



**Water Resources
Management
Authority**

2021 ANNUAL REPORT

**ZAMBIA'S WATER
OUR FUTURE** WWW.WARMA.ORG.ZM

GENERAL INFORMATION



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WARMA-Water Resource Management Authority, Zambia

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ACRONYMS

AfDB	Africa Development Bank
AG	Attorney General
AWQS	Ambient Water Quality Standards
CEEC	Citizen Economic Empowerment Commission
DWRD	Department for Water Resources Development
DMMU	Disaster Management and Mitigation Unit
EIZ	Engineering Institution of Zambia
EU	European Union
GSB	Government Service Bus
GLOFAS	Global Flood Awareness System
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GDP	Gross Domestic Product
IWRM	Integrated Water Resources Management
JICA	Japan International Cooperation Agency
LHPC	Luapula Hydro Power Corporation
LWSC	Lusaka Water and Sanitation Company
MDD	Management Development Division
MWDS	Ministry of Water Development and Sanitation
NWASCO	National Water Supply and Sanitation Council
RDA	Road Development Agency
SADC	Southern Africa Development Community
SDGs	Sustainable Development Goals
SZI	SMART Zambia institute
UN	United Nations
UPG	Unified Payment Gateway
UNDP	United Nations Development Program
UNICEF	United Nations Children's Fund
WARMA	Water Resources Management Authority
WB	World Bank
WRM	Water Resources Management
ZAF	Zambia Air Force
ZABS	Zambia Bureau of Standards
ZRA	Zambezi River Authority
ZEMA	Zambia Environmental Management Agency
7NDP	7 th National Development Plan

GLOSSARY

Authority: means the Water Resource Management Authority established by section 7 of the WRM Act.

Ambient Water Quality Standards: means the allowable amount of materials, as a concentration of pollutants, in water

Catchment: means a geographical area which naturally drains into a water resource and from which the water resource receives surface or ground flow that originates from rainfall.

Ecosystem: means the biological community of interacting organisms and their physical environment.

Ground Water: means water found underground in the cracks and spaces in soil, sand and rock.

Hydrometric stations: means a station on a river, lake, estuary, or reservoir where water quantity and quality data are collected and recorded.

Stakeholder: means any party that has interest in the Authority and can either affect or be affected by the Authority's activities.

Surface Water: means any body of water above ground, including streams, rivers, lakes, wetlands, reservoirs, and creeks

WRM Act: means the Water Resources Management Act No. 21 of 2011.

Water Resources: means any river, spring, hot spring, pan, lake, pond, swamp, marsh, stream, watercourse, estuary, aquifer, artesian basin or other body of naturally flowing or standing water.



Water Resources Management Authority

ABOUT US

The Water Resources Management Authority (WARMA) is a statutory body established under the Water Resources Management (WRM) Act No. 21 of 2011 to regulate and manage the utilization of water resources across the country. At its apex is a Board of Directors who provide oversight, policy and strategic direction to the Authority. The day-to-day management and operations are presided over by the Director General, who is the Chief Executive Officer of the Authority.

The Authority has its Headquarters in Lusaka and operates in four (4) Catchment offices namely; Kafue, Luangwa, Chambeshi and Zambezi Catchments. Currently, Luapula and Tanganyika Catchments are administratively managed by the Chambeshi Catchment office.

The core functions of the Authority as contained in the Water Resources Management Act No. 21 of 2011 include:

- (a) Identify and protect potential sources of freshwater supply;
- (b) Conserve, preserve and protect the environment, in particular, wetlands, quarries, dambos, marshlands and headwaters and take into account climate change and the challenges posed by climate change;
- (c) Plan for and ensure the sustainable and rational utilisation, management and development of water resources based on community and public needs and priorities, within the framework of national economic developmental policies;
- (d) Set standards and guidelines, with relevant appropriate authorities, to be used in undertaking water resources management and developmental activities in a catchment;
- (e) Publish forecasts, projections, and information on water resources;
- (f) Provide access to water resources of acceptable quantity and quality for various purposes;
- (g) Plan, review and approve management plans in a catchment or sub-catchment, including inter-catchment and intra-catchment diversions;
- (h) Issue equitable and reasonable water entitlements and allocate water equitably and reasonably for various purposes stipulated under the Act;
- (i) Grant water permits and licences for the right to use water for various purposes under the Act; and
- (j) Exercise control over all water resources in Zambia.



STRATEGIC DIRECTION

The Strategic Plan 2017-2021 outlines the Strategic direction of the Authority. Therefore, the activities undertaken in the period under review were based on planned programmes in the Strategic Plan 2017 to 2021. The following are the Vision, Mission and Core Values that guide the Authority in achieving its mandate:

Our Vision

A prosperous nation optimally using its water.

Our Mission

To effectively regulate, manage and develop water resources for all users in Zambia.

Our Core Values

To ensure the achievement of the implementation of the Strategic Plan, the Board, Management and Staff of WARMA commit themselves to the following Core values to govern their behavior in discharging the Authority's mandate:

(a) **Watchfulness**

Being alert and aware, paying careful attention and ready to deal with problems.

(b) **Accountability**

Taking responsibility for decisions and actions affecting its stakeholders.

(c) **Transparency**

In all operations relating to the permitting process.

(d) **Equity**

In service delivery to assure access to water through equitable allocation of water resources.

(e) **Reliability**

Confidence gained from all water users in undertaking its responsibilities in a timely and a professional manner.



Water Resources Management Authority

WARMA BOARD MEMBERS



DR. JOHN E. L. KUNDA
Chairperson



Dr. ELESTINA M. M. MWELWA
Vice Chairperson



MS. LYNN HABANJI
Member



MR. JOSEPH JIMU DAKA
Member



MR. KASONDE MWILA
Member



MR. TYSON J. JERE
Member



MRS. NALUKENA MUTTI-VANTRA
Member



MS. PRISCA M. CHIKWASHI
Member



PROF. HENRY SICHINGABULA
Member



Mr. CORNELIUS M. SITALI
Member



MS. MALAMA AGNESS MUNKONGE
Member



MR. EPHRAIM M. SHITIMA
Member



MS. FLORA SIMUMBA
Member



Ms. HAWA TRAORE MUSONDA
Member



STATEMENT FROM THE BOARD CHAIRPERSON

I t In accordance with the Water Resources Management Act No. 21 of 2011, and on behalf of the Board of Directors, I am pleased to submit to you the Annual Report and Audited Statement of Accounts for the Water Resource Management Authority (WARMA) for the year ended 31st December 2021. The report highlights the Authority's achievements during the year and the challenges that were encountered in implementing its mandate. During the year 2021, the outbreak of the COVID 19 Pandemic had continued to affect the pace at which the Authority implemented some of its planned activities. Specifically, the scaling down of the number of staff through rotational work schedules affected the pace of implementation of works. Further, other challenges encountered by the Authority during the period under review included; inadequate financial resources, lean organizational structure and the absence of the Board in the 4th quarter of 2021 affected some of the key activities that were outlined for implementation in the year 2021. Despite the challenges encountered, the Authority endeavoured to achieve its broad objectives by focusing its interventions on the following:

- (a) The Authority conducted water resources assessment that provided a comprehensive understanding of the quality and quantity of water resources in specific catchment areas;
- (b) The Authority undertook a water level trend analysis that provided necessary information for planning and decision making of various developmental projects;

- (c) The Authority formalized cooperation relationships with various Councils around the country. This was in a bid to ensure water resources are protected and preserved in eco-sensitive areas through identification, mapping and subsequent regulation under the auspices of the parent Ministry; and
- (d) The Authority continued to forecast flood events across the country and were on high alert to report any forecasted flood event to the appropriate agencies such as the Disaster Management and Mitigation Unit (DMMU).

Despite some of the strides made by the Authority, the country still experiences unsustainable utilization of water resources. Incidences of illegal water abstraction were recorded that subsequently diminishes the water resources resulting in low water utilization for water users countrywide. However, the Authority remains optimistic that by aligning its operations with the goals set in the National Vision 2030 and the Seventh National Development Plan (7NDP), the Authority will continue to undertake innovative interventions to ensure that all citizens have access to acceptable standards of quality and quantity, of water for various purposes.

Lastly, on behalf of the Board, I therefore wish to recognise and appreciate the effort and support received from the Ministry of Water Development and Sanitation (MWDS). Further, I wish to thank Management and Staff for their continued commitment in discharging the mandate of the Authority. As we look ahead, we remain resolute and committed to dynamic performance and delivering on our mandate.

Dr. JOHN. E. L. KUNDA
BOARD CHAIRPERSON

SENIOR MANAGEMENT



ENG. KENNETH NYUNDU
DIRECTOR GENERAL



Ms. Misozi Ngulube
Authority Secretary



Mr. Brighton Chishimba
Acting Director Human
Resource & Administration



Eng. Chewe Chishala
Acting Director Water
Resources & Information
Management



Mr. Stanley Phiri
Acting Director Finance



Mrs. Alice Nchimunya
Catchment Manager
KAFUE



Eng. Oscar Silembo
Catchment Manager
LUANGWA



Eng. Mwiza Muzumara
Catchment Manager
CHAMBESHI



Mr. Chapalama Ngaba
Legal officer



Mr. Alexander Chomba
Regulation & Compliance Manager



Eng. Happiness Malawo
Catchment Manager
ZAMBEZI



DIRECTOR GENERAL'S STATEMENT

It is my pleasure to present a review of the operations of the Water Resource Management Authority for the year 2021 and audited financial statements. The Authority's main function is to develop, manage and regulate the utilization of water resources. During the period under review the main focus for the Authority was on Water Resource Planning and Management, Water Resources Information and Research, Governance and Stakeholder Coordination as well as Regulation and Compliance. Am delighted to report that the Authority made significant progress in fulfilling its portfolio function and remains resolute in ensuring that Zambia's water resources are sustainably managed and utilized equitably. In the year 2021, the Authority encountered a number of challenges notably the absence of the Board in the 4th quarter of 2021 and effects of Covid-19 which affected the Authority's decision-making process for some of the key programmes.

Despite the challenges encountered, Management and staff made progress towards meeting the targets set out in the 2017-2021 Strategic Plan. Below are some of the major key milestones that the Authority achieved during the year under review.

- (a) Increased awareness among water users as evidenced by reported disputes;
- (b) Increased demand for hydrological data by various external stakeholders;
- (c) Mapped water bodies and catchment areas as a step in declaring protected areas to avoid encroachment of water bodies;
- (d) Engaged local authorities for the purpose of carrying out joint technical investigations and inspections to avert further encroachments and illegal water use;

- (e) Undertook an audit of existing water permits and verification of water use in catchments;
- (f) Formulated of Statutory Instruments (SIs) for establishing Catchment Councils, Sub-Catchment Councils and Water Users Associations;
- (g) Expanded the Authority's operational areas in Chipata, Mansa and Solwezi;
- (h) Increased the Authority's staff complement particularly in the inspectorate;
- (i) Revived the production of hydrological year book;
- (j) Integrated Information and Communication Technology (ICTs) in internal operational processes supported by Smart Zambia; and
- (k) Ensured that good financial practices and transparency were adhered to during 2021 leading to a reduction in the number of audit queries.

It is with profound gratitude that I wish to thank the Ministry of Water Development and Sanitation (MWDS) for the continued policy guidance and cooperating partners as well as other stakeholders for their support without which not much would have been achieved. I further wish to thank the Board for their strategic policy guidance, management and staff for the professionalism and hard work exhibited in the fiscal year 2021.

Looking ahead, am confident that the Authority will remain committed to ensuring that water resources play a catalyst role in economic growth of the country through the discharge of its mandate as enshrined in the Water Resource Act. Considering that water resources play a key role as an engine and catalyst for improved livelihood and socio-economic development, am convinced that the Authority will continue receiving the necessary support from government through Ministry of Water Development and Sanitation (MWDS) and other stakeholders at all levels in fulfilling its mandate.

ENG. KENNETH NYUNDU
DIRECTOR GENERAL

1.0 WATER RESOURCES MANAGEMENT AND PLANNING

1.1 Overview

The 2021 Annual report provides a comprehensive account of the programmes and activities undertaken by the Water Resources Management Authority (WARMA) for the period 1st January to 31st December 2021.

During the period under review, Water Resources Management Authority focused on Planning, developing and managing the water resources. In so doing, the Authority took into account the competing demands for water use and sought to allocate water equitably. The outputs accomplished in the period under review were based on the approved 2021 Annual Work Plan and Budget whose activities were formulated using the strategic objectives as expounded in the 2017-2021 WARMA Strategic Plan.

The main strategic objectives that guided the implementation of the Authority's programmes in 2021 were:

- (a) To establish a framework within which water resources will be managed throughout the country;
- (b) To strengthen and enhance enforcement of regulations;
- (c) To enhance performance in water resources management service delivery;
- (d) To ensure financial sustainability; and
- (e) To strengthen the institutional and human resources capacity.

On the basis of the above objectives, the Authority set the following broad targets for the year 2021:

- (a) Update and maintain the water resource information database;
- (b) Forecast all flood events across the country and disseminate to key stakeholders;
- (c) Assess all hydraulic infrastructure across the country and recommend for remedial measures;
- (d) Carry out water resource assessments to ascertain water availability in all the six (6) catchments;
- (e) Map major water sources and have them declared protected water resources areas;
- (f) Rehabilitate and maintain all hydrometric stations;
- (g) Issue 500 water permits which consisted of

200 permits for surface water and 300 permits for ground water;

- (h) Issue 70 borehole drilling licenses; and
- (i) Review of pricing strategy.

1.2 Data and Information

Data and information is central in sustainable management of water resources. Access to reliable accurate data and information is key in flood forecasting and early warning services.

In the year under review, the information from the national database was accessed by various internal and external stakeholders for multiple purposes. Notable ones being:

- (a) The construction industry which used the data in the design of infrastructure such as bridges, culverts and dams;
- (b) The agricultural industry used the data provided to design dams for irrigation schemes and other associated infrastructure; and
- (c) The academia which used the data in applied research to support the industry.

Additionally, the information aided the Authority in decision making for water use permitting, water resource trends analysis, forecasting and overall in the planning and management of water resources.

1.3 Forecasting

During the period under review, the Authority carried out drought and flood forecasting for disaster risk management using the Global Flood Awareness System (GLOFAS). The Authority disseminated two (2) forecast reports for flooding across the country to the Disaster Management and Mitigation Unit (DMMU) which is among other key stakeholders, for dissemination to the public for early warning and preparedness to avert damage of property and loss of human lives.

Specifically, the Authority undertook flood forecasting with a twenty-one (21) days lead time for the following areas among others;

- (a) Mumbwa District: Kafue River at Hooke Bridge (4-669)
- (b) Itezhi-tezhi District: Kafue River at Itezhi-tezhi (4-710)
- (c) Monze District: Kafue River at Nyimba (4-890)

- (d) Kafue District: Kafue River at Kasaka (4-977)
- (e) Solwezi District: Lunga River at Station (4-460) in Kanikombe hills; and
- (f) Kasempa District: Lunga River at (4-550) in Kalongwe School.

To avert loss of life and property in flood risk areas, the flood forecast information was timely disseminated to stakeholders for early warning mitigation measures leading to the minimized impact of the flood.

1.4 Hydraulic Infrastructure

Sub-standard hydraulic infrastructure designs compromise the safety and integrity of structures which may result in structural failure. In the period under review, the Authority undertook dam safety inspections on fifteen (15) selected key dams. These inspections were undertaken to ensure safety and integrity of the structures. Further the exercise was used to reconcile the technical designs of respective hydraulic infrastructure submitted by the developer to WARMA and what was actually pertaining on the ground in conformity with set construction standards.

During the year under review, the country experienced a number of dam failures such as the Masasabi irrigation dam and Kandesha dam in Southern and Central provinces respectively. These events underscored the paramount importance of undertaking hydraulic structure assessments and monitoring to ensure high levels of safety and integrity. Figure 1 shows a picture of Kandesha dam breach. During the visit to the dam site, it was revealed that the flood was caused by above normal rainfall that led to very high-water flows and ultimately the breaching of the dam. The Authority also mapped the buffer zone and made recommendations for evacuation in order to mitigate the impacts of the flood due to dam breach and helped to avert subsequent impact on the downstream Chibila dam. WARMA also took this as an opportunity to sensitize the stakeholders such as the traditional authorities and the locals on the importance of carrying out agricultural and other activities away from the buffer zone.

Figure 1: A picture of the Dam that collapsed at Kandesha in Central Province



1.5 Hydrometric Stations

Hydrometric stations have continued to play a key role in providing information that underpin many areas of effective water management. These stations are situated on rivers across the country which are used to collect water quantity and quality data that include stage, discharge, chemical and biological data. This information provides the hydrological status of Catchments critical in the water allocation.

The Authority maintains a total of One Hundred and Sixty-Seven (167) hydrometric stations and all of the stations were fully functional during the period under review. Figure 2 shows a picture of one of the Hydrometric Stations in Kafue-Catchment.

Figure 2: Picture of a Hydrometric station in Kafue



Further, there are seventy-two (72) groundwater monitoring stations in the six catchments. During the period under review, all the seventy-two (72) stations were functional and the data collected was accessed by various stakeholders and these included;

- (a) Academic and Research institutions such as The University of Zambia (UNZA), Mulungushi University, Lusaka University and Zambia Open University among others who requested for information for use in applied research in resolving challenges faced by the industry;
- (b) Hydropower companies such as Lusemfw Hydro Power and ZESCO;
- (c) Agro industries such as COMACO, Zambia Sugar among others;
- (d) Road Development Agency (RDA) for construction of Roads and Bridges;
- (e) Water Utility companies; and
- (f) Prospecting Hydro power, Mining and Agro industries.

1.6 Assessments and Trends Analysis

In order to sustainably manage the country's water resources, the Authority undertakes water resource assessments. These assessments involve spatial and temporal measurement and analysis of water quantity and quality.

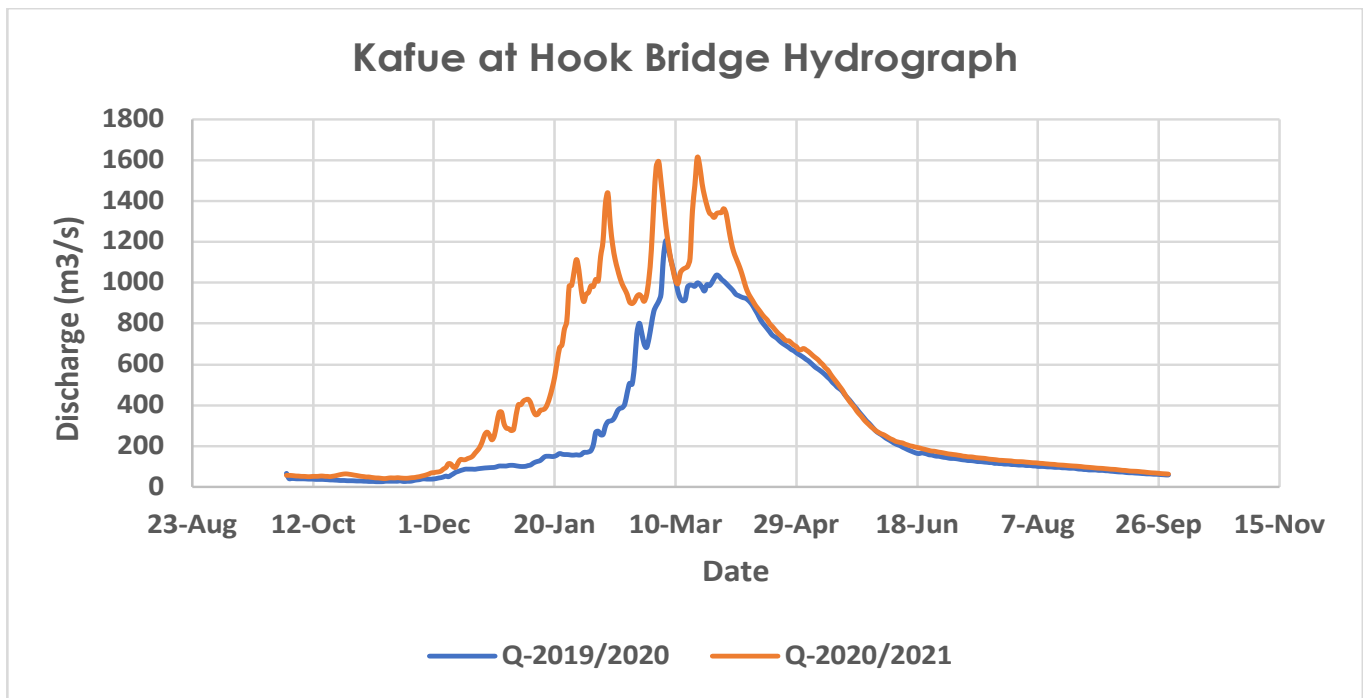
1.6.1 Water Resources Quality

During the year under review, the Authority analysed the water quality status of a total of Thirty-Three (33) production boreholes in the City of Lusaka and surrounding areas to determine their fitness for use. The findings of the assessment revealed that groundwater quality was under threat of pollution due indiscriminate disposal of sewer and shallow water table. Fecal coliforms were found to be predominant in the peripheries of the city which were not serviced with the Lusaka Water and Sanitation Company (LWSC) Network. The findings from this exercise were communicated to LWSC and other relevant stakeholders for remedial measures.

1.6.2 Water Resources Quantity

In terms of water quantity trends analysis, it was observed that there were increased water levels in many rivers across the country as compared to 2020. This was attributed to the corresponding high rainfall values. Figure 3 illustrates the increase in water level at one of the hydrometric stations.

Figure 3: illustrates the increase in water level at one of the hydrometric stations.



1.7 Catchment Protection

Water Catchment Protection aims at preventing water pollution, conserving and preserving water resources in the catchment areas. Conservation, preservation and protection of wetlands, dambos, marshlands and headwaters are cardinal for ensuring sustainability of water sources. This requires a multi-sectoral approach and engagement of various stakeholders such as regulatory agencies, traditional leaders, and local authorities if the protection of the water sources is to be achieved.

In the period under review, the Authority finalized the identification of all water resource areas earmarked for detailed assessments. Upon completion of the identification process, detailed assessments were carried out for one site in Lusaka known as Shaft 5 wellfield, which hosts production boreholes for LWSC. This area is earmarked to be declared a water resource protected area.

1.7.1 Encroachment of Water Bodies

Despite Zambia being reported as having over 50% of water resources in the Southern Africa Development Community (SADC) region. In the recent years, analysis of trends shows that the availability of water resources is dwindling. This is due to climate change and anthropogenic activities. The anthropogenic activities that have a negative effect on availability of water resources in Zambia are:

(a) Pollution of water resources;

- (b) Allocation of residential and commercial plots on sensitive water bodies such wetlands, recharge areas and marshlands;
- (c) Indiscriminate cutting of trees especially near headwaters of river systems;
- (d) Burying of streams for land reclamation;
- (e) Wasteful irrigation methods e.g flood irrigation;
- (f) River-bank cultivation;
- (g) Sandmining activities;
- (h) Block making activities on riverbanks; and
- (i) Alteration of river systems through diversions.

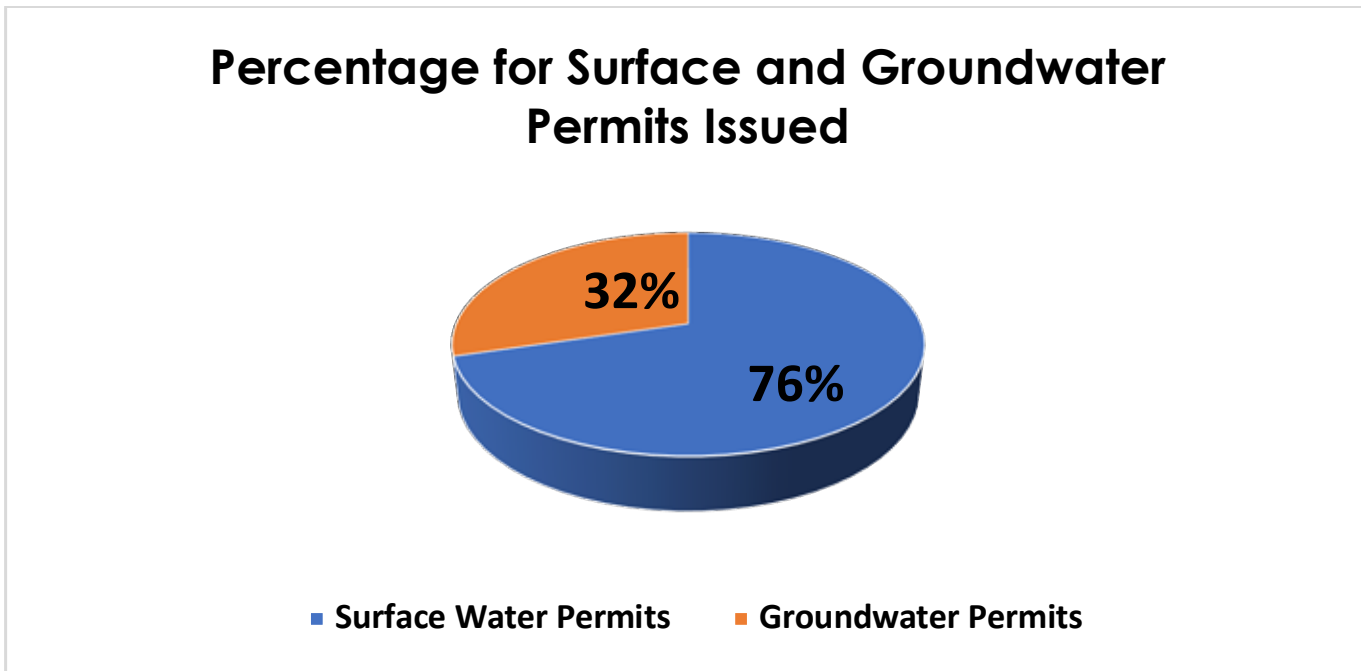
To mitigate the effects and occurrences of encroachments on water bodies, the Authority in the period under review signed Twelve (12) Memorandums of Understanding (MoUs) with Local Authorities to ensure urban and regional planning included the aspect of protection for water Bodies from degradation.

1.8 Permits and Licenses

To ensure sustainable, equitable and rational utilization of water resources, the Authority issues water permits to commercial water users for various purposes as prescribed by the WRM Act. Further, the issuance of water permits takes into account environmental needs for sustenance of ecosystems to ensure equitable access to water resources by various water users that include agricultural, hydropower, aquaculture, recreation, municipal and industrial sector.

During the period under review, the Authority issued a total of Four Hundred and twenty-three (423) water permits. Out of the 423 permits issued, two hundred and Eighty-three (283) permits were for surface water and One Hundred and Forty (140) permits for groundwater. The cumulative total of issued water permits in the Authority's database as at 31st December 2021 stands at One Thousand Two hundred and forty-seven (1,247). The 1,247 water permits consist of Nine Hundred and Forty-six (946) and Three Hundred and One (301) for surface and groundwater, respectively. Further, the Authority issued a total of One Hundred and Twenty-eight (128) licenses to Drilling companies. Figure 4 shows the Percentage for Surface and Groundwater Permits Issued.

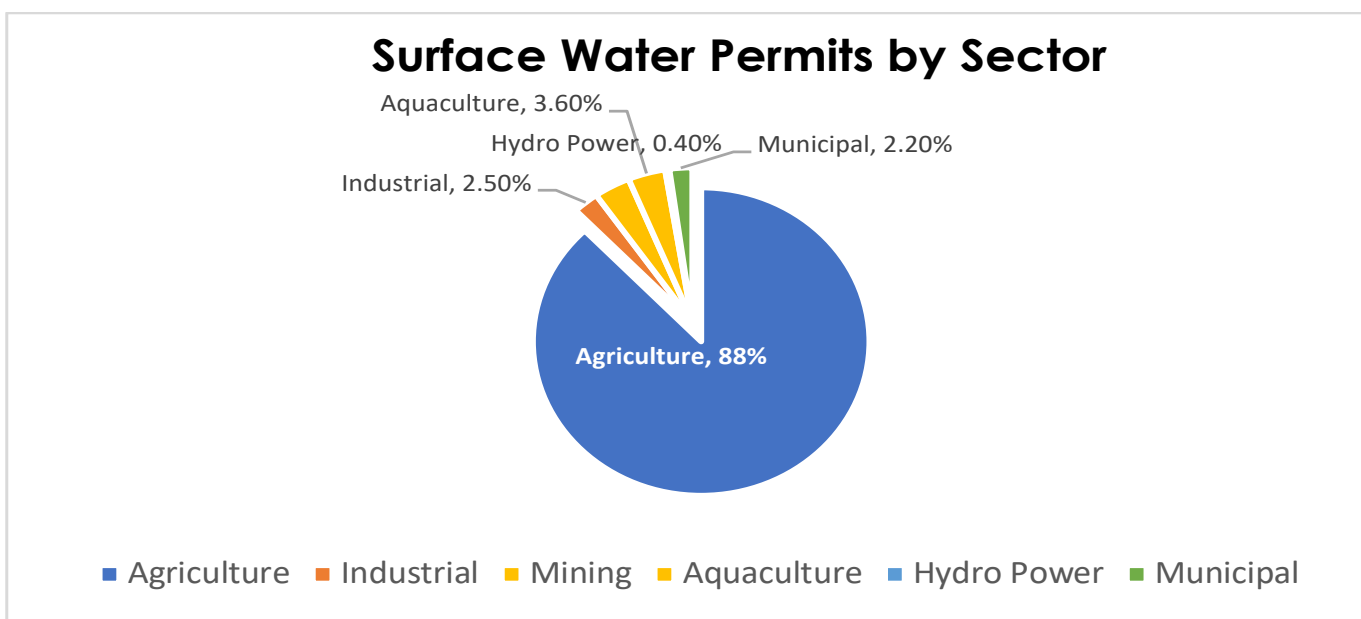
Figure 4: Shows the Percentage for Surface and Groundwater Permits Issued.



1.8.1 Surface Water Permits by Sector

During the year under review, the agricultural sector accounted for 88% of the total percentage of permits issued. The aquaculture and industrial sectors accounted for 3.6% and 2.5% respectively. Figure 5 illustrates the percentage surface water permits issued by sector.

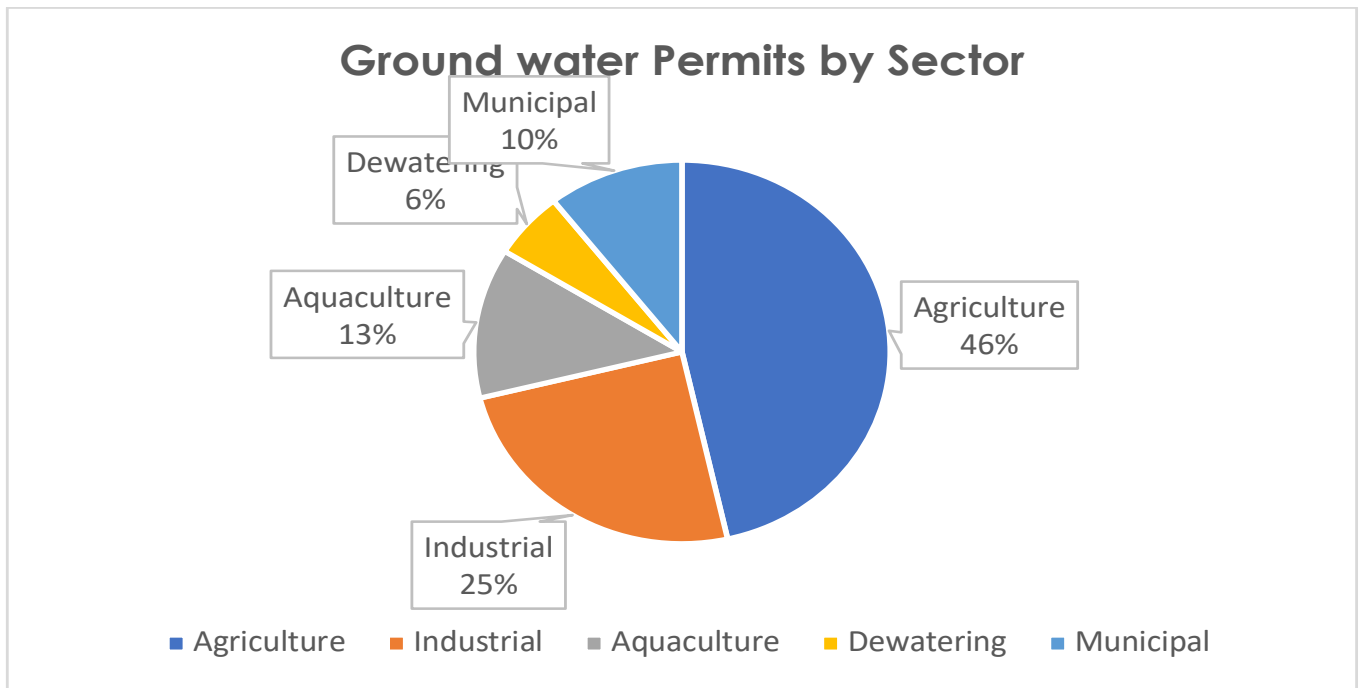
Figure 5: illustrates surface water permits issued by sector



1.8.2 Ground Water Permits by Sector

The country recorded a higher utilization of groundwater resources by the agricultural sector which constituted 46% of the total permits issued. This was followed by industrial water uses which accounted for 25% of groundwater abstraction permits issued. The aquaculture, municipal and dewatering activities accounted for 13%, 10% and 6%, respectively. Figure 6 illustrates groundwater permits issued by sector.

Figure 6: illustrates groundwater permits issued by sector



1.8.3 Water Permits by Sector by Volume

During the period under review the Authority recorded the agricultural sector as being the highest sector in which water permits were issued by volume. Table 1 highlights the volumes of permits issued in 2021 by sector.

Table 1: illustrates volumes of Permits Issued in 2021 by Sector

No.	Sector	Volume (m3/day)
1	Agricultural	2,696,125.35
2	Industrial	20,608.2
3	Aquaculture	4,194.5
4	Hydro Power	80,000
5	Municipal	33,304
6	Dewatering	71,557

From the Table above, it can be observed that the Aquaculture sector was the lowest sector in which water permits were issued by volume.

1.9 Water Resources Use Efficiency

Analysis of the water availability trends in the country has seen a decline in the available water resources due to climate change, Industrial expansion, indiscriminate cutting of trees coupled with increase in agricultural activities and population increase.

In the period under review, the Authority experienced a sharp rise in the utilisation of both ground and surface water across the country without the corresponding replenishment of these resources. Therefore, the Authority embarked on sensitizing the public and water users on sustainable water use practices not limited to:

- (a) Rain water harvesting;
- (b) Efficient irrigation methods e.g promotion of drip as opposed to flood irrigation which is wasteful;
- (c) Increase of greenspaces in residential housing for groundwater recharge; and
- (d) Metering of all water abstraction points.



Chambeshi River in Mbala, Northern Province

2.0 RISK MANAGEMENT

During the period under review, the Authority successfully developed documents which are meant to embed risk management practices in the Authority and these are:

- (a) Risk Framework;
- (b) Risk Policy;
- (c) Risk Management Plan; and
- (d) Risk register.

These policy documents are in line with Government's requirement for all public institutions to implement risk management in their systems of operations and Authority's desire to achieve the following:

- (a) Increased compliance with the Public Finance Management Act No. 1 of 2018 on Risk Management;
- (b) Enhanced confidence in achieving the Authority's strategic objectives;
- (c) Increased awareness on risks affecting the Authority and its ability to respond effectively to both existing and emerging risks;
- (d) Improved compliance with legal, regulatory, and reporting requirements; and
- (e) Increased efficiency and effectiveness in the Authority's operations.



Lunga River in Kasempa, North Western Province

3.0 LEGAL AFFAIRS AND CORPORATE SERVICES

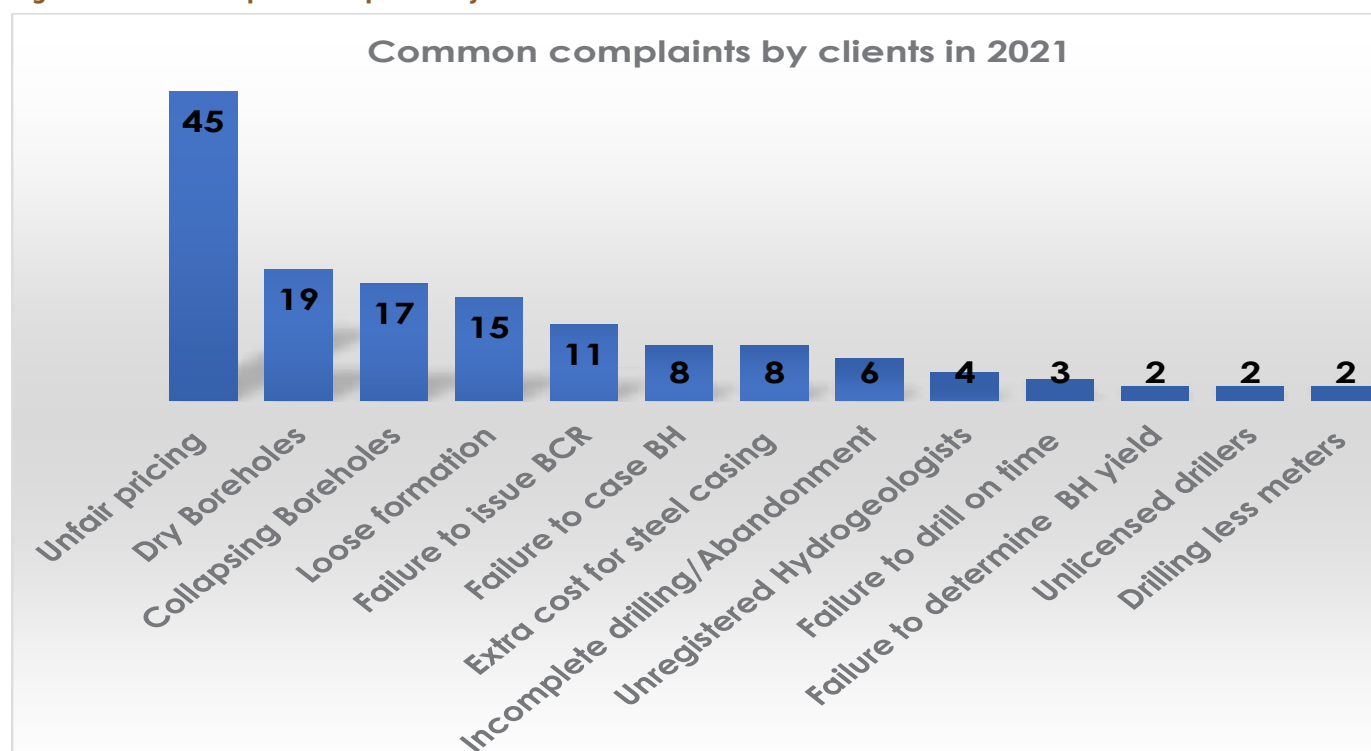
3.1 Regulatory compliance

Monitoring adherence to water permit and licenses conditions is critical for ensuring compliance with the provisions of the WRM Act No. 21 of 2011. Compliance monitoring of surface and groundwater utilization, drilling activities, hydraulic infrastructure as well as water quality are undertaken to ensure sustainable management and utilization of water resources.

During the period under review, the compliance levels were at 75% with a total of 25 penalties issued for various offences. In order to enhance compliance levels, the Authority employed additional Inspectors for increased compliance monitoring.

The Authority received a total of 76 complaints from members of the public and all complaints were resolved as at the end of the year 2021. The most common form of complaints were related to unfair pricing, collapsing of boreholes, drilling of dry boreholes loose formations, failure to issue Borehole Completion Reports (BCR), failure to case boreholes and charging of extra costs for steel casing. A summary of the frequency of occurrence of these offences during 2021 are provided in Figure 7.

Figure 7: Shows frequent complaints by clients in 2021



3.2 Corporate Governance

WARMA's governance structures are premised on transparency, responsibility, accountability, integrity, fairness and equity.

In order to uphold institutional corporate governance, four (4) Board meetings and fifteen (15) Committee meetings were held in the period under review. However, on 5th October 2021, the Minister of Water Development and Sanitation (MWDS), Honourable Mike E. Mposha dissolved the WARMA Board of Directors. Following the dissolution of the Board, WARMA Management relied on policy oversight by the Permanent Secretary of MWDS for administrative matters.

The absence of the Board inevitably caused challenges in respect to corporate governance, as Management had not been able to undertake certain activities that required Board approval. Consequently, the Authority was unable to exercise functions related to or connected with:

- Policy matters;
- The grant, varying, cancellation and renewal of permits and licenses;
- The establishment or issue of guidelines and standards; and
- The making of recommendations to the Minister for enactment of regulations under the WRM Act.

3.3 Civil Litigation and Prosecutions

In the period under review, the Authority was successful in all Civil litigation matters that it was involved in. As at the end of the year 2021, the Authority had five (5) pending civil litigations and conducted six (6) prosecutions.

In order to mitigate the escalation of prosecutions, the Authority continued with stakeholder engagements and sensitization programs through media platforms such as TV, Radio and social media.

3.4 Regulations and Standards

To fully operationalize the WRM Act, specific Statutory Instruments are required to be developed and recommended to the Ministry of Water Development and Sanitation (MWDS).

During the period under review the Authority developed four (4) Statutory Instruments (SIs) that were submitted to the MWDS for onward submission to the Ministry of Justice (MoJ) as follows:

- (a) Water Resource Management, Sub-Catchment and Water Users Associations;
- (b) Water Resources Management (Permitting and National Monitoring Information);
- (c) Water Resources Management (Catchment Designation) Regulations; and
- (d) Water Resources Management (Water Use Dispute Resolution) Regulations.

As at 31st December 2021, the Ministry of Justice had not yet approved the SIs as they were still under review. Once enacted, these Statutory Instruments will provide a legal framework for the devolution of water resources management functions to Catchment Councils, Sub-catchment councils and Water Users Association.

Additionally, following the policy pronounced on the removal of permit fees for domestic boreholes, the Authority proceeded to recommend for the amendment of the Water Resources Management (Fees and charges) regulations SI No. 18 of 2018.

3.5 Stakeholder Engagement

In the year under review, the Authority continued with the engagement of stakeholders including government ministries, regulatory bodies, traditional authorities, and other players in the water sector. It is in this regard that WARMA engaged stakeholders with a view to share planned measures and strategies for 2021 and forge partnerships and synergies, which would result in efficient and equitable

management of water resources. The Authority targeted to engage at least eight (8) Stakeholders, and as at 31st December 2021 meetings were held with the underlisted stakeholders:

- (a) Disaster Management and Mitigation Unit (DMMU);
- (b) Citizen Economic Empowerment Commission (CEEC);
- (c) Road Development Agency (RDA);
- (d) United Nations International Children's Emergency Fund (UNICEF);
- (e) African Development Bank (AfDB);
- (f) World Bank (WB);
- (g) European Union (EU);
- (h) Japan International Corporating Agency (JICA);
- (i) Embassy of Finland;
- (j) Ministry of Agriculture (GCF-SCRALA Project);
- (k) Deutsche Gesellschaft Fur Internationale Zusammenarbeit (GIZ);
- (l) Foreign and Commonwealth Development Office (formerly DFID);
- (m) Livingstone Tourism Association (LTA);
- (n) Traditional and Local Authorities in: Chongwe sub-catchment, Lunsemfwa sub-catchment; and
- (o) SMART Zambia institute (SZI).

As a result of the collaborations, Memoranda of Understanding (MoU's) with twelve (12) Local Authorities, CEEC and RDA were signed. WARMA was identified by Smart Zambia Institute (SZI) as one of the sixteen (16) non-tax revenue institutions to benefit from the Government Service Bus (GSB) and the Unified Payment Gateway (UPG) initiative. Consequently, a team of Business Analysts from SZI visited WARMA to gather information on business and technical requirements for integration onto the GSB and UPG. This gateway portal (ZamPortal) integrates all the online payment systems from various government institutions to enable clients access their service of choice in a one-stop shop. The proposed payment platforms for WARMA to be integrated onto the ZamPortal are:

- (a) Notice to Drill;
- (b) Drilling Licences; and
- (c) Borehole Registration.

Additionally, the Authority organized a high-level engagement meeting with Borehole drilling companies on 14th December 2021. The main purpose of the meeting was to inform the drillers of the revised licensing conditions for fees and charges for domestic and commercial boreholes.

4.0 HUMAN RESOURCES AND ADMINISTRATION

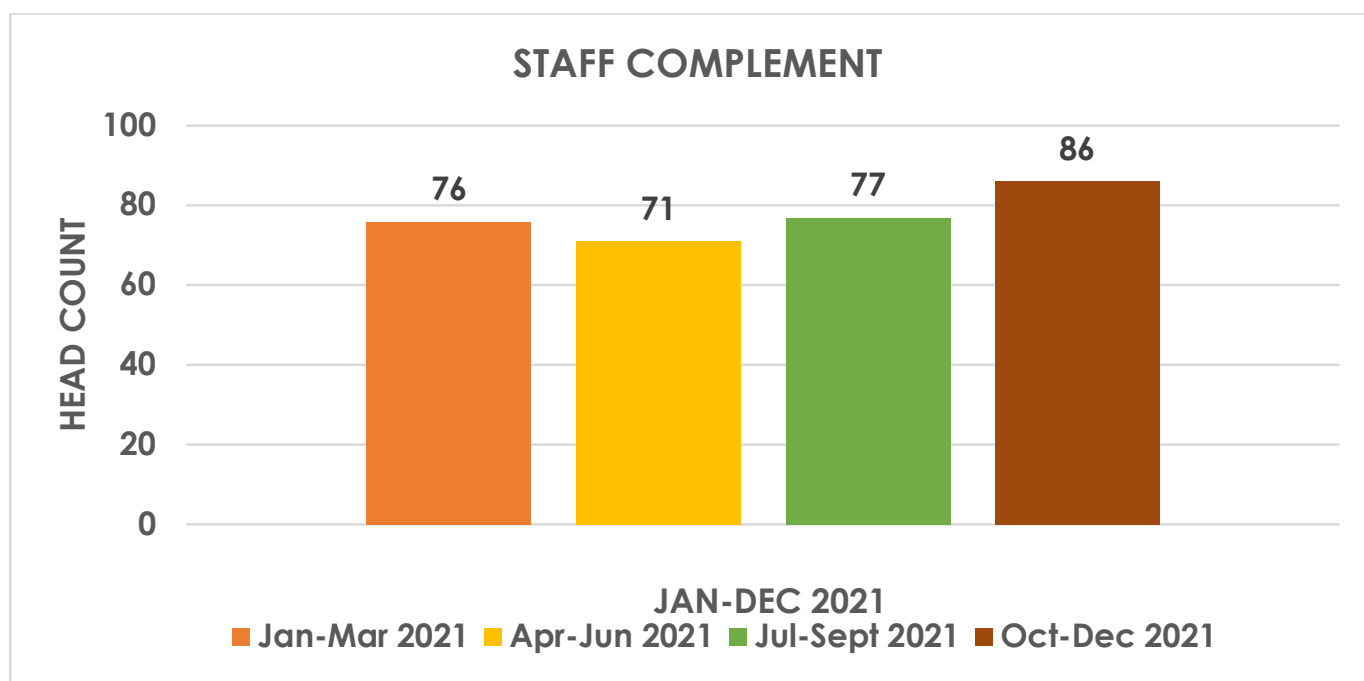
4.1 Staff Head Count

During the period under review, the Board approved the Authority's request to employ additional Technical and Administrative staff which among others included Hydrologist, Hydrogeologist, Records Management Officer and Inspectors-Regulations and Compliance. This led to the increase in the Authority's establishment from One Hundred and Sixty-Three (163) positions to One Hundred and Seventy (170) positions.

4.2 Staff Complement

The staff complement in the period under review increased from Seventy- Six (76) to Eighty-Six (86), representing an increase of 50.6 % of the total establishment. This improvement of staff complement was due to the deliberate efforts to recruit additional staff for improved service delivery. Additionally, there were three (3) temporal employees, seven (7) graduate and three (3) student interns, two (2) Relief employees, and One Hundred and Sixty (160) Gauge Readers (Part-time employees). Figure 8 shows a graph depicting the trend in the staff compliment from 1st January to 31st December 2021.

Figure 8: Graph depicting the trend in the staff complement from 1st January to 31st December 2021



4.3 Recruitment

In the year under review, the Authority recruited a total of fourteen positions. This comprised of six (6) Inspectors under the Regulations and Compliance Unit and eight (8) positions in various departments. This was in a quest to further enhance the Authority's service delivery. The Authority also held an induction meeting for the new members of staff from 5th to 8th October 2021.

Figure 9 shows a picture of the Senior Management Team with the new members of staff at the Staff induction meeting.

Figure 9: Senior Management Team with the new members of staff at the Staff induction meeting.



4.4 Staff Capacity Building

As at 31st December 2021, the staff in the Authority undertook various staff capacity building programmes. Table 2 depicts the training, conferences and workshops that the Authority's members of staff participated in.

Table 2: Highlights of the trainings, conferences and workshops that the Authority's members of staff participated in.

S/N	Conferences and Workshops	No. of Staff trained
1	2021 ZICA Pre - AGM Workshop and Annual Conferences	3
2	Governance, Risk and Compliance Seminar and training	6
3	Greening Zambia Recovery Scenario Building Workshop	1
4	ZIPS 13th Annual General Meeting and Seminar	2
5	ZIPS 9th National Conference and training	3
6	Training of Risk Champions and other staff in risk Management – WARMA	5
7	Training on the Development of Risk Documents and Reporting processes	10
Grand total		30

4.5 Staff Attrition

In the year under review, the Authority recorded eight (8) separations which constituted; one (1) death, five (5) resignations and two (2) dismissals. This represents an annual turnover rate of 9.3%.

4.6 Human Resources Policies

In a bid to enhance efficiency and effectiveness of the Authority's human capital, policies and procedures, the Authority developed two (2) policy documents which are; Retention Policy and the Records Management Policy. These were subsequently approved by the Board.

4.7 WARMA Strategic Plan.

During the period under review, the Authority's Strategic Plan for the period 2017-2021 was scheduled to expire at the end of the year 2021. In light of this the Authority engaged the services of a consulting firm to undertake an independent review of the 2017-2021 Strategic Plan and subsequently guide the process of developing the 2022-2026 Strategic Plan with a responsive Organisational Structure and job descriptions.

The development of the 2022-2026 Strategic Plan is intended to build on the achievements of the 2017-2021, to set a new direction and establish key priorities relating to the WARMA Act No. 21 of 2011, and the Eighth National Development Plan (8NDP) for the period 2022-2026. Figure 10 shows a picture of the Authority's Counterpart Strategic Development Team working in liaison with the Consultant at a meeting that was held from 23rd to 26th November 2021 to develop the draft 2022-2026 Strategic Plan.

Figure 10: Counterpart Strategic Development Team working in liaison with the Consult at a meeting that was held from 23rd to 26th November 2021 to develop the draft Strategic Plan 2022-2026.



5.0 FINANCIAL MANAGEMENT

5.1 Financial Performance

The financial performance of the Authority during the 2021 fiscal year was generally not as expected as the revenue collected from operating income and grant income decreased by Eleven (11%) percent and twenty-one (21%) percent respectively compared to 2020 fiscal year. This decrease was attributed to delayed renewal of expired water permits. The delay was caused by the water permit audit exercise which took long to finish. This decrease is partly attributed to COVID-19 pandemic which reduced the capacity to pay by water users. The overall decrease in collections for 2021 fiscal year in comparison to 2020 fiscal year is Fifteen (15%) percent.

On the other hand, the Authority increased its expenditure by six (6%) percent in 2021 compared to 2020 fiscal year. The main reason for the increase in expenditure was increased operational costs which resulted from increase in prices of goods and service due to inflation.

During the year under review, grants totaling to Sixteen Million One Hundred and Forty-One Thousand Six Hundred and Eighty Kwacha (ZMW16,141,680) representing a 100% grant received from Government. The Authority collected Thirty-Seven Million One Hundred Twenty-Seven Thousand One Hundred and Thirty-One Kwacha (ZMW37,127,131) from water fees and charges against the target of Forty-Seven Million One Hundred and Forty-Three Thousand Six Hundred and Eighty-Five Kwacha (ZMW47,143,685) which represents Twenty-One (21%) collection below target.

The cost to income ratio increased to 79% in 2021 financial year compared to 75% in 2020 financial year. The improvement in the ratio emanates from financial prudence exercised by management.

Table 3 shows a summary of the 2021 financial performance in comparison to 2020 fiscal years.

Table 3: Summary of the 2021 financial performance in comparison to 2020 fiscal year

DESCRIPTION	2021	2020	INCREMENTS	
INCOME	AMOUNT (ZMW)	AMOUNT (ZMW)	AMOUNT (ZMW)	PERCENTAGE (%)
Revenue				
Operational Income	37,127,131	41,881,450	(4,754,319)	(11)
Grant Income	16,141,680	20,538,870	(4,397,190)	(21)
TOTAL REVENUE	53,268,811	62,420,320	(9,151,509)	(15)
Expenditure				
Employees Benefits	31,514,556	28,024,653	3,489,903	12
Operating and Administrative Costs 21,695,506		17,478,002	4,217,504	24
Depreciation	6,523,054	10,681,949	(4,158,895)	(39)
TOTAL EXPENDITURE	59,733,116	56,184,604	3,548,512	6
SURPLUS/(DEFICIT) INCOME OVER EXPENDITURE	(6,464,305)	6,235,716	(12,700,021)	(204)

6.0 CHALLENGES ENCOUNTERED DURING THE YEAR 2021

In the quest to ensure timely implementation of activities that were planned for in the 2021 Work Plan and Budget, the Authority encountered the following challenges:

- (a) Lack of integrated land use by local authorities and reported encroachments;
- (b) Insufficient human capital;
- (c) Impacts of Climate change resulting in water scarcity;
- (d) Inadequate coordination among the various players in water resources management; and
- (e) Non cost reflective tariffs for utilisation of raw water resources.

7.0 OUTLOOK FOR THE YEAR 2022

As outlined in the 2022 Work Plan and Budget, the Authority is expected to focus on the following:

- (a) Quantification of water resources in selected Catchments (Water Balance);
- (b) Automation of monitoring stations;
- (c) Strengthening of flood and drought forecasts;
- (d) Development of guidelines for dams;
- (e) Publication of water resources bulletins and hydrological year book;
- (f) Curbing encroachment and pollution of water bodies;
- (g) Institutionalization of risk management;
- (h) Undertaking of a study for cost reflective tariffs;
- (i) Enhancement of strategic stakeholder engagements;
- (j) Finalization and implementation of the 2022-2026 Strategic Plan;
- (k) Enhancement of the Authority's human resource capacity;
- (l) Establishment of WARMA Offices in Mansa, Chipata, Chinsali, Mongu and Solwezi;
- (m) Enhancement of the Authority's M&E system and frameworks.

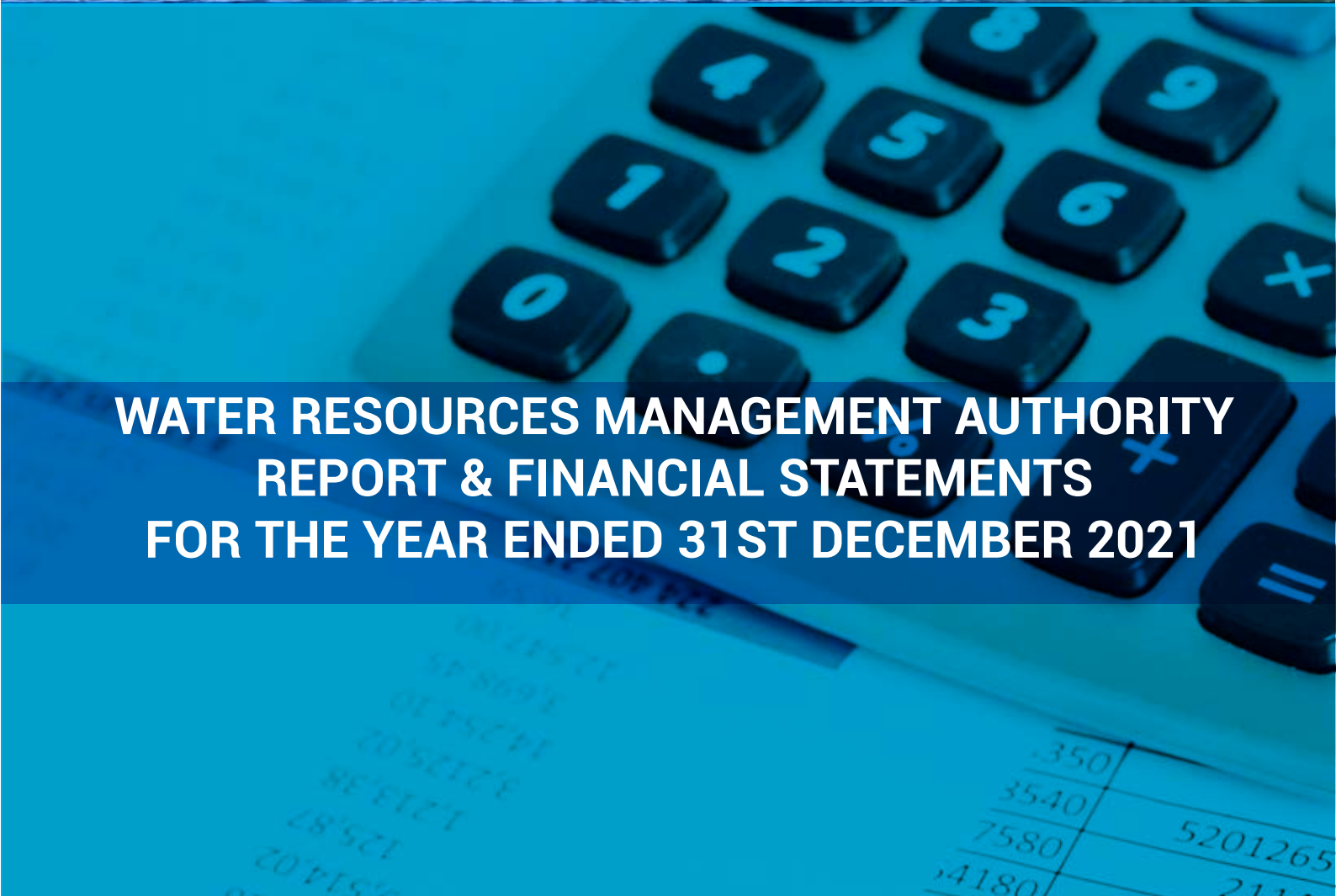
8.0 AUDITED FINANCIAL STATEMENTS

This section presents audited financial statements for the financial year ending 31st December 2021.

The Authority undertook audit of the 2021 financial year end through the Office of the Auditor General. The signed audited 2021 financial statements are provided in the subsequent chapter of this report.



**Water Resources
Management
Authority**



**WATER RESOURCES MANAGEMENT AUTHORITY
REPORT & FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31ST DECEMBER 2021**



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Corporate Information

Name of Director

Dr. Wilson N. Mwenya	University of Zambia	Chairperson
Dr. Elestina M. Mwelwa	Zesco – Industry Expert	Vice Chairperson
Mr. Adam Hussein	Industry Expert	Director
Mr. John. Msimuko	Zambia Environmental Management Agency	Director
Ms. Karen Mukuka	Ministry of Agriculture	Director
Mr. Nkumbu Siame	Ministry of Local Government	Director
Mrs. Faith Tembo	Non-Government Organization	Director
Mrs Nalukena Vantra.	Legal Practitioner	Director
Mrs. Ennie Muchelemba	University of Zambia	Director
Ms. Chibesa Maimbo	Ministry of Justice	Director
Mr Joseph J Daka	Zambia National Farmers Union	Director

Company Secretary

Ms. Misozi Ngulube	Water Resources Management Authority (WARMA) Company Secretary
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Principal place of business and registered office

WARMA House
Plot No. LN 385-7 & LN 385-8,
Alick Nkhata Road,

Bankers

Zambia National Commercial Bank PLC
P.O. Box 30226
Lusaka

Access Bank Zambia Limited
P.O. Box 35273
Lusaka

Bayport Financial Services
P. O Box 33819
Lusaka

Auditor

Mark Daniels Chartered Accountants
3rd Floor, CHAZ Complex
Mission Drive, Waterfalls
Lusaka

Management

Eng. Kenneth Nyundu	Director General
Ms. Misozi Ngulube	Director Legal Services
Mr. Stanley M. Phiri	Director Finance
Mr. Brighton M. Chishimba	Director Human Resources and Administration
Mr. Chewe Chishala	Director Water Resources Management and Information

The Board have the pleasure of presenting their report and audited financial statements for the year ended 31st December 2021.

1. Principal activities

The principal activity of the Water Resources Management Authority (WARMA) is to preserve and protect Zambia's ground and surrounding surface water resources and regulate the abstraction, allocation, use, development, and management of water resources in a sustainable manner in accordance with the Water Resources Management Act, NO. 21 of 2011 of the Laws of Zambia.

2. The Registered office and principal place of business

The address of the Authority's registered office and principal place of business is:

WARMA House
Plot No. LN 385-7 & LN 385-8,
Alick Nkhata Road,
P.O Box 51059,
LUSAKA.

3. Financial results

The Authority's financial year is from 1st January to 31st December.

During the financial year ended 31st December 2021, the Authority recorded a surplus of ZMW 1,526,797 as compared to a surplus of ZMW 6,235,716 during the year ended 31st December 2020.

The following is a summary of the financial results: -

	2021	2020
	ZMW	ZMW
Income	58,386,354	62,420,320
Expenditure	<u>(56,859,557)</u>	<u>(56,184,604)</u>
Surplus for the year	<u>1,526,797</u>	<u>6,235,716</u>

4. Directors

The following directors held office during the year under review:

Name	Position	Date of Appointment
Dr. Wilson N. Mwenya	Chairperson	17 th April 2020
Dr. Elestina M. Mwelwa	Vice Chairperson	17 th April 2020
HRH Chief Mwansa Kombe	Member	17 th April 2020
Mr. Adam Hussein	Member	17 th April 2020
Mr. John. Msimuko	Member	17 th April 2020
Ms. Karen Mukuka	Member	17 th April 2020
Mr. Nkumbu Siame	Member	17 th April 2020
Mrs. Faith Tembo	Member	03 rd July 2020
Mrs Nalukena Vantra.	Member	17 th April 2020
Mrs. Ennie Muchelemba	Member	17 th April 2020
Ms. Chibesa Maimbo	Member	17 th April 2020

Mr. Joseph J. Daka

Member

23rd February 2021

However, after the dissolution of the Board the Permanent Secretary Ministry of Water Resources Development & Sanitation presided over affairs and governance of the Authority as at 31st December 2021.

5. Directors' fees and Remuneration

The Authority paid fees to the members of the board of directors in the period under review amounting to ZMW 634,540 (2020: ZMW 345,560)

6. Loans to Directors

There were no loans made to non-executive directors during the year or any outstanding loans from them at the year end.

7. Health, Safety and Environmental Issues

The Authority is committed to ensuring the health, safety and welfare at work of its employees and for protecting other persons against risks to health and safety arising out of, and in connection with, the activities at work of those employees.

8. Corporate Governance

The Directors continue to be committed to high standards of corporate governance, which is fundamental to discharging their leadership responsibilities. The Directors apply integrity, principles of good governance and accountability.

9. Number of employees

The average number of persons employed by the Authority and their remuneration during the financial year was as follows: -

Month	<u>Salaries and allowances</u>		<u>Number of employees</u>	
	2021 ZMW	2020 ZMW	2021	2020
January	1,885,599	1,719,058	90	83
February	1,948,803	1,768,643	90	84
March	2,014,015	1,778,151	90	83
April	1,958,964	1,748,621	84	83
May	1,964,964	1,858,654	88	83
June	1,771,693	1,946,303	86	85
July	1,886,860	1,892,670	87	97
August	1,830,001	1,924,853	85	88
September	2,008,301	2,066,420	87	86
October	2,205,507	1,904,864	94	90
November	2,149,695	1,994,070	94	91
December	2,077,498	2,201,807	93	91

10. Gifts and donations

During the year, the Authority did not make any donations (2020: Nil) to charitable organisations.

11. Property, plant and equipment

The principal changes to property, plant and equipment related to the following additions:

	2021	2020
	ZMW	ZMW
i) Land and buildings	950,000	-
ii) Motor vehicles (note7)	-	1,288,186
iii) Computer and office equipment	361,544	593,283
iv) Furniture and fittings	147,520	324,304
vi) Ground water monitoring equipment	-	43,211
viii) Software and IWRIMS	<u>45,240</u>	<u>162,354</u>
Total property plant and equipment	<u>1,504,304</u>	<u>2,411,338</u>

12. Other material facts, circumstances and events

The directors are not aware of any material fact, circumstance or event which occurred between the accounting date and the date of this report which might influence an assessment of the Authority's financial position or the results of its operations.

13. Annual financial statements

The annual financial statements set out on pages 8 to 34 have been approved by the directors.

14. Auditors

The auditor, Mark Daniels, have indicated their willingness to continue in office.

By order of the Board



Board Chairperson



Authority Secretary

15th December 2022

The Board is required to prepare Financial Statements for each financial year which present fairly the state of affairs of the Water Resources Management Authority (WARMA) and its financial activities for the period.

In preparing the Financial Statements, the Board:

- Selects suitable accounting policies and then apply them consistently.
- Make judgments and estimates that are reasonable and prudent; and
- Complies with International Financial Reporting Standards and the Water Resources Management Act, No. 21 of 2011 of the Laws of Zambia and other relevant legislation.

The Board is responsible for ensuring that proper accounting records which disclose with reasonable accuracy at any time the financial position of WARMA are kept. The Board is also responsible for safeguarding the assets of the Authority and taking reasonable steps for the prevention and detection of fraud and other irregularities.

It is also the responsibility of the Board to ensure sound systems of internal controls. These are designed to provide reasonable but not absolute assurance as to the reliability of the Financial Statements, and to adequately safeguard and maintain accountability for assets, and to prevent and detect material misstatements. The systems are implemented and monitored by suitably trained personnel with an appropriate segregation of authority and duties.

Nothing has come to the attention of the Authority to indicate that any material breakdown in the functioning of these controls, procedures and systems has occurred during the period under review.

In the opinion of the Board, the Financial Statements present fairly, the financial activities of WARMA for the year ended 31st December 2021 and its financial position as at that date and have been prepared in accordance with International Financial Reporting Standards and in the manner required by the Water Resources Management Act, No. 21 of 2011 of the Laws of Zambia.

Signed on behalf of the Board by:



Board Chairperson



Authority Secretary

15th December

2022

Report of the Independent Auditors

To the Board of Directors of the Water Resources Management Authority (WARMA)

Report on the Audit of the Financial Statements

Opinion

We have audited the accompanying financial statements of Water Resources Management Authority (WARMA), which comprise the statement of financial position as at 31st December 2021, and the statement of comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, and a summary of significant accounting policies and other explanatory notes.

In our opinion the financial statements give a true and fair view of the financial position of the Water Resources Management Authority (WARMA), as at 31st December 2021 and of its financial performance and cash flows for the year ended and have been properly prepared in accordance with the International Financial Reporting Standards.

Basis for Opinion

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

Other information

Management is responsible for the other information. Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon. In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

Report of the Independent Auditors

To the Board of Directors of the Water Resources Management Authority (WARMA) (continued)

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error. In preparing the financial statements, management is responsible for assessing the Authority's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Authority or to cease operations, or have no realistic alternative but to do so. Those charged with Governance are responsible for overseeing the Authority's reporting process.

Auditor's Responsibility for the Audit of the Financial Statements

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

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

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.
- Obtain an understanding of internal controls relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal controls.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Authority's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Authority to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Authority to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the Authority audit. We remain solely responsible for our audit opinion.

Report of the Independent Auditors

To the Board of Directors of the Water Resources Management Authority (WARMA) (continued)

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

Report on other Legal and Regulatory Requirements

In our opinion, the financial statements of **Water Resources Management Authority** as of 31st December 2021 have been properly prepared in accordance with the Water Resources Management Act No. 21 of 2011 of the Laws of Zambia, and the accounting and other records and registers have been properly kept in accordance with the Act.

Mark Daniels

Chartered Accountants
Lusaka

15th December 2022

WKKKKasongo

Winston Kasongo AUD/F003127
Partner signing on behalf of the firm

Statement of comprehensive income

	Notes	2021 ZMW	2020 ZMW
Operating income	7	37,514,510	41,881,450
Grant income	8	20,871,844	20,538,870
Total income		58,386,354	62,420,320
Operating expenditure			
Employee benefit	9	30,122,938	28,730,216
Depreciation expense	10(a)	5,847,561	9,621,349
Amortisation	10(b)	675,493	1,060,600
Other operating and administration costs		20,213,565	16,772,439
Total expenses		56,859,557	56,184,604
Surplus for the year		1,526,797	6,235,716

There were no items of other comprehensive income.

Statement of financial position

	Notes	2021 ZMW	2020 ZMW
ASSETS			
Non-current assets			
Property, plant and equipment	10 (a)	34,771,612	39,137,390
Intangible assets	10 (b)	<u>1,702,570</u>	<u>2,355,542</u>
		<u>36,474,182</u>	<u>41,492,932</u>
Current assets			
Trade and other receivables	11	3,165,864	6,605,394
Cash and cash equivalents	12	<u>10,056,794</u>	<u>6,844,855</u>
		<u>13,222,658</u>	<u>13,450,249</u>
Total assets		<u>49,696,840</u>	<u>54,943,181</u>
EQUITY AND LIABILITIES			
Capital and reserves			
Capital Grant	13	12,497,468	17,172,332
Accumulated fund		<u>32,202,021</u>	<u>30,675,224</u>
		<u>44,699,489</u>	<u>47,847,556</u>
Non- Current Liabilities			
Employee related accruals	14	<u>998,673</u>	<u>1,332,696</u>
Current liabilities			
Employee related accruals	14	1,403,955	-
Trade and other payables	15	<u>2,594,723</u>	<u>5,762,929</u>
Total Liabilities		<u>3,998,678</u>	<u>5,762,929</u>
		<u>4,997,351</u>	<u>7,095,625</u>
Total Funds and liabilities		<u>49,696,840</u>	<u>54,943,181</u>

The financial statements on pages 8 to 34 were approved for issue by the Board members on 15th December 2022 and signed on its behalf by:



Board Chairperson



Authority Secretary

Statement of changes in funds

	Capital Grant ZMW	Accumulated fund ZMW	Total ZMW
Balance 1 st January, 2020	25,364,890	24,439,508	49,804,398
Surplus for the year	-	6,235,716	6,235,716
Amortization (Note 8)	(8,192,558)	-	(8,192,558)
At 31st December 2020	17,172,332	30,675,224	47,847,556
<hr/>			
Balance 1 st January, 2021	17,172,332	30,675,224	47,847,556
Surplus for the year	-	1,526,797	1,526,797
Amortization (Note 8)	(4,674,864)	-	(4,674,864)
At 31st December 2021	12,497,468	32,202,021	44,699,489
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Statement of cash flows

	Notes	2021 ZMW	2020 ZMW
Cash flow from operating activities			
Surplus for the year		1,526,797	6,235,716
Adjustments for			
Adjustment in assets		-	-
Depreciation	10(a)	5,847,561	9,621,349
Amortisation	10(b)	675,493	1,060,600
Amortisation of capital grant		<u>(4,674,864)</u>	<u>(8,192,558)</u>
Operating cash flows before movement in working capital		<u>3,374,987</u>	<u>8,725,107</u>
Movements in working capital			
Decrease in receivables		3,439,530	1,481,174
Decrease in payables		(3,168,206)	(4,801,453)
Increase in employee related accruals		<u>1,069,932</u>	<u>794,462</u>
Net cash generated from/(used on) operating activities		<u>1,341,256</u>	<u>(2,525,817)</u>
Investing activities			
Expenditure on property and equipment	10(a)	(1,459,064)	(2,149,353)
Intangible asset	10(b)	(45,240)	(261,985)
Disposal of fixed assets		-	44,125
		<u>(1,504,304)</u>	<u>(2,367,213)</u>
Increase in cash and cash equivalents		3,211,939	3,832,077
Opening cash and cash equivalents		6,844,855	3,012,778
Closing cash and cash equivalents	12	<u>10,056,794</u>	<u>6,844,855</u>

Notes

1. General information

The Water Resources Management Authority (WARMA) is a statutory body established under the Water Resources Management Act, NO. 21 of the Laws of Zambia with the responsibility to preserve and protect Zambia's ground and surrounding surface water resources and regulate the abstraction, allocation, use, development, and management of water resources in a sustainable manner.

2. Application of new and revised International Financial Reporting Standards (IFRSs)

(a) New standards and amendments-applicable 1 January 2021

The following standards and interpretations apply for the first time to financial reporting periods commencing on or after 1 January 2021.

Title	Key requirements	Effective date*
<p><i>Covid-19-related Rent Concessions – Amendments to IFRS 16</i></p>	<p>As a result of the COVID-19 pandemic, rent concessions have been granted to lessees. Such concessions might take a variety of forms, including payment holidays and deferral of lease payments. In May 2020, the IASB made an amendment to IFRS 16 Leases which provides lessees with an option to treat qualifying rent concessions in the same way as they would if they were not lease modifications. In many cases, this will result in accounting for the concessions as variable lease payments in the period in which they are granted.</p> <p>Entities applying the practical expedients must disclose this fact, whether the expedient has been applied to all qualifying rent concessions or, if not, information about the nature of the contracts to which it has been applied, as well as the amount recognised in profit or loss arising from the rent concessions.</p> <p>* The relief was originally limited to reduction in lease payments that were due on or before 30 June 2021. However, the IASB subsequently extended this date to 30 June 2022.</p> <p>If a lessee already applied the original practical expedient, it is required to continue to apply it consistently, to all lease contracts with similar characteristics and in similar circumstances, using the subsequent amendment. If a lessee did not apply the original practical expedient to eligible lease concessions, it is prohibited from applying the expedient in the 2021 amendment.</p> <p>However, if a lessee has not yet established an accounting policy on applying (or not) the practical expedient to eligible lease concessions, it can still decide to do so.</p>	<p>1 June 2020/ 1 April 2021 *</p>

Notes (continued)

2. Application of new and revised International Financial Reporting Standards (IFRSs) (continued)

(a) New standards and amendments-applicable 1 January 2021

The following standards and interpretations apply for the first time to financial reporting periods commencing on or after 1 January 2021.

Title	Key requirements	Effective date*
<i>Interest Rate Benchmark Reform Phase 2 – Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16</i>	In August 2020, the IASB made amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 to address the issues that arise during the reform of an interest rate benchmark rate, including the replacement of one benchmark with an alternative one. The Phase 2 amendments provide the following reliefs: <ul style="list-style-type: none"> • When changing the basis for determining contractual cash flows for financial assets and liabilities (including lease liabilities), the reliefs have the effect that the changes, that are necessary as a direct consequence of IBOR reform and which are considered economically equivalent, will not result in an immediate gain or loss in the income statement. • The hedge accounting reliefs will allow most IAS 39 or IFRS 9 hedge relationships that are directly affected by IBOR reform to continue. However, additional ineffectiveness might need to be recorded. 	1 January 2021

Notes (continued)

2. Application of new and revised International Financial Reporting Standards (IFRSs)

(b) Forthcoming requirements

As at 30 June 2021, the following standards and interpretations had been issued but were not mandatory for annual reporting periods ending on 31 December 2021.

Title	Key requirements	Effective date*
IFRS 17 Insurance Contracts	<p>IFRS 17 was issued in May 2017 as replacement for IFRS 4 Insurance Contracts. It requires a current measurement model where estimates are remeasured in each reporting period. Contracts are measured using the building blocks of:</p> <ul style="list-style-type: none"> • discounted probability-weighted cash flows • an explicit risk adjustment, and • a contractual service margin (CSM) representing the unearned profit of the contract which is recognised as revenue over the coverage period. <p>The standard allows a choice between recognising changes in discount rates either in the statement of profit or loss or directly in other comprehensive income. The choice is likely to reflect how insurers account for their financial assets under IFRS 9.</p> <p>An optional, simplified premium allocation approach is permitted for the liability for the remaining coverage for short duration contracts, which are often written by non-life insurers.</p> <p>There is a modification of the general measurement model called the 'variable fee approach' for certain contracts written by life insurers where policyholders share in the returns from underlying items. When applying the variable fee approach, the entity's share of the fair value changes of the underlying items is included in the CSM. The results of insurers using this model are therefore likely to be less volatile than under the general model.</p> <p>The new rules will affect the financial statements and key performance indicators of all entities that issue insurance contracts or investment contracts with discretionary participation features.</p> <p>Targeted amendments made in July 2020 aimed to ease the implementation of the standard by reducing implementation costs and making it easier for entities to explain the results from applying IFRS 17 to investors and others. The amendments also deferred the application date of IFRS 17 to 1 January 2023.</p>	1 January 2023 (deferred from 1 January 2021)
Property, Plant and Equipment: Proceeds before intended use – Amendments to IAS 16	<p>The amendment to IAS 16 Property, Plant and Equipment (PP&E) prohibits an entity from deducting from the cost of an item of PP&E any proceeds received from selling items produced while the entity is preparing the asset for its intended use. It also clarifies that an entity is 'testing whether the asset is functioning properly' when it assesses the technical and physical performance of the asset. The financial performance of the asset is not relevant to this assessment.</p> <p>Entities must disclose separately the amounts of proceeds and costs relating to items produced that are not an output of the entity's ordinary activities.</p>	1 January 2022

Notes (continued)

2. Application of new and revised International Financial Reporting Standards (IFRSs)

(b) Forthcoming requirements (continued)

As at 30 June 2021, the following standards and interpretations had been issued but were not mandatory for annual reporting periods ending on 31 December 2021.

Title	Key requirements	Effective date*
Reference to the Conceptual Framework – Amendments to IFRS 3	Minor amendments were made to IFRS 3 Business Combinations to update the references to the Conceptual Framework for Financial Reporting and add an exception for the recognition of liabilities and contingent liabilities within the scope of IAS 37 Provisions, Contingent Liabilities and Contingent Assets and Interpretation 21 Levies. The amendments also confirm that contingent assets should not be recognised at the acquisition date.	1 January 2022
Onerous Contracts – Cost of Fulfilling a Contract Amendments to IAS 37	The amendment to IAS 37 clarifies that the direct costs of fulfilling a contract include both the incremental costs of fulfilling the contract and an allocation of other costs directly related to fulfilling contracts. Before recognising a separate provision for an onerous contract, the entity recognises any impairment loss that has occurred on assets used in fulfilling the contract.	1 January 2022
Annual Improvements to IFRS Standards 2018–2020	<p>The following improvements were finalised in May 2020:</p> <ul style="list-style-type: none"> • IFRS 9 <i>Financial Instruments</i> – clarifies which fees should be included in the 10% test for derecognition of financial liabilities. • IFRS 16 <i>Leases</i> – amendment of illustrative example 13 to remove the illustration of payments from the lessor relating to leasehold improvements, to remove any confusion about the treatment of lease incentives. • IFRS 1 <i>First-time Adoption of International Financial Reporting Standards</i> – allows entities that have measured their assets and liabilities at carrying amounts recorded in their parent’s books to also measure any cumulative translation differences using the amounts reported by the parent. This amendment will also apply to associates and joint ventures that have taken the same IFRS 1 exemption. • IAS 41 <i>Agriculture</i> – removal of the requirement for entities to exclude cash flows for taxation when measuring fair value under IAS 41. This amendment is intended to align with the requirement in the standard to discount cash flows on a post-tax basis. 	1 January 2022
Classification of Liabilities as Current or Non-current – Amendments to IAS 1	<p>The narrow-scope amendments to IAS 1 <i>Presentation of Financial Statements</i> clarify that liabilities are classified as either current or non-current, depending on the rights that exist at the end of the reporting period. Classification is unaffected by the expectations of the entity or events after the reporting date (e.g. the receipt of a waiver or a breach of covenant). The amendments also clarify what IAS 1 means when it refers to the ‘settlement’ of a liability.</p> <p>The amendments could affect the classification of liabilities, particularly for entities that previously considered management’s intentions to determine classification and for some liabilities that can be converted into equity.</p> <p>They must be applied retrospectively in accordance with the normal requirements in IAS 8 <i>Accounting Policies, Changes in Accounting Estimates and Errors</i>.</p>	1 January 2023 (deferred from 1 January 2022)

Notes (continued)

2. Application of new and revised International Financial Reporting Standards (IFRSs)

(b) Forthcoming requirements (continued)

As at 30 June 2021, the following standards and interpretations had been issued but were not mandatory for annual reporting periods ending on 31 December 2021.

Title	Key requirements	Effective date*
Disclosure of Accounting Policies – Amendments to IAS 1 and IFRS Practice Statement 2	<p>The IASB amended IAS 1 to require entities to disclose their <i>material</i> rather than their <i>significant</i> accounting policies. The amendments define what is ‘material accounting policy information’ and explain how to identify when accounting policy information is material. They further clarify that immaterial accounting policy information does not need to be disclosed. If it is disclosed, it should not obscure material accounting information.</p> <p>To support this amendment, the IASB also amended IFRS Practice Statement 2 <i>Making Materiality Judgements</i> to provide guidance on how to apply the concept of materiality to accounting policy disclosures.</p>	1 January 2023
Definition of Accounting Estimates – Amendments to IAS 8	<p>The amendment to IAS 8 <i>Accounting Policies, Changes in Accounting Estimates and Errors</i> clarifies how companies should distinguish changes in accounting policies from changes in accounting estimates. The distinction is important, because changes in accounting estimates are applied prospectively to future transactions and other future events, but changes in accounting policies are generally applied retrospectively to past transactions and other past events as well as the current period.</p>	1 January 2023
Deferred Tax related to Assets and Liabilities arising from a Single Transaction – Amendments to IAS 12	<p>The amendments to IAS 12 <i>Income Taxes</i> require companies to recognise deferred tax on transactions that, on initial recognition, give rise to equal amounts of taxable and deductible temporary differences. They will typically apply to transactions such as leases of lessees and decommissioning obligations and will require the recognition of additional deferred tax assets and liabilities.</p> <p>The amendment should be applied to transactions that occur on or after the beginning of the earliest comparative period presented. In addition, entities should recognise deferred tax assets (to the extent that it is probable that they can be utilised) and deferred tax liabilities at the beginning of the earliest comparative period for all deductible and taxable temporary differences associated with:</p> <ul style="list-style-type: none"> • right-of-use assets and lease liabilities, and • decommissioning, restoration and similar liabilities, and the corresponding amounts recognised as part of the cost of the related assets. <p>The cumulative effect of recognising these adjustments is recognised in retained earnings, or another component of equity, as appropriate. IAS 12 did not previously address how to account for the tax effects of on-balance sheet leases and similar transactions and various approaches were considered acceptable. Some entities may have already accounted for such transactions consistent with the new requirements. These entities will not be affected by the amendments.</p>	1 January 2023

Notes (continued)

2. Application of new and revised International Financial Reporting Standards (IFRSs)

(b) Forthcoming requirements (continued)

As at 30 June 2021, the following standards and interpretations had been issued but were not mandatory for annual reporting periods ending on 31 December 2021.

Title	Key requirements	Effective date*
Sale or contribution of assets between an investor and its associate or joint venture – Amendments to IFRS 10 and IAS 28	<p>The IASB has made limited scope amendments to IFRS 10 <i>Consolidated financial statements</i> and IAS 28 <i>Investments in associates and joint ventures</i>.</p> <p>The amendments clarify the accounting treatment for sales or contribution of assets between an investor and its associates or joint ventures. They confirm that the accounting treatment depends on whether the non-monetary assets sold or contributed to an associate or joint venture constitute a ‘business’ (as defined in IFRS 3 Business Combinations).</p> <p>Where the non-monetary assets constitute a business, the investor will recognise the full gain or loss on the sale or contribution of assets. If the assets do not meet the definition of a business, the gain or loss is recognised by the investor only to the extent of the other investor’s interests in the associate or joint venture. The amendments apply prospectively.</p> <p>** In December 2015 the IASB decided to defer the application date of this amendment until such time as the IASB has finalised its research project on the equity method.</p>	n/a **

Notes (Continued)

3 Summary of significant accounting policies

The principal accounting policies adopted in the preparation of these financial statements are set out below. These policies have been consistently applied to all years presented, unless otherwise stated.

(a). Basis of preparing financial statements

The Financial Statements are prepared on the historical cost basis of accounting in line with the International Financial Reporting Standards (IFRS) Framework. Historical cost is generally based on the fair value of the consideration given in exchange for goods and services.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or a liability, the Board considers the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset/liability at the measurement date. Fair value for measurement and/or disclosure purposes in these Financial Statements is determined on such a basis.

In addition, for financial reporting purposes, fair value measurements are categorised into Level 1, 2 or 3 based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date.
- Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly: and
- Level 3 inputs are unobservable inputs for the asset or liability.

(b) Revenue recognition

The Authority recognises revenue when the amount of revenue can be reliably measured, it is probable that future economic benefits will flow to the Authority's and when specific criteria have been met for each of the Authority's activities as described below. The amount of revenue is not considered to be reliably measurable until all contingencies relating to the sale have been resolved. The Authority's bases its estimates on historical results, taking into consideration the type of customer, the type of transaction and the specifics of each arrangement.

Interest income

Revenue is recognised as interest accrues using the effective interest method.

Notes (Continued)

3 Summary of significant accounting policies

(b) Revenue recognition (continued)

i) Government Income

The Government income represents funds received from Government during the year. Income from the Government is recognised in the Statement of Comprehensive Income in the year in which it is receivable to compensate the expenditure to which the grant relates.

ii) Water use charges

Revenue from the sale of use of water is recognised when all the following conditions are satisfied:

- The Board has transferred to the buyer the significant risks and rewards of use of water.
- The amount of revenue can be measured reliably.
- It is probable that economic benefits associated with the transaction will flow to the entity.

iii) WARMA as lessee

Operating lease payments are recognised as an expense on a straight-line basis over the lease term in the Statement of Comprehensive Income, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed. Contingent rentals arising under operating leases are recognised as an expense in the period in which they are incurred.

(c) Functional currency and translation of foreign currencies

The Financial Statements of WARMA are presented in the currency of the primary economic environment in which the entity operates (its functional currency). For the purpose of the Financial Statements, the results and financial position of the WARMA are expressed in Zambian Kwacha ('K'), which is the functional currency of the WARMA and the presentation currency for the Financial Statements.

In preparing the Financial Statements of the WARMA, transactions in currencies other than the WARMA's functional currency (foreign currencies) are recorded at the rates of exchange prevailing at the dates of the transactions.

At each reporting date, monetary items denominated in foreign currencies are re-translated at the rates prevailing at the reporting date. Non-monetary items carried at fair value that are denominated

in foreign currencies are re-translated at the rates prevailing at the date when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not re-translated.

Exchange differences are recognised in profit or loss in the year in which they arise.

Notes (Continued)

3 Summary of significant accounting policies

(d) Property, plant and equipment

All categories of property, plant and equipment are initially recorded at cost. Buildings and freehold land are subsequently shown at market value, based on periodic, but at least triennial, valuations by external independent valuers, less subsequent depreciation for buildings. All other property, plant and equipment is stated at historical cost less depreciation. Historical cost includes expenditure that is directly attributable to the acquisition of the items.

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

Increases in the carrying amount arising on revaluation are credited to a revaluation surplus reserve in equity. Decreases that offset previous increases of the same asset are charged against the revaluation surplus; all other decreases are charged to the profit and loss account. Each year the difference between depreciation based on the revalued carrying amount of the asset (the depreciation charged to the profit and loss account) and depreciation based on the asset's original cost is transferred from the revaluation surplus to retained earnings.

Depreciation on assets is calculated using the straight-line method to allocate their cost or revalued amounts less their residual values over their estimated useful lives, as follows:

Motor vehicles	5 years
Water vessels	5 years
Office equipment	5 years
Furniture and fittings	5 years
Gauging stations	5 years
Surface water equipment	5 years
Ground water monitoring equipment	5 years
IWRIMIS	5 years

Buildings have an estimated useful life of 50 years and Leasehold land is not depreciated.

The estimated useful lives and residue values are reviewed at end of each reporting period.
*Hydrological Equipment has been reclassified to read "**Surface Water Monitoring Equipment**".

The gain or loss arising on the disposal or retirement of an item of property and equipment is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognised in the Statement of Comprehensive Income.

Repairs and maintenance are charged to the Statement of Comprehensive Income during the period in which they are incurred. The cost of major renovations is included in the carrying amount of the asset when it is probable that future economic benefits in excess of the originally assessed standard of performance of the existing asset will flow to WARMA.

Notes (Continued)

3 Summary of significant accounting policies

(e) Impairment of Tangible assets

At each reporting date, WARMA reviews the carrying amounts of its tangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Where it is not possible to estimate the recoverable amount of an individual asset, the recoverable amount of the cash-generating unit to which the asset belongs is estimated.

Recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount

rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognised immediately in profit or loss, unless the relevant asset is carried at a revalued amount, in which case the impairment loss is treated as a revaluation decrease.

Where an impairment loss subsequently reverses, the carrying amount of the asset (cash-generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (cash-generating unit) in prior years. A reversal of an impairment loss is recognised immediately in Statement of Comprehensive Income.

i) Capital Grants

Capital grants represent the value of assets vested in the WARMA by the Government and other co-operating partners without charge to the WARMA.

Capital grants are deferred and credited to Statement of Comprehensive Income in equal annual instalments over the expected useful lives of the related assets.

Other grants are recognised as revenue over the periods necessary to match them with the costs for which they are intended to compensate, on a systematic basis.

(f) Receivables

Receivables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method. A provision for impairment of receivables is established when there is objective evidence that the Company will not be able to collect all the amounts due according to the original terms of receivables. The amount of the provision is the difference between the carrying amount and the present value of expected cash flows, discounted at the effective interest rate. The amount of the provision is recognised in the profit and loss account.

Notes (Continued)

3 Summary of significant accounting policies

(g) Payables

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

(h) Provisions

Provisions are made when WARMA has a present legal and constructive obligation as a result of past events, for which it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate of the amount of the obligation can be made.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the reporting date, taking into account the risks and uncertainties surrounding the obligation. Where a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows.

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, the receivable is recognised as an asset if it is virtually certain that reimbursement will be received, and the amount of the receivable can be measured reliably.

(i) Cash and cash equivalents

Cash and cash equivalents includes cash in hand, deposits held at call with banks, other short term highly liquid investments with original maturities of three months or less, and bank overdrafts. Bank overdrafts are shown within borrowings in current liabilities on the balance sheet.

(j) Employee benefits

i) Contract Employees

Employees on fixed term contracts are entitled to end of contract gratuity. Provision is made for past service on the basis of present conditions and earnings. The portion of the provision which is estimated to become payable after more than one year is shown as a non-current liability.

ii) National Pension Scheme

WARMA also contributes to the National Pension Scheme Authority (NAPSA). NAPSA is a defined contribution scheme and membership is compulsory. Monthly contributions by both employer and employees are made. The employer's contribution is accounted for in Statement of Comprehensive Income as it arises.

(k) Taxation

The Water Resources Management Authority is a statutory body exempt from income tax under section 15 of the Income Tax Act, CAP 325 of the laws of Zambia in accordance with Paragraph 5 part III of the second schedule of the Act.

Notes (Continued)

(4) Financial instruments

Financial assets and financial liabilities are recognised when WARMA becomes a party to the contractual provisions of the instruments.

Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through profit or loss) are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at fair value through profit or loss are recognised immediately in profit or loss.

(i) Financial assets

Financial assets are classified into receivables. The classification depends on the nature and purpose of the financial assets and is determined at the time of initial recognition. All regular way purchases or sales of financial assets are recognised and de-recognised on a trade date basis. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the marketplace.

(ii) Impairment of financial assets

For certain categories of financial assets, such as receivables, assets that are assessed not to be impaired individually are subsequently assessed for impairment on a collective basis. Objective evidence of impairment for a portfolio of receivables could include observable changes in national or local economic conditions that correlate with default on receivables.

Trade receivables are reduced using an allowance account. When a trade receivable is considered uncollectible, it is written off against the allowance account. Subsequent recoveries of amounts previously written off are credited against the allowance account. Changes in the carrying amount of the allowance account are recognised in profit or loss.

a) Impairment of financial assets

Financial liabilities are classified as trade and other payables and deferred Income. Trade and other payables and other liabilities are initially measured at fair value.

The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period.

b) De-recognition of financial liabilities

WARMA de-recognises financial liabilities when, and only when, WARMA's obligations are discharged, cancelled or they expire. The difference between the carrying amount of the financial liability de-recognised and the consideration paid and payable, including any non-cash assets transferred or liabilities assumed, is recognised in profit or loss.

Notes (Continued)

5 Critical accounting estimates and judgements

a) Critical judgements in applying accounting policies

In the application of WARMA's accounting policies, it is required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

b) Key sources of estimating uncertainty

The following are the key assumptions concerning the future, and other key sources of estimating uncertainty at the reporting date, that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year:

Property and equipment is depreciated over its useful life taking into account residual values. Useful lives and residual values are assessed annually. Useful lives are affected by technology innovations, maintenance programmes and future productivity. Future market conditions determine the residual values. Depreciation is calculated on a straight-line basis which may not represent the actual usage of the asset.

6 Financial risk management objectives and policies

The Authority's activities expose it to a variety of financial risks: Market risk (including currency risk, fair value interest rate risk, cash flow interest rate risk and price risk), credit risk and liquidity risk. The Authority's overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on its financial performance, but the Authority does not hedge any risks.

(i) Fair Value Risk

Fair value is the amount at which assets and liabilities can be exchanged in a current transaction between willing parties, other than in a forced liquidation, and is best evidenced by a quoted market price, where one exists.

The estimated fair values of assets and liabilities have been determined by the Authority using available market information and appropriate valuation methodologies. Accordingly, the estimates are not necessarily indicative of the amounts the Authority could realise in a current market exchange. The carrying amounts of the assets and liabilities approximate their fair values.

(ii) Credit Risk

The exposure to credit risk is monitored on an on-going basis. Reputable financial institutions are used for investing and cash handling purposes.

Investments are allowed only in liquid securities and management does not expect to fail to meet its obligations.

Notes (Continued)

6 Financial risk management objectives and policies (continued)

(iii) Operational Risk

Certain policies, procedures and limits are properly documented in each department within the Company and updated occasionally to take account of the changes to internal controls, procedures and limits. Management endeavours to continuously update policies and procedures.

(iv) Strategic Risk

The Company's strategic plan is comprehensive in all aspects with particular emphasis on compliance with legal and market conditions and senior management effectively communicates the plan to all staff levels and allocates resources in line with the laid down objectives.

(v) Interest Risk

The Authority is exposed to interest rate risk to the extent of the balance of any loans and bank overdrafts taken and outstanding.

(vi) Liquidity risk

Prudent liquidity risk management includes maintaining sufficient cash balances, and the availability of funding from an adequate amount of committed credit facilities. Due to the dynamic nature of the underlying businesses, the finance department maintains flexibility in funding by maintaining availability under committed credit lines.

Management monitors rolling forecasts of the Authority's liquidity reserve on the basis of expected cash flow.

(vii) Capital management

The Authority's objectives when managing capital are to safeguard the Authority's ability to continue as a going concern in order to provide returns for Board members and to maintain an optimal capital structure to reduce the cost of capital. In order to maintain or adjust the capital structure, the Authority's may limit the amount of compensation paid to Board members, issue new shares, or sell assets to reduce debt.

Notes (continued)

7. Operating income

		2021	2020
		ZMW	ZMW
Water use charges	Appendix I	31,901,852	36,118,692
Profit on sale of fixed assets	Note 10(c)	-	308,875
Registration of boreholes		4,139,050	3,823,866
Penalty fee		1,390,000	1,564,250
Other income		83,608	65,767
		<u>37,514,510</u>	<u>41,881,450</u>

Operating income represents water use charges, Borehole registration fees, proceeds from sale of Fixed Assets and penalty fees. The penalty fees were amounts charged to water users in contravention of Section 110 (1) of the Water Resources Management Act No. 21 of 2011

8. Grant income

GRZ Grant	16,141,678	12,106,259
UNICEF	57,750	57,038
GIZ Local Subsidy	-	183,015
WWD (World Wildlife Fund for Nature)	2,448	621,353
Amortisation of Capital Grants	4,674,864	7,153,973
Total	<u>20,871,844</u>	<u>20,538,870</u>

Listed below is the breakdown of the Amortisation of Capital Grants

	2021	2020
	ZMW	ZMW
Amortisation of capital Grants		
GIZ (German Development Agency)	157,411	181,101
MCA (Millennium Challenge Account)	8,004	8,004
World Bank (German Development Bank)	-	505,493
BGR (Federal Institute for Geoscience and Natural Resources)	258,331	320,729
KFW (German Development Bank)	4,251,118	7,176,231
Total	<u>4,674,864</u>	<u>8,192,558</u>

9. Expenses by nature

The following items have been charged in arriving at the profit for the year.

Total remuneration	30,122,938	28,730,216
Depreciation and amortisation	6,523,054	10,681,949
Board members remuneration	1,561,128	1,687,772

Notes (continued)

10. Property, plant and equipment
(a) Summary

	Land & buildings	Motor vehicles	Water vessels	Office equipment	Furniture, fixtures & fittings	Gauging stations	Surface water monitoring equipment	Ground water monitoring equipment	Total
	ZMW	ZMW	ZMW	ZMW	ZMW	ZMW	ZMW	ZMW	ZMW
Opening balances at 1st January, 2021									
Capital grants (donated assets)	-	3,895,926	7,199,315	1,685,447	208,435	22,482,807	4,603,229	6,157,533	46,232,692
Purchased assets	20,993,609	3,800,451	-	2,444,895	825,651	-	879,952	94,662	29,039,220
Total assets at cost	20,993,609	7,696,377	7,199,315	4,130,342	1,034,086	22,482,807	5,483,181	6,252,195	75,271,912
Additions									
Purchases assets	950,000	-	-	361,544	147,520	-	-	-	1,459,064
Adjustment in cost				(341,864)	8,000	-	-	333,864	-
Total assets at cost	21,943,609	7,696,377	7,199,315	4,150,022	1,189,606	22,842,807	5,483,181	6,586,059	76,730,976

Notes (continued)

10. Property, plant and equipment (continued)
(a) Summary

	Land & buildings	Motor vehicles	Water vessels	Office equipment	Furniture, fixtures & fittings	Gauging stations	Surface water monitoring equipment	Ground water monitoring equipment	Total
	ZMW	ZMW	ZMW	ZMW	ZMW	ZMW	ZMW	ZMW	ZMW
Accumulated depreciation									
Opening balance at 1 st Jan 2021	556,412	4,839,488	6,886,694	2,704,813	603,486	14,093,612	3,750,022	2,699,995	36,134,522
Charge for the year 2021	421,455	961,690	113,681	472,622	149,964	2,141,922	680,781	905,446	5,847,561
Adjustment in Acc-Dep	-	-	-	(177,316)	-	-	-	154,597	(22,719)
Closing balance Dec 2021	977,867	5,801,178	7,000,375	3,000,119	753,450	16,235,534	4,430,803	3,760,038	41,959,364
Carrying amount as at 31st December 2021	20,965,742	1,895,199	198,940	1,149,903	436,156	6,247,273	1,052,378	2,826,021	34,771,612
Carrying amount as at 31st December 2020	20,437,197	2,856,889	312,621	1,425,529	430,600	8,389,195	1,733,159	3,552,200	39,137,390

Notes (continued)

10. (b) Intangible asset	2021	2020
	ZMW	ZMW
At start of year	2,355,542	3,154,157
Prior year adjustment	22,719	-
Restated balance	2,332,823	3,154,157
Additions	45,240	261,985
Amortisation	(675,493)	(1,060,600)
At end of year	<u>1,702,570</u>	<u>2,355,542</u>

The intangible asset represents the cost of software that is amortised over the useful life of the asset

11. Trade and other receivables

Staff debtors	10,263	23,335
Trade receivables	7,032,874	6,544,709
Total trade and other receivables	7,043,137	6,568,044
Prepayments (Rent) – Zambezi Catchment	-	37,350
Provision for impairment losses	(3,877,273)	-
	<u>3,165,864</u>	<u>6,605,394</u>

12. Bank and cash balances

ZANACO WARM Grant Accounts	1,928,077	2,889,699
Access Bank Revenue Account	2,052,976	3,776,666
ZANACO Dedicated funds Account	4,663,070	614
ZANACO Kafue Catchment	35,867	360
ZANACO Luangwa Catchment	7,075	5,331
ZANACO Chambeshi Catchment	17,597	2,581
ZANACO Zambezi Catchment	105	8,070
ZANACO Staff loans revolving	500,000	-
Access Bank Water security and investment plan	4,479	4,779
Bayport Account	846,948	156,755
ZANACO Local subsidy Account	614	-
Petty cash	(14)	-
Total	<u>10,056,794</u>	<u>6,844,855</u>

13. Capital Grants

KfW	11,365,090	15,616,208
MCA	17,374	25,378
GIZ	673,136	830,547
BGR	441,868	700,199
Total	<u>12,497,468</u>	<u>17,172,332</u>

Notes (continued)

14. Employee related accruals

Employee benefits obligation comprises unfunded retirement benefit allowances for non-management employees on non-fixed term contracts and for the gratuity obligations for employees on fixed term contracts

	2021	2020
	ZMW	ZMW
The movements on the account during the year were as follows:		
Gratuity provision as at 31 st December		
Current	1,403,955	1,332,696
Non-Current	998,673	-
	<u>2,402,628</u>	<u>1,332,696</u>

	2021	2020
	ZMW	ZMW
15. Payables		
Pay as you earn (PAYE)	621,426	622,682
National Pensions Authority (NAPSA)	150,678	138,402
National Health Insurance Authority (NHIMA)	34,119	-
Trade payables	1,788,500	5,001,845
Total	<u>2,594,723</u>	<u>5,762,929</u>

16. Operating and administrative cost

Operating and Administrative costs is made up of all expenses incurred in the year excluding depreciation and salaries. The figure however includes realised exchange loss of K329,524. The exchange losses represent the difference between the converted carrying amount as at 31st December 2021 and the actual amount paid during the financial year (see below). All Payments for the WARMA Head Office are in United States Dollars at the prevailing rate on the date of payment.

Computation of exchange loss as at 31st December 2021

	USD\$	Rate	ZMW
Outstanding liability of building brought forward	225,000	21.05545	4,737,476
Outstanding amount paid in 2021 (converted)	225,000	22.52000	<u>(5,067,000)</u>
Exchange loss on outstanding liability (difference)			<u>(329,524)</u>

Notes (continued)

17. Financial instruments

Details of the significant accounting policies and methods adopted, including the criteria for recognising as basis of measurement on which income and expenses are recognised, in respect of each class of financial assets. Financial liabilities and equity instruments are disclosed in the accounting policies to the Financial Statements.

(a) Categories of financial instruments

	2021 ZMW	2020 ZMW
Financial assets		
-Trade and other receivables	3,165,864	6,605,394
-Bank and cash balances	<u>10,056,794</u>	<u>6,844,855</u>
	<u>13,222,658</u>	<u>13,450,249</u>
Financial liabilities		
-gratuity provision	2,402,628	1,332,696
Trade and other payables	<u>2,594,723</u>	<u>5,762,929</u>
	<u>4,997,351</u>	<u>7,095,625</u>

(b) Exposure to credit risk

The Authority's maximum exposure to credit risk is analysed below

	2021 ZMW	2020 ZMW
-Cash and bank balances	10,056,794	6,844,855
-Trade receivables	<u>3,165,864</u>	<u>6,605,394</u>
	<u>13,222,658</u>	<u>13,450,249</u>

(c) Impairment losses

The aging of trade and other receivables at the reporting date was:

The loss allowances for trade receivables and other debtors as at 31 December reconcile to the opening loss allowances as follows.

31 December 2021	Current	1-30 days past due	31- 60 days past due	61-90 days past due	Over 90 days	Total
Expected loss rate					74.8%	
Gross carrying amount – trade receivables	252,272	98,431	971,324	540,632	5,180,478	7,043,137
Loss allowance	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(3,877,273)</u>	<u>(3,877,273)</u>
	<u>252,272</u>	<u>98,431</u>	<u>971,324</u>	<u>540,632</u>	<u>1,303,205</u>	<u>3,165,864</u>

Notes (continued)

17. Financial instruments (continued)

	Trade receivables	
	2021	2020
	ZMW	ZMW
Opening loss allowance at 1 January	-	-
Loss allowance recognised in profit or loss during the period	<u>3,877,273</u>	<u>-</u>
Closing loss allowance at 31 December	<u>3,877,273</u>	<u>-</u>

Trade receivables and other debtors are written off where there is no reasonable expectation of recovery. Indicators that there is no reasonable expectation of recovery include, amongst others, the failure of a debtor to engage in a repayment plan with the Authority, and a failure to make contractual payments for a period of greater than 90 days past due.

Impairment losses on trade receivables and other debtors are presented as net impairment losses within operating profit. Subsequent recoveries of amounts previously written off are credited against the same line item.

(d) Liquidity risk management

The following table below details the Authority's remaining contractual maturity for its non-derivative financial assets and liabilities. The table below has been drawn up based on the undiscounted contractual maturities of the financial assets and liabilities.

	1 to 12 months ZMW	1 to 5 years ZMW	Total ZMW
At 31st December 2021			
Financial liabilities			
-Trade and other payables	<u>4,997,351</u>	<u>-</u>	<u>4,997,352</u>
	<u>4,997,351</u>	<u>-</u>	<u>4,997,352</u>
Financial assets			
-Staff receivables	10,263	-	10,263
-Trade receivables	3,155,601	-	3,155,601
-Bank and cash balances	<u>10,056,794</u>	<u>-</u>	<u>10,056,794</u>
	<u>13,222,658</u>	<u>-</u>	<u>13,222,658</u>
At 31 December 2020			
Financial liabilities			
-Trade and other payables	<u>7,095,625</u>	<u>-</u>	<u>7,095,625</u>
	<u>7,095,625</u>	<u>-</u>	<u>7,095,625</u>
Financial assets			
-Staff receivables	23,335	-	23,335
-Trade receivables	6,544,709	-	6,544,709
-Bank and cash balances	<u>6,844,855</u>	<u>-</u>	<u>6,844,855</u>
	<u>13,450,249</u>	<u>-</u>	<u>13,450,249</u>

Notes (continued)

18. Related party transactions

In the context of WARMA, related party transactions include any transactions carried out with any of the following:

- i) The Government of the Republic of Zambia:
- ii) Parastatals and other statutory bodies:
- iii) Members of the Board and key management personnel: and
- iv) Co-operating partners

The transactions to be reported are those that affect WARMA in making financial and operating decisions.

The transactions to be reported are those that affect the Board in making financial and operating decisions

The following transactions were carried out with related parties:

	2021	2020
	ZMW	ZMW
(i) Grant income from GRZ		
Funding	16,141,677	12,106,259
	<u>16,141,677</u>	<u>12,106,259</u>
(ii) Key management compensation		
Salaries and other short-term employment benefits	7,498,494	6,660,536
Defined contribution pension schemes	289,393	254,939
	<u>7,787,887</u>	<u>6,915,475</u>
iii) Board Members' remuneration		
Fees for services as members of the Board	634,540	345,560
	<u>634,540</u>	<u>345,560</u>
iv) Co-operating partners		
Co-operating partners	83,608	246,015
	<u>83,608</u>	<u>246,015</u>

Notes (continued)

18. Related party transactions (continued)

Support from cooperating partners in form of Grants

Partner	Support type	2021	2020
		ZMW	ZMW
UNICEF	Data entry	-	63,000
GIZ WSIP	Ground water support	-	183,015
KfW	Operational support	83,608	-
Total		<u>83,608</u>	<u>246,015</u>

19. Contingent liabilities

There were no contingent liabilities as at the period-end (2020: Nil)

20. Capital commitments

WARMA has an outstanding capital obligation of K380,000 as at 31st December 2021 towards the purchase of Chambeshi Catchment office building and has been included in the trade payables.

21. Events subsequent to balance sheet date

There has not arisen since the end of the financial year any item, transactions or event of a material and unusual nature likely, in the opinion of the directors of the Authority, affect substantially the operations of the economic entity, the results of those operations or the state of affairs of the economic entity in subsequent financial years.

22 Comparative figures

Previous year's figures have been reclassified wherever necessary to make them comparable to those of the current year

Appendix I: Detailed Operating Statement

	2021	2020
	ZMW	ZMW
Grant Income		
Government Grant	16,141,677	12,106,259
UNICEF	57,750	57,038
WWF	(2,447)	-
GIZ Local Subsidy	-	183,015
Amortization of Capital Grants	4,674,864	8,192,558
Operating income	<u>20,871,844</u>	<u>20,538,870</u>
Operation Income		
Water use charges	31,901,852	36,118,692
Profit on sale of fixed assets	-	308,875
Registration of boreholes	4,139,050	3,823,866
Penalty fee	1,390,000	1,564,250
Other income	83,608	65,767
	<u>37,514,510</u>	<u>41,881,450</u>
Total income	<u>58,386,654</u>	<u>62,420,320</u>
Expenditure		
Employee benefits		
Salaries and Wages	23,877,790	23,648,376
Fringe Benefits	191,802	-
Gratuity	2,230,290	1,756,567
Gauge Reader Salaries	-	861,500
Staff Training	560,278	609,151
Workers Compensation Fund	37,768	34,144
Internship Allowances	95,375	64,250
Professional Membership Subscriptions	22,022	75,371
Social Club Membership	58,600	-
Settling in allowance	379,207	1,003,870
Leave pay	741,047	448,666
Lunch	-	21,041
Protective Clothing	69,593	-
Funeral Grant	211,125	-
Group Life Assurance	1,270,349	(266,934)
Medical	377,692	474,214
Total employee benefit	<u>30,122,938</u>	<u>28,730,216</u>

Appendix I: Detailed operating statement (continued)

	2021	2020
	ZMW	ZMW
Depreciation and amortisation		
Depreciation Land & Buildings	421,455	419,872
Depreciation Gauge Station	2,141,922	3,907,897
Depreciation Plant & Equipment	-	66,773
Depreciation Ground Water Monitoring Equip	905,446	1,242,784
Depreciation Hydrological Equipment	680,781	1,096,635
Depreciation Motor Vehicles	961,690	1,039,913
Depreciation Water Vessels	113,681	1,218,833
Depreciation Computer & Office Equipment	472,622	412,271
Depreciation Computer Equipment	-	51,004
Depreciation Furniture & Fittings	149,964	165,367
Amortisation Software	169,046	182,886
Amortisation IWRMIS	506,447	877,714
Total depreciation and Amortisation	<u>6,523,054</u>	<u>10,681,949</u>
General Administration		
Advertising	95,153	287,977
Cleaning	251,139	193,394
Courier and Postage	40,182	7,265
Conference facilities	61,990	26,864
Conservation Activities	-	9,900
Computer Related Expenses (ICT)	277,362	-
Consultancy Fees	4,500	54,828
Electricity and Water	120,324	113,517
Fuel and Lubricants	568,188	431,921
Internet	250,906	42,149
Printing and Stationary	832,676	669,609
Rent	299,883	196,152
Recruitment & Orientation	293,220	379,794
Security	417,387	139,944
Telephone	25,225	58,336
Office Provisions and Refreshments	174,194	84,983
Small Office Equipment	53,216	-
Travel – local	315,046	313,316
Travel – Abroad	-	42,325
Transportation & Hire Charges	3,600	40,808
Strategic Planning	747,051	561,255
Community Awareness Campaigns	20,919	7,250
Local & International Events	187,655	119,080
Newspapers, Publications and Promotional Materials	751,694	119,905
Insurance	261,543	289,681
Public Relations & Media	23,825	-
Procurement Related Expenditure	271,580	322,460
Protective Clothing-	-	10,830
Provision for impairment losses	3,877,273	-
Planning and Staff Retreats	57,430	-
Repairs and Maintenance - Motor Vehicle	819,321	420,501
Repairs and Maintenance – Equipment & Appliances	43,870	3,247
Repairs and Maintenance – Land & Buildings	499,404	298,369
Repairs and Maintenance – Furniture	51,850	23,617
Total General Administration costs	<u>11,697,606</u>	<u>5,273,737</u>

Appendix I: Detailed operating statement (continued)

	2021	2020
	ZMW	ZMW
Audit & Financial Management		
Budgeting Activities	105,588	60,308
Audit Fees	242,111	122,679
Debt Collection Costs	429,433	-
Financial Management Costs	147,975	302,639
Bank Charges	87,261	17,,504
Total Audit & Financial Management	1,012,368	854,052
Internal Audit and Risk	142,007	-
Water Resources Management & Operations		
Compliance Planning	-	135,477
Recharge Zones & Headwaters identification	68,005	-
Water Use Compliance & Monitoring	459,415	-
Monitoring & Compliance Enforcement	120,908	-
Monitoring & Compliance Enforcement -Surface Water	-	739,817
Monitoring & Compliance Enforcement -Ground Water	-	262,681
Water Permitting Investigations-Surface Water	1,148,724	438,374
Water Permitting Investigations-Ground Water	248,113	263,680
Operation & Maintenance of Telemetric Stations	325,766	172,441
Flood and Drought Forecasting	19,436	-
Surface Water Levels Quantified	258,304	-
Hydrological Planning & Maintenance Activities	-	305,883
Discharge Measurements	-	355,299
Ground Water Monitoring Network Activities	4,229	35,819
Water Reserves Determination & Mapping	294,020	-
Water Balance Quantification & Assessment	424,475	-
Water Bodies and Zones Mapping	17,162	-
Mapping & Assessment of Ground Water Users	-	41,097
Ground Water Monitoring	-	96,320
Repairs & Maintenance of Ground Water Monitoring Network	45,500	72,441
Drillers Licensing Activities	24,670	28,721
Rehabilitation & Maintenance of Water Quality Laboratories	81,271	-
Ground Water Quality Monitoring & Assessment	177,477	-
Dewatering Activities by Mines & Quarry Companies	-	70,327
Operation Costs for Water Quality Laboratories	-	73,099
Water Quality Monitoring-Ground Water Resources	-	256,806
Water Quality Monitoring-Surface Water Resources	-	169,451
Water Quality Monitoring and Assessment	208,050	-
Hydraulic Infrastructure	21,545	-
Gauge Readers Stipend	954,500	-
Climate Change & Conservation Activities	-	4,275
Setting up of Information Systems	-	88,531
Stakeholder Engagement	88,242	-
Standards & Guidelines Developed	74,698	-
Carried forward	5,064,510	3,610,539

Appendix I: Detailed operating statement (continued)

	2021	2020
	ZMW	ZMW
Balance brought forward	5,064,510	3,610,539
O & M of Regional Information Systems	-	50,000
O & M of ICT Systems & Database Management	-	196,896
Legal Fees, Settlement & Compensation	49,701	26,739
Public Enquiry & Dispute Resolutions	-	124,412
Conflict Management & Dispute Resolutions	43,074	
Prosecutions	11,609	111,074
Field Verification	38,984	-
Development of New Regulations and Guidelines	234,685	138,424
Processing of Water Permits	-	30,046
Legal Attire & Documents	28,369	-
	<u>5,470,932</u>	<u>4,288,130</u>
Corporate Governance		
Board Periodic Allowances	634,540	321,800
Board Travelling Expenses	199,870	166,625
Board Communication Expenses	4,400	23,760
Full Board Meeting Expenses	401,995	498,318
Board Technical Committee Expenses	98,270	126,337
Board Finance and Administration Committee Expenses	72,356	264,408
Board Audit & Risk Management Committee Expenses	28,600	46,586
Board Legal Committee Expenses	10,500	44,300
Board Capacity Building	110,597	195,638
Total Governance	<u>1,561,128</u>	<u>1,687,772</u>
Realized Exchange loss	329,524	4,668,748
Total expenditure	<u>56,859,557</u>	<u>56,184,604</u>
Surplus for the Period	<u>1,526,797</u>	<u>6,235,716</u>

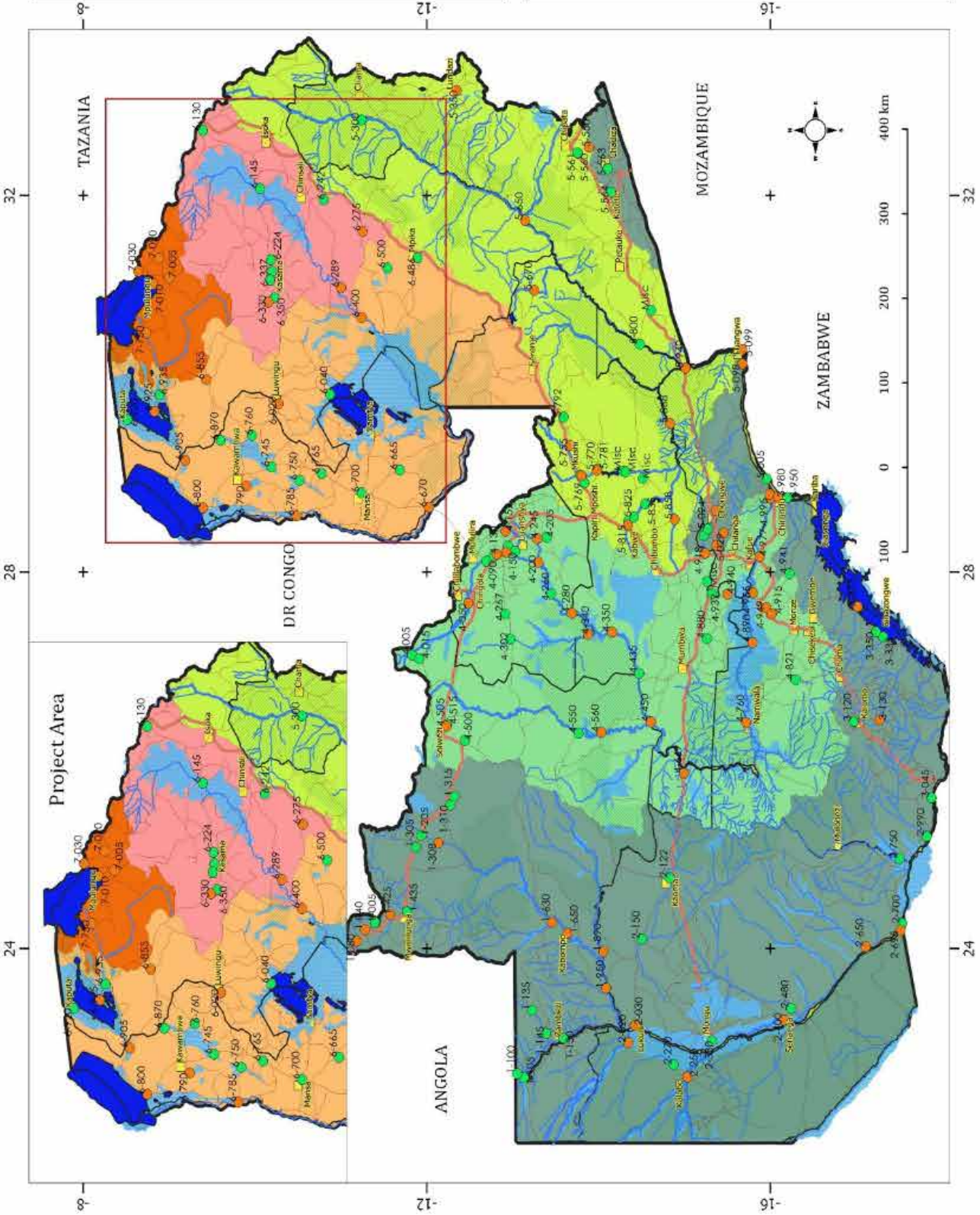
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LEGEND

- IWRMIS Stations
- SG Stations
- GMAs
- Rivers
- Wetlands
- Road
- Urban Centers

Main River Catchment

- Zambezi
- Kafue
- Luangwa
- Chambeshi
- Luapula
- Tanganyika







Water Resources Management Authority

HEAD OFFICE

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Alick Nkhata Road, Longacres
Lusaka, Zambia
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Email: info@warma.org.zm
Facebook: [warmazambia](https://www.facebook.com/warmazambia)

KAFUE CATCHMENT

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P.O Box 51059

Ndola Office

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CHAMBESHI CATCHMENT

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Cell: +260977405352
+260212 277030

Mansa Office

Department of Water Development
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P.O Box 710032
Cell: +260978-258008

LUANGWA CATCHMENT

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Kabwe, Zambia
Cell: +260974878698

Chipata Office

Department of Water Resources
Development
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Adjacent to Old National Brewery
Opposite Living Water Poster
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