending Work
			(OLe)	(%)	(OLe)	(OLe)	(OLe)
17	Quarters & Offices Water supply system	LS	65,000,000	85	55,250,000	9,750,000	31,043,103
18	Fencing - station, admin & quarters	LS	155,000,000	0	0	155,000,000	493,505,747
19	Fencing - Bandawor & Blama tanks	LS	96,000,000	0	0	96,000,000	305,655,172
20	Gate at raw water source	LS	22,000,000	100	22,000,000	0	0
21	Renovate 55m3 tank in station	LS	85,000,000	75	63,750,000	21,250,000	67,658,046
22	Foundation for Bandawor tower (5m high)	LS	101,000,000	100	101,000,000	0	0
23	Assembly of 75m3 tank at Bandawor	LS	56,000,000	90	50,400,000	5,600,000	17,829,885
24	Station grounds works	LS	50,000,000	80	40,000,000	10,000,000	31,839,080
25	Training cost	LS	40,000,000	0	0	40,000,000	127,356,322
26	Sludge pool construction	LS	48,000,000	80	38,400,000	9,600,000	30,565,517
27	Lighting at well and station	LS	60,000,000	70	42,000,000	18,000,000	57,310,345
28	Transportation, Crane Hire, Custom duties,	LS	226,000,000	100	226,000,000	0	0
Sub Total Local Works			3,256,000,000	72%	2,571,000,000		
Preliminaries (5%)			162,800,000		162,800,000		
Total Local Works			3,418,800,000		2,733,800,000	685,000,000	2,180,977,012
Foreign Components							
1	SW-Station-50 (\$475,000)	LS	2,066,250,000	85	1,756,312,500	309,937,500	986,812,500
2	Pumping stations (\$27,000)	LS	117,450,000	100	117,450,000	0	0
3	Pressure pumps station (\$50,100)	LS	217,935,000	90	196,141,500	21,793,500	69,388,500
4	Solar Lighting of Station (\$12,500)	LS	54,375,000	100	54,375,000	0	0
5	Generator Power supply (\$49,000)	LS	213,150,000	100	213,150,000	0	0
6	Electrical cabinets & connections for station	LS	96,135,000	100	96,135,000	0	0

Item No.	Description	Units	Contract Amount	% Completion	Value of Work Done	Value of Remaining Works as per Contract	Current Value of Pending Work
			(OLe)	(%)	(OLe)	(OLe)	(OLe)
							(\$22,100)
7	Pipes and connections Inside the WTP (\$14,900)	LS	64,815,000	80	51,852,000	12,963,000	41,273,000
8	WTP to Bandawor – DN90 (3km) (\$43,800)	LS	190,530,000	100	190,530,000	0	0
9	WTP to Blama – DN125 (12km) (\$261,000)	LS	1,135,350,000	100	1,135,350,000	0	0
10	Six villages water supply (\$54,012)	LS	234,952,200	100	234,952,200	0	0
11	Wireless data connection to the overhead tank (Blama) (\$19,800)	LS	86,130,000	0	0	86,130,000	274,230,000
12	Office furniture & lab (\$14,000)	LS	60,900,000	70	42,630,000	18,270,000	58,170,000
13	Total Logistics, Freight, Insurance, Engineering and Management Fee. -(\$112,700)	LS	490,245,000	100	490,245,000	0	0
	Sub Total Foreign Components (\$1,155,912)		5,028,217,200	87%	4,579,123,200		
	Preliminaries (5%)		251,410,860		251,410,860		
	Total Foreign Components		5,279,628,060		4,830,534,060	449,094,000	1,429,874,000
	Contract Amount – Original		8,698,428,060	87%	7,564,334,060		3,610,851,012
Addendum 1							
	Looking at the increase in exchange rate of the United States Dollar (USD) from June 2014 (1USD= Le4, 400) to July 2016 (1USD = Le5,520.00): it is deduced that a cost variation LS of Le1, 801,937,057.88 is required for this contractor to meet his foreign component obligations	LS	1,801,937,057	100%	1,801,937,057	0	0
Addendum 2							

Item No.	Description	Units	Contract Amount	% Completion	Value of Work Done	Value of Remaining Works as per Contract	Current Value of Pending Work
			(OLe)	(%)	(OLe)	(OLe)	(OLe)
1	Retrenching of 9km Transmission Pipeline	LS	90,000,000	100	90,000,000	0	0
2	Scraping and apply three coats of Enamel	LS	90,000,000	100	90,000,000	0	0
3	Repainting of Treatment Plant Buildings	LS	45,000,000	0	0	45,000,000	63,310,491
4	Landscaping Redoing	LS	55,000,000	70	38,500,000	16,500,000	23,213,847
5	Remove and Replace Damaged Treatment Plant Ceiling	LS	9,000,000	100	9,000,000	0	0
6	Reconstruction of sludge pool	LS	15,000,000	0	00	15,000,000	21,103,497
7	Replacement of Two Micro filters	LS	296,000,000	100	296,000,000	0	0
8	Replacement of Plant Control Systems	LS	250,000,000	100	250,000,000	0	0
9	Price Variation on Contract	LS	500,000,000	100	500,000,000	0	0
10	Replacement of Generator and Solar Batteries	LS	25,000,000	100	25,000,000	0	0
11	Replacement of Stolen armored cables	LS	175,000,000	100	175,000,000	0	0
12	Station Mobility and Communication Systems to facilitate Operation and Maintenance	LS	480,000,000	80	384,000,000	96,000,000	135,062,381
13	Rehabilitation of Pulsator, supply and installation of Pipes and Pumps from Pulsator to Filter System including Alum Dosing pump System including freight and tax	LS	525,000,000	90	472,500,000	52,500,000	73,862,240
14	Supply of Filzylm, parts and equipment for Blama and Similar System in Lunsar for full operation as indicated by the Engineer	LS	725,000,000	50	362,500,000	362,500,000	510,001,178
Looking at the increase in exchange rate of the United States Dollar (USD) from Feb 2018			3,280,000,000	78%	2,692,500,000	587,500,000	826,553,634

Item No.	Description	Units	Contract Amount	% Completion	Value of Work Done	Value of Remaining Works as per Contract	Current Value of Pending Work
			(OLe)	(%)	(OLe)	(OLe)	(OLe)
	(1USD= Le7,511.86) to June 2020 (1USD= Le9,844.34) there is also a need for price variation of Le 3,280,000,000						
	Revised Contract Amount - New (Grand Total)		13,780,365,117	90%	12,058,771,117		
	Value of pending Works (As per Original Contract)		1,721,594,000			1,721,594,000	
	Current Value of Pending Work						4,437,404,646

Summary of work achievement by Sotrad Water and Larcia Investments SL is shown in the table below:

Table 15: Summary of Work Achievement by Sotrad Water and Larcia Investments SL

Description	Contract Amount	Value of Work Done	Value of Remaining Works as per Contract	% Completion	Current Value of Pending Work
	(OLe)	(OLe)	(OLe)	(%)	(OLe)
Local Works	3,418,800,000	2,733,800,000	685,000,000	84	2,180,977,012
Foreign Components	5,279,628,060	4,830,534,060	449,094,000	90	1,429,874,000
Contract Amount - Original (Local + Foreign Components)	8,698,428,060	7,564,334,060	1,134,094,000	87	3,610,851,012
Addendum 1	1,801,937,057	1,801,937,057	0	100	0
Addendum 2	3,280,000,000	2,692,500,000	587,500,000	90	826,553,634
Revised Contract Amount	13,780,365,117	12,058,771,117		90	
Value of pending Works (As per Original Contract)			1,721,594,000		
Current Value of Pending Work					4,437,404,646

As mentioned from the works already executed on-site since the inception of the project in 2015, SOTRAD WATER AND LARCIA INVESTMENTS SL has achieved 90% work completion of the project.

2.1.1.1.4 Industrial Boreholes Project

The 45 Industrial Boreholes Project was conceived by the Ministry of Water Resources (MoWR) with the aim of Constructing 15 Water Supply Systems of three boreholes each in Freetown. In 2018, three locations out of the 15 were allocated to the SALWACO operational areas. In 2020 the project was revised from Industrial Boreholes to Boreholes and Gravity for SALWACO and supply of pipes in addition to Gravity systems for Guma Valley Water Company. Below are the Contractors, Project areas, and Contract cost.

Master Construction – Responsible for Construction of 1 borehole at Nixon Hospital, 2 boreholes in Daru Town, 1 borehole in Lagor, 1 borehole in Giema Dama, 1 borehole in Giehun, 1 borehole in Tangahun, 1 borehole in Njala and the rehabilitation of Mabonto Gravity water Supply System. The Contract Cost is Seventeen Million, Eight Hundred and Ninty Thousand, Eight and Eight New Leones (**NLE 17,890,880.0**).

Based on the original contract and the exchange rate, 80.5% Advance payment has been received by the contractor and this was done in three trenches, with the third trench payment made on the 21st June 2023.

European Drilling Company (EDC)– Responsible for Construction of Gravity Water Supply System in Tongo, Bendu Yawei and Rehabilitation of Daru Gravity Water Supply System. Twenty-two Billion, Nine Hundred and Thirty-five Million, Thirty-one Thousand, Three Hundred and Eight Leones, Twenty-one cents (**Old SLL 22,935,031,308.21**)

Details of the project are given in the table below.

Table 16: Boreholes and Gravity Water Supply Systems (45 IBH Project)

Contractor	Community	Rehab of Gravity	Constn. of Gravity	IBH
European Drilling	Tongo New (New Gravity)		1	
	Bendu Yawei (New Gravity)		1	
	Daru (Rehab Gravity)	1		
Masters Construction	Daru (2 Borehole Construction)			2
	Mabontor (Tonkolili District) (Rehab Gravity)	1		
	1 Nr Borehole Construction in Largo,			1
	1 Borehole Construction in Giema, Dama Chiefdom, Kenema District			1
	1 Borehole Construction Nr Giehun, Nongowa Chiefdom, Kenema District			1
	1 Borehole Construction Nr in Tangahun, Nongowa Chiefdom, Kenema District			1

1 Borehole Construction Nr Lalehun, Nongowa Chiefdom, Kenema District			1
2 Borehole Construction in Njala University, Mokonde, Moyamba District			2
Nixon Hospital, Segbwema, Kailahun District			1
Total	2	2	10

Summary of Work Progress by European Drilling Company

Contractor has received complete Advanced Payment and has Mobilized to all the sites -Tongo- Three Sand Filters and Intake shaft 95% Completed, Bendu Yawei and Daru- Mobilization of material ongoing. Overall work progress is 25%. Office Building 65% completed - Blockwork and roofing completed. Excavation for 150 cubic meter tank base in progress. All Steel tanks are in town.

Summary of Work Progress by Master Construction:

1. Lalehun, Lower Bambara Chiefdom, Kenema District

- Borehole drilling complete
- Tower construction complete
- Tank installation complete
- Pipe network done

2. Giehun, Lower Bambara Chiefdom, Kenema District

- Borehole drilling complete
- Tower construction complete
- Tank installation completed
- Network done

3. Tangahun, Lower Bambara Chiefdom, Kenema District

- Borehole drilling complete

- Tower construction complete
- Tank installation complete
- Pipe network done

4. Largo Jasawabu, Nongowa Chiefdom, Kenema District

- Borehole drilling complete
- Tower construction complete
- Tank installation complete
- Pipe network done

5. Giema Dama, Dama Chiefdom, Kenema District

- Borehole drilling complete
- Tower construction complete
- Tank installation complete
- Pipe network done

6. Nixon Hospital, Njaluahun Chiefdom, Kailahun District

- Borehole drilling complete
- Tower construction complete
- Tank installation complete

7. Njala Monkode, Moyamba District

- Borehole drilling complete (x2)

8. Daru, Jawei Chiefdom, Kailahun District

- Borehole drilling complete (x2)

9. Rehabilitation of Mabontor Gravity system, Tonkolili District

- Weir Rehabilitation work complete
- Filter bed construction work complete
- Digging and exposing faulted pipes and fittings complete

- Acquiring office land complete

Overall progress registered by the contractor is at 70%

2.1.1.2 Donor Funded Projects

Background

Donor-funded projects represent a critical aspect of SALWACO's strategy to address water and sanitation challenges, especially in underserved communities. These projects bring external financial support, technical expertise, and collaborative partnerships, enabling SALWACO to expand its reach, improve infrastructure, and enhance service delivery. The financial contributions from donors directly influence the scale and effectiveness of SALWACO's operations, making it possible to implement innovative solutions and address pressing water and sanitation issues.

Donor-funded projects within SALWACO are strategically designed to achieve several key objectives, including:

Infrastructure Development: Supporting the construction and rehabilitation of water supply and sanitation infrastructure to meet the growing demand and improve service reliability.

Capacity Building: Investing in training programs, knowledge transfer, and skill development for SALWACO staff to ensure sustainable project management and long-term operational success.

Community Engagement: Facilitating community involvement and empowerment through awareness campaigns, education programs, and participatory approaches to foster a sense of ownership and responsibility.

Innovation and Technology: Introducing cutting-edge technologies and innovative solutions to enhance efficiency, reduce operational costs, and improve the overall quality of water and sanitation services.

2.1.1.2.1 Three Towns Water Supply and Sanitation Project (TTWSSP)

In the recent past, SALWACO implemented the Three Towns Water Supply and Sanitation Project (TTWSSP). The funding for the project is UA41.35million or approx. US\$61million with the African Development Bank (AfDB) providing the bulk of the funds in grants and loans with OPEC Fund for International Development (OFID) providing US\$19million as a loan (Phase 1) and US\$13.15 million and US\$1 million for the supplementary phase (Phase 2). The Government of Sierra Leone (GoSL) has so far provided nearly US\$1million as counterpart funding to pay for compensation for Project Affected Persons (PAPs) and part of project management fees.

This Phase 1 of the project closed on March 31, 2020 and Phase 2 closed on June 30, 2020. There were also outstanding activities that will make the facilities constructed in Makeni to function properly. This includes the construction of Balancing Reservoir, Treatment Plant Pipe and Site Works, Environmental Works, and construction of Civil Infrastructure at the Water Treatment Plant.

2.1.1.2.2 Rural Water Supply and Sanitation Project (RWSSP)

The Rural Water Supply and Sanitation Project (RWSSP), funded by the African Development Bank (AfDB), co-financed by DFID, the Global Environment Facility (GEF), and GoSL is part of the Government's efforts to increase rural water supply and sanitation coverage with the goal of contributing to reduction in infant mortality.

This project came to completion on the 30th December 2021 and some activities requiring action for the Bank to disburse funds to contractors that have completed works before the project closure.

2.1.1.2.3 Four Towns Water Supply Project

Background

The financing agreement for USD 15,000,000.00 was signed on 5th February 2021. The effectiveness conditions and documents required for the Project to commence were:

- i. Legal Opinion
- ii. Cabinet Approval
- iii. Parliamentary approval.
- iv. List of Authorised Signatories
- v. Letter from Ministry of Finance that SALWACO will be the Project Authority (i.e., Implementing Agent)
- vi. Terms of Reference for the Consultant for the Detailed Project Report (DPR) and Project Management Consultancy – PMC (which should include the scope of assignment and works)
- vii. Prequalification criteria for the consultant for the DPR and PMC
- viii. Prefeasibility Studies Report by the Project Authority (which includes preliminary designs and cost estimates).

All the above conditions have been satisfied and consequently, the LoC was declared effective by the Exim Bank

The budgeted cost of the project is as follows:

No.	SERVICE	DESCRIPTION	AMOUNT(USD)
1.00	Consultancy	Design and Construction Supervision	998,530.00
2.00	Construction	Construction of Water Supply System in Njala	5,272,822.29
		Construction of Water Supply System for Matru Jong	7,045,254.54
		Construction of Water Supply System for Mongor	830,025.00
		Construction of Water Supply System for Daru	848,925.00
			14,995,556.83

Exim Bank will undertake prequalification process for engagement of the consultant for Design (Detailed Project Report - DPR) and Project Management (PMC). Following this, SALWACO will competitively select the most qualified firm on the shortlist that will be provided by the Bank.

The eligibility criteria in the Financing Agreement consists of the following clauses, among others (see attached):

- Clause 3.1(e) - “the Borrower hereby confirms to EXIM Bank that the Eligible Contract shall be exempt from all kinds of taxes, levies and duties of any nature whatsoever levied in the Borrower’s country”
- Clause 3.1(k) - “the contract has been concluded within eighteen months from the date of this Agreement”.

The recruitment process of the consultant has been completed and the design and field visits to identify locations of facility is ongoing.

2.1.1.2.4 Construction of 100 wells under the Saudi Program for Drilling of Wells and Rural Development in Africa, Phase v

Background

The provision of sustainable water supply and sanitation is one of the main priorities of the Government of Sierra Leone (GoSL) in the process of laying the foundations for poverty reduction, sustainable economic growth, achieving the Medium-Term Development Plan, and the realization of Sustainable Development Goals (SDGs). The Saudi Program for Drilling of Wells and Rural Development in Africa Phase aims to provide improved access to adequate, safe, and reliable water supply services for

smaller communities, townships, and rural settlements, and to enhance the institutional, operational and management capabilities of the WASH committees in these communities.

The GoSL has secured funds from the Saudi Fund for Development towards the construction of 100 wells equipped with solar pumping systems and elevated tanks including of distribution network systems and public posts with taps in one hundred (100) communities selected across all districts in Sierra Leone except the Western Area. These communities have significant political, economic, social, and cultural importance. A total of 250,000 persons will benefit from this project.

The approved project budget for both consultancy services and construction of one hundred (100) solar powered boreholes each with ten (10) public stand posts and 2Km distribution network is Five Million United States Dollars (USD 5,000,000.00).

The Kingdom of Saudi Arabia represented by Saudi Fund for Development (SDF) has recruited m/s Mohammed Osama Al-Kabbani / EDS International as consultant for the design and supervision of construction works. The consultant contract was submitted to the Government of Sierra Leone through the Sierra Leone Water Company (SALWACO). The contract was signed on the 20th June 2022 at the Ministry of Water Resources.

The design of all the facilities have been completed, drawings, tender document and costing of lots prepared. The locations for the boreholes were selected in-line with recommendations from the office of the Chief Minister.

The implementation period for the whole works as per the consultancy agreement is eighteen (18) months including a defect liability period of twelve months. However, the facilities are expected to be completed within six months after the award and signing of contracts.

2.1.2 Inputs, Output and Outcomes of Project

As a strategy to contribute to the broader national goals is aligning interventions with the government's big five changers. **Pillars 1 (Feed Salone), 3 (Youth Employment Scheme) and 5 (Investing in Technology and Infrastructure)** are aligned with the Company's project management and implementation activities. The aim is to link water supply projects to economic development goals by ensuring that reliable water infrastructure supports industrial growth, agriculture, youth employment and other economic activities. Collaboration is required with economic planning bodies to integrate water supply projects into broader economic strategies. The table below shows the Inputs, Outputs and Outcomes on on-going projects.

Table 17: Inputs, Outputs and Outcomes

No.	Project/Programme/ Activities	Input	Output/Deliverables	Outcome/Impact
1	<p>Blama Bandawor and Six other Villages Water Supply Project - 1): <i>Status: Ongoing</i></p> <p>Construction of Plant Manager's Quarters renovation + Furnishing</p> <p>2) Supply and Installation of 50 Cubic meters per hr Treatment Plant</p> <p>3) Construction of 2 new junior staff quarters + furnishing</p> <p>4) Storage Building renovation</p> <p>5) Rehabilitate Main office + furnishing</p> <p>6) Construction Concrete base for station & generator (2)</p> <p>7) Trench - station - tank1(12km) Blama</p> <p>8) Trench - station - tank2(3km) Bandawor</p> <p>9) Pipe laying to tank1 – Blama (12km)</p> <p>10) Pipe laying to tank2 –</p>	<p>Design of facilities, procurement of contractors, award of contracts, mobilization of contractors, construction of facilities, testing commissioning and handing over</p>	<p>Construction of 50m³ Water treatment Plant, Construction of 24km distribution Network, Construction of 15km Transmission Mains</p>	<p>Improvement of the general living condition of the benefiting communities because of reduction of water-borne diseases, increases access to safe drinking water, reduction of the time Spent by girls and women to collect water nationwide, Increased access to water will improve time spent on other economic activities, thereby expanding the economy and health of women</p>

No.	Project/Programme/ Activities	Input	Output/Deliverables	Outcome/Impact
	<p>Bandawor (3km)</p> <p>11) Six Villages extensions (local works)</p> <p>12) Construction of 24 km Distribution System</p> <p>13) Construction of Station office and Managers Quarters</p> <p>14) Supply and Installation of 75 Cubic meter tank in Bandawor</p> <p>15) Rehabilitation of 55 Cubic meter tank at treatment Plant and Onions tank in Blama</p>			

No.	Project/Programme/ Activities	Input	Output/Deliverables	Outcome/Impact
2	<p>Construction of Water Supply Facility in Bonthe Municipal - <i>Status: Ongoing</i></p> <p>1.) Constructing new water supply facilities, including extending water supply coverage in Bonthe City to 100% 2.) Supply and Installation of 100m³/hr Solar Powered Desalination Plant 3.) Reconstruct 50m³/hr open healthy Water supply system. 4.) Project Management: Provision of technical assistance and project management inputs to enable effective and efficient project implementation</p>	<p>Design of facilities, procurement of contractors, award of contracts, mobilization of contractors, supervision, desalination plant factory inspection, inspection of transmission and distribution pipes, construction of facilities, testing commissioning and handing over of completed works.</p>	<p>New and rehabilitated water supply systems consisting of constructing new water supply facilities (desalination plant), including extending water supply coverage in Bonthe City to 100%. Reconstruct 50m³/hr open healthy Water supply system. 34 km distribution network installed, 15 public stand pipes ,1 750 cubic meters of reservoir capacity, 1km transmission pipe line and service connections to households, markets, hospitals, schools, places of worship. guest houses and hotel.</p>	<p>Increased number of people having access to adequate potable water and increased number of people adopting improved hygiene practices. Many people (51% women) have access to adequate and potable water supply. The time girls and women spend to fetch water reduce by about 90%. More people in Bonthe Municipality have adopted improved hygiene practices. Reduction in Unaccounted for Water (UFW), increased billing ot collection ration, increased recovery of O&M, permanent water-utility-operations-related jobs created (semi-skilled and skilled technicians)</p>

No.	Project/Programme/ Activities	Input	Output/Deliverables	Outcome/Impact
3	<p>Six Towns Water Supply Project (Kailahun, Pujehun, Moyamba, Kabala, Magburaka, and Kambia Townships) - <i>Status: Ongoing</i></p> <p>1) Infrastructure: Rehabilitate and Construct new water supply facilities; including extending water supply coverage in these communities to 100%</p> <p>2) Institutionalizing the use of renewable energy in Urban water supply facilities in Sierra Leone, thereby reducing the operation and maintenance cost.</p> <p>3) Provision of technical assistance and project management inputs to enable effective and efficient project implementation.</p>	<p>Design of facilities, procurement of contractors, award of contracts, mobilization of contractors, supervision, inspection of transmission and distribution pipes, construction of facilities, testing commissioning and handing over of completed works.</p>	<p>New and rehabilitated water supply systems consisting of increased distribution network installed public stand pipes, new water kiosks, reservoir capacity, transmission pipe line and service connections to households, markets, hospitals, schools, places of worship. guest houses and hotel.</p>	<p>Increase of 400,000 of people having access to adequate potable piped water and increased percentage of people adopting safe hygiene practices Many people (51% women) have access to adequate and potable water supply. The time girls and women spend to fetch water reduced. More people in these six towns have adopted improved hygiene practices. Reduction in Unaccounted for Water (UFW), increased billing to collection ration, increased recovery of O&M, permanent water-utility-operations-related jobs created (semi-skilled and skilled technicians)</p>

4	<p>Four Towns Water Supply Project (Njala, Matru Jong, Daru and MongoTown)-Njala and Tiama Water Supply Systems: <i>Status: Pipeline</i></p> <p>1) Construction, Reconstruction and or Rehabilitation of 200m³/hr Water Treatment Plant that will be used for Taiama, and Njala in order to augment supply.</p> <p>2) Construction of New Staff Quarters in Njala.</p> <p>3) Construction of SALWACO branch office in Njala Town.</p> <p>4) Construction of Intake Structure complete with a pumping rate of 200m³/hr.</p> <p>5) Installation of Solar system to Power the treatment plant and Staff quarters at Njala.</p> <p>.6) Construction of a New OHST and the Rehabilitation of two Over Head Storage Tanks (OHST) for Njala.</p> <p>.7) Construction of a Raw</p>	<p>Design of facilities in the four towns, procurement of contractors, award of contracts, mobilization of contractors, supervision, inspection of transmission and distribution pipes, construction of facilities, testing commissioning and handing over of completed works.</p>	<p>100% Water Supply Coverage of Njala, Matru Jong, Daru and Mongo Township- construction of four water treatment facilities. Reduce Fetching time to less than 30min. Water poits available at within 500m radius. Increase Services and Revenue- Increase in water supply to 24hrs service</p>	<p>Increased number of people accessing potable water supply. Increased access to adequate and potable water supply in the Four Towns</p>
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<p>Water Conveyance Pipeline to a total length of 1.7Km.</p> <p>8) Construction of Transmission Pipeline from the Treatment Plant to the three OHST in Njala Township to a total length of 3Km.</p> <p>9) Construction of Distribution networks with complete appurtenances in Njala Township to a total length of 27.7Km.</p> <p>10) Construction of a DCIP Transmission Pipeline from the Treatment Plant in Njala to the OHST in Taiama to a total length of 13.2Km</p> <p>11) Construction of HDPE Distribution network with complete appurtenances in Taiama to a total length of 14.035Km</p> <p>12) Construction of New Staff Quarters in Taiama</p> <p>13) Construction of SALWACO outlet office in Taiama Town.</p>			
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<p>14) Construction of a New OHST and the Rehabilitation of the existing OHST in Taiama</p> <p>Matru Jong Water Supply System</p> <p>1) Raw water intake with two 160m³/h pumps (one operational one stand-by)</p> <p>2) Construct/ Reconstruct 150 Cubic meter Treatment Plant</p> <p>3) 300m of ductile iron raw water transmission main</p> <p>4) Clarifier tank</p> <p>5) Chlorine contact tank</p> <p>6) Rapid sand filters (filtration rate of 180m³/h each)</p> <p>7) 200m³ clear water tank</p> <p>8) A building fully equipped with chemical dosing system, storage and electrical panels</p> <p>9) Construction of staff quarters(4Nr) and office building</p> <p>10) Provision and Installation</p>			
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<p>of two Perkins generators: 250KVA each</p> <p>11) Installation of Solar system complete with battery that powered the treatment plant and quarters</p> <p>12) Installation of a laboratory facility for water quality tests</p> <p>13) 10.9Km of Ductile Iron clear water transmission main</p> <p>14) 40.5Km of distribution network</p> <p>15) Chain-link barbed wire fence</p> <p>Daru Water Supply Systems</p> <p>i. Construction of Six(6) industrial Boreholes</p> <p>ii. Construction of 480m³/day water treatment plant</p> <p>iii. Construction of 150m³ Reservoir in Daru</p> <p>iv. Construction of 5km Distribution System</p> <p>v. Construction of SALWACO Office in Daru</p> <p>vi. Construction of 50m³</p>			
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	<p>Ground Tank vii. Construction of 500m Transmission System Construction of Staff Quarters in Daru Mongor Water Supply System i. Construction of Six (6) Industrial Boreholes ii. Construction of 480m³/day water treatment plant iii. Construction of 150m³ Reservoir in Mongor iv. Construction of 50m³ Ground Tank in Mongor v. Construction of 4km Distribution System vi. Construction of 500m Transmission System vii. Construction of SALWACO Office in Mongor viii. Construction of Staff Quarters in Mongor</p>			
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No.	Project/Programme/ Activities	Input	Output/Deliverables	Outcome/Impact
5	<p>100 Solar Powered Boreholes - Saudi Fund Project - Status: Pipeline</p> <p>1) To drill 100 boreholes equipped with solar pumping systems and elevated tanks including extending of distribution network systems and public posts with taps in 14 districts.</p> <p>2) Civil-Mechanical works</p> <p>3) Consultancy services</p>	<p>Environmental impact assessment, design of facilities , procurement of contractors, award of contracts, mobilization of contractors, supervision , construction of facilities, testing commissioning and handing over of completed works.</p>	<p>100 solar powered boreholes and distribution network system and public taps in 78 chiefdoms in 14 districts. Drilling of 100 boreholes</p> <p>Installation of 100 solar pumps</p> <p>Supply and installation of 100 elevated tanks with storage capacity of 10m³</p> <p>Construction of about 100km of distribution network.</p>	<p>Improvement of the general living condition of the benefiting communities because of reduction of water-borne diseases. Increases access to safe drinking water. Reduction of the time Spent by girls and women to fetch water nation wide</p> <p>Community ownership and sustainable water supply systems . Training and equipping of Local artesian to operate and manage facilities</p>

2.1.3 Recommendation and Action Plan

In 2024 and beyond, the Project Management Directorate is poised to intensify efforts that will lead to the completion of ongoing projects such as the Bonthe Water Supply Project and the Six Towns Water Supply Project, and the 45 industrial boreholes. Skills development, training initiatives, and stakeholder collaboration to further enhance project delivery capabilities and address emerging water challenges across SALWACO's operational jurisdiction will be among the key activities.

Strategic alignment with the government Big Five changers will lead to the initiation and execution of new projects such as the Construction of the Kamakwei Water Supply Project, the Construction of the Mambolo Water Supply System, The Four Towns Water supply project for Njala, Matru Jong, Daru and Mono town with funds from the Indian EXIM Bank, among others.

To actualize these aspirations, the Directorate is recommending for the board and management of SALWACO to set up a separate Bank account with a Financial Management Specialist or at least a dedicated project accountant recruited that will manage all projects funds. This will ultimately accelerate the timely delivery of project outputs. Investment is also required in training programs to build capacities of project team in project implementation, operation and maintenance of water infrastructure.

2.2 Administration Department

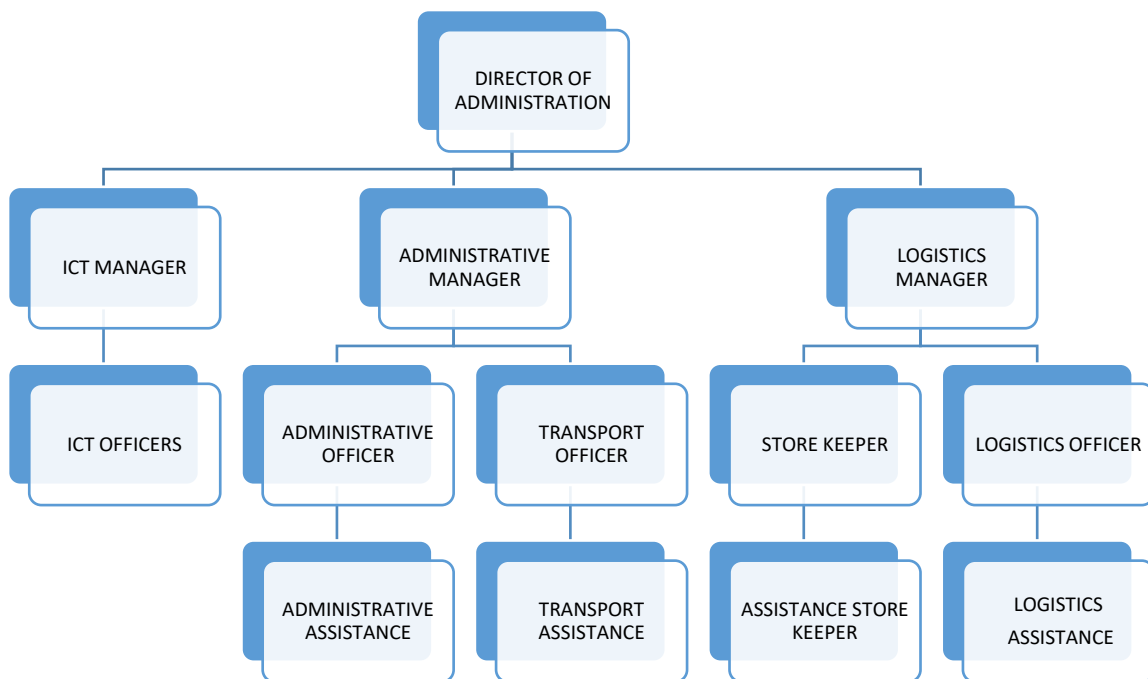
2.2.1 Introduction

The Admin Department is charged with the responsibility to manage the assets and fleets of the Company. The report covers the administrative activities undertaken, the outcome, challenges, and suggestions/solutions for the year 2023 with highlights on the successes for the period under review.

2.2.2 Organogram of the Administrative Department

The organisational chart of the Admin Department is depicted in the figure below.

Figure 2: Organogram of the Admin Department



2.2.3 Overview of the Unit

The Administrative Directorate comprises the ICT Unit, Transport Unit, Generator Unit, Logistics and Stores Unit. The Head of the Directorate is the Director of Administration, supported with the Administrative Manager and ICT Manager as line managers with officers, Assistant Officers, drivers and cleaners. The total number of staff in the department is 20 permanent staff and 8 Support staff.

The command flow is from top to bottom.

2.2.4 Mandate of the Unit

The core mandate of the Administrative Department is to manage the day-to-day activities of the company relating to assets and fleet and to ensure that the working environment is conducive enough for staff to carry out their duties in an effective and efficient manner.

It is the responsibility of the department to ensure that water is available within the office premises for staff in order to address the sanitation aspect of staff and visitors. It also has the responsibility to ensure that the offices and the environment is kept clean and tidy. It is their responsibility to raise request for generator operations, process EDSA requests, ensure maintenance and renovations of office buildings including the warehouse.

2.2.4.1 Management of fleet

There are three units under the Administrative Directorate. They are as follows:

2.2.4.2 The Transport Unit

This unit is charged with the responsibility to manage (use, maintenance and assignment of drivers to vehicles) all company vehicles. The current function fleet of vehicles is given in the table below:

Table 18: Functional Fleet

No	Vehicle Number	Vehicle Make	Location/Personnel	Remarks
1	ASL 290	Toyota Hilux Van	Managing Director	Good
2	ASZ 119	Toyota Hilux Van	Deputy Managing Director	Good
3	ASI 414	Toyota Hilux Van	Director of Project	Good
4	ASZ 114	Toyota Hilux Van	Director of Procurement	Good
5	AUO 876	Toyota Hilux Van	Director of Finance	Good
6	AUG 223	Toyota Hilux Van	Bo Station	Good
7	ATD 801	Toyota Hilux Van	Kenema Station	Good
8	AUM 301	Chinese Bowser	Kenema Station	Good
9	AUM 302	Chinese Bowser	Kenema Station	Good
10	AUM 303	Chinese Bowser	Head Office	Good
11	AUM 304	Chinese Bowser	Lungi Station	Good
12	AKM 591	Toyota Land Cruiser	Director of Planning Research & Policy	Good

The under mentioned table indicates the information of the company's vehicles and their current locations and assigned personnel.

Road worthy vehicles that need maintenance and servicing are indicated in the table below.

Table 19: Roadworthy Vehicles that Require Maintenance

No	Vehicle No	Vehicle Make	Personnel/Station	Remarks
1	AHH 692	Toyota Hilux Van	HR Manager	Needs maintenance
2	AJA 916	Toyota Prado	Unassigned HQ	Needs maintenance
3	AKM 592	Toyota Land Cruiser	Unassigned HQ	Needs maintenance
4	AMJ 137	Toyota Land Cruiser	Unassigned H/Q	Needs maintenance
5	AMJ 138	Toyota Land Cruiser	Kailahun	Needs maintenance
6	AJK 456	Toyota Hilux Van	Kambia Station	Needs maintenance
7	AIE 886	Hino Bowser	Makeni Station	Needs maintenance
8	AHL 270	Toyota Hilux Van	Utility HQ	Needs maintenance

Unserviceable vehicles are shown in the table below:

Table 20: Unserviceable vehicles

No	Vehicle No	Vehicle Make	Location	Remarks
1	AHM 894	Isuzu Water Bowser	Lungi	Faulty and with no tires
2	No Number	Isuzu Water Bowser	Lungi	Faulty and with missing tires
3	AGZ 275	Sonalika Tractor DI-60	Lungi	Faulty
4	AKJ 456	Toyota Hilux Van	Kambia	Faulty and parked at a garage
5	AIE 886	Hino Water Bowser	Makeni	Faulty and parked in SALWACO staff quarters
6	AHH 693	Toyota Hilux Van	Makeni	Ageing
7	N/A	1 scrap generator engine block	Mile 91	Scrap
8	AHT 748	Toyota Hilux Van	Bo	Faulty and is parked in SALWACO Bo Office with no tires and back lights missing.
9	No Number	Airman Compressor	Bo	Faulty and is parked in SALWACO Bo Office
10	AHM 888	Isuzu Crane	Bo	In ruins
11	AHM 891	Isuzu Water Bowser	Bo	Faulty

No	Vehicle No	Vehicle Make	Location	Remarks
12	AHH 691	Toyota Hilux Van	Bo	Faulty and is parked in SALWACO Bo Office with two back tires and back lights missing.
13	AHL 268	Toyota Hilux Van	Bo	Faulty and is parked in SALWACO Bo Office with flat tires and engine problem
14	No Number	Caterpillar Front End Loader	Bo – Gelehun	Flat tires not functional with damaged engine
15	AHM 887	Isuzu Crane	Kenema	Faulty
16	AJM 138	Toyota Land Cruiser	Kailahun	Faulty Engine, with major under carrier problem and overhead running cost too much on the Company
17	AJC 388	Toyota Hilux Van	H/Q	Faulty
18	AHH 695	Toyota Prado	H/Q	Has no engine, all tires flat have no spare tires
19	AHH 694	Toyota Prado	H/Q	Garage in Bo
20	AHH 690	Toyota Hilux Van	Degremont, Kissy, Freetown	Faulty with back light on the passenger's side missing and tires missing.
21	AJC 393	Toyota Hilux Van	H/Q	Faulty with 3 tires missing
22	AJC 394	Toyota Hilux Van	H/Q	No engine with no tires
23	AJA 916	Toyota Prado	H/Q	Ageing
24	AKM 592	Toyota Land Cruiser	H/Q	Faulty
25	AHL 270	Iveco Bowser	Water H/Q	Utility
26	AJM 137	Toyota Land Cruiser	H/Q	Currently at a garage for servicing but over cost too much on the Company
27	AHM 893	Isuzu Bowser	Water Degremont, Kissy, Freetown	Faulty
28	AKP 076	Iveco Bowser	Water Degremont, Kissy, Freetown	Faulty
29	AHM 892	Isuzu Bowser	Water Degremont, Kissy, Freetown	Faulty with engine downed
30	AKP 074	Iveco Bowser	Water Degremont, Kissy, Freetown	Faulty
31	AKP 078	Iveco Bowser	Water Degremont, Kissy, Freetown	Faulty

No	Vehicle No	Vehicle Make	Location	Remarks
32	AKP 366	Iveco Bowser	Water Degremont, Kissy, Freetown	Faulty
33	AHL 269	Toyota Van	Hilux Degremont, Kissy, Freetown	The back light on the driver's end is missing with missing tires. Faulty.
34	AGT 269	Toyota Van	Hilux Degremont, Kissy, Freetown	Faulty with no tires and facing missing.
35	AIE 884	Hino Bowser	Water Degremont, Kissy, Freetown	Faulty with tires missing
36	AKP 101	Iveco Bowser	Water Degremont, Kissy, Freetown	Faulty with flat tires
37	AIB 124	Toyota Van	Hilux Degremont, Kissy, Freetown	Faulty with two tires missing and no face
38	AHL 268	Toyota Van	Hilux Bo	Faulty with flat tires
39	AEG 285	Toyota 4 Runner	Degremont, Kissy, Freetown	Faulty with no engine
40	AHM 890	Isuzu Bowser	Water Degremont, Kissy, Freetown	Faulty
41	No Number	Front Loader	End Bumbuna	With no engine, no tires and with major parts missing
42	AKP 77	Iveco Bowser	Water Garage Malema	at With no engine and tires
43	No Number	Toyota Tundra	Mile 91	Over 18 years with the Company and with defective engine

Vehicles that are not road worthy are recommended for boarding.

The borehole drilling rig is parked at the Degremont warehouse at Kissy east of Freetown. It has not been operating for the past 3 years as a result of mechanical breakdown.

2.2.4.3 The Generator Unit HQ

There are two generators (125 kVA & 40 kVA) at Head Office used as standby when there is no electricity supply from EDSA. This unit have an Assistant Officer to oversee the operations and two generator operators.

2.2.4.4 Logistics & Stores Unit

This unit has 3 staff and two casuals. Two Officers at the warehouse at Degremont and the assistant Logistics Officer assigned at HQ to manage the store and the two officers and two casuals at Degremont warehouse located at Kissy. The store at HQ stocks stationeries and other equipment and the warehouse at Degremont Kissy stocks chemicals, machinery, truck, bowser, vehicles and connection materials.

2.2.4.5 Canteen

There is a canteen at HQ for staff and other potential customers from the public to have lunch. This facility is outsourced to have it managed and is to pay rent at a reasonable rate.

2.2.4.6 Security and Fire Safety & Alarm

The services of a private security firm have been contracted to provide security at HQ and all company's facilities across the regions.

Fire Prevention is of key as it saves the company loses if the event there is a fire incident.

2.2.4.7 The ICT Unit

2.2.3.7.1 Introduction

The ICT Unit at Sierra Leone Water Company (SALWACO) achieved significant milestones in 2023. Building on the momentum from previous years, the unit focused on digital transformation, system optimization, and providing critical support to all departments, contributing to SALWACO's mission of delivering efficient water services across its operational areas.

With a staff strength of 10, the Unit has played a pivotal role in ensuring seamless operations and improving technological infrastructures. Notably, among these team members, two are female, showcasing the Unit focus on gender inclusivity and diversity.

Key accomplishments include system and software developments, infrastructure management, customer payment system integration, and ensuring continuous technical support for staff. Below is a comprehensive detail highlighting the ICT Unit's activities and progress throughout the year.

1. System and Software Development:

The ICT Unit developed and maintained critical systems tailored to the company's needs, automating processes and enhancing operational efficiency. This included the continued customization of software solutions for billing, customer management, asset tracking, and reporting.

2. Automation Enhancement:

The unit implemented advanced automation solutions, particularly in the billing and revenue collection processes. This reduced manual intervention and minimized errors across departments, leading to increased productivity and accuracy in managing critical data.

3. Infrastructure Management:

Throughout 2023, the ICT Unit successfully maintained SALWACO's IT infrastructure. The Unit ensured optimal performance of network systems, servers, and databases, minimizing downtime and ensuring business continuity. Continuous upgrades and system patches were applied to enhance system reliability and security.

4. Afrimoney Mobile Payment Integration:

One of the significant achievements was the integration of Afrimoney Mobile Payment with the billing system, allowing customers to conveniently make payments for water utility services via mobile platforms. Successful testing in Bo, Kenema, and Makeni confirmed the seamless operation of the payment gateway. This initiative is expected to enhance revenue mobilization and customer satisfaction in 2024 as the service is fully rolled out.

5. ICT Support for Staff:

In line with its core mandate, the ICT Unit provided continuous technical support to staff across all regions, resolving issues with hardware, software, and network services. The unit handled daily queries and ensured that employees had access to the tools they needed for optimal performance.

6. ICT Devices Procurement:

The unit was also responsible for preparing procurement specifications for ICT devices to meet the company's evolving needs. This ensured that the technology infrastructure remained modern, reliable, and capable of handling the demands of a growing organization.

7. Collaboration on IMIS Development:

The ICT Unit worked closely with external consultants to further develop the Integrated Management Information System (IMIS). This major project aimed to consolidate various SALWACO systems, including billing, finance, and human resources, into one centralized platform. The commercial module was developed and is expected to go live early in 2024.

8. Billgen Integration, Web API, and Afrimoney Testing:

In January 2024, the ICT Unit led the successful testing of the Afrimoney payment integration, ensuring the billing system worked in realtime with mobile payments. This was a significant step toward facilitating easier payment for customers and improving SALWACO's cash flow.

2.2.3.7.2 Challenges

Budget Constraints: Similar to previous years, the unit faced limitations due to budget constraints. These affected the execution of some projects, but the ICT Unit prioritized high impact initiatives.

Skills Gap: The recruitment of specialized IT professionals remained a challenge, which impacted project timelines and overall service delivery. The ICT unit is actively working on strategies to close this gap in 2024.

2.2.3.7.3 Future Goals

Strengthening Cybersecurity: The ICT Unit plans to invest in more robust cybersecurity measures in 2024 to better protect the organization's sensitive data from increasing digital threats.

Digital Transformation Initiatives: The Unit aims to push forward digital transformation by implementing more user-friendly interfaces for both internal and external users, optimizing the use of big data, and improving system integrations for better workflow management.

Real-time Payment Integration: In 2024, the ICT Unit will work on integrating the billing system with core banking applications, allowing customers to make real-time payments at banks without needing to visit SALWACO offices.

2.2.3.7.4 Conclusion

The ICT Unit made substantial contributions in 2023 toward SALWACO's strategic goals, improving operational efficiency and customer satisfaction through technology.

The upcoming year presents new opportunities to build on these successes, enhance system capabilities, and continue driving SALWACO’s digital transformation journey.

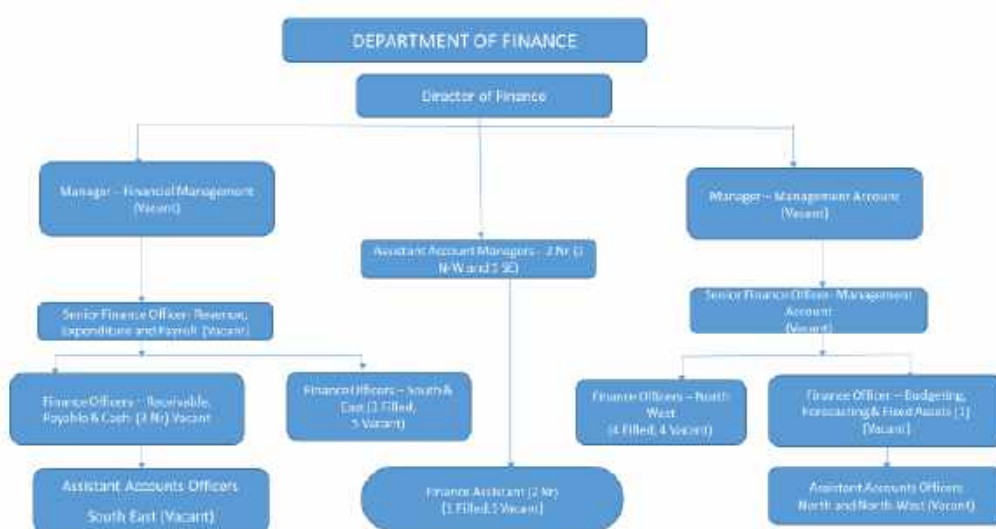
2.3 Finance Department

This report consists of financial management overview, overall performance of the institution, Revenue generation, expenditure analysis, draft yearly income and expenditure, financial challenges and mitigation strategies, recommendation and action plan.

2.3.1 Organogram of the Finance Department

The organogram of the Finance Department is given in the table below:

Figure 3: Organogram of the Finance Department



2.3.2 Finance Department’s Responsibility

The Finance Department is responsible for the preparation and fair presentation of these yearly finance reports in accordance with International Financial Reporting Standards (IFRS). This responsibility includes: designing, and implementing internal controls relevant to the preparation and fair presentation of the finance report that are free from material misstatements, whether due to fraud or error, selecting and applying appropriate accounting policies, making accounting estimates that are reasonable in the

circumstances, safeguarding the assets of the institution and taking reasonable steps to prevent and detect fraud and other irregularities.

The finance department provides company management with information necessary to make strategic decisions such as which projects to pursue, and the payback periods for large capital purchases. The Department also brings to management's attention the performance of income generated by all stations and the expenditures incurred monthly. The Department provides information on stations that are profit/cost/investment centers and also provide management's information on the trend in Payables and Receivables for the year ended.

2.3.3 Financial Management Overview

Financial management deals with monitoring, controlling, protecting, and reporting on a company's financial resources. It is the management of the company's finances including all bank transactions, loans, debts, investments, and other sources of funding.

2.2.4 Overall Performance

The overall performance of SALWACO for the Accounting year 2023 is as follows:

- The total cash generated for the year 2023 was relatively encouraging as the institution collected cash of **NLe 6,146,581.38**. Comparing to 2022 cash collected of **NLe 5,111,793.00** indicates a 20% increase over the period.
- Receivable continues to be challenging for the institution as it increases year by year. An accurate figure cannot be given now as some stations have not completed their billing for September to December 2023.
- Payables have declined considerable as management is controlling debts from suppliers/contractors. Debts can only be taken on critical water treatment materials such as chemicals.
- Non-current assets are stable with little acquisition for the year under review.
- Inventory is stable as only water treatment chemicals were acquired.
- Government Subvention of NLe 11,300,000.00 was received for the year 2023.

2.3.5 Revenue Generation

Revenue is generated through the following sources:

1. Payment of Water Rate and PSP
2. Sale of Connection Materials
3. Bowser Water Sales
4. Unpaid bills at the end of the accounting period

The total cash generated for the year 2023 was relatively encouraging. The institution collected cash of NLe 6,146,581.38 from payment from Water Rate and PSP, sale of connection materials and sale from water Bowzer.

Breakdown of the above figure will be included in the Draft Financial Report for the year 2023.

2.3.6 Expenditure Analysis

In the year under review, 2023, a total of Nle17,853,274.69 was utilized in order to settle its financial obligations and ensure the smooth flow of affairs in the company.

Key expenditure lines for 2023 included fuel and lubricants, Water Treatment Chemicals, maintenance of Treatment plants, staff costs, etc.

Comparing 2022 and 2023, there was an increase of over Nle 6 m which can be attributed to the sharp hike in the price of fuel and lubricants and also the 100% increase in the Daily Subsistence Allowance amount which was stipulated by the government.

The finance department has adequately utilized limited resources to settle the firm's obligations by making sound judgment whilst dispensing cash and at the same time ensuring that the company is liquid enough to settle its short- and long-term obligations.

The current management inherited a huge amount of long outstanding debts but through its astute decision making has been able to reduce the amount drastically.

The Expenditure Unit in the Finance Department is committed to ensuring that the financial needs of the company are fulfilled prudently and we are confident that in the current year, we will be able to reduce our payables to the barest if not zero balance.

2.3.7 Draft Income and Expenditure For The Year 2023

	NLe
INCOME:	
GOSL Subvention	11,300,000.00
Cash collected	6,146,581.38
Total Income for the year	17,446,581.40
EXPENDITURE:	
Total Expenditure for the year	(17,853,274.69)
Expenditure over income	(406,693.22)

The result shows a surplus of expenditure over income of NLe 406,693.22. This is a result of the timing difference between preparing and making the payment.

2.3.7 Financial Challenges and Mitigation Strategies

2.3.7.1 Financial Challenges

Based on the Accounting method used by SALWACO to account for its finances, the following are the financial challenges:

- Inadequate subvention to run the institution
- High cost of critical cost components such as fuel, chemicals, etc
- Unwillingness of a group of customers to pay for the service
- Inadequate tariff to cover the cost of production

2.3.7.2 Mitigation Strategies

- Engage central government on the possibility of increasing subvention
- Pre-paid meters installed for a group of customers
- Increase in the tariff to cover the cost of production

2.3.8 Recommendations & Action Plan

2.3.8.1 Recommendations

- Management recruits Debtor collections to ensure the effective and efficient output of the department.
- Management approves quarterly in-house training with budget to ensure staff are up-to-date with emerging accounting standards.
- A copy of all bills raised by the Commercial Unit be sent to the finance department to ensure the finance department prepares its Receivable Control Ledger and posts transactions on the accounting system on time.
- Management recruits Finance Officers for the remaining station without one

2.3.8.2 Action Plan

- The department completes its draft accounts by the end of February 2024
- The department consistently submits its monthly report to management
- The finance and other departments embark on aggressive revenue collection
- Quarterly training of staff on updated accounting standards

2.3.9 Staff Strength

Location	Designation	Number
Freetown		
Head Office	Director of Finance	1
Head Office	Finance manager	1
Head Office	Senior Finance Officer	2
Head Office	Finance Officer	1
Head Office	Finance Assistant	2
South Region		
Bo	Finance Officer	1
Pujehun	Finance Officer	1
Moyamba		0
Bonthe	Finance Officer	1
East Region		
Kenema	Finance Officer	1
Kaliahun		0
North Region		
Makeni	Finance Officers	2
Lungi	Finance Officer	1
Port Loko	Finance Assistant	1
Lunsar		0
Kambia	Finance Officer	1
Magburaka		0
Kabala		0
Mile 91		0

During the year, one Finance Assistant, Mrs. Mariama Bangura resigned.

The Finance Officer in Bo station was involved in an accident and has been out of office for months.

2.4 The Human Resources Department

2.4.1 Human Resource Overview

The HR Department is charged with the general responsibility to manage and advise Management on HR issues at SALWACO. It is headed by the Human Resource Manager. The routine activities of the department resonate around staff recruitment, postings, transfers, staff promotions, welfare, coordination of managerial activities, ensuring that standard approaches relating to Management approved guidelines, staff discipline, and other compliance issues are adequately adhered to.

This workforce is broadly divided into the following categories. Permanent staff, contract staff and casual staff. The permanent staff are further divided into pin-coded and none-pin-coded.

The current total staff strength of SALWACO as at 1st January to 31st December, 2023 is shown in the table below.

The organogram of the HR Department is as in the table below:

Figure 4: Organogram of the HR Department

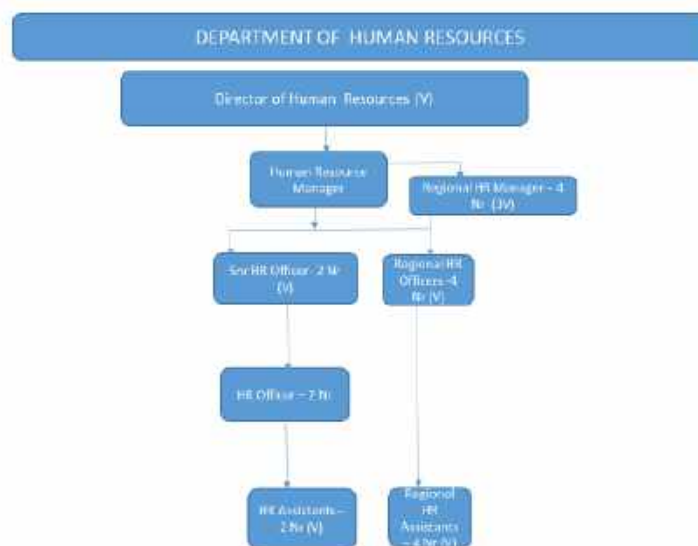


Table 21: Number of employees

No	Names	Number
1.	Permanent staff	191
2.	Contract staff	16
3.	Support staff	79
4.	Staff on Secondment	2
	Total	289

2.4.2 Transfers

The transfers made are indicated in the table below.

Table 22: Transfers

No	Name	Designation	Transferred from	Transferred to
1	Sheka Kanu	Driver	Lunsar	Blama
2	Aminata P. Marah	Commercial Assistant	Kambia	Kabala
3	Alicious Hooke	Commercial Officer	Bo	Magburaka
4	Isaac Lamin	Commercial Officer	Magburaka	Kambia
5	Ing. Moses Kamara	Engineer in charge	Kenema	Kambia
6	Ing. Sahr Keffah	Station Engineer	Bo	Kambia
7	Ing. Hamid Kamara	Ag. Station Manager	Kambia	Port Loko
8	Ing Emmanuel Bayoh	Station Manager	Port Loko	Makeni
9	Ing. Sahr Keffah	Station Engineer	Bo	Kenema
10	Abu Sesay	Driver	Lungi	Kenema
11	Sulaiman Abdulai	Driver	Makeni	Lungi

2.4.3 Promotions

The promotions made are shown in the table below.

Table 23: Promotions

No	Name	Previous Position	New Position
1	Denis Macavorey	Regional Manager	Director of Administration
2	John A. Forewa	Engineer	Maintenance Manager
3	Nenneh T. Kamara	Finance Officer	Finance Manager
4	Rachael M. Squire	Account Officer	Senior Account Officer
5	Agatha Swaray	Administrative Assistant	Administrative Officer
6	Georgette Nallo	Technician	Commercial Assistant
7	Aiah Yongah	Account Officer	Senior Account Officer
8	Mohamed Aziz Waggay	Marketing Officer	Marketing Manager
9	Mohamed Kamara	Generator Assistant	Generator Operator
10	Bockarie Mansaray	HR Assistant	Procurement Officer
11	Alhaji Alusine Kamara	Technician	Pupil Engineer
12	Fuard Hamid Kamara	Technician	Water Quality & Safety Officer
13	Mohamed S. Kamara	Technician	ICT Officer

2.4.4 Extension of Contract

Staff contracts were extended as indicated in the following table:

Table 24: Contract Extensions

No	Name	Designation	Location
1	Patrick Kamara	Driver	Bo
2	Gbassy Sowa	Driver	Kenema
3	Suliaman Abdulai	Driver	Lungi
4	Lahai Musa	Asst. Plumber & Tractor Driver	Mile 91
5	Bunting Wright	Secretary	HQ(DMD)

2.4.5 HR Policies and Procedures

Some of the existing HR policies (e.g., The 2009 Human Resources Management policy, Terms and Conditions of Service for staff and Bonding Policy) have over the years gradually become apparently obsolete and hence culminated into the realization of vital information gaps /administrative challenges relating to the interpretation and effective management of these policies. In order to change this trajectory, Management contracted the services of a consultancy firm M/s Sarante Consultancy (Expert Group) to revise these documents.

2.4.6 Workforce Development

Some supervisors/Heads of Departments did engage in routine coaching of staff under their departments. Training activities were also organized under the implementation of the IMIS (Information Management Integration System) program.

There are currently four staff that are on study leave with pay. A good number of staff are concurrently studying and performing their daily/ routing functions. Staff were granted excuses to write their exams. Some took UPA leave and these leave periods were deducted accordingly from their Annual leave period.

In an attempt to start rendering financial support to staff wishing to engage in training programmes that could be aligned with the operational activities and the short- and medium-term strategic direction of SALWACO, Management resolved that the HR Department should develop a staff training strategy/concept. A draft of a four-year training strategy is being developed. This strategy will cater for quarterly departmental workshops, general training programs, academic training programs (both in-person and online training programs), among others.

2.4.7 Employee Engagement Initiatives:

The HR Department ensures that the employees are encouraged and motivated. Employee engagement initiatives fall under five (5) main schematics as follows

- a. Provision of support for Career path Development
- b. Presentation of awards
- c. Commitment to workforce safety, health and other Welfare issues
- d. Conflict/grievance management mechanisms
- e. Creation of inclusive and well-coordinated Management system

2.4.7.1 Provision of support for Career path Development

The HR Department supported staff by issuing out necessary documentation requested by academic institutions with regards the ascertainment of the employee status for employees that requested for such documents. Also, deserving staff were promoted to higher ranks within the department pursuant to Departmental recommendations and Management approval

Also, some staff were transferred to different departments in order to ensure that they have basic operational knowledge of the general operations of SALWACO.

2.4.7.2 Presentation of awards

Management fully supported the HR Department in organizing the most inclusive Annual retreat ever organized in the history of the establishment of the Company. This retreat created the forum for collective efforts of station teams and individual efforts of staff to be recognized and rewarded. The retreat set the stage for age-old grievances among staff to be voluntarily submitted and resolve. Management has also sanctioned the preparation of a bonus scheme.

2.4.7.3 Commitment to workforce safety, health and other Welfare issues

Two staff were unfortunately involved in work place accidents. Management gave timely financial support to these staff to assist them in getting adequate medical attention.

Officers from the National Fire force also visited the HR department and sensitized them on precautionary measures to undertake to avoid fire break out.

2.4.7.4 Conflict/Grievance and Distress Management Mechanisms

The HR Department in collaboration with other departments engaged in fruitful conflict resolution activities to ensure that peace and tranquillity exist among staff. The Department also represented Management and visited bereaved staff and attended staff funerals.

2.4.7.5 Creation of inclusive and well-coordinated Management system

Recommendations made by the HR department for station/ Regional representations to be made when discussing cross-cutting issues affecting the total staff strength were in supported by Management. This created higher level of sense of belonging among the regional staff. Also, Management also in most instances instructed the HR department to share management approved policies, regulations/ guidelines among all staff to ensure that are staff are well abreast with the day-to-day happenings of the Company.

2.4.7.6 Achievements

The following achievements were registered:

- Staff promotions
- Payment of achievement allowance and other allowances to staff
- Creating of an adequate stage for policy reforms
- Multi-tasking of staff to ensure staff efficiency is enhanced
- Recruitments
- Organizing a successful 2023 Annual Staff Retreat held in Kenema City

2.4.8 General

The internship program continued with students being placed in different departments/stations/Units from various institutions. Administrative actions against defaulting staff were also witnessed. 15 of staff were engaged while 4 resigned for various reasons. There were 3 retirements. 4 staff proceeded on study leave with pay.

2.4.9 Challenges

The following are key challenges:

- Low salary structure
- Financial constraints relating to sponsorship for staff capacity building programmes

2.4.10 Recommendations

The following recommendation are proposed to address the challenges and improve upon the efficiency of the HR Department.

- Need for salary increase to be effected.
- Adequate funding of staff capacity building programmes.

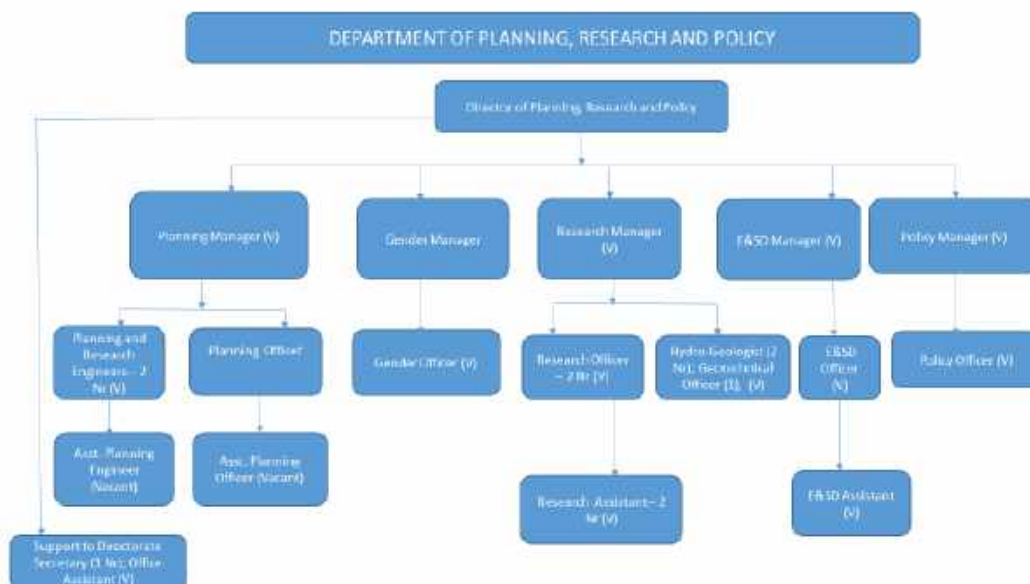
2.5 Research, Planning and Policy Department

2.5.1 Introduction

The Department of Research, Planning, and Policy at the Sierra Leone Water Company (SALWACO) is committed to driving evidence-based decision-making, strategic planning, and policy formulation to advance water supply and sanitation services in Sierra Leone. As we reflect on the accomplishments and challenges of the past year, this annual report provides an overview of our department's activities and achievements in 2023.

The organogram of the Research, Planning and Policy Department is shown in the table below:

Figure 5: Organogram of the Research, Planning and Policy Department



2.5.2 Research

In 2023, our department focused on conducting research to inform the development and implementation of sustainable water supply and sanitation solutions. Key research initiatives included:

1. **Assessing the Impacts of Public Private Partnership Model:** SALWACO faces significant challenges in meeting the growing demand for reliable water supply and sanitation services. Limited public funding, inadequate infrastructure, and capacity constraints have hampered efforts to improve access to clean water and sanitation facilities. It was against this backdrop, that the research concept was developed and proposed to management with the aim of exploring the role and impact of PPPs in the operations of SALWACO.

2. **Investigating the Factors Contributing to the Accumulation of Debt, the Perception and Willingness of Customers to Pay:** The issue of debt accumulation within the company has emerged as a significant challenge, impacting its financial sustainability and ability to deliver uninterrupted services to customers with a debt cumulating to over NLe 80,309.46 as of May 2023. This research concept was developed and proposed to management with the aim of investigating the factors contributing to the accumulation of debt at SALWACO, with the goal of informing strategic interventions to address this pressing issue.
3. **Accessing Rainwater Harvesting as an Alternative Source in Sustainable Water Resources Management:** SALWACO recognizes the importance of exploring alternative water sources to mitigate water stress and enhance water security for communities across our operational areas in the country. In this context, rainwater harvesting emerges as a promising solution to supplement traditional water sources and promote sustainable water resource management. It is against this backdrop a research concept has been developed to assess the feasibility and potential benefits of integrating rainwater harvesting as an alternative water source within SALWACO's water resources management framework.

2.5.3 Planning

Strategic planning is essential for guiding SALWACO's efforts towards achieving our goals. In 2023, the Department of Research, Planning, and Policy played a pivotal role in:

- Developing the draft SALWACO long-term strategic plans for expanding water supply coverage in priority areas.
- Collaborating with stakeholders to formulate comprehensive water sector development plans.
- Integrating sustainability principles into our planning processes to ensure the long-term viability of water and sanitation services.
-

By aligning our planning efforts with national development objectives and stakeholder priorities, we aim to enhance the effectiveness and efficiency of SALWACO's interventions.

2.5.4 Policies

Policy formulation is instrumental in creating an enabling environment for the provision of water supply and sanitation services. In 2023, our department contributed to policy development through:

- Reviewing existing water sector policies and regulations to identify gaps and opportunities for improvement.
- Engaging with government agencies, civil society organizations, and other stakeholders to garner support for policy initiatives.

Our efforts in policy development are aimed at fostering a conducive regulatory framework that promotes equitable access to safe and sustainable water and sanitation services for all Sierra Leoneans.

2.5.5 Challenges

Despite our efforts, the Department of Research, Planning, and Policy encountered several challenges in 2023:

- Inadequate funding
- Data gaps and inconsistencies hindering evidence-based decision-making.
- Complex regulatory and institutional frameworks impacting policy implementation.
- External factors such as climate change and population growth exacerbating water supply challenges.

Addressing these challenges requires sustained commitment and collaboration across sectors and stakeholders to overcome barriers and drive positive change in the water sector.

2.5.6 Recommendations

To address the challenges and capitalize on opportunities in the year ahead, the Department of Research, Planning, and Policy recommends:

- Invest in research and data collection to inform evidence-based decision-making.
- Strengthened collaboration with government agencies, development partners, and the private sector to leverage resources and expertise.
- Enhanced capacity building initiatives to empower staff with the skills and knowledge needed to tackle complex water sector challenges.
- Continued advocacy for policy reforms and regulatory measures to improve water governance and service delivery.

By implementing these recommendations, SALWACO can enhance its capacity to deliver sustainable water supply and sanitation services that meet the needs of Sierra Leone's population now and in the future.

2.6 Operations and Maintenance Department

2.6.1 Introduction

The Sierra Leone Water Company has 14 Stations from the 44 that are in the first schedule in the Sierra Leone Water Company Act 2017. This indicates that the Company has about thirty new Water Supply systems to construct to meet the requirements of the Act.

Bo, Kenema, and Makeni stations were constructed by the Three Towns Water Supply and Sanitation Project, Kailahun, Moyamba, Pujehun, Kambia, Kabala and Magburaka meet less than 50% of their demands and are under optimizations.

Lungi, Port Loko, Lunsar and Mile 91 stations need to be reconstructed because of the high cost of operations, low coverage, and aging infrastructure. Blama Stations are under construction.

The table below gives bird's eye view of the functional status of the Stations:

Table 25: Functional Status of Stations

Geographic/Political Regions	SALWACO Stations
	<u>North</u>
1. Bombali	1. Makeni*
2. Tonkolili	2. Magboraka*
	3. Mile 91*
4. Koinadugu	4. Kabala**
4. Falaba	5. Mongo***
Total Nr = 4	Total Nr = 5
	<u>North West</u>
5. Port Loko	6. Port Loko*
	7. Lungi*
	8. Lunsar***
6. Kambia	9. Kambia*
	10. Rokupr***
7. Karene	11. Kamakwei***
Total Nr = 3	Total Nr = 5
	<u>South</u>
8. Bo	12. Bo *
9. Pujehun	13. Pujehun*

Geographic/Political Regions

10. Moyamba

11. Bonthe

Total Nr = 4

12. Kenema

13. Kailahun

14. Kono

Total Nr = 3**SALWACO Stations**

14. Moyamba**

15. Njala Mokonde***

16. Bonthe Island*

17. Matru***

Total Nr = 6**East**

18. Kenema*

19. Blama**

20. Kailahun**

21. Daru***

22. Koidu***

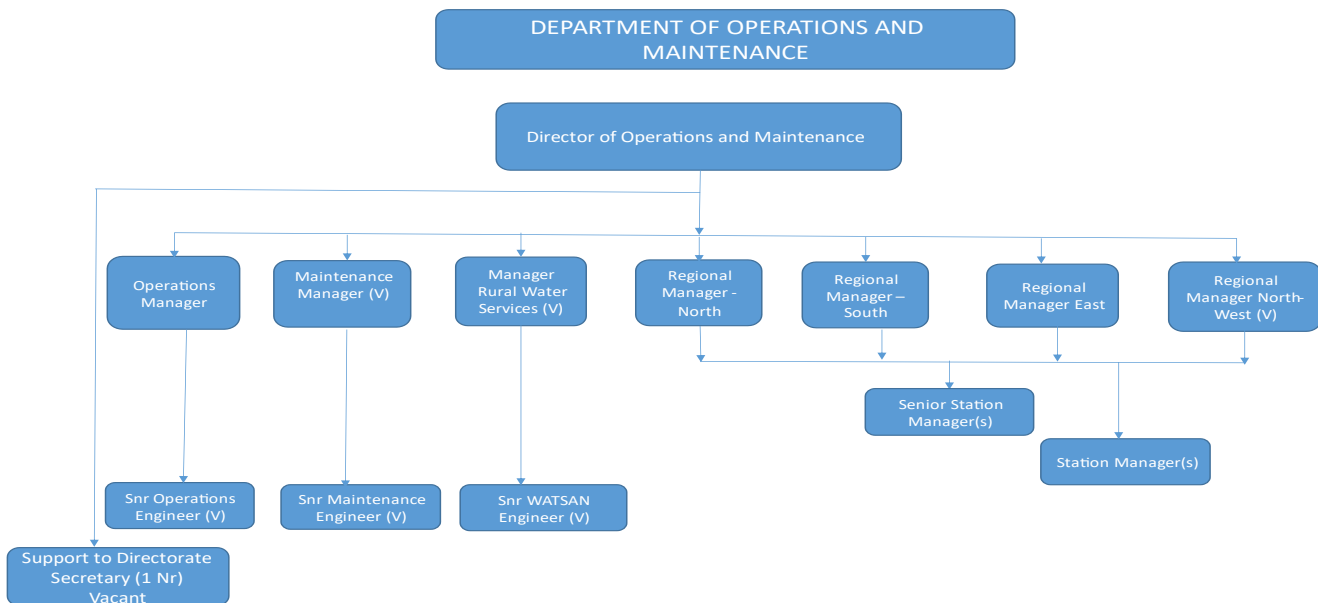
Total Nr = 5**Key**

	*	Operational Stations (10 Nr)
	**	On-going Rehabilitation/Construction (4 Nr)
	***	Pipeline Projects (8 Nr)

2.6.2 Operations and Maintenance Directorate Overview

The organogram of the Operations and Maintenance Department is given in the chart below.

Figure 6: Organogram of the Operations and Maintenance Department



The Operations and Maintenance Directorate in the Sierra Leone Water Company is responsible for ensuring the efficient and effective functioning of the water supply and distribution systems. Its primary focus is on managing the day-to-day operations of water treatment plants, reservoirs, and distribution networks to ensure that clean and safe water reaches consumers.

The Directorate at Headquarters has two staff: The Director of Operations and Maintenance, who is the head of all operations and maintenances activities and of the Operations Manager who is supports in operations. The Maintenance Manager, who is based in Makeni, supports the director on maintenance services.

2.6.3 Key Responsibilities and Activities:

Water Treatment and Production: The directorate oversees the operation and maintenance of water treatment plants. This includes monitoring water quality, ensuring proper disinfection, and optimizing treatment processes to meet regulatory standards.

Distribution System Management: The directorate manages the network of pipes, valves, and pumps that deliver water to consumers. Regular maintenance and repairs are conducted to minimize leaks, pressure issues, and disruptions in the supply.

Pump Stations and Reservoirs: It oversees the operation and maintenance of pump stations that boost water pressure in the distribution system and reservoirs that store water for peak demand periods.

Preventive Maintenance: Regular inspections and preventive maintenance are conducted on equipment, machinery, and infrastructure to ensure their optimal performance and longevity.

Emergency Response: The directorate is prepared to respond swiftly to emergencies, such as major leaks, pipe bursts, or equipment failures, to minimize disruptions in the water supply.

Water Quality Monitoring: Ensuring that water quality remains within acceptable standards is a critical aspect of the directorate's responsibilities. Regular testing and monitoring are conducted to identify and rectify any issues promptly.

Metering and Billing: The directorate may be involved in meter reading and billing activities to accurately account for water consumption and revenue generation.

Staff Training and Development: Continuous training and skill development are provided to staff to enhance their expertise in operating and maintaining the water supply infrastructure.

Compliance and Reporting: It ensures compliance with regulatory standards and reporting requirements related to water quality, maintenance activities, and operational performance.

2.6.4 Water Supply Systems

The Sierra Leone Water Company has different water supply systems in its range of water treatment plants. From Big conventional plant in Bo City to Package plants in Lunsar and Blama and wells in Mile 91 and Bonthe City Stations. The table immediately below shows the various.

Though most of our stations are not 100% efficient, there are however three fully operational (Bo, Kenema and Makeni) whilst six under construction optimization (Kailahun, Pujehun, Moyamba, Kabala, Magburaka and Kambia) and four awaits reconstruction (Port Loko, Lungi, Lunsar and Mile 91) and one under construction (Blama).

For the year ending 2023, the three towns of Bo, Kenema and Makeni saw a 14.6% increment in new Connections and SALWACO total for all stations achieved 14.6% increase in new customer Connection.

Total Volume of Water Processed: SALWACO processed a total volume of 1,900,894m³ of water during the reporting period (Jan-Dec.). This indicates the total amount of water treated and made ready for distribution.

Total Volume of Water Supplied: The company supplied a total volume of 1,401,729 m³ of processed water during the reporting period. This represents the amount of water actually delivered to the service reservoirs and distribution system. However, this does not account for the volume of water actually delivered to customers.

Overall, the data reveal important insights into the company’s performance. The total volume of water processed and supplied indicates SALWACO’s ability to meet demand. However, the **Non-Revenue Water (NRW)** percentage suggests the need to address water losses and system inefficiencies. The collection ratio of 41% shows room for improvement in revenue collection, which could have an impact on SALWACO’s financial health. The outstanding debt is a concern, and efforts should be made to recover the dues promptly.

The automation of our new and proposed water treatment plants and systems requires more training for our technicians and engineers for sustainable operations of our systems.

Our key issues are low and inadequate finances to support operations and maintenance with fuel, chemical and maintenance and plants and fixtures and damage to our pipelines leading to wastages and loss of customers.

Table 26: Description of Various Water Supply Stations

VARIOUS WATER SUPPLY SYSTEMS					
No.	District	Location	System Type	Main Features	Remark
1	Bo	Bo City	Conventional 26400 m ³ /day Plant	Up Flow bottom hopper Sludge Blanket Clarifier, Rapid Sand Filter, Ring Type Distribution System	
2	Kenema	Kenema City	Conventional 24600m ³ /day Plant	Up Flow Bottom Hopper, Sludge Blanket Clarifier, Rapid Sand Filter, Ring Type Distribution System	Over 25% of Network Damaged
3	Bombali	Makeni City	Rehabilitated 11,340m ³ /day Old Degremont System	Rectangular Clarifier, Rapid Sand Filter, Ring Type Distribution System	
4	Port Loko	Port Loko City	Rehabilitated in 2015 old 150m ³ /hr Plant	Pulsator Clarifier and Pressure Sand Filters, Dead End Type Distribution System	Needs Optimization

5	Pujehun	Pujehun Town	Rehabilitated in 2016 old Degremont 150m ³ /hr Plant	Pulsator Clarifier and Pressure Sand Filters, Dead End type distribution System	Under Construction
6	Tonkolili	Magburaka	Rehabilitated in 2015 old 150m ³ /hr Plant	Pulsator Clarifier and Pressure Sand Filters, Dead End Type Distribution System	Under Construction
7	Koinadugu	Kabala	Constructed in 2017 New	Rapid Sand Filters, Ring Type Distribution System	Under Construction
8	Kambia	Kambia Town	Constructed in 2013 New 50m ³ /hr Plant	Plain sedimentation and Slow Sand Filters, Dead End Type Distribution System	Under Construction
9	Kailahun	Kailahun Town	Rehabilitated in 2011, 80m ³ /hr Plant	Pulsator Clarifier and Pressure Sand Filters, Dead end Type Distribution system	Under Construction
10	Moyamba	Moyamba Town	Rehabilitated in 2017, 50m ³ /hr Plant	Rectangular Sedimentation Tank and Pressure Sand Filters, Dead End Type Distribution System	Under Construction
11	Tonkolili	Yonibana, Mile 91,	Rehabilitated in 2016, 50m ³ /hr Plant	Wells and Plain Sedimentation Tank, Dead end Type Distribution System	Need New Treatment Plant
12	Port Loko	Lungi	Rehabilitated in 2011, 80m ³ /hr Plant at Sanda	Pulsator Clarifier and Pressure Sand Filters, Dead End Type Distribution System	Need New Treatment Plant
13	Port Loko	Lunsar	Constructed in 2012 50m ³ /hr Plant	Package plant. Micro-filters, Dead End Type Distribution System	Need New Treatment Plant
14	Kenema	Blama	Under Construction, 50m ³ /hr Containerized Treatment Plant	Package plant. Micro-filters, Dead End Type Distribution System	Under Construction

2.6.5 Water Supply Service Connections

Consumer Connections are increasing gradually, and we have achieved the target set for 2023. But our towns and cities have more potential for increased Water supply

service connections. We are challenged with availability of new connection Materials in our stores. SALWACO has submitted New Connection material funding request to the Ministry of Finance awaiting approval.

The Water Supply Treatment Plants have design capacities, for the newly constructed plants, they can handle the growing population of the towns the served till mid-2030 (Bo, Kenema and Makeni). Those under the Six Towns Water Supply Project will serve till 2040. These plants need to be productive, and their pipelines also need to be full of water supplying its intended consumers,

Table 27: New Connection Analysis

CONSUMER CONNECTIONS								
No.		Location	2018	2019	2020	2021	2022	2023
1	Bo	Bo City	98	850	1475	1586	1934	2329
2	Kenema	Kenema City	94	710	1248	2450	2695	2784
3	Bombali	Makeni City	85	794	1959	2491	2809	3050
4	Port Loko	Port Loko City	0	86	197	273	302	333
5	Pujehun	Pujehun Town	5	50	199	211	208	216
6	Tonkolili	Magburaka	9	49	210	322	399	428
7	Koinadugu	Kabala	0	30	30	30	30	30
8	Kambia	Kambia Town	65	147	202	232	248	271
9	Kailahun	Kailahun Town	25	118	124	124	124	124

10	Moyamba	Moyamba Town	0	40	40	40	40	40
11	Tonkolili	Yonibana, Mile 91,	12	54	54	76	84	95
12	Port Loko	Lungi	35	136	180	223	242	353
	Bothe	Bonthe City	N/A	N/A	N/A	436	436	436
13	Port Loko	Lunsar	15	90	114	114	114	114
TOTAL			443	3154	6032	8608	9665	10603

2.6.5 Volume of Water Processed

As shown in table immediately below, the total volume of water produced by all stations during the reporting period is 1,900,894cubic meters, **7.7%** higher than the figure in year **2022 (1,754,322 m³)**. The data shows variations in the volume of water produced from month to month, with the highest production in December (**267,043 m³**) and the lowest in March (**100,131m³**).

Kenema and Bo stations have the highest average monthly production, with **65,939 m³** and **37,398 m³**, respectively.

The last row shows the percentage contribution of each station to the total water production. **Kenema station** contributes the highest percentage (**41.6%**), followed by Bo station (**23.6%**), and Makeni station (**22.2%**). Kenema, Bo and Makeni experience significant fluctuations in the volume of water processed from month to month. Whilst others show relatively consistent production pattern of processed water

Table 28: Volume of Water Produced

MONTH/STATIONS	TABLE 1: VOLUME OF WATER PRODUCED IN CUBIC METRES										
	KENEMA	BO	MAKENI	MAGBURAKA	PORT LOKO	KAMBIA	LUNGI	PUJEHUN	BONTHE	MILE 91	TOTAL
JANUARY	13,888	47,227.0	28,200	3420	3,760.00	3764	4950	2,400	0	2486	110,095
FEBRUARY	11,227	34,389.0	26,800	3751	3,830.00	5033	7860	2,400	6,240	710	102,240
MARCH	9,684	36,636.6	26,100	4110	4,500.00	5902	7860	2,400	1,428	1510	100,131
APRIL	108,940	38,479.0	28,000	3760	4,675.00	4205	5900	2,400	0	1091	197,450
MAY	92,661	32,516.0	24,200	3010	4,085.00	3947	7860	2,400	4,824	1302	176,805
JUNE	101,390	50,225.0	15,300	3012	3,450.00	2728	-	2,000	4,176	0	182,281
JULY	44,291	27,912.0	19,000	3100	3,000.00	2420	2200	0	2,520	533	104,976
AUGUST	49,110	24,122.0	19,600	2840	2,625.00	2150	2200	1500	0	385	104,532
SEPTEMBER	63,793	32,316.0	22,000	2790	2,625.00	3150	1810	2,400	4,200	178	135,262
OCTOBER	78,230	36,873.0	79,386	2792	2,700.00	3080	-	2,400	0	0	205,461
NOVEMBER	99,984	38,577.0	61,185	2442	3,100.00	3850	-	2,400	2,520	560	214,618
DECEMBER	118,072	49,504.0	72,000	1002	4,725.00	5600	5900	2,400	5,880	1960	267,043
TOTAL	791,270	448,777	421,771	36,029	43,075	45,829	46,540	25,100	26,490	10,715	1,900,894
AVERAGE	65,939	37,398	35,148	3,002	3,590	3,819	3,878	2,092	2,208	157,073	315,030
PERCENTAGE	41.6	23.6	22.2	1.9	2.3	2.4	2.4	1.3	1.7	0.6	100.0

Table 29: Volume of Water Supplied

MONTH/STATIONS	TABLE 1: VOLUME OF WATER SUPPLIED IN CUBIC METRES										
	KENEMA	BO	MAKENI	MAGBURAKA	PORT LOKO	KAMBIA	LUNGI	PUJEHUN	BONTHE	MILE 91	TOTAL
JANUARY	13,888	37,781.60	24,000	2610	3,305	2482	3705	2,000	0	2368	92,140
FEBRUARY	11,227	27,511.20	23,100	2534	3,280	3868	4850	2,050	5,200	444	84,064
MARCH	8,559	29,309.28	23,000	3650	3,800	4516	4285	2,050	1,190	888	81,247
APRIL	68,150	30,783.20	24,200	2900	3,940	3213	3156	2,000	0	1070	139,412
MAY	49,070	26,012.80	19,450	2630	3,420	3402	3705	2,100	4,020	1073	114,883
JUNE	54,280	40,180.00	13,300	2570	2,980	2217	-	1,800	3,480	0	120,807
JULY	23,712	22,329.60	14,800	2430	2,640	2042	1105	0	2,100	444	71,603
AUGUST	33,840	19,297.60	16,300	2340	2,310	1827	1105	1200	0	378	78,598
SEPTEMBER	39,680	25,852.80	19,000	2450	2,310	2678	1080	2,000	3,500	130	98,681
OCTOBER	45,881	29,498.40	77,386	2453	2,400	2356	-	2,100	0	0	162,074
NOVEMBER	56,241	30,861.60	59,185	2233	2,750	2310	-	2,000	2,100	467	158,148
DECEMBER	73,879	39,603.20	70,211	880	3,875.00	3360	3825	2,000	4,900	1415	200,073
TOTAL	478,407	359,021	383,932	29,680	33,135	34,271	26,816	21,300	26,490	8,677	1,401,729
AVERAGE	39,867	29,918	31,994	2,473	2,761	2,856	2,235	1,775	2,208	14,986	232,175
PERCENTAGE	34.1	25.6	27.4	2.1	2.4	2.4	1.9	1.5	1.9	0.6	100.0

The above data set represents the volume of water supplied in cubic meters (m³) by ten (10) operational stations on a monthly basis in 2023.

The stations with the highest average monthly water supply are KENEMA (39,867 m³) and Makeni (31,994 m³), whilst PUJEHUN (1,775 m³) is the station with the lowest average monthly water supply, and it is currently on optimization under the Six Towns Water Supply Project

The overall total water supplied for the entire year is 1,401,729 m³. The highest total water supply is in the month of December with 200,073 m³, and the lowest is in August with 78,598m³.

The volume of water supplied for different stations varies significantly, with KENEMA and BO receiving the highest amounts. There are fluctuations in water supply across months, with peaks in certain months and dips in others.

Some stations experience relatively stable volume in water supply throughout the year, while others show more variability.

2.6.6 Regional Water Supply Update

2.6.6.1 Southern Region

2.6.6.1.1 Bo Station

This station was reconstructed by the Three Towns Water supply and Sanitation Project funded by the **African Development Bank** and the **Government of Sierra Leone**.

Operations started on the said facility after completion in **2017**.

The Plant Capacity is **26,400m³/day** and it has three reservoirs which are situated at Geoma Hills with capacity of **5000m³**, Candy Mountain with capacity of **1000m³** and Governors Hill with capacity of **2500m³**.

Bo has a total distribution network of **178.7km** construction by the contractor (BUCG). The network also have a booster station of **5500m³/day** which is located at Kebbie Town at the foot of Candy Mountain to Transmit Water to the Candy Mountain Reservoir.

2.6.6.1.2 Moyamba Station

The Moyamba Water Supply station was rehabilitated with funds from the Government of Sierra Leone. It became Operational in **2018** with a total capacity of **1200m³/day**. It has a distribution network of 10Km. The System was handed to SALWACO in March **2019** by the Moyamba District Council and was temporarily in operations during the Corona Virus Nationwide lockdowns.

The water supply facility comprises of an Intake Well fitted with raw water submersible pumps, a sedimentation tank with an estimated capacity of 216m³, filters operating at a **27.25m³/hr.** are at very low output. Clear Water Tank of **48m³** capacity is low; high lift pumps with pumping rate of **120m³/hr.** and a service reservoir with capacity of **640m³**.

The analysis shows that there is need for the construction new water treatment plant which is currently ongoing.

2.6.6.1.3 Pujehun Station

The water treatment plant in Pujehun is part of the old Degremont system that was rehabilitated by a Local construction firm in **2013**. The system is characterized by poor water quality, water production; far below design capacity of **150m³/hr.** and poor distribution network.

It has a total distribution network of **11.5Km.** with only thirty (30) public stand posts installed and only about fifteen (15) operational.

The total number of staff in Pujehun is ten (10) of which four (4) are permanent and six (6) Casual.

This plant is under construction.

2.6.6.2 Eastern Region

2.6.6.2.1 Kenema Station

The Kenema Water Treatment Plant was reconstructed under the Three Towns Water Supply and Sanitation Project. Its Current Capacity is **24,600m³/day**. It has a clear water tank of **2500m³** capacity and service Reservoir of **5000m³** capacity situated at Kakajama Hills. The township has a distribution network of **146km** on the TTWSSP. It also has Eight (8) gravity weirs which feeds from the Kamboi hills but with only **6%** network coverage left as the road contractors doing township roads have vandalized almost all the distribution network systems (though Asbestos). **25%** of my network coverage has also been damaged by roads contractors.

The conventional WTP was constructed during the TTWSSP project with its components installed as follows;

- The design capacity of the plant is **24,6000m³ per day**
- Three raw water pumps each of **512m³/hrs**.
- Five high lift pumps each **246m³/hrs**
- Clear water tank is **2500m³**
- Service reservoir is approximately 11km from the treatment plant, located at Kakajama hill, Kamara Town with capacity **5250m³**
- The total distribution network is **146km** which is **75%** coverage of the Kenema city
- Number of connections as **1157**
- Operations at the WTP is every other day. At least 8hrs per operation

2.6.6.2.2 Kailahun Station

The Kailahun water supply system was constructed by Degremont in the 1980's with a treatment capacity of **150m³/hr**. It was rehabilitated by Angelique (an Indian-based Construction Company) in **2012-2013** with a cost of approximately **USD7 Million** with a resulting treatment capacity of **80m³/hr**. The Treatment Plant has five thermal plants, 3 in use and two standbys with a collective capacity of **220 kVA**. The system is characterized by high energy consuming electromechanical equipment. The ones that stand out are: **75 kW** high lift pump pumping **120 m³/h** and also a two **7.5 kW** pumps that transmit water from the clarifier to the filters this process should have been gravity-fed to the filters.

Current operation capacity of the plant is less than 50% of its design capacity as such more is put into the system than required because it is below **50%** operational efficiency. The

system has three control panels, one for each operation, which is outdated, and energy consumption is high. This makes the operation of the plant expensive and requires optimization. The plant is under construction currently.

The system transmits the treated water through a **200 mm** ductile iron pipe of length 11km to the balancing tank of capacity **250 m³**. The size of the distribution network is approximately **14 km**. The type of connections includes public stands posts, private, commercial and institutional.

Since the commencement of operations, the Station has only been able to generate income for only two months.

2.6.6.2.3 Blama Station

The Blama water treatment plant that is installed in Blama is a replica of the Lunsar type but a bit modified. This system is a containerized system designed and built by SOTRAD-LARICA Investment (Name of Contractor) who is responsible for the installation of plant, Buildings, Rehabilitation of Elevated tank at Blama, Construction and Installation of Tank at Bandawor and the installation of the transmission mains including connection to six (6) other villages from Bandawor to Blama whilst the distribution network and office building which includes a quarter for the Manager and it driver is to be done by LATCO Joint Expert and Supply of Machineries (Contractor). The re-establishment of the Blama Water Supply Station is as a result of the rehabilitation/construction of the system under the project titled “Blama-Bandawor, including Six Other Villages Water Supply Project” funded by the government of Sierra Leone.

Beneficiary communities including the other six villages includes: Blama, the sole beneficiary of the old Degremont System; Bandawor, a major community close to the Intake Plant; and six villages along the Transmission Mains - Lolella, Dandabu, Kpetema, Yaweima, Ngovokpahun and Tobanda. All the communities are found in the Small Bo Chiefdom except Bandawor which is located in the Niawa Chiefdom.

The project utilized the Wanjei River, the source of the Old Degremont Water Supply System constructed in **1979** and operated onto the mid-1990s when destroyed by the Rebel War.

The beneficiary communities have a total population of **12,108** (2015 projection), with Blama and Bandawor having the greater proportion of **8,603** and **3,505** persons respectively.

2.6.6.3 Norther Region

2.6.6.3.1 Makeni Station

The Makeni Water Supply system has two Plants. One of the plant capacities is **11,300m³/day** situated at Wusum and an incomplete plant is of **8000m³/day** capacity and it is located at Konsho.

The distribution network is about **129.7Km** installed in Makeni with an estimated coverage of **75%** of the city.

This station was reconstructed by the Three Towns Water supply and Sanitation Project funded by the African Development Bank and the Government of Sierra Leone. Construction work including installation of the treatment plant was done by Chinese contractors called CHICO.

Operations on the said capacity started after completion in 2017.

- Maintenance of surge controller in the plant panel
- Maintenance of 400mm Steel Tee Pipes at the Intake Plant

This plant is under construction.

2.6.6.3.2 Mile 91 Station

The Mile 91 Water supply system was constructed by Degremont and rehabilitated by GoSL and one additional intake point was provided by UNICEF at dolat. The Water Supply system is made up of dug wells, a settling tank, a 750 cubic meter

This Plant needs replacement.

2.6.6.3.3 Kabala Station

The Kabala water supply system was funded by BADEA and United Arab Bank, constructed by CHICO contractors and commissioned in 2016 for operations. Since after commission, the system has not been functioning as road contractor damaged about **40%** of the distribution which was later restored again. The energy requirement for the plant is about **750kva** approximately 600KW of solar is required. The transmission mains are also damaged at four locations that need to be fixed. The current threat to the systems also is the erosion of the intake weir and embankments which if not handled immediately will result in loss of the intake well, pumps and all electromagnetic installations at that intake.

The systems also have 3 Boreholes constructed in Kabala Town, fitted with submersible pump to pump to a service reservoir in Kabala Town.

Boreholes pumps need maintenance.

This plant is under optimization construction.

2.6.6.3.4 Kambia Station

The system in Kambia was constructed by the Japanese Government as a grant for the people Republic of Sierra Leone. It was completed and handed over to the Kambia District Council

in 2015. The Council operated the said facility for about two years but was later handed over to SALWACO in 2018 as they were unable to efficiently run the facility.

Kambia Town has an estimated population of **40,000** inhabitants. The water Supply system in Kambia Town extracts water from the Kolenten River and has a capacity of **50m³/h**. This system is characterized by leaking service reservoir, old thermal plants, and growing water demand by an increasing population. There is need to improve the energy situation of the plant, increase the network coverage and the system has almost reached its horizon. SALWACO should look at doubling the capacity of the treatment facility from **50m³/h** to **100m³/h** as the demand increases rapidly due to the growing population of Kambia.

This plant is under optimization construction.

2.6.6.3.5 Lungi Station

Lungi Station comprises three systems as detailed below.

Sanda System

Sanda Plant was Constructed by Degremont in the late 1970's with a Capacity of **150m³/hr**. It was rehabilitated by Angelique with Funds from the Indian Exim bank in 2012-2013 with a cost resulting treatment capacity of **90m³/hr**. The Treatment Plant has five thermal plants, 3 in use and two standbys with a collective capacity of **220KVA**. This System is characterized with high fuel usage, theft of armored cable which have left the system nonoperational.

Suctarr

The Suctarr System consist of three open wells with a capacity of 10m³/hr. There are water resources' and quality challenges as the submersible pumps capacities are far above the recharge rates of the well leading to caving of the wells

Banda

Banda is a spring sources, the quality of the sources is threatened by possible contraction of residential housed in its immediate catchment and closed to the collection point. This plant has a capacity of 15m³/hr. It is one of the cheapest of the three systems by its capacity is reduced to less than half the peak of the dries.

The following activities were undertaken:

- Maintenance of leaking service reservoir
- Extension of 2km distribution system

2.6.6.3.6 Port Loko Station

The System was renovated and was handed over by Council. Council was incapable to run the system and later handed it to SALWACO in is characterized by frequent breakdowns, faulty control panels and submersible pumps, faulty air blower and inefficient Pulsator. Currently the system is running far below its design capacity of 150m³/h with lots of leakages. There is no laboratory equipment, distribution pipes on the surface and limited network coverage and leaking service reservoir. It is estimated to have 70% distribution network coverage with 15.5km distribution network. This system is full of leaking pipes, service reservoir and galvanize iron distribution system that introduce corrosion into the treated water. It needs intensive rehabilitation.

The following activities were undertaken:

- Frequent Maintenance of the distribution system
- Maintenance of the intake pump
- Replacement of the Flange Gate valve on the in the distribution system
- Extension of distribution by 4 km

2.6.6.3.7 Magboraka Station

The Maguraka water supply station is a pulsator and rapid sand filtration system with a design treatment capacity of 150 cubic meters per hr and now operating far below its design capacity and the community demand outgrown this capacity. It is characterized by frequent breakdowns, and at some time, the treatment plant is overwhelmed by the very high turbidity exceeding 100 NTU from the River Rokel because of upstream mining which is the only water source. Maguraka Station is part of the water supply systems undergoing optimization under the Six Towns Water Supply Project. This project, when completed will address the plant treatment capacity issues and increase the coverage of water supply to 100% of the Maguraka Township and reduce the cost of operation tremendously.

2.6.6.3.8 Lunsar Station

The Lunsar Water Supply Station is the first package water treatment plant in SALWACO. It is characterized by micro filtration membranes, hectron filters and activated carbon as part its treatment regime. It is a 50 cubic meter per hr. plant that is currently not in use due to serious breakdown since 2021. It has a limited distribution network that has been damaged by road works. Lunsar is a mining town with a university, a nursing school and a major hospital This community needs a new water supply system to meet the required water demand. A Project proposal has been prepared for re-construction of the system. Funding sources are being sought for this project.

2.6.7 Maintenance Initiatives

Maintenance initiative forms a central part of the SALWACO water supply systems maintenance regime. It helps to ensure that our systems run properly and efficiently, and that any potential problems are identified and addressed quickly. Without a plan, a water supply system can become unreliable, inefficient, and costly.

The first step in creating this maintenance plan was to assess the current condition of our water supply system. This includes inspecting the system for any signs of wear and tear and identifying any potential problems. Reviewing the system's design and operation was done to ensure that it is still meeting the needs of our consumers.

Once the current condition of the system has been assessed, it was time to develop a maintenance plan. This plan includes regular maintenance activities such as cleaning and inspecting the system, as well as any necessary repairs or upgrades. It was also important to develop a schedule for these activities, as well as a budget for any necessary materials or services.

In addition to regular maintenance activities, it is also important to develop a plan for emergency repairs. This plan should include information on how to respond to any problems that may arise, as well as a list of the necessary materials and services. It is also important to have a plan for monitoring the system, as this can help to identify potential problems before they become serious.

A plan for periodically evaluating the system was also developed. This evaluation includes an assessment of the system's performance, as well as a review of the maintenance plan and any changes that may need to be made. This evaluation should be conducted on a regular basis, as it can help to ensure that the system is running at its best. The table below shows the maintenance initiative implemented by the water supply stations.

Table 30: Maintenance Initiative for Pipelines

ITEM NO	MAINTENANCE INITIATIVE	ESTIMATED TIME FOR MAINTENANCE						MATERIALS REQUIRED
		DAILY	WEEKLY	MONTHLY	QUARTERLY	ANNUALLY	OTHER	
1	Pipelines							
1.1	Check for leakages in system (block by block)			√				
1.2	Check and clean chambers. Check chamber lock			√				
1.3	Take stock of spares (materials for pipe repairs)			√				Pipe Spares
1.4	Flush entire system			√		√		
1.5	Check marker posts and beacon				√	√		
1.6	Refurbish marker posts and beacons				√	√		Marker Post
2	Standpipes (Yard Taps and PSP's)					√		
2.1	Check for leakages	√						
2.2	Clean standpipe slab and surroundings	√	√					
2.3	Clean soak away		√					
2.4	Maintain standpipe equipment/accessories		√					Pipes and Fittings
2.5	Read meters and clean meter chambers		√	√				
2.6	Replace biptap			√	√			
3	Bulk Meters				√			
3.1	Reading of bulk meters			√				
3.2	Cleaning of chambers			√				
3.3	Check for leakages			√				
3.4	Calibration of meters				√			
3.5	Replacement of registering unit					√		
3.6	Replacement of entire meter					√		New Meters
3.7	Check and empty all strainers protecting the bulk meters			√				
4	Consumer Meters							
4.1	Reading of meters			√				
4.2	Cleaning of meter chamber			√				
4.3	Check for leakages			√				
4.4	Check for tampering					√		
4.5	Check meter accuracy					√		
4.6	Replacement of entire meter							New Meters

ITEM NO	MAINTENANCE INITIATIVE	ESTIMATED TIME FOR MAINTENANCE						MATERIALS REQUIRED
		DAILY	WEEKLY	MONTHLY	QUARTERLY	ANNUALLY	OTHER	
5	Valves							
5.1	Open and close isolating valves			√				
5.2	Check functionality of scour valves			√				
5.3	Check functionality of air valves			√				
5.4	Check functionality of pressure reducing valve			√				
5.5	Service pressure management valves (pressure controllers) every two years					√		Valve Spare kits
5.6	Maintain valve equipment/accessories				√			Valve Spare kits
5.7	Replacement of valves					√		
5.8	Clean valve chambers. Check the cover lock			√				
6	Fire Hydrants			√				
6.1	Check for leakages			√				
6.2	Check and if required refurbish beacon/marker				√			
6.3	Check functionality of hydrants			√	√			
6.4	Test flow rate of hydrants				√			
6.5	Maintain hydrant equipment/accessories				√			Fire Hydrant Service Kit
6.6	Replacement of fire hydrants					√		
7	Record Keeping and reporting	√	√	√	√			

Pumps and Panels

ROUTINE MAINTENANCE DESCRIPTION		ESTIMATED TIME FOR MAINTENANCE						MATERIALS REQUIRED
		DAILY	WEEKLY	MONTHLY	QUARTERLY	ANNUALLY	OTHER	
1.0	Electrical Switchgear/Soft Starter Control Panel							
1.0	Check operation of starters, contactors	√	√					
1.0	Check operation of over/under voltage protection mechanism		√					Panel Spares (Breakers, Relays and Switch Gears)
1.0	Check operation of overload mechanism and circuit breakers		√					
1.0	Start the pump and check operation of ammeters and voltmeters		√					
1.1	Check proper operation of all panel lamps	√	√					
1.1	Check operation of overhead lighting		√					
1.1	Check operation of sump level control system		√					
1.1	Check operation of telemetry system (it fitted)		√					
1.1	Check condition of electrical motor bearings		√					
1.1	Wash down all switchgear enclosures with a wet cloth			√				
1.1	Blow out all dust and insects from inside of panel with blower			√				
1.1	Remove and dean all contactors using a suitable solvent			√				
1.1	Tighten all cable glands			√				
1.1	Check that all cables in racks and conduits are secure			√				
1.2	Check all terminals for integrity and corrosion			√				Antirust spray
1.2	Check ultrasoniclevel sensor settings and clean sensor face			√				
1.2	Check and tighten all electric motor terminals			√				
1.2	Grease all motor bearings			√				Grease
1.2	Check all earthing systems and lightning arrestors for correct operation			√				
2.0	SUBMERSIBLE PUMP							
2.1	Check for blockages and Items snagged on impellor and remove		√					
2.2	Start the pump and check full load current			√				

2.3	Check pressure gauge Readings	√						
2.4	Lift pump and check operation of quick coupling (If fitted)			√				Pump maintenance Spares
2.5	Remove pump and clean off deposits with high pressure water jet (6 monthly}				√	√		
2.6	Check operation of the non-return valve		√					Non return valve
3.0	CENTRIFUGAL PUMPS							
3.01	Check the pumps for undue noise and adjust if necessary. Carryout a vibration test and record results	√	√	√	√	√		
3.02	Check bearing condition and re-grease if due lubrication is due.				√			Bearing Spares
3.03	Check that the pump bearings temperature is within normal range			√				
3.04	Check pump - motor alignment & Check coupling elements for wear			√	√			Pump Spares
3.05	Check gland packing and re-pack if necessary			√				Gland Packing
3.06	Check that pressure gauges are functioning well.	√						
3.07	Check that the gland drain well is clear and the functionality of air release valves.	√						
3.08	Check that the drainage pipe and pressure balancing tubes are not leaking or blocked.	√						
3.09	Check operation of the motor cooling fan	√						
3.10	Check operation of the non-return valve		√					Non return valve Spare
4	MOTORS FOR PUMPS							
4.1	Blow dust from the motor.	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4.2	Check functioning and connections of anti- condensation heater (space heater).		√					Antirust Condenser Heater
4.3	Check the condition of bearing grease, and replace/replenish to correct quantity if due			√				Grease
4.4	Wipe brush holders and check contact faces of brushes of slip-ring motors. If contact face is not smooth or is irregular, file it for proper and full contact over slip rings.				√			Motor Spares
4.5	Check insulation resistance of the motor by meggering.				√			

4.6	Check tightness of cable gland, lug and connecting bolts.			√				
4.7	Check and tighten foundation bolts and holding down bolts between motor and frame.			√				
4.8	Check and tighten the earthing connection to motors			√				

Valves

ROUTINE MAINTENANCE DESCRIPTION		ESTIMATED TIME FOR MAINTENANCE							MATERIALS REQUIRED
CENTRIFUGAL PUMPS		DAILY	WEEKLY	MONTHLY	QUARTERLY	ANNUALLY	OTHER		
1.00	VALVES								
1.01	Check for leakages on stem flanges, gland, and body joints	√	√	√	√	√		Gland pack and Valve Seal Spares	
1.02	If necessary, tighten gland nuts and body fasteners. Do not over tighten. Rectify leaks.		□	√					
1.03	Inspect valves and pipe work for evidence of leaks and rectify immediately.	√							
1.04	Fully open and close the valve to ensure freedom of movement.			√					
1.05	For penstock valves, clean by hosing down to remove grit/debris and dirt or use stiff brush.				√				
1.06	Check oil level in hydraulic valve locking and top up as required	√						DTE Oil	
1.07	Check oil level in valve actuator gearbox and top up as required/ replace seals if leaks persist.	√							
1.08	Lubricate moving parts & Check that valves are operating normally		√					Lubricant	
1.09	For penstock valves, check the door to seal gap and condition of seal surfaces. Adjust seal gap or repair/ replace seals as necessary			√				Pen Stock Valve Spares	
1.1	For pressure relief valves, check for accurate setting of relieving pressure.		√						
1.11	Check condition of hydraulic piston seals and tight shut off of a solenoid valve in accordance with the manufacturer's manual.			√				Valve Piston Seals	

Filters and Clarifier

	ROUTINE MAINTENANCE DESCRIPTION	ESTIMATED TIME FOR MAINTENANCE						MATERIALS REQUIRED
		DAILY	WEEKLY	MONTHLY	QUARTERLY	ANNUALLY	OTHER	
1.00	FILTER VALVES							
1.01	Check for leakages on stem flanges, gland, and body joints	√	√	√	√			
1.02	If necessary, tighten gland nuts and body fasteners. Do not over tighten. Rectify leaks.		□	√				
1.03	If leaks persist, dismantle valve and repair.	√	√					Valve Spares
1.04	Inspect valves and pipe work for evidence of leaks.	√	√					
1.05	If found, rectify immediately.	√	√					
1.06	Fully open and close the valve to ensure freedom of movement.			√				
1.07	For penstock valves, clean by hosing down to remove grit or debris and dirt or use stiff brush.			√				
1.08	For float operated valves, check the float for leaks.		√					
1.09	Check oil level in hydraulic valve locking and top up as required	√						
1.1	Check oil level in valve actuator gearbox and top up as required or replace seals if leaks persist.		√					DTE oil
1.11	Check for wear, blockage or obstruction and corrosion of faces, guide grooves, frame and door. Repair any damage.		√					Lubricant
2.0	FILTER MEDIA & UNDER-DRAIN		□					
2.01	Check for cementing of grains Sand-Use rake to break sand	√	□					
2.02	Partial and complete re-sanding with new sand every 3-5 years		□			√	√	Sand
2.03	Leak detection and repair Maintenance of under-drain system		□	√				
			□					
3	CLARIFIER VALVES							
3.01	Check for leakages on stem flanges, gland, and body joints	√	√	√	√			
3.02	If necessary, tighten gland nuts and body fasteners. Do not over tighten. Rectify leaks.		□	√				

3.03	If leaks persist, dismantle valve and repair.	√	√						Valve Spares
3.03	Inspect valves and pipe work for evidence of leaks.	√	√						
3.03	If found, rectify immediately.	√	√						
3.03	Fully open and close the valve to ensure freedom of movement.			√					
3.03	For penstock valves, clean by hosing down to remove grit or debris and dirt or use stiff brush.			√					
3.03	Check oil level in hydraulic valve locking and top up as required	√							
3.03	Check oil level in valve actuator gearbox and top up as required or replace seals if leaks persist.		√						DTE oil
3.03	Check that valves are operating normally		√						
3.03	Lubricate moving parts		√						Lubricant
3.03	Operate hand wheel /lever and confirm normal operation		√						
3.03	For penstock valves, check the door to seal gap and condition of seal surfaces. Adjust seal gap or repair/ replace seals as necessary			√					
3.03	For pressure relief valves, check for accurate setting of relieving pressure.			√					
3.03	Check condition of hydraulic piston seals and tight shut off of a solenoid valve in accordance with the manufacturer's manual.			√					

Mixer

	ROUTINE MAINTENANCE DESCRIPTION	ESTIMATED MAINTENANCE TIME						FOR MATERIALS REQUIRED
		DAILY	WEEKLY	MONTHLY	QUARTERLY	ANNUALLY	OTHER	
1	MIXER MOTORS							
1.01	Blow dust from the motor.	<input type="checkbox"/>	√	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
1.02	Check functioning and connections of anti- condensation heater (space heater).		√					Antirust Condenser Heater
1.03	Check the condition of bearing grease, and replace/replenish to correct quantity if due			√				Grease

1.04	Wipe brush holders and check contact faces of brushes of slip-ring motors. If contact face is not smooth or is irregular, file it for proper and full contact over slip rings.				√				Motor Spares
1.05	Check insulation resistance of the motor by meggering.				√				
1.06	Check tightness of cable gland, lug and connecting bolts.			√					
1.07	Check and tighten foundation bolts and holding down bolts between motor and frame.			√					
1.08	Check and tighten the earthing connection to motors			√					
2	MIXERS								
2.01	Check mixer and gearbox for undue noise and vibration daily.	√	√	√	√	√			Lubricant
2.02	Check mixer shaft and mounting for security.		√						
2.03	Clean mixer housing.		√						
2.04	Check that the mixer is tightly secured onto the shaft and is free from debris.		√	√					
2.05	Check oil level and top up as required.	√							DTE Oil
2.06	Check the diaphragm, valve and valve seal and ensure they are grit free. Replace these parts incase of damage.					√			Valve Seals and Spares
2.07	Check pump fasteners are well secure.					√			
2.08	Ensure that the pump is operating normally.					√			

Dosing Pumps and Stirrer

	ROUTINE MAINTENANCE DESCRIPTION	ESTIMATED TIME FOR MAINTENANCE						MATERIALS REQUIRED
		DAILY	WEEKLY	MONTHLY	QUARTERLY	ANNUALLY	OTHER	
1	CHEMICAL PUMPS:							
1.01	Remove the pump heads and scrub clean.		√					
1.02	Check the pump head and associated pipe work / tubings for signs of leakage daily.		√					Dosing Pipe Line Repair
1.03	Check that pump fasteners are secure. Leakage may indicate a ruptured diaphragm.		√					
1.04	Check for excessive pulsation downstream of damper. If present, re-charge the damper	√						Pump Damper

	vessel according to the manufacturer's instructions.							
1.05	Check correct operation of pump.	√	√					
1.06	Check pump delivery relief valves and back pressure valves are operating. If inoperative or leaking, the diaphragm may need replacing.	√	√					Diaphragm and Dosing pump spares
1.07	Check oil level in gearbox and top up as required.	√	√					DTE Oil
1.08	Flush the pump heads with clean water for thirty minutes at a pump stroke of 70%.			√				
1.09	Clean all the dosing jets. Open and check that they are functioning well.			√				
1.10	Check the diaphragm, valve and valve seat and ensure they are grit free. Replace these parts in case of damage.			√				
1.11	Check the condition of the suction strainer. Clean/ unblock or repair the damage.			√				
2	STIRRERS							
2.01	Check mixer and gearbox for undue noise and vibration daily.	√						
2.02	Check mixer shaft and mounting for security.	√	√					
2.03	Clean mixer housing.	√						
2.04	Check that the mixer is tightly secured onto the shaft and is free from debris.		√					
2.05	Check oil level and top up as required.	√						DTE Oil
2.06	Check the diaphragm, valve and valve seat and ensure they are grit free. Replace these parts in case of damage.	√						
2.07	Check stirrer fasteners are well secure.		√	√				
2.08	Ensure that the stirrer is operating normally.		√					
3	CHLORINATION UNITS							
3.01	Check that the booster pumps/ source of service water gives satisfactory hydraulic conditions	√						

3.02	Check that all the chlorine valves on the supply line to chlorinators fully close and freely open.		√						
3.03	Check that the injector system is functioning properly		√						
3.04	Check that all the tubing, manifold and auxiliary valve connections are correct and that all union joints are properly gasketed. Check the leakage with ammonia stick and If there is any leakage, close the cylinder valve immediately and attend to the leaking Joint to make it leak proof.		√	√					Chlorine ejector Spares
3.05	Check all the joints between cylinder valves to end.			√					
3.06	Open the chlorine valves slightly to injector and check all the tubing and components of chlorinators for leakage. Attend if necessary, by closing inlet valve. If there is no leak, then the chlorinator is ready for further testing.				√				
3.07	Open fully the chlorinator gas/pool inlet valves and check the chlorinators for range,	√							
3.08	If at any stage leakage of chlorine is found, close the cylinder valve. Fix the leakage	√	√						Chlorine dosing line fix

Blower and Surge Vessel

	ROUTINE MAINTENANCE DESCRIPTION	ESTIMATED MAINTENANCE TIME						FOR MATERIALS REQUIRED
		DAILY	WEEKLY	MONTHLY	QUARTERLY	ANNUALLY	OTHER	
1	BLOWERS AND COMPRESSORS:							
1.01	Check oil level at gear end and drive end, top up if necessary	√	√	√	√	√		
1.02	Confirm that the foundation bolts are tightly secure		□	√				
1.03	Check the cleanliness of all compressor components.		√					

1.04	Drain the condensate		√					
1.05	Check the tension of the drive belt, its condition and condition of the pulleys, adjust if necessary.		√					Blower Pulley by 2No.
1.06	Check for any oil leakage.	√						
1.07	Check the condition of the delivery valve & safety valve.	√						
1.08	check air filter maintenance indicator(clean or change element in case of pressure loss)			√	√	√		Air Filter Replacement by 4No.
1.09	Check the condition of all piping.	√	√	√				
1.1	Check and record the pressure readings on all pressure gauges.							
1.11	Clean the air filter.			√				
1.12	Check blower casing for undue noise, heat and vibration.	√	√					
1.13	Check bearings for overheating.			√				
1.14	Check that the blower is not ingesting dirt or grit.			√				
1.15	Open drive coupling and check the jaws and rubber buffers for wear or damage. Replace if damaged.				√			Rubber Jaws and Buffers
1.16	Add appropriate grease sparingly to DE. Check that the escape vent is not blocked after 500 hrs of run.			□	√			Grease by 2 Drum
1.17	Take note of any other anomalies.	√						
1.18	Tests run the compressor and confirm operational status.				√			
2	SURGE VESSEL							
2.01	Check the general condition of the vessel.	√	√					
2.02	Check for leaks and rectify immediately.	√						
2.03	Check and ensure normal pressure of the vessel and functioning of the pressure gauges.	√						Spare Surge Vessle

Generator

1.00	THERMAL GENERATOR	INTERVAL				
		8	250	500	1 000	2 500
	PROCEDURE	HOURS	HOURS	HOURS	HOURS	HOURS
1.01	Check fuel tank level	√				
1.02	Check coolant level	√	√	√	√	√
1.03	Check drive belts		√	√	√	√
1.04	Clean fuel pump strainer			√	√	√
1.05	Empty water trap	√	√	√	√	√

1.06	Replace fuel filter element			√	√	√
1.07	Check injector tips for atomization					√
1.08	Check and adjust idle speed					√
1.09	Check lubricating oil level		√	√		
1.1	Check lubrication oil pressure gauge	√	√	√	√	√
1.11	Replace lubricating oil		√	√	√	√
1.12	Replace lubricating oil filter		√	√	√	√
1.13	Clean engine breather vent valve					√
1.14	Clean air filter element		√	√	√	√
1.15	Replace air filter element				√	√
1.16	Clean turbocharger lubricating drainpipes					√
1.17	Check condition of the exhaust and silencer				√	√
1.18	Check and adjust the valve tip clearances					√
1.19	Check alternator, starter motor, etc					√
1.2	Clean starter battery terminals		√	√	√	√
1.21	Check battery electrolyte levels and top up		√	√	√	√

2.6.8 Infrastructure Upkeep

Proper support of system activities is an integral part of maintaining consistent, ongoing operations. Information supporting operational activities can come from any number of sources. Each with specific agendas, but consistent in their common support of operational continuity. Standard operation procedures are very important at the water supply Stations. Implementation of systematic approach will, therefore; increase asset life span, reduce energy cost, avert frequent failures, and reduce repair costs. If a machine is to operate to its expected lifespan, it must be operated in line with standard operating procedures (SOPs) and Equipment user manuals. It is, therefore, vital that all personnel get acquainted with SOPs and develop multiple skills. The acquaintance will trigger accurate defect reports and further rectify minor defects to ensure plant availability thus reliable water production. Before operating any system at the water works, ensure that you are compliance with SOPs. The acquaintance will avert accidents, damage to equipment and poor-quality water production.

2.6.9 Challenges

- Inadequate availability of spare parts to do robust maintenance
- Power challenges from EDSA
- Capacity constraints

2.6.10 Recommendations

- Enhanced funding
- Use of solar energy as alternative power supply
- Enhanced capacity building

2.6.11 Action Plan

NO	Activities	Strategies	Sequencing and Prioritization Methodology		Means of Verification
			Sequencing	Prioritization	
1	1. Effectively ensure implementation of the operations Manual for equitable distribution of quality water. 2. Improve Water supply service delivery				
A	Improve reliability of water supply to a minimum of 12hr/day by increasing water production	1.Ensure Regular Supply of water treatment chemicals 2. Regularise monthly supply of fuel and payment to EDSA for energy needed to produce water. 3. improve on preventive maintenance	1	high	Minimum of 12 hr water supply in all stations
	SALWCO and EDSA to do a joint assessment of the facilities to determine the provision of dedicated lines with MDI meters for stations close to the national grid, thereby increasing the supply hour from an average of 12 to 18hrs.	1. Station Managers to Submit business plan for unserved area-indicating revenue potential requiring network extension. 2. Assessment and approval of Business plans by management. 3.Provision of Pipes and	2	Moderate	1. All our stations close to National Grid Connected to EDSA 2. Reduced in money spent on WTP generator fueling and maintenance

NO	Activities	Strategies	Sequencing and Prioritization Methodology		Means of Verification
			Sequencing	Prioritization	
		logistics for network extensions			
	Increase water supply coverage to the unserved area through network extensions by 5KM in Bo, Kenema and Makeni stations.	<ol style="list-style-type: none"> 1. Station Managers to Submit business plan for unserved area- indicating revenue potential requiring network extension. 2. Assessment and approval of Business plans by management. 3. Provision of Pipes and logistics for network extensions 	3	Moderate	5km pipe extension
	Increase water service connection by 2,500 in water supply stations	<ol style="list-style-type: none"> 1. Station Managers to develop an improve new connection strategies to achieve targets 2. Supply of New Connection materials 3. Verification of returns to achieve target 	1	high	2,500 Customers connected
	Supply and install all treatment plant compounds with at least two solar poles for security and safety at night	<ol style="list-style-type: none"> 1. Station Managers to Provide through their regional Manager, the most essential security lights requirements. 2. Verification 	2	Moderate	All (Water treatment Plants) WTP compounds light at night

NO	Activities	Strategies	Sequencing and Prioritization Methodology		Means of Verification
			Sequencing	Prioritization	
		and approval by management. 3. Supply and installation of the security lights			
	1. Effectively implement the Maintenance Manual for management programs and systems. 2. To increase asset life span, reduce energy cost, avert frequent failures, and reduce repairs costs				
	Cary out fault assessment to determine causes of failure for equipment and network assets and generate a corrective action plan.	1. Stations to develop equipment failure, leakages and bust register 2. Record all failures, leaks and bust and analyze causes and develop most appropriate corritive plan. 3. Institutionalize the corrective plans	1	High	Maintenance Plan Available
	Rehabilitates and upgrade damaged pipelines for equitable distribution of supply	1.Stations to reassess and submit list of sizes and length of damaged pipe section by road works. 2. submit request to management for pipe repair and follow up with station on pipe repair and upgrade	1	high	Request for Pipe Repair Available
	Carry out repairs to all dilapidated store roofs, generators room roofs and	1.Stations to reassess all station facilities requiring repair 2. Sumit request to management	2	Moderate	Repair done to Stations Facilities

NO	Activities	Strategies	Sequencing and Prioritization Methodology		Means of Verification
			Sequencing	Prioritization	
	office roofs at the stations.	for facility repair and follow up with station on repair and upgrade			
Reduction of Non-Revenue water (To reduce non-Revenue water from 50% to 30%)					
	Improve meter accuracy.	Facilitate the Installation of Test Benches	1	high	Test Benches Installed
Stakeholder Engagement for Illegal activities, to improve raw water quality and enhance community involvement					
	Sensitization through stakeholder engagement to prevent illicit mining around SALWACO installations and upstream catchment.	Engage all environmental protection agencies to improve on limiting the pollution and degradation of our catchment	1	high	National action by Stakeholders to irradiated Catchment degradation and Water pollution

2.7 Commercial Services Department

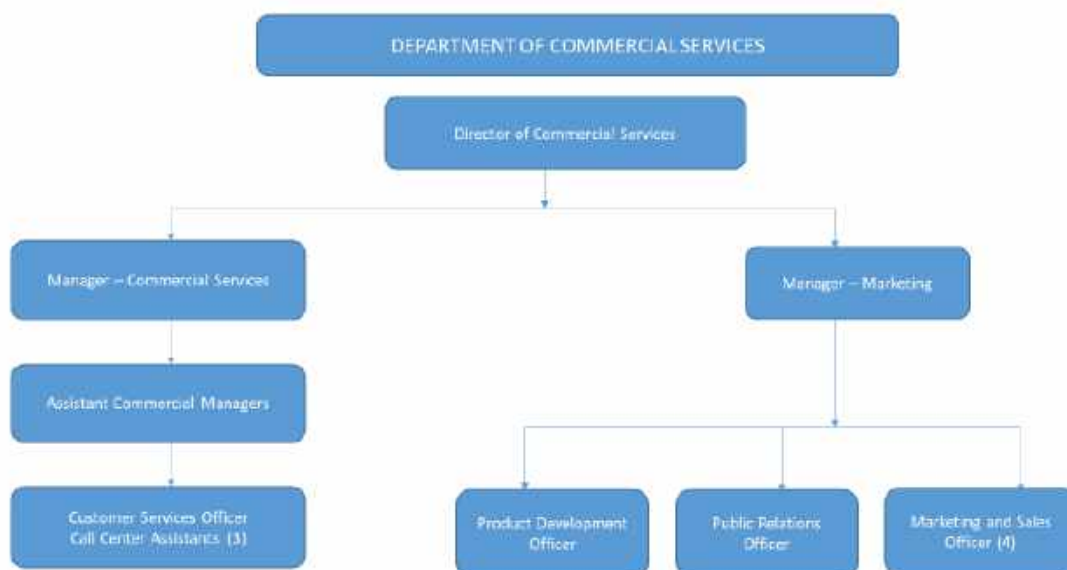
2.7.1 Overview of the Department

The Commercial Services Department is currently operating ten (10) active Commercial Stations: Bo, Kenema, Makeni, Mile 91, Kambia, Port Loko, Magburaka, Pujehun, Lungi, and Bonthe. Recently, the Bonthe Water Supply System began commercial activities.

The department is staffed by a Marketing Manager, who also serves as the Acting Commercial Manager, one Assistant Commercial Manager based in Bo, Commercial Officers, Assistant Commercial Officers, Assistant Marketing Officers, Billing Clerks, and Casual/Volunteer Meter Readers/Bill Distributors. Currently, the department utilizes a manual Excel-based billing system, except in Bo, Kenema, and Makeni, which poses several challenges, such as data manipulation, untimely reporting, and data loss. To mitigate these issues, the **BilGen Billing System** was introduced as a temporary solution in the three main stations. While it has been helpful, it will soon be replaced by a more secure and robust system under the **Integrated Management Information System (IMIS)**. The **Integrated Commercial Management System (iCMS)**, a module within IMIS, will replace the BilGen system.

The organogram of the Commercial Services Department is depicted in the figure below:

Figure 7: Organogram of the Commercial Services Department



2.7.2 Functions of the Department

The Commercial Services Department is responsible for marketing and selling water supply and related WASH (Water, Sanitation, and Hygiene) products and services at competitive prices. The department also develops proposals for water traffic, ensures customer satisfaction, and fosters a positive relationship with customers and the public.

2.7.3 Customer Care and Engagement

Customer care is essential for the effective functioning of the department. In 2023, the **Customer Engagement Strategy** was reinitiated, focusing on follow-up calls to institutional and commercial customers after bills were distributed. Due to resource limitations, domestic customers were not targeted. The strategy has yielded positive results by:

- Encouraging timely bill payment.
- Receiving feedback from customers (both positive and negative).
- Strengthening customer relationships.

2.7.4 Increase in Billing and Collection Efficiency

In 2023, the department developed proposals aimed at improving commercial and operational efficiency, revenue generation, and billing processes. These proposals include:

- Customer engagement initiatives.
- Integration with the banks.
- Afrimoney Mobile payment Platform
- Introduction of the Smart Metering System.

The Managing Director (MD) approved additional commercial responsibilities for certain staff, which has significantly improved collection efficiency, although targets are yet to be fully met. Billing efficiency is a key focus, and a directive has been issued that starting January 2024, 100% billing efficiency must be achieved across all stations.

To further improve billing accuracy, the department has initiated the hiring of Assistant Customer Relations Assistants, whose primary responsibilities will include reading meters, billing customers, distributing demand invoices, and ensuring timely payments. Additionally, a **GIS Consultant** has been hired to remap, rezone, and geolocate (GPS) all customer meters. This exercise, currently underway in Makeni, will be expanded to other stations once complete.

2.7.5 2023 Billing Data (NLe):

The billing data in 3023 is shown in the table below.

Table 31: 2023 Billing Data

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
BO	157,370	134,706	124,925	106,264	135,963	84,439	119,215	98,516	103,075	123,281	181,699	135,590
KENEMA	52,709	52,074	47,466	65,010	212,552	202,216	209,595	231,216	215,832	225,702	227,912	232,895
MAKENI	367,260	203,614	0	0	-	-	740,792	694,082	0	0	0	796,764
MAGBURAKA	35,382	38,919	32,815	41,211	40,492	2,300	12,400	17,079	22,645	16,543	13,206	-
PORT LOKO	22,791	30,773	28,063	29,528	21,856	21,116	16,911	18,206	19,745	16,714	21,470	22,600
MILE 91	2,506	9,570	11,467	6,625	7,525	0	225	1,950	1,631	500	875	8,813
KAMBIA	23,616	38,369	41,784	31,315	34,797	21,891	17,933	21,112	21,793	21,943	23,999	23,291
PUJEHUN	16,410	15,970	17,676	20,791	13,222	11,786	6,414	7,330	6,943	7,330	8,786	12,256
LUNGI	11,678	22,625	11,678	22,232	13,493	15,068	8,051	5,245	12,505	5,235	6,417	12,304
BONTHE	0	0	0	38,723	0	0	77,974	0	0	99,498	0	127,193

2.7.6 New Connections

The department recorded new customer connections every month and continually engaged with potential commercial customers. A robust marketing effort is underway to expand the customer base, especially in stations where the customer count is low. The connection data is shown in the following table:

Table 32: New Connection Data

STATION/MONTH	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sept	Oct	Nov	Dec	Total	Average
Bo	29	62	53	34	39	42	33	16	17	20	34	26	405	34
Kenema	3	5	6	8	15	8	7	9	12	9	10	10	102	9
Makeni	32	17	46	35	28	17	15	15	8	10	6	8	237	20
Magburaka	5	8	1	12	4	0	2	0	3	4	0	0	39	3
Port Loko	6	7	1	3	4	1	0	3	1	2	3	0	31	3
Mile 91	0	2	2	2	1	0	0	0	0	0	0	5	12	1
Kambia	2	4	3	2	3	1	3	3	1	2	0	1	25	2
Pujehun	2	3	1	0	0	2	0	0	0	3	1	0	12	1
Lungi	1	1	0	4	0	0	0	0	0	0	0	0	6	1
Bonthe	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	80	109	113	100	94	71	60	46	42	50	54	50	869	72

2.7.7 Proposals for Improvement

Customer Care & Marketing

Customer care and marketing involves the following:

1. Implement iCMS billing for smaller stations, alongside the manual Excel system.
2. Develop a quarterly marketing strategy to promote SALWACO's services.

Increase Revenue Generation

This will involve:

1. Prioritize revenue generation through effective customer engagement.
2. Conduct follow-up calls to customers after bill distribution.

Benchmarking

Benchmark practices from international water utilities such as, Ghana Water Company – Ghana, Community Water and Sanitation Agency (CWSA) – Ghana and Nairobi Water - Kenya to improve SALWACO's commercialization efforts.

New Connections

New connection strategy involves:

1. Conduct aggressive marketing campaigns to increase customer connections.
2. Review revenue and connection targets with stations.
3. Conduct demand surveys and implement referral incentive schemes.

Arrears Management

This involves:

1. Engage with major debtors to establish payment plans.
2. Enforce the credit limit policy and consider disconnections for non-payment.
3. Collaborate with the Company Secretary to initiate legal actions for overdue debts.

Monitoring and Supervision

Monitoring and Supervision will focus on:

1. Conduct quarterly reviews of commercial processes (billing, revenue collections, debtor engagements).
2. Organize quarterly training sessions to enhance staff performance.

2.7.8 General

The department has established a credit limit for all customer categories in the iCMS and plans to strictly enforce this limit. Furthermore, any customer who fails to pay for two consecutive months will be disconnected.

Discussions with the Operations Department are ongoing to install bulk meters at hydrants to measure water extracted accurately.

Monthly reporting templates and quarterly operational visits have been developed for enhanced oversight.

The key challenge hindering the department's ability to meet its commercialization goals is non-existence of smart meters.

2.7.9 Conclusion

The department acknowledges management's continued support and anticipates that the implementation of the iCMS will significantly address the challenges faced. Expanding this system to all Stations will harmonize billing processes and contribute to the department's long-term success.

2.8 Procurement Department

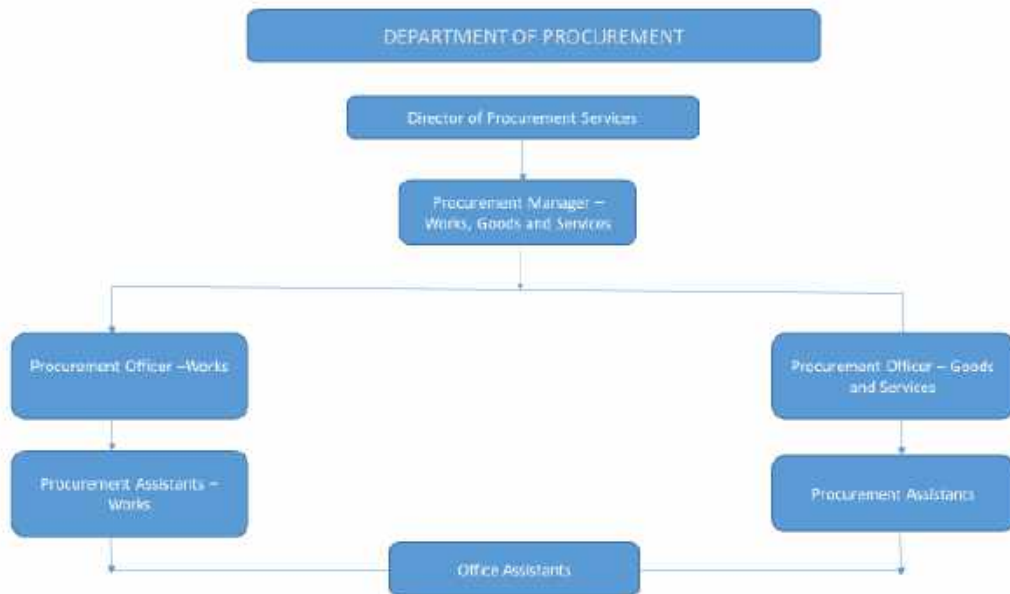
2.8.1 Introduction

Under the direction and supervision of the Managing Director, the Procurement Department performs functions that link the fund management role of SALWACO with roles of national structures that are responsible for procurement. The Procurement Department helps instill an efficient, economic, transparent, trustworthy, and strategic procurement systems both at the company level as well as the project level through a common approach. It enhances transparency and accountability in the procurement process to reduce unnecessary over

expenditures due to uneconomic purchases thereby minimizing Audit queries and align the procurement process in the Public Procurement Act (2016) with its Regulations (2020) rules.

The organogram of the Procurement Department is depicted in the figure below:

Figure 8: Organogram of the Procurement Department



2.8.2 Procurement Activities Report in 2023

Procurement Plant – 2023 was duly completed.

Procurement of Water Treatment Chemicals – procurement is ongoing

Recruitment of Security Service for the provision of security services within the company – procurement is ongoing

During the year under review, the following goods were procured as listed in the table below:

Table 33: Procurement of Goods in 2023

DATE OF ISSUE	PROCUREMENT NUMBER	CONTRACT DETAILS	NAME OF FIRM	SOURCE OF FUND	CONTRACT AMOUNT (SLL)	STATUS
5/9/2023	SLWC/ADMIN/RFQ/2023/010	Procurement of Four Tyres and Battery for Vehicle Number AHH 692	My Time to grow Construction and General Services	GoSL	11,200.00	Completed
5/10/2023	SLWC/OPM/RFQ/2023/018	Procurement of Chlorine for Kenema Station	Fogo Logistics and Transport SL	GoSL	99,312.00	Completed
5/16/2023	SLWC/OPM/RFQ/2023/022	Procurement of Alum for Kenema Station	Fogo Logistics and Transport SL	GoSL	99,660.00	Completed
6/16/2023	SLWC/OPM/RFQ/2023/019	Procurement of Alum for Bo Station	Fogo Logistics and Transport SL	GoSL	98,340.00	Completed
6/16/2023	SLWC/OPM/RFQ/2023/020	Procurement of Chlorine for Bo Station	Fogo Logistics and Transport SL	GoSL	98,208.00	Completed
6/9/2023	SLWC/OPM/RFQ/2023/021	Procurement of Chlorine for Makeni Station	Fogo Logistics and Transport SL	GoSL	97,920.00	Completed
7/6/2023	SLWC/COM/RFQ/2023/023	Procurement of Connection Invoice Books	Sine-Nah Enterprises	GoSL	37,500.00	Completed
7/6/2023	SLWC/ADMIN/RFQ/2023/024	Procurement for Four Tires for the Deputy Managing Director	God with us Construction and General Services	GoSL	10,200.00	Completed
7/18/2023	SLWC/ADMIN/RFQ/2023/025	Procurement of Four Tires for Director of Project Management	MY Time to grow Construction and General Services	GoSL	10,400.00	Completed
7/21/2023	SLWC/ADMIN/RFQ/2023/026	Internal Refurbishment of the Project Management Building at SALWACO	Salim M. Enterprise	GoSL	19,930.00	Completed

DATE OF ISSUE	PROCUREMENT NUMBER	CONTRACT DETAILS	NAME OF FIRM	SOURCE OF FUND	CONTRACT AMOUNT (SLL)	STATUS
8/7/2023	SLWC/ADMIN/R FQ/2023/027	Procurement for Servicing of Toyota Landcruiser AJM 137 assigned to Director of Administration	Generator Motor Garage	GoSL	13,400.00	Completed
8/7/2023	SLWC/ADMIN/R FQ/2023/028	Procurement for Servicing of Toyota Landcruiser AKM 591 assigned to Director of Planning, Research and Policy	Generator Motor Garage	GoSL	12,320.00	Completed
8/10/2023	SLWC/ADMIN/RF Q/2023/029	Procurement of Four Tires and routine Servicing for Toyota Hilux assigned to Director of Finance	God with us Construction and General Services	GoSL	11,900.00	Completed
8/10/2023	SLWC/ADMIN/R FQ/2023/030	Procurement of Maintenance and Servicing of Hino	Precision Builders Company	GoSL	19,750.00	Completed
		Bowser with Registration number AIE 885				
8/10/2023	SLWC/ADMIN/R FQ/2023/031	Procurement of Rain Coats, Rain Boats and Umbrella	My Time to grow Construction and General Services	GoSL	99,880.00	Completed
8/10/2023	SLWC/ADMIN/R FQ/2023/032	Procurement of Maintenance of Hino Bowser with Registration number AIE 886	General Motor Garage	GoSL	36,060.00	Completed
8/22/2023	SLWC/ADMIN/R FQ/2023/033	Procurement of Five Tires and routine servicing for Hilux ATD 801 assigned to Kenema Station	Arete Investment Trust and General Merchandise	GoSL	12,700.00	Completed
8/22/2023	SLWC/ADMIN/R FQ/2023/034	Internal Refurbishment of Kenema Regional Office Building and Quarter	Arete Investment Trust and General Merchandise	GoSL	11,590.00	Completed

DATE OF ISSUE	PROCUREMENT NUMBER	CONTRACT DETAILS	NAME OF FIRM	SOURCE OF FUND	CONTRACT AMOUNT (SLL)	STATUS
8/23/2023	SLWC/ADMIN/R FQ/2023/035	Procurement of Maintenance and Servicing of Vehicle ASL 290 Toyota Hilux Van	Precision Builders Company	GoSL	17,200.00	Completed
8/5/2023	SLWC/OPM/RFQ/2023/058	Procurement for the Supply of Alum to Magburaka Station	Infiniti Trading Co Ltd	GoSL	85,500.00	Completed
8/10/2023	SLWC/OPM/RFQ/2023/059	Procurement for the Supply of Alum to Makeni Station	Infiniti Trading Co Ltd	GoSL	88,350.00	Completed
8/22/2023	SLWC/OPM/RFQ/2023/060	Procurement for the Supply of Alum to Bo Station	Infiniti Trading Co Ltd	GoSL	89,300.00	Completed
8/24/2023	SLWC/OPM/RFQ/2023/061	Procurement for the Supply of Alum to Lungi Station	Infiniti Trading Co Ltd	GoSL	87,400.00	Completed
8/31/2023	SLWC/OPM/RFQ/2023/062	Procurement for the Supply of Alum to Pujehun Station	Infiniti Trading Co Ltd	GoSL	85,500.00	Completed
9/6/2023	SLWC/COM/RFQ/2023/039	Procurement of 3 in 1 Hp color printer for Director of Procurement	Sine-Nah Enterprises	GoSL	32,000.00	Completed
9/29/2023	SLWC/ADMIN/R FQ/2023/040	Procurement of Laptop and External Hard Drive for Director of Admin and Maintenance of Desktop computer attached to Procurement unit	Gawee Company	GoSL	28,500.00	Completed
9/6/2023	SLWC/ADMIN/R FQ/2023/041	Replacement of Sand for the Six Filter bed at the Water Treatment Plant in Makeni	Contragens Enterprise	GoSL	24,750.00	Completed
9/6/2023	SLWC/COM/RFQ/2023/042	Procurement of Stationeries for Makeni, Bo, Kenema, Magburaka,	Sine-Nah Enterprises	GoSL	33,100.00	Completed

DATE OF ISSUE	PROCUREMENT NUMBER	CONTRACT DETAILS	NAME OF FIRM	SOURCE OF FUND	CONTRACT AMOUNT (SLL)	STATUS
		Mile 91,Portloko, Lungi, Pujehun and Kambia				
9/26/2023	SLWC/ADMIN/R FQ/2023/043	Procurement of Replenishment Order for Stationeries	Bianguay Enterprises	GoSL	65,375.00	Completed
9/19/2023	SLWC/ADMIN/R FQ/2023/044	Procurement for Maintenance of Hino Bowser with Registration Number AUM 305	General Motor Garage	GoSL	7,525.00	Completed
9/26/2023	SLWC/ADMIN/R FQ/2023/050	Procurement of Replenishment Order for HP Toner Cartridges	Gawee Company	GoSL	79,880.00	Completed
9/26/2023	SLWC/ADMIN/R FQ/2023/051	Procurement of Four Tires and One Battery for the Director of Planning, Research and Policy	Gawee Company	GoSL	25,500.00	Completed
9/6/2023	SLWC/OPM/RFQ/2023/063	Procurement for the Supply of Alum to Kailahun Station	Infiniti Trading Co Ltd	GoSL	80,750.00	Completed
9/15/2023	SLWC/OPM/RFQ/2023/064	Procurement for the Supply of Alum to Portloko Station	Infiniti Trading Co Ltd	GoSL	85,500.00	Completed
9/19/2023	SLWC/OPM/RFQ/2023/065	Procurement for the Supply of Alum to Mile 91 Station	Infiniti Trading Co Ltd	GoSL	83,600.00	Completed
9/29/2023	SLWC/OPM/RFQ/2023/066	Procurement for the Supply of Alum to Kabala Station	Infiniti Trading Co Ltd	GoSL	76,000.00	Completed
10/4/2023	SLWC/ADMIN/R FQ/2023/047	Procurement of Four Tires and One Brake Pad for the Director of Operations and Maintenance	Faiza Business Venture	GoSL	11,500.00	Completed
10/4/2023	SLWC/OPM/RFQ/2023/067	Procurement for the Supply of Alum to Bonthe Station	Infiniti Trading Co Ltd	GoSL	87,400.00	Completed

DATE OF ISSUE	PROCUREMENT NUMBER	CONTRACT DETAILS	NAME OF FIRM	SOURCE OF FUND	CONTRACT AMOUNT (SLL)	STATUS
10/12/2023	SLWC/OPM/RFQ/2023/068	Procurement for the Supply of Alum to Kenema Station	Infiniti Trading Co Ltd	GoSL	89,300.00	Completed
10/18/2023	SLWC/OPM/RFQ/2023/069	Procurement for the Supply of Alum to Kambia Station	Infiniti Trading Co Ltd	GoSL	87,400.00	Completed
11/23/2023	SLWC/DMD/RFQ/2023/071	Procurement of Office Furniture for Deputy Managing Director	REO Roma Enterprises	GoSL	54,050.00	Completed
12/4/2023	SLWC/OPM/RFQ/2023/074	Procurement and replacement, Repaire of Lungi Banda Still Tank	Kal Monbag Investment Services	GoSL	67,017.00	Completed
12/18/2023	SLWC/IAU/RFQ/2023/077	Procurement and Supply of Intake Pump for Magburaka Station	Fawaz Building Materials	GoSL	47,475.00	Completed
12/18/2023	SLWC/DMD/RFQ/2023/078	Procurement of Laptop Computer and 3 in1 Printer for the Deputy Managing Director	REO Roma Enterprises	GoSL	63,250.00	Completed

2.9 Internal Audit Unit

2.9.1 Introduction

This report covers activities undertaken for the year ended 31 December 2023 by the Internal Audit Unit of the Sierra Leone Water Company which comprises two staff. The primary objective of this report is to communicate the implementation of the 2023 approved AWP and the status of reviews and other activities undertaken during the reported period.

The Internal Audit Unit of the Sierra Leone Water Company has completed a report for activities undertaken in 2023 in accordance with Section (75) subsections (a)-(i) of the PFM Act of 2016.

The Internal audit is “an independent, objective assurance and consulting activity designed to add value and improve an organization's operations” and its mission is “to enhance and protect organizational value by providing risk-based and objective assurance, advice, and insight” as defined by the IIA’s International Professional Practices Framework (IPPF). Regulations 143(1) of the Public Financial Management Regulation also gives the Internal audit unit within a budgetary agency, subverted agency, other entities of government, local councils, social security fund, or public enterprise the responsibility to examine the accounting systems, internal controls, risk management and governance processes of the entity.

2.9.2 Activities

The unit undertook a special audit assignment from the Managing Director. The unit visited the regional offices in Bo, Kenema and Makeni. The findings from this assignment were included in the final report.

Routine internal audit activities and monitoring of stores/logistics units continued throughout the year. Review of documents, procedures and processes were undertaken. The Unit collaborated with the Finance Department during Annual Audits by the Audit Service Sierra Leone.

The unit has one seconded staff from the Internal Audit Department of the Ministry of Finance and one permanent staff of SALWACO.

2.10 Stakeholder and Media Relations Unit

2.10.1 Background

The Media and Communications Unit was created in 2018 to establish and maintain good relationship with all Company Stakeholders by providing them with accurate and up to date information on the activities of the Company through media and other engagements. By design, the Communications Unit should be involved at every stage of the Company's operation. This is the only way the public can be informed adequately and accurately about the Company.

2.10.2 Overview

SALWACO's Stakeholders' and media relations unit among other things has a pivotal function of engaging stakeholders and other associates in line with promoting the values and aspirations of the company. For an institution like the Sierra Leone Water Company (SALWACO), it is very important for people to know about the company's operations, the prospects, success stories and accompanying challenges. This will better present a situation of knowing what is happening and how certain things should be addressed. This is why it is very necessary to have a media presence in all SALWACO stations.

2.10.3 Activities Undertaken During the Period Under Review

January to December 2023:

The unit was involved in and covered the following activities:

- The SALWACO Team in the East also embarked on robust community engagements and sensitization on connection and collection of water rates
- In January 2023, the 2021 annual report was presented to the Minister of Water Resources. The presentation was done by the Board Chairman of SALWACO.
- A SALWACO team led by the MD also visited stations up country on conducted tours and stakeholder engagements.
- The company also visited the Blama -Bandawor project site in January 2023 to assess progress.
- An official Twitter account of SALWACO was also created.
- There was also a joint monitoring and supervision of SALWACO operations and the six towns water supply project by the minister of water resources.

- In early February the unit was involved in setting the record straight with the Compass Newspaper through the Independent Media Commission (IMC) for an awful and untrue publication about the Company.
- In February 2023, there was a stakeholders' engagement for the protection of dams and water catchments at Kamboi Hills in Kenema.
- In mid-February 2023, SALWACO hosted a team from the Human Rights Commission with a view to enhancing partnership and collaboration. The unit covered the meeting.
- Participated and gave media coverage of Company visitation to Bonthe Island on a sensitization and commercialization of the water supply system.
- The unit, with the SALWACO team in Kenema met with the Resident-Minister East, the Mayor and had radio discussion on the water situation in the district.
- Radio discussions on the pump damage at Tilorma Water Treatment Plant in Kenema city were held with two radio stations- Nyapui Radio and SLBC.
- The team in Kailahun also commenced fixing pipes in the township to finalize connections and to provide water for people.
- An article was also written on the six towns project in Kabala.
- There was also a radio engagement from the team in Makeni to engage people on commercializing water.
- The Communication team was in Kenema to inform customers and discuss about the role played by government and management in the restoration of water situation.
- In mid-April 2023, the ministry of water resources engaged Hungarian investors and SALWACO was represented by the DMD.
- The company also hosted Dalberg advisors: a group of global change makers, working to build an inclusive and sustainable world.
- SALWACO published independent greetings on newspapers.
- In mid-May, 2023, a delegation from the Saudi Fund for Development engaged SALWACO.
- In June 2023, SALWACO received a delegation from the Chinese Technical Team.
- A training on billing and metre reading was also enhanced.
- The unit covered the Company's end of year retreat in Kenema where a comprehensive and succinct company activities were presented by Senior Communications Officer.

2.10.4 Future Plans For 2024-25

In order for the team to be robust and effective the following should be put in place for next year.

- National engagements in all areas of operations with major stakeholders
- Frequent and Robust media engagement (radio, TV, Newspaper and online/social media including bloggers)
- Develop and implement a programme for Stakeholder engagement on environmental protection at all Company operational locations.
- Production of SALWACO news bulletin every quarter.
- Continue with signage of all SALWACO operational Cities and Towns.
- Engage Stakeholders and beneficiaries of finished projects to ensure ownership and maintenance.
- Publication of SALWACO fliers, brochure, diary and Yearly Calendar.

3.0 Challenges and Mitigation Measures

Project Management Challenges and Solution

While celebrating achievements, it is crucial to acknowledge the challenges faced, including logistical challenges for effective project monitoring, regulatory hurdles, and general resource constraints. These challenges, however, serve as catalysts for continuous improvement and innovation within SALWACO's project management practices.

Challenges on BWSP Implementation

- The poor road condition /sea transportation is a major challenge in the implementation of the project and also poor soil condition on the Island.
- The COVID-19 pandemic and the abrupt change in prices on equipment, machines and materials which are used in the construction process including civil works, mechanical and electrical components.

Challenges on STWSP Implementation

- Depreciation of the Leone has led to price variation in the original contracts. To mitigate this, SALWACO and MoF have decided to rationalize (dollarize) contractors' contracts as a stability measure that cushions the high inflation rates of the prices of goods and services.
- Challenges in funds disbursement to contractors by the Ministry of Finance has led to not meeting the proposed completion deadline of the project. Regular follow up is being carried out with MoF.

Other Challenges

- Negative human activities around all SALWACO's water catchment area as a result of mining and deforestation.
- Need to improve the conditions of service to improve staff retention.
- Culture of not willingly paying water bills. Some customers (individuals and institutions) only pay bills when put under pressure.

4.0 Conclusion and Recommendations

In the past four years, the Company has witnessed innovations to enhance administrative and operational efficiency. Key among these are the actualisation of the AfriMoney (a product of Africell SL Ltd.) platform for payment of water bills, creation of a help desk (for enquiries and other communications with external stakeholders), review and revision of organogram and implementation thereof, improvement in revenue, extension of networks, increase in water supply, among others. Payment platforms will be extended to OrangeMoney and the commercial banks.

The Government has done tremendously well by making huge investment in the water sector amounting to over US\$50,000,000 in ongoing and pipeline projects, first ever in the history of Sierra Leone for any government. The company currently has no major donor intervention and it is recommended that efforts be made at the political level to ensure donor support.

Continuous engagement will be done with relevant stakeholders to address the challenges highlighted above. The leadership of the Ministry of Water Resources and Sanitation and the Board of Directors have been supportive to the Company's activities.

Given the activities underway and planned projects and programmes, it is expected that 2024 will be a year of further performance improvement.

4.0 Photo Gallery



Inspection of Bonthe Water Supply Project by H.E. President Dr Julius Maada Bio



Signing of Financing Agreement for the Exim Bank Funded 4 Towns Water Supply Project



Signing of Contracts for the 6 Towns Water Supply Project



Construction of Kambia Water Supply Project