



LUANGWA INTEGRATED DEVELOPMENT PLAN

2024
2034





LUANGWA TOWN COUNCIL

INTERGRATED DEVELOPMENT PLAN

2024 -2034

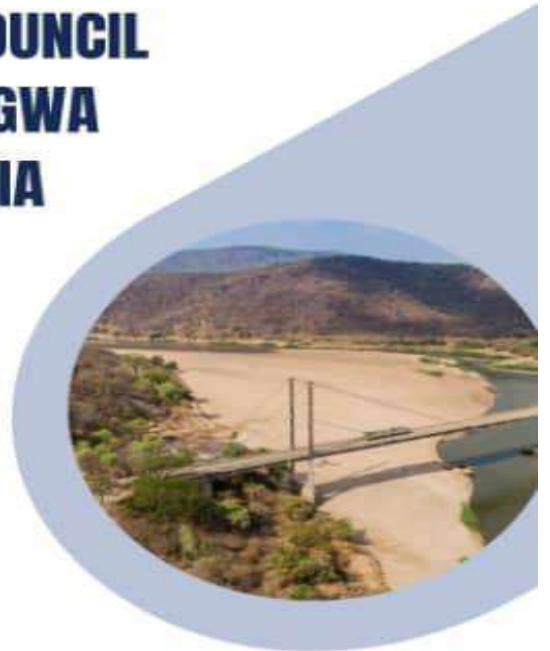
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LUANGWA'S VISION

**A LEADING TRANSIT, TRADE, AND
TOURISM DESTINATION**



Foreword



The Luangwa District Integrated Development Plan (IDP) 2021-2030 has been developed in accordance with the Urban and Regional Planning Act No. 3 of 2015 and the 8th National Development Plan (8NDP). It serves as a primary tool for implementing the Plan at the local level.

As part of the decentralization process, which places direct responsibility on local authorities to provide key services and infrastructure, the District seeks to achieve the goals of the 8th National Development Plan through the preparation of the Integrated Development Plan (IDP) 2024-2034. The new IDP incorporates the District's vision of becoming a leading trade, transit, and tourist destination for socio-economic development by 2034, with a strong focus on improving roads to enhance access to transport, connectivity and communication networks. Additionally, emphasis is placed on expanding trade and sustainably exploring and developing the District's mining sector.

The District will also prioritize improving water access and coverage while promoting sustainable environmental management practices. In line with the national health policy, the District is committed to achieving universal health coverage by constructing and upgrading health facilities, including maternity wings in all health centres in the district, to improve maternal health services. Further, the District will focus on providing essential social safety nets and initiatives to address the needs of vulnerable groups. Education infrastructure improvements will also be a priority, with the goal of reducing the distance learners must travel to schools to a maximum of 5 kilometres.

The creation of the Integrated Development Plan will guide planning, management, decision-making, budgeting, and coordination across all sectors in the District. This document will serve multiple purposes: it will help the District plan effectively and provide an analytical framework to address the needs of the community. It will also serve as a basis for securing support and funding from the Government and donors. Finally, it will help policymakers develop more effective strategies to benefit the people.

During the 2024-2034 plan period, robust resource mobilization will be required to fully finance the District IDP and ensure comprehensive progress toward Luangwa District's transformation agenda.

The successful implementation of this plan will depend on the commitment and collaboration of all stakeholders, including Government departments, Civil Society Organizations, the residents of Luangwa, and Private Sector groups. I therefore urge everyone to remain dedicated to playing their respective roles in project planning, implementation, monitoring, and control to bring about the envisioned socio-economic transformation for our people.

A handwritten signature in black ink, appearing to read 'Lawrence Shaba', written over a horizontal line.

.....
Mr. Lawrence Shaba
COUNCIL CHAIRPERSON

Acknowledgments



The Integrated Development Plan (IDP) serves as a key policy document aimed at guiding development across Luangwa District. It brings together a wide range of valued stakeholders, including Government Departments, Luangwa Town Council, Non-Governmental Organizations, Faith-Based Organizations, Agricultural Cooperative Societies, and the Business Community. The primary objective of the IDP is to promote equitable service delivery, foster economic development, ensure the fair distribution of infrastructure, enhance spatial harmony, and safeguard environmental sustainability.

In developing this plan, extensive consultations were undertaken to create a comprehensive and inclusive document that aligns with the development of the District. These consultations drew on significant contributions from stakeholders at both the provincial and district levels through various participatory processes. The engagement of these stakeholders was vital in building consensus and fostering a sense of ownership among all parties involved.

I would like to express my sincere gratitude to the District Integrated Development Plan Team, the Technical Team, the Lusaka Provincial Administration, the Luangwa District Administration, Luangwa Town Council, the Ward Development Committees and members of the District Development Coordinating Committee (DDCC). I also extend my heartfelt thanks to Community-Based Organizations, Non-Governmental Organizations (NGOs), Traditional Leaders, Cooperating Partners, and many others who contributed to this plan.

Lastly, I would like to extend a special acknowledgement to the Provincial team for their unwavering support and leadership throughout the development of the IDP. Their commitment to fostering collaboration and ensuring that the needs of the community are at the forefront of development efforts has been instrumental in the successful creation of this plan.

A handwritten signature in black ink, appearing to be 'L. Chikani', enclosed within a circular scribble.

.....
Mr. Luke Chikani
DISTRICT COMMISSIONER

Executive Summary



Integrated planning is a strategic tool aimed at achieving social, economic, and environmental development by enabling local governments to apply a district's limited resources effectively for optimal use. Integrated development planning is a participatory process that ensures a diverse range of stakeholders are involved in the formulation and design of programs and strategies that improve community livelihoods.

The Integrated Development Plan (IDP) will guide and inform Luangwa Town Council in all planning and development initiatives and will serve as the foundation for Output-Based Budgeting (OBB). A key outcome of the IDP is to enhance the coordination and integration of programs and projects across various sectors, thereby maximizing their impact on the

community. The IDP focuses on a 10-year period, extending beyond the 5-year term of political leaders, to ensure long-term planning. A Spatial Development Framework (SDF) has been developed to provide guidelines for a land use management system that supports the district's long-term strategic goal. Every effort has been made to align the Luangwa IDP with the SDF, ensuring that each 5-year IDP cycle serves as a building block toward the realization of the district's future development plans.

Beyond 2024, the OBB for the Local Authority, along with all Community Development Projects under the Constituency Development Fund (CDF), will be informed by the IDP. The plan will be linked to specific service delivery goals, implementation strategies, capital investment plans, and a monitoring and evaluation system aligned with the national development vision (Vision 2030). At the local authority level, collaboration with government departments will promote values such as transparency, professionalism, ethical behaviour, teamwork, competence, and stewardship to ensure the successful implementation of the IDP.

Special thanks go to all members of the District Development Coordinating Committee (DDCC) for their participation in the preparation of this document. We are particularly grateful for the valuable contributions made during the development of this progressive plan.

Finally, we extend our gratitude to the IDP Technical Committee within the district, the District Administration, and the Ministry of Local Government and Rural Development for their commitment to financing and ensuring the successful completion of the IDP. May the vision of becoming "A Leading Trade, Transit, and Tourist destination for Socio-Economic Development by 2034" be realized.

A handwritten signature in black ink, appearing to be 'S. Malenga', written over a dotted line.

.....
Mr Stephen Malenga
COUNCIL SECRETARY

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List of Acronyms

8NDP	- Eighth National Development Plan
CDF	- Constituency Development Fund
CIESIN	- Centre for International Earth Science Information Network
CSO	- Central Statistics Office
DHO	- District Health Office
DNPW	- Department of National Parks and Wildlife
DWASHE	- District Water and Sanitation Health Education
DWRD	- Department of Water Resources Development
ECE	- Early Childhood Education
HIV/AIDS	- Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome
IDP	- Integrated Development Plan
LCDA	- Luangwa Child Development Agency (Child Fund)
LWSC	- Lusaka Water and Sewerage Company
MoFNP	- Ministry of Finance and National Planning
MoH	- Ministry of Health
MTEF	- Medium-Term Expenditure Framework
NCDs	- Non-Communicable Diseases
PHC	- Primary Health Care
PLP	- Primary Literacy Program
REA	- Rural Electrification Authority
RHC	- Rural Health Centre
SDG	- Sustainable Development Goals
TB -	-Tuberculosis
TEVET	- Technical Education, Vocational and Entrepreneurship Training
UNESCO	- United Nations Educational, Scientific and Cultural Organization
ZEMA	- Zambia Environmental Management Agency
Zamstats	- Zambia Central Statistical Office
ZNHSP	- Zambia National Health Strategic Plan

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PART ONE

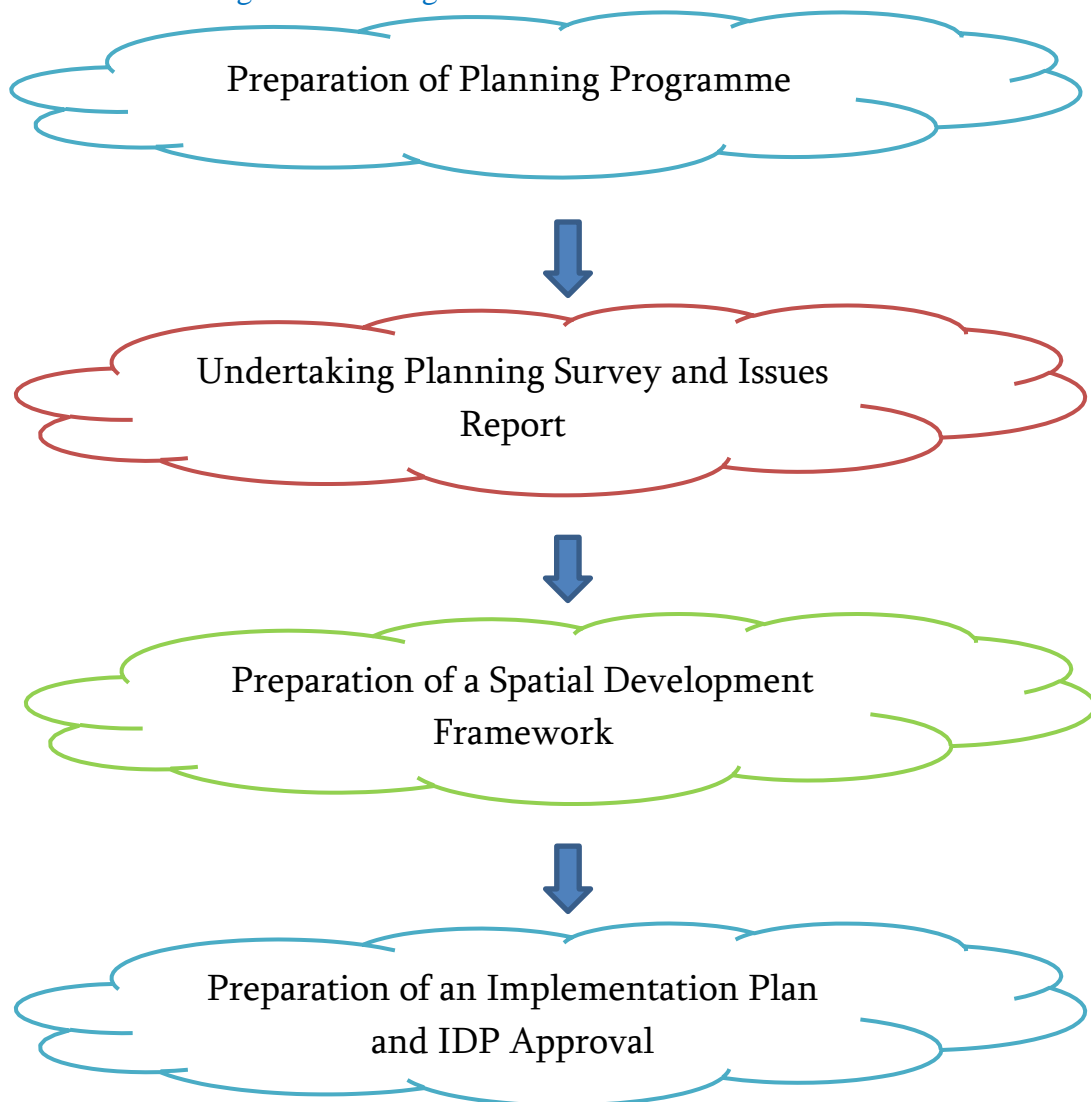
INTRODUCTION AND BACKGROUND

PART ONE: INTRODUCTION AND BACKGROUND

1.1 Introduction and Background

District planning is a complex process that needs to be conducted in a systematic manner with focus on key areas. This process also follows key steps in order to maximise the potential of planning in the context of the development of the entire District. An Integrated Development Plan (IDP) gives a common development perspective of the District amongst all stakeholders as illustrated below which shows the overview of the Integrated Development Planning process.

Figure 1: Overview of the Integrated Planning Process



Source: IDP Guidelines Volume One

1.2 Legal Requirements

It is a mandate that every Local Authority must prepare an IDP to guide development planning and management for a period of ten (10) years, reviewed every five years. An IDP is a legislative requirement under the URP Act No 3 of 2015, Section 19 (3) of the Laws of Zambia call for all Districts in Zambia to have an IDP as its key planning instrument. The aforesaid Act states that: “An Integrated Development Plan shall be the principal planning instrument to guide and inform all planning and development in the area of the Local Authority and all planning decisions of a Planning Authority”. This IDP covers the planning and development for the entire Luangwa District.

1.3 Organization of the Report

This report is organized in five (5) parts starting with the introduction and background, which focuses on the study area in terms of location, topography, hydrology, geology, land tenure and use. It also looks into the settlement pattern, vegetation and climate as well as institutional arrangements among others. The second part is the Planning Survey and Issues Report which looks at the, demographic analysis, population projections, consultations with stakeholder organizations and the community. It also focuses on the collection of spatial data, the assessment of future demand for services, as well as quality of service provision. Cross cutting issues are reviewed and presented under broad thematic areas and sectors. Core issues are identified and development needs assessed. Climate changes, gender, youth and cross cutting issues are also assessed under this section. The third part of the document looks at the Development Framework including the spatial development framework. Part four (4) of this document is the implementation plan, capital investment plan, financial Plan, program for the preparation of Local Area Plans and the Monitoring and Evaluation Framework. The final part of the report is the conclusion. It summaries the key findings, insights and recommendations. It reinforces the main points discussed in the report thus providing a sense of closure

1.4 Data Collection Methodology

The data used to prepare the IDP was generated from a desk review and feedback recorded by way of public consultations. The consultations were conducted in all the wards in Luangwa District, through the District Development Coordinating committees (DDCC) and other consultations with the business community, traditional authorities and community-based organisations. Empirical data, spatial data, policies and laws that might affect the preparation and implementation of an IDP were identified and mitigation measures to counter those foreseen issues incorporated in the report. The report provides a base upon which development proposals for the IDP area are formulated. The IDP process was developed in line with the guidelines provided by Ministry of Local Government and Rural

Development (MLGRD) as indicated below:

Figure 2: Integrated Development Planning Process



Source: IDP Guidelines Volume One

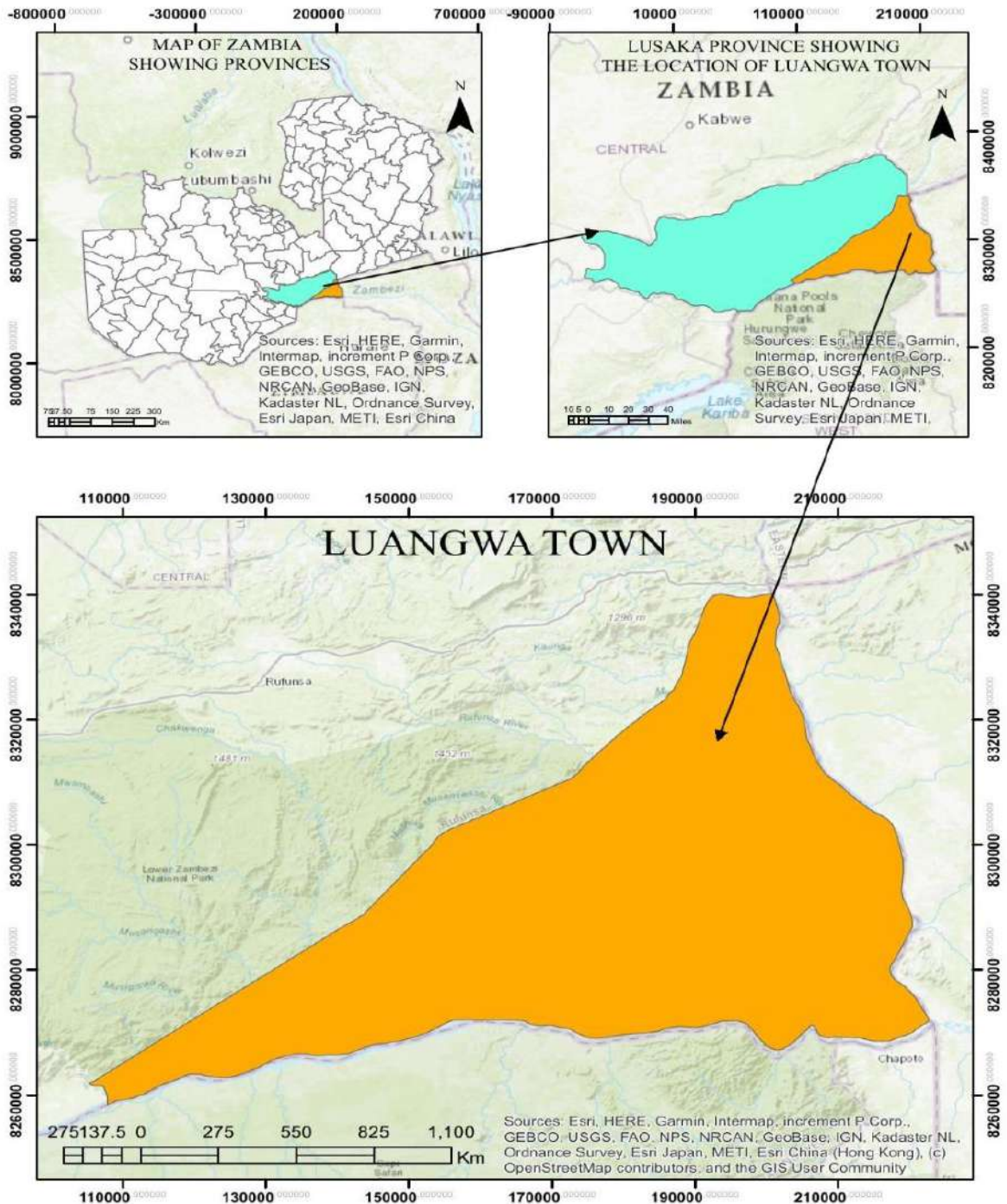
-
- 1) **Preliminary Step - Preparation of Planning Programme:** This stage provided for the development of goals and objectives for the planning process, structure of the planning process and management. A detailed budget and strategy for public participation for the IDP was also formulated.
 - 2) **Undertaking the Planning Survey and preparing the Issues Report:** Data was collected and analysed to understand the existing developments and conditions within the district. Core issues and their causes were assessed and the existing resources in the district were also assessed and mapped.
 - 3) **Preparation of the Development Framework:** Identified core issues and priorities assessed were used to develop a 10-year vision, goals, objectives and strategies for the IDP. Priority projects to be implemented were also identified.
 - 4) **Preparation of the Spatial Development Framework:** This is the stage where land use and settlement strategies for the IDP area represented were considered and mapped spatially.
 - 5) **Preparation of the Implementation Programme:** The IDP vision and objectives and a capital investment plan with clear strategies for the implementation of the IDP was developed.
 - 6) **Approval and Implementation:** Luangwa Town Council will present the District IDP to the council for consideration and adoption.

The IDP process made reference to the Eighth National Development Plan (8NDP), Wildlife Act, Local Government Act, New Urban Agenda, Africa Agenda 2063 and Sustainable Development Goals (SDG).

1.1 Location

Luangwa Town is located 320 kilometres South- East of Lusaka City. Luangwa is a border town which separates Zambia, Zimbabwe and Mozambique. The town is also located in the Lower Zambezi National Park and part of the Rufunsa Game management Area (GMA). It covers an approximate area of 3,886 square kilometres in the eastern part of Lusaka province with a population of approximately 35, 933 people. It has district borders with Rufunsa in the north, Mozambique in the east, Zimbabwe in the South and Kafue District on the west. The town is not only rich in wild life but also has a number of heritage sites as well as the confluence of Luangwa and Zambezi Rivers.

Spatial Location Of Luangwa Town



1.2 Luangwa - Historical Context

The history of Luangwa dates back to the Seventeenth Century (Luangwa DSA, 2007). Luangwa was originally established as a trading post called Feira along with Zumbo in Mozambique by a group of Portuguese colonialists from Goa. These two trading posts flourished into settlements and eventually, towns namely Zumbo (in Mozambique) and Luangwa in Zambia, respectively.

The first British Overseas Military Administrator (BOMA) was established in 1902 (Luangwa DSA, 2007) and the Township developed into an important transit point for various goods and merchandise. At this point, Feira was an important staging post on the cattle route from Tanganyika (Tanzania) to Southern Rhodesia (Zimbabwe). However, Feira's significance declined with the introduction of the railway line from the south, through Livingstone, going up north into Tanzania.

Luangwa District is one of the six (6) Districts in Lusaka Province of Zambia and covers an area of 3,886 Km². It borders with Chongwe District in the West as well as Mozambique and Zimbabwe in the east and south respectively. The Civic Centre is situated approximately 325 km from the capital city of Zambia (Lusaka) at the confluence of the Luangwa and Zambezi Rivers. It was established in 1977 out of Rufunsa Rural Council. The Headquarters were shifted from Chitope to Luangwa Township through the enactment of the Local Administration Act Number 15 of 1980 and became a District Council.

1.3 Climatic Conditions

Luangwa Town lies in the valley and is generally very hot most times of the year, its climate supports a very unique ecosystem. It has three distinct seasons namely; the cool dry season, the hot wet season and the hot dry season.

The cool dry season typically spans from May to August with the cooler months being May, June and July where average daily temperatures are moderate and comfortable ranging from 20 °C to 25 °C during the day and dropping at night to around 10°C to 15°C and can sometimes go even lower in June and July. The hot wet (rainy season) typically commences from November to March with the highest rainfall occurring in January and February averaging 233mm and 287mm respectively. While the hot dry season is from August to October. It spans from May to September with very little to no rainfall making these months particularly arid. The hottest

months are October, November and December with average daily temperatures ranging from 27 °C to 30 °C. Temperatures for the first two seasons range from 16 °C to 30 °C while for the hot season the range is between 30 °C to 40 °C.

1.4 Altitude

The eastern, north-eastern to south-western parts of the District (Valley flow covers) Heights ranging on average from 300m to 600m above sea level. Lowest altitude is 325m above sea level.

1.5 Hydrology and Drainage

The rainy season which is from December to April respectively allows for flooding due to the natural hydrology of the Luangwa River. Luangwa River has many tributaries; the western tributaries include the Ilinda, Chinga Misesi, Kava, and the Lusemfwa which flow in a relatively straight pattern in the flat terrain from the plateau to the east and drain into the Luangwa River. Additionally, Luangwa River is the main river resource of the area flowing from north to south forming the eastern boundary, having Chilukusha, Kakala, Kaunga, Kaulungu, Mulambwa, Janeiro streams. The other is Rufunsa River, flowing from the North-west boundary, cutting through the west, forming part of south east boundary and cutting through the southern part before joining Luangwa River.

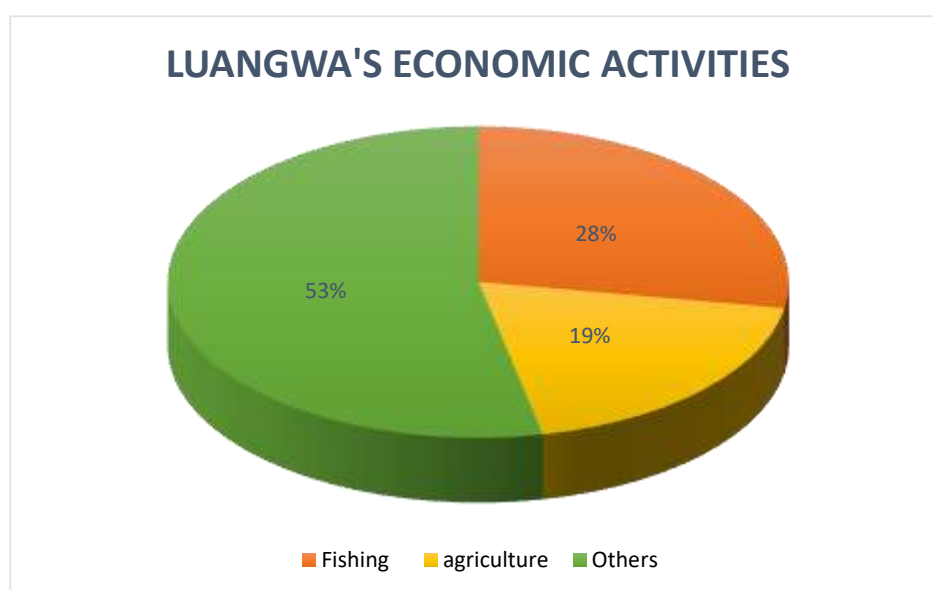
Chakwenga is another notable River, forming the South-west boundary having Nyautayi, Kabwala, Kamilulu, Mulambo and Chamukuwe as its tributaries with their main drainage system flowing from Malamba, Kabwala and Chipungu hills. The Zambezi River forms part of the southern boundary with Mkaliva and Kalulu as its tributaries.

Most of the streams dry up in the dry season leaving only sand deposits and or gravelly stones in river beds. This comes as a result of both water transportation and deposition from high lands, thus the rivers are easily saturated in the rainy season and get flooded very often. The floods extend in the valley owing to the imperfectly drained soils and active water movement from the upland. In addition, agriculture activities are affected as the rivers and streams dry up especially when there has been less precipitation received. Therefore, people are made to do most of their gardening or even seasonal farming along the Luangwa River, which in turn gets affected by flooding when the waters in the hill turn to fill up the river.

1.7 Local Economic Activities

This section gives an outlook of Luangwa's economy as it is situated along the Luangwa River and Lower Zambezi River which are endowed with plenty water and vegetation. Therefore, its major economic activities are fishing and charcoal burning. Fishing accounts for 27.7% of the economic activities in the District and has attracted a lot of traders to the district from across the Country and neighbouring Countries such as Zimbabwe and Mozambique. Agriculture accounts for 19.0% of the economic activities in the district but are carried out on a small scale due to harsh hot weather conditions and Human- Animal conflict. Rearing of livestock is also one of the local economic activities in Luangwa additionally, Craft making of reedmats and baskets is another economic activity done at a low scale and mainly sold at Luangwa Bridge market under Rufunsa District.

Since Luangwa is a border town, its residents are also involved in cross border trade with Mozambique and Zimbabwe through small retail shops, wholesale, barbershop, salons, bars, mobile money booths which provide a ready market for goods and services. They are led by the market advisory committees under the supervision of the Local Authority and guided by the Bus station and Market Act. However, there hasn't been adequate infrastructure development for the manufacturing, tourism and trade and commerce industries in the District. They are still largely under developed and only accounted for a combined 16.45% of the economic activities in the district as of 2012.



Source: IDP TEAM (2024)

The Central Business District is characterized by formal businesses which include two filling stations, a financial institution specifically Zambia Industrial Cooperation (ZICB) Bank and Micro-finance institutions namely Tottengram. In addition to this the CBD is further characterized by hospitality facilities namely Gerasmos, Makchilo, Nyabota, Yangoma, Justfeli, Kantuleni Executive and Feira Lodge. Some of the tourist sites, available in Luangwa include a Heritage site located in Kavalamanja called the “Kavalamanja Liberation War” where the Soldiers in the Battle of Kavalamanja of 1978 were buried and the event is commemorated every year at the site.

The Lower Zambezi River which has a lot of Hippos and Elephants has attracted investments in terms of Lodges along the banks of the River. The District needs to boost its economic activities as it still has a huge potential for growth and development. There is therefore, need to establish strategies that will facilitate the improvement of infrastructure along with tourism development.

1.8 Business Constraints

There are a number of factors that act as constraints to the business environment. Adverse weather Conditions due to the impact of Climate Change and the District is situated in Ecological Region Zone 3, which is known as one of the hottest, driest, and poorest places with regular drought events. It has a warm, dry climate with yearly rainfall of about 600 to 800 mm, it is a region that is prone to drought. In the months of October, November, and December, Luangwa district typically receives high temperatures that reach between 40 and 45 degrees Celsius. Droughts and dry spells are highly prevalent in the region due to the hot weather's high evaporation rates and short rainy season. There are high incidences of flash floods from Luangwa River and streams from rain water coming upstream resulting into a decline in production. In addition, the district has been experiencing increased pest outbreaks especially Fall Army Worms.

Luangwa has underutilized natural resources, which could promote tourism, agriculture, manufacturing and other industries as well as value addition on untapped natural resources like wild fruits (Baobab and Masau fruit) dominant in the District. However, there was high financial illiteracy levels amongst the people nonetheless; with the increase in the scope of CDF and other financial institutions, people now had access to money which they could use as a revolving fund

and seed money for the betterment of their lives. Previously, there was a complaint from the community that the procedure to access financial assistance from Financial Institutions to support Small Medium Enterprise was quite Tedious, but this was also addressed by the increment of CDF which was accessible to youths, women, men and business owners. It had also been noted that, there were inadequate storage facilities for goods such as fresh fish, this forced fish traders to source for freezing facilities in people's homes at a fee in order to keep the fish from going bad.



PART TWO

PLANNING SURVEY AND ISSUES REPORT

PART TWO – PLANNING SURVEY AND ISSUES REPORT

2 Demographic Analysis

This section provides demographic analysis in order to inform the assessment of service provision and guide planning of development programmes in the district

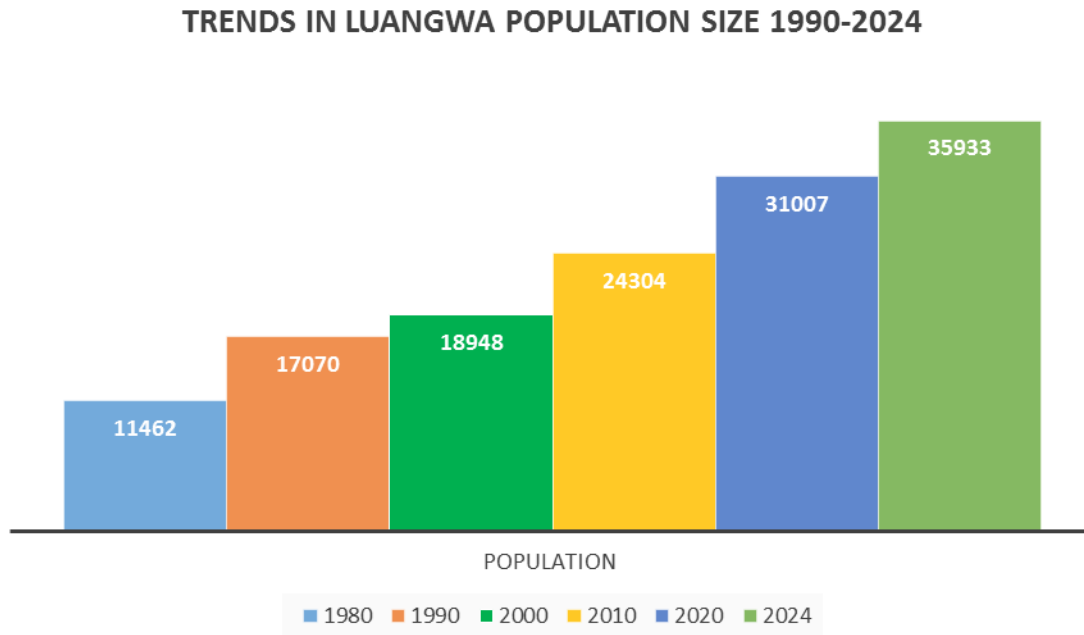
2.1 Historic Population Levels and Historic Population Growth Rates

The Population of the district had continued to increase from 11,462 in 1980 and 17,070 in 1990 to 18,948 in 2000 according to the 1980, 1990 and 2000 Census of Population and Housing by the Zambia Statistical Office (Zamstats). In addition, the 2009 population was estimated at 24,330 based on the preliminary survey for the 2010 Census of Population and Housing as well as data depicted by satellite imagery.

The mean annual population growth rate of the district, however, recorded a sharp decline from 4.9% during the 1980-90 Intercensal period to 1.1% during the 1990-2000 period while, in comparison to that of Lusaka province (rural) recorded a great increase from 2.0% to 5.4%. As of the 2020 and 2021 Zambian Census, the District continued to record an increase in population from 31,007 people in 2020 to 37,001 in 2021. However, in 2022 Luangwa recorded a population of 35,933 people, depicting an annual population change of 1.7% from 2010 to 2022 and a projected annual growth rate of 3.4% as in accordance with the Zambia Statistical Office (Zamstats).

The Historic population levels and growth rates have changed overtime from 1990 to 2024 the base year of the Integrated Development Plan. Due to different factors such as population change. This is illustrated in the figure below;

Figure 3: Trends in Population Size Luangwa 1990-2024

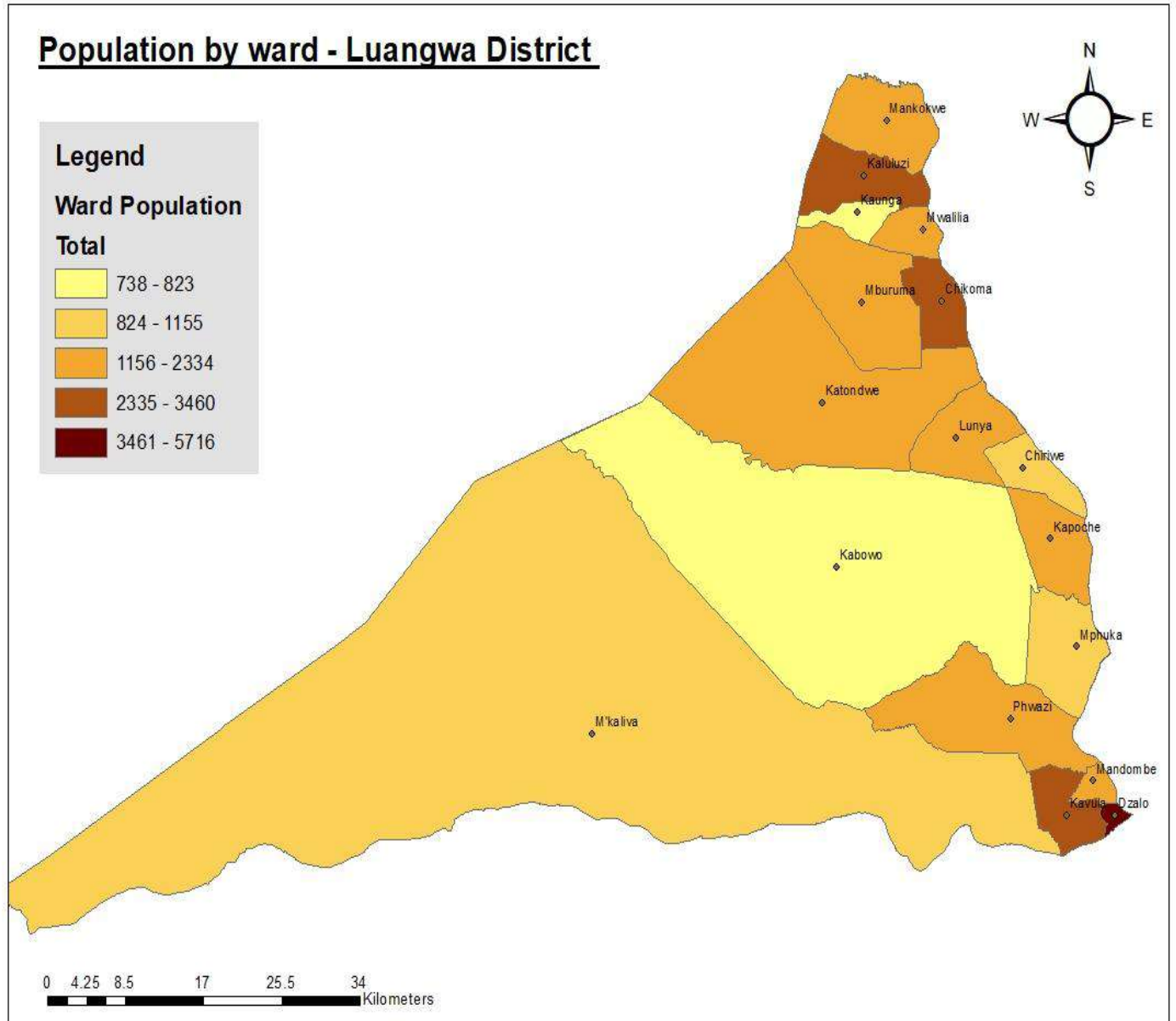


Source: Zambia Statistical Office (Zamstats 2011-2035)

2.2 Population Density at Ward Level

Population density is a measurement of population per unit land area or in simpler terms the number of individuals divided by the size of the area. As of 2010 the district's population density was at 6.277/km² covering an area of 3,866 km² Area. In 2022 the population density was 9.3 persons per square km of 3,866Km². This was in accordance with the Zambia Statistical Office, its reference period is 18th August to 8th September, 2022.

Figure 4: Population Density by Ward



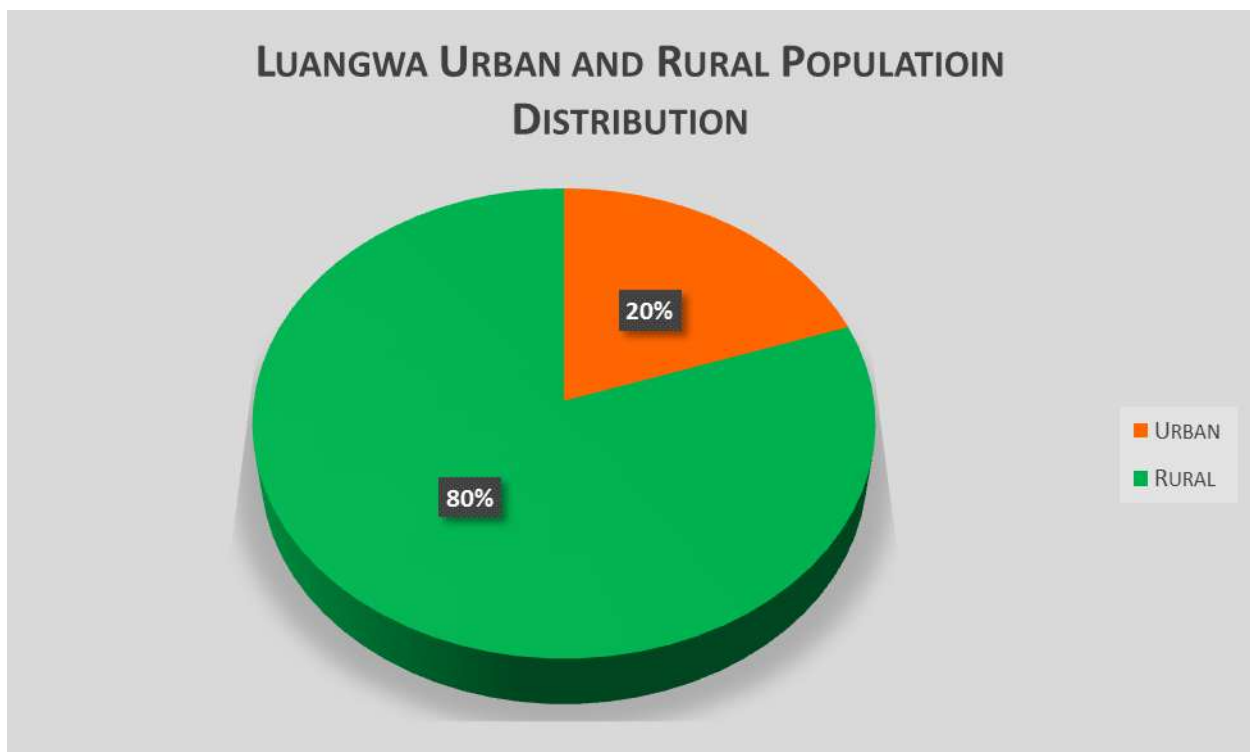
Source: Zambia Statistical Office (Zamstats 2011-2035)

2.3 Population and Population Growth Rates of Urban and Rural Areas

Population growth rate of Urban and Rural areas is influenced by Migration which is one of the components of demography. Luangwa's strategic location at the borders with Zimbabwe and Mozambique, is affected by both international and internal migration as a result of push than pull factors. The push factors forced residents of the District to move out, whereas pull factors encouraged a person to move into the District.

The population in 2010 stood at 24,304 with a distribution for rural and urban areas at 80.3% representing 19, 507 people and 19.7% representing 4, 797 people respectively. This is shown in figure below

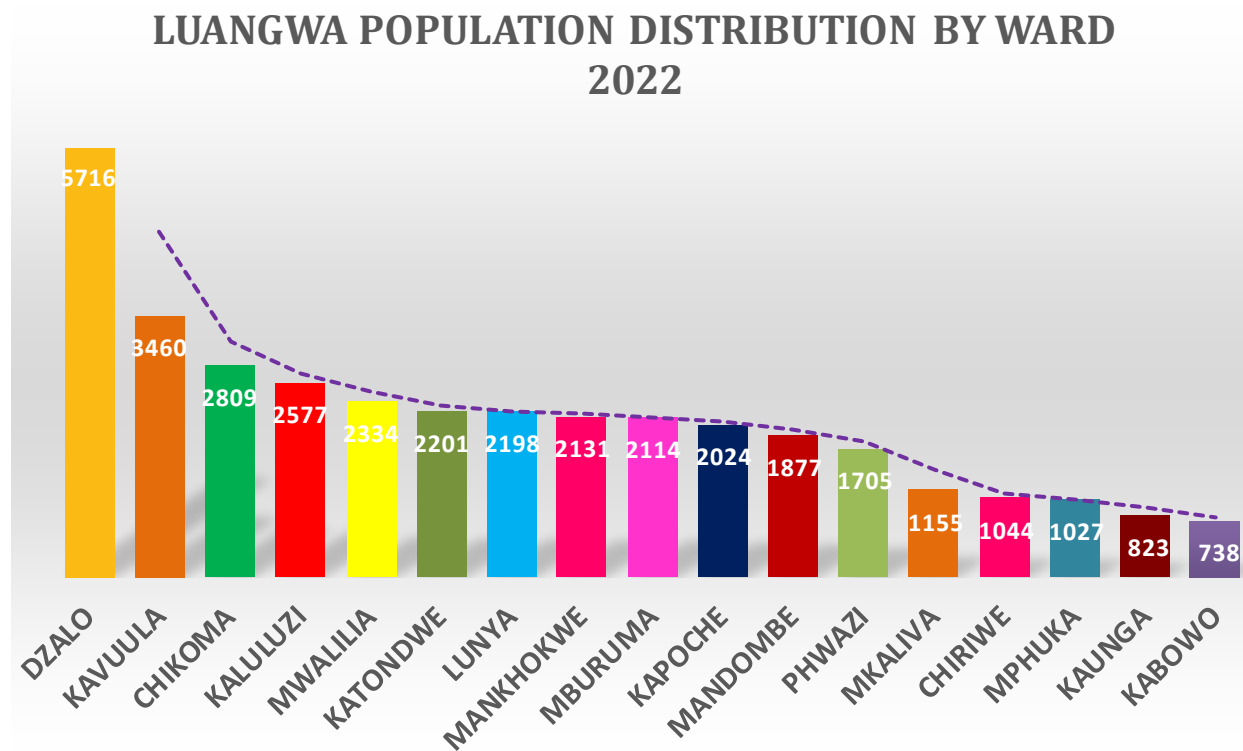
Figure 5: Luangwa Rural and Urban Population Distribution



Source: Zambia Statistical Office (Zamstats 2011-2035)

Most of the wards were located in the rural part of the district and population distribution at ward level was therefore shown in each ward accordingly as shown below;

Figure 6: Population Distribution by Ward



Source: Zambia Statistical Office (Zamstats 2011-2035)

Further Luangwa was negatively affected by both social and economic migration as people moved out of the District in search of a better quality of life and employment opportunities. The adverse effects of both social and economic migrations in the District led to declines in the work force leading to labour shortages affecting local businesses and industries reducing the demand for goods and services thereby impacting the local economy and ultimately leading to a negative Net Migration Rate (NMR) for lifetime migration. According to Zamstats report of 2000, Luangwa District recorded a negative NMR of 27.5%, meaning that there were more out flows than there were in flows, into the District. This was the lowest record in Lusaka Province but was expected to reduce towards the positive as the District developed into an urban area. The District had a population of 35,933 people according to the 2022 Zambian Census and most of the population was concentrated in the township and dispersed along the D145 Road including major feeder roads and

along the rivers.

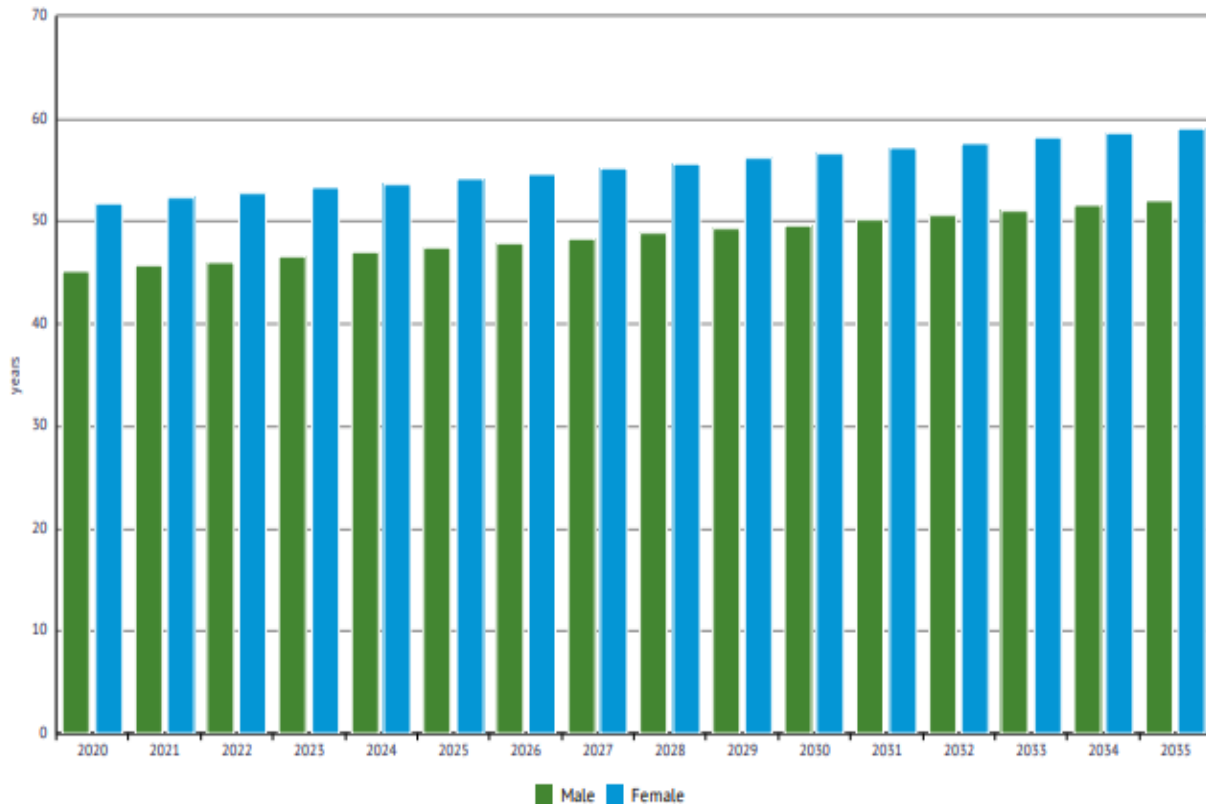
2.4 Population at Base Year

In 2024, the base year of the Integrated Development Plan, the population of Luangwa District stood at 35,933. The annual growth rate was at 1.7% as in accordance with the Zambia Statistical Office with a population change of 3.4% from 2010 to 2022. Based on the cohort method of projection, the population of Luangwa was expected to increase to 50, 199 by the year 2034 which is the IDP period.

A gradual increase in life expectancy at birth was expected during the projection period for both males and females. Overall life expectancy at birth was expected to rise during the projection period from 45.20 years to 52 years for males and from 51.80 years to 59.10 years for females by the year 2035. The increase in life expectancy at birth was assumed to result from overall declines in both childhood and adult mortality. See the graph below for further illustration.

Chart 1: Life Expectance at Birth

Life Expectancy at Birth - Luangwa - Total



Source: Central Statistical Office (CSO 2011-2035)

The impact of health interventions aimed at reducing morbidity and disease burden from major killers of children and adults such as Malaria, HIV/AIDS, diarrhoea, and malnutrition among others, were expected to contribute towards improved survival prospects for both males and females. Life expectancy at birth for males would increase by 2035 see the (Table) below for further details.

Figure 7: Life Expectance at Birth for Male vs Female

Luangwa - Total

Time	Life Expectancy at Birth		Total Fertility Rate
	Male	Female	Total
Units	years	years	births per woman
2020	45.20	51.80	4.80
2021	45.70	52.30	4.80
2022	46.10	52.80	4.80
2023	46.60	53.30	4.70
2024	47.00	53.70	4.70
2025	47.50	54.20	4.60
2026	47.90	54.70	4.60
2027	48.40	55.20	4.50
2028	48.90	55.70	4.50
2029	49.30	56.20	4.50
2030	49.70	56.70	4.40
2031	50.20	57.20	4.40
2032	50.70	57.70	4.30
2033	51.10	58.20	4.30
2034	51.60	58.70	4.20
2035	52.00	59.10	4.20

Source: Zambia Statistical Office (2011-2035)

The infant mortality rate in Luangwa district stood at 14.10% in the year 2019 and dropped to 7% by the year 2020 which was the base year and continued to drop to 5% in the year 2021 and dropped further to 2.4% in 2022. This slow pace of decline in infant mortality was in line with historical trends projected to decline by a quarter (25 percent) during the period 2011-2035. Nonetheless if child survival prospects were to be improved in the long run, the necessary interventions involved the provision of packages of essential primary health-care services for children across a continuum of care that spans pregnancy, childbirth and after delivery, leading to care for children in the crucial early years of life. It might also require greater and focused interventions in the area of maternal and child health.

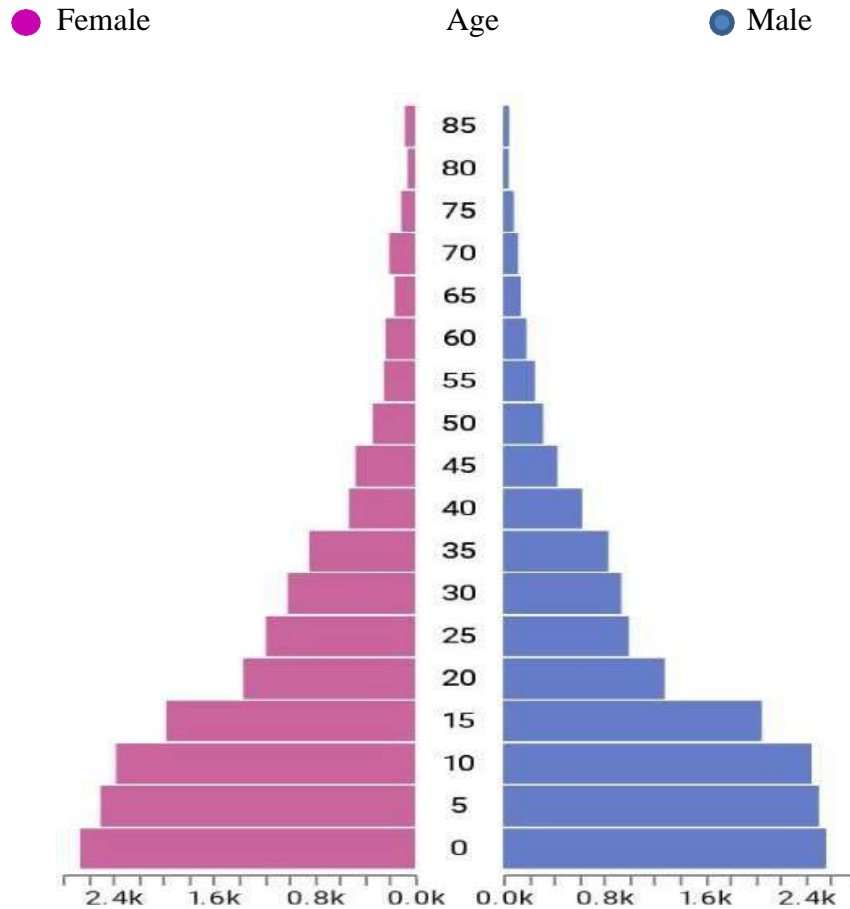
Infant mortality rate (Luangwa)	2019	2020	2021	2022
	14.10%	7%	5%	2.4%

Source: District Health Office

2.5 Age and Sex Characteristics of Population at Base

Owing to Luangwa’s continued fast pace of population growth during the projection years, the age structure was expected to remain relatively unchanged during the period. The population age structure depicted using the population pyramids are representation of the combined effect of fertility and mortality levels and patterns prevailing during the projection period. The broad base showed the effect of continued high fertility, while the narrowing in older ages, the continued effect of high adult mortality. As illustrated in the figure below;

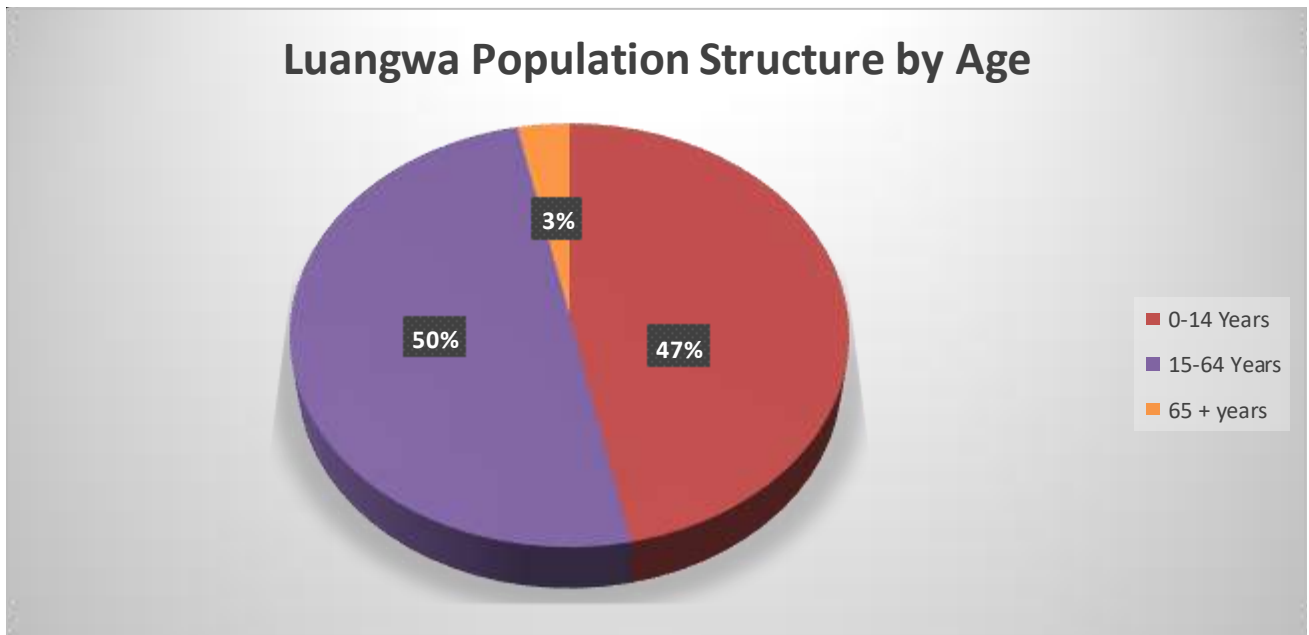
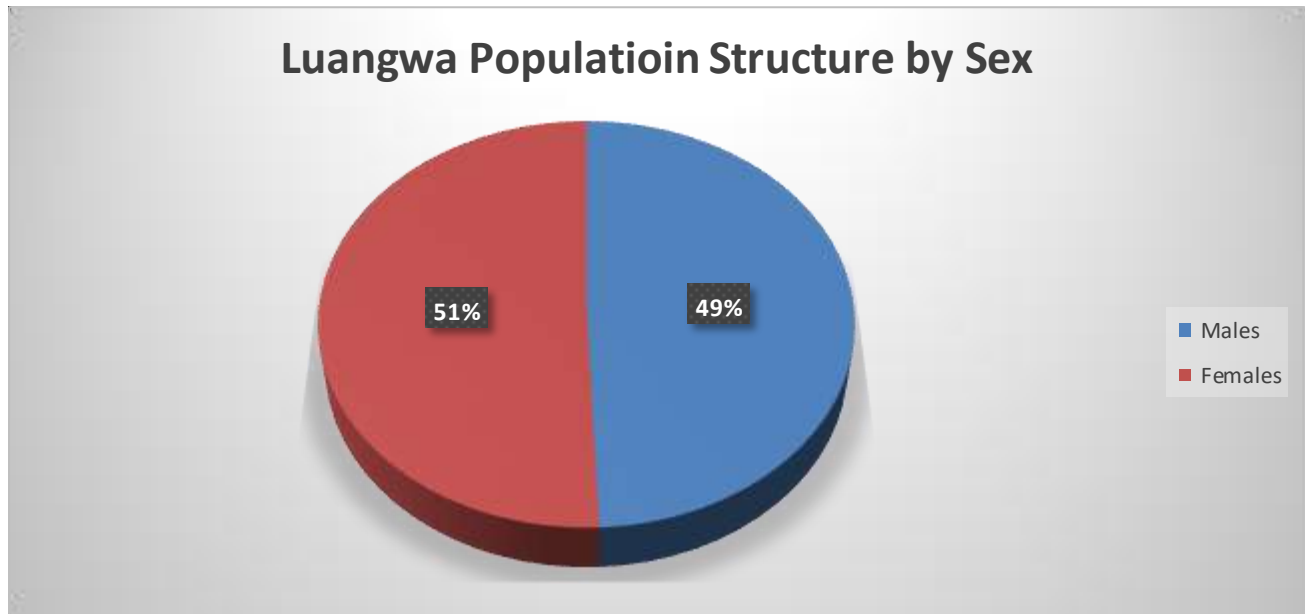
Figure 8: Population by Age and Gender



Source: Central Statistical Office (CSO 2010)

Females accounted up to 51% of the total population while males accounted for 49% of the total population as shown in the first pie chart. The pie chart below depicts the age distribution from 0-14 years, 15-64 years and 65+ years.

Figure 9: Shows Further Information on Population Structure

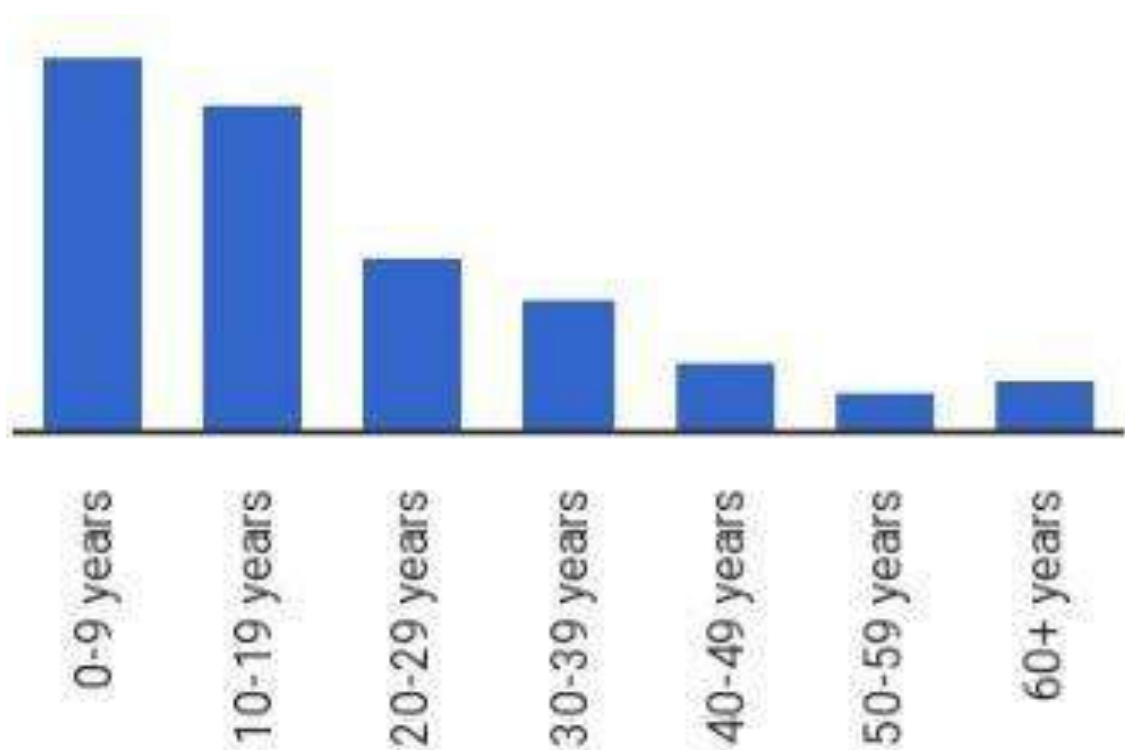


Source: Zambia Statistical Office (Zamstats 2011-2035)

Furthermore, population according to age distribution was as follows; 0-9 years made up 7, 724 of the total population, 10-19 years made up 6, 702 years, 20-29 years accounted for 3, 623 of the total population and 30-39 years accounted for 2, 729. It was therefore deduced that Luangwa had a youthful population with the median age being at 16.3 years while that of males was at 16 years and females 16.6 years of age.

The adults from 40-49 years only accounted for 1, 553 of the total population, while those from 50-59 years and 60+ years accounted for 863 and 1, 110 respectively of the total population of Luangwa as shown in the graph and table below.

Age and Population Distribution



Source: Zambia Statistical Office (2011-2034)

The Table below also shows Luangwa's Population Distribution by Age

Table 1: Luangwa's Population Distribution by Age

AGE	POPULATION
0-9 years	7, 724
10-19 years	6, 702
20-29 years	3, 623
30-39 years	2, 729
40-49 years	1, 553
50-59 years	863
60+ years	1, 110

Source: Zambia Statistical Office (2011-2034)

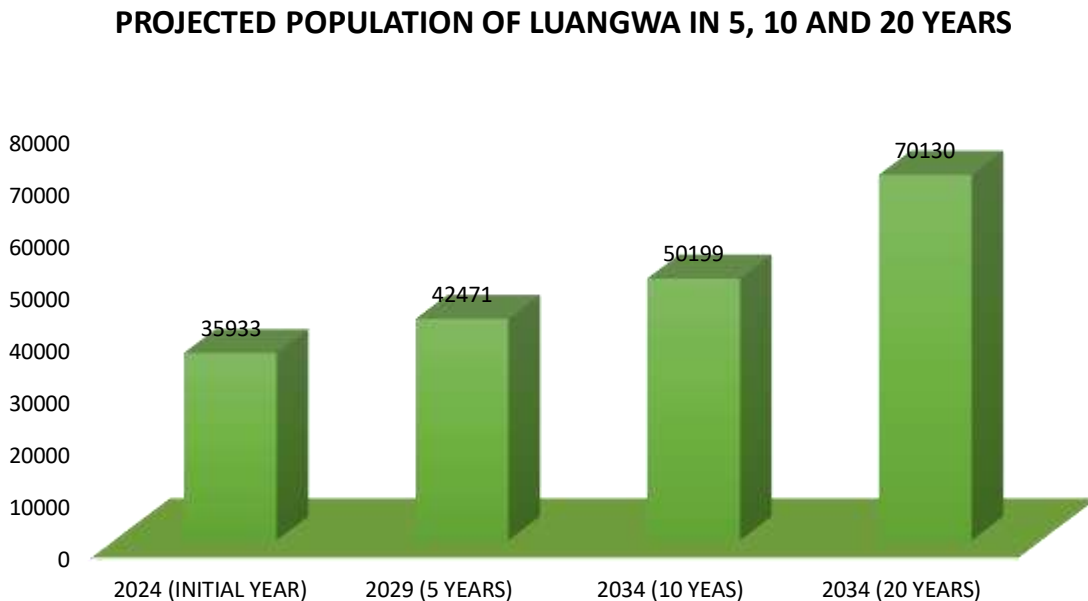
3.0 POPULATION PROJECTIONS

The future population estimates in this report was based on the Zambian Statistical Office projections of 2000, which utilizes a cohort method capturing three components of population change namely, fertility, mortality and migration (external and internal).

3.1 Estimate of the future population of the IDP area in 5, 10 and 20years.

On the basis of the future population estimations of Zamstats projections of 2034 and Centre for International Earth Science Information Network (CIESIN), the population of Luangwa was expected to continue growing. In the space of five (5) years the Population of Luangwa District was expected to increase to 42, 471, at the rate of 3.4%. Maintaining the growth rate of 3.4% the population would be expected to increase further to 50, 199 in Ten (10) years and 70, 130 people in 20 years respectively showing a 100% mid-year population growth as shown in the graph below;

Figure 10: Population Projections



Source: Zambia Statistical Office (2011-2035)

Further information according to age and sex of the projected population are shown in the table below for the whole planned period in the next 5 and 10 years 20 years respectively.

Table 2: Projected Population for Luangwa District

Age, Sex & District of Residence	2019			2020			2025			2030			2035		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
Luangwa District															
Total	30,007	14,851	15,156	30,496	15,092	15,404	32,765	16,218	16,547	35,519	18,007	17,512	36,330	18,007	18,323
0-4	5,263	2,629	2,634	5,310	2,654	2,656	5,419	2,715	2,704	5,395	2,711	2,683	5,371	2,711	2,660
5-9	4,864	2,500	2,364	4,956	2,548	2,408	5,305	2,734	2,571	5,438	2,817	2,622	5,428	2,817	2,611
10-14	4,059	2,174	1,885	4,107	2,198	1,909	4,412	2,369	2,043	4,774	2,605	2,169	4,812	2,605	2,207
15-19	3,249	1,715	1,534	3,276	1,744	1,532	3,460	1,854	1,606	3,811	2,114	1,696	3,900	2,114	1,785
20-24	2,187	1,083	1,104	2,196	1,091	1,105	2,259	1,176	1,083	2,430	1,310	1,120	2,480	1,310	1,171
25-29	1,823	810	1,013	1,836	819	1,017	1,841	820	1,022	1,903	908	995	1,930	908	1,022
30-34	1,792	768	1,024	1,808	773	1,035	1,904	832	1,071	1,950	878	1,073	1,924	878	1,046
35-39	1,685	732	954	1,727	740	986	1,812	744	1,068	1,910	802	1,109	1,917	802	1,115
40-44	1,367	689	677	1,407	699	708	1,646	766	881	1,798	840	958	1,843	840	1,002
45-49	1,077	541	536	1,134	564	570	1,334	619	715	1,594	700	894	1,681	700	981
50-54	655	351	305	693	374	319	971	515	456	1,213	639	574	1,362	639	722
55-59	540	286	273	556	278	278	668	358	310	998	556	442	1,115	556	559
60-64	415	173	242	433	180	253	512	222	290	728	403	325	869	403	466
65-69	295	137	158	305	141	164	385	171	215	525	278	247	557	278	279
70-74	319	116	203	327	119	208	362	132	230	502	202	300	547	202	345
75-79	177	76	102	183	78	104	220	96	125	266	130	136	305	130	176
80+	240	91	149	243	92	151	256	97	159	283	114	169	289	114	175

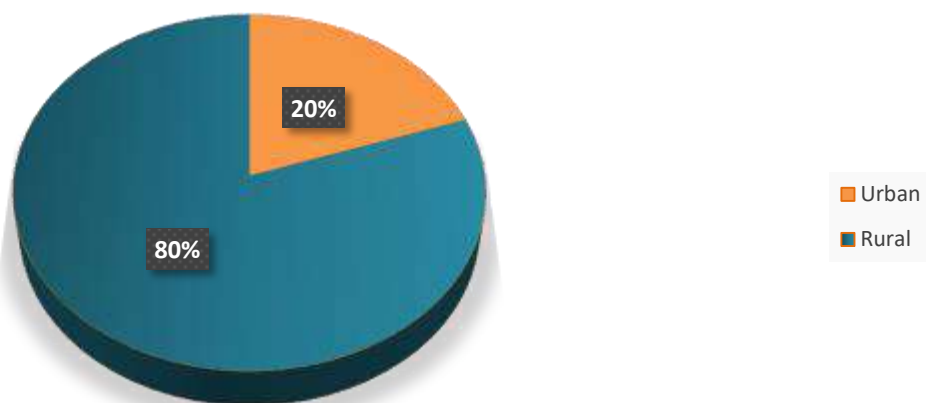
Source: Zambia Census projections (2011-2035)

3.2 Estimate of the future urban population of the IDP area in 5, 10 and 20 years.

According to City Population, the urban population of Luangwa stood at 4,797 while that of the rural area stood at 19,507 as of 2010 showing a big margin in the two population distribution patterns as shown below.

Chart: showing population distribution in Urban and Rural areas of Luangwa

Luangwa Urban and Rural Population Distribution



Source: Zambia Statistical Office (Zamstats).

The Projected Population for the urban areas was expected to continue growing as more human resource was sent to fill in positions in Government Institutions to cater for the growing needs of the population so as to deliver services. Further improved health, education, investment and infrastructure development would attract more people to live in the district. Border towns like Luangwa often serve as hubs for cross border trade, job creation and economic activities boosting the local economy and thereby attract more people including economic migrants in search of greener pastures from neighbouring countries thus contributing to population growth. Given that the mortality rate remains low amongst other factors Luangwa's urban area is expected to grow. According to the future projected population estimates of the IDP area, Luangwa District's population was expected to increase to 42, 471 at the rate of 3.4% in the space of five (5) years. The urban area only covers 20% of the entire district while the rural population covered 80% thereby translating to urban population being 8, 494 and 33977 being the rural population. Maintaining the growth rate of 3.4 % the population would be expected to increase to 50, 199 in Ten (10) years which would translate into the urban population growing to 10, 040 while the rural population would grow exponentially to 40, 153 people. In the space of 20 years the districts population is expected to grow further to 70, 130 people, thereby creating demand for more basic needs such as shelter, water and food and consequently resulting into both positive and negative effects.

A growing Population creates the need to provide more housing, social services, employment and other infrastructure. Further population growth calls for establishment of mechanisms that will address issues of environment and sustainable development. On the other hand, an increase in population also has a few positive effects. This is seen in terms of an available work force, economic boost, low mortality rate, increased innovation, and so on. Research showed that Luangwa was predominantly a low-income District with over two thirds of the population earning less than Five Hundred Kwacha (K500.00) per month. This was in accordance with the Luangwa Integrated Development Frame work of 2012, done by the Lusaka Planning Authority physical planning unit.

Further income distribution varied between the township and traditional regions with 15.7% and 38.1% in the respective areas earning below K100. It further revealed that people earned over One Thousand Kwacha (K1000.00) and only 0.6% of the entire district population earned over

Five Thousand Kwacha (K5000.00). The low-income levels in the district signified low savings and investment levels as could be envisaged from the low and predominantly primary economic activities practiced at subsistence level in the district, consequently leading to high levels of poverty among the communities living in Luangwa district as of 2012. However, with the growing of the population the income level is expected to change upward both in rural and urban areas of Luangwa.

3.3 Estimate of the future rural population of the IDP area in 5, 10 and 20 years.

The Rural population of Luangwa had since been higher than that of the urban area with a percentage of 80 making 19, 507 people of the total population in 2010. It was expected to maintain this growth rate and increase to 28,854 of the total population in the next 5, 10 and 20 years, despite the district having a record of more outflows than inflows. In 2022 the population stood at 35933 and future population estimates were projected to increase to 50, 199 at the rate of 3.4% in the space of five (5) years. Maintaining the growth rate of 3.4% the population would be expected to increase to 10, 040 in Ten (10) years and 70, 130 in 20 years. The rural population covers 80% of the district meaning that in five years the rural population would be 33977. Maintaining the growth rate of 3.4 % the rural population would grow exponentially to 40, 153 people. In a space of 20 years the rural population was expected to increase to 56,104.

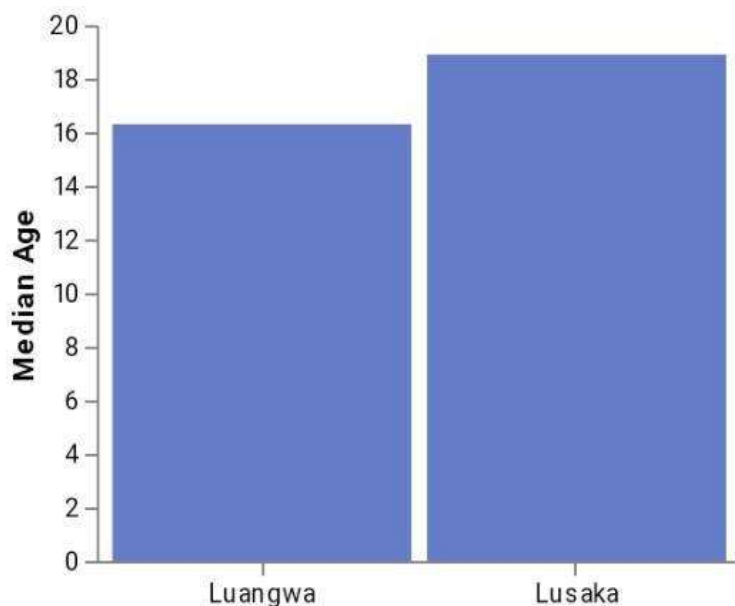
Other factors that had continued to sponsor the high population in rural areas had been, international migration. Most of the village settlements were scattered along the Luangwa River which was the only space between Luangwa and Mozambique, the other factor was high fertility rates. According to District Health and DEBS Offices, it had been noted that there was a high rate of teenage pregnancies as well as early marriages in the rural parts of the District, as compared to the urban areas, thereby being a contributing factor to the high population growth in the rural parts of the district.

However, as the rural parts of the district begin to be developed with the increase of the Constituency Development Fund, it was expected that the outflows would be reduced thereby contributing to the rural population.

3.4 Age and Sex Characteristics of Population at Year 5 and Year 10

According to the 2021 Zambian Census, the District had a population of 31,007 people of which 15,286 made up the males and 15,721 females. Luangwa had a youthful population with the median age being at 16.3 years. That of males was at 16 years, while that of females was 16.6 years of age according to Centre for International Earth Science Information Network (CIESIN). According to the European Commission Joint Research Centre, the median age for Rufunsa and Chongwe, Luangwa’s neighbouring Districts, was 17 years, that of males being 17.1 years, slightly higher than that of females which was 16.8 years. This shows that Luangwa’s population is younger than that of Rufunsa and Chongwe.

Figure 11: Median Age of Luangwa and Lusaka



Source: Centre for International earth Science Information Network (CIESIN)

Table 3: Median Age of Luangwa and Other Districts

Location	Median Age	Median Age -Male	Median Age -Female
a) Luangwa	16.3 years	16 years	16.6 years
b) Rufunsa	17 years	17.1 years	16.8 years

c) Chongwe	17 years	17.1 years	16.8 years
d) Chilanga	18.8 years	19.2 years	18.4 years

Source: European Commission joint research centre

4.0 ASSESSMENT OF THE EXISTING LAND USE AND SETTLEMENT PATTERN IN THE DISTRICT

Luangwa District exhibited distinctive land use and settlement patterns shaped by its geography, economy and cultural practices. The aspect of its geography was characterized by its proximity to the confluence of the Zambezi and Luangwa Rivers, which significantly influenced land use and settlement while its aspect of economy influenced how that majority of its population engaged in subsistence farming, fishing and livestock rearing. Finally its human settlements were characterised by small villages scattered throughout the district with a low population density. This section therefore endeavours to provide the existing land use and settlement patterns in Luangwa District.

4.1 Overall Settlement Pattern

The settlement pattern in Luangwa District was such that, most of the population was concentrated in the township and dispersed along the D145 Road including major feeder roads and along the rivers. Its settlement patterns were largely influenced by the physical environment and economic activities. It was characterised by a mix of rural and urban settlements. The District had the lowest population density of 8.39 persons per square km, below that of Lusaka province and Zambia.

4.2 Urbanising Villages and Growth Nodes

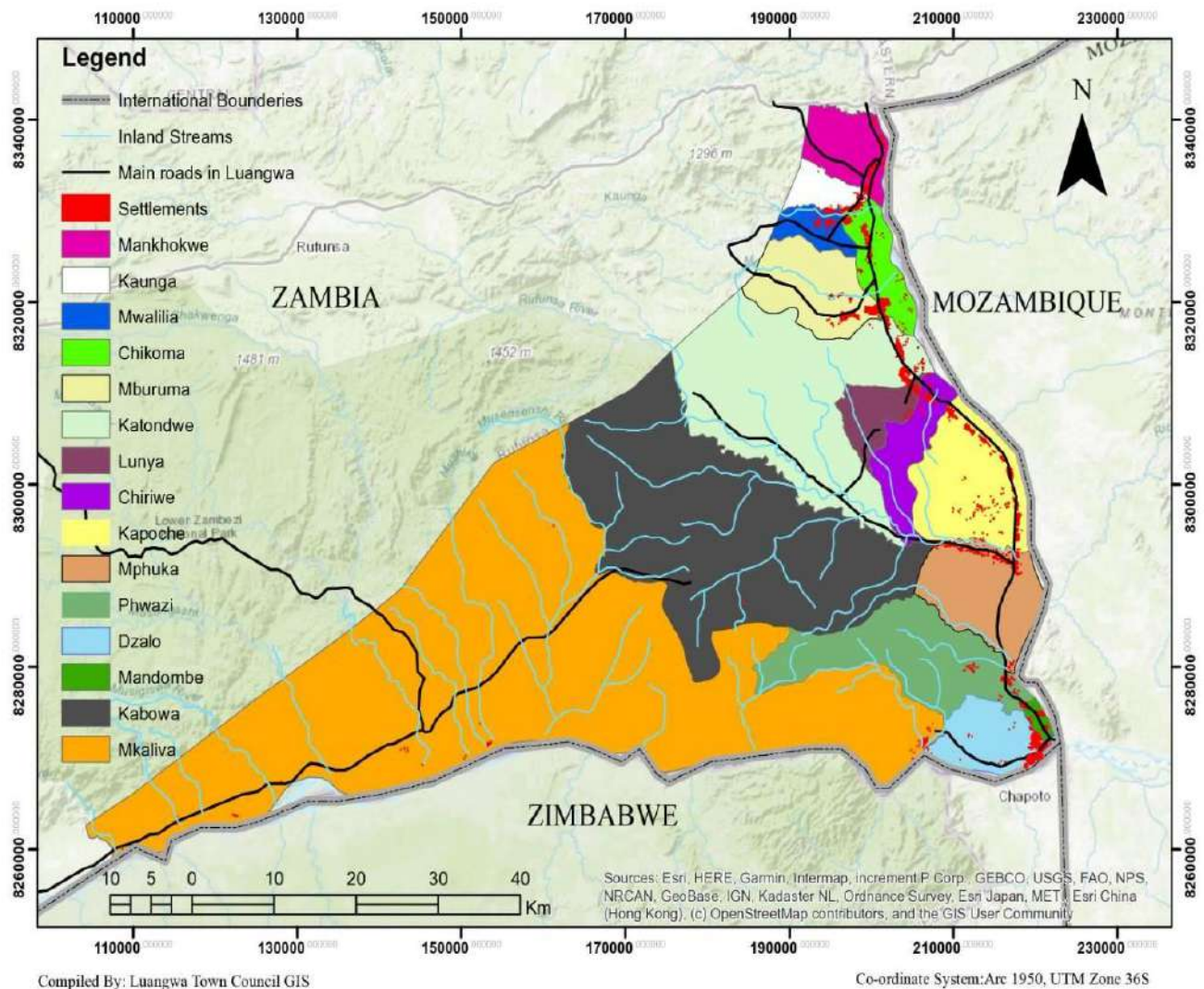
An urban village is an urban development typically characterised by medium density housing, mixed zoning, good public transit and an emphasis on public space. Urban villages are seen to provide an alternative to recent patterns of urban development in many cities. They are generally meant to help facilitate strong community institutions and interactions including creation of a network of people working, re-creating and living in the same area.

Luangwa District fell in the category of urbanised villages as the larger part of it, was still rural

hence, if it was to ever be developed the concept of urbanising villages was the best to use. As the District's population grew there would be a rise in the number of settlements. This would necessitate the need to portray new residential communities as gateways to modernity in order to cover the needs of migrants. The map below shows the settlement pattern of Luangwa District.

Figure 12: Maps Showing Ward, Settlement and Inlands Streams in Luangwa District

MAP SHOWING WARDS, SETTLEMENTS AND INLANDS STREAMS IN LUANGWA DISTRICT

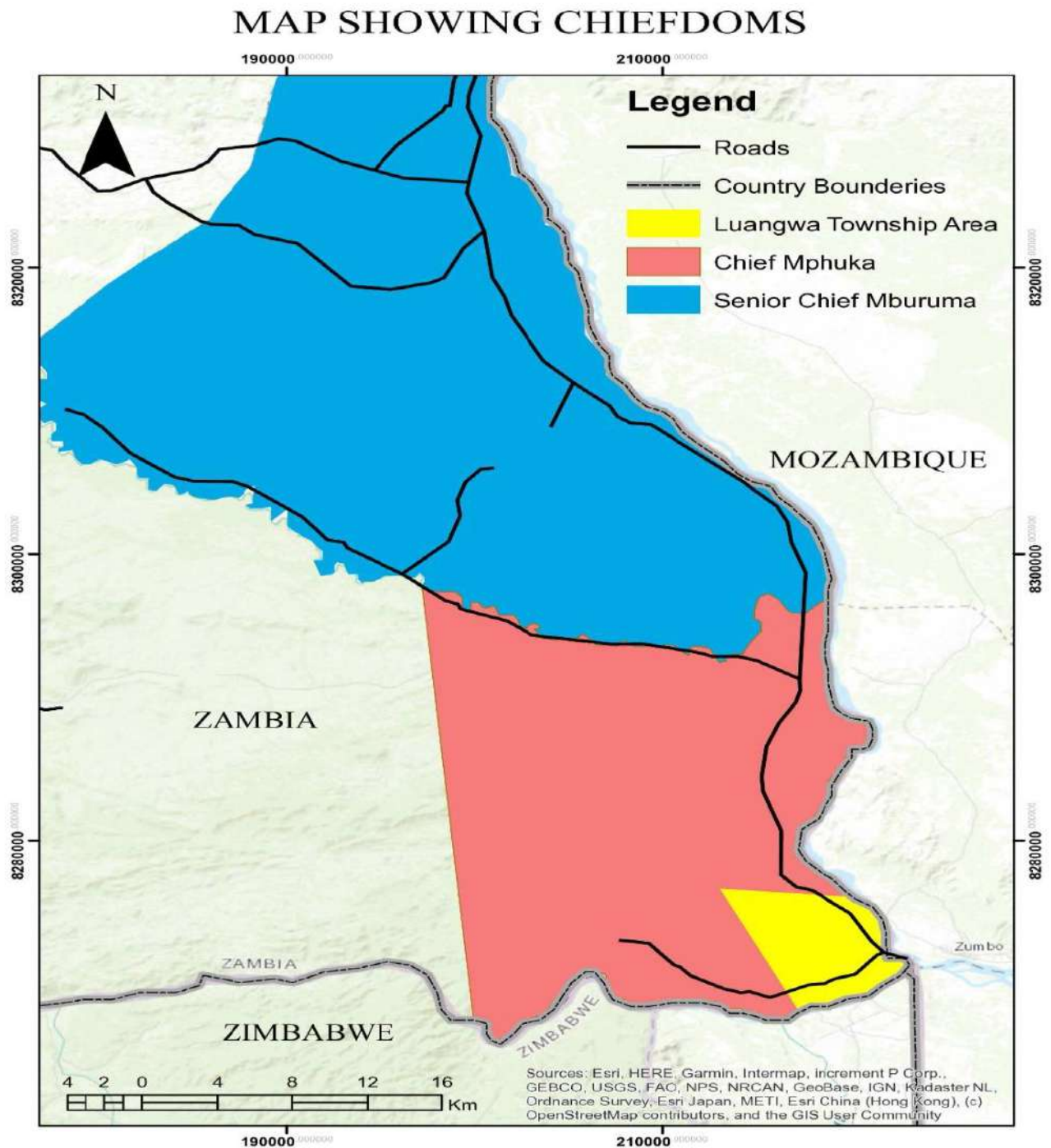


4.3 Urban Expansion/ Peri-Urban Areas

The geographical extension of Luangwa District was steadily expanding almost simultaneously to the natural population growth of the District's rural and urban migration. 80.3% of the district was rural while 19.7% was Urban, which was a very small portion against the total population percentage.

In 2018, Luangwa had a shortage of housing units, as more people came into the District, the need for housing units rose rapidly. This led to a rise in the new residential facilities and continued throughout even to the IDP period, however, this had affected the affordability of housing. The urban settlements had been mostly in the central business district which resulted in the use of land that had been previously reserved for other developments. The township boundary was quite small in comparison to the land that the two chiefdoms occupied, hence, development was then being driven towards the North Western side of the town. Below is a map showing the township and chiefdom boundaries.

Figure 13: Map Showing Chiefdom and Township Area



Compiled By: Luangwa Town Council GIS, Source: DPPH- Lusaka Province.

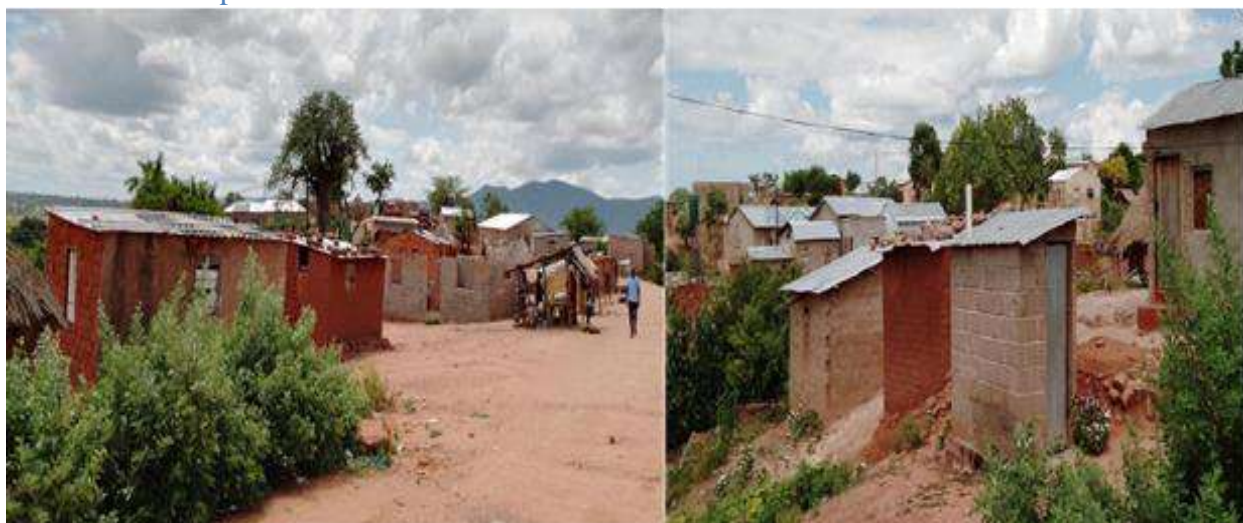
The rise in the need for people to have more access to Land led to encroachment and in order to limit encroachment, peri urban areas needed to be kept protected. Urban encroachment poses numerous landscape management challenges such as the loss of agricultural land, fragmented landscapes, distraction of biodiversity habitats and a decline in ecosystem services.

peri-urban areas are also vulnerable to the climate change phenomena, in line with this Luangwa experienced flash floods and adverse weather conditions every now and then. The continued urban encroachment to peri-urban areas coupled with the potential impacts of climate change called for an immediate appraisal of peri urban development in order to mitigate the unexpected consequences of peri-urban growth.

4.4 Informal Settlements

Luangwa had a very unique setting of settlements that were within the state land, but still insisted on being identified as villages and operated as villages. These settlements had declined every form of government control or prescribed set of regulations. As a result, they lack security of tenure, ready or reliable access to civic amenities such as potable water, electricity, road creation and maintenance, emergency services, sanitation and waste collection. Due to their informal nature of occupancy, the Local Authority had typically been unable to extract land taxes. Further, there was poor quality of housing, overcrowding and insecure residential status. The said areas were Indeco, Chidada, Kamoba and Soweto. Nonetheless efforts had been made with regularisation programmes especially around Soweto as the settlers had been quiet cooperative as compared to their counter parts. Below is sample picture from Indeco Compound

Indeco compound



4.5 Other Land Use

One important aspect was the utilisation of the land use plans whose objective was to select and put into practice those land uses that would best meet the needs of the people while safeguarding resources for the future. There are different forms of land use but, the overall land use in Luangwa District had been land development of residential infrastructure categorised into low density, medium and high-cost areas. The other uses have been community and recreational facilities, including hospitals and schools.

Luangwa covers an approximate area of 3,886 square kilometres, and a total of 2,500 acres was irrigable, however only 14% of it was being irrigated. Although agriculture was practiced in Luangwa, it was practiced at a small scale due to the adverse weather conditions caused by climate change. The local farmers were forced to practice winter farming and do their farming along the banks of the river, which also posed other environmental problems. The other challenge that farmers faced was wildlife-inflicted damage to their crops. The reality of staying in a Game Management Area (GMA) meant that people had to co-exist with wildlife. GMAs were formed to promote wildlife conservation, of which the communities in Luangwa District were slowly coming to the realization of the value of wildlife. During the early years, most communities in the game management area survived through the sale of game meat as opposed to the situation then, where locals were being engaged in conservation projects such as Conservation lower Zambezi and Conservation South Luangwa (CSL). These programmes were managed through an agribusiness model that protected and preserved wildlife and humans. This had increased the appreciation of conservation and tourism efforts. Land use planning was, therefore, a very important step that could be taken if wildlife conservation was to be effective, since the land use plan would identify appropriate land uses around the GMA.

5.0 ASSESSMENT OF THE IMPACT OF THE CONTINUATION OF POPULATION GROWTH ON LAND USE AND SPATIAL DEVELOPMENT PATTERNS

Population growth influences land use patterns in combination with consumption behaviours and productive activities of the residents. Different population growth rates and densities produce different types of land use change.

5.1 Assessment of the Impact of the Continuation of Population Growth on Impact on Overall Settlement Pattern

An increase in the population would result in an increase in the demand for food which would in turn heighten the demand on Agriculture production. This demand on agriculture places pressure not only on land resources but also on water systems as large cubic kilometres of water are drawn from the rivers and streams to be used for irrigation. Although irrigation is not widespread in Luangwa District, the current agricultural practices create pollution and siltation of the Luangwa River as winter farming is carried out on the banks of the river.

Luangwa's population had grown at a rate of 1.7% increasing steadily. However, if this growth continues, the expanded growth might begin to distort the environment. Resource exploitation will become rampant, leading to massive sewage and waste generation. However, moving out sewage and other wastes are not only logistically complex, but it is also a resource consuming exercise. This might lead to a state where there are mountains of waste, which will compromise the health of the residents. This also causes environmental degradation.

5.2 Assessment of the Impact of the Continuation of Population Growth on Urbanising Villages and Growth Nodes

Some of the known effects of population growth on urbanising villages and growth nodes, include the formation of slums and un-planned settlements, health risks and strain on infrastructure and service provision. It also has serious impacts on availability of arable land, subsequently leading to depletion of forest resource. As the population grows there would be need to plan for the growth nodes and urbanising villages, because they could lead to the formation of slums or unplanned settlements which present numerous problems such as overcrowding, poor quality of housing and insecure residential statuses. These cramped up living spaces could also lead to a lack of privacy, many homes in such setups are poorly constructed with substandard materials making them unsafe and vulnerable to disasters. On the other hand, there is increased transmission of diseases due to overcrowding and limited access to clean water

and inadequate sanitation facilities contributing to more health issues and spread of diseases. All in all it also becomes difficult for relevant authorities having difficulties in extending basic services such as water, electricity and sanitation

5.3 Assessment of the Availability of Land for Planned UrbanExpansion

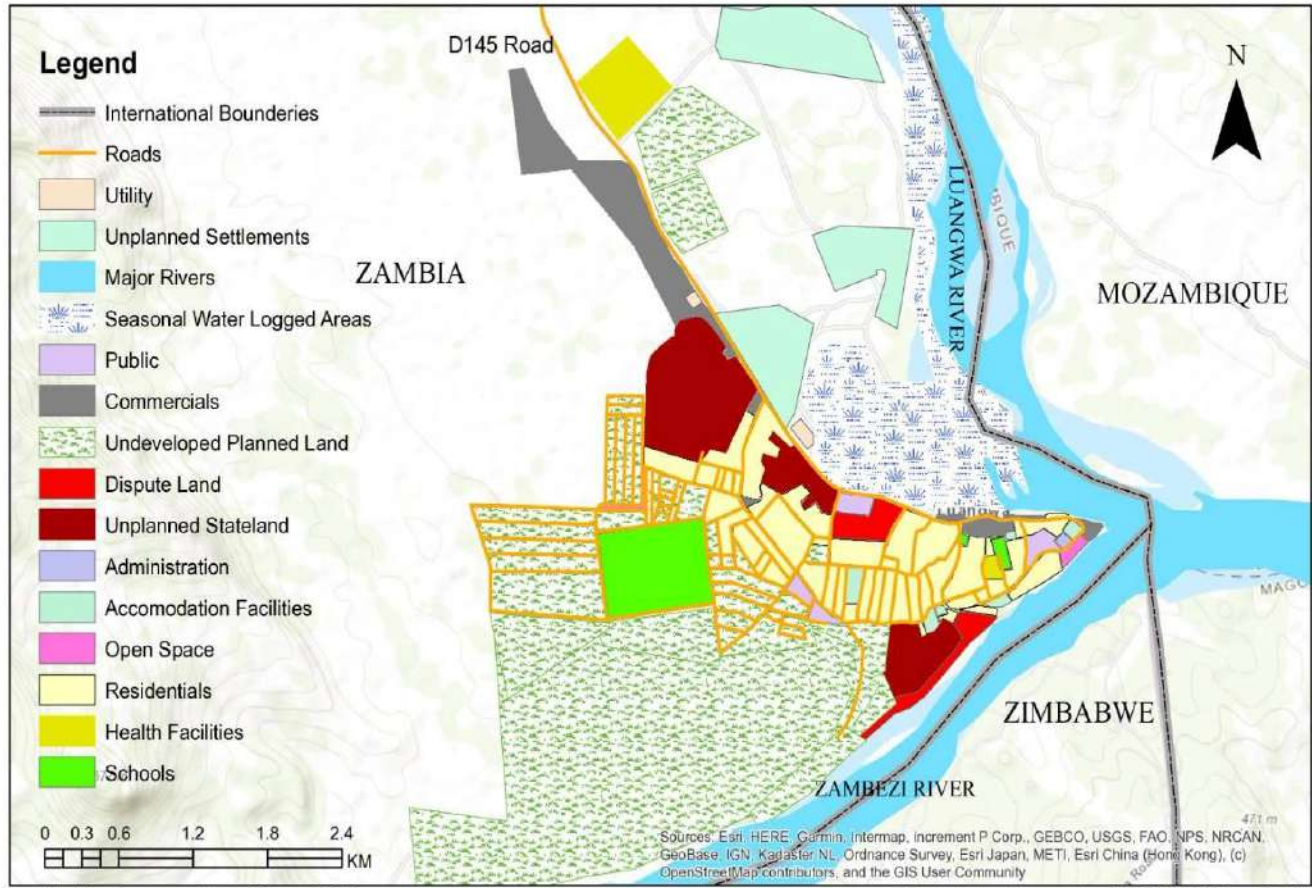
According to the Luangwa Integrated Development Plan, Lusaka Province Planning Authority (2012), Luangwa District was generally under-developed in terms of economic, social, physical and environmental aspect. Only 35%, approximately, had been used of the total land. There was undeveloped landform both in the township and entire District, providing a basis for planned and coordinated development. This was based on the analysis of the current conditions in land use. Luangwa had enough land to meet population growth needs. This meant that there was need to protect this land by putting in place good land administration practices, strategies and plans.

There is generally a uniform terrain in the central and eastern part of the township (330m-630m), thereby promoting land use as natural features dictate future land use pattern. However, the western part of the township has rugged terrains that would make development difficult and costly. The hilly and rocky terrain with valleys makes services difficult. On the other hand, the Rufunsa game management area limits the amount of land available for development. Below is a general-purpose map for the District.

Below is a map showing land use or general purposes in Luangwa Town:

Figure 14: General Reference Map for Luangwa Town

GENERAL REFERENCE MAP FOR LUANGWA TOWN



Compiled By: Luangwa Town Council GIS

Co-ordinate System: Arc 1950, UTM Zone 36S

5.4 Assessment of the Impact of the Continuation of Population Growth on Informal Settlements – New, Expanding and Densifying

Much as there was availability of land waiting to be developed in Luangwa, there was also a risk of increased proliferation of informal settlements, encroachment of potential prime land and tourist areas. A growing population creates the need to provide more housing, social services, employment and other infrastructure which is a cost implication in the delivery of services and can lead to environmental degradation.

Population growth highlights the growing need for investment in urban infrastructure for Municipal waste that could mount, as a result of high food production to cater for the population demand. Investment in waste management infrastructure would be urgently needed.

If population continues to grow, there would be an increase in slum dwellers out pacing the construction of new affordable homes. Pollution would become an un-avoidable health Hazard and as some residents would not be within walking distance, lacking access to markets and/or resources. For women this would heighten barriers they face in accessing livelihood opportunities and would place a need for transport services, which is another cost implication.

5.5 Assessment of the Impact of the Continuation of Population Growth on Other Land Use

A continued growth in population would impact the residents of the district in several ways. A population increase would cause land scarcity and farmers will be affected as they will have limited areas to carry out their activities. Land available may not be sustainable for farming and may require advanced technologies to farm efficiently. This would lead to land and environmental degradation in form of erosion of farmland, deforestation, and escalating extinction of plant and animal species. Additionally, the continuation of population growth will, inevitably, create pressures leading to spikes in pollution and emissions, which will exacerbate climate change.

6.0 SECTORAL AND THEMATIC ANALYSIS

6.1 Education

The Government through the Ministry of Education upholds the principle that every individual has an equal right to educational opportunity. This means that every individual, regardless of personal circumstance or capacity has a right of access to and participation in, the education system.

6.2 Key Government Priorities to Be Implemented at Local Level

The Educating Our Future, policy document of 1996 stressed the importance of Education for all children in primary, secondary, and tertiary education Institutions as explained in the preamble was one of the policies being implemented at local level.

6.3 Key Priorities of the 8th National Development Plan and how they are to be implemented at Local Level

The Eighth National Development Plan seeks to achieve universal access to education as espoused by the Vision 2030 and the SDGs remained Government policy on education. The District has created an enabling environment for access to education so that all children have an equal opportunity to be educated.

6.4 Key Priorities of Sector Specific National Plans/Strategies and how they are to be implemented at a Local Level

The Education Act of 2011 was another policy that drove the Education Sector in the District through regulating the provision of accessible, equitable and qualitative education. The Act also provided the Establishment, Organization, Governance, Management and Funding of the Educator Sector.

6.5 Status of Implementation of Existing Plans and Strategies in the District

The implementation of existing plans and strategies in the District takes place at different levels. The sector had been working to implement different policies locally, such as the Technical Education and Vocational Entrepreneurship Training (TEVET) Skills Development Policy. The policy was designed with the Government's intention to develop a system of Technical Education, Vocational and Entrepreneurship Training, (or TEVET). It would satisfy the actual demands and requirements of the labour market and socio-economic conditions, all of which were recognized to be in a state of constant change (Technical Education and vocational Entrepreneurship Training (TEVET) skills development policy, 1998). This is a policy that was being explored as Luangwa District had a youthful population that could make use of the skill sets that TEVET centre offers. However, the District only had one skills centre while one was under construction.

6.5.1 Science, Technology and Innovation Policy

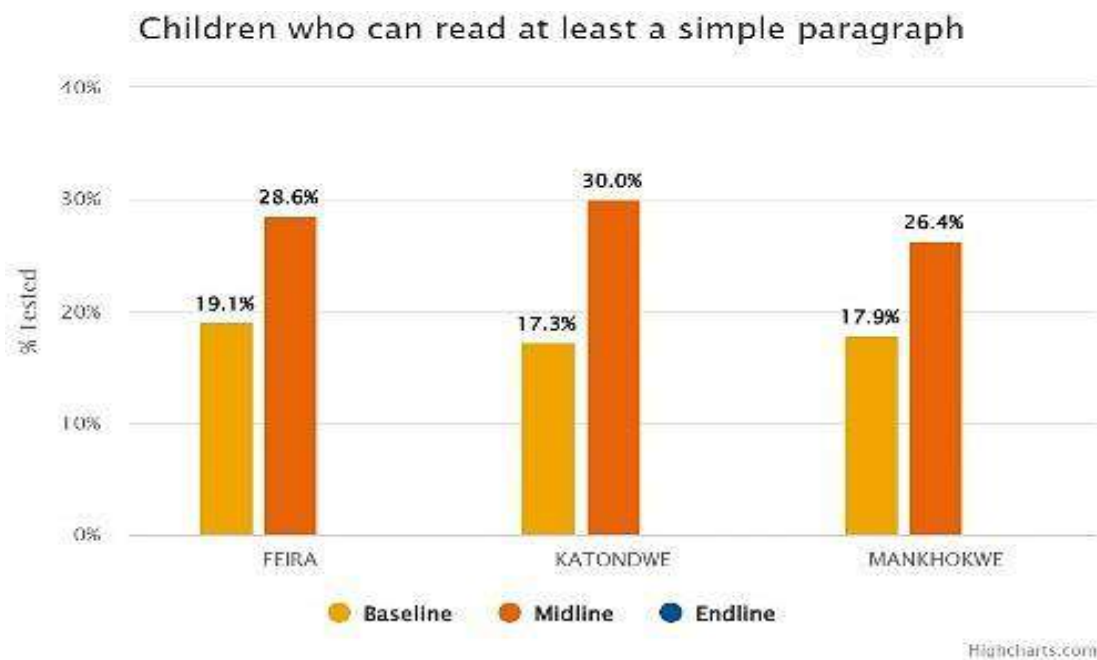
The broad policy objective for science and technology was to embed science and technology as part of the culture of the key sectors for promoting competitiveness in schools. At district level computer classes have been introduced in schools as in accordance with the (Science, Technology and Innovation Policy, 1996).

6.5.2 Assessment of the Existing State of Development

The District had a total number of 29 learning institutions of which 20 were Government Primary, 06 Government Secondary, of which one (1) was Grant Aided and 03 Private Schools. According to Government Policy of Early Childhood Education (ECE), the District was running 20 Early Child Hood Centres which were annexed at the already existing 20 Primary Schools. However, the District did not have institutions of higher learning in existence. The literacy/numeracy levels were low with a high dropout rate which was alarming. There were 20 primary schools in the District that were implementing Primary Literacy Programme (PLP) and Catch-Up literacy and numeracy programmes. The 20 schools were spread in three (3) zones; Feira, Katondwe and Mankhokwe. The aforementioned programmes have improved the literacy and numeracy levels that had been recording low results in the different primary schools in the district.

Catch-Up promotes the teaching at the right level (TaRL) approach targeting Grades 3-5 learners. The intervention had seen increased teacher to teacher and learner to learner interaction due to teamwork in TaRL. There was improved learner performance and attendance and the teacher group meetings used to share teaching skills and strategies effectively.

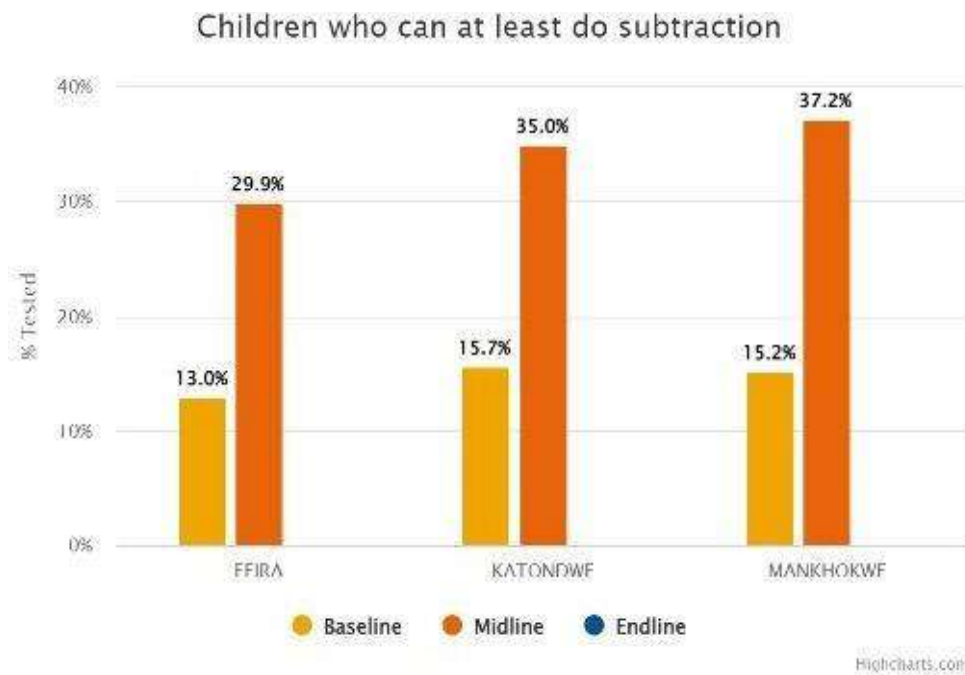
Figure 15: Shows Children Who Can Read at Least a Sample Paragraph



Source: District Education Board Secretary's Office (2024)

In terms of literacy levels, 54% of the primary school learners in the District were still at beginner and letter sound levels. 29% were beginners and 25% were struggling with letter sound. The learners who could read at least a simple paragraph were at 28% while the rest (18%) of the learners were still learning how to read words in local language. Katondwe Zone had the highest percentage (30.0%) of children who could at least read a simple paragraph.

Figure 16: Shows Children Who Can At least Do a Subtraction



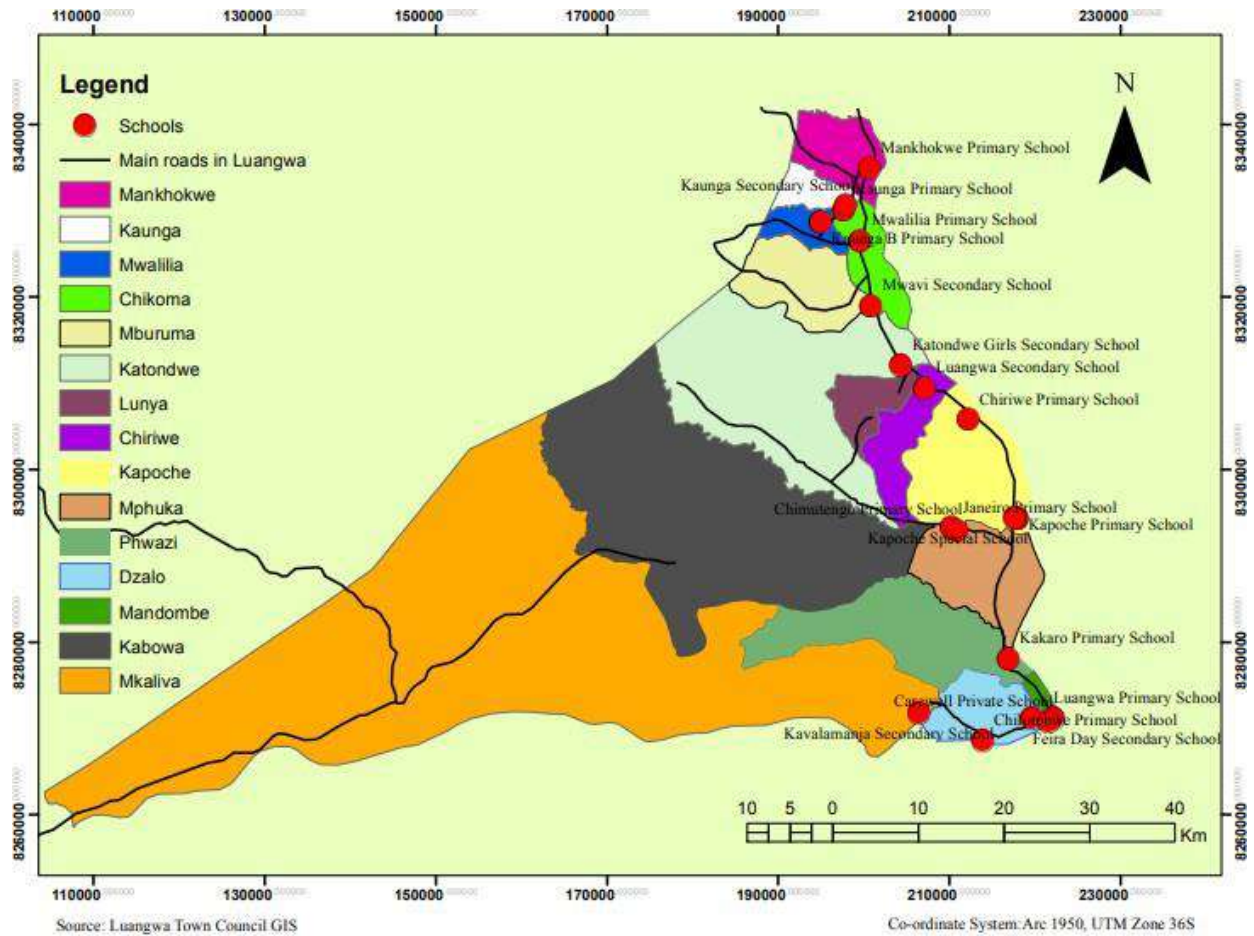
Source: District Education Board Secretary's Office (2024)

The numeracy skills among the learners were a bit higher than the literacy skills. Enrolments that were at beginner and still learning the recognition of 1-digit numbers (level 1) were at 16%. Learners that were in the acceptable level of competency in recognition of 4-digit and 3-digit numbers by fifth (5) grade were at 41%. In terms of basic math operations, the District is now at 33% of the learner who can at least do subtraction. It is anticipated that learners will acquire the necessary literacy and numeracy skills with consistence in teaching and learning following the standards defined in the intervention; and that learner performance will improve even in other subjects.

Underlying factors to low literacy and numeracy levels can be attributed to a number of factors. Under staffing experienced at primary school level with a Teacher-Pupil Ratio of 1:80. Absenteeism is another factor that has contributed to low literacy and numeracy level due to high poverty levels experienced in the District. The Figure below shows the distribution of educational facilities in the district

Figure 17: Map Showing Distribution of Schools in the District

MAP SHOWING THE DISTRIBUTION OF SCHOOLS IN THE DISTRICT



The District is located in a Game Management Area, therefore, Human-Animal conflict is the order of the day and this has affected the attendance of most pupils and in turn their performance in literacy and numeracy. Parent’s tendency of shifting with children to their field during farming seasons and the negative impact of COVID-19 are some issues that greatly contributed to the low literacy and numeracy.

6.6 Assessment of the Overall Performance of the District

The 2022 District school enrolment figures were at 12,668 of which 6,109 account for boys and 6,559 for girls. The tables below give a summary of the enrolment by grade level category i.e. ECE, Primary and Secondary and enrolment by gender respectively.

Table 4: 2022 District Enrolments by Grade Level Categories

ECE			PRIMARY (1 – 7)			SECONDARY					
						8 – 9			10 - 12		
M	F	T	M	F	T	M	F	T	M	F	T
506	542	1,048	3,779	3,896	7,675	931	1,205	2,136	893	916	1,809

Source: 2022 District Statistical Data Base

Table: 5 Shows 2022 Consolidated Enrolments Summaries by Gender

DISTRICT	ENROLLMENTS		
	MALE	FEMALE	TOTAL
Luangwa	6,109	6,559	12,668

Source: 2022 District Statistical Data Base

6.7 Assessment of the Availability of Services Relevant to this Sector and Identification of Communities who do not have Access to Basic Services and Facilities

The Government through the Ministry of Education had a number of priorities that were being implemented at local level. The Home-Grown School Meals under the School Health and Nutrition (SHN) was one priority area Government was implementing in the district. The programme was aimed at improving Nutrition among school going children and in the long run reduce absenteeism rate.

The Keeping Girls in School Bursary Initiative was yet another priority area implemented in the District. The initiative was aimed at supporting vulnerable girls from Social Cash Transfer Households to attain secondary and tertiary education by offering them Bursaries. The Re-entry Policy required all schools to grant school girls maternity leave and re-admit them. It aimed to prevent the exclusion of young mothers by advocating for their readmission after child birth

The Number of Pupils Pregnant/Re-admitted by School

Table 6: Data on Pregnancies and Re-admission Recorded in Schools

S/N	SCHOOL	PREGNANT	RE-ADMITTED
1	MANKHONKWE PRIMARY	06	02
2	KAUNGA SECONDARY	07	02
3	MWAVI SECONDARY	04	01
4	MWALILIA PRIMARY	05	00
5	LUANGWA SECONDARY	05	03
6	CHIRIWE PRIMARY	04	04
7	KAPOCHE SECONDARY	08	05
8	KAPOCHE SPECIAL	01	00
9	KAPOCHE PRIMARY	01	00
10	CHIMUTENGO PRIMARY	01	00

11	JANEIRO PRIMARY	02	01
12	KAKARO DAY SECONDARY	02	02
13	FEIRA SEC	05	05
14	KAVALAMANJA	03	02
15	CHILOMBWE	04	01
DISTRICT TOTAL		58	28

Source: 2022 Harmonized Statistical Data – DEB Office

Chankhasi was amongst the communities identified to have little or no access to basic services and facilities. The Community School had no borehole hence the pupils had to rely on water from the river. This was unhealthy and made them vulnerable to animal-human conflicts. The school did not have staff houses either; nonetheless a staff house was expected to be built under the 2022 Constituency Development Fund. Other Schools that required staff houses include Mukando Early Childhood Education (ECE) Centre and Kaunga “B” while Kaluluzi Primary School had no borehole.

There were about 10 Early Childhood Education centres that did not have play parks, these were Mankhokwe, Kaunga Primary, Mwavi Primary, Mangelengele Primary, Katondwe Primary, Chilukusha, Kapoche Primary, Janeiro, Kakaro, Kavalamanja and Chilombwe Primary schools. 20 Primary Schools do not have computer laboratories. The target was to have at least 20 computers per school.

Project Analysis

As of 2022, the District school enrolment figures stood at 12,668 and by 2034 school enrolment was projected at 20,000. The Table below highlights projection figures for School Going by 2034.

School Going (4 to 19 Years)	Year	Current Enrolment Figures	Expected	Shortfall	% Shortfall
	2022	12,668	14,420	1,752	12
	2034		20,000		

Table 7: Grade One Entrants with Early Child Hood Education Experience

District	2022 Entrants	Total Grade One Enrolments	%
Luangwa	540	1,231	6

Source: 2022 Harmonized Statistical Data – DEB Office

Furthermore, with the introduction of the Free Education Policy by Government, Luangwa as a District was expected to have significantly more learners enrolled by 2034. The Policy on Early Childhood Education of having Early Childhood Centres (Pre-schools) in all Government Primary Schools would consequently add to the demand for more learning spaces. These policies would pose a great demand for learning spaces in the District.

6.8 Assessment of the Quality of Services Relevant to this Sector Compared to Key Indicators of Performance and Historic Performance and Identification of Shortfalls

Most school infrastructure was old and dilapidated and needed urgent attention while newly upgraded and established schools lacked adequate infrastructure. The District had an average population growth which would put a strain on the existing school infrastructure. The introduction of Free Education for All from Early Childhood Education to Secondary School level of education, led to the urgent need to rehabilitate old school infrastructure and construct additional classrooms at newly upgraded schools. This was to be done in order for quality education assurance to be achieved. Inadequate Staff Housing Units was yet another critical issue that needed to be addressed as it had greatly demotivated the teaching staff especially those

that served in the remotest parts of the District. Poor staffing levels as well as inadequate teaching and learning materials, school furniture (desks) had adversely affected the provision of Quality Education in the District.

6.9 Assessment of the Existing State of Development Based on Issues Arising From Community and Stakeholder Consultations

The Education Sector in the District has had a fair share of a number of School infrastructure developmental Projects implemented under the Constituency Development Fund (CDF) and other cooperating partners supplementing Government efforts. The implementation of these Projects ensured that learners had a conducive learning environment and quality education was attained. The District was expected to have significantly more learners enrolled by 2034 as a result of the Free Education Policy leading to an increased demand for learning spaces. In addition to this, the Policy on Early Childhood Education of having Early Childhood Centres (Pre-schools) in all Government Primary Schools would consequently add to the demand for more learning spaces. Among the notable projects implemented in 2010 to date under the CDF are highlighted in the table below:

Table 8: 2010 List of Projects Implemented Under CDF

S/N	PROJECT TYPE	YEAR	PROJECT SITE
1	Construction of 1x2 Classroom Block	2021	Mankhokwe Primary
2	Construction of 1x3 Classroom Block	2020	Kapoche Secondary
3	Construction of 1x2 Classroom Block	2020	Chankhasi Primary
4	Construction of 1x2 VIP Latrine	2021	Kavalamanja Primary
5	Construction of 1x2 VIP Latrine	2020	Kaunga Secondary

6	Construction of 02 Hostels	2019	Kapoche Secondary
7	Construction of Girls Hostel	2016	Kaunga Secondary

6.10 Issues from Public Participation Process Relating to the Overall Performance of the Sector

Quality education for all children requires multi-sectorial strategies that are integral to its overall development and success. It is the responsibility of the entire society and calls for supporting partners to contribute towards developing practices and policies that make access to quality education possible. This participatory approach will ensure a sense of ownership in the sector’s performance.

The participation of the public in the overall performance of the sector had been positive in that the Sector had in the past partnered with key stakeholders in the provision of Quality Education Services in the attainment of high-level Performance. There was partnership with Traditional and Civic Leaders in the promotion of Girl Child Education through the continuous sensitization of Communities on the dangers of Teen Pregnancies and Early Marriages. The Sector had partner stakeholders such as Childfund/LCDA who had greatly contributed to the overall performance of the Sector through the provision of appropriate School Infrastructure, Equipment, teaching/learning materials as well as clean and safe drinking water.

6.11 Issues from Public Participation Process Relating to the Availability of Services in the Sector and identification of communities who do not have access to basic services and facilities

The Core Function of the Education Sector- Luangwa is enshrined in the Overall Mission Statement of the Ministry of Education, stressed in the National Policy on Education of May 1996, Educating Our Future Which States that;

“To Guide the Provision of Education for all Zambians so that they are able to Pursue Knowledge and Skills, Manifest Excellence in Performance and Moral Uprightness, Defend Democratic ideas and accept and value other personal worthy and dignity, irrespective of gender, religion, ethnic origin or any other discriminatory characteristics.”

In view of the above, the availability of basic services and facilities in the communities remained a top priority for the Sector in the District. It must be noted that Luangwa as a District had a total number of six (06) GRZ Secondary Schools, of which one (01) was Grant Aided, 20 Primary schools and three (03) Private Schools that were dotted across all the 17 Wards. Despite the fact that all the Wards had education facilities, distances between these facilities was of great concern for learners to access education services. Communities such as Zalapango in Katondwe Ward, Soweto in Kavula Ward need to be provided with basic education services and facilities such as the construction of new Primary Schools to cater for the population in Soweto and others respectively.

6.12 Issues from Public Participation Process Relating to the Quality of Services

The education sector recognized the ongoing education services that were being offered by the public who had in one way or the other, helped in the provision of quality education services and eventually contributed to the rise of education standards in the District. The Sector had in the recent past sustained a high-level performance through operating an open-door policy that permitted fresh ideas from other public cooperating partners' wishing to supplement Government's effort in providing quality education services to the learners in the District. The Public Participation Process was mainly implemented in line with Departmental Sector Mission statement which states; "To Implement Education Policies and provide quality Education in partnership with other Stakeholders.

6.13 Assessment of the Impact of Changes Anticipated over the Next Ten Years

Over the period of 10 years, it was expected that the enrolment rate would increase greatly almost simultaneously with the teacher-pupil ratio. Based on these estimations it was anticipated that new infrastructure developments would spring up. This would work positively towards reducing the distances for children who had to cover long distances to schools. This would also decongest some schools that had huge numbers of learners in classrooms and consequently improve the quality of education. It was also expected that schools would have had boreholes sunk in the schools. Access to clean water would

reduce the risk of waterborne diseases. Additionally, it was forecasted that overall literacy levels would improve.

6.14 Quantify Future Demand for Services and Facilities Based on the Estimates of Population Change

Based on the estimates of Population change, the population of Luangwa was on the rise, the sector would need to work hard to maintain an educational system that ensured a proper education to every student, regardless of status or financial ability. Providing this education could pose a challenge as demand for the service would increase with time. This would in turn increase the need for facilities and recruitment of teachers among other issues.

It was anticipated that Luangwa's population would be made up of youths resulting in a demand for more schools, auxiliary infrastructure and teachers. This would place a strain on an already strained system as more teachers would be required to sustain the education system in the District. Meeting this target could be difficult as it is expected that a number of teachers would prefer different professions. Those who would stay could be overburdened with a high number of students.

Overcrowding was another issue that could have risen based on demand for infrastructure in schools. School buildings are built with a specific number of learners in mind. Most schools experienced an increase in learners seeking their services and inclined to exceed the standard or required number. This attitude could shift if the high population of the school became distracted by other more negative attitudes and ideas. These negative attitudes could include drug usage, gang mentalities and a lack of education idealism. A lack of control could appear in schools with too many students and not enough teachers.

The District needs to build more schools with a higher capacity which will be a costly venture and may be dependent on CDF and Community. An increase in the population may affect funding which may affect the quality of infrastructure and may lack amenities such as sport hall or laboratories. Correcting the issues of population growth in the educational system is necessary to prevent dropouts and to encourage continued learning.

6.15 Identification of communities where growth will occur and where future services and facilities are likely to be needed.

Kapoche was among the communities identified for growth as it had a primary, secondary

and special school as well as an Early Childhood Education Centre. Kaunga was also another area that was likely to grow as it catered for the other surrounding communities. Mwavi was an area that could require future services and facilities and Chitope was one of the areas that had a high population and therefore had potential for growth. Chankhasi and Chilombwe are areas that also had potential for growth and would require services and facilities.

6.16 Assessment of the Likely Impact of Ongoing and Committed Investment and Development Programmes on Land Use and Population Distribution Pattern

The impact of committed investment and development programmes would bring about the need for more responsible tenure management to accommodate new development. Some schools could not have enough space for new infrastructure developments while others could have the required space. The table below shows a list of Development Programmes earmarked for 2023 CDF.

Table 9: list of Development Programmes Earmarked for 2023 CDF

SN	COMMUNITY	COMMITTED INVESTMENT
1	KABOWO WARD	Construction of A Staff House at Chankasi Primary School
2	KABOWO	Construction of A Staff House at Chankasi Primary School
3	JANEIRO	Construction of A 1x1pre-School Classroom at Jeneiro Primary
4	CHIKOMA NDALAKWAZI VILLAGE	Construction of A 1x3 CRB In
5	KALIKUMBULA VILLAGE	Construction of A Pre-School At
6	KAUNGA SECONDARY	Kaluluzi Education 1x4 Classroom Block
7	KAUNGA AND MUKANDO	Water Reticulation at Kaunga Primary and Mukando Ece
8	KAVULA AND SOWETO	Construction of A 1x3 Classroom Block
9	SOWETO	Procurement of Laboratory Stools at Feira Day Secondary School (300)
10	KAUNGA	Connection of Water Reticulation System at Kaunga B Primary School
11	KAUNGA	Construction of a Semi-Detached Staff House at Kaunga B Primary School
12	CHIRIWE KANEMELA	Construction of a 1x3 Classroom Block at Kanemela
13	PHWAZI-CHIENDE- ENDE	Construction of a Cross Bridge at Chiende-Ende
14	MPHATA	Construction of a Pre-School at Mphata
15	DZALO	Construction of a Staff and Pupils Ablution Block at Luangwa Primary

		School
16	MWALILIA	Construction of a 1x2 Classroom Block at Mwalilia Primary School
17	MWALILIA	Construction of a Semi-Detached Staff House at Mwalilia Primary School
18	CHIRIWE /KANEMELA	Education Construction of a 1x3 Classroom
19	KAPOCHE	Construction of a Science Laboratory at Kapoche Secondary Education
20	CHILUKUSHA	Construction And Completion of 1x3 Classroom Block and Construction of Staff House at Chilukusha Primary School
21	LUNYA	Connection of Water Reticulation System at Luangwa Secondary School
22	CHIMUTENGO	Connection of Electricity at Chimumengo Primary School
23	CHILOMBWE	Construction of 2 Staff House at Chilombwe Primary School and Ablution Block

6.17 Analysis of Impact of Environment and Climate Change

Environment and Climate change had a bearing on the Education Sector as research had shown an overall reduction in educational attainment due to climate change. It had also shown lower academic performance, and higher rates of absenteeism among children who had experienced climate shocks such as flooding, which Luangwa was prone to. Another challenge that climate change posed on the sector was human animal conflict, which occurred due to the adverse weather conditions caused by climate change. When water points dried in the park, animals were forced to move closer to the people in search of scarce resources which in turn results in the said conflict. Schools are not very equipped to prepare for impacts of climate change and the cost to adapt to these impacts maybe too high.

6.18 The Impact of Development Trends on the Sector on the Environment and Climate Change Issues

Overtime the impact of environment and climate change issues profoundly affected the sector, in that the extreme weather events, which Luangwa was commonly faced with, such as floods, Strong winds, and heatwaves and damaged infrastructure continued to take a toll on the sector. Floods made it difficult for pupils to access consistent education while, heatwaves affect the health of the pupils. Damaged school infrastructure due to Strong winds disrupted learning schedules, for instance at Mwavi secondary school, the roof of the kitchen, was blown away by strong winds, therefore because this is a boarding school, the incidence disrupted the learning of the schedules other schools that had their roofs blown off by strong winds included Kaluluzi Primary and Katondwe High school making it difficult for students to access consistent education. Communities in Luangwa were vulnerable and

therefore they faced even greater challenges due to climate-induced displacement and resource scarcity, which exacerbated inequalities in education access. In response to these challenges, schools were increasingly incorporating climate education into their curricula to prepare students for sustainable practices and equip them to address future climate-related issues effectively.

6.19 The Impact of Environmental and Climate Change Issues on the sector

Environment and climate change significantly impacts the education sector in various ways, both directly and indirectly. Luangwa is faced with extreme weather events such as flooding of the Luangwa River basin and nearby areas, thereby making school access roads impassable. There have also been instances when roofs for classroom blocks have been blown off due to wind storms caused by cyclones from the neighbouring countries, Mozambique and Malawi.

Heatwaves often damage school infrastructure disrupting access to education, and lead to temporary closures, while rising temperatures, poor air quality, and the spread of diseases due to changing ecosystems pose health risks that result in absenteeism and reduced learning outcomes and lowered academic performance among children who experience climate shocks.

6.21.1 Women and Girls

Access to education is often hindered by significant gender disparities in school enrolment and completion rates, particularly in rural and low-income areas. Additionally, school safety remains a major concern as many students, especially girls, face exposure to gender-based violence, harassment, and discrimination within educational settings. High rates of early marriage and teenage pregnancy further contribute to school dropouts and interrupted education, while societal and cultural norms often prioritize boys' education over that of girls. Moreover, the lack of access to menstrual hygiene products and facilities exacerbates the issue, leading to increased absenteeism and higher dropout rates among girls.

6.21.2 Men and Boys

Boys face unique challenges in education, including higher dropout rates driven by economic pressures, child labour, and involvement in armed conflict. These issues are compounded by a higher incidence of behavioural problems and disciplinary actions in school settings. Academic underachievement among boys is often linked to societal expectations of masculinity, which can result in lower engagement in education. Furthermore, limited support for mental health issues such

as stress, anxiety, and depression which add to their struggles, while insufficient career guidance leaves many boys with lower aspirations and inadequate career planning

6.21.3 Youths

The quality of education remains uneven, with marginalized youths often attending under-resourced schools, resulting in significant disparities. Many young people lack access to vocational training and skills development programs, limiting their opportunities for economic advancement. Additionally, there are few avenues for youth participation in decision-making processes within educational institutions, leaving their voices unheard. Rising mental health issues, including anxiety, depression, and bullying, further hinder their academic and personal growth. To make matters worse, inequalities in access to digital technologies and the internet perpetuate the digital divide, restricting learning opportunities for those in underprivileged communities.

6.21.4 Persons with Disabilities

Inclusive education faces significant challenges, with the absence of inclusive policies and practices often resulting in the exclusion of students with disabilities from mainstream education. Physical barriers in school infrastructure, along with a lack of accessible learning materials and resources, further limit their opportunities to thrive. Insufficient training for teachers to effectively support and accommodate these students exacerbates the problem, while stigma and discrimination from peers and educators lead to marginalization and diminished self-esteem. Additionally, students with disabilities encounter considerable difficulties transitioning from primary to secondary and tertiary education due to inadequate support and accommodations, further hindering their educational progress.

6.21.5 People Living with HIV/AIDS

Students living with HIV/AIDS face numerous challenges within educational settings, including persistent stigma and discrimination that negatively impact their enrolment and participation. Frequent health-related absenteeism due to illness or medical appointments further affects their academic performance. Breaches of confidentiality regarding their HIV status often lead to social ostracism and bullying, exacerbating their struggles. Additionally, barriers to accessing education are particularly pronounced for orphans and vulnerable children affected by HIV/AIDS. The lack of

sufficient health education and support services within schools further limits their ability to navigate these challenges effectively.

6.21.6 Intersecting Issues

The challenges faced by vulnerable groups in education are often compounded by intersectionality, where belonging to multiple marginalized groups such as being a girl with a disability living with HIV/AIDS intensifies their struggles. Socioeconomic barriers, including the inability to afford school fees, uniforms, and supplies, further restrict access to education. Inclusive policies and strong advocacy are essential to address the unique educational needs of these groups effectively. However, the lack of disaggregated data by gender, age, disability, and HIV status hampers the development of targeted interventions and policies. Community and parental involvement play a crucial role in supporting the education of vulnerable groups and addressing the barriers they face, highlighting the need for collective action.

7.0 HEALTH SECTOR

The Luangwa District Health Office (DHO), the District's Principal Office, had been granted the authority by the Ministry of Health (MoH) to provide health services to the Luangwa populace. There are seventeen (17) health facilities in the Luangwa District. Among these are two (2) first-level referral hospitals, seven (7) health posts, and eight (8) Rural Health Centres (RHCs). In addition, there are thirty-two (32) Primary Health Care (PHC) facilities dispersed over the area. The two first-level hospitals are Luangwa District Hospital and Katondwe Mission Hospital. Katondwe Hospital is a mission hospital owned by the Catholic Church, whereas Luangwa District Hospital is owned by the government. First-class hospital care is provided to the people of Luangwa, the nearby cities of Luangwa and Rufunsa, as well as the neighbouring towns of Mozambique and Zimbabwe.

Numerous services, including anti-retroviral therapy (ART), laboratory facilities, X-ray services, curative therapies, mortuaries, voluntary counselling and testing services and PMTCT, are provided by the two institutions. The eight (8) health centres include; Luangwa Boma, Mphuka, Kavalamanja, Mandombe, Kasinsa, Sinyawagora, and Luangwa High School. Primary healthcare services are provided to the communities that fall under their catchment zones. The majority of these medical institutions are located along D145, the main route in the district, with the exception being Kavalamanja, which is 14 kilometres off the main road. This facility is accessible via the road system as well as the Zambezi River.

7.1 Key Government Priorities to Be Implemented at a Local Level

The National Health Policy which anchored on Vision 2030, emphasized the Government's commitment to provide equal access to high quality, affordable health care as close to the families as possible. The policy took into account other pertinent national, regional and international health related policies, guidelines and strategic frameworks, such as Sustainable Development Goal (SDG) number 3 which is based on ensuring healthy lives and promoting wellbeing for all people (MoFNP: 8th NDP, 2022). Luangwa fits in with the provision of health services as close as possible to the people in line with the policy, Vision 2030 and SDGs with at least two (02) first level referral hospitals, eight (08) Health Centres and seven Health posts.

As a result of the devolution policy, the Department hoped to strengthen public health in terms of non-communicable illnesses, mental health care, epidemic preparedness and control, as well as disease surveillance. Infectious diseases including malaria, TB, and HIV/AIDS will also be better prevented and controlled.

The Zambia National Health Strategic Plan (2022-2026) works to ensure that there is a formalized devolution of health care services to Local authorities as guided by the existing legal framework. This is in order to strengthen primary health care, health education and promotion as well as mobilize adequate financial and other resources to improve service delivery

7.2 Key Priorities of the 8th National Development Plan and how they are to be implemented at a Local Level

The Primary health care is one of the sectors marked for devolution by the Government in order adequately implement the 8NDP. The devolution of the provision of district health services will enhance decision-making for effective service delivery. The devolution aims at strengthening public health for the prevention and control of infectious diseases. The sector will focus on the holistic approach to high impact intervention such as; disease control and prevention, health education and promotion, maternal healthcare, child health care, family planning, epidemic preparedness and control, mental health and substance abuse, health security and disease surveillance.

7.3 Key Priorities of Sector Specific National Plans/Strategies and how they are to be implemented at a Local Level

Throughout the implementation of the 8NDP, interventions will be made to ensure the availability of medications and medical supplies. There will also be increased lobbying for health staff to lower the health care workers to patient ratio, which is currently at approximately 1 to 167. Climate-resilient health infrastructure will be built, and medical institutions will be equipped with modern facilities to enhance healthcare delivery. Furthermore, the district hoped that the first level referral services would be covered by the national health insurance program. The District would continue working with cooperating partners and encourage them to participate in the delivery of healthcare services.

According to the Constituency Development Fund (CDF) guidelines 2023, construction and rehabilitation of Maternity wings will be prioritized in line with Government policy. There would also be a need to prioritize improved water and sanitation systems in public facilities, such as health centres.

7.4 Status of Implementation of Existing Plans and Strategies in the District

The Health Department in Luangwa District had put in place plans and strategies that ensured effectiveness and efficiency in its activities and operations. During the 2022-2024 Medium Term Expenditure Framework (MTEF) planning, several strategies and activities were put in place in order to deliver the core mandates of the sector. These strategies were centred on strengthening public health (disease prevention and control, health education and promotion, maternal healthcare, child survival development, family planning, epidemic

Preparedness and control, and so on). Additionally, increasing access to quality health care through infrastructure development, medicines and medical supply chain management, equipment and transport procurement and maintenance, mobile health services, specialized health services and human resource development among others. Most of these strategies were on course with the desired results almost being met. For example, infrastructure development (construction of healthcare staff houses) was undertaken using Constituency Development Funds. The human resource (Healthcare staff and others) effectively brought more staff on board to cater for staff shortages.

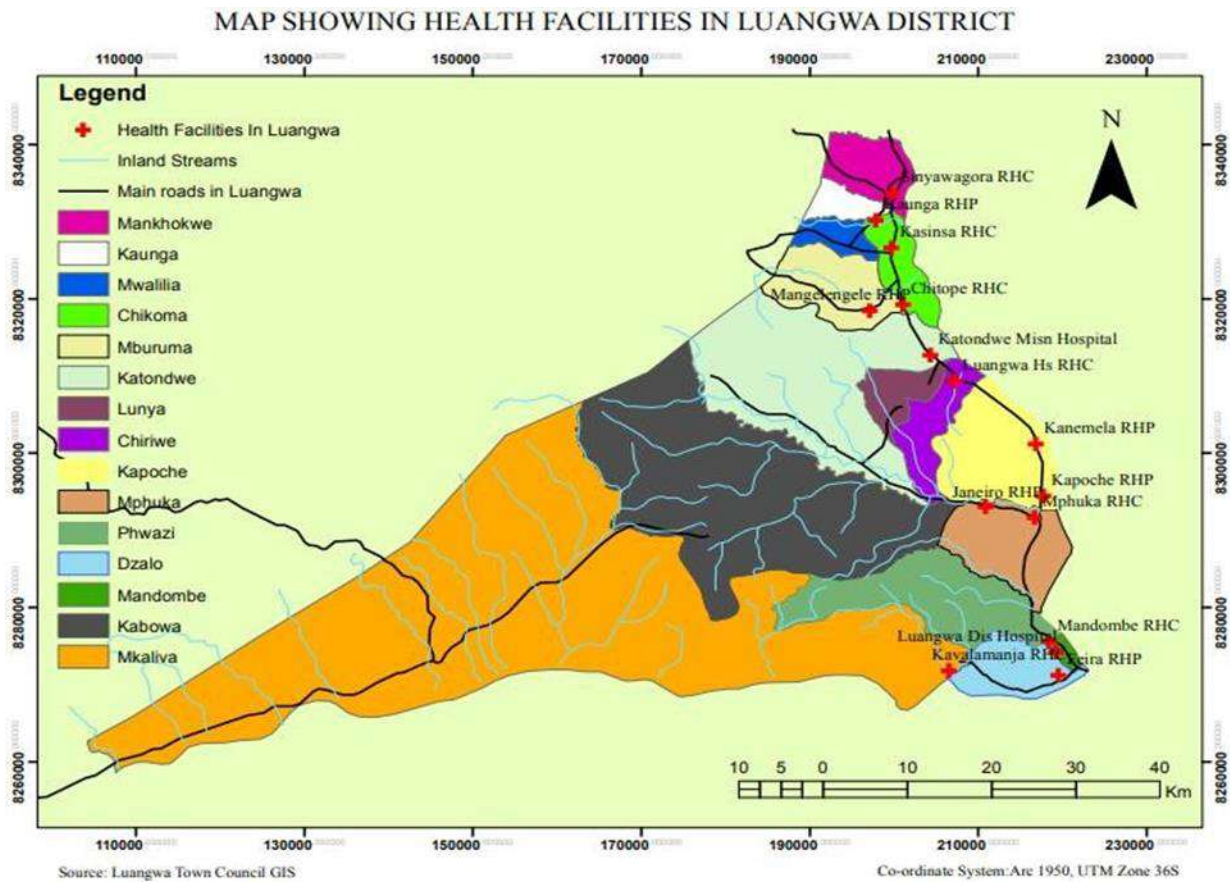
7.5 Assessment of the Existing State of Development

This section highlights the existing state of the district's health sector. It gives details of the existing infrastructure, performance indicators as well as shortfalls.

7.6 Assessment of the Overall Performance of the District

Along with these official facilities, the District was home to 32 primary health care units. All facilities were supervised and mentored by the District Health Office (DHO) to guarantee high-quality services were delivered. Figure below displayed the locations of formal medical facilities.

Figure 18: Distribution of Health Facilities in the District



In addition to promotional, preventative, curative, rehabilitative, and palliative treatments services, the District also offered laboratory services. These included CD4 count, haematology, and chemistry, through Katondwe Mission Hospital (KMH), Luangwa District Hospital (LDH) and Luangwa Boma RHC. PMTCT and ART services were offered by each of the 17 health facilities in the District. The sector also offered mortuary and ambulance services to Luangwa residents. To enhance clinical care services, the Department of Health collaborated with a variety of partners.

Increased access to healthcare, improved nutrition for expectant mothers, enhanced antenatal practices and care, and improved maternal health service delivery continued to be pursued. The District had some infrastructure that was still under construction and some of which had stalled due to varying reasons. The table below highlighted the on-going construction of various infrastructures.

Table 10: Health Infrastructure Under Construction in 2021

S/N	FACILITY TYPE AND NAME	WARD
1	Luangwa District Hospital Phase III	Mandombe
2	Luangwa Boma RHC Male wards	Dzalo
3	Luangwa District Hospital staff houses (six)	Mandombe
4	Kanemela Health post (Staff house)	Chiriwe
5	Katondwe Mission Hospital (staff houses)	Katondwe
6	Sinyawagora RHC (staff House)	Mankhokwe

7.7 Assessment of the Availability of Services Relevant to this Sector and identification of communities who do not have access to basic services and facilities

In Luangwa, primary health care services were provided by the 17 facilities found in all Wards. Most of the health facilities in the District were located along the D145 tarred road (except for Amoro, Janeiro and Mangelengele HPs and Kavalamanja RHC). The linear location of most of the facilities ensured easier supervision and mentorship as well as enhanced provision of ambulance services and supply chain management.

However, some communities such as Sipopa, Chiriwe, Maozeka, Chimutengo, Kamoba, Balakasau, Chilukusha, Chidada and Kakaro covered more than 5 kms radius to access health services. In most instances, health services were provided using outreach strategies by nearby facilities at a relatively high expense. There was a challenge to provide continuum of care especially during odd times like nights.

7.8 Assessment of the Quality of Services Relevant to this Sector Compared to Key Indicators of Performance and Historic Performance and identification of shortfalls

Despite the difficulties faced, which included low staffing levels, inadequate medical equipment and infrastructure, the quality of health care delivery at health institutions was generally acceptable. This was because all of facilities were staffed by at least one skilled health personnel.

Table 11: Key Performance Indicators From 2019 to 2022

Indicator	2019	2020	2021	2022
	%	%	%	%
% of under 1 children fully immunized (0-11months)	90%	71%	70%	88%
% of underweight u-5 children	2.25%	1.20%	1%	0.2%
% of stunting u-5 children	0.10%	0.10%	0%	0.2%
Infant mortality rate	14.10%	7%	5%	2.4%
Maternal Mortality Ratio	n/a	n/a	n/a	0%
% of pregnant women attending first ANC	81%	71%	74%	80%
% of pregnant women attending first ANC within 14 weeks	41%	37%	39%	53%
% of mothers delivered by skilled provider	91%	95%	68%	90%
% of institutional deliveries	69%	62%	87%	98%
% of women attending postnatal care visits within 6 weeks	85%	79%	75%	11%

% of drug availability	45%	53%	46%	67%
HIV positivity rate males	50%	34%	29%	2.4%
HIV positivity rate females	67%	68%	57%	2.4%
Number of male currently of ART	652	264	264	866
Number of female currently of ART	1157	404	404	1546
% of currently ART (all) with V/L suppressed	62.70%	85.80%	92.60%	98%
TB cure rate	63%	60%	86%	85%
Malaria incidence rate (all ages)	324.7	434.3	92.6	14%
Under five Diarrheal incidence rate	202	177.1	151.6	172%

Source: Luangwa District Health Office

Table 12: Summary Of Established vs Existing Staffing Levels at Luangwa District Health Office.

Category by Cadre		Luangwa District Health Office		
Cadre		Establishment	Existing Staff	Variance
Consultants/ Registrars	Senior	0	0	0
Doctor		56	7	49
Clinical Officers		24	20	4
Community Assistant	Health	14	7	7
Surveillance officers		1	1	0
Ophthalmic personnel		0	0	0
Pharmacy Technologist		13	5	8
Medical Licentiates		4	2	2
Midwives		41	9	32
Nurses (RN, RMHN, RTN and ENs)		130	93	33
Public health nurse		9	0	9
Environmental Health		26	15	11
Dental personnel		6	2	4
Nutrition personnel		10	5	5
Anaesthetists		8	0	8
ENT personnel		0	0	0
Laboratory		12	12	0
Physiotherapy		6	3	3
Radiography		10	5	5
Biomedical Scientist		0	2	2

Sub- Total	370	188	182
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7.9 Assessment of the Existing State of Development Based on Issues Arising from Community and Stakeholder Consultations

In order to achieve sustainable development, Luangwa District utilises a multi-sectoral approach through community and stakeholder consultations. As aforementioned, the district was home to 17 health facilities that provide services to the community. Of these, two are first level hospitals, namely; Katondwe Mission Hospital and Luangwa District Hospital, eight health Centres (HCs), including Sinyawagora, Kasinsa, Chitope, Luangwa Secondary School, Mphuka, Mandombe, Kavalamanja, and Luangwa Boma, as well as seven health posts (HPs), including Feira, Kaunga, Mangelengele, Kanemela, Kapoche, Janeiro, and Amoro, making- up the seventeen facilities. Along with these official facilities, the District was home to 32 primary health care units. The District also has some infrastructure currently under construction such as the health staff houses at Sinyawagora, Katondwe, and Mandombe. In spite of the difficulties faced, which include low staffing levels, inadequate medical equipment and infrastructure, the quality of health care delivery at health institutions was generally acceptable. This was because all of the facilities were staffed by at least one skilled health personnel.

7.10 Issues from Public Participation Process Relating to the Overall Performance of the Sector

To enhance quality clinical care services, the Department of Health consulted and collaborated with a variety of partners. Nevertheless, a constant supply of vital medical supplies, the hiring and placement of healthcare workers and the efficient management of emerging diseases such as Covid-19 continued to be obstacles in the provision of high-quality healthcare services. Access to healthcare services remained difficult for people in the rural areas especially from 2019 to 2021. This was mostly caused by a low culture of seeking medical care in the villages, a low ratio of health workers to patients, long travel times to medical facilities, insufficient supplies of medical supplies, and a lack of specialists to handle complicated medical diseases in the facilities built.

7.11 Issues Arising from Public Participation Process Relating to the Availability of Services in the Sector and

In Luangwa, primary health care services were provided by all the 17 facilities found in all Wards in the District. Most of the health facilities in the District were located along the D145 tarred road (except for Amoro, Janeiro and Mangelengele HPs and Kavalamanja RHC). The linear location of most of the facilities ensured easier supervision and mentorship as well as enhanced provision of ambulance services and supply chain management.

However, some communities such as Sipopa, Chiriwe, Maozeka, Chimutengo, Kamoba, Balakasau, Chilukusha, Chidada and Kakaro covered more than 5 kms radius to access health services. In most instances, health services were provided using outreach strategies by nearby facilities at a relatively high expense. There was a challenge to provide a continuum of care especially during odd times like nights.

7.12 Issues from the Public Participation Process Relating to the Quality of Services

Quality of service was cardinal in health care delivery system. During public consultation, it was widely noted that the supply chain management system had challenges starting from 2019 to 2021. This resulted in shortages of medical, laboratory and other commodities to operate optimally. Ambulance services were often disrupted due to constant breakdown of the old vehicles existing. It was also noted that human resource for health was not adequate in most of the service delivery points as shown by the table (human resource for health). A constant supply of vital medical and non-medical supplies, the hiring and placement of healthcare workers and acquiring ambulance services will continue to be the focus of the sector. This can be achieved through lobbying from central Government in order to ensure that high quality health care services are provided to the people of Luangwa.

7.13 Assessment of the Impact of Changes Anticipated Over the Next Ten Years

Over the next ten years, it was expected that members of various communities in Luangwa District would have easy access to health services with a corresponding patient-healthcare staff ratio. Furthermore, a number of new infrastructure developments were expected to be built. This worked positively towards reducing the long distances people had to cover to access health facilities. This also decongested some facilities that had a huge numbers of patients, and consequently improved the quality of health care and service provision. Furthermore, most of the health facilities had boreholes sunk which enhanced access to clean and safe water, thereby reducing the risk of waterborne diseases and other dangers such as human-animal conflict.

7.14 Quantify Future Demand for Services and Facilities Based on the Estimates of Population Change

The District situation analysis process highlighted the need for more health facilities to accommodate the current and future population. It was further highlighted that some populations travel more than 5km radius on foot to reach the closest health facility. The District would need a total of 26 health facilities to accommodate demand as the population of the area is expected to increase to more than 50,000 people by the year 2030. The District cannot be adequately served by the 17 Health facilities currently in place. To satisfy anticipated demand, there will be need for nine (09) more facilities. The expected population increase is as tabulated below:

Table 13: The Expected Population Increase

Category	%	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
		No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Children 0-11 Months	4	1,480	1,533	1,588	1,645	1,704	1,766	1,829	1,895	1,963	2,034

Children 12-59 Months	12.6 5	4,681	4,849	5,024	5,205	5,392	5,587	5,788	5,996	6,212	6,435
Under 5 years (0-59 months)	16.1 5	5,976	6,191	6,414	6,645	6,884	7,132	7,389	7,655	7,930	8,216
Women 15 – 49 Years (WCBA)	22.9 9	8,507	8,813	9,130	9,459	9,800	10,152	10,518	10,896	11,289	11,695
Total Male	48	17,761	18,400	19,062	19,748	20,459	21,195	21,958	22,749	23,568	24,416
Total Female	52	19,241	19,934	20,652	21,395	22,165	22,963	23,790	24,646	25,534	26,453

Total Population	100	37,001	38,333	39,713	41,143	42,624	44,159	45,748	47,395	49,101	50,869
Growth Rate	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Expected Pregnancies	5.4	1,998	2,070	2,145	2,222	2,302	2,385	2,471	2,560	2,652	2,747
Expected Deliveries	5.2	1,925	1,994	2,066	2,140	2,217	2,297	2,380	2,465	2,554	2,646
Expected Live Births	4.8	1,777	1,841	1,907	1,976	2,047	2,121	2,197	2,276	2,358	2,443

In addition, the sector faced a number of challenges such as poor infrastructure and medical equipment as well as low staffing levels. Although each health facility was staffed by qualified medical personnel, the number and skill mix were not adequate. The District needed to hire more employees with a variety of skill sets, including medical officers, gynaecologists, obstetricians, midwives, pharmacists, clinical officers, environmental health technologists, laboratory technologists, and supporting staff, in order to provide high-quality health services.

By 2030, the department wished to turn Katondwe Mission Hospital into a general hospital and modernize Luangwa District Hospital. The hospital was set to incorporate a nursing college, Intensive Care Units (ICU) and a complete inventory of dental, physiotherapy and ophthalmology equipment and basic diagnostic tools for all the health facilities.

7.15 Identification of communities where growth will occur and where future services and facilities are likely to be needed.

Arising from the anticipated population increase, the District could not be adequately served by the 17 health facilities that were in place. To satisfy this demand, there was a need for nine more facilities to be constructed in selected communities, as shown in the table below:

Table 14: Nine Facilities to Be Constructed in Selected Communities

SN.	NAME OF FACILITY	CATEGORY	WARD
1	Sipopa	Rural Health Centre	Kaunga
2	Chilukusha	Rural Health Centre	Lunya
3	Chiriwe	Rural Health Centre	Chiriwe
4	Maozeka	Health post	Mankhokwe
5	Balakasau	Health post	Kaunga

6	Chimutengo	Health post	Kabova
7	Kakaro	Health post	Phwazi
8	Chidada	Health post	Dzalo
9	Kamoba	Health post	Mandombe

7.16 Assessment of the Likely Impact of Ongoing and Committed Investment and Development Programmes on Land Use and Population Distribution Pattern

The bi-annual assessments in the year 2021 revealed that, only Luangwa District Hospital, Katondwe Mission Hospital and Luangwa Boma RHC met the basic National standards. The cross cutting missing standard identified included incomplete construction of Phase III Luangwa District Hospital, Luangwa Boma male wards, incinerators, medical equipment, shortage of drugs, unreliable ambulance, dilapidated state building (clinics) and dilapidated and inadequate staff houses as well as DHO office space.

In addition to this, a lack of adequate furniture and staff skills were some of the other gaps identified. The District prioritised construction of incinerators and procurement of equipment and drugs for all health facilities. The District continued to lobby for the construction of staff houses, new facilities and DHO office from partners and the Ministry

7.17 Analysis of Impact of Environment and Climate Change

Indisputably, environment and climate change had a bearing on the Health Sector. Of most concern, these environment and climate anomalies were able to stifle or even reverse improvements in health by increasing illnesses and deaths in the affected populations. Studies had found that floods and/or droughts could increase levels of diseases in some affected localities by as much as 50% or even more. Some parts of Luangwa District were susceptible to flooding thereby affected by the demerits of flooding to the health sector.

The other challenge that climate change posed on the sector was human-animal conflict. The adverse weather conditions, due to climate change, caused water points to dry up in the park. This forced animals to move closer to people in search of the scarce resources which resulted in the said conflict. There were a number of instances where animals had attacked

humans, and those who happened to survive were rushed to health facilities. Health facilities were not adequately equipped to prepare for impacts of climate change and the cost to adapt to these impacts was too high for what could be managed.

7.18 The Impact of Development Trends in the Sector on the Environment and Climate Change.

Rising temperatures and environmental changes were contributing to higher incidences of diseases such as heatstroke, respiratory illnesses, and vector-borne diseases like malaria and dengue, creating a significant burden on public health. Frequent natural disasters and extreme weather events further strained health systems, especially in resource-constrained areas, as they struggled to cope with increased demands for medical care. Additionally, the psychological impact of climate-induced events was evident in the growing prevalence of mental health challenges, including climate anxiety and trauma, which added another layer of complexity to health sector responses.

7.19 The Impact of Environmental and Climate Change Issues on the sector

Studies show that floods and/or droughts increased disease levels in affected localities by as much as 50% or more. Parts of Luangwa District were susceptible to flooding. Climate change posed another challenge to the sector; human-animal conflict as adverse weather conditions caused water points to dry up in the park, forcing animals to move closer to human settlements in search of scarce resources, resulting in conflicts. There were numerous instances of animal attacks on humans, with survivors rushed to health facilities. Health facilities were not well-equipped to handle the impacts of climate change, and the adaptation costs were often prohibitively expensive. Furthermore, wind and water caused soil erosion on roads, leading to casualties that required medical attention at health facilities.

7.20 Issues Arising Relating to Gender Groups and Vulnerable Groups

7.20.1 Women and girls

Women and girls face significant health challenges, particularly in the area of reproductive health, including limited access to contraception, prenatal and postnatal care, and safe abortion services. Maternal mortality remains a critical issue due to inadequate healthcare

services and a lack of skilled birth attendants. Gender-based violence, including sexual violence, intimate partner violence, and female genital mutilation (FGM), has profound physical and psychological impacts. Additionally, mental health concerns such as anxiety, depression, and PTSD are prevalent among women and girls, often stemming from experiences of violence and societal pressures.

7.20.2 Men and boys

Men and boys encounter unique health challenges, including the under reporting of mental health issues like depression, anxiety, and suicide due to cultural norms and stigma around masculinity. Their reluctance to seek medical help exacerbates these issues. Occupational health risks are heightened due to employment in hazardous jobs, leading to workplace injuries and chronic conditions. Men also experience higher rates of substance abuse and associated health problems. Furthermore, exposure to violence, both as victims and perpetrators, results in physical injuries and psychological trauma.

7.20.3 Youths

Youths face diverse health challenges, including sexual and reproductive health issues, mental health concerns, substance abuse, and poor nutrition. The lack of comprehensive sex education contributes to high rates of teenage pregnancies and sexually transmitted infections (STIs). Rising cases of depression, anxiety, and suicide among young people are often linked to societal pressures and cyberbullying. Barriers to accessing healthcare, such as a lack of youth-friendly services and financial constraints, further exacerbate these issues. Additionally, malnutrition and obesity caused by poor dietary habits and limited access to healthy foods affect their overall well-being.

7.20.4.1.1.1 Persons with Disabilities

Persons with disabilities face numerous barriers in accessing healthcare, including physical, communication, and attitudinal obstacles. The lack of specialized healthcare services and trained professionals further hinders their ability to receive adequate care. Discrimination and stigma in healthcare settings often result in neglect and substandard treatment. These challenges are compounded by a higher prevalence of mental health issues, driven by social

isolation and a lack of support, as well as chronic conditions and comorbidities requiring long-term care.

7.20.5 HIV/AIDS

People living with HIV/AIDS continue to experience persistent stigma and discrimination in healthcare settings, affecting their access to care and quality of life. Barriers to accessing antiretroviral therapy (ART) and other essential healthcare services remain a significant concern. Individuals with HIV/AIDS are at a higher risk of comorbidities such as tuberculosis, hepatitis, and non-communicable diseases. Mental health issues, including depression and anxiety, are also prevalent due to the social and physical impacts of the disease. Insufficient prevention and education programs contribute to new infections and a lack of awareness about 99 safe practices.

7.20.6.1.1.1 Intersecting Issues

Health challenges are often compounded by intersectionality, where individuals belong to multiple vulnerable groups, such as women with disabilities living with HIV/AIDS. Social determinants of health, including poverty, education, and living conditions, significantly influence health outcomes. There is a pressing need for inclusive policies and advocacy to address the specific needs of diverse gender and vulnerable groups in the health sector. The lack of disaggregated data by gender, age, disability, and HIV status limits the development of targeted interventions and policies. Community involvement is critical, as engaging members and representatives of vulnerable groups ensures the effective design and implementation of health programs and services.

8.0 ECONOMIC ANALYSIS

This Section outlined the economic performance of Luangwa District based on an outlook of the performance of various sectors which included Agriculture, Trade and Commerce, Fisheries, Forestry and Tourism.

8.1 Economic Characteristics

The 2012 Spatial Development framework for the Luangwa Integrated Development Plan, prepared by the Lusaka Province Planning Office revealed that the larger part of the active labor force was self-employed or informally employed. This employment was in either the Agriculture or Fisheries sector most of which were still at subsistence levels. Research revealed that Agriculture topped the employment sectors at 27%, followed closely by Fisheries at 19%. Meanwhile, Health and Hospitality trailed behind at 1.9% and 1.25%, respectively. Luangwa's Economic performance had adversely affected employment creation especially in the formal sector. This was because Luangwa's economy was predominantly a low income District with income distribution varying between the Township and the Traditional regions with 15.7% and 38.1%.

8.2 Economic Sectors

Luangwa's economy was characterised by primary economic activities practiced at a subsistence level. These activities included agriculture and fishing which accounted for 27.7% and 19% respectively of the economic activities in the District. The Manufacturing, tourism, trade and commerce industries in the District were largely underdeveloped. These account for a combined 16.4% of the economic activities in the District.

8.3 Agriculture

The agricultural sector is guided by the National Agricultural Policy which undergoes periodic reviews to ensure its relevance to prevailing climatic, social and economic conditions of the country. The Vision of the Second National Agricultural Policy is: "An efficient, competitive and sustainable agricultural sector, which assures food and nutrition security, increased employment opportunities and incomes." The policy is in line with the 8th National Development Plan development outcome 1 which aims at increasing production and productivity in the agricultural sector. This was achieved by creating an enabling environment for private sector growth in the

agriculture sector through a stable trade policy. Emphasis was placed on easing of restrictions on exports of agricultural commodities and facilitating access to finance. In addition to this, the provision of inputs, extension service support, and support for value addition, storage and logistics was enhanced. Tree crop production and irrigation development needed to be promoted as well. Research and development efforts were also intensified, focusing specifically on the development of enhanced, climate-resilient crops and tree varieties.

The agriculture sector in the District was the least developed in the Province accounting for only 2.2% of the total agricultural produce. The total hectares under cultivation were 4, 296.6 ha accounting for only 11.1% of the total area of the District. Major crops produced included maize, sorghum, groundnuts, mixed beans and rice. Additionally, farmers practiced horticulture although on a subsistence level. Under livestock production, animals reared included cattle, goats, pigs, chickens, guinea fowls, ducks, sheep and donkeys.

Despite the challenges, Luangwa had the potential to develop its agriculture sector given the abundant water and land. These resources could have been harnessed for plantation farming, horticulture, winter maize production and fish farming. The District had the potential to produce rice, sorghum, millet and cassava. The development of agriculture in Luangwa required innovation and the adoption of modern technologies to ensure that the locational and technical challenges are overcome.

The Government through the Ministry of Agriculture also promoted farm block development with special focus on diversification of crops and expansion of the livestock and fisheries sub sectors. The farm block concept entailed the creation of specialised agricultural production and processing zones. Resettlement schemes will also be developed as centres for agricultural production.

8.4 Forestry

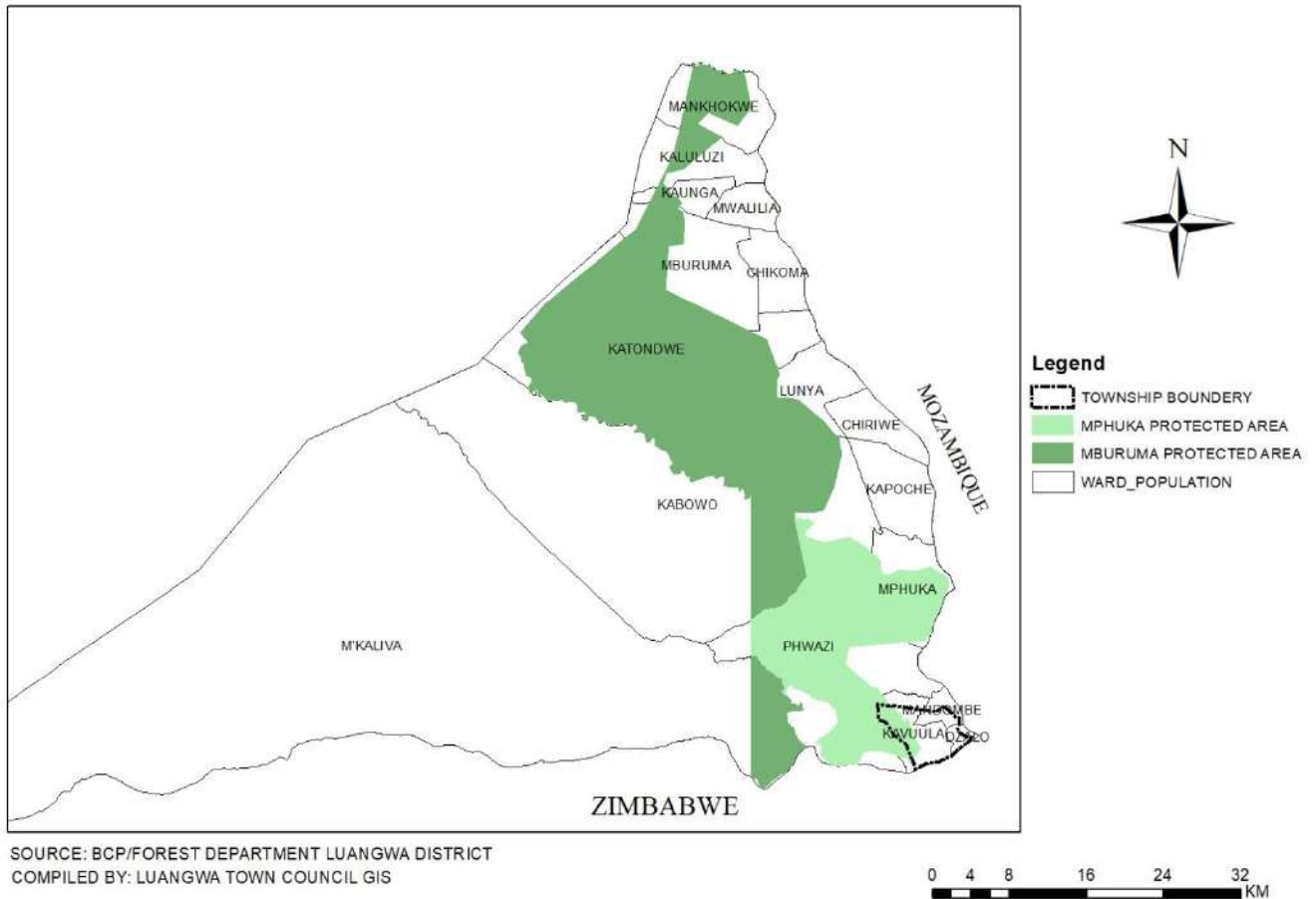
Luangwa District had an abundant forest cover with different species of trees such as Mopani woodlands characterized with *Colophospermum mopani*, *Zisphus africanus* and Baobab tree species among others. The demand for products from the forest such as mopani species suitable for both timber and charcoal production was ever increasing with the corresponding increase in population. This led to deforestation, with far-reaching impacts on the environment, including reduced Luangwa River water levels, decreased soil fertility, dwindling forest resources, and increasingly unpredictable weather.

The District had recently fallen prey to the detrimental effects of small-scale logging and commercial charcoal production, driven by the insatiable demand from Lusaka's market. To combat this environmental degradation, the most effective solution lay in introducing sustainable alternatives to counter harmful practices such as forest encroachment, destructive charcoal and wood production, and inefficient farming methods. Such alternatives included proper planning and land use management, facilitation of access to alternative but sustainable sources of energy such as solar and hydro kinetic energy and sensitization on modern farming practices.

Nonetheless, stringent measures were put in place to inspect forest produce and curb the illegal production/conveyance. This was done through blitz patrols but efforts had not yielded much owing to the non-availability of reliable sector motor vehicles to use. In addition, the permanent Council Checkpoint's remote location from the District Administration posed a significant challenge for the sector, making it difficult to consistently monitor and enforce compliance with the Forest Act, particularly for suspected offenders.

[Below is the map showing community forest in Luangwa District](#)

COMMUNITY FORESTS IN LUANGWA DISTRICT



Source: Luangwa Town Council GIS

8.5 Fisheries

Activities such as fishing, fish farming and fish trading were only done on small scale basis although fishing was one of the main economic activities in the District. The Department of Fisheries had projected the potential of fish farming by considering growth capacity based on the abundance of natural resources such as water, land, good soils. It was recommended that projects addressing sustainability, technical and management factor should be developed among farmers for common constraints to be resolved i.e. ideal pond construction, integrated fish farming training and access to fingerlings and seeds.

The District also lacked disease control infrastructure- thus there was need to build a modern disease control infrastructure that had clinics, laboratory, research centre and quarantine centres. There was also need to operationalize the dip tanks that had been functioning in order to control vectors that can cause diseases. The District's dam shortage necessitated the development of additional water sources for livestock through dam construction and rainwater harvesting.

8.6 Trade and Commerce

As a border town Luangwa was strategically located for highly developed trade and commercial routes to various parts of Zambia as well as neighbouring Countries. However, like many other sectors the development of trade and commerce was strongly dependent on infrastructural development. Anchored on this was the development of a robust road network connecting the District to other parts of the Country, underscoring the importance of transportation in economic growth through seamless trade, exchange, and mobility. Without effective transportation, regions were largely isolated from each other. Effective, affordable transportation also played a role in making it possible for people to move to new areas. In addition, enhancing regional connectivity required the establishment of vital transportation links, including bridges and pontoons, between Zambia, Mozambique, and Zimbabwe, fostering cross-border trade and cooperation.

The major form of transportation in the District was mainly road, water and air. The D145 was the only main road which linked the township to the Great East Road (T4) with a length of 88.10 km and was categorized as a district road that had over eighteen (18) feeder roads and twenty (20) township roads. The District had one airstrip with a tarred road that ran through flood prone areas and animal corridors thereby creating a possibility for human-animal conflict. The District was seeing a steady rise in the use of motor bikes for local movements. However, at the moment the District did not have safe and reliable water transport apart from privately owned boats. The available pontoon was not yet in use despite being at the rest house.

8.7 Tourism and Hospitality

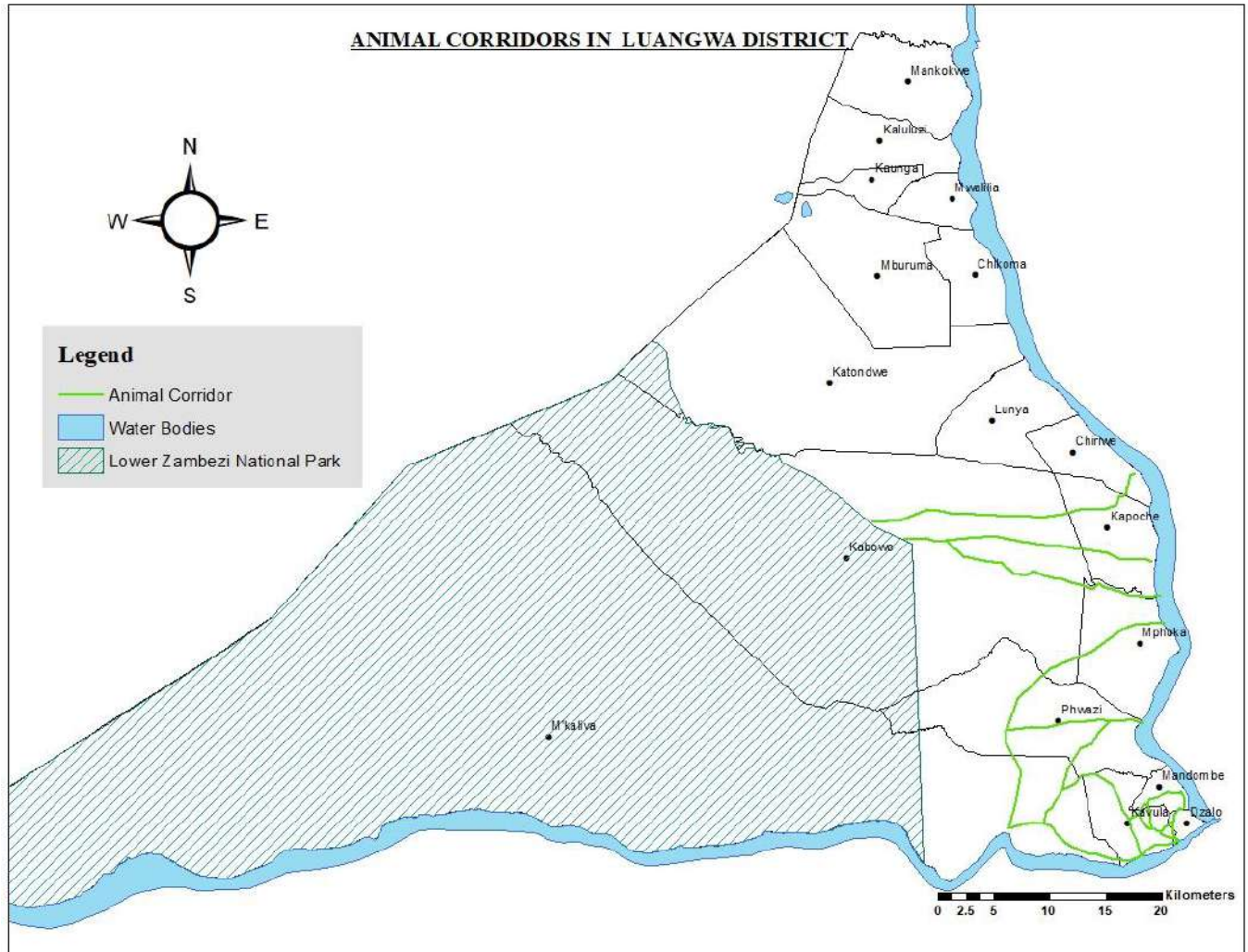
By virtue of Luangwa's abundant natural resource base and strategic location, tourism presented the most important solution to the districts economic development. The Tourism Sector had the potential to develop into an economic base for the district which would stimulate the growth of other sectors in the economy including trade and commerce, hospitality, housing and manufacturing. However, infrastructure development was key to the development of tourism therefore, strategies that would facilitate the improvement of infrastructure need to be established.

The key in developing the Tourism Sector was the management of these natural resources as unregulated tourism could disturb wildlife in protected areas, causing stress or aggression in animals. This led to Human-Animal Conflict which arose when wildlife and human populations overlapped, often due to habitat encroachment or competition for resources. In relation to Tourism and Recreation, the need to regulate tourism cannot be over emphasised as human presence in nature reserves or on safaris provoke defensive behaviour in wildlife

Luangwa District historically grappled with Human-Animal Conflict, stemming from its arid and semi-arid landscape. This environment led to frequent incursions by wildlife, including elephants and leopards, which ventured into villages seeking water or targeting livestock. The reasons for these Human-Animal Conflict incidences had spanned from habitat encroachment to Deforestation for agriculture, urbanization, and infrastructure development, thereby reducing the natural habitats, forcing animals into human settlements in search of food and shelter. The negative attitude and behaviour of people towards wild animals were due to Fear and actions such as retaliatory killings by farmers or herders following livestock depredation by carnivores had also contributed to the conflict escalation.

Mitigating these conflicts required a combination of strategies such as habitat preservation, wildlife corridors, compensation schemes for affected communities, and a lot of education about Human –Animal coexistence. Below is a map showing Animal corridors in the district.

Animal Corridors in Luangwa District



Source: Luangwa Town Council GIS

One of the key pillars of the Vision 2030 is diversification from mining to tourism and agriculture. This is an area that Luangwa District will focus its attention in order to create local employment opportunities and promote sustainable economic growth and development. The vision of Luangwa District is to be a “Trade, Transit and Tourism Destination” and this shall be achieved using local reserves, conservation areas and protected areas, local forests, cultural sites and national parks as they can enhance the tourism potential of the District.

The major tourist attractions included the Lower Zambezi National Park which was rich in fauna and flora (Biodiversity), Rufunsa Game Management Area (GMA), the beautiful scenic view of the Luangwa River and Zambezi with its unique confluence. Luangwa Township had over 10 accommodation facilities namely Justi felli Lodge, Nyabota Lodge, Gerasmos Lodge, Red cliff Lodge, Ana Base Lodge, Galamuka Lodge, Kasindu Lodge. Most of these are located along the Zambezi River with bed spaces of around 150.

The maps below show the above listed lodges;

Figure 19: Map Showing Lodges in Luangwa District

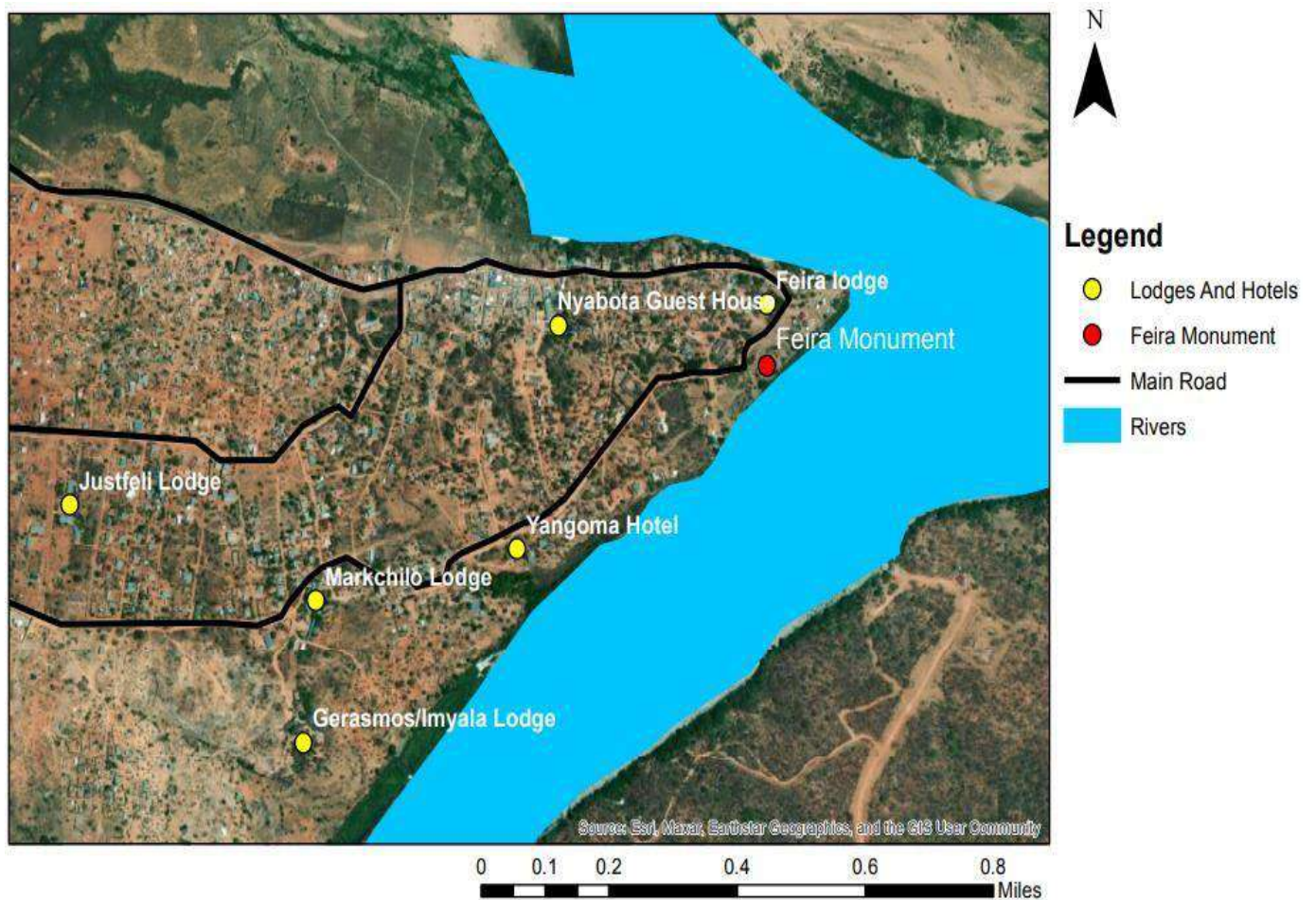
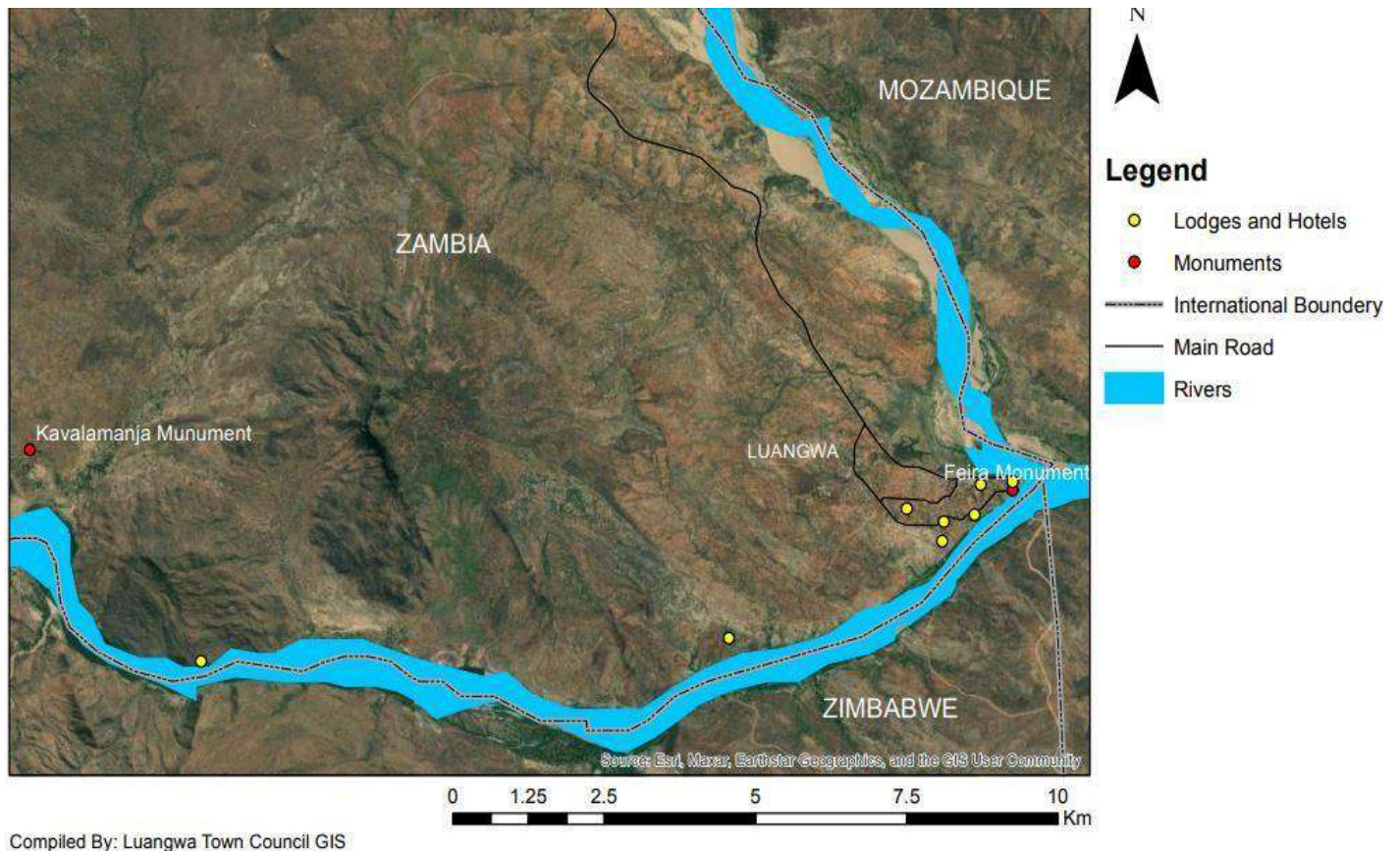


Figure 20: Map Showing Lodges and National Monuments



There were three (3) Tourism and Cultural Sites in the District and they included; a memorial site of Dr. David Livingstone during the exploration period in the 1700s to the 1800s, secondly the Kavalamanja Memorial Grave site were hundreds of both Zambian soldiers and Zimbabwean soldiers were buried during the liberation wars of the 1970s to 1980s and lastly the Kakaro Memorial Grave site. Below are images of the Memorial Grave site in Kavalamanja

Memorial Grave site in Kavalamanja



Source: IDP Team (2024)

The image below shows a bomb site



Source: IDP Team (2024)

Zambia and Zimbabwe Commemorate 45 years of Kavalamanja/Kakaro victims. The Battle of Kavalamanja and Kakaro, which took place on Zambian territory during Zimbabwe's war for independence, resulted in undocumented deaths, internal displacement, and a humanitarian crisis that continues to plague residents of these remote settlements today.

In remembrance of the brave men and women who gave their lives during the struggle for freedom, Abdon Yezi, the CEO of Yezi Arts Promotions, started the celebrations on March 6, 2008 and have since been held yearly. Additionally, in line with the same, Zambia Army engineers constructed a 1X2 classroom building in 2021, which was handed over to civil authorities on May 20, 2022.

Luangwa District is also home to two (2) Royal Highnesses, namely; His Royal Highness Senior Chief Mburuma of the Nsenga Luzi People and His Royal Highness Chief Mphuka of the Chikunda People. The District therefore has two (2) major Traditional Ceremonies, namely; Mbambala Traditional Ceremony which is annually held by the Mburuma Chiefdom and Dantho Traditional Ceremony held by the Mphuka Chiefdom.

The pictures above show a display of traditional dances and poetry performances, portraying the culture of the people of Luangwa District.

[Mbambala Traditional Ceremony](#)



Source: IDP Team (2024)

Dantho Traditional Ceremony



Source: IDP Team (2024)

8.8 Mining

Although Luangwa had potential in exploitation of mineral deposits such as copper, gold, cobalt and other precious stones, the mining industry in Luangwa District was still in its infancy stage. Luangwa is one of the oldest Districts in Zambia but it remained underdeveloped and poor despite its potential and endowment of mineral resources. Historically, members of the local community engaged in artisanal mining practices, as shown in the Figure below. However, these operations were often unlicensed, lacking formal authorization from the Ministry of Mines. The figure below shows an abandoned site as the natural stream that was a source of water dried up.



Source: IDP Team (2024)

The District did not have any industry and therefore, unemployment rates were high which consequently led to high poverty levels at about 80 percent. Most of the mining potential was situated in the Lower Zambezi National Park which called for strict adherence to Environmental standards based on the latest Environmental Impact Assessment reports.

In the recent past, Government approved the proposal for the Kangaluwi Open Pit Mining Project in Lower Zambezi National Park. This had been almost 20 years since an Australian-based company, Zambezi Resources Limited was granted an exploration license. Delayed by ZEMA's initial rejection of the proposal, Government overrode the agency and subsequent court cases which ended with the project still going ahead after a protracted legal battle.

The mining industry in Luangwa District was still underdeveloped but had been greatly anticipated by the residents, as it would contribute not only to Luangwa's Economy but the Country as well.

8.9 Assessment of the Impact of Changes Anticipated over the Next Ten Years in the economic sectors

This section delved in the assessment of the changes anticipated over the next ten years in the sectors that drive the economy of the district namely Agriculture, Forestry, Fisheries, Tourism and Hospitality, Mining, Trade and Commerce.

8.9.1 Impact of Changes Anticipated over the Next Ten Years- Agriculture

Over the next decade, it was anticipated that the agriculture sector in Luangwa District would be likely to experience significant changes driven by climate variability, technological advancements, and government initiatives to promote sustainable farming practices. Shifting weather patterns could impact crop yields and the growing seasons, necessitating the adoption of climate-resilient crops and irrigation systems. Technological interventions, such as the use of precision farming tools and digital platforms for market access, were anticipated to boost productivity and profitability for farmers. However, smallholder farmers could face challenges in accessing these innovations due to financial and technical constraints. Increased focus on agroforestry and organic farming practices could also enhance environmental sustainability and diversify income streams for local communities.

8.9.2 Impact of Changes Anticipated over the Next Ten Years- Fisheries

It was anticipated that the fisheries sector in Luangwa District could undergo transformative changes due to overfishing, climate change, and the growing demand for fish products. Enhanced aquaculture practices were likely to become a priority as a sustainable alternative to reduce pressure on wild fish stocks. Investments in modern fish farming techniques and the introduction of fast-maturing and disease-resistant fish species were expected to improve productivity. However, challenges such as water pollution and limited access to fishing equipment and training for local fishers could hinder progress. Strengthening fisheries governance, including the enforcement of fishing quotas and seasonal bans, could be critical for ensuring the sector's long-term sustainability.

8.9.3 Impact of Changes Anticipated over the Next Ten Years- Forestry

The forestry sector in Luangwa District was expected to face mounting pressure from deforestation, illegal logging, and land conversion for agriculture and urbanization. Conservation efforts, including reforestation projects and community-led forest management initiatives, are anticipated to play a critical role in preserving forest resources. Over the next ten years, there may be a growing emphasis on sustainable forestry practices, including the cultivation of fast-growing tree species for timber and energy needs. Additionally, enhanced enforcement of forest protection laws and increased community awareness about the ecological and economic value of forests could mitigate environmental degradation while promoting livelihoods linked to eco-friendly forestry activities.

8.9.4 Impact of Changes Anticipated over the Next Ten Years- Trade and Commerce

Trade and commerce in Luangwa District was expected to grow with improved infrastructure and increased regional and international trade opportunities. Enhanced connectivity through road networks and digital platforms could facilitate the movement of goods and services, benefiting small and medium-sized enterprises (SMEs). Over the next decade, the district could witness a rise in agro-based and artisanal products entering formal markets, driven by local entrepreneurial initiatives and support from government programs. However, challenges such as limited access to capital, market information, and business development services could persist. Building capacity among local traders and promoting cooperative models could help strengthen the sector and create sustainable livelihoods.

8.9.5 Impact of Environment and Climate Change the Next Ten Years- Tourism and Hospitality

Luangwa District's tourism and hospitality sector was poised for growth, driven by increasing global interest in eco-tourism and wildlife conservation. Over the next decade, investments in infrastructure, such as roads, lodges, and tour services, was expected to enhance the district's appeal as a tourist destination. Initiatives to promote cultural heritage tourism and partnerships with local communities could further boost the sector while creating job opportunities. However, environmental degradation, poaching, and inadequate marketing strategies could pose challenges to sustainable growth. Strengthening conservation efforts and leveraging digital platforms to market the district's unique attractions will be key to maximizing the sector's potential

8.9.6 Impact of Changes Anticipated over the Next Ten Years- Mining

The mining sector in Luangwa District could expand as the demand for minerals and other natural resources increased. Over the next ten years, improved exploration and extraction technologies could make it feasible to exploit previously untapped resources. However, mining activities may pose environmental challenges, including deforestation, soil erosion, and water pollution, affecting local ecosystems and communities. Emphasis on sustainable mining practices and strict enforcement of environmental regulations would be essential to balance economic benefits with ecological protection. Community engagement and benefit-sharing mechanisms could also help mitigate potential conflicts and ensure that mining contributed to local development.

8.10 Analysis of Impact of Environment and Climate Change in the Economic Sectors

This section presented the analysis of the Environment and Climate Change Phenomena in the different economic sectors Agriculture, Forestry, Fisheries, Tourism and Hospitality, Mining, Trade and Commerce. Each sector is affected differently by issues of the environment and climate change

8.10.1 Impact of Environment and Climate Change over the Next Ten Years Agriculture

The agriculture sector in Luangwa District was particularly vulnerable to the effects of environmental and climate change. Erratic rainfall patterns, prolonged droughts, and extreme weather events such as floods had already disrupted farming activities, leading to reduced crop yields and food insecurity. Soil degradation and loss of fertility, exacerbated by unsustainable farming practices and deforestation, further threaten agricultural productivity. Rising temperatures could also increase the prevalence of pests and diseases, impacting both crops and livestock. Adopting climate-smart agricultural practices, such as conservation agriculture, agroforestry, and improved irrigation techniques, would be essential to mitigate these impacts and build resilience in the sector.

8.10.2 Impact of Environment and Climate Change over the Next Ten Years- Fisheries

The fisheries sector in Luangwa District was noted to be highly sensitive to environmental and climate changes, particularly those affecting water bodies. Rising temperatures, changes in rainfall patterns, and prolonged droughts were impacting water availability and quality, which are critical for fish habitats. Decreasing water levels in rivers and lakes thereby reducing breeding grounds, leading to declining fish populations. Pollution from agricultural runoff and other human activities would exacerbate the problem, further threatening aquatic ecosystems. Promoting sustainable fishing

practices, enforcing fishing regulations, and expanding aquaculture as an alternative to wild fishing were key strategies to address these challenges and ensure the sector's sustainability.

8.10.3 Impact of Environment and Climate Change over the Next Ten Years- Forestry

Climate change poses significant risks to Luangwa District's forests, which are already under pressure from deforestation and land degradation. Higher temperatures and changing rainfall patterns could alter forest ecosystems, affecting biodiversity and reducing the availability of forest resources such as timber, fruits, and medicinal plants. Increased vulnerability to wildfires, exacerbated by prolonged dry spells, further threatening forest health. Additionally, unsustainable exploitation of forest resources by local communities for fuelwood and charcoal production contribute to deforestation and carbon emissions. Strengthening forest conservation initiatives, including reforestation projects and sustainable community-based forest management, was crucial for preserving this vital sector.

8.10.4 Impact of Environment and Climate Change the Next Ten Years- Tourism and Hospitality

The trade and commerce sector in Luangwa District was anticipated to indirectly be affected by environmental and climate change through its impact on other economic activities such as agriculture, forestry, and fisheries. Reduced agricultural productivity due to climate change can disrupt supply chains and limit the availability of goods for trade. Infrastructure, such as roads and markets, are also vulnerable to extreme weather events, hindering transportation and commercial activities. Furthermore, environmental degradation can increase costs for businesses relying on natural resources. Strengthening infrastructure resilience and promoting sustainable practices in value chains would be essential to ensure the sector's stability and growth in the face of climate change.

8.10.5 Impact of Environment and Climate Change the Next Ten Years- Tourism and Hospitality

The tourism and hospitality sector in Luangwa District is heavily reliant on natural ecosystems and wildlife, making it highly susceptible to environmental and climate change impacts. Habitat degradation, deforestation, and water scarcity caused by shifting climatic conditions could affect the district's appeal as an eco-tourism destination. Additionally, changes in temperature and weather patterns could alter wildlife migration and behaviour, potentially reducing the availability of key tourist attractions. The increased frequency of extreme weather events, such as floods, could also damage infrastructure and disrupt tourism activities. Strengthening conservation efforts, promoting

sustainable tourism practices, and enhancing infrastructure resilience would be vital to safeguarding this sector.

8.10.6 Impact of Environment and Climate Change over the Next Ten Years- Mining

Environmental and climate change impacts on the mining sector in Luangwa District are multifaceted. Extreme weather events, such as heavy rains and floods, can disrupt mining operations and increase the risk of accidents. Soil erosion and sedimentation caused by deforestation and mining activities further degrade the local environment. Climate change could also affect the availability of water resources essential for mining processes. Additionally, unsustainable mining practices could contribute to environmental degradation, including air and water pollution, affecting local ecosystems and communities. Adopting environmentally friendly mining technologies and strict enforcement of environmental regulations are critical to minimizing these impacts.

8.11 Issues Arising Relating to Gender Groups and Vulnerable Groups

This section looked at issues that arise from Gender groups and vulnerable populations. These groups face significant challenges across various sectors due to systemic inequalities, cultural norms, and limited access to resources and opportunities. Addressing these issues through inclusive policies, targeted support programs, and community-driven interventions is essential to promote equity and empower these groups to contribute meaningfully to sustainable development.

8.11.1 Issues Arising Relating to Gender Groups and Vulnerable Groups – Agriculture

In the agriculture sector of Luangwa District, gender and vulnerable groups face significant challenges. Women, who play a crucial role in smallholder farming, often have limited access to land ownership, agricultural inputs, and extension services due to cultural norms and systemic inequalities. Youths and persons with disabilities face similar barriers, including restricted access to financial resources and training opportunities, hindering their ability to engage in productive agriculture. Vulnerable groups, such as individuals living with HIV/AIDS, could encounter discrimination and limited capacity to participate fully in farming activities. Addressing these disparities through inclusive policies and targeted support programs would be essential to ensure equitable participation in the sector.

8.11.2 Issues Arising Relating to Gender and Vulnerable Groups – Fisheries

The fisheries sector faces significant challenges related to gender and vulnerable groups, including

inequities in resource access, decision-making and recognition of contributions. Women who play a crucial role in fish processing, marketing and aquaculture are often undervalued and excluded from leadership and policy forums while vulnerable groups such as indigenous and migrant fishers face systematic discrimination. Limited access to finance, market and capacity building opportunities further hinders their economic potential. They are also exposed to occupational hazards including unsafe working conditions and health risks like smoke inhalation during fish processing, disproportionately affect women and children alongside the prevalence of gender based violence and exploitation. Women and marginalised groups often lack the means to adapt to declining fish stocks and extreme weather events.

8.11.3 Issues Arising Relating to Gender Groups and Vulnerable Groups –Forestry

Gender and vulnerable groups in the forestry sector face numerous issues, particularly related to access and benefits. Women, who often relied on forest resources for subsistence and income, were frequently excluded from decision-making processes in community forest management. Persons with disabilities and marginalized groups could encounter physical and attitudinal barriers that limit their access to forest resources and opportunities to engage in forestry-related livelihoods. Additionally, youth involvement in forestry activities was often hindered by a lack of training and investment in sustainable forest practices. Empowering these groups through capacity-building initiatives and ensuring their inclusion in forestry governance could help address these challenges.

8.11.4 Issues Arising Relating to Gender Groups and Vulnerable Groups - Trade and Commerce

In the trade and commerce sector, women and vulnerable groups in Luangwa District face systemic barriers to economic participation. Women entrepreneurs often struggled with limited access to credit, markets, and training, which restricted their business growth. Youths and persons with disabilities encounter similar challenges, exacerbated by a lack of support services and inclusive policies. Discrimination against individuals living with HIV/AIDS further marginalizes them in trade activities. Promoting financial inclusion, providing targeted capacity-building programs, and creating an enabling environment for inclusive entrepreneurship were critical to addressing these challenges and fostering equitable participation in the sector.

8.11.5 Issues Arising Relating to Gender Groups and Vulnerable Groups - Tourism and Hospitality

Gender and vulnerable groups encounter barriers in the tourism and hospitality sector in Luangwa District. Women, who were often employed in low-paying and informal roles, faced challenges such as unequal wages, limited career advancement opportunities, and workplace harassment. Vulnerable groups, including persons with disabilities, were frequently excluded from employment and participation due to physical inaccessibility and discriminatory practices. Youths also face high unemployment rates in the sector, compounded by a lack of skills and training. Promoting inclusive employment policies, accessible infrastructure, and targeted training programs can help overcome these obstacles and ensure equitable opportunities for all.

8.11.6 Issues Arising Relating to Gender Groups and Vulnerable Groups - Mining

The mining sector presents significant challenges for gender and vulnerable groups in Luangwa District. Women, often relegated to informal and low-paying roles in artisanal mining, face discrimination and exploitation. Unsafe working conditions and the physical demands of mining further marginalize persons with disabilities and other vulnerable groups. Youths involved in mining frequently experience exploitation and hazardous conditions, while the sector's informal nature leaves many without social protections. Strengthening labour laws, promoting gender equity, and providing support for alternative livelihoods can address these inequities and improve outcomes for marginalized groups

9.0 HOUSING AND SETTLEMENT PATTERNS

Housing is a very integral part of every nation as it is a basic human need after food and clothing and it plays a critical role in shaping the quality of life of individuals, families and communities.

9.1 Review of Policies and Plans

The main goal of the National Housing Policy is to provide adequate affordable housing for all income groups in Zambia. Urbanisation accompanied by a rise in income levels and employment have created a demand for affordable housing in Luangwa outpacing the supply. In Zambia 70%, of urbanites lived in slums with inadequate water supply and poor supply and this was the general outlook even in the District. In order to curb this problem, the Local Government and Housing Act was established to provide for the establishment of Councils. This was put in place as a measure to provide for adequate and affordable housing, based on the requirements of urban and regional planning in respect to administering land on behalf of the State. The 2020 National Housing Policy indicates that the deficit of housing units needed to be confronted by the year

2030. The need for housing therefore could not be overemphasized.

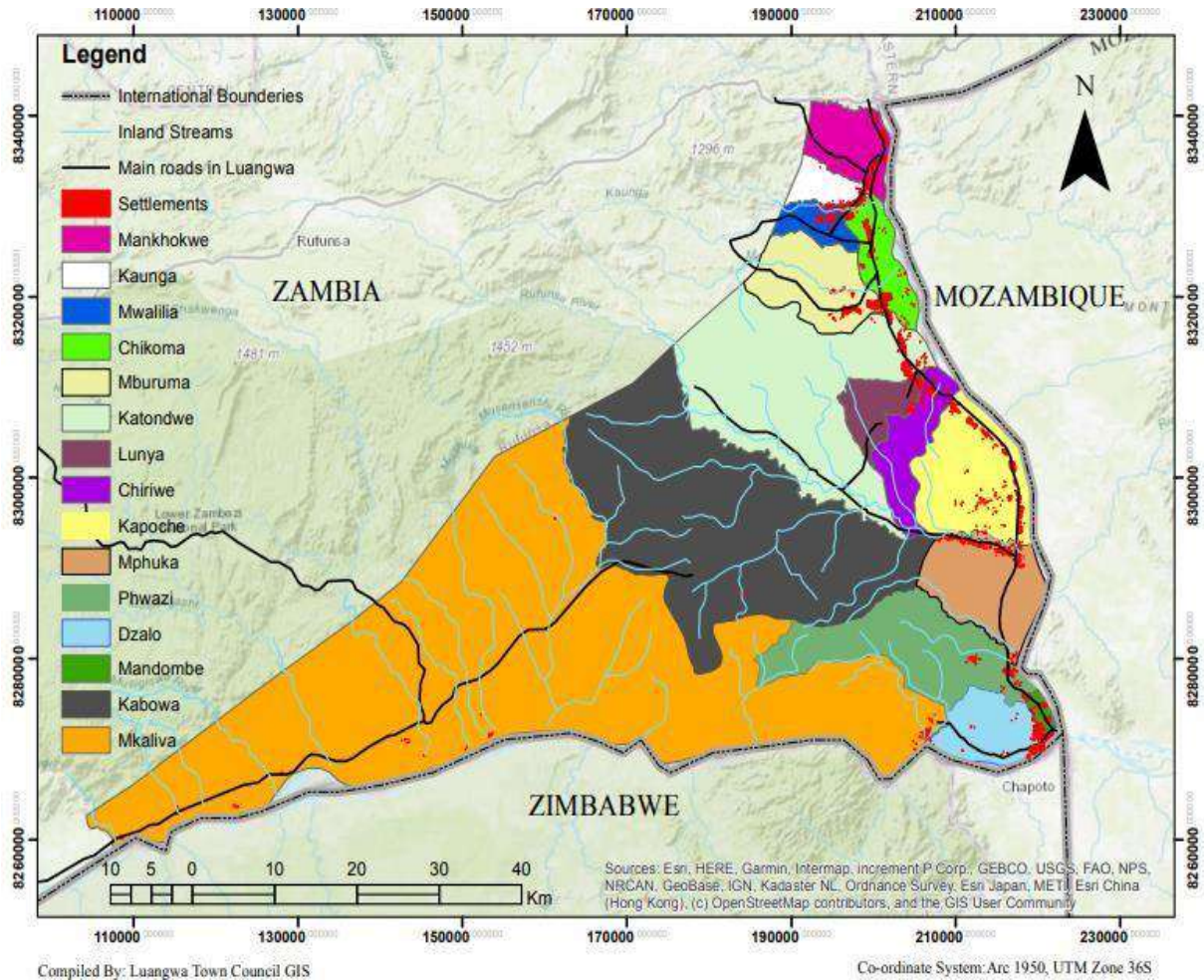
9.2 Availability of Housing Infrastructure

Adequate housing was a fundamental prerequisite for economic development, but Luangwa faced a stark reality: a severe shortage of housing stock. This inadequacy painted a bleak picture of the district's economic status, highlighting the urgent need for housing development. Lack of access to land for housing was a major challenge which fuelled the growth of informal settlements for low-income groups in the District. Recognizing housing as a vital catalyst for poverty alleviation, the Local Authority had vigorously implemented a policy prioritizing women's access to land. Specifically, a minimum of 15% of land allocated to the community was reserved for female beneficiaries.

9.3 Settlement Pattern

There were three (3) distinct settlement patterns, linear, clustered and sporadic. Linear settlements predominated, with most residents having settled along major roads, notably the D145, rivers and other transportation corridors. However, both sporadic and clustered settlement patterns existed at a small degree both in rural and urban areas. Furthermore, a larger part of the district lived in un-planned settlements with inadequate access to safe, clean water, sanitation, hygiene and extension facilities. Provided population growth remained constant, housing and settlement patterns would continue to be affected. The map below shows the pattern of the distribution of settlements in the District according to Wards.

Figure: Distribution of Settlements by Ward



9.4 Status of Housing

The settlements along the D145 road and nearby villages were predominantly composed of traditional houses, distinguished by their mud brick walls and grass thatching. This type constituted 62% of the total housing units and rural areas which had the highest percentage falling at 86%. However, there was a steady increase in the use of materials such as iron sheets for roofing. Notably, the settlements in the urban wards such as Dzalo and Kavula had transitioned to using blocks and iron sheets for roofing, while peri-urban hot spots like Chitope, Mphuka and Mandombe had adopted the same designs. With regards to housing designs, there was no uniformity throughout these urban wards as 14% of the housing units within the urban area were made from traditional materials, especially in unplanned settlements such as Indeco, Kamoba and Soweto, as seen in the pictures below; showing a mixture of mud and block structures.

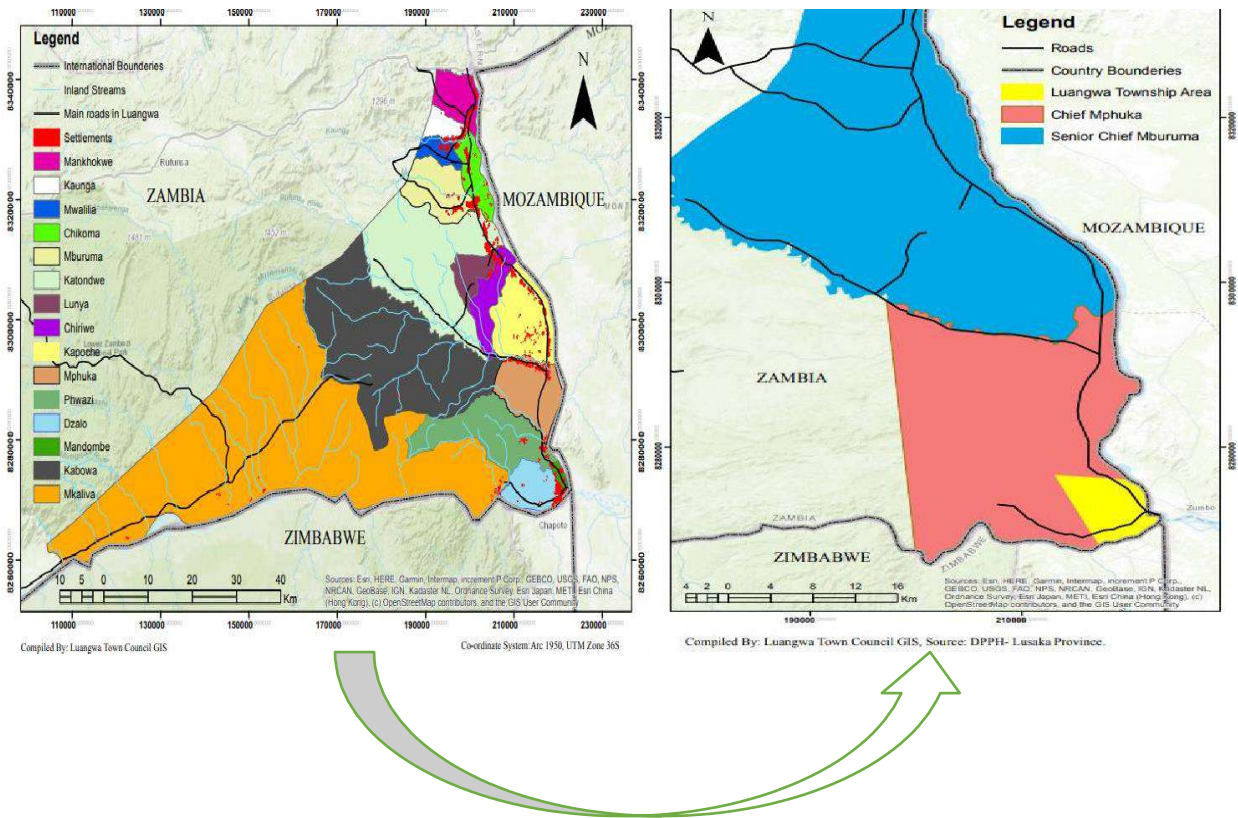


Source: IDP Team (2024)

This clearly showed how desperately Luangwa's communities needed to be redeveloped in order to promote decent housing. The Government through the Ministry of Infrastructure and Urban Housing Development was constructing about 103 housing units under the settlement improvement programme for the Kamoba Community which was one of the unplanned settlements in the District. This was meant to promote decent and affordable housing in order to facilitate for community redevelopment of Kamoba Settlement through community participation in housing development and improvement of living conditions in human settlements.

9.5 Land Tenure and Uses

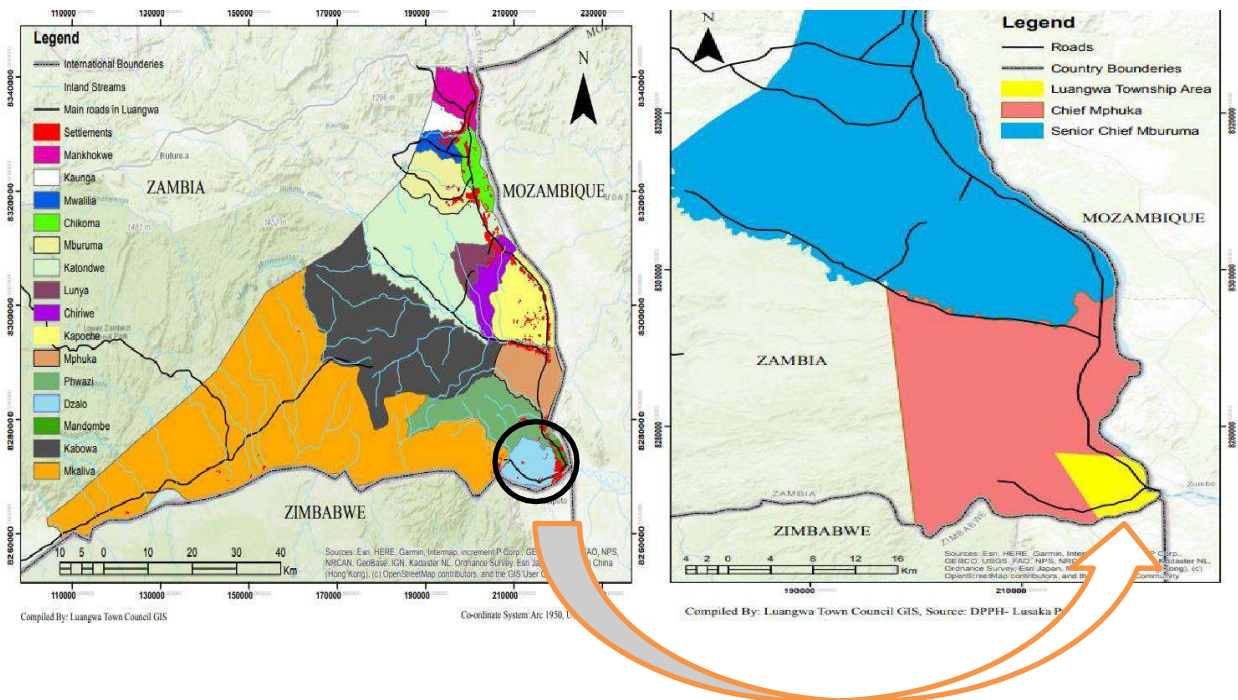
Like the rest of the country, land tenure in Luangwa District was under two (2) main legal categories, namely state land (Leasehold Tenure) and traditional land (customary tenure). The two tenure systems transcend from the British colonial era and the effects of colonialism and its attendant land tenure system throughout the country could be seen through the settlement patterns. The maps below show the distribution of State Land and Customary Land under the two Chiefdoms; as well as the settlements distribution in the wards.



Source: Luangwa Town Council GIS

9.6 State Land and Traditional Land

State land is the land directly controlled and alienated by the President through the Commissioner of Lands. Before 1964, it was known as crown land and was occupied mainly by whites and amounted to only 6% of the total land mass of Zambia. Generally, State land was zoned and planned by the state through Local Authorities. Historically, state land has been a subject to planning laws and other land related laws. Only one (1) ward called Dzalo and part of another, named Mandombe, was fully state land as seen in the figure below;



Source: Luangwa Town Council GIS

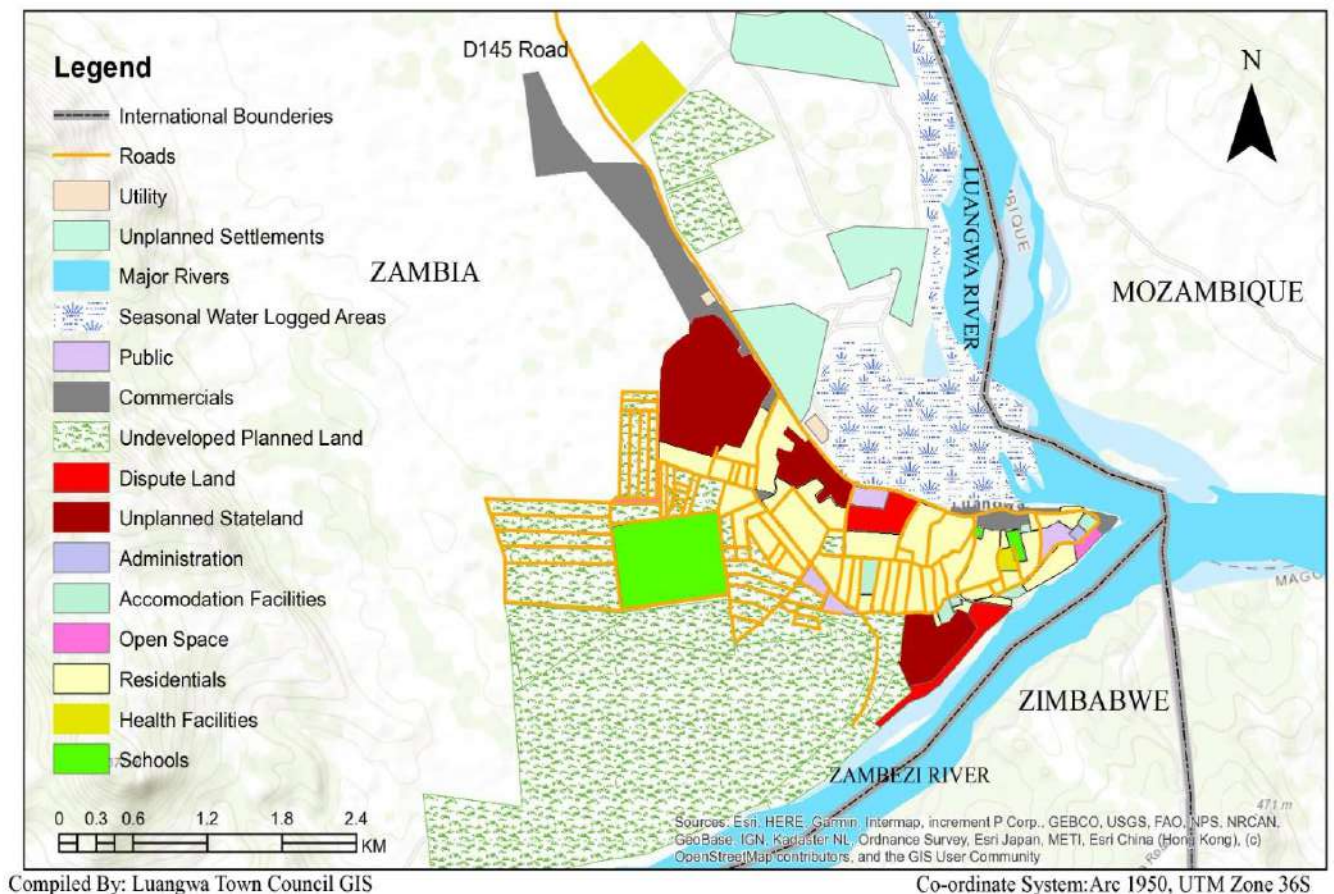
Secure tenure referred to the right of all individuals and groups to effective protection against forced evictions and is the arrangement under which most developments (housing, industry, and businesses) took place. People had secure tenure when there was evidence of documentation that could be used as proof of secure tenure status or when there was either fact or perceived protection against forced evictions (UNESC, 2013).

Most of the land in Luangwa District fell under customary tenure, administered by two (2) Chiefdoms, Mburuma and Mphuka. Customary land was alienated through the traditional leadership and did not require much documentation. Customary land was not considered secure and could not be used as collateral for any legal transaction, such as borrowing of finances from financial institutions.

9.7 Land Uses

The primary land uses common in the district can be summarized as follows: 1) Residential; 2) Commercial; 3) Agriculture; 4) Administration; and undeveloped. The Figure below shows the primary land use.

GENERAL REFERENCE MAP FOR LUANGWA TOWN



Nearly 52% of the township land was used as residential and about 17% consisted of unplanned settlements. Demand for land closer to municipal services such as water and electricity had resulted in the conversion of open and green spaces for residential and commercial use. The undeveloped land form provided a basis for planned and coordinated development. There was also general uniform terrain in the central and eastern part of the township (330m-630m), thereby promoting commercial land use.

The town was expanding in the north and eastward direction but this would be restricted by Zambezi Escarpment mountain ranges. Natural features dictated future land use pattern. The western part of the township was another direction to expand development but, it had rugged terrains that would make development difficult and costly. The hilly and rocky terrain with valleys made laying service difficult and limited the amount of land available for development.

10.0 TRANSPORT AND COMMUNICATION

10.1 Review of Policies and Plans

Transportation is an integral part of any economy as it facilitates trade, exchange and travel. Without effective transportation, regions are largely isolated from each other. Effective, affordable transportation also plays a role in making it possible for people to move to new areas. The 2019 National Transport Policy aims at enhancing the facilitator role of the transport sector in social and economic development of the public and private sectors. It seeks to promote private sector involvement in infrastructure development and service provision under a regulated environment.

Pontoon operations are guided by Chapter 466 of the Inland Water Shipping Act, which is the principal legislation governing the water transport system. This Act provides for the registration, surveying and management of water vessels as well as designation of the ports and harbours. The Government of the Republic of Zambia, in its quest to industrialize and diversify the economy, has pledged to develop, modernize and integrate road, rail, air and water infrastructure through the Ministry of Transport and Logistics.

10.2 Description of the Existing State Of Development

This section outlines the description of existing state of development in Luangwa District. Luangwa district is still quite far from physical, and economic development. Economic underdevelopment can be seen from the slow change in the modernization and industrialization of community.

10.3 Availability of the service

The District's transportation network consisted of three (3) primary modes; road, water, and air. The D145 road served as the district's main artery, connecting the township to the Great East Road (T4) and spanning 90 kilometres. The district also had an extensive network of 18 feeder roads and 20 township roads. Additionally, the district featured one airstrip, accessible via a gravel road that traversed flood-prone areas and animal corridors, posing a risk of human-animal conflict.

10.4 Road Transport

Road transportation was the most prevalent mode of transport in the district. For local transportation of people and goods, there was a steady increase in the use of motorbikes. Additionally, car taxis operated within the district, providing transportation services for people and goods. Despite the district's proximity to water and its potential for transportation, the utilization of waterways was hindered by the scarcity of safe boats. However, a few privately-owned exceptions existed. The district's primary road, connecting Lusaka and Chipata, was built over a decade ago and had remained relatively well-maintained, with only minor damage in some areas. The township roads were all dusty and routinely renovated by the Local Authority. However, township roads, which were predominantly unpaved, demanded frequent maintenance and tourist access roads were notably substandard. The district's infrastructure deficiencies highlighted the necessity for comprehensive upgrades. Specifically, upgrading township roads to tarred surfaces, improving access roads to tourist sites, renovating the bus station, and constructing a truck station were identified as key priorities.

10.5 Air Transport

The district had two (2) small, dusty airstrips, including one (1) located in Mandombe Ward within the township, capable of accommodating small plane landings. However, there was need to upgrade the access road that led to the airstrip as it passed through a flood prone area. The second airstrip was strategically located within the Lower Zambezi National Park, catering to tourists seeking aerial access to this renowned destination.

These two (2) airstrips presented significant opportunities for growth in both transportation and tourism sectors. However, upgrading the quality of these airstrips was necessary to enhance accessibility and operational efficiency.

10.6 Water Transport

Luangwa District had areas where water transport was utilized specifically along the Zambezi and Luangwa Rivers as most settlements were also along the two (2) rivers. The Government intended to open up more routes in order to enhance trade and one of the ways in which this would be actualized was through the operationalization of a thirty five (35) tonne capacity ferry in Luangwa District. Once the pontoon was operationalized, it would create a shortcut to South Africa and its trading ports, effectively decongesting Livingstone and Kazungula. This project would provide a safer and more economical transportation option for local traders. Furthermore, a bilateral agreement - the Draft Bi-Lateral Agreements on Water Transport - was drafted between Zambia and Zimbabwe, and separately between Zambia and Mozambique. These agreements were negotiated and awaited finalization, pending the conclusion of discussions between the participating countries. However, there was need to renovate and upgrade the loading and landing bay for the pontoon so that it could be safe for use and fully operational regardless of the water levels of the rivers.

10.7 Telecommunication

The District was connected to phone and internet facilities which were important in order to accelerate socio-economic development. The cellular telephone networks available were Zamtel, Airtel and MTN. ZAMTEL, a state-owned company that owned the optical fibre network, provided landline phone services in the district. Additionally, the district's strategic location enabled access to mobile telecommunications services from neighbouring Mozambique and Zimbabwe. In peripheral areas, cellular communication networks, particularly in health facilities, served as the primary means of communication. Postal services were also available and the town

was able to periodically access ZNBC Radio 1 and 2 signals. There were also two (2) community radio stations used to disseminate information to the local people.

10.8 Quality of Service Including Key Indicators of Performance

10.8.1 Mobile Network Coverage

Mobile phone coverage was insufficient in nearly half of the district's wards, with uneven coverage in supposedly serviced areas. To address this, enhancing network coverage through targeted installation of mobile towers was essential for providing universal access to reliable communication services.

10.8.2 Radio Signal Coverage

The District had a community radio station, but lacked its own television station. The radio station's signal coverage was limited, serving only the township, surrounding areas, and a few isolated parts of the district. To enhance community access to information, the district needed to facilitate the establishment of additional radio and television stations, as well as expand signal coverage.

10.9 Quality of transport infrastructure

Historically, the district's main artery, connecting it to the Great North Road (D145), was built over a decade ago. Although generally serviceable, the road had deteriorated, developing potholes in certain areas, necessitating timely maintenance.

10.10 Critical Issues

Historically, the district lacked direct access to Mozambique and Zimbabwe, relying solely on small boats, which hindered trade and stifled the town's growth. The only viable alternatives were circuitous routes through Katete (Chanida border post) to Mozambique or Chirundu (Chirundu One Stop Border post) to Zimbabwe. International cross-border traders, primarily fish traders, faced perilous journeys aboard unlicensed boats operated by untrained coxswains, exposing them to risks of loss and accidents. This precarious situation persisted for an extended period.

Recognizing these challenges, the government aimed to establish Zambia as a transport hub by enhancing the transport and logistics infrastructure. To address this need, construction of an all-weather landing bay and pontoon site structures was seen as a solution if undertaken. With the pontoon operational, cross-border trade was expected to increase significantly, bolstering the

district's economic status.

ANTICIPATED CHANGES	IMPACT
The district to open to more trade	Increase in district GDP
safe and reliable water transport	Fewer or no accidents on the Zambezi river
Tightened border security	Increased revenue collection by ZRA
cheaper and quicker means of moving goods	Reduced cost of doing business for the local traders

10.11 Existing Investment Development Programmes

SN	PROJECT NAME	LOCATION
1	Operationalization of the 35 tons capacity pontoon	Luangwa, Zambia-Zimbabwe Border
2	Desludging of the two existing landing bays	Luangwa, Zambia-Zimbabwe Border

10.12 Proposed Investment Development Programmes

SN	PROJECT NAME	LOCATION
2	Rehabilitation and Installation of a 60 tons Capacity pontoon from Kazungula	Luangwa, Zambia-Zimbabwe Border
3	Construction of an all-weather landing bay	Luangwa, Zambia-Zimbabwe Border
4	Construction of offices and Ablution block for officers and clients	Luangwa, Zambia-Zimbabwe Border

10.13 Issues Arising from the Public Participation Process and Identification of communities who do not have access to basic Services and facilities

The community consultative meetings conducted across the District, highlighted that most communities' in the outskirts of the township such as Kavalamanja, Janeiro and Kabowo have challenges accessing the public transportation system due to the poor road network. Concerning water transport, the community also lamented on the lack of safety in the use of traditional canoes in the absence of modern vessels as the water bodies are infested with crocodiles. With regards to telecommunication, the communities acknowledged that a number of areas along the D145 Road have challenges in mobile network connectivity services, Additionally, those settled in the outskirts of the District do not have access to electricity. The inadequate access to televisions and radio signal were also highlighted as challenges in communication and the undertaking of business in the modern world.

10.14 The Impact of the Continuation of Existing Trends on Land Use and Population Distribution Patterns

10.15 The Impact of the Continuation of Existing Trends on Land Use

An increase in activities at the border and in the central business district would result in the construction of a bigger dry port, a better road network from the District Commissioner's office to the harbour including more offices for the clearing and forwarding agents and other services.

10.16 The Impact of the Continuation of Existing Trends on Population distribution patterns

Continuation of population trends spelled economic boom for Luangwa, as it would translate to job creation for the local people because the cargo that would be passing through the border would need clearing and forwarding and eventually other business ventures would arise. People

would in turn bring in families and eventually there would be increased demand for other services. However, operationalization of a pontoon would be a real game changer as it was expected to accelerate the district's economic growth, with Luangwa being a springboard for intra and inter trade activities. The lack of a link to Zimbabwe and Mozambique has greatly contributed to the slow growth of Luangwa District hence the aforementioned would be beneficial.

10.17 The Impact of Environmental and Climate Change Issues on the Sector

Historically, floods and droughts disrupted pontoon operations due to the current landing bay's vulnerability to extreme water levels. This highlighted the critical need for a versatile, all-weather landing bay that could operate continuously throughout the year.

10.18 Issues Arising Relating to Vulnerable Groups

Prior to the population surge, vulnerable men and women were incentivized to create fish farming and trading cooperatives, successfully boosting supply to meet the increased demand for fish and other essential products.

10.19 Issues Arising Relating to Gender Groups

Women constituted the majority of fish traders, and girls were increasingly involved. Nonetheless, limited access to safe transportation posed a significant obstacle for these groups seeking to expand their business across international borders.

11.0 ENVIRONMENTAL PROTECTION AND SOLID WASTE MANAGEMENT

The bedrock of Environmental Protection is mainstreaming of environmental concerns in development plans and programmes in order to enhance sustainability. There are a number of environmental issues that affect Luangwa District with the major ones bordering around pollution, poaching, land degradation, over exploitation of resources, invasive species.

11.1 Review of Policies and Plans

The Zambia National Policy on Climate Change 2016 is a policy that provides a framework for coordinating climate change programmes in order to ensure climate resilient and low carbon development pathways for sustainable development towards that attainment of Zambia's Vision 2030. It is guided by the principle the principle of 'sustainable climate change response' according to which all climate change actions shall be environmentally sustainable.

11.2 Key Priorities of the Eighth (8th) National Development Plan and how they are to be implemented at a Local Level

Sustainable environment, ecosystems and natural resources management is necessary as it supports the provision of basic human needs, such as clean air, water, fertile land for food and animal production and inputs for various production processes. It also provides functioning services that contribute to the control of soil erosion, floods, disease proliferation and regulation of the climate.

11.3 Key Priorities of Sector Specific National Plans/Strategies

The Environmental Protection and Pollution Control Act No. 12 of 1990 as well the Environmental Management Act No. 12 of 2011 are Acts that provide for the protection of the environment and the control of pollution of the air, land and water. They also make provision for integrated environmental management and protection and conservation of the environment as well as the sustainable management and use of natural resource and related matters. The Environmental Management Act No 12 of 2011 in part 1 is it sets out the principles governing environmental management and repeals the Natural Resource

Conservation Act. All in all, these policies are a powerful tool to promote cleaner production, sustainable Consumption of goods and services as well as environmental preparedness at a local level especially in the day to day running of the local authority.

11.4 Status of Implementation of Existing Plans and Strategies in the District (Proposed Investments and Development Programs)

In recent years, it was reported that Luangwa District had existing development plans and strategies aimed at spurring development in the district and creating employment opportunities for both skilled and unskilled labor during the construction and operational phases. The proposed development programs under the sector were as follows:

1) Construction of a Tourism Bush Camp

The construction of a Tourism Bush Camp at the AC Point in the Lower Zambezi National Park was proposed. This initiative was reported to involve an ecologically sensitive area within a wildlife-protected zone, necessitating the issuance of a decision letter by the Zambia Environmental Management Agency (ZEMA). Additionally, the Department of National Parks and Wildlife (DNPW) had reportedly provided a conditional offer for the project.

2) Construction of a Tourism Fly Camp

A Tourism Fly Camp at Chifungulu Island in the Lower Zambezi was also proposed. This project was expected to take place in a wildlife-protected area, making it mandatory for ZEMA to issue a decision letter in line with the Zambia Environmental Management Act of 2011. It was reported that the works and associated human activities in the national park could have direct environmental impacts throughout the project cycle. These impacts included pollution, vegetation removal leading to habitat fragmentation, and disturbance to animals. Social and economic impacts were also noted as probable outcomes. However, mitigation measures, including the use of environmentally friendly building technologies, had been proposed to address these concerns.

3) Construction of a Feira Campsite

The construction of a Feira Campsite in the Rufunsa Game Management Area was proposed as an eco-tourism camp aimed at promoting tourism. It was reported that the campsite would be built entirely using recycled local materials to preserve the surrounding flora and fauna as part of its design.

4) Mineral Exploration Activities

Mineral exploration activities were reported to be planned for Cobalt, Copper, Gold, Iron Ore, and Zinc in Kasinsa, Luangwa, and parts of Rufunsa Districts. These activities were aimed at determining the availability and quantity of the minerals in the licensed area. Depending on the results, mining activities would reportedly commence following a separate Environmental Impact Assessment. The main exploration activities were to include desk studies, site preparation, geochemical sampling, reverse circulation drilling (RCD), and diamond drilling.

5) Proposed Banana plantation

The establishment of a banana plantation in Lubiinga Village of Mburuma Chiefdom was also proposed as an important investment. It was noted that the environment, being crucial to the livelihoods of the local population, would be utilized sustainably to reduce poverty and promote socio-economic development.

11.5 Assessment of the Existing State of Development

11.5.1.1.1 Assessment of the Availability of Services Relevant to this Sector

The district was vulnerable to natural hazards and impacts of climate change, as well as the unsustainable use of natural resources. This was evidenced by high levels of deforestation, forest degradation, land degradation, encroachment of protected areas, unsustainable fishing, and loss of biodiversity, among others.

To protect the environment, there was a need to enhance environmental education and awareness-raising on the importance of sustainably managing the environment, ecosystems, and natural resources. This helped the community understand the impacts of poor environmental practices and take necessary actions to contribute to environmental sustainability.

It also solicited community participation in environmental management and conservation of natural resources and improved compliance with statutory and legally set standards in the implementation of environmental mitigation measures.

11.5.2 Assessment of the Quality of Services Relevant to this Sector Compared to Key Indicators of Performance and Historic Performance and identification of shortfalls

A larger part of the District was rural and heavily depended on the exploitation of natural resources for survival. The exploitation activities, which included deforestation for charcoal burning and farm clearing, hampered the quality of services. Exploitation of natural resources could only be discouraged by alleviating poverty and encouraging community members to engage in alternative sources of income. The process of clarifying others' perceptions and misconceptions to change mind-sets was tedious but necessary. However, through extensive sensitization and knowledge sharing, the problem of natural resource exploitation was curbed.

11.5.3 Issues from Public Participation Process Relating to the Overall Performance of the Sector

During the public participation process, conflicting interests and priorities among residents, businesses, and environmentalists hindered consensus on waste management. The Local Authority was previously responsible for managing solid waste. Nevertheless, the effectiveness of the system relied on the collective efforts of stakeholders in achieving predetermined objectives. While community members generally supported waste management initiatives, they

often objected to paying waste collection fees and the placement of landfills or incinerators near residential areas, citing health concerns, unpleasant odors, and decreased property values. Inadequate communication between the local authority and the community on waste management issues resulted in significant barriers, leading to widespread non-compliance with established regulations.

11.6 Issues from Public Participation Process Relating to the Availability of Services in the Sector and identification of communities who do not have access to basic services and facilities

The Community consultative meetings held across the District revealed that outlying communities, such as Kavalamanja, Janeiro, and Kabowo, faced significant human-animal conflict challenges. Due to their remote location and poor network coverage, communicating or sending alerts during animal invasions proved difficult. As a result, communities often took matters into their own hands, killing animals that encroached on their fields. In contrast, communities in the two Chiefdoms welcomed community forest management initiatives, including the Red Cross Project. However, a minority of community members, particularly those involved in charcoal burning, expressed disagreement with preserving trees for carbon sequestration.

11.7 Issues from Public Participation Process Relating to the to the Quality of Services

The public participation process highlighted concerns regarding service quality, emphasizing issues of pollution and contamination of water bodies, such as the Luangwa River, due to open defecation along riverbanks and improper waste disposal resulting from inadequate waste collection and disposal systems. This led to littering and illegal dumping of waste.

Additionally, insufficient recycling facilities and programs for managing plastic, paper, and other recyclable materials were identified as major concerns. Uncontrolled logging and land clearing for development and agriculture were also noted, leading to loss of forest cover, soil erosion, and degradation of arable land.

Furthermore, the increased frequency of storms, floods, droughts, and heat waves affecting local communities was highlighted, along with the impact of high temperatures on agriculture, water resources, and health. Unplanned urban expansion, particularly in Luangwa Boma's Soweto area, encroached on reserved, natural, and agricultural land.

These issues necessitated a collaborative effort involving community members, local authorities,

NGOs, and stakeholders to implement sustainable practices, enforce regulations, and raise awareness about environmental protection.

11.8 Assessment of the Impact of Changes anticipated over the next Ten (10) Years

The section provides the changes anticipated over the next ten (10) years in Luangwa District, and the existing and proposed projects to cope with population increase. It is anticipated that there will be an increase in the rural population of Luangwa District in the next ten years. More people require more resources, which means that as the population increases, the resources in the District will deplete more rapidly. The result of this depletion is deforestation and loss of biodiversity as communities strip off the resources to accommodate rising population numbers and needs.

11.9 Future Demands for Service and Facilities

As a result of population increase anticipated in the next 10 years, demand for resources is expected to go up. This trend is expected to put pressure on food, arable land, water, air, fossil fuels and minerals. An increase in consumption means more waste products from air and water pollutants, toxic materials and greenhouse gases. As population factors such as child mortality rates plummet and life expectancy increase, changes in the global environment begin to accelerate. This will lead to; an increase in pollution, continued resource depletion, decreased farmland and reduced food production. In addition to this, there will be an increase in the demand for water. The projected population composition will also have an impact on the environment as research has proved that Luangwa has a relatively large younger generation. Entailing that young people are more likely to migrate than their older counterparts as they leave their parental home in search of new opportunities.

This leads to increase in migration and urbanization to the extent of outpacing infrastructure development and environmental regulations, as sudden increase in population can overwhelm existing infrastructure including water supply, sewage systems and waste management, which may not be designed to handle such growth outpacing the ability of existing regulations to manage these impacts. Which may further result in high pollution levels and intensified environmental concerns. On the other hand, poverty also contributes to unsustainable use of resources while high levels of income can correlate with disproportionate consumption of energy

and waste production.

11.10 Assessment of the Likely Impact of Ongoing and Committed Investment and Development Programmes on Land Use and Population Distribution Pattern

The works and associated human activities of the proposed development programmes in the National Park will have direct impacts on the environment throughout the project cycle. This may include pollution, vegetation removal leading to habitat fragmentation and animal disturbance, while other probable impacts may be of social economic in nature. Nonetheless, mitigation measures to the identified probable impacts have been proposed which include building technologies with no adverse impacts on the environment to be implemented.

11.11 Analysis of the Impact of Environment and Climate Change

11.12 The Impact of Development Trends on the Sector on Environment and Climate Change

Research indicated that temperatures were influenced by the growing concentration of greenhouse gases, which absorbed solar radiation and warmed the atmosphere. Livestock production and agriculture, common economic activities among local communities in Luangwa, significantly contributed to greenhouse gas emissions, a central factor in global warming.

The demographic influence manifested in three key areas. Industrial production and energy consumption led to carbon dioxide emissions from fossil fuel use. Land use changes, such as deforestation, affected the exchange of carbon dioxide in the atmosphere. Agricultural processes, including livestock production, also contributed to emissions.

Population growth, coupled with increasing consumption, resulted in higher emissions of climate-changing greenhouse gases.

Below is the historical carbon footprint for Luangwa.

Figure 21: Carbon Dioxide (CO₂) Emissions Per Capita in Tons Per Year

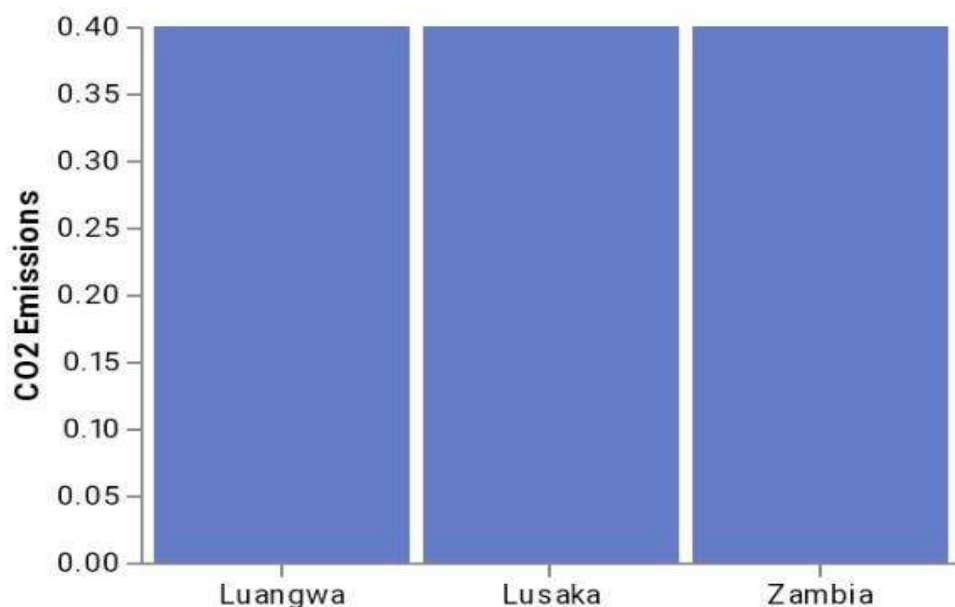


Table 15: Carbon Dioxide (CO₂) Emissions Per Capita in Tons Per Year with Intensity

Location	CO ₂ Emmissions	CO ₂ Emmissions Per Capita	CO ₂ Emmissions Intensity
Luangwa	12, 762 t	0.4t	3.32t/km ²
Lusaka	1060345t	0.4t	44.8t/km ²

Source: Environmental Research letters (link) Moran D, Kanemoto K, Jiborn M, Wood R, Tobben J and Seto K, C (2018) Carbon Footprints of 13000 Cities.

11.13 The Impact of the Continuation of Existing Trends on Land Use and Population Distribution Patterns

Fulfilling the resource requirements of a growing population ultimately requires some form of land use change aimed at providing for the expansion of food production through forest clearing which has several ecological impacts such as soil erosion, while the chemicals used in fertilizers can also degrade soil. Human induced changes in land use often result in habitat fragmentation and loss. They are also the primary cause of species decline as well as increase frequency and severity of floods.

11.14 Summary

Rapid population growth worsens the impacts of climate change by straining resources and exposing more people to climate related risks especially in low resource regions. There is therefore need to improve health care to reduce issues such as infant and child mortality. Restrict child marriages and rise legal age of marriage and generously fund family planning programs to stabilize population growth.

11.15 Solid Waste Management

Waste management is important as it saves the environment from the toxic effects of inorganic and biodegradable elements present in waste. Mismanagement of waste can cause water contamination, soil erosion and air contamination which have a negative impact on the environment.

11.16 Review of Policies and Plans

The key Government policies that are being implemented are Solid Waste Regulations and Management Act 2018 together with the Public Health Act Cap 295 of the Laws of Zambia. The policies guide the management of solid waste through the provision of a service that consists of collection of waste from the holding bays to the dumpsite.

11.17 Key Priorities of the Eighth (8th) National Development Plan

The key priorities in the Eighth (8th) National Development Plan include the devolvement of the provision of district health services to the sub-national level in order to enhance decision-making for effective service delivery. This will strengthen public health for the prevention and control of infectious diseases such as malaria, tuberculosis (TB) and HIV and AIDS, as well as on Communicable Diseases (NCDs). At local level the effort in effective service delivery is seen in allocating funds for procurement of solid waste management vehicles.

11.18 Key Priorities of Sector Specific National Plans/Strategies and how they are to be implemented at a Local Level

The Solid Waste Regulation and Management Act No. 20 of 2018 is an Act that provides for; the sustainable regulation and management of solid waste; general and self-service solid waste services; the incorporation of solid waste management companies and define their statutory functions; the licensing and functions of solid waste service providers, operators and self- service

solid waste providers and provide for their functions; the regulation, operation, maintenance and construction of landfills and other disposal facilities; the setting and approval of tariffs for management of solid waste and provision of solid waste services; and matters connected with, or incidental to, the foregoing. The Solid Waste Regulation and Management Act No. 20 of 2018 is an Act that provides for; the sustainable regulation and management of solid waste; general and self-service solid waste services; the incorporation of solid waste management companies and define their statutory functions; the licensing and functions of solid waste service providers, operators and self- service solid waste providers and provide for their functions; the regulation, operation, maintenance and construction of landfills and other disposal facilities; the setting and approval of tariffs for management of solid waste and provision of solid waste services; and matters connected with, or incidental to, the foregoing. In this regard the Local authority provides solid waste services collecting waste from the central business district generated from the shops, lodges restaurants and homes at a fee to the designated waste disposal site. The district also has mounted street bins aimed at discouraging littering around the town. There are three refuse bays in the district where waste is stored and act as collection points, these have been put in proximity to businesses to make it easier for people dump waste in the designated facilities. Efforts have also been made in ensuring construction and operation of that the dumpsite.

11.19 Status of Implementation of Existing Plans and Strategies in the District

The District previously embarked on developmental programs, such as constructing a landfill (dumpsite) and installing refuse bins in public places and streets. By doing so, the District was able to introduce sorting of waste at the source, rather than at the disposal site.

The Local Authority also procured additional metal and plastic refuse bins for placement in marketplaces and offered waste collection services in residential areas for a fee. Although recycling and reuse of waste were not undertaken in the District, a few individuals collected used small bottles for reuse, transporting them to Lusaka.

11.20 Assessment of the Description of the Existing State of Development

In Luangwa District, solid waste management faced several challenges and was in a developing state. The district had limited infrastructure and resources for effective waste collection, transportation, and disposal, but efforts were made to bridge the gap, such as purchasing equipment necessary for transporting waste to the designated dumpsite.

However, many areas lacked formal waste management systems, leading to informal dumping and burning of waste. Despite this, opportunities existed to improve waste management through increased investment in infrastructure, enhanced community engagement, and public awareness regarding proper waste disposal practices, which was relatively low, and stronger policy enforcement.

Community participation in waste management initiatives was crucial but often insufficient due to a lack of education and engagement programs, thereby creating a need for partnerships with private sector players and international organizations to provide much-needed support and resources.

Overall, while progress had been made, substantial work remained to achieve an effective and sustainable solid waste management system in Luangwa District..

11.21 Assessment of the Availability of Services Relevant to this Sector

The District lacked sufficient means to manage waste efficiently. It only managed municipal waste within the township (Boma), specifically from lodges, shops, restaurants, and homes, although household waste collection was only introduced in 2024 and initially had a slow response rate compared to other areas. Collection from households occurred in less than 2% of households in Dzalo and Kavulaa wards, making it unsustainable for the local authority to burn fuel for such limited collection.

Residents without access to this service used rubbish pits for waste disposal, which posed health risks due to open pits attracting rodents and animals that scattered waste, potentially spreading communicable diseases and promoting open-air burning that caused air pollution.

In the Central Business District (CBD), street bins were installed to discourage littering. The district had two refuse bays, located at the main market and a dumpsite 4km north of the Civic Centre and 2km west of the main D145 road. However, waste management remained a significant challenge as waste generation outpaced the Local Authority's capacity to manage it.

During that time, Luangwa Town Council struggled to manage waste due to tight budgets, inadequate equipment, and frequent malfunctions. Fortunately, the arrival of the Constituency Development Fund (CDF) enabled the local authority to purchase a tipper truck and a tractor, improving waste collection. Despite this progress, there remained a need to enhance financial and technical resources for effective waste management. Indiscriminate dumping and littering posed additional challenges in Luangwa, exacerbated by difficulties enforcing laws prohibiting improper waste disposal.

11.22 Assessment of the Quality of Services Relevant to this Sector Compared to Key Indicators of Performance

The quality of service depended on key components of a waste management system needed to perform efficiently. This was indicated by timely collection of garbage, availability of bins in all public places, functional and fenced-off landfills, availability of transport, and adequate personnel to collect waste.

These were the key components of solid waste management systems, including public participation, financial resources, personnel, machinery, operational capacity, environmental considerations, and sustainability. However, these parameters were not fully met.

11.23 Issues Arising from the Public Participation Process

During the public participation process, potential issues arose because residents, businesses, and environmentalists often had conflicting interests and priorities in waste management, making consensus difficult.

Management of solid waste was considered the responsibility of the Local Authority, but the successes of any solid waste management system depended on how far the set targets were achieved by various stakeholders.

Most people supported initiatives in principle but opposed waste collection at a fee and waste facilities, such as landfills or incinerators, being located near their homes due to perceived health risks, odours, and reduced property values.

A lack of effective communication between the community and the Local Authority on waste management led to communication barriers and was a major cause of resistance among community members in complying with legally set standards.

11.24 Impact of Changes Anticipated Over the Next Ten Years

11.25 Population Change – Future Demand for Services and Facilities

Population change is expected to impact waste management significantly, as the growth of human settlements is likely to produce large amounts of solid waste. With the anticipated population growth in Luangwa District, waste generation is projected to increase, potentially straining the existing waste management infrastructure, which may already be inadequate. Current infrastructure and resources are likely to become overwhelmed, leading to inefficiencies

in waste collection, transportation, and disposal. The district will require substantial investment to expand and upgrade its waste management systems. Without improvements, increased waste is expected to exacerbate pollution, including contamination of water bodies, soil pollution, and heightened greenhouse gas emissions from waste decomposition. This will likely elevate public health risks, such as the spread of diseases due to improper waste disposal and unmanaged landfill sites, along with attracting vermin and insects that pose further hazards.

Based on the 2022 census, Luangwa's population of 35,933 produces approximately 19,403.83 kilograms of waste daily, translating to an immense waste burden over the next decade. Managing this effectively will necessitate significant resources, including finances, labor, machinery, land, and energy. Additional initiatives, such as sorting waste at the source with color-coded bins and establishing recycling facilities, will also require substantial financial investments, presenting further challenges for sustainable waste management.

11.26 Assessment of the Impact of Changes Anticipated Over the Next Ten Years

Waste generation is expected to rise with population growth in Luangwa District, driven by its connection to the national grid, which is anticipated to spur economic activities and economic migration. Increased waste generation will place a greater economic burden on local government, requiring expanded waste management services and infrastructure, potentially leading to higher costs for residents if fees are introduced or increased.

Population growth will necessitate stronger policies and stricter enforcement of waste disposal regulations, alongside initiatives to promote recycling and incentivize waste reduction. Community engagement and education will be critical for fostering sustainable waste practices among a growing population. Additionally, the challenges of managing increased waste might drive innovation, such as adopting advanced waste processing, recycling, and energy recovery technologies. Proactive planning, infrastructure investment, and community involvement are essential to implementing sustainable waste management practices now to mitigate future challenges and negative impacts.

11.27 Quantify Future Demand for Services and Facilities Based on the Estimates of Population Change

Based on estimates of population change, Luangwa's population is currently at 35,933, with a population change of 3.4%. From 2010 to 2022 and is projected to increase to 90,787 by the year 2035 which is the IDP period. This increase forecasts an increase in waste production by over 100%. Taking

The formula of one person generating 0.54 kg of wastes per day, with the District population, the current waste generated per day is as tabulated below:

Per Day= District Population × 0.54 Kg

35, 933×0.54

1,940,382 Kg

From the tabulations above, Luangwa produces 1,940,382 Kg of wastes per day. Annually the projected waste to be unleashed on the environment is 23,284,584 Kg. The projections will be disastrous if not handled using an efficient waste management system. This then calls for a clear need to setup an efficient solid waste management plan and system in place, having adequate tools and stable funding. It will require a comprehensive approach involving significant investment in infrastructure, financial resources, skilled personnel, and technological innovations. Strong regulatory frameworks, community engagement, and continuous monitoring and evaluation will be essential to ensure sustainable and effective waste management practices. Investment in more waste collection vehicles and equipment to handle increased waste volumes, waste Processing Facilities such as establishment and or expansion of recycling centres, composting facilities, and waste-to-energy plants. As well development of new sanitary landfills with proper liners and leachate management systems to prevent environmental contamination. This will involve increased budget allocation for waste management services, infrastructure, and maintenance.

11.28 Identification of communities where growth will occur and where future services and facilities are likely to be needed.

In Luangwa District the only area that is serviced is the urban part of the District which is the Central Business District. The rest of the District does not receive waste management services due to inefficiency in waste management and lack of financial capability to fund the cost that comes with managing waste. Densely populated areas within the District like Chitope and

Mphuka which are homes to large communities will need waste management services. However, the District will continue to face challenges of un-collected piles of waste, if the inadequacies are not addressed

11.29 Assessment of the Likely Impact of Ongoing and Committed Investment and Development Programmes on Land Use and Population Distribution Pattern

The demand for municipal services of waste collection will potentially increase, and in order to ensure efficiency in the provision of this service, there is need to; change mind-sets of the communities on solid waste disposal and management, procure more equipment and increase human resource. However, this poses a challenge for the Local Authority in service provision and places a burden on the municipal budget. This will mean investment in more waste collection vehicles and equipment to handle increased waste volumes, waste Processing Facilities such as establishment and or expansion of recycling centres, composting facilities, and waste-to-energy plants. As well development of new sanitary landfills with proper liners and leachate management systems to prevent environmental contamination.

This will bring about, encroachments and environmental degradation which pose a future risk of reduced land for other developmental activities. On the other hand, increased waste will result in economic activities such as employment opportunities, recycling initiatives, hire of more vehicles from the local people to transport waste

11.30 The Impact of Existing Trends on the Environment and ClimateChange

Poor waste management contributes to climate change and air pollution, and directly affects many ecosystems and species. Dumpsites release methane a very powerful greenhouse gas linked to climate change. Methane is formed by microorganisms present in dumpsite from biodegradable waste, such as food, paper and garden waste. Considering that waste is not treated and the dumpsite not constructed to the legal standards, this might also contaminate soil and water. The transportation process releases carbon dioxide the most prevalent greenhouse gas and air pollutants, including particulate matter, into the atmosphere.

The Zambezi and Luangwa Rivers are homes to marine species and are severely affected by

poor management of waste. Marine littering is a growing concern, not only for aesthetic reasons.

11.31 Consideration of the Underlying Factors Contributing to the Issues Identified

The major underlying factors contributing to the inefficient solid waste management systems in Luangwa District were severe weather conditions, lack of community involvement, inadequate resources, including insufficient equipment and inadequate funding. These inefficiencies led to serious negative environmental impacts, including the spread of infectious diseases, land and water pollution, obstruction of drains, and loss of biodiversity.

As the population grew and lifestyles improved, changing consumption trends resulted in increased waste generation. If waste was not managed properly, it posed serious risks to human health and the environment. Raising community awareness about the importance of waste management was crucial, as it mitigated the environmental and health impacts of waste. A participatory approach to solid waste management was necessary, incorporating incentives and introducing environmentally friendly mechanisms.

11.32 The Issues Arising Relating to Gender Groups and Vulnerable Groups in Solid Waste Management

11.32.1 Women and Girls

Exposure to hazardous waste and unsanitary conditions led to health issues such as respiratory problems, skin diseases, and infections. Workforce Participation is limited due to restricted access to formal employment in the waste management sector resulted in many women working in informal waste picking without social protection or benefits. Safety and Security of Women waste pickers is compromised, as they are with faced risks of harassment and violence in waste management areas. Women had limited opportunities for economic advancement and leadership roles within the sector. Gender Roles stemming from societal expectations required women to handle household waste without adequate recognition or support.

11.32.2 Men and Boys

Occupational hazards were a significant issue for waste management workers, who faced a high risk of injuries and exposure to toxic substances due to the nature of their work. Informal waste pickers and recyclers suffered from economic exploitation, earning low wages and lacking job security, which

made their livelihoods unstable. Inadequate protective gear and unsafe working conditions heightened their vulnerability to health problems, further compounding their challenges. Boys and young men were often drawn into waste management activities, which forced them to miss out on educational opportunities and limited their future prospects. Additionally, the stigma and social isolation associated with waste management negatively impacted their mental health, leading to feelings of marginalization and low self-worth.

11.32.3 Youths

Children and adolescents were frequently involved in waste picking and sorting activities, which exposed them to numerous health hazards and hindered their educational progress. Many youths working in waste management were forced to miss school or drop out entirely to contribute financially to their families, disrupting their education and limiting their opportunities for personal growth. Limited avenues for skill development and vocational training in safer and more stable occupations further restricted their ability to secure better employment. Exposure to hazardous waste and environmental pollutants created long-term health risks for youths, impacting their physical and emotional well-being. The social stigma attached to waste management work also led to negative perceptions and discrimination, further marginalizing these young individuals.

11.32.4 Persons with Disabilities

Waste management facilities often lacked accessible infrastructure and tools, making it difficult for persons with disabilities to participate meaningfully in this sector. Job opportunities and support for persons with disabilities in waste management were scarce, leaving many excluded from economic activities. Inadequate accommodations and protective measures increased their vulnerability to injuries and health issues, further marginalizing them in the workplace. Discrimination and social exclusion were prevalent, reinforcing feelings of isolation and limiting their opportunities for growth. Economic barriers also hindered access to assistive technologies and resources that could enable safer and more effective participation in waste management work.

11.32.5 People Living with HIV/AIDS

Individuals working in the waste management sector often faced stigma and discrimination, which limited their employment opportunities and led to social ostracism. Their compromised immune

systems made them more susceptible to infections and health risks associated with waste management, creating significant health vulnerabilities. Barriers to accessing healthcare and support services persisted due to stigma and a lack of awareness, further impacting their ability to manage their health. Financial difficulties compounded their struggles, as they faced challenges in covering healthcare costs and securing stable employment in the sector. Waste management workplaces often lacked accommodations and supportive policies, making it harder for individuals living with HIV/AIDS to work safely and effectively.

11.32.6 Intersecting Issues

Individuals who belonged to multiple vulnerable groups, such as women with disabilities or individuals living with HIV/AIDS working in waste management, faced compounded vulnerabilities that were particularly challenging to address. Economic and social inequalities further exacerbated the difficulties faced by these groups, deepening their struggles in accessing fair opportunities and safe working conditions. There was an urgent need for inclusive policies and regulations to protect their rights and well-being within the waste management sector. A lack of awareness and education about safe waste management practices and the rights of vulnerable workers contributed to their continued marginalization. Engaging community members and organizations was crucial to creating safer and more equitable waste management systems. Addressing these challenges required comprehensive policies, inclusive practices, and sustained community engagement to ensure the protection, inclusion, and empowerment of all gender groups and vulnerable populations in solid waste management.

12.0 WATER AND SANITATION SECTOR

12.1 Review of Policies and Plans

The National Water Policy of 2010 aims at promoting sustainable water resources development with a view to facilitating adequate, equitable, and good quality water for all users at acceptable costs and ensuring security of supply under varying conditions. The policy framework includes the following key policy strategies:

Recognizing the important role of the water sector in the overall socio-economic development of the country, vesting control of water resources in the country under state control as well as promoting water resources development through an integrated management approach and providing adequate, safe, and cost-effective water supply and sanitation services with due regard to environmental protection;

12.2 Key Priorities of the Eighth National Development Plan (8NDP) and how they are to be implemented at a Local Level

The Eighth National Development Plan worked to increase access to water and sanitation and improve urban and regional planning. It would also implement decentralization that would entrench participatory planning with communities in various constituencies and wards so as to have all round access to water and sanitation.

12.3 Status of Implementation of Existing Plans and Strategies in the District

Provision of water infrastructure through drilling and rehabilitation of boreholes was an existing as well as a proposed investment programme in the District. To achieve this, the government through the local authority had so far drilled over 270 boreholes. This had been done across the district with priority on the communities that were in great need of water which were mostly far away from the water bodies including kabowo, kapoche, chiriwe, etc. The investment was supported by Local Government, Central Government and partners who compliment Government efforts.

Another programme that was being implemented was the provision of communal mechanized water points: which provided for installation of a commercial borehole which would distribute

water to households in the community through water taps. This infrastructure would greatly assist in the reduction of underground saline water which was not safe for human consumption.

Another program that was planned to be implemented was the rehabilitation of existing Dams. Luangwa had three communal dams namely, Mabonzo, Matafali and Chalila that supported a number of framers. These dams supported a total of 230 farmers who were engaged in different horticultural products such as vegetables and Fruit trees (Bananas). However there was need to rehabilitate these facilities. Rehabilitation of dams in the District was an investment programme which would increase the provision of water for productive uses such as agriculture and recharge points for underground water. This would be spearheaded by the Department of Water Resource Development (DWRD).

Most schools in the district had either VIP or ordinary toilets. However, with the new government position to do away with VIP toilets, the district ventured in improving and constructing waterborne toilets in all the schools across the district. The Construction of waterborne toilets in schools was aimed at improving the sanitation levels in schools.

12.4 Description of the Existing State of Development

Luangwa district has piped water that is serviced by Lusaka Water and Sanitation Company (LWSC) and draws its water from the Zambezi River within the township. The other parts of the district relies mainly on boreholes, a limited number of wells and the two main rivers (Luangwa and Zambezi River. Three (03) out of eighteen (18) wards are serviced by the water utility company. The rural parts of the District depend on boreholes and wells as rivers and seasonal streams as source of water. Over 70% of the population has no access to fresh potable water. These communities rely on either saline underground borehole water or dirty water from the rivers and wells.

12.5 Ground and Surface Water Resources

The two (2) major surface water sources for Luangwa District were the Zambezi River on the southern part of the District and the Luangwa River on the eastern side as well as seasonal streams that distributed into the Luangwa River. The community that lived close to the Luangwa River used it as their main source of water for various purposes. Uses included on and off season agriculture, drinking water for the livestock and human consumption. Most communities along the Luangwa River preferred water from the rivers to ground borehole water

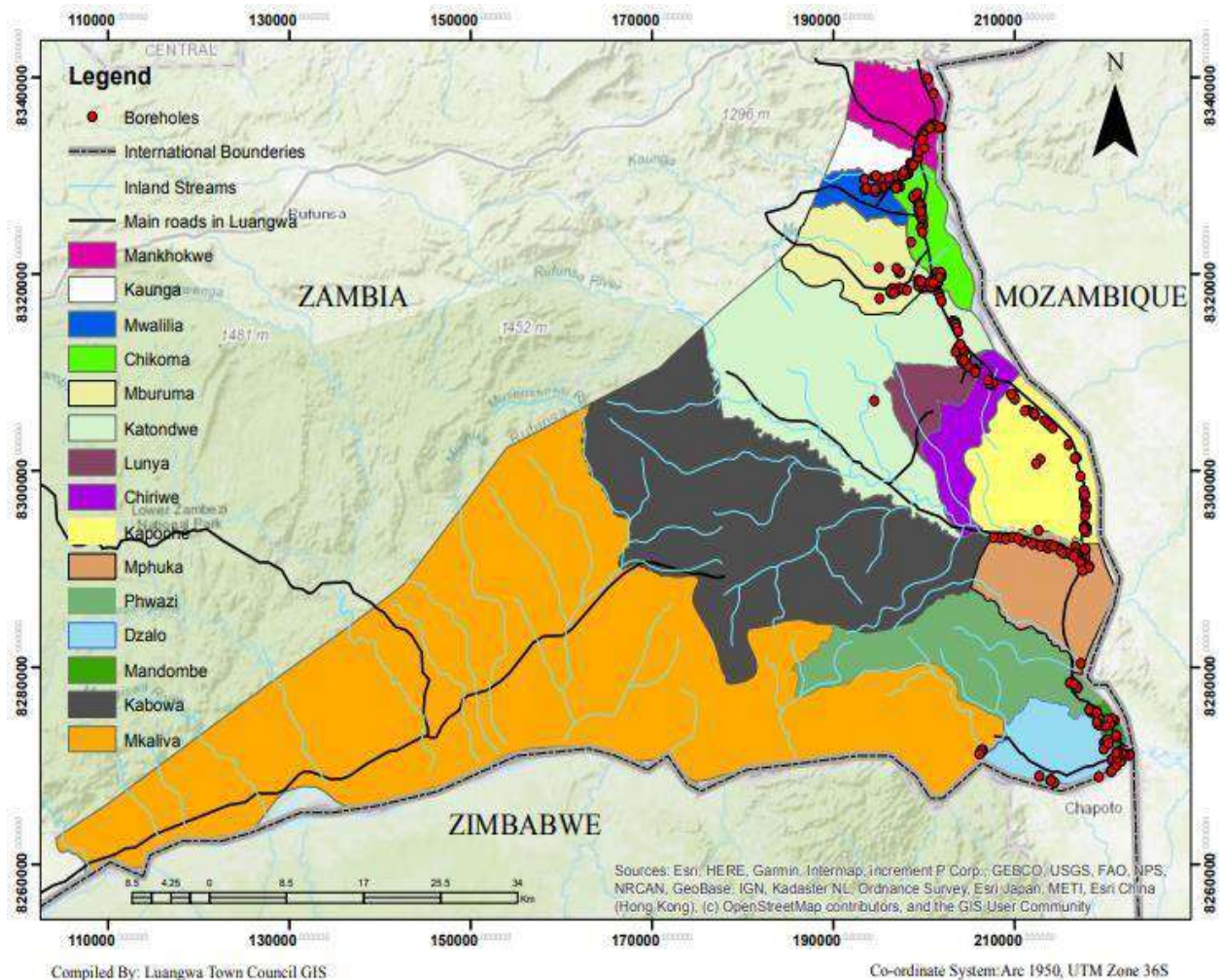
due to water salinity which affected the taste.

12.6 Water Supply and Demand

The water coverage for Luangwa district was approximately over 90% of the district population. However the challenge was that most water though accessible of poor quality and not safe for human consumption as it was either saline or dirty. Hence, there was a high demand for safe and clean usable water mostly among the rural communities. The township which accessed clean piped water was just 20% of the entire district. There were plans, however, for the expansion of the provision of safe piped water to other parts of the district to reach at least 50% of the households. This would be done by Lusaka Water and Sewerage Company (LWSC). The utility company had the potential to expand their services. However, they had a challenge of a limited water reservoir. The company was also facing the effects of long hours of load shedding as they did not have an alternative energy source to power the water plant. The utility company would work with the local Authority to find means of addressing these problems. Possible solutions included construction of larger water reservoirs and procurement of thermal powered or solar powered generators and embark on an expansion plan. The figure below shows areas that had access to boreholes and areas that had access to piped water in the district

Figure22: Map Showing Distribution of Boreholes In Luangwa District

MAP SHOWING DISTRIBUTION OF BOREHOLES IN LUANGWA DISTRICT



Source: Luangwa Town Council GIS

12.7 Sanitation

About 50% of the rural population in Luangwa District lacked proper sanitation facilities. Sanitation facilities in the rural parts of the District ranged from simple/ventilated pit latrines to flushable toilets with onsite sewer systems such as septic tanks and soak away. However, the district still had areas where the community did not build toilets. These communities resorted to use the surrounding bushes for conveniences. In addition, the district had no water reticulation system and hence it had no sewer network to provide for proper faecal sludge disposal by individual households. In the township, this had resulted in a number of households resorting to the construction of septic tanks and soak-away systems which equally were undesirable as ground water quality was compromised. The challenges facing the sanitation component during the rainy season when sanitation facilities (mainly pit latrines

toilets) usually became unusable as some collapsed causing a challenge to the community. Strong and sustainable solutions were required to resolve the poor sanitation situation in the district.

12.8 Performance Assessment of the Quality of Services Relevant to this Sector Compared to Key Indicators of Performance and Historic and identification of shortfalls

Luangwa had two major rivers as well as a few more seasonal streams which supplied water to the communities. Taken as a sum total for the whole district, the available water resources far exceeded the consumptive use. Historically the Luangwa community highly depended on water from the rivers and the nearby streams. They used the water for all household uses as well as irrigation. While it was expected that Water reaching the consumers would be of good quality, that had not been the case with a number of water points across the District, as the water was either saline or dirty. Poor rural water supply facilities not only restricted services to a small number of consumers, but also led to relatively high water demand. The District had a total number of 270 boreholes (85% functional) and five (5) hand dug wells serving an estimated population of 4971. Poor operation and maintenance of water facilities by the communities had contributed to an increase in the number of non- functional water points. About a quarter of the water points in the rural parts of the District were over populated as opposed to the Rural Water Supply and Sanitation Guideline of 250 people per water point (borehole).

12.9 Issues arising from the public participation process

The inadequate access to clean water supply remained a major issue that stakeholders discussed. Some communities covered over a kilometre distances to get to water points which in most cases were the nearby rivers with poor water quality. The long distances covered contributed to children's absenteeism from school as they spent several hours fetching water; this also increased competition for water with animals which also depended on the same water for consumption. As a result, women and children who are the major household labour for water collection risked animal attacks.

Extreme temperatures coupled with high frequent droughts led to the drying of some borehole in the communities as the water table went down. Dry boreholes were experienced most during the hot season from the month of August to October. Some communities experience constant breakdown of boreholes and lack financial capacity to procure spare parts for the maintenance

works needed.

Underground water contamination due to salinity is another problem that was raised by stakeholders. In some communities like Chitope, the whole community have tainted teeth an indication of poor quality water that was being consumed. Lack of suitable toilets also presented a major challenge. Some rural communities in the district expressed how they did not have technical knowhow on where and how to construct pit latrines and in some cases had constructed latrines uphill there by leading to ground water contamination.

12.10 IMPACT OF CHANGES ANTICIPATED OVER THE NEXT TEN YEARS

12.10.1 Population Change – Future Demand for Services and Facilities

With the projected increase in the population of Luangwa district by 2032, it was anticipated that some households would still face challenges in accessing clean water for consumption. If the minimum requirement for the supply of water did not meet the prescribed standard of 25 households per borehole, more households would still face challenges in accessing clean and safe water. The demand of additional water supply sources and sanitation facilities would increase and so the need to meet the demand. Projected increase in population could result in poor sanitary conditions and the destruction of rivers and water bodies.

With an increase in population, sanitation improvements practices would need to be exacerbated. Failure to which could result into increased transmission of diseases such as cholera, diarrhoea, dysentery and many others. In turn, this would affect the social and economic development of the people.

12.10.2 Analysis of the Impact of Environmental and Climate Change Issues on the Sector

Climate change had not spared Luangwa as had been evident in the weather variability and increase in climatic hazards such as droughts, floods, strong winds and extreme temperatures experienced. These hazards had resulted into water sources drying at a faster rate increasing competition for water among humans' livestock and wild animals. This in turn resulted into increased human animal conflicts. Flooding had destroyed the river lines leading to siltation and drying of the water in the Luangwa River. Floods washed away the effluents from the toilets especially those poorly constructed, posing a high risk of diseases to the community. The prolonged dry spells and droughts had led to reduced or no agricultural yields in some cases. In addition, Issues Arising Relating to Gender Groups and Vulnerable Groups in the Water and

Sanitation Sector

The need to have water and sanitation facilities closer to households in order for all the members of the community including the elderly, the persons with disabilities and children to have easy access to the service was essential. Lack of access to water points nearer to their homes resulted in the women and children moving long distances in search for water for domestic use. The vulnerable members of the communities who are mostly women and children ended up spending more productive time on saucing for water. There was a great need for adequate and enhanced sanitation in the district. This implied sanitation that was safe, convenient, private, secure and dignified place for all the different members of the community and complied with the socio-cultural norms of society (e.g. smell and re-use aspects).

12.10.3 Women and Girls

Access to clean water remains a significant challenge for women and girls, as they often bear the responsibility of fetching water. This task is time-consuming and physically demanding, especially in areas with limited access to clean water sources. The lack of gender-sensitive sanitation facilities in schools and public places creates privacy and safety concerns, which further marginalize women and girls. Insufficient access to menstrual hygiene products and facilities leads to health issues and contributes to absenteeism from school and work. Women and girls are also more vulnerable to waterborne diseases and unsafe sanitation practices, which negatively impact their health and overall well-being. The time spent on water collection reduces opportunities for education, employment, and economic empowerment, perpetuating cycles of gender inequality.

12.10.4 Men and Boys

Limited access to appropriate sanitation facilities in schools and public areas negatively affects the attendance and health of men and boys. Exposure to contaminated water and poor sanitation practices increases their risk of diseases and long-term health problems. Hygiene education programs often fail to target boys and men effectively, leading to poor practices and negative health outcomes. Societal norms discourage men from participating in household water and sanitation tasks, limiting their involvement and understanding of these issues. Additionally, men in rural areas face limited job

opportunities and training in the water and sanitation sectors, restricting their economic growth and contributions to community development.

12.10.5 Youths

Poor water and sanitation facilities in schools disrupt education, leading to high absenteeism and dropout rates, particularly among girls. Inadequate hygiene education and facilities increase the risk of illness and infection among youths, undermining their health and well-being. Youths often lack opportunities to participate in decision-making processes related to water and sanitation projects, leaving their perspectives unaddressed. Limited access to training and employment opportunities in the water and sanitation sectors also restricts their potential for economic empowerment. Young people engaged in informal water and sanitation work are particularly vulnerable to exploitation and unsafe practices, highlighting the need for stronger protections.

12.10.6 Persons with Disabilities

Persons with disabilities face physical barriers in accessing water sources and sanitation facilities, which makes it difficult for them to use these services independently. The lack of inclusive design in water and sanitation infrastructure leads to their exclusion and dependence on others for assistance. Inadequate sanitation facilities and hygiene practices increase their vulnerability to health issues, further compounding their challenges. Social stigma and discrimination often prevent persons with disabilities from accessing public water and sanitation services. Policy gaps and insufficient advocacy efforts fail to ensure their inclusion in water and sanitation planning, limiting their rights and opportunities.

12.10.7 People Living with HIV/AIDS

People living with HIV/AIDS face persistent stigma and discrimination when trying to access water and sanitation services, which affects their health and dignity. With compromised immune systems, they are more susceptible to waterborne diseases and infections caused by poor sanitation. Barriers to accessing clean water for consumption and hygiene further exacerbate their health challenges. There are few targeted hygiene programs and support services for people living with HIV/AIDS, leaving their specific needs unaddressed. Financial difficulties in low-income settings make it even

harder for them to secure adequate water and sanitation resources, compounding their economic hardships.

12.10.8 Intersecting Issues

The compounded impact of belonging to multiple vulnerable groups, such as a woman with a disability living with HIV/AIDS, highlights the importance of addressing intersectional challenges in water and sanitation. Socioeconomic barriers, such as poverty and social inequalities, worsen the difficulties marginalized groups face in accessing clean water and adequate sanitation. There is a pressing need for inclusive policies and education to ensure equitable water and sanitation practices for all. Although the district has a DWASHE committee, there remains a gap in awareness and education on inclusive water and sanitation practices. Involving community members and representatives of vulnerable groups in project design and implementation can help create solutions that are more inclusive and effective.

Addressing these issues requires comprehensive policies, inclusive practices, and community engagement to ensure the protection, inclusion, and empowerment of all gender groups and vulnerable populations in the water and sanitation sector.

13.0 ENERGY

13.1 Review of Policies and Plans in Energy Sector

The National Energy Policy 2019 (NEP 2019) builds on previous policies of 1994 and 2008 and is anchored on the Eighth National Development Plan and Vision 2030. This Policy is aimed at guiding the Energy Sector in the Development of the electricity generation, transmission and distribution capacity. It will also facilitate the development and deployment of renewable and alternative energy through the strategies employed in the policy.

13.2 Description of the Existing State Of Development

Luangwa's energy sources include; fuel wood, petroleum and renewable energy to meet their power supply needs. The District has two filling stations which opened to the general public by Rubis Energy Zambia.

13.3 Availability of Service

13.3.1 Hydro power

Hydro Power in Luangwa is being supplied in the District by ZESCO and Rural Electrification Authority (REA) is working on ensuring that the rural communities are accessing the power by facilitating the connections of power lines in the district. Having been connected to the national grid, all households in the district can access the electricity upon meeting the requirements. The district is being supported by two power substation in Chitope and Boma Township. Like all other parts of the country, the district experiences erratic power supply as ZESCO is implementing load shedding due to the limited supply of the power. Hence a lot of income generating activities in the district are affected by this.

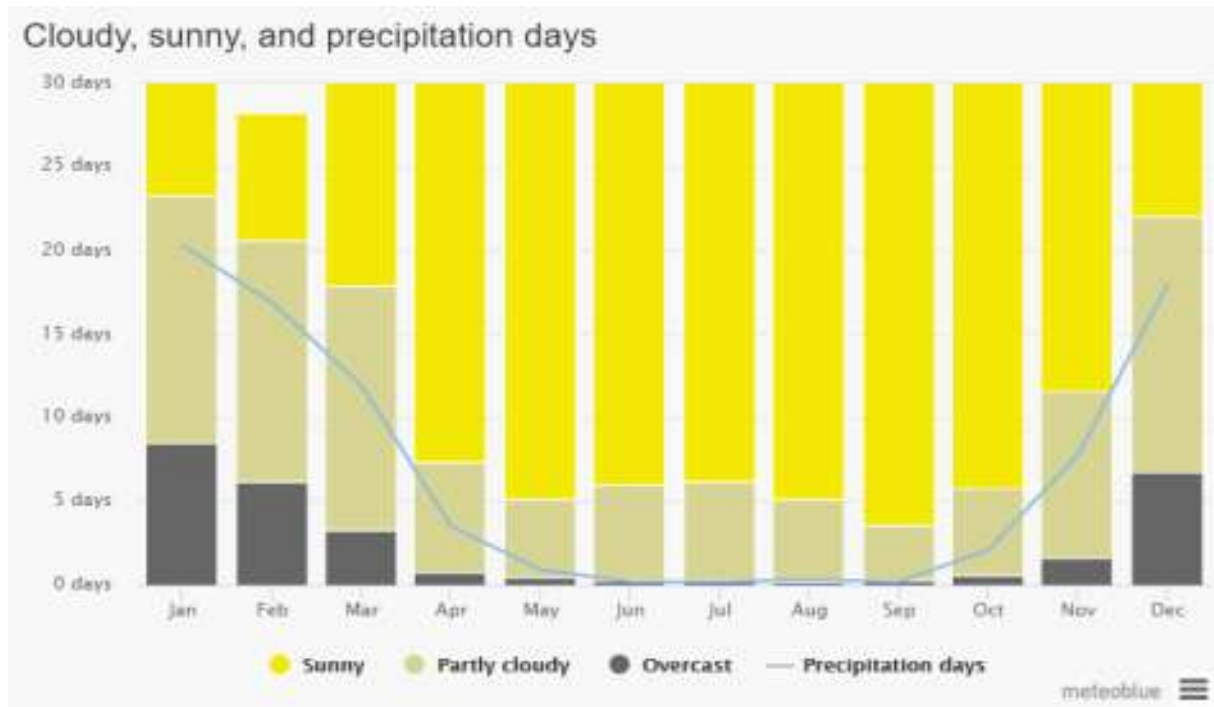
From approximately 8000 households only about 30% of the households are currently connected to the national grid. This means that there is still a huge gap to meet in order to ensure that the whole population is powered.

13.3.2 Solar Energy

Luangwa District has the potential for solar energy exploration due to its sunny weather conditions and its energy needs keep rising with the increasing population. It is mostly sunny for the major part of the year as shown in Figure. The latitude is also close to the equator (15.62°S) where the sun irradiation is high enough for solar, making it the most suitable renewable energy resource. There are new technologies of solar panels that provide a good source of energy

without the need to install power lines.

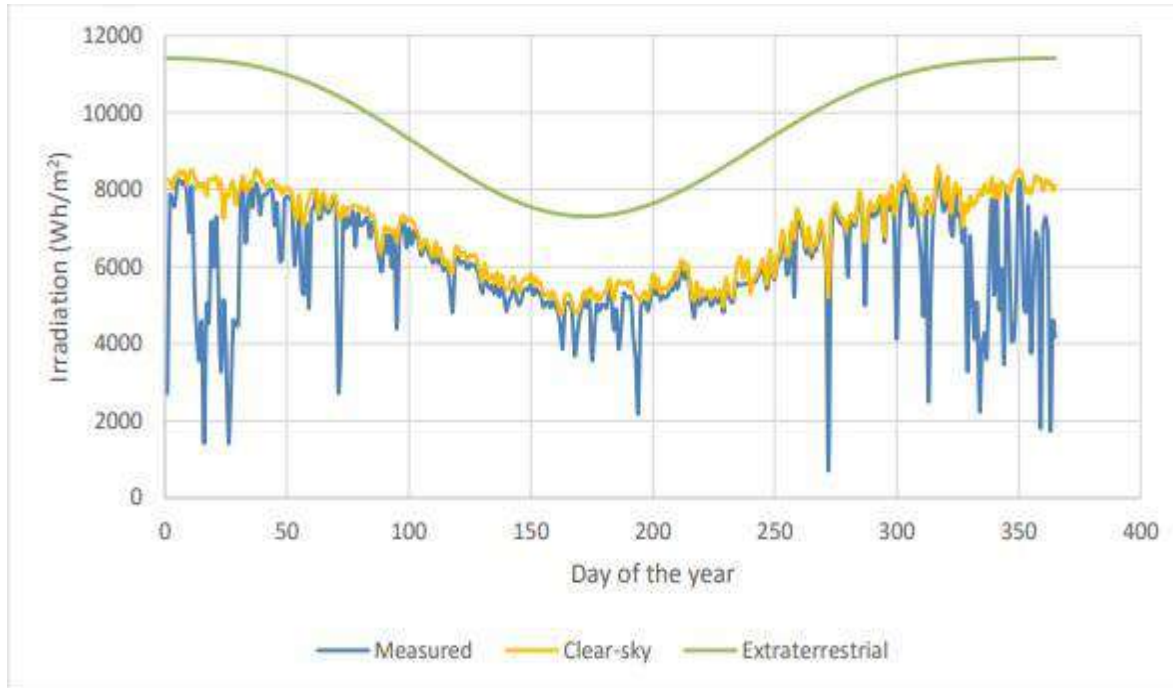
Figure 23: Variation of Monthly Solar Irradiation (Renewable Energy Technologies)



Source: Heriot Watt University (2019) Light up Luangwa with PICO Solar PV

In comparison to other sources of energy, solar energy remained the best source for Luangwa District. Its sunny weather conditions combined with low precipitation made it very favourable.

Figure 24: Variation of Daily Irradiation throughout the Year (Renewable Energy Technologies)



13.3.3 Wood Fuel

The consumption of traditional wood fuels, such as fire wood and charcoal, was strong across the Luangwa District. Traditionally, energy in the form of firewood, twigs and charcoal had been the major source of domestic energy for the community. Firewood and charcoal were the most dominant sources of energy used extensively both in villages and in the township. Over 90% of the population relied on wood for cooking and various other heating applications. However, the increase in fuel wood use had adverse environmental, socio-economic, and health effects. Unsustainable fuel wood harvesting degraded local forests, leading to deforestation, damaged wildlife habitat, and impaired watershed functioning. The continued rise in fuel wood use, particularly charcoal, to meet energy demands placed Luangwa among the districts with the highest deforestation rates, with an annual consumption of 312 million m³ of charcoal.

Among the measures implemented by the Department of Forestry were the issuance permits and regulation of areas where charcoal burning activities could be practiced. The department also conducted routine spot checks on people producing charcoal without permits. However, this effort faced challenges as the department was not adequately staffed.

13.3.4 Conventional Fossil Fuel

The district had two (2) fuel service stations open to the general public by Rubis Energy Zambia, both situated at the township. These two (2) filling stations serviced the entire district along with fish traders and transporters from Mozambique and Zimbabwe by providing diesel and petrol. The major fuel consumers in the district included motor vehicles, motor cycles, boats, harmer mills, and domestic thermal power generators. On average, the district consumes about 1.2 million liters³ of fuel annually. However, this was not adequate as demand continued to increase, leading to regular fuel shortages, often from stock outs. It is also worth noting that illegal fuel vending was conducted along the D145 road to Luangwa Bridge.

13.4 Quality of Service Including Key Indicators of Performance

The district experienced an almost non-existent number of systems and customer power interruptions or outages. However, due to limited number of filling stations, it occasionally faced fuel shortages.

13.5 Issues Arising from the Public Participation Process

Although the district has been connected to the national grid, community consultative meetings revealed that nearly 90 percent of households relied on alternative sources of energy. These sources included solar power, as well as unsustainable options such as charcoal and fire wood. The low access to electricity was attributed to the community's inability to meet the initial installation and connection cost required by ZESCO to access hydro power and the high cost of solar equipment. Another factor contributing to the lack of access to hydro power, particularly in the outskirts of the district, was the limited number of ZESCO distribution lines.

Community and stakeholder consultations also highlighted the scarcity of petroleum products and natural gas, with only two (2) filling stations that were insufficient to service the entire district. This situation led communities to access fuel from the black market, where products did not meet approved quality standards.

The quality of service regarding access to sustainable energy was generally low due to limited distribution lines, high cost of electricity connection fees and high cost of solar power systems. The inadequate availability of petroleum products compromised the quality of products obtained from the black market

13.6 Impact of Changes Anticipated Over the Next Ten Years

Over the period of 10 years, the population of Luangwa District was expected to increase potentially causing a surge in the demand for various services including energy. The proportion of people using firewood and charcoal for domestic energy was projected to remain high, at around 80%. Although the percentage of households using fuels for cars and engines was low, this was also anticipated to rise due to a recent influx of motor bikes in the district. Charcoal consumption remained higher than electricity usage. Given the projected population growth, these levels were expected to increase, potentially leading to negative environmental impacts if connections to the National grid were not expanded or if households did not invest in sustainable alternative energy sources like solar and natural gas. The current energy demand in Luangwa stood at 1.5MW, but this demand was expected to rise with the growing population. By 2032, the energy demand for Luangwa was projected to reach 3MW at off peak and 4MW at peak.

13.7 Population Change – Future Demand for Services and Facilities

As the District's population increased, the demand for access to energy was expected to grow. This projected increase in demand highlighted the need for additional filling stations and ZESCO distribution lines across the district. Wind energy also presented significant potential as it is both a renewable and clean energy source. The district also has the potential to produce wind energy due to the strong winds that it experiences

13.8 Existing and Proposed Investment and Development Programmes

The district had two (2) filling stations and a limited number of distribution lines, which mostly connected Government institutions and a few private entities. Despite the two (2) filling stations, fuel demand was so high that supplies quickly ran out, indicating a clear need for more distribution lines. Proposed investments in the energy sector included expanding filling stations, installing more distribution lines, and creating solar farms as alternative energy sources.

13.9 The Impact of the Continuation of Existing Trends on Land Use and Population Distribution Patterns

Most households in Luangwa were concentrated along the D145 road and feeder roads,

where economic activities such as fishing and farming are practiced. In terms of energy, most households in rural areas continued to rely on alternative sources such as fire wood, charcoal and solar power. By 2032, charcoal consumption was expected to increase, with fuel wood consumption for charcoal production projected to rise from 312 million to 500 million. This trend was likely to spread across most wards in the district unless investments in alternative energy sources were made. Traditional charcoal production raised growing concerns due to its contribution to deforestation, land degradation, and climate change. Negative effects on land such as degradation and deforestation further disrupted planned land use patterns in areas where trees were harvested without replanting.

The rapid increase in charcoal production, as both a key economic activity and energy source, continued to impact land cover negatively as most harvested trees were not replanted. Connection to the National Grid had the potential to stimulate economic activities, leading to the establishment of industries and other investments. This development could create local employment opportunities, causing residents to relocate from their current settlements in search for jobs and shifting population distributions patterns

14.0 Environment and Climate Change Analysis

14.1 The Impact of Existing Trends on the Environment and Climate Change

Burning fossil fuels such as charcoal, emitted greenhouse gases. Over 90% of households in the district heavily depended on wood fuel for cooking and heating. Unfortunately, emissions from wood fuel were a leading cause of climate change in Luangwa, as large amounts of charcoal were produced and used daily. With population growth, the number of vehicles, motorcycles, and thermal power generators in the district was also expected to rise, likely increasing greenhouse gas emissions in the environment. Consequently, providing renewable energy sources, such as hydroelectric power and solar electricity, to rural households presented an opportunity for the district to mitigate the adverse effects of climate change.

14.2 The Impact of Environmental and Climate Change Issues on the Sector

Located in a valley, Luangwa District experienced notably high temperatures, a situation worsened by climate change. As temperatures rose, electricity demands increased, especially for preserving perishable goods, putting more pressure on the electricity grid and raising electricity costs. Moreover, the low levels of rainfall in the country impacted hydroelectric generation,

increasing the demand on electricity supply and resulting in prolonged load shedding periods. In the base year, load shedding lasted between 6 to 12 hours and was expected to extend further if alternative renewable power sources were not established. Beyond raising electricity demand, climate change also led to the drying up of rivers, contributing to power shortages.

14.3 Issues Arising Relating to Gender Groups and Vulnerable Groups

Among the issues arising from lack of proper energy sources in the rural wards was the inability of women and youths to engage in economically productivity activities at household level. Lack of access to electricity had a huge negative impact on households and communities because inadequate energy infrastructure caused the marginalization of entire villages or cities. At the same time, energy poverty in the rural parts of the District strongly affected the women and youths as they found it hard to engage into economic activities. Women headed businesses did not operate at the optimal efficiency due to lack of affordable power alternatives which made doing business expensive. Women in rural areas, were responsible for a household's energy supply, and hence suffered the greatest impact of lack of energy as they have to move distances and carry heavy loads of fuel wood in order to provide for their household. This increased women's susceptibility to health risks. Evidence of this could be found in observable consequences such as health or physical drudgery, as well as in terms of social inequality and limited personal empowerment

14.4 Consideration of the Underlying Factors Contributing to the Issues Identified

Some underlying factors contributing to the issues identified include lack of capacity by the community to pay for installation fees to connect hydro power. Slow rate at which the utility company is expanding the distribution lines to all the areas of the District. Inadequate number of petroleum filling stations in the District and the community finds it cheaper to use other sources of energy such as firewood and charcoal.

14.5 Summary

To increase access to electricity, fuel and renewable energy, there is need to invest in and promote the usage of sustainable renewable energy. The connection of the District to hydro power is envisaged to increase local economic development of the District by helping businesses small scale and SMMEs operate efficiently and attract investments. In order to reduce the use of wood fuel and charcoal which affects the environment and contributes to climate change, sensitization of community members on the benefits of

renewable sustainable sources should be undertaken to reduce the burden that the sector places on the environment

15.0 SUMMARY OF ALL SECTORS

The section below provides the summary of core problems for the planning survey and issues report for sectors in the district.

15.1 Housing

The core problem affecting the sector in the District is inadequate housing units. This had resulted from low housing supply, contributing to high rentals, which most people are struggling to afford. Therefore, provided the condition for housing supply in the district remains the same, the housing deficit is likely to increase in the next ten (10) years.

15.2 Water and Sanitation

The core problem affecting Water and Sanitation Sector is inadequate water sources for domestic and agricultural use in the District especially in rural areas. This is resulting from unequal distribution of water resource infrastructure, a situation contributing to poor sanitation levels and increase in poverty levels.

15.3 Energy

The core problem affecting the energy sector in the District is inadequate power distribution especially in rural parts of the District. This had contributed to the continued trend of cutting down trees for energy source, an activity that is contributing to climate change.

15.4 Environmental Protection

The core problem affecting the sector in the District is the depletion of natural resources that are a source of community survival and development. This is resulting from the low environmental and natural resources management, contributing to high poverty levels emanating from compromised livelihood sources for the local people.

15.5 Forestry

The core problem affecting the sector in the District is unsustainable exploitation of forest resources, witnessed through massive cutting down of trees. This has led to extinction of several tree species as well as encroachment by local community.

15.6 Tourism

The District has potential to be a vibrant tourist destination, but alas the sector has suffered setbacks because it is predominately environmental in nature. The core problem affecting the growth of the sector is human encroachment into protected areas which house animals. This has resulted into increased human wildlife conflict, loss of biodiversity and loss of wildlife revenues. There is also evidence of land ownership dispute which has emanated from population growth putting pressure on insufficient natural resource base. Furthermore, regardless of several tourism potentials in the District, it has not fully explored and marketed all tourism potential areas for social and economic benefits.

15.7 Agriculture

Agriculture is one of the economic activities in the District with prime production in maize, bananas, and livestock. However, the core problem affecting the sector is low crop yield of less than 1ton/hectare because of adverse weather conditions caused by climate change. The adverse conditions include poor rainfall distribution, prolonged dry spell and flash floods washing away crop fields thereby affecting crop performance, and livestock morbidity and mortality. The District also records incidences of human animal conflict as the animals eat up the crops in the fields of the people.

15.8 Mining

The mining sector oversees the establishment and management of mining activities in the Country. The core problem affecting the development of the sector is the increase in illegal mining activities in the District.

15.9 Health

The core problem affecting the sector in the District is high mortality and morbidity rate. This is as a result of inadequate health facilities, under staffing of health personnel in all health centers and shortages of drugs.

15.10 Transport and Communication

The core problem affecting the sector in the District is the under developed road network. The only main road D145 is tarred while the feeder roads are undeveloped making them impassable especially during the rainy season. This creates a situation where people fail to access social services such as health and education. The poor road network in the District contributes to the high cost of living and consequently increases poverty rates. Furthermore, the District on average had very poor mobile network in most part of the rural areas due to inadequate number of communication towers, making communication difficult especially in cases of emergencies.

15.11 Education

Education sector ensures the provision of quality education services in order to reduce illiteracy levels in the District. However, the core problem affecting the development of the sector is inadequate infrastructure such as number of schools, classroom space, staff houses and sanitary facilities in the District. This has created lapses in the quality of service provision to communities.

15.12 Social Protection

Social Protection Sector ensures the livelihood improvement in women and vulnerable groups in the District. Unfortunately, the core problem affecting the development of the sector is widespread poverty resulting from crop failure and drought.

15.13 Commerce and Trade

Commerce and Trade Sector ensures the growth in the economic performance of all business entities in the District and seeks to create a good governance environment. The core problem affecting this sector is lack of a functioning pontoon to carry more goods to and from the neighbouring countries therefore limiting the number of good traded between the three countries annually.

15.14 Livestock Services Commerce and Trade

There is no Livestock service centre and four (4) Dip tanks in the district. However, the dip tanks have remained unused since the time they were constructed. A scenario that has continued to limit the district capacity in livestock disease control activities. Loitering of animals within the district, an issue that has led to traffic accidents in some cases.



PART THREE

DEVELOPMENT FRAMEWORK

PART THREE 3: DEVELOPMENT FRAMEWORK

3.0 DEVELOPMENT FRAMEWORK

In the context of this document, the development framework is a development practice that will help solve the complex problems identified in the planning survey and issues report.

3.1 Long Term Vision Statement

The Districts vision which is “A Leading Trade, Transit and Tourist destination for Socio-Economic Development by 2034”, was influenced by the Districts comparative advantage in terms of the location, physical and socio-economic status quo of Luangwa.

3.2 Mission

The Mission of Luangwa District is to “Promote Inclusive Economic Development and Environmental Stewardship, through Establishment of a Vibrant Trade, Transit and Tourism Destination.” This portrays the districts potential to be harnessed to attain development and establish Luangwa as a major city that will make significant contribution to the growth of the Province and the Country.

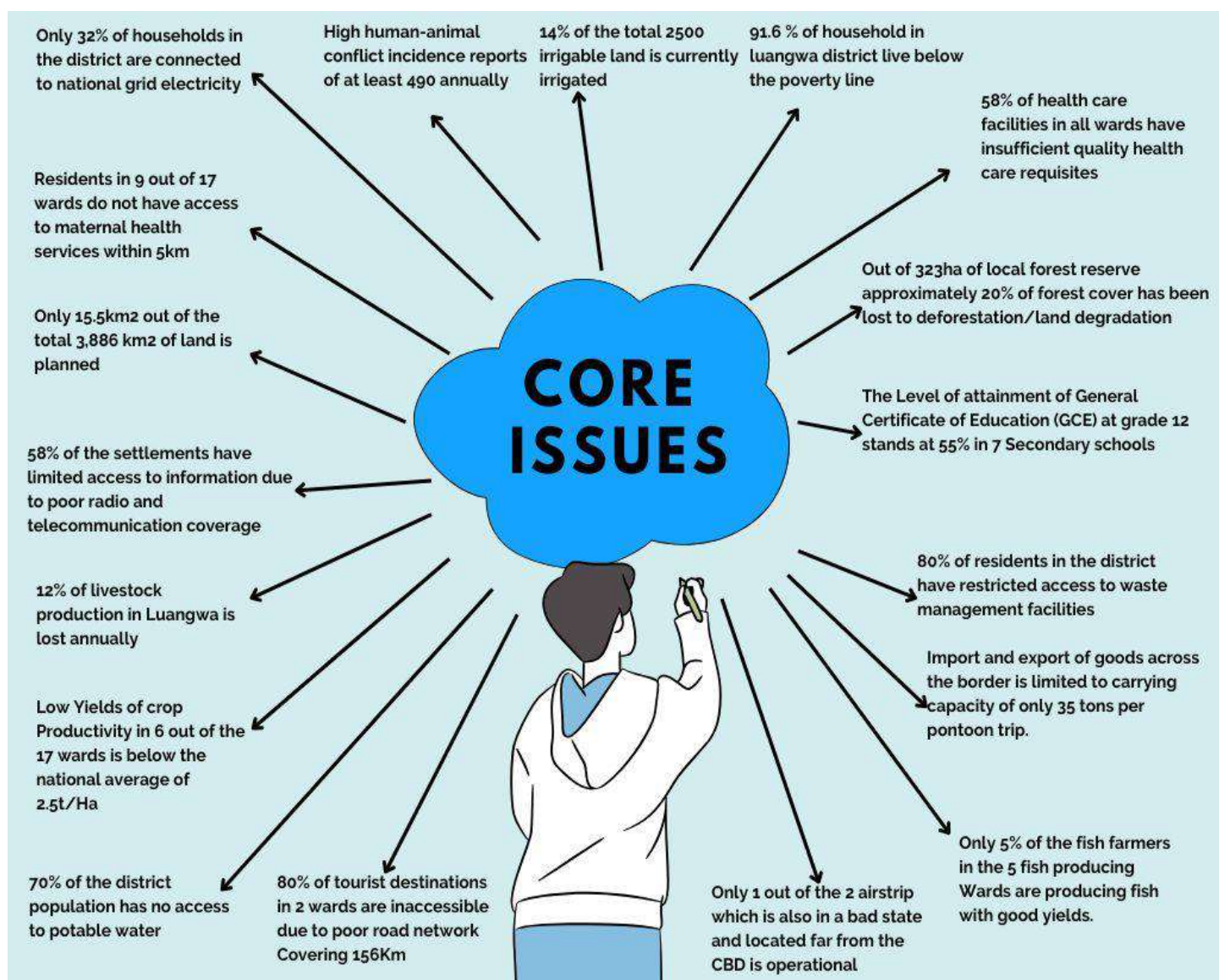
3.3 Summary of Core Issues

The section below provides an analogue of the summary of core problems for the planning survey and issues report for sectors in the district and affected wards. This process involves a meticulous dissection of challenges and opportunities, enabling a nuanced selection of objectives that are not only aspirational but also pragmatic and adaptive.

The identified objectives metamorphose into the yardstick against which accomplishments are gauged. These objectives evolve into quantifiable benchmarks, providing a tangible means to assess progress and recalibrate strategies as circumstances evolve. The iterative process of assessment and adaptation ensures that the development journey remains responsive and agile, capable of steering through unforeseen complexities and fluctuations. Below is an analogue of a Summary of the Core Issues from the Sector analysis.

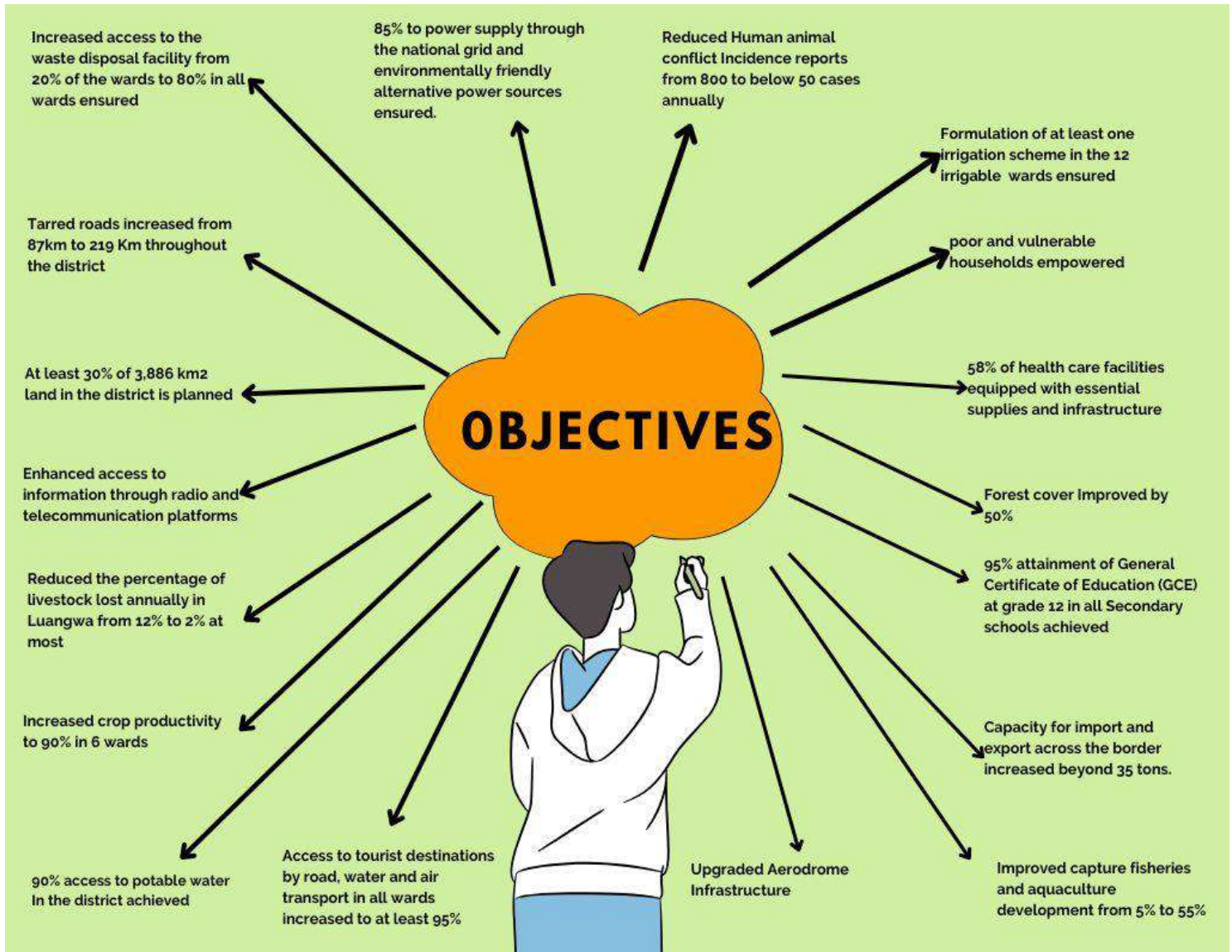
3.4 Analogue of Core Issues

This image below shows an in-depth analysis of core issues



Source: Luangwa IDP Team

3.5 Analogue of Objectives



Source: Luangwa IDP Team

In the process of directing and orchestrating the comprehensive integrated development plan, the pivotal act of identifying objectives emerges as an indispensable and fundamental stride.

These objectives serve as the cornerstone upon which the entire edifice of progress is erected. They provide the purposeful compass guiding the collective efforts of stakeholders, policymakers, and implementers towards a shared vision of Transforming Luangwa into a Leading Trade, Transit and Tourist destination for Social Economic Development by 2034.

Furthermore, the process of identifying objectives transcends mere articulation; it encapsulates a profound analysis of current realities, future aspirations, and the intricate interplay of various factors that contribute to the overarching objective of development. This analytical endeavour entails an in-depth comprehension of societal needs, economic dynamics, environmental considerations, and technological trends. It involves a meticulous dissection of challenges and opportunities, enabling a nuanced selection of objectives that are not only aspirational but also pragmatic and adaptive.

3.6 Development Priorities

1. Formalize and Upgrade Informal Settlements such as Soweto, Indeco, Chidada and Kamoba settlement;
2. Improve water supply in entire district and electrification of all public facilities;
3. Enhance Sustainable Forest Resource Management
4. Improve quality and access to health care services;
5. Improve access to quality, equitable and inclusive education;
6. Increase the number of Health and Education Personnel
7. Construction of more education and health facilities
8. Improve Livestock and Fisheries Production Services
9. Improve Transport and Communication Services for Trade & Commerce
10. Foster Clean and Healthy Communities
11. Reduce the number of human animal conflict incidences
12. Improve power supply through hydro and solar generated electricity
13. Enhance access to tourism destinations in the district

3.7 Development Goals, Objectives and strategies linked with Development Outcomes of the Eighth National Development Goals

S/N	CORE PROBLEM	DEVELOPMENT GOALS	OBJECTIVES	STRATEGIES
1	Only 32% of households in the entire district are connected to the national grid	Improved access to Power Supply in all wards	The LA will work with other stakeholders to ensure access to power supply to 85% within 5 years.	The LA in conjunction with Zesco and other stakeholders will ensure connectivity to power supply through the national grid and environmentally friendly alternative power sources by 85% within 5 years.
2	80% of residents in the district have restricted access to waste management facilities	Access to Waste Disposal Facilities Ensured	The Local Authority will ensure to increase the percentage of households with access to waste management facilities from 20% to 80% in 6 wards by 2034	The Local Authority will work to establish a waste disposal facility to reduce the number of communities without access to basic waste management services by 2034
				The LA will ensure that 80% of households and business premises have waste receptacles installed on their premises within 2 years to discourage indiscriminate waste disposal
3	Only 15.5km ² out of the total 3,886 km ² of land is planned	Increased proportion of planned area in the district to 50% of the total land area (1, 943 km ²) ensured.	The LA in conjunction with the Traditional Authorities to increase the planned area to at least 30% by 2034	The LA in conjunction with the Traditional Authorities and other stakeholders will ensure that the planned area is increased from 0.04% to at least 30% by 2034
4	58% of the Settlements have limited access to information due to poor radio and telecommunication coverage.	Enhanced access to information	The Local Authority will work with ZANIS and other stakeholders to enhance access to information in all the 17 wards within 5 years	The Local Authority will work with ZANIS to improve access to information by 90% in all 17 wards in the district within 5 years

5	12% of livestock production in Luangwa is lost annually	Improved livestock production and Productivity Services	The LA will work with the Ministry of Livestock to reduce livestock lost annually from 12% to 2 within 5 years	The Department of Livestock in collaboration with other stakeholders will work together to scale-up livestock services from 0.025% to 45% so as to Reduce livestock Lost annually by 2034
			The LA will work with the Ministry of livestock to increase aqua-culture production by 20% in 5 wards within 5 years	The LA and the Ministry of Livestock in collaboration with other stakeholders will enhance aqua farming by 20% through aqua farming in 5 wards within 5 years
				The LA in collaboration with FD and other stakeholders will work to De-gazette 50% of Chitope Local Forest Reserve to legalize settlements and crop fields
				The LA in collaboration with FD and other stakeholders will increase the number of seedlings raised to 10,000 as an annual standard by 2034
6	Low yields of crop productivity in the 6 of the 17 wards below the national average of 2.5t/Ha	Improved agricultural productivity and food security	The LA will work with the Ministry of Agriculture to increase crop production by 90% in 6 wards by 2034	The LA in collaboration with the Ministry of Agriculture will increase production from 0.3 tons per ha to 1.2 ton per hector in 6 wards in 5 years.
				The LA in collaboration with the Ministry of Agriculture will improve agriculture extension services by decreasing the extension officer to farmer ratio in 4 wards from 1:750 to 1:500 by 2034
7	Only 14% of the current arable land is irrigated		The LA with the Ministry of Agriculture will increase the percentage of irrigated	The LA with the Ministry of Agriculture will promote climate-resilient irrigation technologies to ensure

			area from 14% to 25% by 2034	agricultural productivity on the 14% arable land.
8	70% of the district population has no access to potable water	Enhanced resident's access to potable water achieved	The LA in conjunction with the commercial utility will increase the number of households with access to clean and safe water supply from 70% to 90% by 2034	The Local Authority in conjunction with the Water utility Company and other stakeholders will increase residents access to safe drinking water from 70% to 90% by 2034
			The Local Authority in conjunction with the Water Utility Company will increase the percentage of rural residents reporting access to safe drinking water from 80% to 100% by 2034	The LA in conjunction with the water utility company will enhance fresh water supply for rural households in 8 wards within 5 years
		Enhanced Water Harvest for Agriculture Activities	The Department of Water Resource Development in collaboration with other stakeholders to improve the storage capacity of 20% to 90% by 2034	The Department of Water Resource Development in collaboration with other stakeholders to improve the storage capacity of 20% to 90% by 3031
9	High human-animal conflict incidence reports of at least 490 annually	Reduced human wildlife conflict incidence reports	The LA in conjunction with DNPW and other stakeholders to reduce the number of incidence reports by 90% within 5 years	The LA in conjunction with DNPW and other stakeholders to enhance incidence reaction time by 95% within 5 years
				The LA will work with Department of resettlement to reduce human-animal conflicts in designated areas by 50% through coordinated resettlement efforts within 5 years

10	91.6% of households in Luangwa district live below the poverty line	Poor and vulnerable households empowered	The LA in conjunction with other Stakeholders will ensure to reduce the poverty rate from 91.6% to 70% within 10 years	The LA in conjunction with other Stakeholders will ensure to reduce the poverty rate from 91.6% to 70% by Increasing access to sustainable livelihoods and employment opportunities, by 2034
		Capacity of Ward Development Committees enhanced	The LA will ensure to enhance the operational capacity of the Ward Development Committees in Local governance in all 17 wards by 2034	To enhance capacity of the Ward Development Committees in all wards by 2034
11	80% of the tourist destinations in two wards are inaccessible due to poor road network covering 156km	Enhanced access to Tourist destinations	The LA will increase access to tourist destinations in all wards to at least 95% by 2034	The LA will increase access to tourist destinations by road and upgrading the road to bituminous standard all wards to at least 95% by 2034
12	Only one out of two air strips in the district is operational and is located 89Km from the CBD	Upgraded Aerodrome Infrastructure	The LA in conjunction with other stakeholders will ensure to up-grade, enhance infrastructure and services at Kamoba and Jeki Airstrip by 2034	The LA in conjunction with other stakeholders will ensure to operationalise Kamoba Airstrip and upgrading Jeki airstrip by 2034
13	58% of Health Care facilities in all the wards have insufficient quality Health Care Requisites,	Improved quality and access to Health Care services	The Ministry of Health in conjunction with other stakeholders to provide quality health care requisites in 5% of health care facilities in all wards by 2034.	The Ministry of Health will ensure that Health Care facilities are equipped with the necessary resources, including equipment supplies to provide access and quality services to 99% by 2034
				The Ministry of Health in conjunction with other stakeholders will work to ensure high malaria incidence rates are reduced from 31 per thousand

				<p>population as well as 3.7 per thousand case fatality to zero</p> <p>The Ministry of Health and other stakeholders will increase the number of health Facilities 17 to 20 within (5) years.</p> <p>The Ministry of Health and other stakeholders will increase the number of health facilities with Maternity wings in the 9 wards within five (5) years.</p>
14	Out of 323ha of Forest reserve approximately 20% of the forest cover has been lost to deforestation/land degradation	Enhanced Forest Management	The Department of Forestry will work with other stakeholders to reduce the loss of forest cover from 20% to 5%	<p>The Department of Forestry will work with other stakeholders to reduce the loss of forest cover from 82ha to 30ha by 2034</p> <p>The department of forestry will work with other stakeholders to Promote adherence to regulations agreed upon on Zero tree cutting</p>
15	The Level of attainment of General Certificate of Education (GCE) at grade 12 stands at 55% in 7 Secondary schools	Improved access to quality, equitable and inclusive education	The LA will work with the Ministry of Education and other key stakeholders to increase attainment of General Certificate of Education (GCE) at grade 12 to 90%.	<p>Ministry of Education will work with the LA and other stakeholders to provide at least 80% of the required teaching and learning requisites in 20 primary schools and 6 secondary schools within five (5) years</p> <p>The LA in conjunction with the Ministry of Education and other stakeholders will ensure a teacher pupil ratio of 1:58 in primary and 1:38 for secondary in 20 Primary and 06 Secondary Schools in all the wards is attained by</p>

				2034.
				The LA will work with the Ministry of Education to ensure 90% of the schools have infrastructure and learning facilities for pupils with disabilities by 2034
				Ministry of Education will work with the LA and other stakeholders to provide learning requisites for pupils with disabilities in one (1) Special School by 2034
				Ministry of Education will work with the LA and other Stakeholders to provide basic amenities to education facilities within five (5) years
				Ministry of Education will work with the LA and other stakeholders to ensure increase in the number of classroom space for pupils from 60% to 90% in 5 primary schools by 2034
				Ministry of Education in collaboration with LA and other stakeholders to increase the number of furniture (desks) for pupils in all wards by 2034

16	Import and export of goods across the border is limited to carrying capacity of only 35 tons per pontoon trip	Increased cross border trade	The Local Authority will work with other stakeholders to ensure increased cross border trade carrying capacity to 200 ton per trip by 2034	The Local Authority in conjunction with other stakeholders will ensure increase in carrying capacity from 35 tons to at least 200 tons per trip by 2034
17	Only 87 Km out of 306 Km of the roads in the district are tarred	Improved transport mobility	The Local Authority will work with RDA to ensure that trunk, township and feeder roads are upgraded by 2034	The Local Authority in collaboration with RDA to ensure improvement of Township and five (5) Feeder Roads by 2034
18	Only 1 out of the 3 modes of transport is most commonly used for accessibility to the District	Improved accessibility to and within the 17 wards of the District.	The LA in conjunction with other stakeholders will enhance the District's accessibility through (air and water) by 2034	The LA in conjunction with other stakeholders to enhance the District's accessibility through other means of transport (water and air) by 2034

3.8 Summary

The Chapter on Development Framework highlighted the objectives and strategies and endeavoured to give direction on the development planning in the district with focus on addressing the issues that have been identified in the issues report. The chapter further identified the areas of intervention for each core issue that would be key in achieving development in the district.

3.1.0 SPATIAL DEVELOPMENT FRAMEWORK

3.1.1 Spatial Development Framework

Spatial development planning involves organizing and optimizing land use in specific areas to achieve Social, Economic and Environmental goals. It considers factors like infrastructure, housing and natural resources to create sustainable and well-functioning communities.

Spatial development planning is also crucial for fostering sustainable growth, managing resources efficiently and creating liveable communities. It will therefore help Luangwa District prevent unsystematic urbanization, promote environmental conservation and ensure that infrastructure meets the needs of the population.

Without proper spatial development planning, there will be issues like inefficient land use, inadequate infrastructure and environmental degradation which lead to traffic congestion and challenges in providing essential services and overall haphazard Urbanization.

This chapter outlines the development concepts for Luangwa District and Four detailed development proposals for Spatial Development Planning. The development concept for Luangwa IDP Spatial Development Framework was conceived based on the Issues Report. The target for spatial development is to establish planning, management and operational capacities so that development of every sector in and around the district will be led effectively and efficiently based on the following principals.

3.1.2 Spatial Development Scenarios

The overall principals driving the development of Luangwa District are as follows:

- I. Stimulating economic growth and development in the district particularly by strengthening the tourism industry as an additional economic source in the district other than fish trade.
- II. Developing Luangwa District as a trade centre for local commercial activities and a transit point for goods, services and people between Zambia, Zimbabwe and Mozambique by providing adequate transit network such as bridges and reliable road networks.
- III. To foster economic diversification by promoting manufacturing, agriculture, (with a focus on aquaculture and livestock production), sustainable mining and other industries.

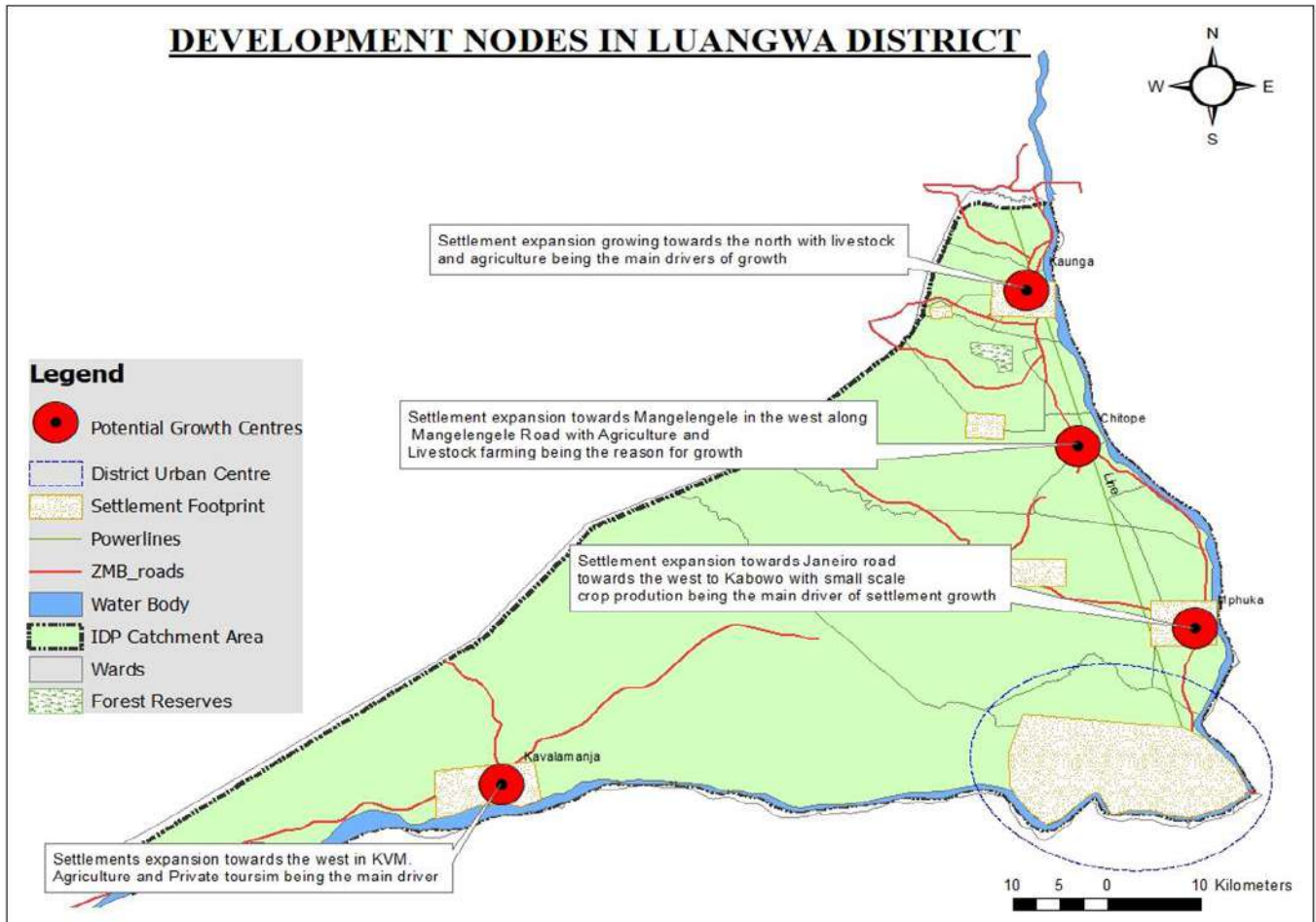
IV. Develop land uses that guide and support various urban and rural activities

V. To preserve and protect the natural resources such as the Rufunsa GMA, cultural heritage and sensitive Environmental areas with an emphasis on eco-tourism.

In 2012 the development concept of Luangwa district was based on the concept that proposed the establishment of development nodes along the D145 Road at Kaunga, Chitope, Mphuka and Kavalamanja as well as the linkage of these nodes to alternative routes within the district and Great East Road. Chitope was since proposed as the sub centre for the district with administrative structures for public and private sector management, with commercial and residential facilities to support the settlement. Kaunga was set to be the Agricultural hub of the district with commercial and residential sectors as supportive facilities. While Mphuka development node was earmarked for tourism as it had a direct access route to the National Park and trade as the main activities with residential and commercial facilities to support the activities. Finally, Kavalamanja development node was also proposed to be a tourist centre with an airport to support Tourism as well as other economic activities in the district. However, the main tourism activities would be concentrated to the Lower Zambezi National Park in the western part of the district. This development corridor identified the D145 road as the main infrastructural route or spine linking the development nodes in the local area.

Below is a Map showing the illustration of the scenario explained above.

[Figure 25: Development Nodes in Luangwa District](#)



Source: Luangwa Town Council GIS

3.1.3 Alternative Scenarios

Development in the district has been projected by three development scenarios dictating development within and outside the district. These alternative scenarios will help anticipate challenges, assess trade-offs as well as assess the consequences of current trends and impacts of future existing trends. Examining the strengths and weaknesses of the scenarios helps set and select realistic development outcomes. Furthermore, alternative scenarios can be valuable tools to explore different possible futures and assess their implications. This will help in the making of more informed decisions in the integrated development planning process. The following are the alternative development scenarios that Luangwa district might consider.

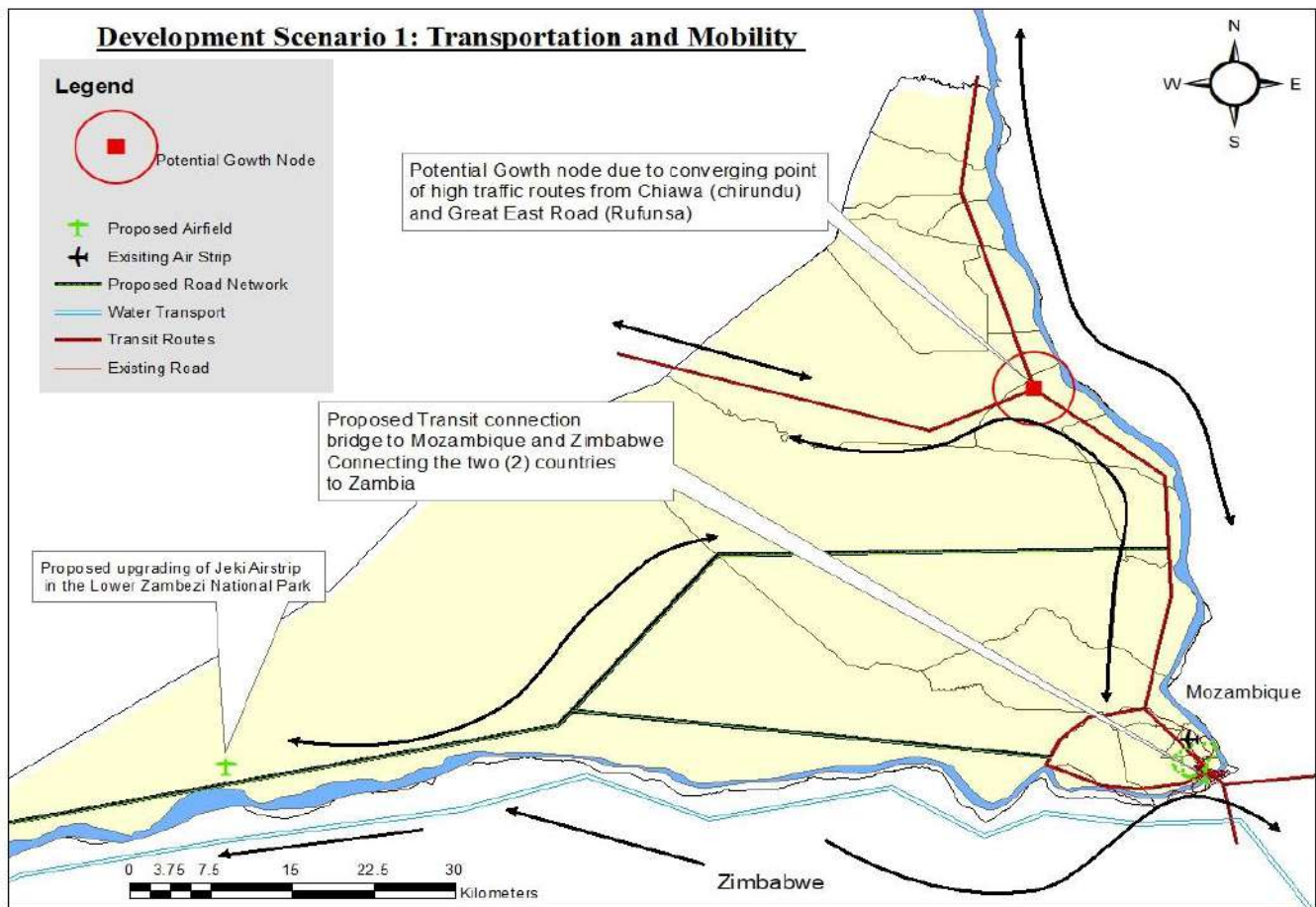
3.1.4 Scenario One

3.1.4.1 Transportation and Mobility Scenarios

This scenario focuses on all three modes of transport thereby enhancing mobility into and within the district. It Explores a scenario where public transportation is prioritized, water transport on the Zambezi seen as a

means into the district from upstream and air transport through Jeki Airstrip in the Lower Zambezi national park which is turn leads to different spatial patterns with rehabilitation of local roads to stimulate investment and development in the district. Furthermore, proposal one stresses the importance of the connection between the existing and proposed road developments thus connecting Jeki Airstrip in the south west of the district to D145. The strategy is to join the proposed and existing developments while expanding the existing roads and connecting them to the new ones to enhance connectivity which will consequently boost economic growth through tourism and trade within and outside the district.

Figure 26: Transportation and Mobility Scenario



Source: Luangwa Town Council GIS

Advantages

This scenario offers several advantages, which are crucial for the holistic growth and functionality of the district. Here are some key benefits:

1. Improved road networks will ensure better accessibility to various parts of the district, facilitating the movement of people, goods, and services. Also enhanced road connectivity fosters the district

integration linking the neighbouring countries and towns, thus promoting cohesion and the sharing of Resources. Further Improved roads will boost tourism by providing easier access to tourist destinations along the lower Zambezi, thereby generating revenue and promoting cultural exchange.

2. Good road connectivity attracts businesses and investors by reducing transportation costs and improving market access. This will in turn lead to the creation of jobs and the stimulation of local economies.
3. Effective road development will enhance overall mobility, improving traffic flow. This can lead to safer and more reliable transportation systems.
4. A developed air transport service will enhance connectivity of the district both domestic and internationally which will bring about foreign exchange into the district even through the Local authority through revenue collected for landing fees.

By incorporating road development and connectivity into a spatial development framework, planners can ensure that the growth of urban and rural areas is balanced, sustainable, and inclusive, thereby laying the foundation for long-term prosperity and well-being.

Disadvantages

While considering road development and connectivity it offers numerous advantages, there are also potential disadvantages that need to be addressed. Here are some key drawbacks

1. Road construction can lead to habitat destruction, deforestation, and the fragmentation of ecosystems particularly in the Lower Zambezi National Park. Increased vehicle use can also result in air and noise pollution, contributing to environmental degradation and climate change.
2. While better roads can initially reduce congestion, they can also attract more vehicles, leading to increased traffic in the long term especially along D145. This phenomenon, known as induced demand, can negate the benefits of improved road infrastructure.
3. Building and maintaining road infrastructure is expensive. It entails high capital investment for infrastructure and service delivery. It can also be a financial burden potentially diverting resources from other critical areas. To add, the ongoing maintenance of road infrastructure can be challenging and costly as poorly maintained roads can deteriorate rapidly, leading to increased repair costs and safety hazards.
4. Air strip upgrading has an initial high investment cost and may lead to the loss of biodiversity and negatively impact local communities' identity potential.

3.1.5 Scenario Two

3.1.5.1 Environmental Sustainability Scenarios:

This explores a scenario where sustainability is prioritized, focusing on eco-friendly infrastructure, renewable energy, and green spaces while recognizing a tourism development area. This approach puts environmental sustainability at the forefront of development; but focusing on environmental sustainability this scenario aims to create a liveable resilient, and eco-friendly district that serves as a model for sustainable development.

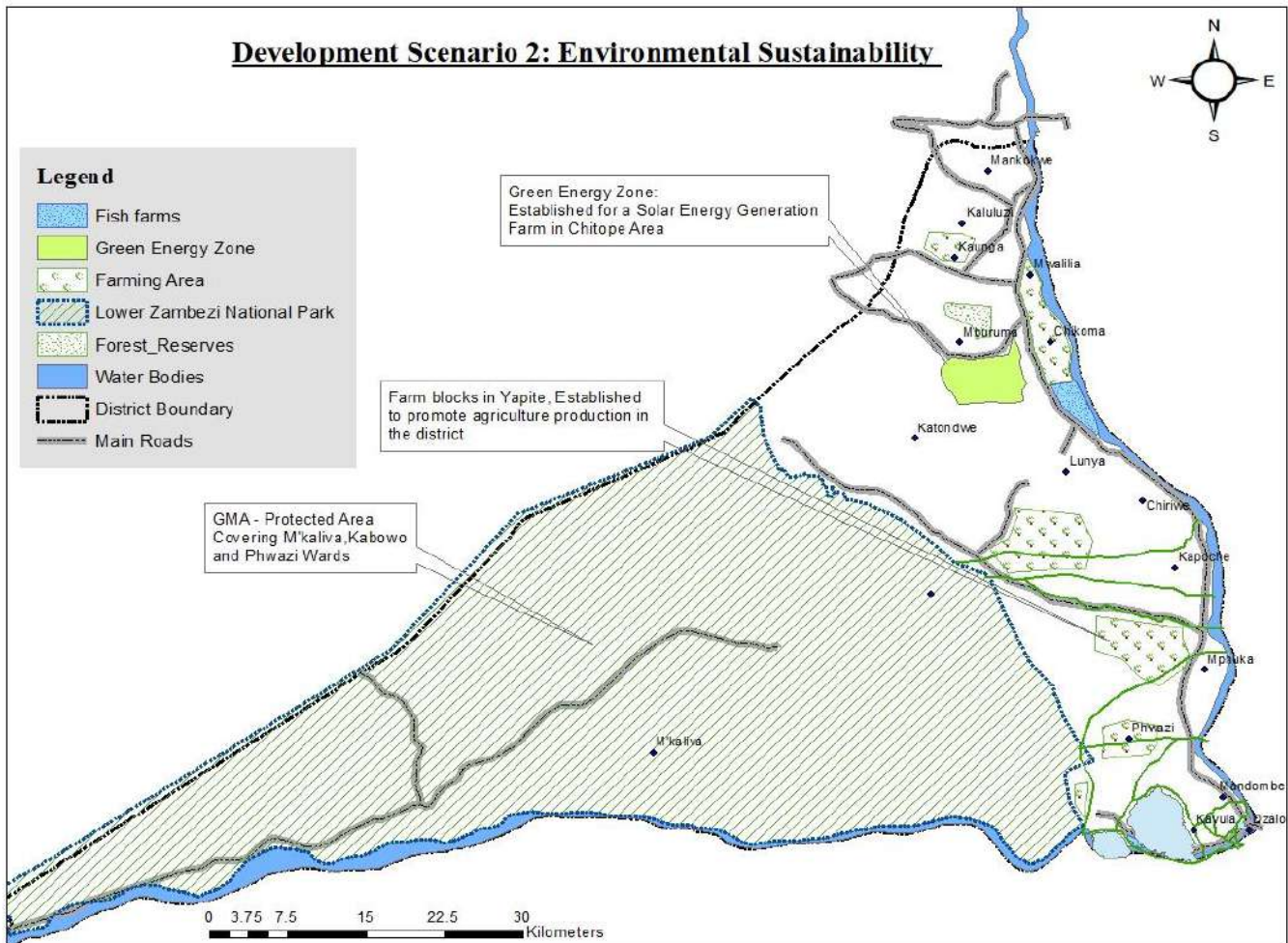
To promote generation of clean energy, Mwavi area in Chikoma Ward under his Royal Highness Senior Chief Mburuma will be the green energy generation zones for a Solar Farm within the district. In addition, Attention will also be placed on preserving the Lower Zambezi National Park and Rufunsa GMA. Further economic resources such as forests and wetlands will be conserved. There will be need to control developments taking place in farm blocks and to ensure that there is control of mining activities in Lunya and Kaunga. The Mining activities taking place in Kaunga and Kasinsa areas will need to be regulated and measures should be put in place to mitigate the negative impacts on the environment as well as on surrounding communities.

The Promotion of human animal coexistence through the preservation of animal corridors through discouraging the development of any human infrastructure along aforementioned.

Additionally, this scenario exploits the potential of aquaculture farming that the district has along the Zambezi and Luangwa rivers.

Below is a Map showing the illustration of the scenario explained above.

Figure 27: Environmental Sustainability Scenario



Source: Luangwa Town Council GIS

Advantages

1. Reduced pollution and biodiversity preservation through creation and maintenance of green spaces and natural habitats. Resulting in better air quality leading to improved physical, mental health and overall quality of life for residents.
2. Climate resilience – infrastructure and natural systems designed to withstand climate impacts, reducing vulnerability of the town to extreme weather events caused by climate change.
3. Creation of new job opportunities in green sectors such as renewable energy, sustainable construction and environmental management.
4. Attracting Investment- potential to attract investment from businesses and investors focused on sustainability through growth of climate smart agriculture and eco-tourism.
5. Balanced development that ensures the town can grow without depleting resources or damaging the

environment

Disadvantages

1. Initial Investment- high upfront costs for implementing green infrastructure, renewable energy systems such as Solar farms sustainable technologies is quite high. Maintaining them may also require additional financial resources.
2. Complex coordination- coordination amongst various stakeholders including government, private sectors and community can be complex as each entity may have its own interest.
3. Resistance to change- residents may be resistant to changing their habits and adopting new sustainable practices for example cutting down of trees to make charcoal.

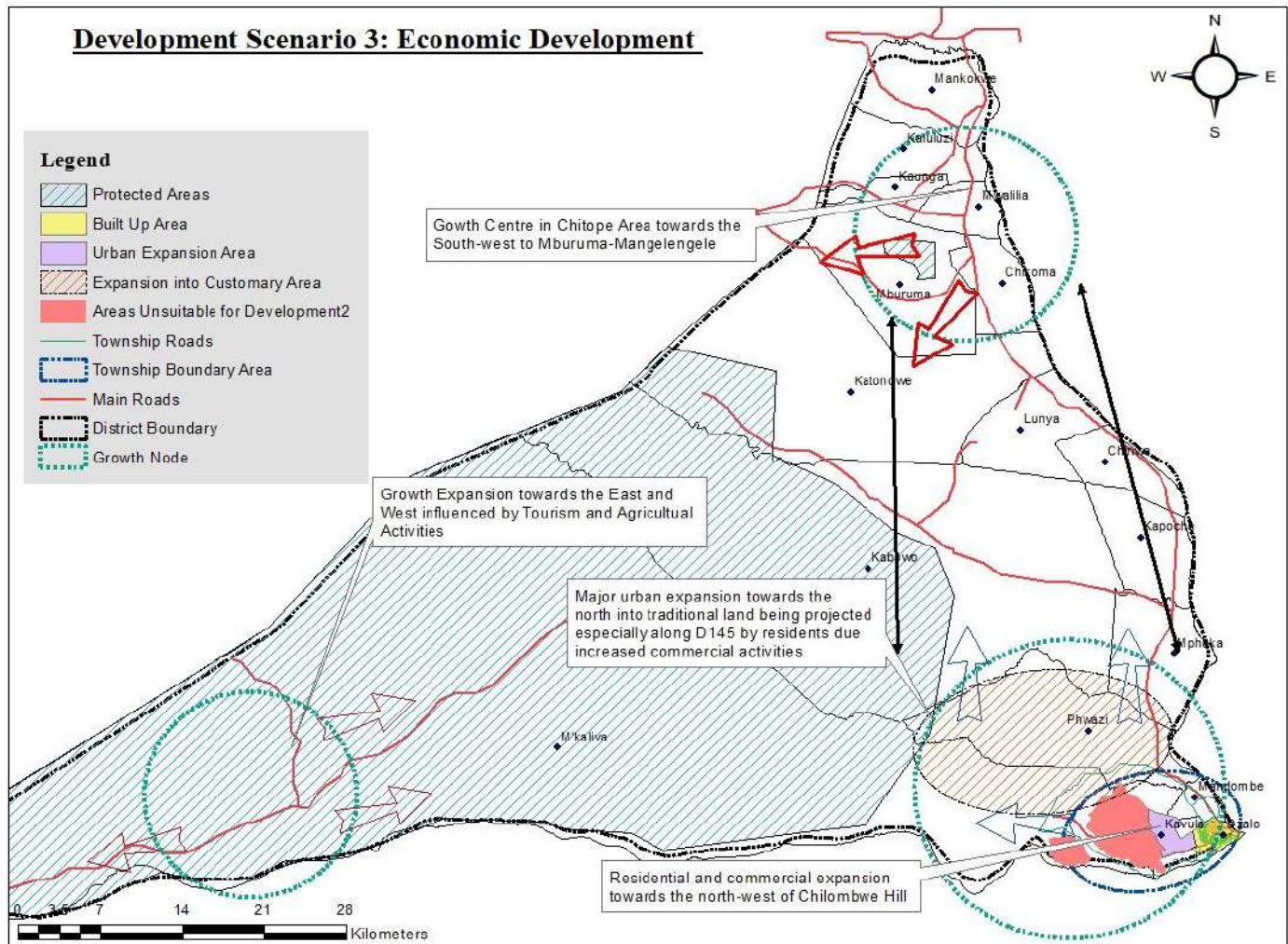
3.1.6 Scenario Three

3.1.6.1 Population Growth and Economic Development Scenarios:

This scenario envisions a thriving urban area where trade and economic activities are at the heart of development, driven by the expansion of the Central Business District (CBD) towards the north. This expansion is meticulously planned to accommodate increasing commercial activities, enhance connectivity and foster a vibrant urban environment.

This scenario further assumes a rapid population growth, leading to increased demand for housing, infrastructure, and services. This is further expected to translate into the local economy experiencing significant growth, attracting new businesses (trade and commerce) and residents. This will further call for enhancement of trade infrastructure such and construction and upgrading of the district's port facilities, storage and warehouse facilities and market structures to streamline the supply chain and ensure trade is conducted in a conducive working environment.

Figure 28: Economic Development Scenario



Source: Luangwa Town Council GIS

Advantages

1. The expansion of the CBD and establishment of Special Economic Zones in Chitope and Kavalamanja will attract significant domestic and foreign investment leading to economic growth.
2. Development projects and new businesses will generate numerous employment opportunities across various sectors. Further, enhanced economic activities will lead to increased revenue for the local authority.
3. Improved trade infrastructure will position the town as a key player in global trade networks boosting its international profile.

Disadvantages

1. Cost overruns: large scale development projects are prone to cost overruns and delays, which can strain public funds and lead to incomplete projects. Furthermore, the risk of regulatory challenges can't be avoided as ensuring compliance with regulations and maintaining a robust regulatory framework can be challenging, particularly in rapidly developing areas.

-
2. Rapid population growth in the expanded CBD might overburden existing infrastructure and services being provided by government to the residents of the district.
 3. Expansion projects could lead to urban sprawl, consuming green spaces and agricultural land. Additionally, increased development may put a strain on the natural resources leading to issues like water scarcity and pollution.

3.1.7 Scenario Four

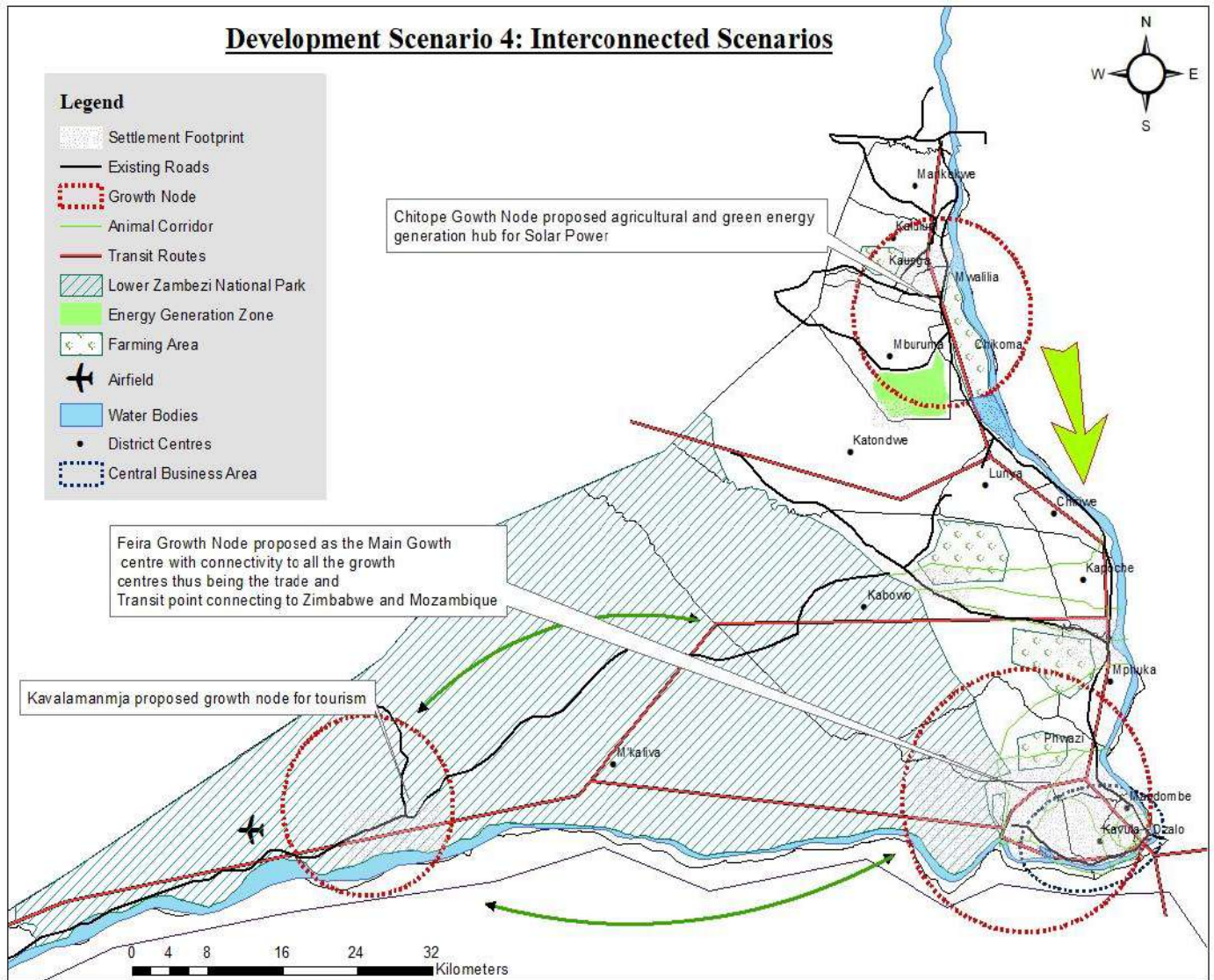
3.1.7.1 Interconnected Scenarios

This Scenario highlights all the three scenarios integrated to make a comprehensive urban development plan that balances Economic growth, CBD expansion, Transportation and mobility and Environmental Sustainability. The goal is to create a dynamic, resilient and eco-friendly urban area that supports vibrant trade activities expands the CBD to meet commercial demands, and ensure long term environmental health and quality of life and provide efficient and sustainable transportation. Thereby encompassing the Vision of becoming a “*Leading Trade, Transit and Tourist destination for socio Economic Development*”

To elaborate further, the CBD will be expanded to north-western side of the district in order to include new commercial areas that integrate office spaces, retail outlets, residential units and green buildings that are energy efficient on the eastern side of the town. Mixed use developments to optimize land use and reduce the need for long commutes. Special economic zones (SEZs) in Chitope and Kavalamanja will be developed to attract investment in clean energy, tourism and Livestock farming. This will call for Sustainable trade infrastructure for road and air transport, upgrading border facilities and logistic hubs with green technologies and renewable energy sources. A multi-modal transport network that includes dedicated freight corridors between Zambia, Zimbabwe and Mozambique and efficient public transit system via road will be developed. Also to reduce carbon emissions from automobiles, dedicated cycling and walking lanes, pedestrian zones will be promoted or township roads.

Parks, green corridors and urban forests will be expanded to enhance biodiversity, provide recreational areas for residents. Public spaces and cultural centres to foster community interaction and preservation of local heritage will be created. The utilization of natural systems for climate adaptation like wetlands for flood control and urban forests will be encouraged.

Figure 29: Interconnected Scenario



Source: Luangwa Town Council GIS

Advantages

1. Balanced development that simultaneously promotes economic growth, social equity, environmental sustainability through preservation of protected forests and animal corridors and advanced transportation.
2. Enhanced urban resilience to economic fluctuations and climate impacts
3. Improved quality of life through better infrastructure, public spaces, and environmental health and transportation options.
4. Enhanced power supply to supplementary electricity generation through Solar farms

Disadvantages

1. Significant upfront investments required for sustainable infrastructure, transportation and technologies.
2. Calls for extensive coordination among various stakeholders and regulatory bodies which sometimes can be difficult due to bureaucracy processes associated to cross cutting developmental projects.
3. Risk of displacement and gentrification if not carefully managed.

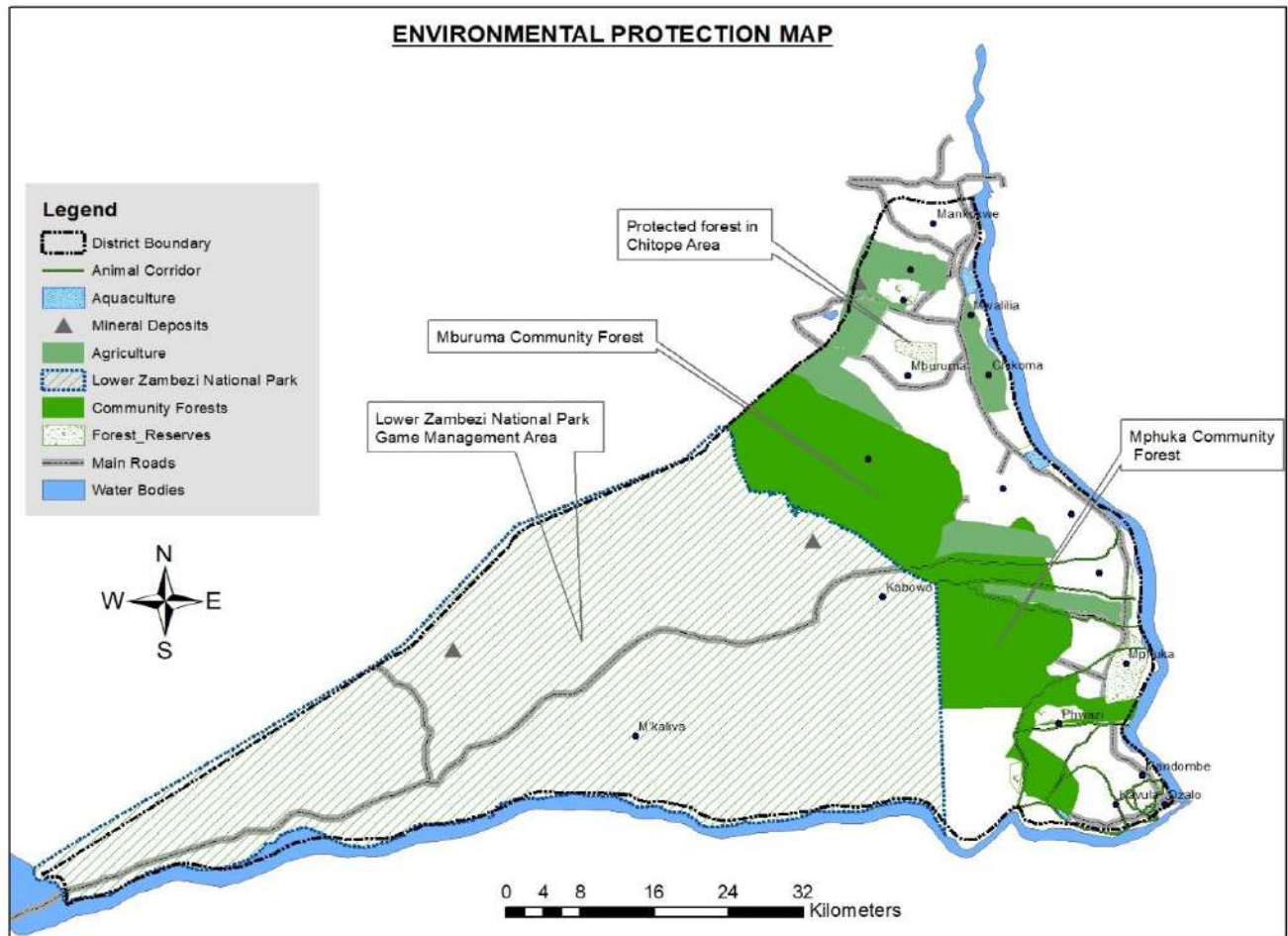
3.1.8 Land Use Planning Objectives and Strategies

In order to control and regulate development in the IDP area which is the district in its entirety, two (2) Local Area Plans (LAPs) will be prepared for the 2 growth nodes namely; Chitope and Feira Areas. The development of Local Area Plans is to ensure that there is coordinated development within the IDP area.

3.1.9 Identification of Areas to be Improved Maintained or Protected

Identification of areas to be protected, maintained and improved is crucial for several reasons, protected areas safeguard habitats, ecosystems and specie, preserving the natural heritage for future generations. They also maintain essential ecosystem services such as clean water, air and soil. They also promote Climate Regulation sequester Carbon, reducing the impact of Climate Change. They provide recreational spaces, promote eco-tourism support human health and wellbeing. The areas identified for protection and improvement in the IDP area include the Lower Zambezi National Park, which will be maintained, Mburuma and Mphuka Community Forests as well as the Local Forest in Chitope area. The Map below shows areas earmarked for protection and maintenance.

Environmental Protection Map



Source: Luangwa Town Council GIS

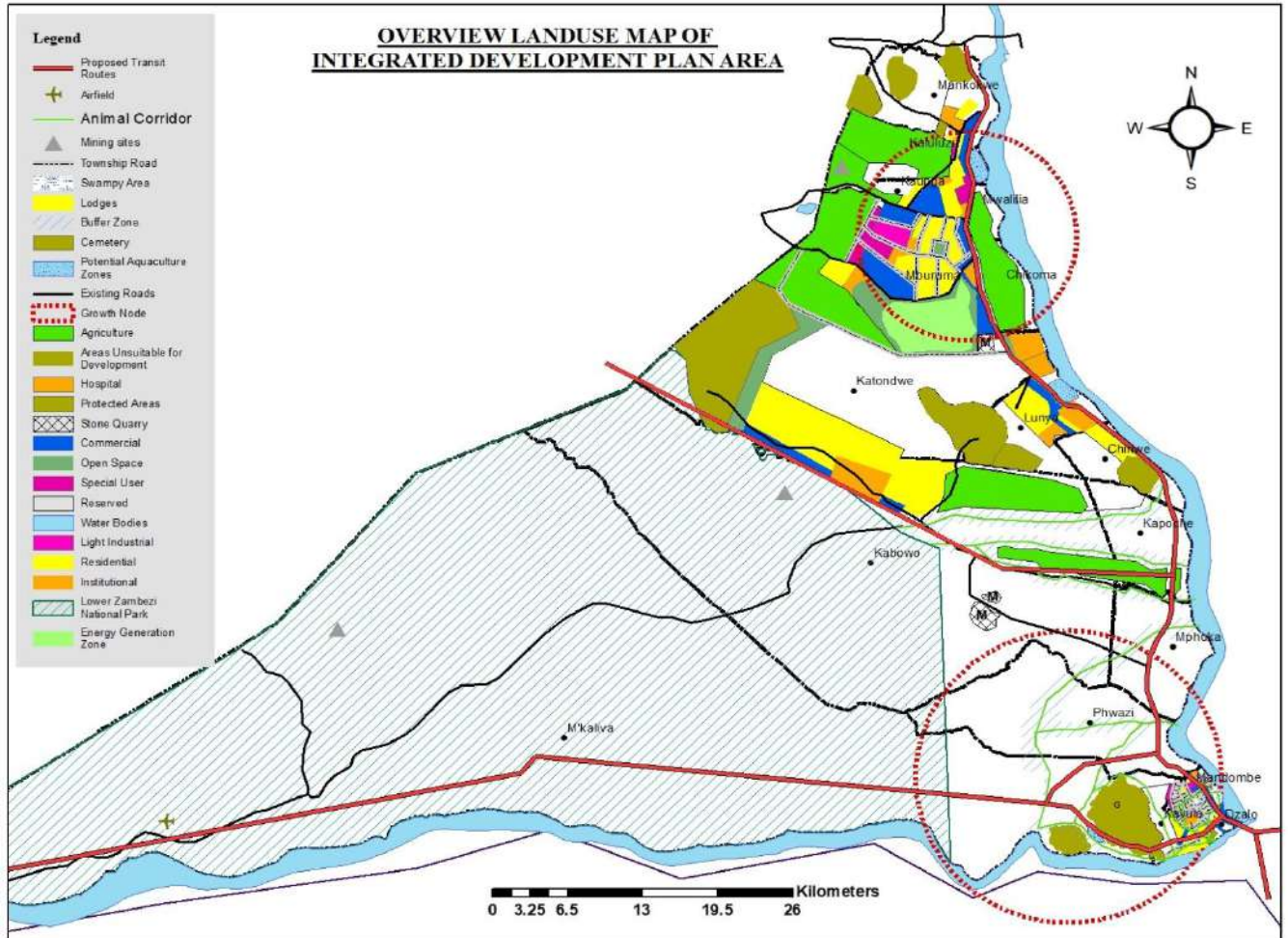
Further, all developments shall be subject to the planning standards applicable to the land use classification and to other conditions as may be applied by the planning authority or as required by Zambia Environmental Management Agency (ZEMA).

3.1.10 Land Use Planning Objectives and Strategies for Improving, Maintaining or Protecting the Environmental, Social and Economic Aspects of Development

3.1.10.1 Identification of areas

The areas identified for Protecting the Environmental, Social and Economic Aspects of Development include Mburuma, Chikoma, Mwalilia all the way to Kaluluzi and Kaunga where there is presence of agricultural activities and therefore there's need for environmental protection and maintenance for social and economic development. There's also a hive of activities in Dzalo, Kavula, Mandombe and Pwazi that also necessitates the need for environmental protection. Below is a map depicting the above narration.

Overview of Landuse Map



Source: Luangwa Town Council GIS

3.1.11 Statements as to the Type of Development to Be Permitted

The following Land Use Policies shall be developed for protection of areas of environmental sensitivity, Culture, and Historical Importance:

1. Prohibition of infrastructure development within 400 meters along major rivers and within 100 meters along stream and swampy areas. 2.
2. Prohibition of cutting down of trees within the 500 meters along major rivers and 100 meters within minor rivers and streams.
3. Map and protect areas of cultural and historical importance.

3.1.12 Protection of National and Regional Interests

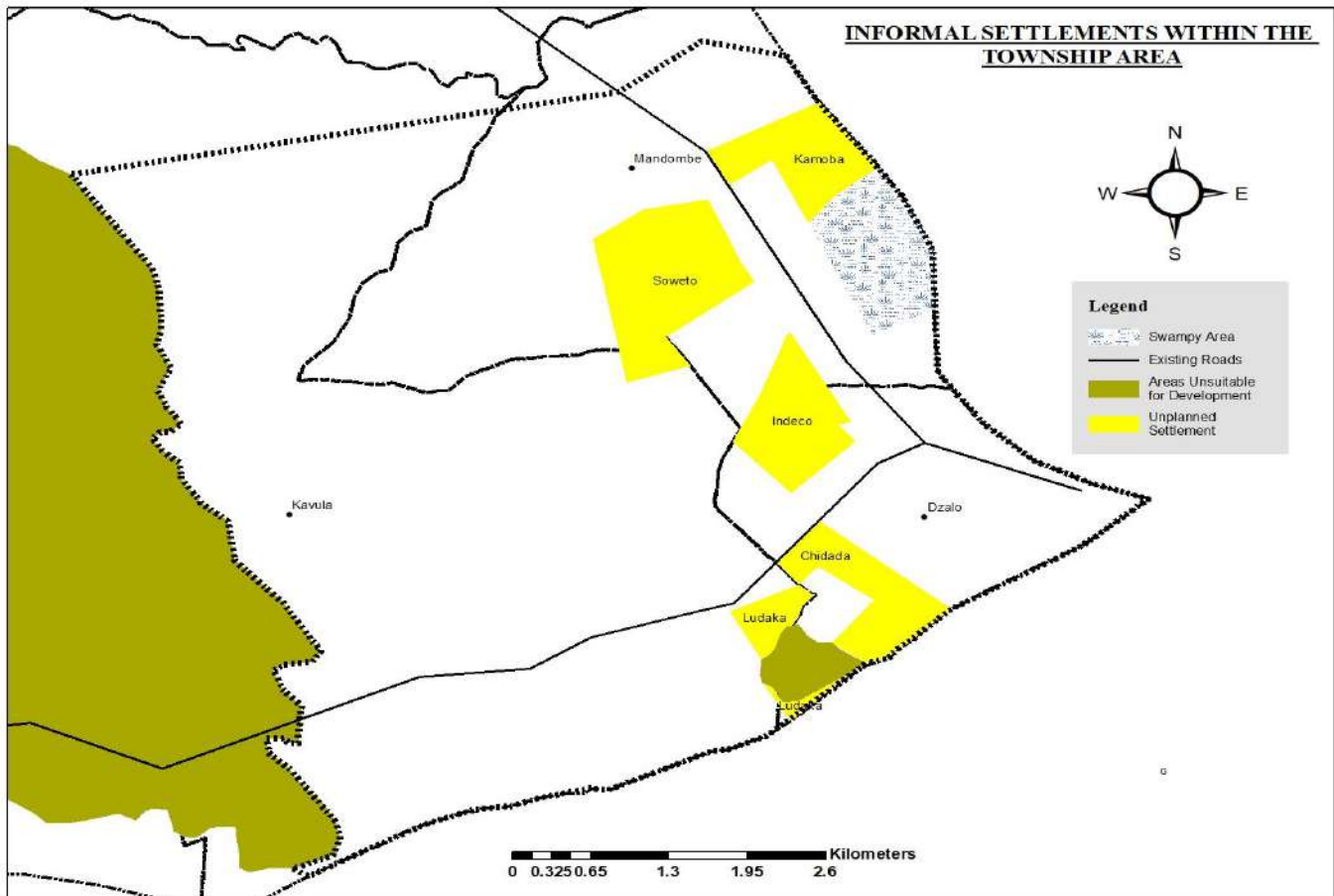
- The following Land Use Policies shall be developed to protect areas of national and regional interest: 1. Ensure that T2 and D145 roads is well maintained for easy connectivity to other districts.
2. Protect the banks of Luangwa River and Zambezi River.

3.1.13 Informal Settlements

The following Land Use Policies will be developed to upgrade and control development in the informal settlements.

1. Provide access roads.
2. Prohibit development in swampy areas and areas near streams.
3. Building storm water drainages.
4. Improve Health and Education Infrastructures.

Map Showing Informal Settlement within the Township Area



Source: Luangwa Town Council GIS

3.1.14 Areas Under the Jurisdiction of Traditional Authorities (Customary Ownership)

The following Land Use Policies shall be developed for areas under jurisdiction of Traditional Authorities:

1. Develop a Planning Agreement document for development of Housing, Commercial, Industrial and other land use areas.
2. Help Traditional Leaders develop Local Area Plans (LAPs) for coordinated land allocation.

Chitope Area Land use proposal

The Chitope land use proposal seeks to drive sustainable development by strategically allocating land for various essential projects that will contribute to the socio-economic growth of the area while preserving the environment and enhancing human-animal co-existence.

Solar Farm Allocation in Chikoma Area: In a bid to boost renewable energy production, a designated portion of land in Chikoma has been allocated for the establishment of a solar farm. This initiative aims to harness solar energy, providing a reliable and sustainable power source to meet the growing energy demands of both the district and country at large.

Expansion of Banana Plantation and Light Industrial Complex in Mangelengele Area: The successful banana cultivation in Mangelengele will be expanded, supported by an allocation for an industrial complex dedicated to value-added processing. This will bolster local agricultural productivity and drive economic growth through job creation and export potential, ensuring the community benefits from the full value chain of banana production.

Rehabilitation of Existing Dams: The plan also includes the rehabilitation of three key dams in the area. Restoring these water bodies is crucial for supporting agricultural activities, livestock, and local communities, ensuring water security, and enhancing climate resilience for years to come.

Residential Expansion Allocation: With the growing population, a strategic portion of land has been earmarked for residential expansion. This will allow for planned, sustainable growth in housing development, reducing informal settlements and ensuring proper access to amenities and services.

Agricultural Expansion in Katondwe: Additional land in Katondwe has been set aside for agricultural activities to increase food production and diversify the agricultural output of the region. This expansion is part of a broader goal to enhance food security and stimulate economic activity in the area.

Establishment of Livestock Service Centre: Due to the high density of livestock in the region, a dedicated livestock service centre will be established. This facility will provide critical services such as veterinary care, livestock management training, livestock breeding, and market access, supporting local farmers and improving livestock health and productivity.

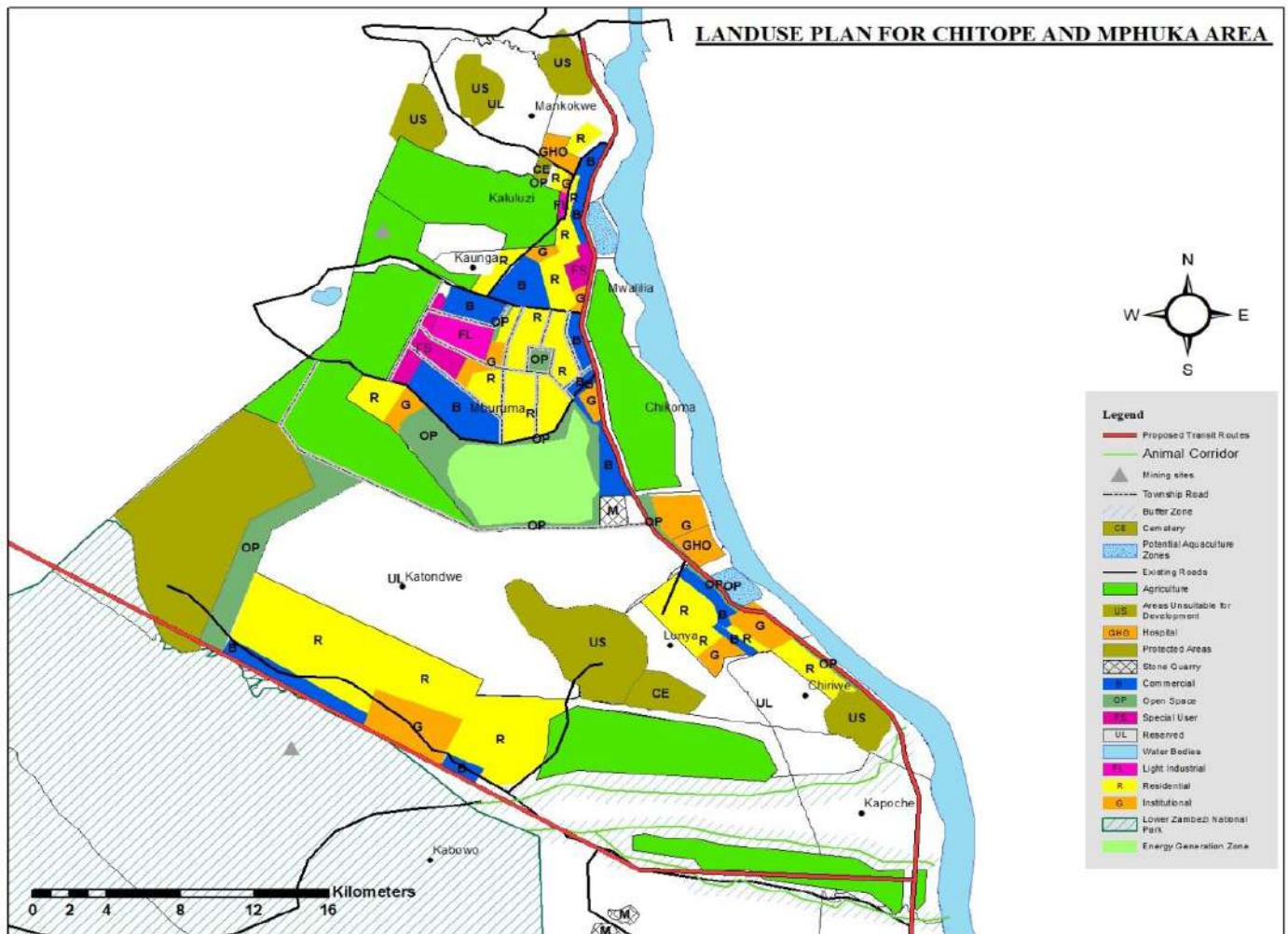
Enhanced Mining Exploitation in Kaunga and Mwalilia: Recognizing the rich mineral resources in Kaunga and Mwalilia, land has been allocated to facilitate enhanced and regulated mining activities. This development will ensure the responsible extraction of minerals, creating employment opportunities while

maintaining environmental safeguards.

Preservation of Animal Corridors: To promote harmonious human-animal coexistence, designated wildlife corridors will be preserved, with a 1-kilometer buffer zone to prevent cultivation within these areas. This measure is intended to protect migration routes for wildlife, mitigate human-wildlife conflict, and maintain ecological balance in the region.

This integrated land use plan for Chitope area aims to balance development with environmental stewardship, ensuring that growth is sustainable and inclusive while safeguarding the natural heritage of the region.

Figure 30: Chitope Land use Scenario



Source: Luangwa Town Council GIS

Boma Township Land use Proposal

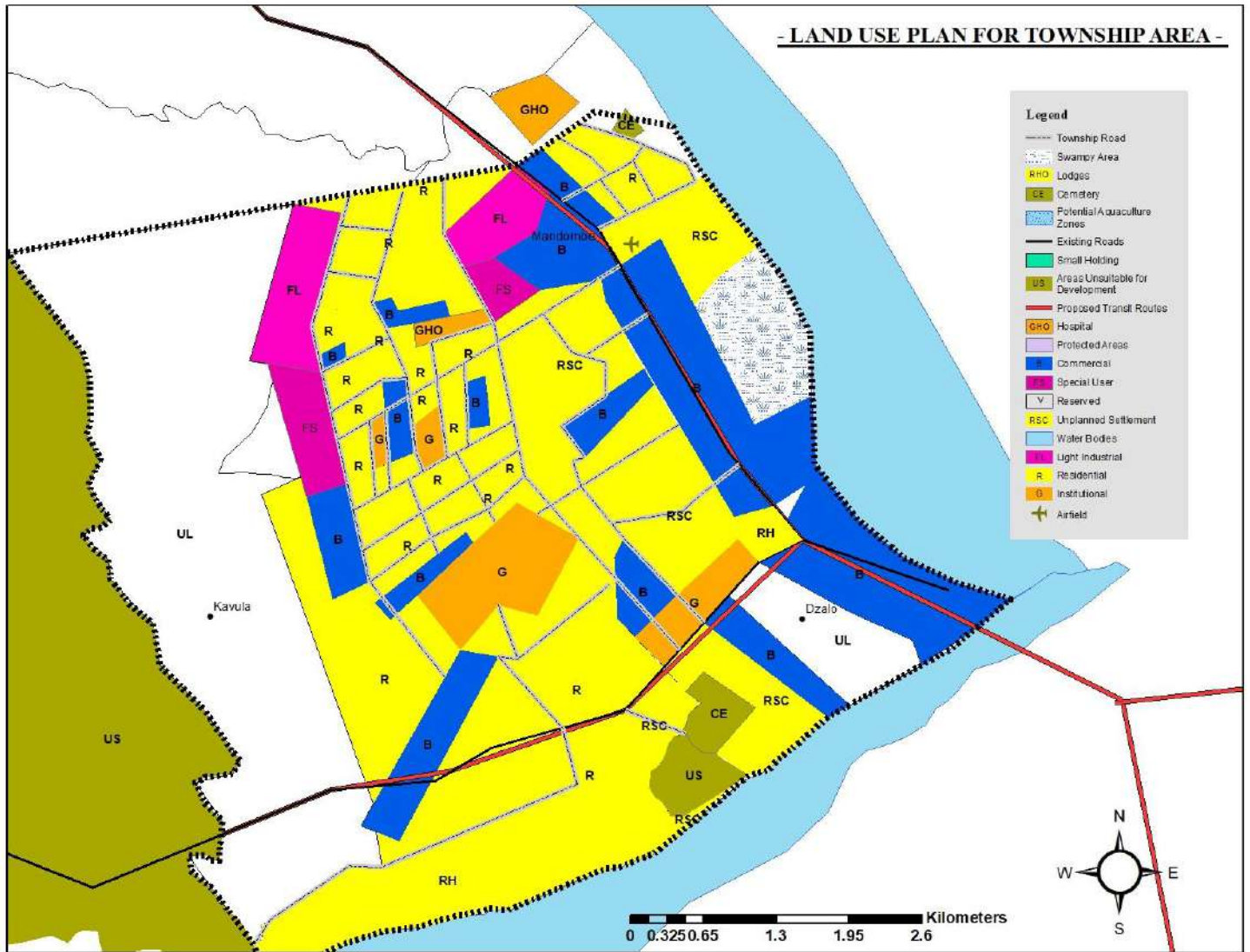
The land use proposal for Feira Township emphasizes strategic commercial development, enhanced cross-border connectivity, and sustainable urban growth, all aimed at fostering long-term economic

prosperity and improved living conditions, the following are some of the major strategic development programmes to be implemented within the Boma Township.

1. **Commercial Land Allocation for Enhanced Trade:** To capitalize on Feira Township's unique location near the borders of Mozambique and Zimbabwe, land has been designated for commercial development around Soweto area along D145 road. This allocation aims to strengthen the township's role as a key trade hub, facilitating increased cross-border commerce and providing economic opportunities for local businesses and traders.
2. **Luangwa District as a transit point:** A bridge connecting Feira to neighbouring countries is identified as a critical long-term infrastructure goal, crucial for bolstering trade and transit in the region. While the bridge is being planned and developed, a larger capacity pontoon from Kazungula Bridge has been assigned to Luangwa District and will be used to maintain and enhance the district's connectivity, supporting the district's Vision 2034 for improved transit and logistics.
3. **Planning Agreement with Chief Mphuka for Urban Expansion:** In anticipation of future growth, particularly towards the north of the D145 road, the local authority intends to establish a planning agreement with His Royal Highness Chief Mphuka. This agreement will enable coordinated development, ensuring that expansion efforts are sustainable and well-integrated with existing infrastructure and services, facilitating orderly urban growth.
4. **Upgrading of Unplanned Settlements:** The proposal also prioritizes upgrading unplanned settlements such as Chidada, Indeco, Kamoba, and Soweto. Enhancing these areas through infrastructure improvements and formal planning will boost development, improve living conditions, and integrate these communities into the township's overall urban framework.

This land use plan for Feira Township seeks to create a balanced approach to development, combining commercial growth, improved infrastructure, and Settlement upgrades to foster a prosperous and sustainable future for the region.

Figure 31: Land Use Plan for Township Area



Source: Luangwa Town Council GIS



PART FOUR

IMPLEMENTATION PLAN

PART FOUR: IMPLEMENTATION PLAN

4. IMPLEMENTATION PLAN

An Implementation plan within the context of integrated development planning is a detailed guide outlining how a project or strategy will be executed focusing on resources, timelines, responsibilities and outcomes including all the investments required to implement the development framework. The capital investment plan and the financial plan are aligned to the priorities, objectives and strategies as identified in the development framework. The implementation plan is crucial in that it ensures that activities undertaken contribute directly to the overarching development.

4.1 Assessment of Revenue Collection Efficiency of the Local Authority

From the assessment of the revenue streams from 2021 to 2023, Luangwa Town Council revenue base is low despite having several economic activities taking place in the district. The local authority has a total ten (10) revenue collectors who are on permanent establishment with five (5) on contract basis. The local authority spends about K 662,257 on revenue collection. From the analysis of different revenue streams, it was evident that the local authority was not able to meet the budgeted amounts for most revenue streams.

As presented on figure 37, the main revenue streams for Luangwa Town Council include Owner's Rates, Local Taxes, Fees and Charges, Licences, Levies, Permits, Charges and Other Income. From the assessment, it was evident that the main revenue streams are charges, fees and charges, levies, owners' rates and permits. Further analysis revealed that there has been an increase in the budgeted amounts. The local authority budgeted to collect K4.7 million in 2021, K4.7 million again in 2022 and K5.9 million in 2023. A steady increase in collection efficiency was recorded in the years under review. K3.1 million was collected in 2021 giving a collection efficiency of 67%, while K3.5 million was collected in 2022 with a collection efficiency of 74% and K4.3 million in 2023 giving an efficiency of 72% thereby showing a steady improvement.

4.2 Local Authority's Financial Plan

Table 16: Own Source Revenue for Luangwa Town Council

Table: Own Source Revenue at Luangwa Town Council

S/N	Details	2021			2022			2023		
		Annual Budget 2021	Actual Revenue Collected	%	Annual Budget 2022	Actual Revenue Collected	%	Adjusted Annual Budget 2023	Actual Revenue Collected	%
1	Local Taxes	642,970.00	131,955.37	21%	467,097.00	129,256.27	28%	217,097.00	292,377.00	135%
2	Fees and Charges	1,766,840.00	1,004,191.50	57%	1,460,857.00	1,148,482.40	79%	2,051,865.00	625,963.00	31%
3	Licenses	107,915.00	172,121.00	159%	164,365.00	256,579.20	156%	275,045.00	289,401.00	105%
4	Levies	1,262,488.00	1,106,179.36	88%	1,572,946.00	1,719,953.00	109%	1,438,786.00	1,740,302.00	121%
5	Permits	55,900.00	76,921.00	138%	97,050.00	89,645.00	92%	64,350.00	113,420.00	176%
6	Charges	862,000.00	500,767.00	58%	895,000.00	33,940.00	4%	1,845,000.00	742,610.00	40%
7	Other Incomes	45,000.00	162,636.34	361%	112,800.00	146,893.00	130%	94,999.96	507,468.00	534%
	Total Locally Generated	4,743,113.00	3,154,771.57	67%	4,770,115.00	3,524,748.87	74%	5,987,142.96	4,311,541.00	72%

Source: Finance Department-Luangwa Town Council

The collection efficiency has been low from the assessment of the three years and could be attributed to the following:

- 1) Poor revenue administration
- 2) Lack of a comprehensive database for customers

-
- 3) A weak enforcement mechanism
 - 4) Lack of transport for revenue operations
 - 5) Inability to implement planned activities with financial implications
 - 6) Dwindling fish stocks from Mozambique
 - 7) Residents reluctant to pay some stated land rates
 - 8) Lack of an updated valuation roll.

4.3 Revenue Potential

Luangwa Town Council has the potential to raise additional revenue as it has several revenue streams. As such there is need to ensure that some measures are put in place to ensure that the revenue base is improved. To enhance revenue collection, Luangwa Town Council intends to preparation of a new valuation roll and engage the Ward Development Committee in revenue collection and identification of possible revenue collection points within the district.

National Support

The analysis of the budget revealed that national support has been consistent and always above 90%. In 2021, Grants and Local development Fund were at 102% and 100%, in 2022 they were at 122% and 92% and in 2023 they were at 94% and 100 respectively.

Table: National Support at Luangwa Town Council

		2021			2022			2023		
S/N	Details	Annual Budget 2021	Actual Revenue Collected	%	Annual Budget 2022	Actual Revenue Collected	%	Adjusted Annual Budget 2023	Actual Revenue Collected	%
1	National Support (Grants)	8,961,400.00	9,104,962.38	102	9,031,400.00	11,024,301.80	122	10,881,394.00	10,270,415.81	94
2	Local Development Fund	1,600,000.00	1,600,000.00	100	25,700,000.00	23,763,400.91	92	28,300,000.00	28,280,720.76	100
	GRAND TOTAL	10,561,400	10,704,962	99	34,731,400	34,787,703	100	39,181,394	38,551,137	102

Source: Finance Department-Luangwa Town Council

4.4 Identification of Revenue Base for the First Five Years of the Implementation Plan

To finance the plan in the first five years, Luangwa Town Council intends to improve its collection efficiency on Owners rates, charges, fees and charges and levies as presented on table 35 below. The local authority will also focus on permits, licenses, and local taxes. The local authority also intends to lobby for an increase in national support that is due to the high human resource base and failure to top up on salaries of employees each month, a situation which has been attributed to the current Local Government equalization fund not being adequate to cover for salaries forcing the local authority to top-up additional funds to meet payment of salaries of employees every month. As such, it is anticipated that Central Government will be engaged to increase the amount. Such a move would enable the LA to focus on service provision from the limited resources it collects every month. During the first five years of the IDP implementation, the Local Development Fund is anticipated to be at 28,313,902.00 each year.

Table 17: Revenue Base for the First Five Years of the Implementation Plan

Details	Year 1	Year 2	Year 3	Year 4	Year 5
Income					
Owners Rates	198,737.00	215,033.43	230,730.87	246,882.04	264,163.78
Local Tax	18,360.00	19,865.52	21,315.70	22,807.80	24,404.35
Fees & Charges	1,276,550.00	1,381,227.10	1,482,056.68	1,585,800.65	1,696,806.69
License	195,566.00	211,602.41	227,049.39	242,942.85	259,948.84
Levies	1,678,911.00	1,816,581.70	1,949,192.17	2,085,635.62	2,231,630.11
Permits	86,900.00	94,025.80	100,889.68	107,951.96	115,508.60
Charges	740,000.00	800,680.00	859,129.64	919,268.71	983,617.52
Charges	70,150.00	75,902.30	81,443.17	87,144.19	93,244.28
National Support	23,655,879.00	25,595,661.08	27,464,144.34	29,386,634.44	31,443,698.85
Constituency Development Fund	30,635,642.00	33,147,764.64	35,567,551.46	38,057,280.07	40,721,289.67
Total	58,556,695.00	63,358,343.99	67,983,503.10	72,742,348.32	77,834,312.70

As presented on table 36 below, Luangwa Town Council intends to collect K 58,566,695.00 in the first year, K63, 358,343.99 in the second year K 67,983,503.10 in the third year, K 72,742,348.32.00 in the fourth year and K 77,834,312.70 in the fifth year. The increase in financing will be attributed to the interventions to be but in place on revenue enhancement.

Table 18: Locally Generated Revenue for the First Five Years of the Implementation Plan

Details	Year 1	Year 2	Year 3	Year 4	Year 5
Income					
Owners Rates	198,737.00	215,033.43	230,730.87	246,882.04	264,163.78
Local Tax	18,360.00	19,865.52	21,315.70	22,807.80	24,404.35
Fees & Charges	1,276,550.00	1,381,227.10	1,482,056.68	1,585,800.65	1,696,806.69
License	195,566.00	211,602.41	227,049.39	242,942.85	259,948.84
Levies	1,678,911.00	1,816,581.70	1,949,192.17	2,085,635.62	2,231,630.11
Permits	86,900.00	94,025.80	100,889.68	107,951.96	115,508.60
Charges	740,000.00	800,680.00	859,129.64	919,268.71	983,617.52
Charges	70,150.00	75,902.30	81,443.17	87,144.19	93,244.28
Total	4,265,174.00	4,614,918.27	4,951,807.30	5,298,433.81	5,669,324.18

Table 19: National Support Financing for the First Five Years of the Implementation Plan

Details	Year 1	Year 2	Year 3	Year 4	Year 5
Income					
National Support	23,655,879.00	25,595,661.08	27,464,144.34	29,386,634.44	31,443,698.85
Constituency Development Fund	30,635,642.00	33,147,764.64	35,567,551.46	38,057,280.07	40,721,289.67
Total	54,291,521.00	58,743,425.72	63,031,695.80	67,443,914.51	72,164,988.52

As presented on table 37 above, Luangwa Town Council projects an increase in Local Government Equalization fund and a constant financing of Constituency Development Fund each year.

Revenue Mobilization Strategies

Revenue Mobilization Strategies for the first five years (2024 – 2028)

- a) Introduction of the bulk messaging system to all customers (e-billing system) by end of 2026.
- b) Going cashless by end of December 2024 by use of point-of-sale machines

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- c) Formation of a revenue Task Force on revenue collection
 - d) Conduct sensitization campaigns on the importance of paying property rates
 - e) Setting collection Targets each month
 - f) Carrying out monitoring and reviews of performance by the revenue taskforce
 - g) Close supervision of all revenue collectors
 - h) Sending bills and demand notices on time and ensuring that follow ups are made
 - i) Conducting a Door-to-Door revenue collection
 - j) Use of the Bailiffs to collect revenue but only as a last resort

4.5 Revenue Enhancement Strategies

- a) Preparation of a new valuation roll
- b) Constant updating the customer revenue databases
- c) Creating awareness to the community, in advance, on taxes, levies, fees and charges and rates before the actual implementation
- d) Regular patrolling of water bodies to prevent revenue sippages.
- e) Setting collection targets, carrying out monitoring and reviews on a continuous basis
- f) Supervision of staff involved in revenue collection
- g) Improving infrastructure at revenue collecting points by providing of barriers and putting up signposts
- h) Maintain good public relation with the community – budget feedback
- i) Being innovative by exploring other sources of revenue
- j) Sensitizing the community on the need or importance of paying taxes
- k) Rotation of revenue collectors working at revenue collection points
- l) Sending bills and reminders to debtors on time

Identification of Activities for the Implementation of the Strategies and Programmes

Goal: Improved quality and access to health care services										
Objective: The Ministry of Health in conjunction with other stakeholders will ensure to provide quality health care requisites in 58% of health care facilities in all wards by 2034.										
Strategies	Programmes	Activities	Location	Target Year					Responsible department	
				Year 1	Year 2	Year3	Year 4	Year 5		
The Ministry of Health and other stakeholders will increase the number of health facilities with maternity wings in the nine (9) wards within five (5) years.	Construction of 9 maternity wings	<ul style="list-style-type: none"> •Surveying •Site- preparation •Review Meetings •Contract Management •Procurements •Construction of maternity wings •Monitoring 	<ul style="list-style-type: none"> •Kanemela •Luangwa Sec School •Chitope •Kansinsa •Janeiro •Mangelengele •Kapoche •Amoro •Mandombe 	1 Maternity Wing	2 Maternity Wings	2 Maternity Wings	2 Maternity Wings	2 Maternity Wings	Health/ other stakeholders	
The Ministry of Health will ensure that health care facilities are equipped with the necessary resources, including equipment supplies in order to provide access and quality services to 99% of residents by 2034	Upgrading of four (4) health facilities (3 from Rural Health Centre to Zonal Health Centre and 1 from Health Post to Rural Health Centre)	<ul style="list-style-type: none"> •Surveying •Site- preparation •Review Meetings •Contract Management •Upgrading of health facilities •Monitoring 	<p><u>Zonal Health Posts</u></p> <ul style="list-style-type: none"> Chitope Mphuka Sinyawagora <p><u>Rural Health Post</u></p> <ul style="list-style-type: none"> • Kaunga 		1 Health Facility	1 Health Facility	1 Health Facility	1 Health Facility		
	Expansion of Luangwa District Hospital specialized department/wards (i.e. ICU, theatre, Gynae, male and female Surgical wards)	<ul style="list-style-type: none"> •Site preparation •Review Meetings •Contract management •Construction of specialized departments •Monitoring 	•Luangwa District Hospital						1 Expansion	
	The LA will work with other stakeholders to construct incinerators in 12 health facilities located in 9 wards within 5 years	<ul style="list-style-type: none"> •Assessment •Contract management •Procurement •Construction •Monitoring 	<ul style="list-style-type: none"> •Kaunga •Chitope •Luangwa Sec •Mphuka •Mandombe •Kavalamanja •Luangwa Boma RHC •Feira Health Post •Luangwa District Hospital •Katondwe Mission Hospital •Kaunga B •Undi 		3 Incinerators	3 Incinerators	3 Incinerators	3 Incinerators		
The Ministry of Health and other stakeholders will increase the number of Health Facilities from 17 to 20 within (5) years.	Construction of Health Care Facilities	<ul style="list-style-type: none"> •Surveying •Site- preparation •Review Meetings •Contract Management •Procurements •Construction of maternity wings •Monitoring 	<ul style="list-style-type: none"> •Kavula Ward •Lunya Ward 		1 Health Facility		1 Health Facility			

	Upgrading of Luangwa District Hospital to second level hospital	<ul style="list-style-type: none"> •Planning meetings •HPCZ assessment •Procurement of Equipment for Second Level Hospital •Employment of specialized human resources 	Luangwa District Hospital					1 upgrade	
	Construction of isolation wards	<ul style="list-style-type: none"> •Site preparation •Review Meetings •Contract management •Procurement •Construction of Isolation wards •Monitoring 	<ul style="list-style-type: none"> •Katondwe Mission •Luangwa District Hospital 		1 Isolation ward		1 Isolation ward		Ministry of Health/ Stakeholders
	Employment and deployment of human resource	•Deployment of 250 skilled human resource	<ul style="list-style-type: none"> •Katondwe Mission •Luangwa District Hospital 	50 Health Personnel	50 Health Personnel	50 Health Personnel	50 Health Personnel	50 Health Personnel	Ministry of Health
The Ministry of Health in conjunction with other stakeholders will work to ensure high malaria incidence rates are reduced from 31 per thousand population as well as 3.7 per thousand case fatality to zero	Construction of a residue spraying base to improve vector control	<ul style="list-style-type: none"> •Assessment •Contract management •Procurement •Construction •Monitoring 	•Luangwa District Hospital		1 Residue spraying base constructed				Ministry of Health/ Stakeholders

Goal: Improved access to quality, equitable and inclusive education

Objective:	The LA will work with the Ministry of Education and other key stakeholders to increase attainment of General Certificate of Education (GCE) at grade 12 to 90%.								
Strategies	Programmes	Activities	Location	Target Year					Responsible department
				Year 1	Year 2	Year 3	Year 4	Year 5	
Ministry of Education will work with the LA and other stakeholders to provide at least 80% of the required teaching and learning requisites in 20 primary schools and 6 secondary schools within five (5) years.	Supply of subsidized textbooks and other essential learning materials	<ul style="list-style-type: none"> •collection of quotations • Evaluations •Procurement of materials •Monitoring 	All primary and secondary schools in the district	Once	Once	Once	Once	Once	MoE/Stakeholders/Donors
Ministry of Education will work with the LA and other Stakeholders to provide basic amenities to education facilities within five (5) years	Upgrading of water and sanitation facilities	<ul style="list-style-type: none"> •Community engagement Meetings • Survey •Quotations •Evaluations •Procurement of materials •Trainings •Monitoring 	<ul style="list-style-type: none"> -Mangelengele Primary -Kaunga Secondary School -Kaluluzi Primary School -Mwavi Secondary School -Chilukusha Primary -Janeiro Primary 	3 upgrades	2 upgrades				MoE/Stakeholders

Ministry of Education will work with the LA and other stakeholders to provide learning requisites for pupils with disabilities in one (1) Special School by 2034	Supply of subsidized textbooks, and other essential learning materials for pupils with disabilities and special needs	<ul style="list-style-type: none"> •Quotations •Evaluation •Procurement of materials •Monitoring 	•Kapoche Special School	Once	Once	Once	once	once	MoE/Stakeholders/LA
The Ministry of Education will work with the LA and other stakeholders to provide appropriate school infrastructure for pupils with disabilities and Special Needs in 21 primary schools and 8 secondary schools by 2034	Construction of appropriate school infrastructure for Students with Disabilities and Special Needs	<ul style="list-style-type: none"> •Community Engagements •Survey •Quotations •Evaluations •Procurement of materials •construction •Inclusive Education trainings •Monitoring 	All schools in the district	1 school Infrastructure	1 school Infrastructure	1 school Infrastructure	1 school Infrastructure	1 school Infrastructure	MoE/Stakeholders/LA
The Ministry of Education will ensure a teacher pupil ratio of 1:58 for primary and 1:38 for secondary in 21 Primary and 08 Secondary Schools in all the wards by 2034.	Construction of 16 staff houses	<ul style="list-style-type: none"> •Community Engagements •Survey •Quotations •Evaluations •Procurement of Materials •Monitoring 	-Kapoche Secondary -Zalapango Primary -M'membe ECE -Chankansi Primary -Kaunga B -Chilukusha Primary -Mandombe Primary		4 Staff Houses	4 Staff Houses	4 Staff Houses	4 Staff Houses	MoE/Stakeholders/LA
	Recruitment and deployment of teachers (255)	<ul style="list-style-type: none"> -Advertisement -Application process -HRMC meetings -Publication of recruited teachers 	All wards	55 Teachers	50 Teachers	50 Teachers	50 Teachers	50 Teachers	MoE/Stakeholders/LA
Ministry of Education will work with the LA and other stakeholders to ensure increase in the number of classroom space for pupils from 60% to 90% in 5 primary schools by 2034	Construction of (16) additional classrooms	<ul style="list-style-type: none"> •Community Engagements •Survey •Quotations •Evaluations •Procurement of Materials •Monitoring 	-Kapoche Secondary -Zalapango Primary -M'membe ECE -Chankansi Primary -Kaunga B -Chilukusha Primary -Mandombe Primary		4 Classroom	4 Classroom	4 Classroom	4 Classroom	MoE/Stakeholders/LA

Ministry of Education in collaboration with LA and other stakeholders to increase the number of furniture (desks) for pupils in all wards by 2034	Procurement of desks (2000)	<ul style="list-style-type: none"> •Quotations •Evaluations •Procurement •Monitoring 	21 Primary Schools and 8 Secondary schools	1200 Desks	200 Desks	200 Desks	200 Desks	200 Desks	MoE/Stakeholders/LA
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Goal: Enhanced resident's access to potable water

Objective										
The LA in conjunction with the commercial utility will increase the number of households with access to clean and safe water supply from 70% to 90% by 2034										
Strategies	Programmes	Activities	Location	Target Year					Responsible department	
				Year 1	Year 2	Year 3	Year 4	Year 5		
The Local Authority in conjunction with the Water utility Company and other stakeholders will increase residents access to safe drinking water from 70% to 90% by 2034	Preparation of water network layout plan	<ul style="list-style-type: none"> •Survey •Public consultation •Plan preparation •Publishing Plan 	<ul style="list-style-type: none"> •Indeco •Soweto •Kapyanika •Kamoba 	1 Plan					LA/CU	
	Upgrade of 3.5km Transmission Mains from 4" to 8"	<ul style="list-style-type: none"> •Survey •Preparation of BOQ •Procurement •Upgrade of water mains 	<ul style="list-style-type: none"> •Mburuma Street •Soweto Junction 		1.5km	1.5km	0.5km			
	Upgrade of water storage facility from 50m ³ to 400m ³	<ul style="list-style-type: none"> •Prepare BOQ •Procurement •Install storage facility 	•LWSC WTP					1 Upgrade		LA/CU
	Water network extension to un-serviced areas	<ul style="list-style-type: none"> •Public consultation •Survey •Plan Preparation •Publishing •Plan 	<ul style="list-style-type: none"> -Dzalo -Kavula -Mandombe 		5km	5km	5km	5km		LA/CU
	Provision of access to piped water	<ul style="list-style-type: none"> •Application for water connection •Prompt BOQ Preparation •Payment for connection •Draw materials •Connect household 	<ul style="list-style-type: none"> - Dzalo - Kavula - Mandombe 						95%	LA/CU
	Installation of alternative power source (solar) at the utility	<ul style="list-style-type: none"> •stakeholder involvement •Survey •Plan Preparation & Publishing •Prepare BOQ •Installation •M & E 	-Dzalo (Boma)				1 Installation			LA/CU
Objective	The Local Authority in conjunction with the Water Utility Company and other stakeholders will increase the percentage of rural residents reporting access to safe drinking water from 80% to 100% by 2034									

Strategies	Programmes	Activities	Location	Target Year					Responsible department
				Year 1	Year 2	Year 3	Year 4	Year 5	
The LA in conjunction with the water utility company will enhance fresh water supply for rural households in 8 wards within 5 years	Construction of piped water scheme with a 50m ³ storage capacity (steel tank)	<ul style="list-style-type: none"> •Surveying •Public consultation •Plan Preparation and Publishing •Prepare BOQ •Procurement •Develop water scheme •Monitoring 	<ul style="list-style-type: none"> •Chikoma •Mphuka •Lunya •Mankhokwe •Kapoche •Kaluluzi •Mwalilia •Chiriwe 	1 scheme	2 schemes	1 scheme			LA/CU Other stakeholders
Goal: Enhanced Water Harvest for Agriculture Activities									
Objective	The Department of Water Resource Development in collaboration with other stakeholders to improve the storage capacity of 20% to 90% by 2034								
Strategies	Programmes	Activities	Location	Target Year					Responsible department
				Year 1	Year 2	Year 3	Year 4	Year 5	
The Department of Water Resource Development in collaboration with other stakeholders to improve the storage capacity of 20% to 90% by 2034	Rehabilitation of three (3) communal dams	<ul style="list-style-type: none"> •Survey •Public consultation •Plan Preparation •Public consultation •Rehabilitate 	Mangelengele			1 Rehabilitation	1 Rehabilitation	1 Rehabilitation	LA and Water Resource Dept
Goal: Improved transport mobility									
Objective	The Local Road Authority in conjunction with other stakeholders to ensure that township and feeder roads are upgraded by 2034								
Strategies	Programmes	Activities	Location	Target Year					Responsible department
				Year 1	Year 2	Year 3	Year 4	Year 5	
The Local Authority will work with RDA to ensure that township and feeder roads are upgraded by 2034	To upgrade 10km of township roads to bituminous paved road standard	<ul style="list-style-type: none"> •Conditional surveys •Budgeting •Procurement •Execution of works •Routine Maintenance 	• CBD AREA	2.5km	2km	2km	2km	1.5km	LA
	Upgrading of 70km earth roads to all weather gravel surfaced roads	<ul style="list-style-type: none"> •Conditional survey •Budgeting •Procurement •Execution 	<ul style="list-style-type: none"> • Mburuma • Kaunga • Kabowo • Mkaliva 	14km	14km	14km	14km	14km	LA
	Construction and routine maintenance of bridges (6)	<ul style="list-style-type: none"> •Conditional survey •Budgeting •Procurement •Execution of works •Routine Maintenance 	<ul style="list-style-type: none"> • Along Kalulu stream (3) • Kabowo • Mphuka • Kaunga 		2 Bridges	2 Bridges	1 Bridge	1 Bridge	LA
	Construction of 50 culverts	<ul style="list-style-type: none"> • Conditional survey • Budgeting • Procurement • Execution of works • Routine Maintenance 	• All wards	10 Culverts	10 Culverts	10 Culverts	10 Culverts	10 Culverts	LA
Goal: Improved accessibility to and within the 17 wards of the district.									
Objective	The LA in conjunction with other stakeholders will enhance the district's accessibility through other means of transport (air) by 2034								
Strategies	Programmes	Activities	Location	Target Year					Responsible department
				Year 1	Year 2	Year 3	Year 4	Year 5	
The LA in conjunction with	Upgrading of Aerodrome	• Conditional survey	-Township		1 Aerodrome	1 Aerodrome			

other stakeholders will improve the district's accessibility through air and water transport by 2034	from earth to bituminous standard	<ul style="list-style-type: none"> • Budgeting • Procurement • Execution of works • Routine Maintenance • Vegetation control • Graveling • marking out • Fencing • Paving 	-Jeki Airstrip						
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Goal: Enhanced access to information

Objective: The Local Authority will work with ZANIS and other stakeholders to enhance access to information in all the 17 wards within 5 years

Strategies	Programmes	Activities	Location	Target Year					Responsible department
				Year 1	Year 2	Year 3	Year 4	Year 5	
The Local Authority will work with other stakeholder to enhance access to information by 90% in all 17 wards in the district within 5 years	Establishment of a community Radio Station	<ul style="list-style-type: none"> • Public consultation • Licence and frequency allocation • Construction • Equipment procurement • Operation Framework • Staff recruitment • Commissioning 	Luangwa District		1 community Radio Station				
	Expansion and upgrade of network infrastructure by erecting 3 communication masts	<ul style="list-style-type: none"> • Strategic Meetings • Community engagement • construction/equipment installation • Monitoring and evaluation • Testing and commissioning 			1 mast	2 masts			
	Promotion of the use of digital platforms i.e. (social media) to improve digital literacy	<ul style="list-style-type: none"> •Community education campaigns •Establish community information centres with internet access •Monitoring and evaluation 		1 Promotion					
	Construction of ZANIS office	<ul style="list-style-type: none"> •Evaluation •Procurement •Construction 					1 ZANIS office		
	Procurement of AV A. Announcer	<ul style="list-style-type: none"> •Evaluations •Procurement 	1 PA System						

Goal: Improved Livestock Production and Productivity Services

Objective: The LA will work with the Ministry of Fisheries and Livestock to reduce livestock lost annually from 12% to 2% by 2034

Strategies	Programmes	Activities	Location	Target Year					Responsible department
				Year 1	Year 2	Year 3	Year 4	Year 5	
The LA will work with the Ministry of Fisheries and Livestock to reduce livestock diseases annually from 12 % to 2% within 5 years	Livestock disease control and surveillance	<ul style="list-style-type: none"> •Routine dipping of animals •Routine sprays using Knapsack sprayers •Permanent disease control •Routine inspections (Ante – mortem and Post – mortem) •Routine vaccinations • Routine foot bathing •Routine hoof trimming •Routine dehorning •Routine castrations 	All wards Luangwa Bridge	12%	10%	8%	6%	2%	One Health District Team, E – SLIP, LIDAHP and other related

		<ul style="list-style-type: none"> •Routine teeth clipping •Routine deworming •Routine traceability •Identification marking 							
Goal: Improved livestock production and Productivity Services									
Objective	The LA will work with the Ministry of Livestock to reduce livestock lost annually from 12% to 2 within 5 years								
Strategies	Programmes	Activities	Location	Target Year					Responsible department
				Year 1	Year 2	Year 3	Year 4	Year 5	
The Department of Livestock in collaboration with other stakeholders will work together to scale-up livestock services from 0.025% to 45% so as to Reduce livestock Lost annually by 2034	Rehabilitation of dip tank (3)	•Rehabilitation of Dip – tanks	•Chiende-ende •Chitope •Kaunga	1 Dip tank		1 Dip tank		1 Dip tank	LA and other Stakeholders
	Construction of a Livestock Service Centre	•Site identification •Stakeholder consultation •procurement •Construction	•Chitope Area		1 Livestock Service Centre				LA and other Stakeholders
Goal: Improved Capture Fisheries and Aquaculture Infrastructure Development									
Objective	The Local Authority will work with the DFLVs to improve Capture Fisheries and Aquaculture Development from 5% to 55% by 2034								
Strategies	Programmes	Activities	Location	Target Year					Responsible department
				Year 1	Year 2	Year 3	Year 4	Year 5	
The LA and the Ministry of Livestock in collaboration with other stakeholders will enhance aqua farming by 20% through aqua farming in 5 wards within 5 years	Aquaculture training	•Identification of farmers •Training	Kaunga	1 Training	1 Training	1 Training	1 Training	1 Training	FD/LA
	Rehabilitation of fish pond	•Inspections •BOQ preparation •Procurement •Rehabilitation works	FTC (Kaunga)		1 Fish Pond				FD/LA
Goal: Sustainable Environment and Natural Resource Management									
Objective	The Department of Forestry will work with other stakeholders to reduce the loss of forest cover from 82ha to 30ha								
Strategies	Programmes	Activities	Location	Target Year					Responsible department
				Year 1	Year 2	Year 3	Year 4	Year 5	
The department of forestry will work with other stakeholders to extend Chitope Plantation to reduce the loss of forest cover from 82ha to 30 by 2034	Tree planting	-Procurement of seedlings -Distribution of seedlings -Planting of seedlings	Chitope forest	10,000 seedlings		8,000 seedlings			Forest Dept/stakeholders
		•Tree planting	Chitope nursery	10 ha		8ha			Forest Dept/stakeholders
The LA in collaboration with FD and other stakeholders will to increase the number	construct one (1) hand pump at Chitope Forest Nursery	•Surveys •forest inventories •Procurement	All wards	1 Pump					FD/stakeholders

of seedlings raised to 10,000 as an annual standard by 2034		•Borehole drilling							
The Department of Forestry will work with other stakeholders to promote adherence to regulations agreed upon on zero tree cutting under community forest by 2034	Establishment of Community Forest Executive Committee	•CF process initiation and awareness raising •Boundary demarcation •Constitution formulation Management planning •CF agreement preparation and signing •Implementation •Strengthening of community forest management groups and capacity building	All Wards	1 Committee					Forest Dept/ Stakeholders
The LA in collaboration with FD and other stakeholders will work to De-gazette 50% of Chitope Local Forest Reserve to legalize settlements and crop fields	De-gazette 50% of Chitope Local Forest	•Identification •Consultation of Stakeholders •Legal and administrative review						De-gazettion 50% of Chitope Local Forest	Forest Dept/ Stakeholders

Goal: Increased Cross Border Trade

Objective	The Department of Pontoons and Mechanical Services will work with other stakeholders to ensure increased border trade carrying capacity to 200 tonnes per trip by 2034								
Strategies	Programmes	Activities	Location	Target Year					Responsible department
				Year 1	Year 2	Year 3	Year 4	Year 5	
The Department of Pontoons and Mechanical Services in conjunction with other stakeholders will ensure increase in carrying capacity from 35 tonnes to 200 tonnes per trip by 2034	Installation of a 60-tonne carrying capacity pontoon	Dismantling of the pontoon Transportation of floaters from Kazungula to Luangwa Assembling of the pontoon Procurement of propulsion units and engines Installation of the propulsion units and engines Commissioning of pontoon	Kazungula Luangwa	1 Pontoon					Department of pontoons & Mechanical Services
	Construction of an all-weather landing bay	Procurement Monitoring commissioning	Luangwa		Landing bay construction				

Goal Reduced Poverty, Vulnerability and Inequalities Through Provision of Social Services and Amenities By 2034

Objective	The Ministry of Community Development and Social Services (MCDSS) in collaboration with stakeholders to reduce the poverty rate from 91.6% to 70% by 2034								
Strategies	Programmes	Activities	Location	Target Year					Responsible Department
				Year 1	Year 2	Year 3	Year 4	Year 5	
The Ministry of Community Development and Social Services (MCDSS) in collaboration with stakeholders to empower poor and Vulnerable Households	Social Cash Transfer	Identification of 5000 new beneficiaries	In all the 44 CWACs	1000 Beneficiaries	1000 Beneficiaries	1000 Beneficiaries	1000 Beneficiaries	1000 Beneficiaries	Social Welfare & Stakeholders
		Community awareness on SCT	In all the 44 CWACs	1 meeting	1meeting	1 meeting	1 meeting	1 meeting	Social Welfare & Stakeholders
		Construct Place of Child Safety at Chitope	Chitope		1 place				Community Development & Stakeholders

The Ministry of Community Development and Social Services (MCDSS) in collaboration with stakeholders to empower poor but viable households in all wards by 2034	Food Security Pack	Identification of 7500 new FSP beneficiaries	All wards & CWACs	1500 beneficiaries	1500 beneficiaries	1500 beneficiaries	1500 beneficiaries	1500 beneficiaries	Community Development & Stakeholders
		Community awareness on Food Security Pack	In all the 44 CWACs	1 meeting	1 meeting	1 meeting	1 meeting	1 meeting	Community Development & Stakeholders
	GEWEL	Create community awareness on SWL	In all 44 CWACs	1 meeting	1 meeting	1 meeting	1 meeting	1 meeting	Community Development
		Identification of 3000 new FSP beneficiaries	In all the CWACs	600 beneficiaries	600 beneficiaries	600 beneficiaries	600 beneficiaries	600 beneficiaries	Community Development

Goal: Capacity of Ward Development Committees enhanced

Objective	The LA to enhance operational capacity of the Ward Development Committees in Local governance in all 17 wards by 2034								
Strategies	Programme	Activities	Location	Target Year					Responsible Department
				Year 1	Year 2	Year 3	Year 4	Year 5	
To enhance capacity of the Ward Development Committees in all wards by 2034	Build Capacity of WDCs on their roles and responsibilities	-Sensitization meetings of WDCs	All Wards	1 Meeting	1 Meeting	1 Meeting	1 Meeting	1 Meeting	LA/Stakeholders
	Construction of Community halls with WDC offices in 15 wards	-Site Identification -Procurement -Construction	Chikoma Mankhokwe Kaluluzi Kaunga Mburuma Katondwe Phwazi Chiriwe Lunya Mandombe Dzalo M'kaliva Kavula Kabowo Mwalilia	3 Community Halls	3 Community Halls	3 Community Halls	3 Community Halls	3 Community Halls	LA

Goal: Improved access to Power Supply in all wards

Objective	The LA will work other stakeholders to ensure access to power supply to 85% within 5 years								
Strategies	Programme	Activities	Location	Target Year					Responsible Department
				Year 1	Year 2	Year 3	Year 4	Year 5	
The LA in conjunction with ZESCO and other stakeholders will ensure connectivity to power supply through the national grid and environmentally friendly alternative power sources by 85% within 5 years	Connection of 2000 households to national grid	-Survey -Mapping -Connection	All wards	400 Households	400 Households	400 Households	400 Households	400 Households	LA, REA and ZESCO
	Construction of a Solar farm in Chitope Area	-Survey -Mapping -Connection	Chikoma Ward			1 Solar farm constructed			LA, REA, ZESCO and other stakeholder

Goal: Enhanced access to tourist destinations

Objectives	The LA will increase access to tourist destinations in all wards to at least 95% by 2034								
Strategies	Programme	Activities	Location	Target Year					Responsible Department
				Year 1	Year 2	Year 3	Year 4	Year 5	
The LA will increase access to tourist destinations in all wards to at least 95% by 2034	Upgrading of 156km to bituminous standard	-Survey -Procurement -Construction	All wards	50km	50km	56km			LA, RDA
	The LA in conjunction	-Survey	Kamoba	1 Airstrip	1 Airstrip				LA, CAA

	with other stakeholders will ensure to upgrade Soweto and Jeki Airstrip	-Procurement -Upgrading	Lower Zambezi						
Goal: Access to waste disposal facilities ensured									
Objective:	The LA will ensure to increase the percentage of households with access to waste management facilities from 20% to 80% in 6 wards by 2034								
Strategies	Programme	Activities	Location	Target Year					Responsible Department
				Year 1	Year 2	Year 3	Year 4	Year 5	
The Local Authority will work to establish a waste disposal facility to reduce the number of communities without access to basic waste management services by 2034	80% of business premises and households to have waste receptacles installed	-Identification of premises -Issuing of Receptacles	6 wards	20%	20%	20%	20%		LA
	Creation of operational dumpsite in township area	-EPB Preperation -EPB approval -Siting -Construction	Township Area		1 dumpsite				LA
Goal: Improved Agricultural Productivity and food security									
Objective	The LA will work with the Ministry of Agriculture to increase crop production by 90% in 6 wards by 2034								
Strategies	Programme	Activities	Location	Target Year					Responsible Department
				Year 1	Year 2	Year 3	Year 4	Year 5	
The LA in collaboration with MoA will increase production from 0.3 tons/Ha to 1.2ton/Ha in 6 wards within 5 years	Subsidised input Support Programs	<ul style="list-style-type: none"> Farmer identifications Farmer trainings and Advisories Farmer input distributions. Farmer payback and recoveries Monitoring and Evaluations 	Across all the wards in the district		1 program	1 program	1 program	1 program	MoA/CDO/LA
The LA in collaboration with MoA will improve agriculture extension services by decreasing the extension officer o farmer ration in 4 wards from 1:750 to 1:500 by 2034	Development of irrigation schemes	<ul style="list-style-type: none"> Identification of Areas Farmer beneficiary identification Farmer trainings and advisories Establishment of committees Establishment of irrigation schemes Monitoring and evaluation	Kavalamanja (Mkaliva ward) Kamoba (Mandombe Ward) Mphuka (Kabowo ward) Lunya (Katondwe ward) Kaunga (Kaunga B ward)		1 scheme	1 scheme	1 scheme	1 scheme	LA/MoA/ DWRD
The LA with MoA will promote Climate resilient irrigation technologies to ensure agricultural productivity on the 14% arable land by 2034	Increasing crop production, productivity and food security	<ul style="list-style-type: none"> Conduct farmer trainings in climate smart crop diversification Conduct farmer trainings in climate smart farm mechanization Conduct farmer trainings in water efficient irrigation Conduct trials demonstrations in drought	Across all the wards in the district	Strategy developed	Strategy implemented	Strategy implemented	Strategy implemented	Strategy implemented	Agriculture Community Development Local Authority

		resistant crops							
Goal: Increased proportion of planned land									
Objective	The LA to work with other stakeholder to increase the proportion of planned area to 30% by 2034								
Strategies	Programme	Activities	Location	Target Year					Responsible Department
				Year 1	Year 2	Year 3	Year 4	Year 5	
The LA in Conjunction with the traditional authorities and other stakeholders will ensure that the planned area is increased from 0.04% to at least 30% by 2034	Signing of a planning agreement with Chief Mphuka and Snr Chief Mburuma (2 agreements)	-Meetings -Mapping -Signing of agreements	Chitope Phwazi Area	1 Agreement		1 Agreement			LA
	Preparation of Local Area Plans (2)	Meetings Mapping Approval of LAPs	Chitope Boma Area		1 LAP		1 LAP		LA

Programme for the Preparation of Local Area Plans and Other Detailed Planning Activities

Local area Plan to be prepared	Location	Comments	Within 5 years	Within 10 years
Luangwa Township urban expansion Local Area Plan	Luangwa Township	LAP to be prepared after entering into a planning agreement with His Royal Highness Chief Mphuka		
New development within the Township	Luangwa Township	LAPs are to be prepared in selected (Soweto, Indeco, Kamoba and Chidada) areas that are not planned but residents have developed. LAPs will also be prepared in areas marked for opening of new developments within the Township.		
Upgrading for settlements within the Township	Luangwa Township	LAPs to be prepared for settlements to be upgraded		
Chitope Area	Snr Chief Mburuma	LAP to be prepared after entering into a planning agreement with His Royal Highness Snr Chief Mburuma		

4.6 Capital Investment Program

Goal: Improved Quality and Access to Maternal Health Care Services								
Objective: The Ministry of Health in conjunction with other stakeholders to provide quality health care requisites in 58% of health care facilities in all wards by 2034.								
Project/ Program	Cost ZMW	Project Output	Estimated Cost per Year					Source of Funding
			Year 1	Year 2	Year 3	Year 4	Year 5	
Construction of 9 maternity wings	18,000,000	9 Maternity wings constructed	2,000,00	4,000,000	4,000,000	4,000,000	4,000,000	GRZ /DONOR
Upgrading of 3 health facilities from Rural Health Centre to Zonal Health Centre	14,683,634.	3 Rural Health Centres upgraded to zonal health Centres		4,894,545.7	4,894,545.7	4,894,545.7		GRZ/ DONOR

Upgrading of 1 health facilities from Health Post to Rural Health Centre	4,469,356.70	1 Health Post Upgraded to Rural Health Centre					4,469,356.70	GRZ/ DONOR
Construction of 2 health centres	8,938,713.40	2 Health Centres constructed		4,469,356.70		4,469,356.70		GRZ/ DONOR
Upgrading of Luangwa district Hospital to Second Level Hospital	20,000,000	One 1st level Hospital upgraded to 2nd level Hospital					20,000,000	GRZ/ DONOR
Expansion of Luangwa District Hospital specialized department/wards (i.e. ICU, Theatre, Gynae, Surgical ward male &female)	20,000,000	4 specialized Departments/ Wards expanded (i.e. ICU, theatre, Gynae, Surgical ward male and female)					20,000,000	GRZ/ DONOR
Construction of Isolation wards	12,000,000	Two isolation wards constructed		6,000,000		6,000,000		GRZ/DONOR
Employment and deployment of Human resource		250 Skilled human resource deployed						GRZ/DONOR
Construction of medical waste disposal facilities (incinerators)	960,000	12 incinerators constructed		240,000	240,000	240,000	240,000	GRZ/DONOR
Construction a Indoor Residue Spraying Base to improve Vector Control	4,469,356.70	One Indoor Residue Spraying base facility constructed		4,469,356.70				GRZ/DONOR

Goal: Improved Access to Quality, Equitable and Inclusive Education

Objective: Ministry of Education, the Local Authority & Other Stakeholders to provide at least 80% of teaching and learning requisites within five years

Project/ Program	Cost ZMW	Project Output	Estimated Cost per Year					Source of Funding
			Year 1	Year 2	Year 3	Year 4	Year 5	
Procurement and Supply subsidized textbooks	1,000,000	Textbooks procured	-	250,000	250,000	250,000	250,000	GRZ, LA, Stakeholders
Upgrading of Water & Sanitation System	2,200,000	Water & Sanitation Facilities Constructed & Installed	-	440,000	440,000	660,000	660,000	GRZ, LA, Stakeholders
Procurement and Supply subsidized textbooks for Students with Disabilities	1, 000, 000	Textbooks for Students with Disabilities procured	-	250,000	250,000	250,000	250,000	GRZ, LA, Stakeholders
Construction of appropriate School infrastructure (Kitchen/Dinning Hall) for Students with Disabilities and Special Needs	1, 200, 000	Appropriate School infrastructure (Kitchen/Dinning Hall) for Students with Disabilities and Special Needs.	-	450,000	750,000			GRZ, LA, Stakeholders

Objective: Ministry Of Education, the Local Authority & Other Stakeholders to Ensure A Teacher Pupil Ratio of 1:58 Primary and 1:38 for Secondary By 2034

Project/ Program	Cost ZMW	Project Output	Estimated Cost per Year					Source of Funding
			Year 1	Year 2	Year 3	Year 4	Year 5	
Recruitment and Deployment of New Teachers	-	New Teachers Recruited and Deployed						GRZ, LA, Stakeholders

Objective: Ministry of Education, the Local Authority & Other Stakeholders to increase the number of housing units for teachers from 50% to 95% by 2034

Project/ Program	Cost ZMW	Project Output	Estimated Cost per Year					Source of Funding
			Year 1	Year 2	Year 3	Year 4	Year 5	

Construction of 16 Staff Houses	8,000,000	Staff Houses Constructed	-	2,000,000	2,000,000	2,000,000	2,000,000	GRZ, LA, Stakeholders
Objective: Ministry of Education, the Local Authority & Other Stakeholders to increase the number of Classroom Space for Pupils from 60% to 90% by 2034								
Project/ Program	Cost ZMW	Project Output	Estimated Cost per Year					Source of Funding
			Year 1	Year 2	Year 3	Year 4	Year 5	
Construction of 16 Additional Classrooms	4,800,000	Additional Classrooms Constructed	-	1,200,000	1,200,000	1,200,000	1,200,000	GRZ, LA, Stakeholders
Objective: Ministry of Education, the Local Authority & Other Stakeholders to increase the number of Furniture (Desks) for Pupils by 2034								
Project/ Program	Cost ZMW	Project Output	Estimated Cost per Year					Source of Funding
			Year 1	Year 2	Year 3	Year 4	Year 5	
Procurement of 1,800 Desks	3,060,000	Desks procured	2,040,000	340,000	340,000	340,000		GRZ, LA, Stakeholders
Goal: Increased Cross Border Trade								
Objective: The department of Pontoons and Mechanical Services will work with other stakeholders to ensure increased border trade Carrying capacity to above 30 tonnes per trip by 2031.								
Project/ Program	Cost ZMW	Project Output	Estimated Cost per Year					Source of Funding
			Year 1	Year 2	Year 3	Year 4	Year 5	
Installation of a 60-tonne carrying capacity pontoon	K5,029,225.20	60-tonne carrying capacity pontoon installed	K1,257,306.30	K1,257,306.30	K1,257,306.30	K1,257,306.30		GRZ
Construction of a all-weather landing bay	K8,310,666.00	All weather landing bay constructed	K2,077,667.00	K2,077,667.00	K2,077,667.00	K2,077,667.00		GRZ
Construction of offices	K 3,500,000.00	Offices constructed	K 875,000.00	K 875,000.00	K 875,000.00	K 875,000.00		GRZ
Goal: Access to Waste Disposal Facilities Ensured								
Objective: The Local Authority in conjunction with other stakeholders will ensure that 60% of residents in the district have access to waste management facilities by2031								
Project/ Program	Cost ZMW	Project Output	Estimated Cost per Year					Source of Funding
			Year 1	Year 2	Year 3	Year 4	Year 5	
Construction of 5 additional refuse bays	K500,000	Refuse bays constructed	100,000	100,000	100,000	100,000	100,000	
Procurement of waste bins and bin liners	K 210,250.00	Waste bins procured	K58, 000	K43, 500	K72, 500	K36250		
Management of drainages	K132,000	Managed drainages	K24, 000	K36, 000	K36, 000	K18, 000	K18, 000	
Clean and health environment program	K80, 000	Routine clean-ups sustained	K16, 000	K16, 000	K16, 000	K16, 000	K16, 000	
Management of indiscriminate waste disposal	K60, 920	Indiscriminate Waste Disposal Managed	K30, 460	K30, 460				

4.4 Monitoring and Evaluation Plan

In order to achieve the aspirations of this Ten-Year Plan, there is need for consented efforts by all the players and stakeholders to ensure that all programs and activities are executed accordingly. In view of this, the tables below show the Monitoring and evaluation matrix per development outcome. However, it should be noted that the M&E plan will be subject to review after five (5) years to ensure to measure targets achieved.

MONITORING AND EVALUATION PLAN										
Strategies	Programmes	Activities	Target Year					Indicator	Source of Information	Frequency
			Year 1	Year 2	Year3	Year 4	Year 5			
HEALTH SECTOR										
Goal: Improved quality and access to Health Care services										
The Ministry of Health in conjunction with other stakeholders to provide quality health care requisites in 58% of health care facilities in all wards by 2034.										
The Ministry of Health and other stakeholders will increase the number of health facilities with Maternity wings in the 9 wards that do not have within five (5) years.	Construction of 9 maternity wings	<ul style="list-style-type: none"> •Surveying •Site- preparation •Review Meetings •Contract Management •Procurements •Construction of maternity wings •Monitoring 	1 Maternity wing	2 Maternity wings	2 Maternity wings	2 Maternity wings	2 Maternity wings	9 Maternity Wings Constructed	MOH/LA	Annually
The Ministry of Health will ensure that health care facilities are equipped with the necessary resources, including equipment supplies in order to provide access and quality services to 99% of residents by 2034	Upgrading of 4 health facilities (3 from Rural Health Centre to Zonal Health Centre and 1 from Health Post to Rural Health Centre)	<ul style="list-style-type: none"> •Surveying •Site- preparation •Review Meetings •Contract Management •Upgrading of health facilities •Monitoring 		1 Health Facility	1 Health Facility	1 Health Facility	1 Health Facility	4 Health facilities upgraded	MOH/LA	Annually
	Expansion of Luangwa District Hospital specialized department/wards (i.e. ICU, theatre, Gynae, male and female Surgical wards)	<ul style="list-style-type: none"> •Site preparation •Review Meetings •Contract management •Construction of specialized departments •Monitoring 	•Luangwa District Hospital					1 Expansion	MOH/LA	Annually

	The LA will work with other stakeholders to construct incinerators in 12 health facilities located in 9 wards within 5 years	<ul style="list-style-type: none"> •Assessment •Contract management •Procurement •Construction •Monitoring 	<ul style="list-style-type: none"> •Kaunga •Chitope •Luangwa Sec •Mphuka •Mandombe •Kavalamanja •Luangwa Boma RHC •Feira Health Post •Luangwa District Hospital •Katondwe Mission Hospital •Kaunga B •Undi 	3	3	3	Incinerators	Incinerator s	Incinerator s	12 Incinerators constructed	MOH/LA	Annually
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The Ministry of Health and other stakeholders will increase the number of health Facilities within (5) years.	Construction of a Health Centre	<ul style="list-style-type: none"> •Surveying •Site- preparation •Review Meetings •Contract Management •Procurements •Construction of maternity wings •Monitoring 		1 Health Facility		1 Health Facility			Health care centre constructed	MOH/LA	Annually
	Upgrading of Luangwa district Hospital to Second Level Hospital	<ul style="list-style-type: none"> •Planning meetings •HPCZ assessment •Procurement of Equipment for Second Level Hospital •Employment of specialized human resources 					1 upgrade		Luangwa district Hospital upgraded	MOH/LA	
	Expansion of Luangwa District Hospital specialized department/wards (i.e. ICU, Theatre, Gynae, Surgical ward male &female	<ul style="list-style-type: none"> •Site preparation •Review Meetings •Contract management •Construction of specialized departments •Monitoring 					once		Luangwa district Hospital expanded to a specialized department/wards (i.e. ICU, Theatre, Gynae, Surgical ward male &female	MOH/LA	Annually
	Construction of Isolation wards	<ul style="list-style-type: none"> •Site preparation •Review Meetings •Contract management •Procurement •Construction of Isolation wards •Monitoring 		1 ward		1 ward			Isolation wards constructed	MOH/LA	Annually
The Ministry of Health in conjunction with other stakeholders will work to ensure high malaria incidence rates are reduced from 259 per thousand population as well as 3.7 per thousand case fertility to zero	Construction a Residue Spraying Base to improve Vector Control	<ul style="list-style-type: none"> •Assessment •Contract management •Procurement •Construction •Monitoring 		once					Residue Spraying Base to improve Vector Control constructed	MOH/LA	Annually
Strategies	Programmes	Activities	Target Year					Indicator	Source of Information	Frequency	
			Year 1	Year 2	Year3	Year 4	Year 5				
EDUCATION SECTOR											
Goal: Improved access to quality, equitable and inclusive education											
Objective: Ministry of Education, the Local Authority & Other Stakeholders to provide at least 80% of teaching and learning requisites within five years.											
Ministry of Education will work with the LA & other Stakeholders to provide at least 80% of teaching and learning requisites within five (5) years.	Supply of subsidized textbooks and other essential learning materials	<ul style="list-style-type: none"> •collection of quotations • Evaluations •Procurement of materials •Monitoring 	1 supply	1 supply	1supply	1 supply	1 supply		subsidized textbooks and other essential learning materials supplied	MoE/LA	Quarterly
Ministry of Education will work with the LA & other Stakeholders to provide Basic Amenities within five (5) years	Upgrading of Water & Sanitation Facilities	<ul style="list-style-type: none"> •Community Engagement Meetings • Survey •Quotations •Evaluations •Procurement of materials •Trainings •Monitoring 	3 Upgrades	2 Upgrades					Water and Sanitation facilities upgraded	MoE/LA	Annually

Ministry of Education will work with the LA and other stakeholders to provide learning requisites for pupils with disabilities in one (1) Special School by 2034	Construction of appropriate School infrastructure for Students with Disabilities and Special Needs	<ul style="list-style-type: none"> •Community Engagements •Survey •Quotations •Evaluations •Procurement of materials •construction •Inclusive Education trainings •Monitoring 	Once	Once	Once	Once	Once	Infrastructure for Students with Disabilities and Special Needs constructed	MoE/LA	Annually
The Ministry of Education will work with the LA and other stakeholders to provide appropriate school infrastructure for pupils with disabilities and Special Needs in 21 primary schools and 8 secondary schools by 2034	Construction of appropriate school infrastructure for Students with Disabilities and Special Needs	<ul style="list-style-type: none"> •Community Engagements •Survey •Quotations •Evaluations •Procurement of materials •construction •Inclusive Education trainings •Monitoring 	1 school Infrastructure	1 school Infrastructure	1 school Infrastructure	1 school Infrastructure	1 school Infrastructure	Infrastructure for pupils with disabilities	MoE/LA	Annually
The Ministry of Education will ensure a teacher pupil ratio of 1:58 for primary and 1:38 for secondary in 21 Primary and 08 Secondary Schools in all the wards by 2034.	Construction of Staff Houses (16)	<ul style="list-style-type: none"> •Community Engagements •Survey •Quotations •Evaluations •Procurement of Materials •Monitoring 		4 Staff Houses	4 Staff Houses	4 Staff Houses	4 Staff Houses	16 Staff Houses constructed	MoE/LA	Annually
	Recruitment and deployment of teachers (255)	<ul style="list-style-type: none"> -Advertisement -Application process -HRMC meetings -Publication of recruited teachers 	55 Teachers	50 Teachers	50 Teachers	50 Teachers	50 Teachers	255 teaches deployed	MoE/LA/PSMD	Annually
Ministry of Education will work with the LA & other Stakeholders to ensure Increase of Classroom Space for Pupils from 60% to 90% by 2034	Construction of Additional Classrooms (16)	<ul style="list-style-type: none"> •Community Engagements •Survey •Quotations •Evaluations •Procurement of Materials •Monitoring 		4 Classrooms	4 Classrooms	4 Classrooms	4 Classrooms	16 additional classrooms constructed	MoE/LA	Annually
Ministry of Education in collaboration with LA and other stakeholders to increase the number of Furniture (Desks) for Pupils by 2034	Procurement of Desks (2000)	<ul style="list-style-type: none"> •Quotations •Evaluations •Procurement •Monitoring 	1200 Desks	200 Desks	200 Desks	200 Desks	200 Desks	2000 desks procured	MoE/LA	Annually
Strategies	Programmes	Activities	Target Year					Indicator	Source of Information	Frequency
			Year 1	Year 2	Year3	Year 4	Year 5			

WATER SUPPLY AND SANITATION
Goal: 100% of resident's have access to potable water

The Local Authority will work with RDA to ensure that Township and Feeder Roads are upgraded by 2034	Upgrading of 70km earth roads to all weather gravel surfaced roads	<ul style="list-style-type: none"> •Conditional survey •Budgeting •Procurement •Execution 	14km	14km	14km	14km	14km	70km earth roads to all weather gravel surfaced roads	LA/RDA	Annually	
	Construction and Routine maintenance of bridges	<ul style="list-style-type: none"> •Conditional survey •Budgeting •Procurement •Execution of works •Routine Maintenance 		Once	Once	Once	Once	Bridges maintained	LA/RDA	Annually	
	Construction of 50 Culverts	<ul style="list-style-type: none"> • Conditional survey • Budgeting • Procurement • Execution of works • Routine Maintenance 	10 Culverts	10 Culverts	10 Culverts	10 Culverts	10 Culverts	50 Culverts constructed	LA/RDA	Quarterly	
The LA in conjunction with other stakeholders will improve the district's accessibility through Air transport by 2034	Upgrading of Aerodrome from earth to bituminous standard (2)	<ul style="list-style-type: none"> • Conditional survey • Budgeting • Procurement • Execution of works • Routine Maintenance • Vegetation control • Graveling • marking out • Fencing • Paving 					1 Aerodrome	1 Aerodrome	Aerodrome upgraded from earth to bituminous standard	CAA/LA	Annually
The Local Authority will work with ZANIS to improve access to information by 90% in all 17 wards in the district within 5 years	Establishment of a community Radio Station	<ul style="list-style-type: none"> • Public consultation • Licence and frequency allocation • Construction • Equipment procurement • Operation Framework • Staff recruitment • Commissioning 						1 Radio Station	Community Radio Station Established	ZANIS/LA	Annually
	Expansion and upgrade of network infrastructure (6)	<ul style="list-style-type: none"> • Strategic Meetings • Community engagement • construction/equipment installation • Monitoring and evaluation • Testing and commissioning 			Once	Once	Once		Network infrastructure upgraded	ZICTA/LA/ZANIS	Annually
	Promotion of the use of digital platforms i.e. (social media) to improve digital literacy	<ul style="list-style-type: none"> •Community education campaigns •Establish community information centres with internet access •Monitoring and evaluation 	1 awareness meeting						use of digital platforms i.e. (social media) to improve digital literacy promoted	ZICTA/LA/ZANIS	Annually

	Construction of ZANIS offices	<ul style="list-style-type: none"> Evaluation Procurement Construction 					1 Office		ZANIS offices constructed	ZICTA/LA/ZANIS	Annually
	Procurement of AVA. Announcer	<ul style="list-style-type: none"> Evaluations procurement 			One Procurement				AVA Announcer Procured	ZICTA/LA/ZANIS	Annually
Strategies	Programmes	Activities	Target Year					Indicator	Source of Information	Frequency	
			Year 1	Year 2	Year 3	Year 4	Year 5				
Fisheries and Livestock Services											
Goal: Improved Livestock Production and Productivity Services in all the Seventeen Wards of Luangwa District											
Objective: The Local Authorities will work with the DFLVs to reduce livestock disease prevalence from 12% to 2% by 2034											
The LA will work with the Ministry of Fisheries and Livestock to reduce Livestock diseases annually from 12% to 2% within 5 years	Livestock Disease Control and Surveillance	<ul style="list-style-type: none"> Routine dipping of animals Routine sprays using Knapsack sprayers Permanent Disease Control Routine Inspections (Ante – mortem & Post – mortem) Routine Vaccinations Routine foot bathing Routine hoof trimming Routine Dehorning Routine Castrations Routine teeth clipping Routine deworming Routine Traceability Identification Marking 	12%	10%	8%	6%	2%		Improved Livestock disease and control surveillance	MoFL/LA	Quarterly
Strategies	Programmes	Activities	Target Year					Indicator	Source of Information	Frequency	
			Year 1	Year 2	Year 3	Year 4	Year 5				
Objective: The LA will work with the Ministry of Livestock to reduce livestock lost annually from 12% to 2 within 5 years											
The Department of Livestock in collaboration with other stakeholders will work together to scale-up livestock services from 0.025% to 45% so as to Reduce livestock Lost annually by 2034	Rehabilitation of Dip tank (4)	<ul style="list-style-type: none"> Rehabilitation of Dip – tanks 	1 Dip tank		1 Dip tank		2 Dip tanks	4 Dip tanks rehabilitated	MoFL/LA	Annually	
	Construction of a Livestock Service Centre	<ul style="list-style-type: none"> Site identification Stakeholder consultation Procurement Construction 		1 Livestock service centre				Livestock Service Centre Constructed	MoFL/LA	Annually	
Objective: The LA will work with the Ministry of livestock to increase aqua-culture production by 20% in 5 wards within 5 years											
The LA and the Ministry of Livestock in collaboration with other stakeholders will enhance aqua farming by 20% through aqua farming in 5 wards within 5 years	Aquaculture training	<ul style="list-style-type: none"> Identification of farmers Training 	1 Training	1 Training	1 Training	1 Training	1 Training	Aquaculture training conducted	MoFL/LA	Quarterly	
	Rehabilitation of Fish Pond	<ul style="list-style-type: none"> Inspections BOQ preparation Procurement Rehabilitation works 		1 Fish Pond				Fish pond rehabilitated	MoFL/LA	Annually	
Strategies	Programmes	Activities	Target Year					Indicator	Source of Information	Frequency	
			Year 1	Year 2	Year 3	Year 4	Year 5				
Forestry Sector											

Objective: The department of forestry will work with other stakeholders to reduce the loss of forest cover from 82ha to 30ha												
The department of forestry will work with other stakeholders to extend Chitope Plantation to reduce	Tree planting exercise	-Procurement of seedlings -Distribution of seedlings	10,000 Seedlings							Forest cover reduced from 82Ha to 30Ha	FD	Annually

the loss of forest cover from			-Planting of seedlings									
The department of forestry will work with other stakeholders to Promote adherence to regulations agreed upon on		Establishment of Community Forest Executive Committee	-Identification of members -Community Forest Executive elections	1 Committee						Community Forest Executive Committees Established	FD	Quarterly
Strategies		Programmes	Activities	Target Year					Indicator	Source of Information	Frequency	
				Year 1	Year 2	Year 3	Year 4	Year 5				

Objective: Forestry Department will work with other stakeholders will recruit 20 Honorary Forest Officers to Improve Management of Chitope Local Forest Reserve No. 218 starting the year 2025

The LA in collaboration with FD and other stakeholders recruit 20 Honorary Forest Officers		Recruitment of Forest officers	Recruitment advert Recruitment		1 Recruitment					20 Forest officers recruited	FD	Annually
The LA in collaboration with FD and other stakeholders will work to De-gazette 50% of Chitope Local Forest Reserve to legalize settlements and crop fields established in the Forest		De-gazettation of 50% of the Chitope Local Forest	-Identification -Consultation of Stakeholders -Legal and administrative review -Approval Process						Degazettin g exercise	50% of Chitope local forest Degazzetted	FD	Annually

The Forest department working with other stakeholders enhance forest management by 50% by within 5 years

The LA in collaboration with FD and other stakeholders will Construct 1 Hand pump at Chitope Forest Nursery to		Construction of Borehole hand pump	-Survey -Procurement -Construction			1 hand pump	1 hand pump	1 hand pump		Borehole constructed	FD	Quarterly
Strategies		Programmes	Activities	Target Year					Indicator	Source of Information	Frequency	
				Year 1	Year 2	Year 3	Year 4	Year 5				

Tourism and Wildlife Development

The LA in conjunction with DNPW and other stakeholders to reduce the number of incidence reports by 90% within 5 years

The LA in conjunction with DNPW and other stakeholders to enhance incidence reaction time by 95% within 5 years		Human Wildlife conflict Management	-Awareness campaigns -Stakeholder engagement -Recruitment of community scouts -Rapid Response to HWC reports -Distribution of animal repellents to farmers, e.g. Fireworks, Chilli spray etc -Relocation of Encroached people from primary hunting blocks -Wild animal corridors identified			25% Incidence reduction	19% Incidence reduction			38% incidence reduction	13% Incidence reduction	Number of Human animal conflict incident reports reduced by 95%	DNPW	Annually
Strategies		Programmes	Activities	Target Year					Indicator	Source of Information	Frequency			
				Year 1	Year 2	Year 3	Year 4	Year 5						

DNPW in collaboration with other stakeholder will establish a Game Management Plan within 3 years

To develop Rufunsa Game Management Plan		Establishment of a Game Management Plan	Community engagements Stakeholder engagement Survey and mapping		1 Plan				Game management plan established	DNPW	Annually
Strategies		Programmes	Activities	Target Year				Indicator	Source of	Frequency	

			Year 1	Year 2	Year 3	Year 4	Year 5		Information		
Trade and Commerce											
Goal: Increased Cross Border Trade											
Objective: The Local Authority will work with other stakeholders to ensure increased cross border trade carrying capacity above 35 ton per trip by 2034											
The Local Authority in conjunction with other stakeholders will ensure increase in carrying capacity from 35 tons to at least 60 tons per trip by 2034	Installation of a 60-tonne carrying capacity pontoon	Dismantling of the pontoon Transportation of floaters from Kazungula to Luangwa Assembling of the pontoon Procurement of propulsion units and engines Installation of the propulsion units and engines Commissioning of pontoon		1 Pontoon					60 tone carrying capacity pontoon operational	MoTL	Annually
	Construction of an all-weather landing bay	Procurement Monitoring commissioning		1 landing bay					All weather landing bay constructed	MoTL/LA	Annually
Strategies	Programmes	Activities	Target Year					Indicator	Source of Information	Frequency	
			Year 1	Year 2	Year 3	Year 4	Year 5				
Good Governance											
The LA to enhance operational capacity of the Ward Development Committees in Local governance in all 17 wards by 2034											
To enhance capacity of the Ward Development Committees in all wards by 2034	Capacity Building of WDCs on their roles and responsibilities	-Sensitization meetings of WDCs	3 meetings	3 meetings	3 meeting	3 meeting	3 meetings	WDCs Capacity built	LA	Quarterly	
	Construction of Community halls with WDC offices in 15 wards	-Site Identification -Procurement -Construction		4 community halls	2 community halls	5 community halls	4 community halls	WDC offices constructed	LA	Quarterly	
	Procurement of transport Motorbikes (17)		3 Bikes	3 Bikes	3 Bikes	3 Bikes	5 Bikes	Motorbikes for WDCs procured	LA	Annually	
Strategies	Programmes	Activities	Target Year					Indicator	Source of Information	Frequency	
			Year 1	Year 2	Year 3	Year 4	Year 5				
Solid Waste Management											
Goal: Access to Waste Disposal Facilities Ensured											
Objective: The Local Authority will ensure to increase the percentage of households with access to waste collection services from 20% to 80% in Chitope growth node by 2034											
The Local Authority will work to establish a waste disposal facility to reduce the number of communities without access to basic waste management services by 2034.	Construction of refuse bays	<ul style="list-style-type: none"> Stakeholders meeting Site visitation Budgeting Procurement of materials implementation 		5 refuse bays	3 refuse bays	5 refuse bays	4 refuse bays	17 Refuse bays constructed	LA	Annually	
	Procurement of 185 waste bins	<ul style="list-style-type: none"> Identification of service points budgeting procurement 	40 waste bins	30 waste bins	50 waste bins	25 waste bins	40 waste bins	185 waste bins procured	LA	Annually	
		<ul style="list-style-type: none"> Identification of drainages Budgeting 									

	Management of drainages	Contracting workers	4 times	4 times	4 times	4 times	4 times	Drainages managed	LA	Quarterly
	Clean and health environment awareness program	<ul style="list-style-type: none"> Stakeholder engagements Routine Clean ups (keep Zambia Clean) Budgeting Procurement sensitisation Implementation 	52 KZC campaigns	52 KZC campaigns	52 KZC campaigns	52 KZC campaigns	52 KZC campaigns	Keep Zambia clean and healthy programmes conducted	LA	Monthly
Strategies	Programmes	Activities	Target Year					Indicator	Source of Information	Frequency
			Year 1	Year 2	Year 3	Year 4	Year 5			
Objective: The Local Authority will ensure to increase the percentage of households with access to waste collection services from 20% to 80% in Chitope growth node by 2034										
The LA will ensure that 80% of households and business premises have waste receptacles installed on their premises within 2 years to discourage indiscriminate waste disposal	Management of indiscriminate waste disposal	<ul style="list-style-type: none"> Stakeholder engagement Sensitisation & awareness Follow-up inspections Distribution of waste bins and liners at a fee	Strategy being implemented	Strategy being implemented	Strategy being implemented	Strategy being implemented	Strategy being implemented	Indiscriminate waste disposal managed	LA	Monthly
Strategies	Programmes	Activities	Target Year					Indicator	Source of Information	Frequency
			Year 1	Year 2	Year 3	Year 4	Year 5			
Agriculture Sector										
Goal: Improved agricultural productivity and food security										
The LA will work with the Ministry of Agriculture to increase crop production by 90% in 6 wards by 2034										
The LA in collaboration with the Ministry of Agriculture will increase production from 0.3 tons per ha to 1.2 ton per hecter in 6 wards in 5 years.	Subsidized input Support Programs	<ul style="list-style-type: none"> Farmer identifications Farmer trainings and Advisories Farmer input distributions. Farmer payback and recoveries Monitoring and Evaluations 	Strategy developed	Strategy being implemented	Strategy being implemented	Strategy being implemented	Strategy being implemented	Subsidized Input Support implemented	MoA	Annually
The LA with the Ministry of Agriculture will Promote climate-resilient irrigation technologies to ensure agricultural productivity on the 14% arable land.	Development of irrigation schemes	<ul style="list-style-type: none"> Identification of Areas Farmer beneficiary identification Farmer trainings and advisories Establishment of committees Establishment of irrigation schemes Monitoring and evaluation 	1 irrigation scheme developed	1 irrigation scheme developed	1 irrigation scheme developed	1 irrigation scheme developed	1 irrigation scheme developed	5 Mini-irrigation Schemes developed	MoA	Annually

The LA in collaboration with the Ministry of Agriculture will improve agriculture extension services by decreasing the extension officer to farmer ratio in 4 wards from 1:750 to 1:500 by 2034	Increasing crop production, productivity and food security	<ul style="list-style-type: none"> Conduct farmer trainings in climate smart crop diversification Conduct farmer trainings in climate smart farm mechanization Conduct farmer trainings in water efficient irrigation Conduct trials demonstrations in drought resistant crops	Strategy developed	Strategy being implemented	Strategy being implemented	Strategy being implemented	Strategy being implemented	Crop production increased by 50%	MoA	Quarterly
The department of agriculture in collaboration with other stakeholders and partner will promote crop value chain market linkages to 90% of the farmer	Agricultural crop market access, value chain development and farmer linkages	<ul style="list-style-type: none"> Sensitization of crop farmers on value chain Facilitation of the building of crop productive linkages and alliances	Strategy developed	Strategy being implemented	Strategy being implemented	Strategy being implemented	Strategy being implemented	Agricultural market access and Value chain Developed		
The department of agriculture in collaboration with other stakeholders and partner will promote climate smart agricultural diversification	Enhancing crop early warning management system	<ul style="list-style-type: none"> Production of tailor made monthly weather forecasts and advisories Conduct routine crop pest and disease monitoring and surveillance 	Once	Strategy being implemented	Strategy being implemented	Strategy being implemented	Strategy being implemented	Early warning system management enhanced	MoA	Annually
The department of agriculture in collaboration with other stakeholders and partner will promote diversification	Development and Scaling of Banana Plantations	<ul style="list-style-type: none"> Community sensitizations and beneficiary identification Land Identification and surveillance Farmer trainings and Demonstrations 			40 Hectares	30 Hectares	30 Hectares	Banana plantation scaled up by 100 Ha	MoA	Annually
	Establishment of a banana bulking centre	<ul style="list-style-type: none"> Community sensitizations and beneficiary identification Land Identification Procurement Construction 					1 Centre	Banana Bulking centre constructed	MoA	Annually
Strategies	Programmes	Activities	Target Year					Indicator	Source of Information	Frequency
			Year 1	Year 2	Year 3	Year 4	Year 5			
SOCIAL PROTECTION										
The Ministry of Community Development and Social Services (MCDSS) in collaboration with stakeholders to uplift at least 80% of poor & Vulnerable Households in the district by 2034										
The Ministry of Community Development and Social Services (MCDSS) in collaboration with stakeholders to empower poor & Vulnerable Households	Social Cash Transfer	Identification of 5000 new beneficiaries	1000 Beneficiaries	1000 beneficiaries	1000 Beneficiaries	1000 Beneficiaries	1000 Beneficiaries	5000 beneficiaries added to SCT	MCDSP	Annually
		Community awareness on SCT	1 Meeting	1 Meeting	1 Meeting	1 Meeting	1 Meeting	Community awareness conducted	MCDSP	Annually
	SCT	Construct Place of Child Safety at Chitope						Child safety places constructed	MCDSP	Annually
The Ministry of Community Development and Social Services (MCDSS) in collaboration with	Food Security Pack	Identification of 7500 new FSP beneficiaries	1500 beneficiaries	1500 beneficiaries	1500 beneficiaries	1500 beneficiaries	1500 beneficiaries	7500 poor households empowered	MCDSP	Annually

stakeholders to empower poor but viable households in all wards by		Community awareness on Food Security Pack	1 Meeting	1 Meeting	1 Meeting	1 Meeting	1 Meeting	Annual meetings held	MCDSP	Annually
The Ministry of Community Development and Social Services (MCDSS) in collaboration with stakeholders to empower poor but viable households in all wards by	GEWEL	Create community awareness on SWL	1 Meeting	1 Meeting	1 Meeting	1 Meeting	1 Meeting	Awareness on SWL created	MCDSP	Annually
		Identification of 3000 new FSP beneficiaries	600 beneficiaries	600 beneficiaries	600 beneficiaries	600 beneficiaries	600 beneficiaries	3000 new FSP beneficiaries identified	MCDSP	Annually
Power supply and energy										
The LA will work other stakeholders to ensure access to power supply to 85% within 5 years										
Strategies	Programmes	Activities	Target Year					Indicator	Source of Information	Frequency
			Year 1	Year 2	Year 3	Year 4	Year 5			
The LA in conjunction with ZESCO and other stakeholders will ensure connectivity to power supply through the national grid and environmentally friendly alternative power sources by 85% within 5 years	Connection of 2000 households to national grid	-Survey -Mapping -Connection	400 households	400 households	400 households	400 households	400 households	2000 households connected	LA, REA and ZESCO	Annually
	Construction of a Solar farm in Chitope Area	-Survey -Mapping -Connection			1 Solar farm constructed			Solar farm constructed	LA, REA, ZESCO and other stakeholder	Annually
Tourism										
The LA will increase access to tourist destinations in all wards to at least 95% by 2034										
Strategies	Programmes	Activities	Target Year					Indicator	Source of Information	Frequency
			Year 1	Year 2	Year 3	Year 4	Year 5			
The LA will increase access to tourist destinations in all wards to at least 95% by 2034	Upgrading of 156km to bituminous standard	-Survey -Procurement -Construction	All wards	50km	50km	56km		156Km upgraded to bituminous standard	156km to bituminous standard	Annually
	The LA in conjunction with other stakeholders will ensure to upgrade Soweto and Jeki Airstrip	-Survey -Procurement -Upgrading	Kamoba Lower Zambezi	1 Airstrip	1 Airstrip			Soweto and Jeki Airstrip upgraded	Soweto and Jeki Airstrip	Annually
Agriculture										
The LA will work with the Ministry of Agriculture to increase crop production by 90% in 6 wards by 2034										
Strategies	Programmes	Activities	Year 1	Year 2	Year 3	Year 4	Year 5	Indicator	Source of Information	Frequency
The LA in collaboration with MoA will increase production from 0.3 tons/Ha to 1.2ton/Ha in 6 wards within 5 years	Subsidised input Support Programs	-Farmer identifications -Farmer trainings and Advisories -Farmer input distributions. -Farmer payback and recoveries -Monitoring and Evaluations		Once	Once	Once	Once	1.2ton/Ha attained	MoA/LA	Annually
The LA in collaboration with MoA will improve agriculture extension services by decreasing the extension officer o farmer ration in 4 wards from 1:750 to 1:500 by 2034	Development of irrigation schemes	-Identification of Areas -Farmer beneficiary identification -Farmer trainings and advisories -Establishment of committees -Establishment of irrigation schemes Monitoring and evaluation		Once	Once	Once	Once	1:500 extension – farmer ratio achieved	MoA/LA	Annually

The LA with MoA will promote Climate resilient irrigation technologies to ensure agricultural productivity on the 14% arable land by 2034	Increasing crop production, productivity and food security	-Conduct farmer trainings in climate smart crop diversification -Conduct farmer trainings in climate smart farm mechanization -Conduct farmer trainings in water efficient irrigation -Conduct trials demonstrations in drought resistant crops	Strategy developed	Strategy being implemented	Strategy being implemented	Strategy being implemented	Strategy being implemented	Climate resilient irrigation technologies to ensure agricultural productivity on the 14% arable land attained	MoA/LA	Annually
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Land Administration/Spatial Planning

The LA to work with other stakeholder to increase the proportion of planned area to 30% by 2034

Strategies	Programmes	Activities	Target Year					Indicator	Source of Information	Frequency
			Year 1	Year 2	Year 3	Year 4	Year 5			
The LA in Conjunction with the traditional authorities and other stakeholders will ensure that the planned area is increased from 0.04% to at least 30% by 2034	Signing of a planning agreement with Chief Mphuka and Snr Chief Mburuma (2)	-Meetings -Mapping -Signing of agreements	1 Agreement		1 Agreement			2 planning agreements signed	LA	Annually
	Preparation of Local Area Plans (2)	Meetings Mapping Approval of LAPs		1 LAP		1 LAP		2 local area plans developed	LA	Annually



PART FIVE

CONCLUSION

PART FIVE: CONCLUSION

5.0 Conclusion

The preparation of the Luangwa Integrated Development Plan sets a clear pathway toward achieving the vision of becoming a leading trade, transit, and tourist destination, driving socio-economic development of the district thereby creating a thriving urban area where trade and economic activities are at the heart of development. The creation of the integrated development Plan also took into account the strategic location of Luangwa being a border town with Mozambique and Zimbabwe thus strategically positioning it as a transit route for goods and merchandise. In accordance with the history of Luangwa Town, it was first established as a trading post and this has been incorporated in the overall Vision of the district thereby promoting and maintaining the Cultural fabric of the community.

The strategy is to join the proposed and existing developments while expanding the existing roads and connecting them to the new ones to enhance connectivity which will consequently boost economic growth. By prioritizing road connectivity, fostering economic growth, and ensuring environmental sustainability, the plan lays the foundation for a prosperous and resilient future. Through strategic partnerships, infrastructure development, and responsible resource management.

The IDP preparation also envisioned Environmental sustainability being at the forefront of development; by focusing on the promotion of clean energy generation in Mwavi area of Chikoma Ward under his Royal Highness Senior Chief Mburuma, thereby being earmarked as green energy generation zones for Solar Farms within the district. Further the IDP preparation looked considered the preservation of economic resources such as forests, wetlands and the Lower Zambezi National Park and Rufunsa GMA. Overtime Luangwa district has experienced High human-animal conflict incidence reports of at least 490 annually and so the IDP preparation was used a strategic tool to combat Human animal conflict by promoting human animal coexistence through the preservation of animal corridors and discouraging the development of any human infrastructure along the aforementioned.

The District is therefore well-positioned to realize its potential as a hub of commerce, transit, and tourism, benefiting both its residents and the broader economy. This can be achieved through strategic partnerships, infrastructure development, and responsible resource management.

ANNEXES

Annex 1: Constituency Development Fund Project Proposals from Ward Development Committees

SN	WARD	Development Sector	PROJECT
Constituency Projects		Skills Development	Construction of a skills trades centre in Soweto Area
		Communications	Construction of a constituency Radio station
		Governance	Construction of Ward Development Committee offices in all wards and equipping with ICT
1.	MBURUMA	Education	Rehabilitation of Teachers Houses at Mwavi Primary School
2.		Education	Construction of a Pre-School in M'membe/Nyausanka Village
3.		Health	Construction of Health Care Post M'membe/Nyausanka Village
4.		Health	Construction of a Maternity Wing at Mangelen-Ngele health post
5.		Water Supply	12 Boreholes for All the Villages
6.		Commerce	Market Shelter at Chilimanga
7.		Education	Construction of Staff House at M'embe ECE
8.		Health	Construction of Staff Houses at Mangelengele Health Post
9.		ROADS	Installation of box culverts at 3 crossing points
10.		Roads	Construction of 900 Dia ring culverts at 5 points
11.		Education	Construction of A 1 X 2 Classroom Block At ECE-Mangelengele
12.	KAVULA	Transport	Purchase of a Boat Engine
13.		Education	Construction of a primary School
14.		Social Services	Construction of Bus Station at Soweto
15.		Roads	Construction of 900 Dia ring culverts at 8 points
16.		Education	Procurement of Laboratory Stools at Feira Day Secondary School (300)
17.		Social Services	Construction of a Community Hall in Soweto
18.		Water Supply	Construction of a Water Scheme in Kanyenze Village
19.		Water Supply	Extension of Water Connections in Soweto Area
20.		Education	Construction of an Ablution block at Feira Secondary School
21.		KABOWO	Education
22.	Social Service		Construction of A Community Hall at Janeiro
23.	Health		Construction of Primary Health Centre in Chimusau
24.			Construction of Primary Health Centre Across Rufunsa Stream
25.	Road Network		Construction of a Bridge at Janeiro (Foot Bridge)
26.	Health		Rehabilitation of Health Post in Janeiro?
27.	Roads		Construction of a bridge connecting kabowo and chankhasi (to help transport farm produce)
28.	Education		Construction of an ablution block at Janiero Primary school
29.	Education		Construction of an ablution block at Janiero school
30.	Education		Construction of Staff Houses at Chankhasi Primary School

31.		Health	Construction of an ablution block at Janiero health
32.		Education	Construction of a 1x1 pre-School Classroom at Janeiro Primary
33.	KAUNGA	Education	Construction of 3 Staff Houses at Kaunga Primary School
34.		Education	Construction of a 1x3 Classroom Block at Kaunga B Primary School
35.		Education	Construction of a Semi-Detached Staff House at Kaunga B Primary School
36.		Water Supply	Drilling Of Three Boreholes in Sipopa, Mpona and Balakasu Villages
37.		Roads	Construction of a single box culvert
38.		Health	Construction of a Health Post at Kaunga B
39.		Social Service	Construction of a Community Hall at Chibela
40.	M'KALIVA	Electricity & Water	Equipping Reticulation System of Village Borehole at Kavalamanja
41.		Water & Sanitation	Replacement Of Water Tank (Capacity Of 10,000) Litres
42.		Education	Construction Of Semi-Detached Houses at Chilombwe Primary School
43.		Education	Rehabilitation Of Classroom Blocks at Chilombwe Primary School
44.		Commerce	Construction of a Market Shelter of Kavalamanja
45.		Education	Construction of Ablution Block at Chilombwe Primary School
46.		Roads	Construction of box culverts at 8 crossing points along the Kavalamanja road
47.		Security	Construction of Police Post in Kavalamanja
48.		Health	Construction of a Semidetached house at the clinic
49.		Health	Solar Wire Fence at Kavalamanja Rural Health Center
50.		Commerce	Construction of a Market Shelter at Kavalamaja
51.	LUNYA	Health	Construction of Water Borne Toilets at Luangwa High School Rural Health Center
52.		Health	Construction Of Clinic at Kalima Ng'ombe Village
53.		Education	Construction of Water Borne Toilets for Boys at Luangwa Secondary School
54.		Education	Completion of 1x3 Classroom Block and One Staff House at Chilukusha Primary School
55.		Education	Connection of Water Reticulation System at Luangwa Secondary School
56.		Roads	Grading of community roads
57.		Commerce	Construction of a Market Shelter
58.	MANKHOKWE	Education	Construction of 2 Staff House with Piped Water Mankhokwe Primary School
59.		Education	Construction of Ablution Blocks at Mankhokwe Primary School

60.		Education	Construction of 1x3 Classroom Block, Ablution Block and Staff House at Simakanda Village
61.		Roads and Transport	Construction of Drainages in Mankhokwe Area
62.		Health	Construction of a Staff House at Sinyawagora Health Post
63.		Education	Drilling of Borehole, Tank and Septic Tank at Mankhokwe Primary School
64.		Roads	Installation of two 900 dia ring culverts on the Chafukula road
65.		Commerce	Construction of a modern market at Manuele Village (A Simple Market Shelter)
66.		Social Service	Rehabilitation of Infrastructure and Construction of Ablution Block at Maozeka Check point
67.	MPHUKA	Agriculture	Rehabilitation of NAMBOARD Shed in Yapite Farm Block
68.		Health	Rehabilitation of Maternity Ward at Mphuka Rural Health Centre
69.		Health	Construction of Staff houses at Mphuka Clinic
70.		Social Services	Construction of a Community Hall at Mphuka
71.		Health	Construction of a maternity wing at Mphuka Clinic
72.		Energy	Connection of Electricity at Chimutengo Primary School
73.		Water Supply	Construction of Water Scheme in Mphuka and Yapite Settlement
74.		Health	Incinerator at Mphuka Rural Health Centre
75.		Security	Construction of staff houses and Police Post Mphuka
76.			
77.		Sanitation	Drilling and equipping of solar powered boreholes
78.	KAPOCHE	Road Network	Speed Hump at Lufasi Village
79.		Education	Rehabilitation of Staff House at Kapoche Primary School
80.		Education	Construction of 1x3 Classroom Block at Kapoche Special School
81.		Education	Construction of Ablution Block for Boys and Girls Kapoche Secondary School
82.		Education	Construction a 1x2 Science Laboratory at Kapoche Secondary School
83.		Commerce	Construction of a Market Shelter in Timanimoto Area
84.		Social Services	Construction of a Community Hall at Timanimoto
85.		Education	Completion PTA Administration Block at Kapoche Secondary School
86.		Agriculture	Purchase of Solar Wire for Fencing of Fields
87.		Roads	Rehabilitation of road leading to gardens
88.	Roads	Installation of 900 dia ring culverts at 5 points	
89.	PHWAZI	Health	Rehabilitation of Mphata Primary Health Care
90.		Health	Rehabilitation of Kakaro Primary Health Care
91.		Health	Construction of Staff Houses at Mandombe Health Centre
92.		Commerce	Construction of a Market Shelter at Fungulan
93.		Roads	Construction of a drainage into Phwazi stream from D145
94.		Roads and Transport	Construction of a Cross Bridge at Chiendende
95.		Education	Construction of a Pre-School at Mphata
96.		Water Supply	Upgrading of Existing Borehole to a Water Reticulation System

97.		Agriculture	Purchase of Solar Wire for Fencing of Fields at Kakaro
98.		Education	Construction of a Dormitory for Girls & Boys at Kakaro Secondary School
99.		Social Services	Rehabilitation of Community Hall in Chiendende
100.	KATONDWE	Water Supply	Water Tank & Submersible Pump at Katondwe Primary School
101.		Education	Construction of a Water Borne Toilet at Katondwe Primary School
102.		Education	Construction of 1x3 Classroom Block, Ablution Block and Staff House at Zalapango
103.		Roads	Installation of culverts at 2 points
104.		Social Services	Rehabilitation And Expansion of Community Hall at Siyawakonza Village
105.		Energy	Connection of Electricity at Siyawakonza Market
106.		Water Supply	Upgrading of a Hand Piped Water to Piped Water at Limbokani Village
107.		Education	Construction of 1x3 Classroom Block at Katondwe Primary School
108.	DZALO	Social Service	Construction of a recreation centre
109.		Health	Construction of a Maternity Wing at Boma Clinic
110.		Social Service	Construction of a Modern Market
111.		Security	Construction of a Female Cell and Rehabilitation of Existing Cells at Luangwa Police Station
112.		Roads	Installation of box culverts at 6 points
113.		Roads	Installation of 900 dia-ring culverts at 10 points
114.		Commerce	Construction of Ablution Blocks at Dzalo Market
115.		Commerce	Construction of Ablution Blocks at The Harbour
116.		Health	Construction of Ablution block and incinerator
117.		Education	Construction of a Staff and Pupils Ablution Block at Luangwa Primary School
118.	Road Network	Procuring of Road Construction Equipment (Grader, Tipper Truck, TLB, Compactor, Excavator)	
119.	MANDOMBE	Water & Sanitation	Connection of Water Pipes in Kapyanika Village
120.		Water & Sanitation	Connection of Water Pipes Kamoba Village
121.		Water Supply/Agriculture	Procurement of Solar Wire and Irrigation System in Kapyanika
122.		Social Services	Construction of a Bus Shelter at Luangwa District Hospital Turn off
123.		Social Services	Construction of a Community Hall at Kapyanika Village
124.		Education	Construction of Ablution block at Mandombe Primary School
125.		Health	Construction of Mother's shelter at Luangwa District health Hospital

126.		Education	Construction of 2 Staff House at Mandombe Primary School
127.		Water Supply	Construction of a water scheme Kamoba to Kapyanika
128.	KALULUZI	Social Service	Rehabilitation of Chibela Market
129.		Education	Upgrading of Existing Boreholes at Kaunga a Primary School
130.		Health	Rehabilitation of Chibela, Mukando and Mulamba PHC
131.		Education	Water Reticulation at Kaunga Primary and Mukando Ece
132.		Health	Construction of Maternity Wing at Kaunga Health Post
133.		Education	Construction of a 1x4 Classroom Block and Administration Block at Kaunga Secondary School
134.		Education	Construction of 1x3 Classroom Block, Ablution Block and Staff House at Mkando
135.		Agriculture	Rehabilitation Of FTC Infrastructure At JICA
136.		Education	Construction of a School at Mukando Village
137.		Roads	Installation of 900 dia culverts on 10 points
138.		Roads	Installation of box culverts at 2 points
139.	CHIRIWE	Education	Completion Of Staff Houses at Chiriwe Primary School and Kaluluzi Primary School
140.		Health	Construction of a Health Post, Ablution Block and Staff House at Undi
141.		Education	Construction of a Staff House at Undi Health Post (at Chiriwe Primary School)
142.		Health	Water Reticulation System at UNDI Health Post
143.		Socio Services	Construction of a Market at Undi Village
144.	MWALILIA	Health	Incinerator at Kasinsa Health Post
145.		Health	Construction of Staff Houses at Kasinsa Health Post
146.		Education	Construction of a 1x2 Classroom Block at Mwalilia Primary School
147.		Water Supply	Upgrading of Existing Borehole to a Water Reticulation System
148.		Education	Construction of a Semi-Detached Staff House at Mwalilia Primary School
149.		Education	Construction of Staff Houses at Mwalilia Primary School
150.	CHIKOMA	Water And Sanitation	Completion of Boys Dormitory and Ablution Block at Mwavi Secondary
151.		Education	Construction of a School Hall at Mwavi Secondary
152.		Education	Construction of 1x 4 Class Room Block – Nkwazi Primary at Manyenda Village Chitope

153.		Health	Renovation of the Clinic and Construction of A Maternity Wing at Chitope Clinic
154.		Roads	Installation of 900 dia ring culverts on 7 points
155.		Roads	Installation of box culverts on 2 points
156.		Education	Renovation of Mwavi Secondary School (Dormitories and Ablution Blocks and construction of 1x6 classroom block
157.		Education	Construction of a pre-school in Lembani Village
158.		Health	Construction of CHALUNDANGAME Clinic
159.		Social Services	Construction of Bus Shelter
160.		Education	Construction of a water scheme in Chitope Area to Mwavi Primary School
161.		Commerce	Construction of Market Shelter and Ablution Block at Chitope market

ANNEX 2

Annex 2: People that were instrumental to the success of the Luangwa Integrated Development Plan

NAME	INSTITUTION	POSITION	DEPARTMENT
1) Emmanuel Nyoni	Council	Director Planning	Planning
2) Makatale Esther	Council	Environmental Planner	Planning
3) Allan Simunza	Council	Land surveyor	Planning
4) Benjamin phiri	Agriculture	Senior Agriculture Officer (SAO)	Agriculture
5) Mr Mwale	Health	Planner	
6) Bornface Tembo			
7) Sharon Luhamba			
8) Chalwe Moore	Council	Systems Analyst	Accounts
9) Victor C Mutila	Council	DACA	Planning
10) Getrude Muchimba	National Registration	Ag. Registrar	National Registration
11) Bornwell Hankolwe	Fisheries and Livestock	Director Fisheries	Fisheries
12) Chongo Phuta	DNPW	Area Warden	DNPW
13) Noah Phiri	Water Resources		Water Resources