LUNGA INTEGRATED DEVELOPMENT PLAN

(2024-2034)

"A Self-sustained District anchored on Agriculture and Aqua Culture"

FOREWORD

First and foremost I applaud the parliament of the great Republic of Zambia for enacting the Urban and Regional Planning Act No.3 of 2015 into law, as well as the Minister of Local Government and Rural Development for launching the Integrated Development Planning Guidelines of 2019 as it puts all local authorities in Zambia on the trajectory of preparing Integrated Development Plans as primary tools to operationalize the Eighth National Development Plan (8NDP 2022-2026) and other future National Development Plans at local level..

From the experience earned in different participatory planning processes and approaches, Integrated Development Planning cannot be achieved in a piecemeal manner as it involves addressing mult-sectoral goals and objectives drawn from plans and policies of higher order to mention the Constitution of the republic of Zambia amendment Act No. 2 of 2016, Vision 2030, the Eighth National Development Plan (8NDP 2022-2026) and the National Decentralisation Policy of 2013 in line with government priorities. Hence there is need to embrace all government and private actors in the development process to guide results-based development programmes and projects during implementation (2024 -2033) of the Lunga Integrated Development Plan.

Being a principal strategic planning instrument which gives an overall framework for development within the local authority area and guide and inform planning, budgeting, management and decision-making by all sectors in the local authority area as it places a greater emphasis on the integration of socio-economic planning and spatial planning, it is our sincere hope as a district that the Lunga Integrated Development Plan will bring about a myriad of benefits(help to make more effective and efficient use of scarce resources, help to maximise the returns from investment, help to speed up service delivery, help to attract additional funds , help to strengthen democracy and, hence, institutional transformation , promotes inter-governmental coordination) to Lunga district during and after its implementation.

Steven Chakolwa
Council Chairperson
LUNGA TOWN COUNCIL

EXECUTIVE SUMMARY

The Integrated Development Plan is the principle strategic planning tool responsible for fostering development in Lunga District. The document is anchored on the principle of decentralization as espoused in the Republican Constitution amendment Act No.2 of 2016 making reference to Article 148.

The document embeds the development aspirations of the people of Lunga as the Integrated Development Planning is consultative and bottom-up in nature. The development of the plan has been highly consultative starting with the District Development Coordinating Committee stakeholders at district level, the ward Development Committees at ward level and the traditional authority. Aspirations and insights arising from the consultation process have been a cornerstone for the development of this document as it hinge on the vision and the development trajectory of the district for the period 2024-2033.

The Lunga IDP has taken cognizant of the higher order plan (Eighth National Development Plan2022-2026) as espoused in the National Planning and Budgeting Act No 1 of 2020 that both documents have to speak to each other in order to inform development in the right direction.

The Integrated Development Plan takes stock of existing developments in all government sectors, private and individuals and identifies the service gaps that are existing in order to close them up by way of crafting strategies and projects that will address the gaps in question for a planned period.

I am confident and exited that this magnitude of work that has been put in by all stakeholders involved in this process will definitely bear fruits and move our district in the right trajectory where development is concerned.

Mathews Mwewa
District Commission
LUNGA

ACKNOWLEDGEMENT

Let me begin by recognizing the funders and implementers of the Integrated Development Planning Process, that's the GIZ (Germany International Cooperation) and the Ministry of Local Government and Rural Development respectively for their financial and technical support during the preparation of the Lunga Integrated Development Plan.
Let me also recognize the valuable contribution made by the IDP Team constituted from all the line departments to facilitate the process from start to finish. Am also grateful to the various stakeholders in the district for their utmost support and contributions made during the consultative process.

My vote of thanks goes to stakeholders such as the private sector, Civil Society Organisations, Faith Based Organisations, the Traditional authority and the Ward Development Committees.

This Integrated Development Plan reveals the prudent and commendable efforts of all the government departments and other stakeholders in the district, based on the outcomes of the Planning Survey and issues report and is meant to be beneficiary oriented, decentralized and responsive. This document targets at improving the quality and standard of living of residents through the provision of adequate, quality and affordable services.

On behalf of dedicated, District Institutions and Organisations, Officials and our Traditional leaders, I hereby pronounce an insatiable commitment and holistic engagement in the development planning process by all of us. In this regard it's obvious that our residents are overwhelmingly expectant to have the goals and objectives of this plan achieved at the end of the stipulated time frame. I humbly appeal to all implementing agencies in this development process to work with concerted efforts so that as a whole, we can achieve our intended objectives. I therefore wish that this plan be efficiently and effectively implemented to the best knowledge, willingness and expectations of stakeholders involved.

Gilbert Sendama
Council Secretary
LUNGA TOWN COUNCIL

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List of Acronyms

CDF	Constituency Development Fund
CO2	Carbon Dioxide
CRB	Class Room Block
CH4	Methane
DDCC	District Development Coordinating Committee
ECD	Early Childhood Development
ECE	Early Childhood Education
ENDP	Eighth National Development Plan
FISP	Farmer Input Support Programme
FSP	Food Security Pack
GAD	Gender and Development
GBV	Gender Based Violence
GIZ	Germany International Corporation
HP	Health Post
IDP	Integrated Development Plan
LSEN	Learners with Special Education Needs
MHM	Menstrual Hygiene Management
MTN	Mobile Telephone Network
NAP	National Agriculture Policy
NEP	National Energy Policy
NFAP	National Fisheries and Aquaculture Policy
N2O	Nitrous Oxide
OOSC	Out-of-School Children
OPD	Out Patient Department
PWAS	Public Welfare Assistance Scheme
RHC	Rural Health Centre
SADC	Southern Africa Development
SCT	Social Cash Transfer
SDGs	Sustainable Development Goals
SNDP	Seventh National Development
TRALARD	Transforming Landscapes for Resilience and Development
VIP	Ventilated Pit Latrine
WASH	Water Sanitation and Hygiene
WDC	Ward Development Committee
ZEMA	Zambia Environmental Management Agency
ZNHSP	Zambia National Health Strategic Plan

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PART ONE

1.0 Introduction and Background

The systems of planning in Zambia has evolved over the years with the coming in of new tools for enhanced strategic planning developed to foster the delivery of development in a more coherent and coordinated manner among stakeholders at various levels of governance. This has brought about the introduction of the Integrated Development Plan (IDP) which according to the Urban and Regional Planning Act No. 3 of 2015 is explained as a 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. The Act further indicates that the integrated development plan shall link, integrate and coordinate sector plans and proposals for the development of the area of the local authority, it will also align the resources and capacity of the local authority for the implementation of those components of the plans requiring the use of local resources and form the policy framework and basis on which annual budgets shall be approved.

The plan is envisaged to be compatible with the National Planning Framework or National Development Plans (8NDP in this context) and other Regional Development Plans. The Act guides further that the plan should indicate priority areas for housing development, informal settlement upgrading and improvement, social service provision, infrastructure development, re-vitalization, renewal and maintenance, local economic development, environmental management, protection of ecologically sensitive areas, heritage and cultural sites, poverty alleviation and identify other priority areas to be incorporated into the local area plans.

The plan document should also take into consideration the impacts and effects of development programs on the land use patterns and settlement patterns of the plan area and thus it advocates for the inclusion of various spatial analyses to be conducted so as to understand the plan in spatial context rather than being too narrative.

Furthermore, policies, guidelines, and acts have also been developed to compliment the Urban and Regional Planning in the preparation of the IDP, among these are the decentralization policy of 2013, the National Planning and Budgeting Act No.1 of 2020 and IDP preparation guidelines of 2019 developed and launched by the then Ministry of Local Government thereby giving the mandate to all local authorities to develop the IDP in their locality to guide local development.

1.1Definition of the IDP Area

1.1.1 Historical Context

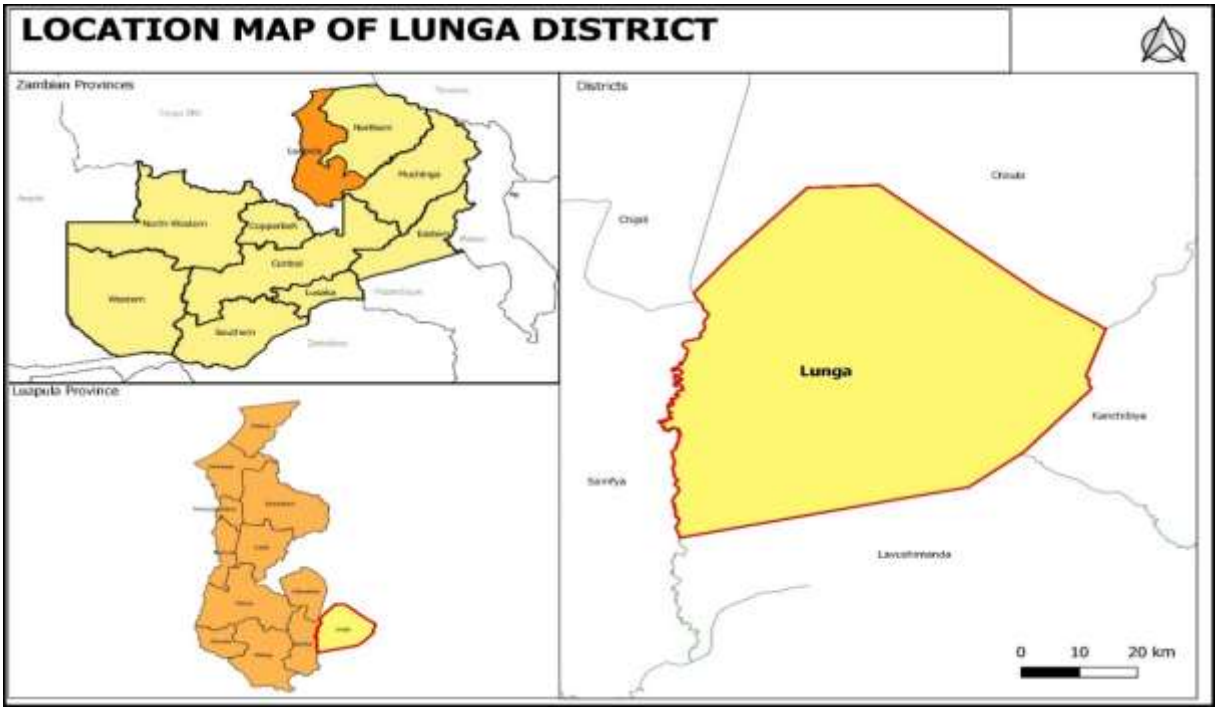
Lunga District was created by the Presidential declaration made on 8th December, 2011 detaching it from Samfya, the then parent district where it belonged as a constituency called Luapula and had a sub-boma for Samfya District. In the mid-2012, Government through then the Ministry of Local Government and Housing established Lunga District Council and government through various ministries have since embarked on deploying civil servants into the district. The Unga people originated from Luba and their arrival in Zambia is associated with that of the larger Bemba tribe and other units that made the migration from Kola (Angola) in the eighteenth century.

The Baunga people also include in their ethnic composition a number of "Batwa" whom they say they found already in the swamps when they arrived (W.V.Brelsford, 1946). The Unga people are a branch of the group of people who are known as the Bena Ng'oma (of the drum totem). This group traces its descent from a woman Kaunda Mwelwa, and from her at various points in the history of the Luba migration. Therefore in the late nineteenth century, the Unga people invaded the northern parts of Lake Bangweulu and with the growth of the population, have been spreading throughout the Bangweulu swamps known today as Lunga District after the declaration.

1.1.2 Location

Lunga district is located in the south–east of Luapula Province (11˚30" south, 30° East). It borders with Kanchibiya and Chilubi districts to the East, Samfya and Chifunabuli district to the West and Luvushimanda district in the South. The size of the district is approximately 7,050 square km, which is about 11% of Luapula province. The district has an altitude of 1120m above sea level, the landscape is dominated by the Bangweulu Swamps which covers about 80% of the district and there exists separated land masses which houses settlements. Below is the location map of the district.

Figure 1:Location Map for Lunga District



Source: Lunga Town Council, 2023

1.2Climate and Climate Hazards

1.2.1 Humidity

The average annual humidity in Lunga District is about 66.1%. The highest yearly humidity is reached during the rainy season in the months from December to April, ranging between 74.4% and 85.5%. In the contrast, the lowest humidity is about 46 – 49% and prevails during the hottest months of the year in September and October. In comparison, the relative humidity figures for Luapula Province and Zambia are lower than for Lunga. (Zambia Metrological Dept, 2014)

1.2.2 Sunshine and Winds

The mean annual sunshine duration is 7.9 hours per day. During the dry season (April to October) when days are longer, the sun prevails between 8.6 and 10.3 h/d. the shortest sunshine duration is during the months of higher precipitation (December to February) ranging from 4.3 to 6.3 h/d on average. In comparison, the average daily sunshine hours for Luapula Province and Zambia are similar. (ibid)

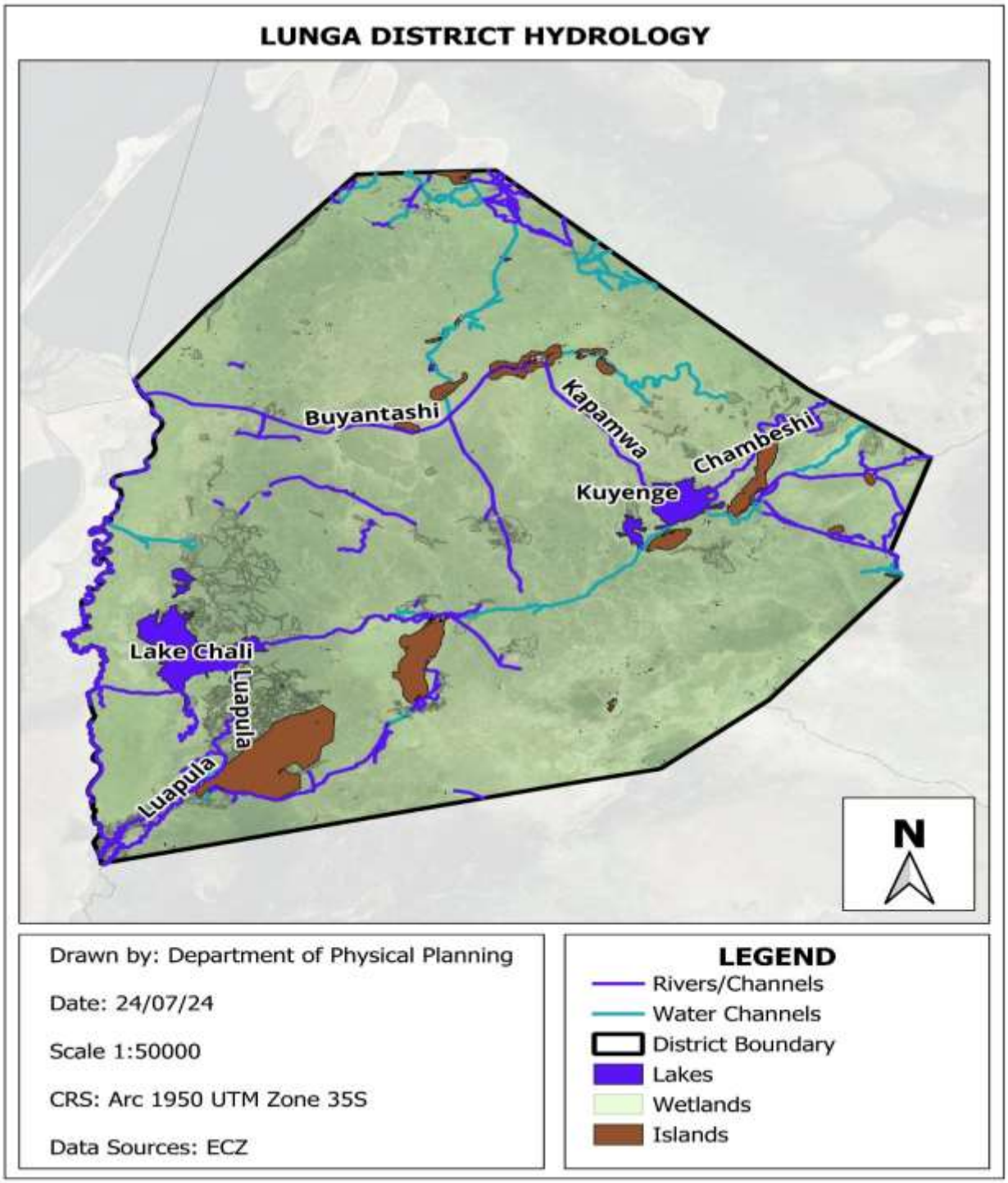
1.2.3 Climatic Hazards

The district has had from time to time experienced flooding due to excessive rainfall and also clogged or blocked channels which restrict the smooth flow of water and causes the water to reach the settlements close to the water channels. As measure to combat flooding the district has advocated and lobbied for government and donors to help dredge the channels as this measure allows the smooth draining of water from settlements into the channels.

1.3 Hydrology

The district is rich with perennial swamps, lakes (i.e. Kuyenge, Chale), streams; man-made canals such as the Churchhill (Buyantanshi channel), Mariana, Chilopolopo and Kapamwa. It shares borders of Luapula River and it also takes a share in the tributaries from the Chambeshi River. The main river system is the tributaries of Chambeshi River from the north-eastern parts of the district flowing in south-western direction of the district and then drains the district into the Luapula River.

Figure 2: Lunga District Hydrology Map



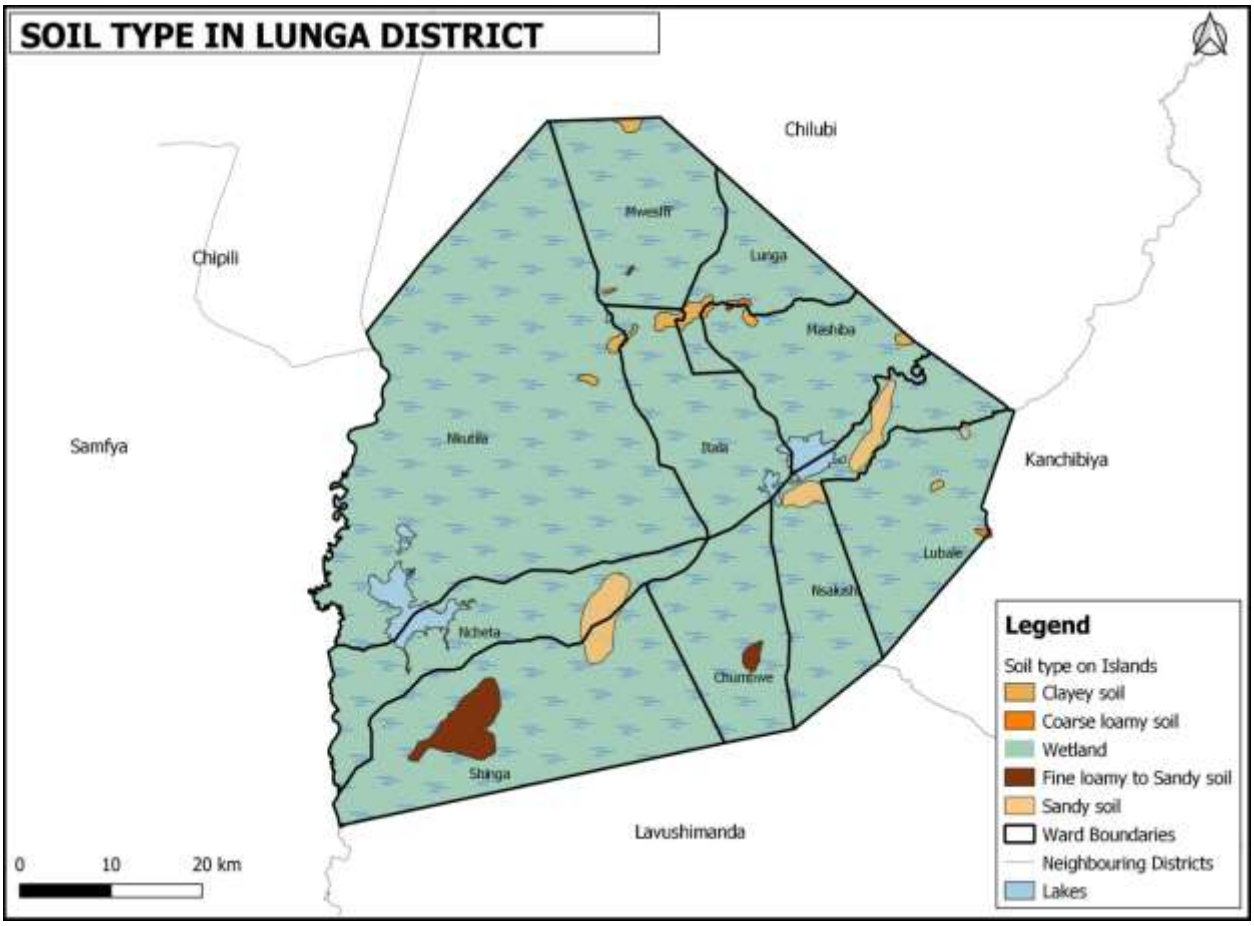
Source: Department of Physical Planning, 2024.

1.4 Soils and Topography

The Soils in the district are mostly clay and sand, the clay soils are dominant in the northern parts of the district mostly in the surrounding areas of Kalima Nkonde and Kasoma Lunga. Then sand

belt soils are the most common soil type in the district largely spread across the east and southwestern parts of the district in Nsamba and Bwalya Mponda islands.

Figure 3: Lunga District Soils Map

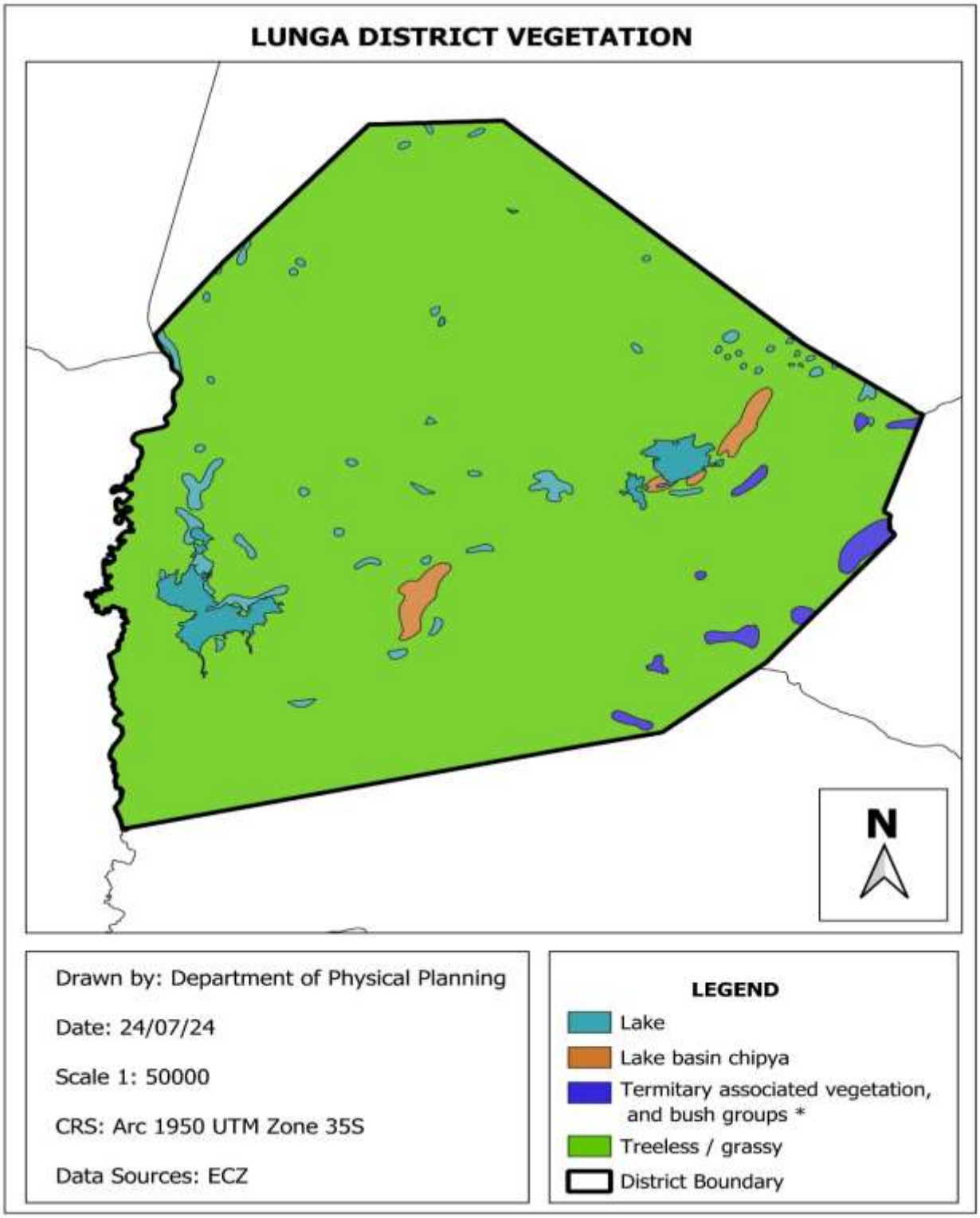


Source: Lunga Town Council, 2023

1.5 Vegetation

The district's vegetation is limited to the Mashinge reeds. In the permanent swamps there are papyrus grass, reed and hippo grass which are very common. In the lagoons, a variety of submerged vegetation occurs like water lilies. The district has no noticeable natural forest. Part of the eastern part of the district falls in the Chikuni Protected Game Reserve and the reserve stretches into Lavushimanda district of Muchinga Province.

Figure 4: Lunga District Vegetation Map



Source: Department of Physical Planning, 2024.

1.6 Environmentally Sensitive Areas in the IDP

The entire district sits in an environmentally sensitive area which is even recognized internationally as the Bangweulu wetlands as the ecological setup supports a lot of aquatic life including various fish species, crocodiles, and hippos. The wetland areas of the game reserve are a home for a variety animals such as lechwes and birds such as the famous shoebill from the stork family. Therefore, all developmental programs and projects are to be implemented in cognizance of the various environmentally safe ways as guided by various environmental legislations and the Zambia Environmental Management Agency (ZEMA) is to be engaged from time and again before and during the implementation of various projects ranging from construction works to dredging of water canals.

1.7 Governance and General Administration

Lunga district has three tier governance systems namely; Traditional, Local Government and Central Government (District Administration) which all coordinate and propagate district development and general welfare of the people in the district. It must however be noted that, through various policies and guidelines, all these governance structures are streamlined to operate in an integrated approach for the common good of national development.

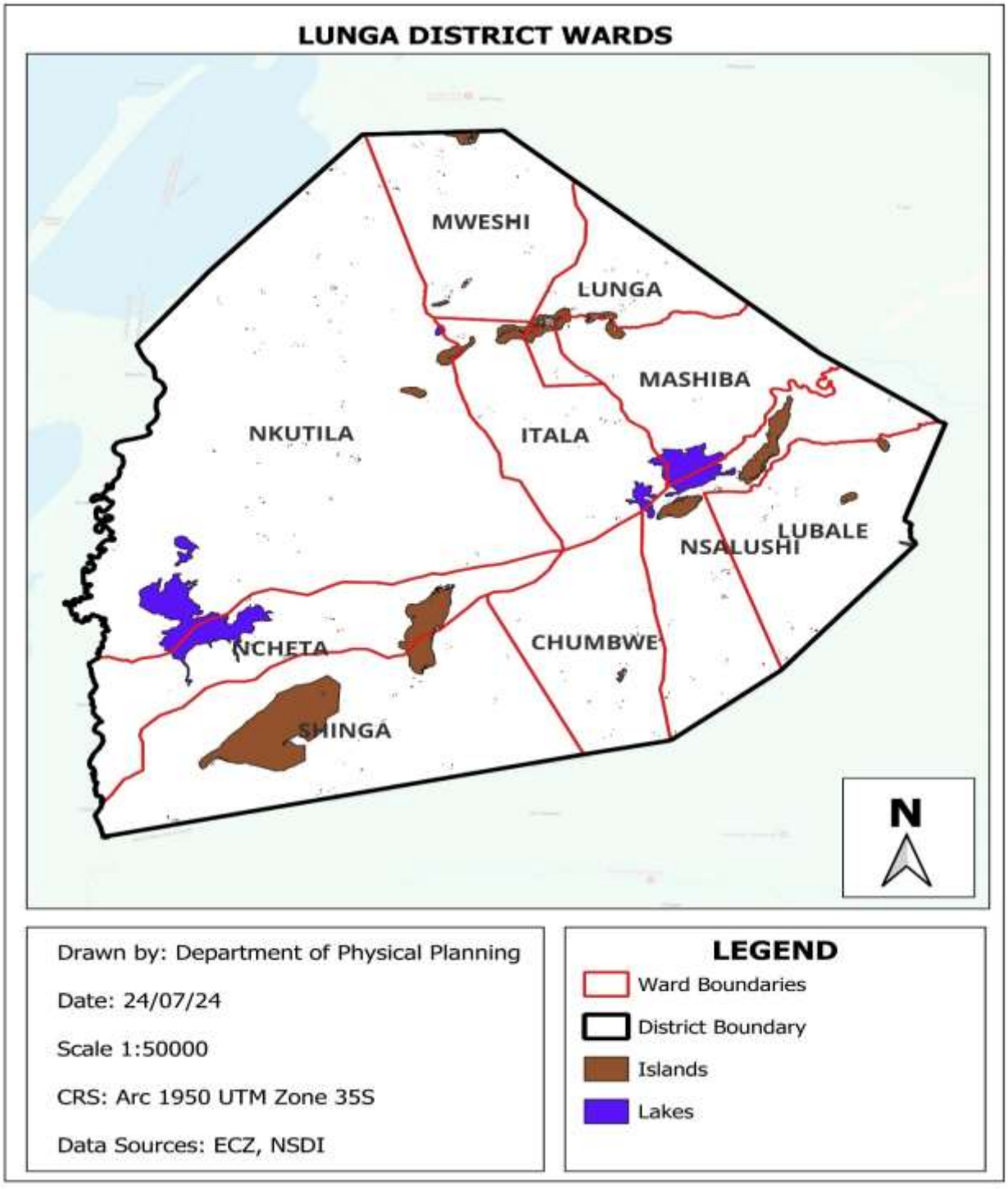
1.7.1 Traditional Leadership System

Lunga district has Four (4) Chiefs namely Senior Chief Kalimankonde, Kasoma-Lunga, Nsamba and Bwalya Mponda who are responsible for enforcing customary law through a committees comprising of advisers and village headmen. Chiefs' palaces in the district are currently not established on permanent basis, because each successor establishes a new palace soon after appointment. Lunga district is predominately Unga speaking though there are also Twa speaking people in Mbo ya lubambe.

1.7.2 Local Government System

Lunga Town Council is responsible for local government administration system. The Council was established in 2012. Under this system, Lunga district is delineated into 10 administrative wards, with each ward coordinated by an Area Councilor who is elected every 5 five years in accordance with the electoral system in Zambia. The 10 Ward/Area Councilors constitute a Council headed by the Council Chairperson forming the district legislative structure responsible for; overseeing programmes and projects in the district, making by – laws, administering the district and perform other prescribed functions. The Council is supported by Management headed by the Council Secretary who under him has several other technical and administrative personnel responsible for general administration and policy interpretation and implementation.

Figure 5: Lunga District Wards Map



Source: Department of Physical Planning, 2024.

1.7.3 District Administration

The District Administration headed by the District Commissioner who co-ordinates Central Government functions and all developmental activities as well as harmonizing functions with those of local authorities and other line ministries in order to ensure effective implementation of developmental programs in the district. The Commissioner is supported by Heads of Government Departments from various line Ministries who report directly or through quarterly District Development Coordinating Committee (DDCC) meetings. However, under the devolved system of governance which the Country is currently pursuing, the District Administration wing will continue to coordinate only functions that will not be devolved to the Councils as prescribed in the National Decentralization Strategy.

PART TWO- PLANNING SURVEY AND ISSUES REPORT

2.0 Demographic Analysis

2.1Population and Population Growth

Lunga's demographic analysis has to be understood within the broader context of national and provincial population growth and urbanization trends. National population has grown from 13,092,666 in 2010 to 19, 610, 769 reflecting a growth rate of 3.4 percent. The rural population grew at an average annual rate of 3.4 percent during the 2010-2022 period, an increase from 2.1 percent during the preceding intercensal period. Urban areas recorded a decline in the growth rate from 4.2 percent during the 2000-2010 intercensal period to 3.5 percent in the period 2010-2022, (ZAMSTATS, 2022).

Lunga is located in Luapula Province in the Northern Region of Zambia. Luapula had a population of 991, 227 in 2010 to 1, 514, 011 in 2022 representing a growth rate of 52.6 percent. With an area of 50, 567 km² Luapula Province population density is 29.9 persons per Km2 (ZAMSTATS, 2022)

The population in Lunga has grown from 24, 005 in 2010 to 39, 383 in 2022 with an annual growth rate of 4.2 percent. With an area of 3, 839.5 Km2 the population density stands at 10.3 persons per Km2

Table 1:2010 Population of Lunga District

S/No.	Ward	Households	Male	Female	Total
1	Nkutila	2,115.00	4,665.00	4,932.00	9,597.00
2	Lunga	898.00	1,711.00	1,856.00	3,567.00
3	Nsalushi	1,229.00	2,759.00	3,041.00	5,800.00
4	Ncheta	1,004.00	2,582.00	2,459.00	5,041.00
	TOTAL	**5,246.00**	**11,717.00**	**12,288.00**	**24,005.00**

Source: CSO, 2010

Table 2: Distribution of Lunga District Population by ward

s/n	Ward Name	2022 Population		Total
		Male	**Female**	
1.	Lunga	6,228	6,482	12,710
2.	Nsalushi	3,597	3,744	7,341
3.	Mweshi	2,923	3,042	5,965
4.	Ncheta	1,597	1,662	3,259
5.	Itala	1,393	1,450	2,843
6.	Nkutila	1,262	1,314	2,576
7.	Chumbwe	679	706	1,385
8.	Lubale	620	646	1,266
9.	Shinga	607	631	1,238
10.	Mashiba	392	408	800
Total		**19,298**	**20,085**	**39,383**

Source: ZAMSTAT, 2022

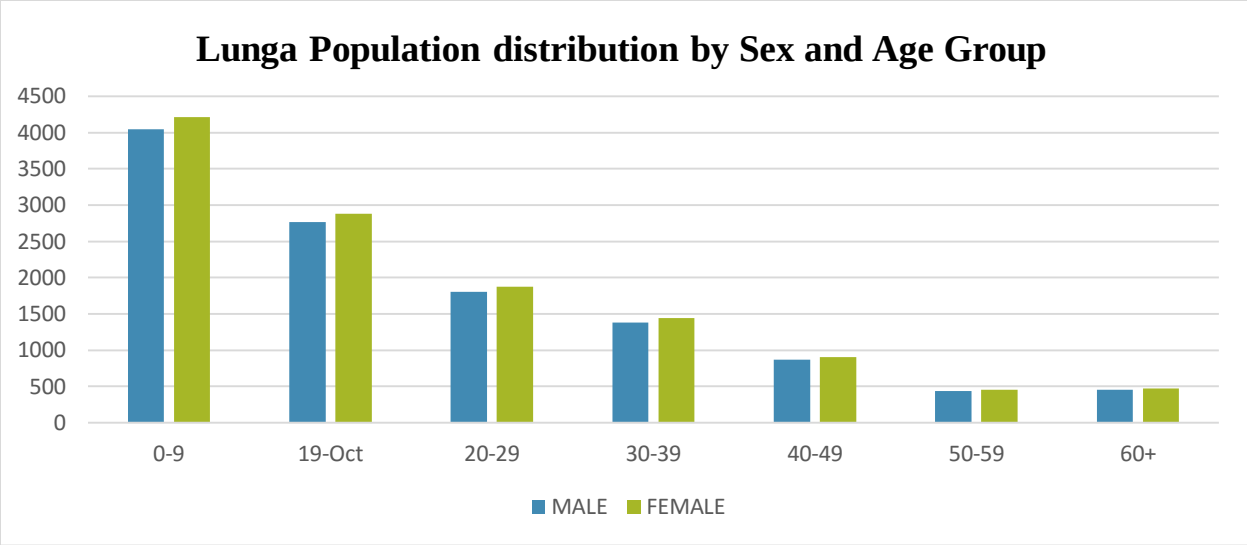
At ward level, according to the 2022 census report, out of the 10 wards, Lunga Ward was the most populated constituting about 32.3 percent of the district total population close to 16 times the population of Mashiba which had the least population.

In terms of spatial coverage, population was highly concentrated in Lunga Ward with a population density of 36.2 persons/km^2 while Nkutila Ward was least densely populated with 2.1 persons/km^2. The urban and administrative Centre for Lunga District falls within Lunga Ward which is characteristic of concentrated human settlements with district administration.

The population of Lunga district is expected to grow at a rate of 4.2 slightly higher than the regional and national growth rates of 3.6% and 3.4% respectively.

Lunga district has the lowest population share of 2.42 per cent compared to its Luapula Province regional peers. As at 2010, the district had a population of 24,005 people with a projected population for 2023 estimated at 41,195. In terms of distribution by sex, the district had a relatively balanced population with about 51.2 per cent being female while 48.8 percent were male.

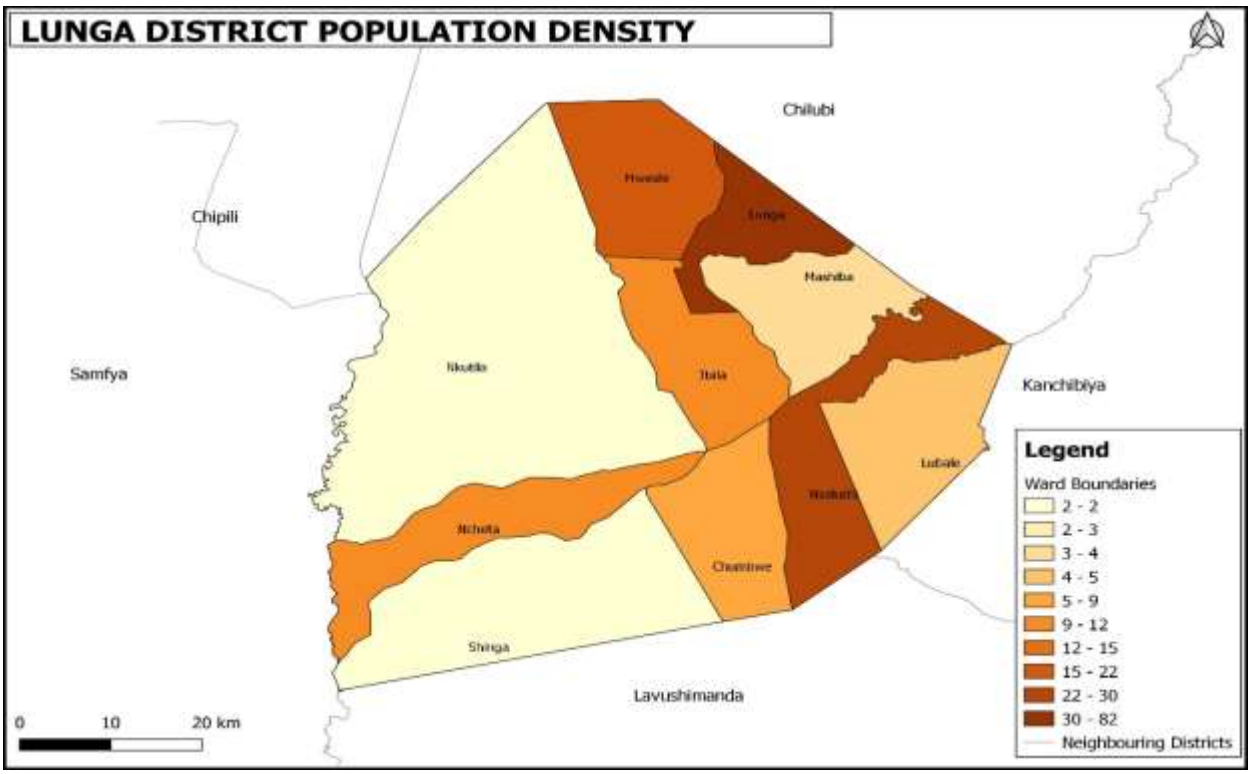
Figure 6: Lunga Population distribution by age group



Source: ZAMSTATS, 2022.

Lunga District population is very youthful as depicted graphically in figure 3 and the implication coming with this kind of population structure is that there should deliberate proposed programmes to address issues of adequate school infrastructure and interventions that aims at providing employment opportunities for the majority youths in the district.

Figure 7: Lunga District Population Density Map



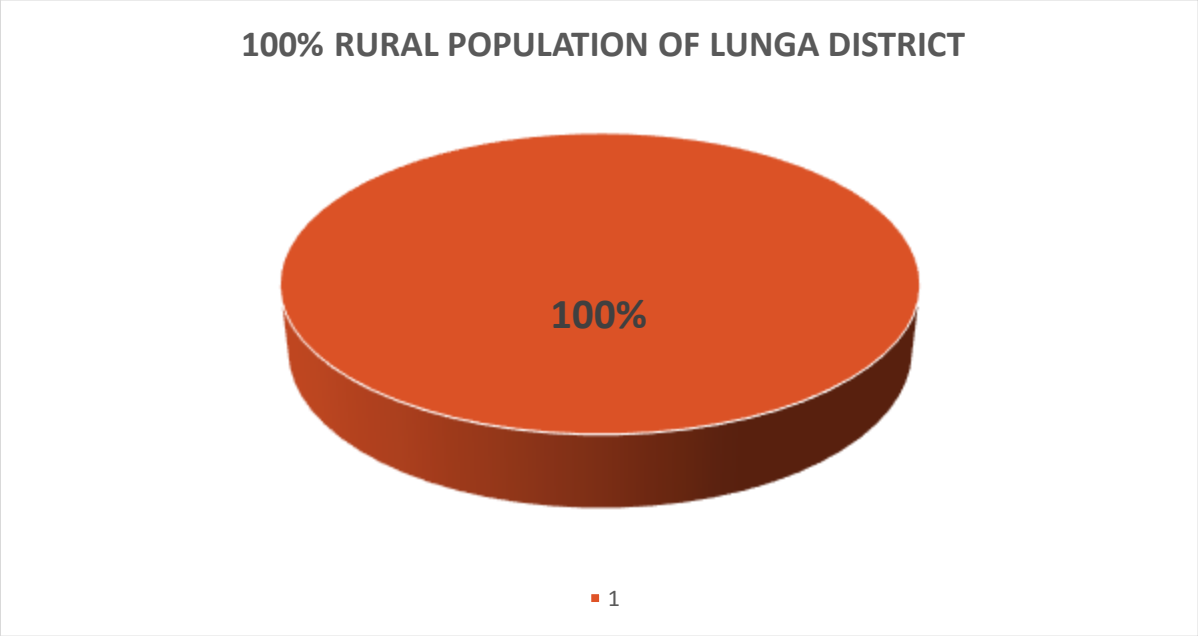
Source: Lunga Town Council, 2023.

2.2 Population Characteristics

Lunga Ward is the seemingly urbanizing ward in Lunga district being the administrative centre and with the highest population concentration as well as population density.

About 100 per cent of the total district population is rural based and the majority of the rural wards are spatially vast with sparse population distribution, the trend which has a huge implication on the accessibility and distribution of services such as water, health and education. As a result, the poverty situation in all the rural wards is equally high.

Figure 5:100% Rural Population for Lunga District

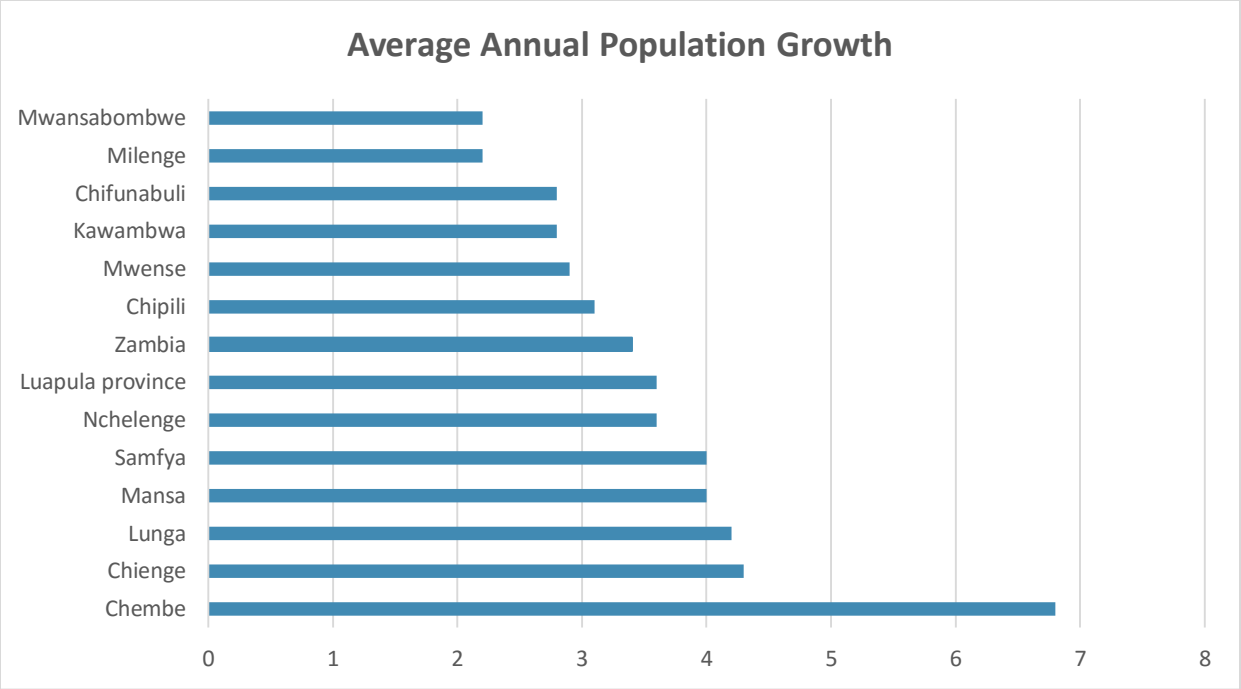


Source: ZAMSTAT, 2022

2.3 Projected Population and likely Characteristics

The demographic profile of Lunga District has in the past 12 years changed significantly due to delimitation and administrative changes which saw the excision of Luapula Constituency from the district of Samfya to create Lunga District resulting in almost increasing by more than half the absolute population figures of the district. The population for Lunga was projected to grow at a relatively higher rate of 4.2, slightly higher than both the regional and national averages of 3.6 and 3.4 respectively.

Figure 6: Average Rate of Population Growth by District



Source: ZAMSTAT, 2022

Comparing the Lunga district 2010 official population of 24,005 and the 2022 official population of 39,383, the population growth for Lunga still remains positive despite slight decrease by 0.1% for 2022 statistics. During the implementation of the IDP period the district may expect an increase in population as a result of natural factors and policy interventions, some of which have been highlighted in the IDP guiding policies and programmes. For instance, during the IDP period the district may experience increased migration mainly civil servants currently not residing in Lunga because of incomplete housing units that once complete will provide adequate accommodation for Officers, improved life expectancy, reduced mortality and morbidity and reduced emigration which may come as a result of policy and natural interventions and factors see (*See Table 3*).

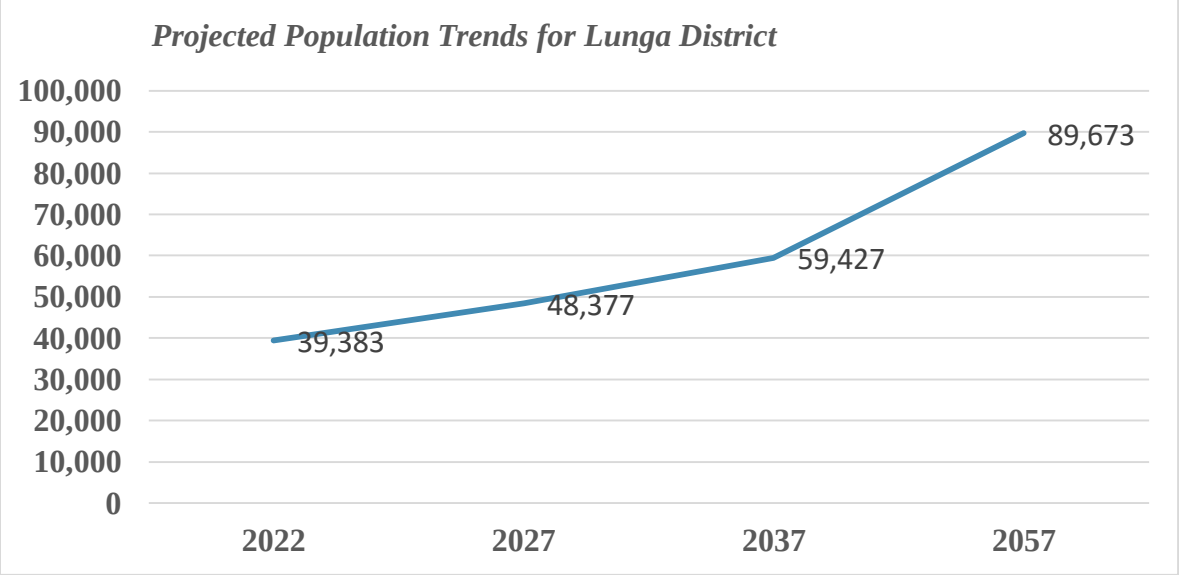
Table 3: Dynamics of Projected Population in Lunga District

Sector Anticipation	**Anticipated Factors**	**Justification**	**Effect on Population**
Improved Health Services	Life Expectancy	Construction of more health facilities	Increase
	Reduced Morbidity and Mortality		Increase
Stable Weather Patterns (Rainfall)	Stable crop production and productivity	More farming activities and improved Household Food Security.	Increase

Improved Water Transport	Accessibility	Ease to transport goods and services	Increase
	Business Opportunities	More business opportunities (Tourism/trade)	Increase

Source: Lunga IDP Team, 2023

Figure 8: Projected Population Trends for Lunga District



Source: Lunga Town Council, 2023

Lunga district population characteristics at ward level are likely to follow the district pattern with the exception of Lunga ward, seeming to urbanize in the implementation period of the IDP as it is the Administrative Centre of the district as well as taking into account the massive infrastructure development being undertaken by Government and may have a relatively higher rate of growth. Unlike other wards, Lunga Ward is seemingly depicting a characteristic of an urban settlement with unique development needs.

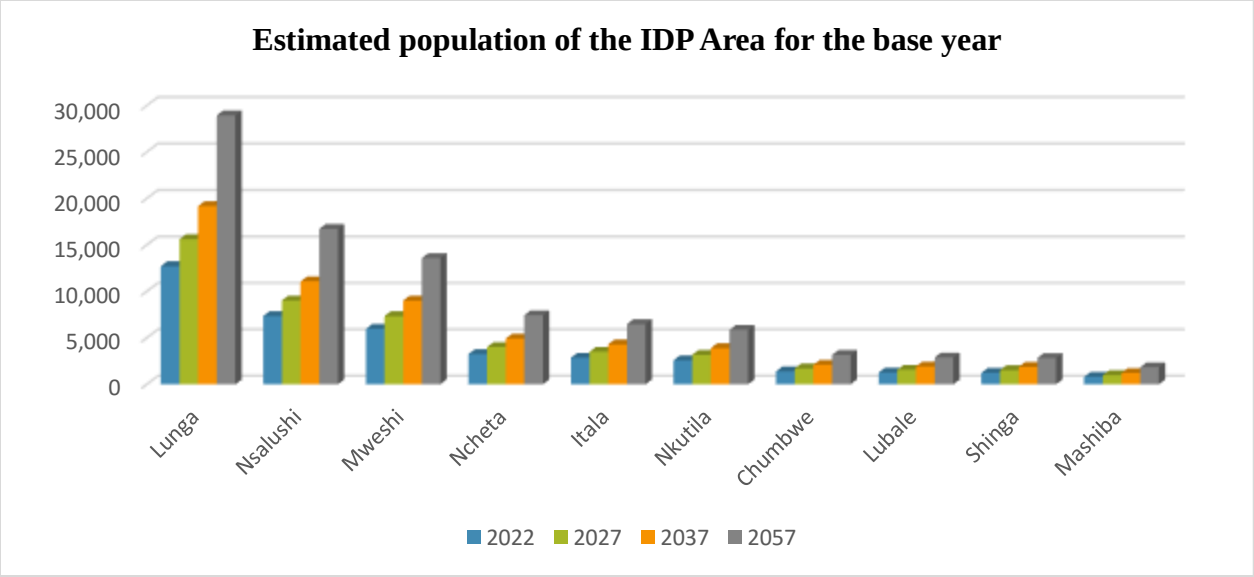
In General terms, the increasing public demand for land for residential, commercial, institutional and agricultural purposes to be necessitated by population growth presents one of the clear indicators of factors that may influence population dynamics and general long term development profile of both the wards and district as a whole.

Table 4: Population Projection for the entire IDP area for the periods 5, 10, 20

No.	Ward	Total Projected Population			
		2022	**2027**	**2037**	**2057**
1.	Lunga	12,710	15,613	19,179	28,940
2.	Nsalushi	7,341	9,018	11,077	16,715
3.	Mweshi	5,965	7,327	9,001	13,582
4.	Ncheta	3,259	4,003	4,918	7,421
5.	Itala	2,843	3,492	4,290	6,473
6.	Nkutila	2,576	3,164	3,887	5,865
7.	Chumbwe	1,385	1,701	2,090	3,154
8.	Lubale	1,266	1,555	1,910	2,882
9.	Shinga	1,238	1,521	1,868	2,819
10	Mashiba	800	983	1,207	1,822
Total		**39,383**	**48,377**	**59,427**	**89,673**

Source: Lunga Town Council, 2023.

Figure 9: Estimated Population of the IDP area for the base year



Source: Lunga Town Council, 2023.

2.4 The Impact of The Continuation of Existing Population Trends on Land Use and Spatial Development patterns

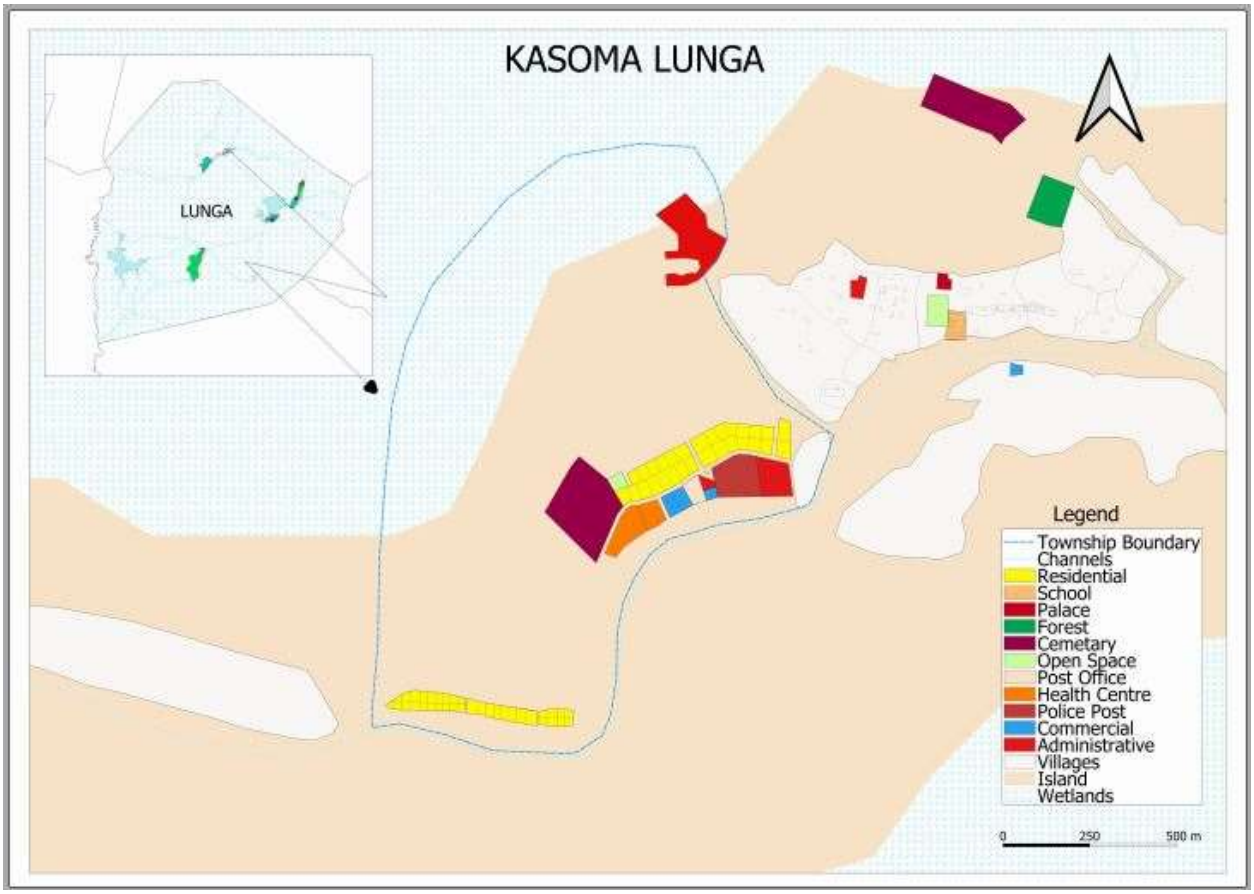
Lunga district has not been spared by population explosion necessitated by immigration and natural births. The continuous trends in this direction has a greater impact not only on land use and spatial development, but also on the quality of goods and service to be offered.

The population trend being witnessed in Lunga may impact negatively on the land use and land cover in the district as it is made up of archipelago islands which are surrounded by the Bangweulu wetlands posing a major land deficit for various human activities.

Habitable land is quite limited in all the islands with an exception of Nsamba island which has a relatively larger land extent approximately 20.26 Square Kilometers as compared to the rest of the islands to mention Kasoma Lunga and Kalima Nkonde which have experienced huge increases in the population resulting in extensive utilization of land for housing purposes as well as economic activities like agriculture.

The uptake of planned land is quite slow in Lunga District as most potential developers fear the high costs involved in construction due to water transport which is on the higher side, as a result most of the locals prefer to settle in customary land and thus with the witnessed population growth much of the land in customary land has been taken up thereby posing a threat on the encroachment of planned development areas.

Figure 10: Kasoma Lunga Land use Map

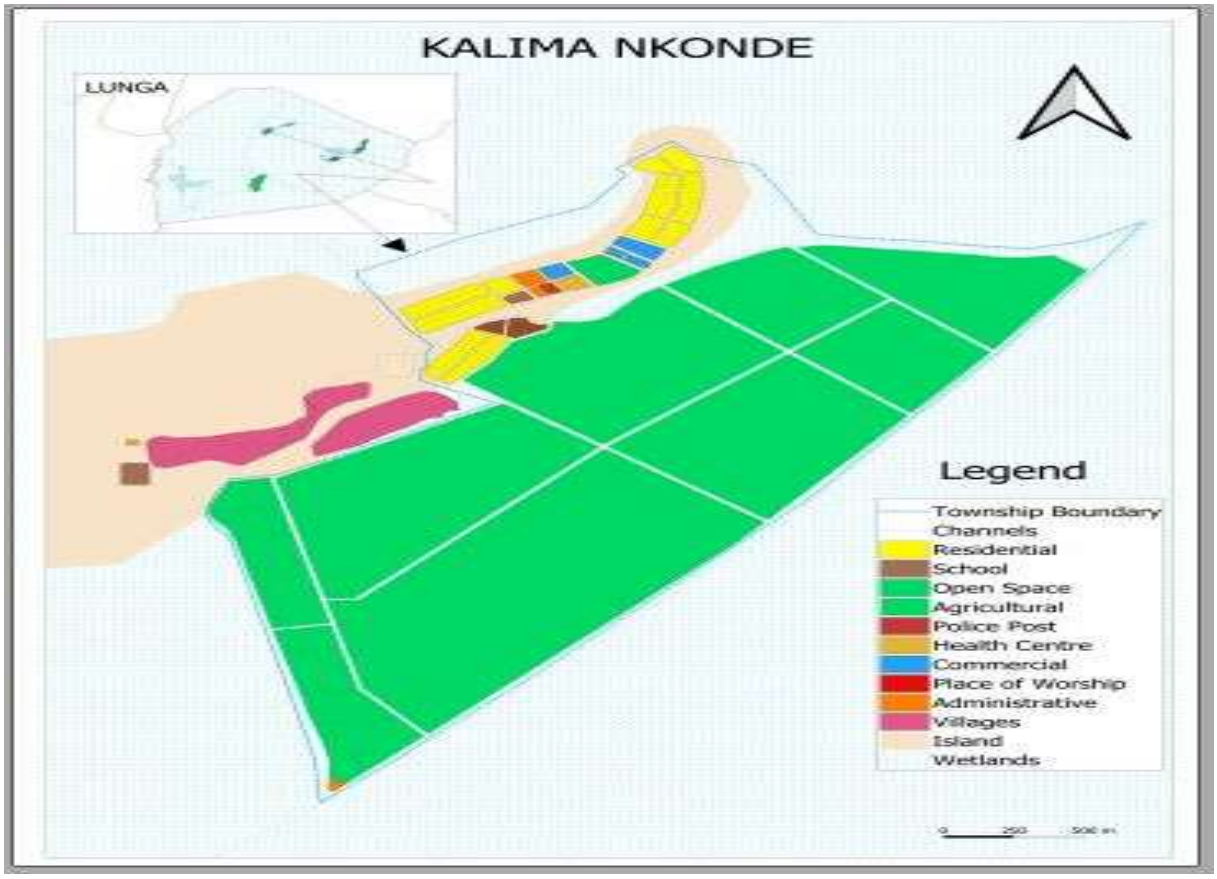


Source: Lunga Town Council, 2022

As depicted in the land use map, Kasoma-Lunga has limited land available for planning as customary land has taken up much of the land suitable for physical development leaving a larger part of the island prone to flooding.

Therefore, the proposed option to develop the island is to focus much on the upgrading of settlements in customary land through Planning Agreements with the traditional leadership so that it becomes more convenient to provide the much-needed municipal services and urbanize the area. In terms of limited land suitable for physical developments, Kalima-Nkonde is not an exception as the situation is similar to Kasoma-Lunga as depicted in figure 22 below:

Figure 11: Kalima Nkonde Land use Map

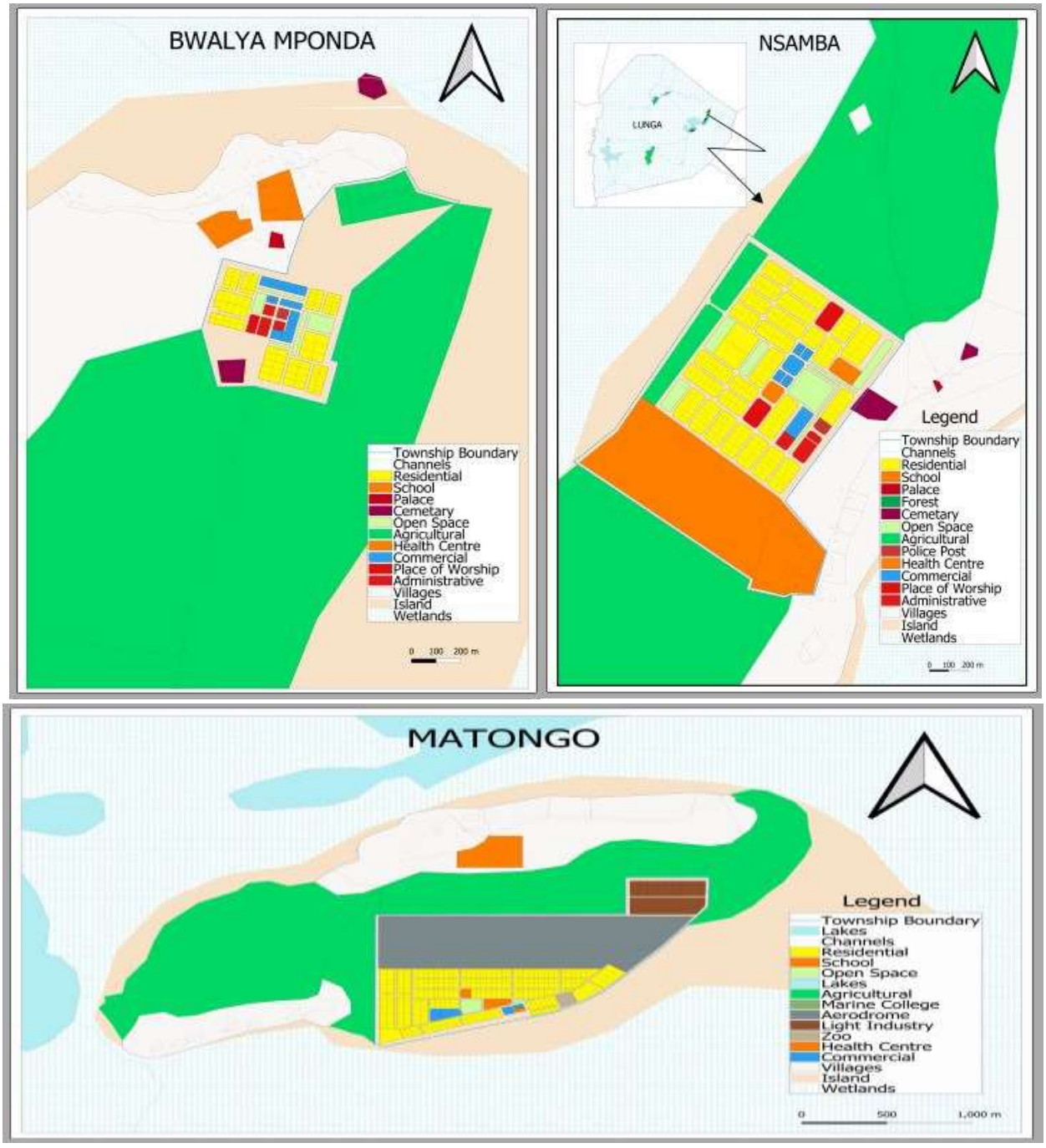


Source: Lunga Town Council, 2022

On the other hand, the case is different for the Nsamba, Bwalya Mponda and Matongo islands which have relatively larger land extents where future developments can occur and have much potential to at least handle the increasing population to some extent but equally need to be developed in a well-planned pattern especially that the planned areas are of a smaller extent as compared to the existing customary land.

In order to ensure that proper layout plans for the three aforementioned islands are developed, there will be need to lobby for more land from the traditional authorities to arrest the springing up of unplanned settlements and Planning Agreements the traditional Authority is one of the approaches to be utilized in this regard.

Figure 12: Nsammba, Matonga and Bwalya Mponda Land use Map



Source: Lunga Town Council, 2022

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

The overall settlement pattern is being altered year by year due to insufficient land for the increasing housing demands among the population that is increasing and the settlements are tending to be overcrowded in the customary land in the islands of Kasoma Lunga and Kalima Nkonde and the settlements are exhibiting an overcrowded pattern with no proper traditional

pathways within the settlement and with the increase in the population this scenario is expected to increase further in the coming years.

As for the other three islands (Nsamba, Bwalya Mponda and Matongo) the case is different as they still have land to contain the population increase but need proper and orderly development especially through the utilization of the already planned land in these islands and discouraging the springing up of settlements in the customary land which can later distort the orderliness and cause overcrowded settlement patterns. The satellite image for Kasoma Lunga shows the aforementioned overcrowding trends on the settlement pattern. Refer to Appendix ii

2.6 Assessment of the Availability of Land for Planned Urban Expansion

From the five main islands, the islands that have potential land for urban expansion are Nsamba, Matonga and Bwalya Mponda as opposed to Kasoma Lunga and Kalima Nkonde which exhibits high levels of overcrowding and having limited land as most of its land is prone to flooding and over wet throughout the year, however through planning agreements, programs for settlement upgrading can be undertaken in the two later islands in order to achieve orderly development patterns in the islands and these can be aimed at improvement of housing standards and provision of well-organized municipal services.

For the case of pure urban expansion the focus can be on the Nsamba, Matongo and Bwalya Mponda islands whilst focusing on settlement upgrading for Kasoma Lunga and Kalima Nkonde islands.

2.7 Economic Analysis of the District

Apart from fish trade in the district, other sections of people are engaged in mealie meal, groceries, firewood and charcoal trading sourced from the neighboring districts like Samfya, Chilubi and Mpika districts. Rice trade in the district has also been noticeable in the few years. The local people especially women groups have engaged in subsistence rice farming which has now become another important income generating activity. The estimated fish production is approximately between 250 and 300 metric tons of fish annually but most of this is traded outside the district in markets around Lusaka and the Copperbelt towns.

The Agriculture industry has slowly been picking up in the district and has encouraged a lot of trading. A lot of people, some from the remote parts of the district and others from outside are involved in trading mainly in the small shops known as Tuntemba due to limited market stalls. Women and girls are mainly engage in trading activities that have low returns such as selling fritters and scones. Means of trade for both fish and other products are either cash or barter.

The district has not industrialized much but has three rice processing plants which are at Kasoma Lunga, Matongo and Bwalya Mponda islands, these were funded by the Transforming Landscapes for Resilience and Development (TRALARD) Project and these have helped cut costs by farmers of having their rice processed in Samfya as it was before they were introduced, as at now the rice is sold as already processed and this has helped communities to cut extra costs and more value is added to the rice as compared to the times it was being sold unprocessed. The approximate amounts being processed

stands at slightly over 300 kilograms per month during the harvest months of June, July and August and these amounts are from about a collective over 100 hectares of rice farms dotted across all islands of the district.

2.7.1 Trade Inflows and Outflows in the District

The table below shows the trade inflows and outflows in the district with its neighbouring districts. From the inflows it can be seen that the district receives agricultural inputs such as seed (Maize, rice and Cassava) and fertilizers which mainly comes in through Samfya district through various agricultural support programs such as the Farmer Input Support Programme (FISP) and Food Security Pack (FSP). Equally other inflows such as building materials, groceries and other supplies are mostly sourced from the neighbouring Samfya District and skilled labour is sourced from a wide range of districts as most civil servants come from various districts within the country to offer services to the local communities, collectively the inflows form the basic input resource in the districts productivity which in turn produce the outputs or outflows listed in the table below.

Table 5: District Inflows and Outflows of basic resource used in production circle

INFLOWS	OUTFLOWS
Agricultural inputs e.g. Fertilizer and Seed	Agricultural outputs i.e. rice, and cassava
Skilled, Semi-skilled labour	Unskilled labour
Building Materials e.g. Cement, Fittings, Timberetc.	Grass
Furniture, Electrical Appliances	Fish
Boats	Livestock i.e. chickens, ducks
Cassava meal, maize meal, flour	Clay pots, blooms
Solar panels, fire wood & charcoal	Reed mats
Groceries	Money

Source: Lunga IDP Team, 2023

2.7.2 Financial Institutions

The district lacks financial institutions to facilitate financial transactions and investments. Residents access financial services from Samfya and Mpika. Civil Servants travel either to Mpika or Samfya for their salaries and shopping depending on which town is near. Those in villages such as Mutwamina, Kabulu, Nsamba, Matongo and Mandwe prefer to go to Mpika than Samfya.

3.0 Thematic and Sector Analysis

3.1 Agriculture Sector

3.1.1 Key Government Priorities being and to be Implemented at Local level.

The Agricultural Sector continues to be one of the main economic stay for the population of Lunga more especially the women who constitutes the greater percentage in the agriculture activities.

Improvement in the Agriculture sector is key to reducing poverty and improving the livelihood of the communities of Lunga District.

The current major guiding document of the agriculture sector in Zambia is the Eighth National Development Plan (8NDP) 2022–2026 that is the successor of the Seventh National Development Plan (SNDP) 2016-2021. The 8NDP amongst others defines Agriculture, Livestock and Fisheries as main priority growth sectors together with Mining, Tourism, Manufacturing and Commerce and Trade. The 8NDP planned important investments in infrastructures that will support the sector's development. The 8NDP has eight objectives focusing on Crops, Livestock and Fisheries. The eight objectives are intended to achieve food security in an environmentally sustainable manner. Agriculture commercialization is a key objective that would be attained through the promotion of competitive, efficient and transparent public and private sector driven marketing system for agricultural inputs and outputs and also increase market access both national and international.

The agricultural sector is also guided by the National Agricultural Policy (NAP) which undergoes periodic reviews to ensure its relevance to prevailing climatic, social and economic conditions of the country. The Zambia National Agricultural Policy 2012-2030 is a cross-cutting policy whose vision is to develop a competitive and diversified agricultural sector driven by equitable and sustainable agricultural development through:

(i) Promoting sustainable increase in agricultural productivity of major crops with comparative advantage;
(ii) Continuously improving agricultural input and product markets so as to reduce marketing costs and increase profitability and competitiveness of agribusiness;
(iii) Increasing agricultural exports as a way of fully utilizing the preferential markets (regional and international) and increase contribution to foreign exchange earnings;
(iv) Improving access to productive resources and services for small scale farmers, especially women and young farmers;
(v) Continuously strengthening public and private sector institutional capabilities to improve agricultural policy implementation, resource mobilization, agriculture research, technology dissemination, and implementation of regulatory services

3.1.2 Description Of the Existing State OF Development

3.1.2.1 Availability of Services

The major agricultures services present in the district includes, but not limited to agricultural extension services and marketing services.

Agriculture activities in the district are done in two categories of farming with Small Scale farming having a large share of 6,898 Farmers utilizing a land extent of 34.49 Square kilometers while the other category is that of Medium Scale Farming having a smaller share of 10 farmers utilizing a

land extent of 0.56 Square Kilometers. Commercial farming is not present in the district although the district is favorable for sugarcane and Rice farming.

The district has ten (10) agricultural camps with eight (8) extension officers giving a deficit of two (2) extension officers and there are 154 farmers benefiting from the FISP Programme.

Table 4: Farming Characteristics in Lunga

S/n	Farmer Category	Number of farmers	Land Cover(SQUARE Kilometer)
1.	Large Scale/Commercial	Nil	Nil
2.	Medium	10	0.56
3.	Small Scale	6,898	34.49

Source: DACO 2023

3.1.2.2 Assessment of Quality-of-Service Provision Including Key Indicators of Performance

The quality-of-service provision in the agriculture sector is very low as can be highlighted from the 6,908 farmers that are in the district and only 154 farmers are able to benefit from FISP leaving 6,754 farmers un attend to. Taking into consideration the farmer to Extension Officer Ratio, Lunga District is running low or is in deficit on this aspect as the ideal standard is that of 400 farmers to 1 Extension Officer, the case is that 864 farmers are attended to by 1 Extension Officer. Transport and accommodation are amongst challenges hampering the performance of the Sector in Lunga district.

3.1.3 Issues Arising from the Public Participation Process

3.1.3.1 Availability of Service

During stakeholder consultative meetings, it was observed and noted that agricultural sector offered services ranging from extension, Farmer Input Support Programme and market services. It was also indicated that these services are only offered at cooperate level as compared to individual level in all the wards with registered cooperatives. Arising from stakeholder submissions, high poverty rates was identified to be a core issue as a result of inadequate arable land for farming, expensive water transport and inadequate extension officers.

3.1.3.2 Quality of Service Provision Including Key Indicators of Performance

During the consultative meetings in the planning survey and issues report it was indicated that the quality-of-service provision in the agriculture sector was average and that it was only offered to limited cooperatives and not individual farmers as these left out farmers with no option but to miss out on these very important services.

3.1.4 Impact of Changes Anticipated Over The Next Ten Years

3.1.4.1 Population Change – Future Demand for Services and Facilities

Agriculture sector in Lunga is concerned about the rapid increase of population from 24, 005 in 2010 census to 39,383 in 2022 census with an annual growth rate of 4.2 percent. With an area of 3, 839.5 Km2 the population density stands at 10.3 persons per Km2. This trend of population increase cannot be supported from 99.85% small scale farmers. There will be increase in demand for agricultural services in the district as there will be a corresponding demand for agriculture produce as indicated by the difference in population figures.

As demand for agriculture produce booms, it is predicted that there will be a ripple effect on the demand for agriculture facilities needed in the district for purposes of enhancing on the service provision and proper storage of the produce before transportation to value addition facilities or areas of consumption.

3.1.4.2 Existing and Proposed Investment and Development Programmes

Table 5: Existing and Proposed Investments and Development Programmes under the Agriculture Sector

Existing Investments	Proposed Development Programmes
o 1 Camp House o FISP Programme o Agricultural Extension Services o Marketing services o Bulking centre	o Office Block o Farmers Training Centre o Construction of 3No small holder low cost community weirs in Lunga ward (1No), Nsalushi (1No) and (1No) Ncheta wards. o Development OF 1No farm block in Nsalushi ward (1No). o Construction of 4No community-based storage sheds Lunga (1No), Nsalushi (1No) and Ncheta ward (2No). o Construction of 9No staff house for agricultural extension officers in Mashiba (1No), Nsalushi (2No), Lubale (1No), Nkutila (01), Mweshi (01), Ncheta (02) and Mashiba (01).

Source: Lunga IDP Team, 2023

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

As the population of Lunga district continues to grow the demand for agricultural produce also keep on rising, and the impact on the agriculture land use will definitely be felt. Satisfying increased demands for agricultural produce in the district is likely to lead to more demand for land

for production, and this will entail clearing huge tracts of land for establishment of farm blocks, irrigation facilities and enhancement of extension services in the district.

The process of transforming agriculture through clearing of huge tracts of land and establishment of farmer blocks, irrigation facilities and setting up of auxiliary facilities to support the activities at the farm block, meaning construction of housing units, health facility, school, commercial facility etc for the laborers and their families, will lead to population concentrated within the farmer block or agricultural area.

Furthermore, increased demands on agriculture with existing farming practices is likely to lead to more intense competition for natural resources and further encroachment on ecologically sensitive areas.

3.1.6 Environmental and Climate Change Analysis

3.1.6.1 The Impact Of Existing Trends On The Environment And Climate Change

As demand for huge tracts of land for agriculture purposes persist, then clearing of vegetation cover and other aspects of environmental degradation takes a centre stage. The continuous clearing of vegetation cover and degradation of the environment deprives the atmosphere of carbon sequestration and failure to contribute to the hydrological cycle there by experiencing high temperatures and droughts.

3.1.6.2 The Impact Of Environmental And Climate Change Issues On The Sector

Lunga district is more vulnerable to climatic hazards ranging from floods, change in rainfall pattern. The impacts are associated with the following hazards; crop damage/loss, leading to food scarcity and hunger in the district. For instance, during the 2018/2019 and 2019/2020 farming season the district experienced floods that ravaged most of crops such as cassava, rice and maize. Not only were crops destroyed but also infrastructure (Schools, houses and health facilities) resulting in farmers losing seed which eventually affected production at district level.

Furthermore, reduction in growing season as a result of climate change has also resulted in further stress on crop production, decreased crop yields for most farmers and also decreased income from sale of crops

3.1.7 Issues arising relating to gender groups and vulnerable groups.

Agriculture sector takes a more decided attention towards agricultural growth for production and productivity which aims at reducing poverty among the communities in the district. This increases incomes and opportunities in both farmers and non-farmers involved in activities and enhancing food security.

Below are some of the issues that agriculture sector addresses related to gender groups and vulnerable groups:

- ✓ The issue of access to, and control over, land is particularly acute for men in customary land tenure systems in the case of separation or death of the wife. This is because land in

the district is mostly under customary tenure land and is under the custodian of the Traditional authority and families.

- ✓ Though women are the mostly involved in agricultural activities such Women groups , Still about 90 % of agricultural organizations such as, clubs and cooperatives are controlled and focused on men.
- ✓ Very few women are given the privilege to take on the provisions for agriculture Programme supervisory roles
- ✓ Lack of Professional Recognition. Gender and development (GAD) is not perceived as a technical and professional field in agriculture that requires similar rigorous training and analysis as other technical or professional fields.
- ✓ Women's representation in agricultural public works related decision-making structures is often inadequate to promote their voice; proactive efforts are required, including for example, the formation of small grassroots organizations which can help integrate women
- ✓ There are major gender biases in terms of access to agricultural extension services and inputs. Though the country has agricultural extension staff to farmers, female access to extension services is relatively low more especially if the extension staff is a male.

3.1.8 Consideration Of The Underlying Factors Contributing To The Issues Identified

Under the Agriculture Sector, the following are underlying factors contributing to the issues identified;

- ✓ Traditional and Cultural Beliefs deters women from having land ownership rights.
- ✓ Gender discrimination deters women from holding decision making positions in clubs or cooperatives

3.1.9 Sector Summary

The Agriculture Sector plays a major role in ensuring that Food Security is attained at Household, District, Provincial and National Levels at large for purpose of reducing incidence of stunting and malnutrition in the general Zambian citizenry. Lunga district is among other districts in the country grappling with food insecurity as a result of limited land farming as well low FISP Beneficiary base making it difficult for farmers to enhance their production and productivity. Increased FISP beneficiary base and reduced Farmer to Extension Officer Ratio is very key in ensuring enhanced production and productivity in turn ensuring household food security.

3.2 Fisheries and livestock Sector

3.2.1 Key Government Priorities Being and To Be Implemented at A Local Level

The Zambia's National Fisheries and Aquaculture Policy (NFAP) was launched on the 7th of June 2023. The overall objective of the policy is to transform the fisheries and aquaculture sub-sector in order to enhance sustainable fisheries and aquaculture development.

This National Livestock Development Policy is a nationwide sectoral document aiming at addressing essential issues in the livestock industry crucial to improve the productivity of the

livestock industry in line with Vision 2030 which aims at making "Zambia a prosperous middle-income country" This Policy promotes sustainable Farm Animal Genetic Resources through the creation of management database and Artificial Insemination programmes. It endeavors to enhance livestock Research and Development through the strengthening of institutional capacity and collaboration.

The aforementioned pieces of legislation have been fully applied in every day-to-day management of fisheries and live stocks at district level such as promotion of animal health through the development and implementation of environmentally sustainable diseases and vector control strategy. This involves carrying out applied research in animal health and control animal disease as well as ensuring wholesome food of animal origin.

In order to facilitate the development of the fisheries and livestock sector for purposes of contributing to sustainable food, nutrition security and income generation the Eighth Nation Development Plan (8NDP, 2022-2026) and Ministry of Fisheries and Livestock strategic Plan have been developed respectively

3.2.2 Description of the Existing State of Development

3.2.2.1 Availability of Service

The Lunga Fisheries and Livestock Sector is one of the economically stimulating sector and it is there to ensure increased fish production and promote sustainable utilisation of fisheries resources as well as improve the productive efficiency of livestock through provision of quality extension services and improved management practices, controlling and reducing livestock disease thereby contributing to the growth of the economy through creation of employment opportunities, income generation and improved animal and fish proteins.

Currently the Fisheries and Livestock Sector has no Office Accommodation, Staff accommodation and Transport for carryout its mandates in the district.

The district has 20 fish farmers and 225 livestock farmers against two (2) fisheries Extension Officer, one (1) Livestock Extension Officer and one (1) veterinary Extension Officer.

The provision of extension services is mainly affected due to inadequate staff and limited transport to move from one part of the district to another. Table 7: Depicts in the animal population in the district.

Table 6: Animal Population in Lunga District

S/n	Species	Number
1.	Bovine	0
2.	Sheep	0
3.	Goats	110

4.	Pigs	0
5.	Chicken	3,499
6.	Ducks	1,285
7.	G/fowls	7
8.	Rabbits	0
Total Population		**4,901**

Source: Department of Fisheries and Livestock, 2023

3.2.2.2 Quality of Service including Key Indicators of Performances

Under the Fisheries and Livestock Sector, fisheries extension services provided are seemingly of good quality as the district has only 20 fish farmers against 2 Extension Officers bearing in mind that the ideal standard is 200 farmers against one (1) Extension Officer. On the other hand, livestock services are well noticeable and the farmer to extension Officer Ratio is still within the range since 200 farmers are tagged against 1 Extension Officer where as in the case of Lunga 225 farmers are tagged against one (1) Extension Officer. The Fisheries and livestock Sector is grappled with transport challenges make it difficult to effectively carryout the much-needed extension services. Office and staff accommodation is another issue that the sector is grappling with as there are no Offices and staff houses in the district.

3.3.3 Issues Arising from the Public Participation Process

3.2.3.1Availability of Service

Arising from the stakeholder consultative meetings in the planning survey and issues report process, it was observed and noted that the fisheries and livestock sector provides fisheries and livestock services albeit most of them being demand driven. The core issue identified during the stakeholder consultative process was low productivity and production because of low investments in fish farming, wrong fishing gears, low investments in livestock as well limited grazing areas.

3.2.3.2 Quality of Service including Key Indicators of Performances

During the consultative meetings in the planning survey and issues report it was noted that the quality of service under the sector was average and most cases residents expressed ignorance regarding livestock services and this called for creation of awareness amongst members of the community.

3.2.4 Impact of Changes Anticipated Over The Next Ten Years

3.2.4.1 Population Change – Future Demand for Services and Facilities

Population growth always brings about increased demand for goods and services in a particular locality. It is envisaged that as population increases over the period of 10years, demand for fisheries and livestock services will equally increase because a good number of Lunga residents

would have ventured into fish farming and animal raring to provide fish and animal proteins to the growing population. Currently the amount of fish caught from natural water bodies is approximately 100 per year against the projected population of 62,419 in 2033 while the meet consumed is just imported from outside the district. This huge demand for animal proteins provides a huge opportunity for would be investors to venture into animal raring. On the hand other, the increased demand for the aforementioned services will definitely stimulate demand for facilities needed for efficient and effective provision of the services.

3.2.4.2 Existing and Proposed Investment and Development Programmes

Table 7: Existing and Proposed Investment and Development Programmes under Fisheries and Livestock Sector

Existing Investments	Proposed Development Programmes
• A buffer boat with an engine	• Construction of staff houses • Construction of office block • Procurement of water vessels

Source: Lunga IDP Team, 2023

3.2.5 Impact of the Continuation Of Existing Trends on Land Use and Population Distribution Patterns

As the demand for fisheries and livestock services keep on rising, there is a proportionate rise in the demand for fisheries and livestock facilities which consumes different uses of land for specific purposes. It is anticipated that increased demand for fisheries facilities will consume parcels of land such as wet lands to pave way for the establishment of fisheries extension services centres and other related infrastructure while the increase in demand for livestock facilities will consume huge chunks of land for animal grazing, kraals, deep tanks, slaughter slabs or abattoirs and other related infrastructure.

In terms of population distribution, it has been anticipated that as many investors venture into fish farming and raring of animals then there will be need to establish homes closer to these facilities to provide security and care to the fish and animals thereby bringing about concentration of populations around these facilities.

3.2.6 Environment and Climate Change Analysis

3.2.6.1 The Impact Of Existing Trends On The Environment And Climate Change

As the demand for Fish and Livestock production increases, what is likely to happen is that there will be more land consumed for fisheries and livestock facilities to support the increasing demand

for fish and livestock production. The increase in livestock production steadily will convert the forests and natural habitat into pasture land and this will definitely have negative impacts on the environment such as land degradation, air and water pollution, and biodiversity destruction. It is anticipated that livestock production will induce climate change through, feed production, animal production, manure, process and transport. Feed production and manure emit carbon dioxide CO2, nitrous oxide (N2O), and methane (CH4), which consequently affects climate change

3.2.6.2 The Impact Of Environmental And Climate Change Issues On The Sector

The impact of Climate Change on the Fisheries and Livestock Sector can be witnessed in decreasing temperatures affecting breeding systems of the fish causing low production hence low supply of fish on the market. The fisheries sector has also witnessed a decrease in fish feeds which has been attributed to low crop production due to poor weather patterns. This has led to some farmers providing poor quality feeds for their fish as they could not afford to buy expensive commercial fish feeds, and this contributed to low fish production.

In the livestock sector the adverse weather patterns has led to an increase in livestock diseases as a result of an increase in tick and worm infestations.

3.2.7 Issues Arising Relating to Gender Groups and Vulnerable Groups

Under the fisheries and livestock services sector, it has been indicated that the issues arising relating to gender and vulnerability are;

- ✓ That both boys and girls shun away from school as they are tagged along with their parents to go and work in the fishing camps.
- ✓ Vulnerable but viable farmers are marginalized from participating in the sector

3.2.8 Consideration Of The Underlying Factors Contributing To The Issues Identified

The following are the underlying factors contributing to the issues identified under the Fisheries and Livestock Sector;

- ✓ Lack of by-laws to deter fishers from going with children in the fishing camps
- ✓ Lack of policies targeting the participation of vulnerable farmers in the sector

3.2.9 Sector Summary

The Fisheries and Livestock Sector is one of the economically stimulating sectors in the district as it is providing self-employment to the fishers in the district. The district has not recorded significant development in fish farming as most of the residents prefer fishing from the natural water bodies. Apart from fish farming livestock farming is another subsector that has not meaning development mainly due to limited grazing land absence of critical infrastructure to support the sector thrive. Additionally, absence of office accommodation and staff accommodation coupled with transport challenges has hampered the growth of the Fisheries and Livestock Sector in the district.

3.3 Transport and Communication Sector

3.3.1 Key Government Priorities Being And To Be Implemented At A Local Level

The mandate of the Ministry of Transport and Communications is to coordinate the development and regulation of the transport, communications and meteorology.

3.3.1.1 National Information & Communication Technology Policy 2023

This Policy seeks to accelerate the development of Zambia's digital economy by enhancing opportunities for digital platforms, services, skills, local participation, investment in infrastructure, supporting innovation and entrepreneurship, and research and development.

3.3.1.2 National Transport Policy, 2019-2028

The goal of this policy is for an efficient and integrated transport system in Zambia by 2028 across the sectors namely aviation, maritime and waterways, railway, pipeline and road. The policy outlines the institutional arrangement, legislative framework and infrastructural development required for the achievement of the policy objective.

3.3.2 Description of The Existing State Of Development

3.3.2.1 Availability of Service

3.3.2.1.1Transportation

Transportation in Lunga District is characterized by water channels between islands and footpaths within islands. The channels although clogged and silted are available and used by the community with an exception during dry season as they become impassable when water levels are low. This usually happens in the period between August and December. Some of the channels where the situation is worse are Kasoma Lunga-Nsamba, Bwalya Mponda-Chafye, Bwalya Mponda-Mutoni-Chikonde-Mbo yalubambe and Kalima Nkonde-Mweshi.

Table 8: Depicts the Distances of Water Channels including their conditions in Lunga district

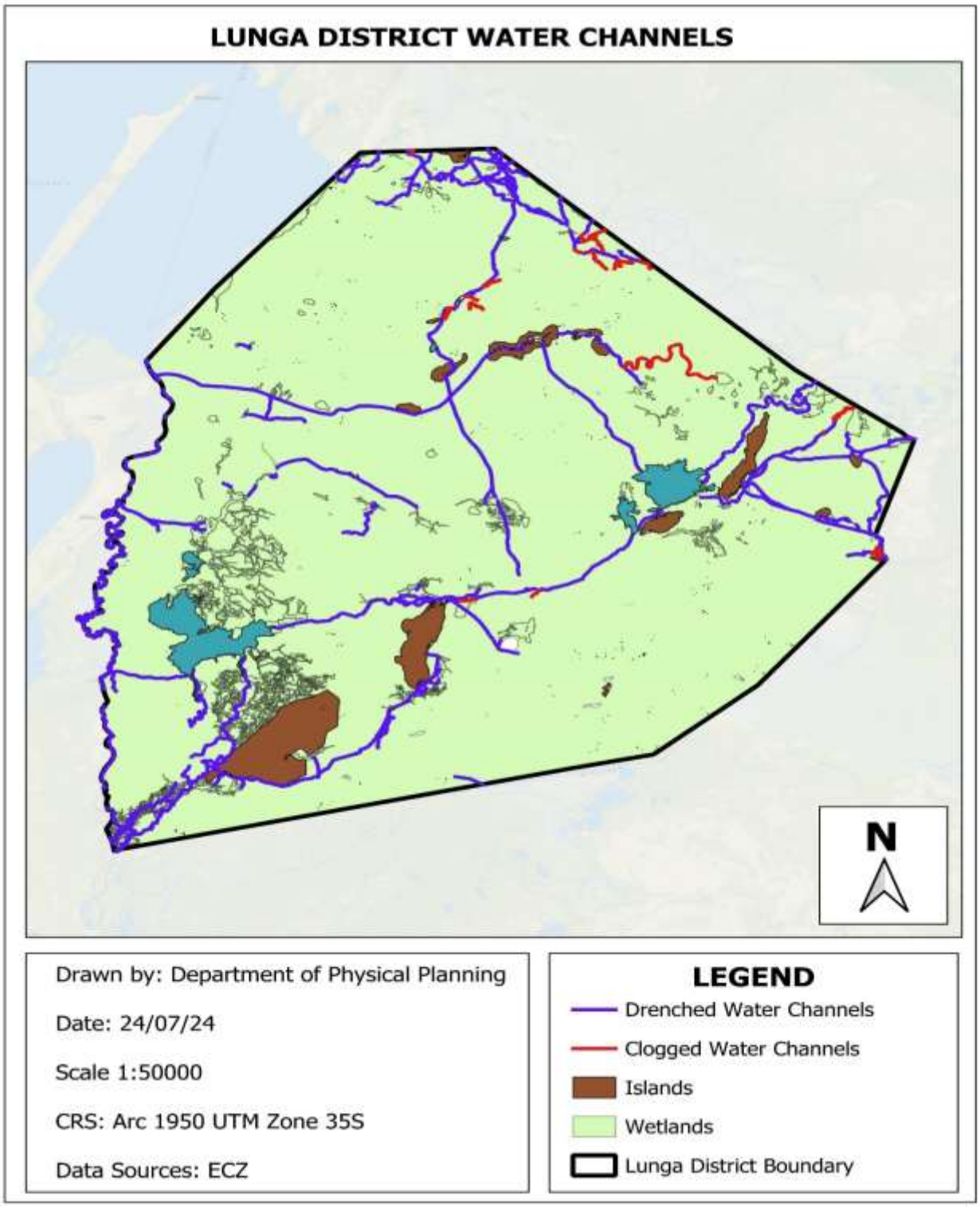
Channel Names	Distances	Description	Surface	Condition
Mpanta-Kasoma Lunga (Buyantanshi)	45km	Connects Kalimankonde, buchinda, Mungo'mba and Mweshi	Water	Good
Kasoma lunga-Chisale	50km	Connects Chibulu and Matipa	Water	Bad
Kasoma lunga-Nsamba	35km	Joins to Nsamba –Bwalya Mponda channel	Water	Good
Nsamba-Mutwamina	25km	Connects Kabulu, and Mandwe.	Water	Bad
Nsamba-Bwalya Mponda	45km	Connects Matonga, Mutoni, and Boyalubambe.	Water	Good

Bwalya mponda-Mboyalubambe	55km	Connects Chikonde, Mutali and Luapula River	Water	Fairly Good
Kalimankonde-Mweshi	30km	Connects buchinda, Mungo'mba.	Water	Bad
Bwalyamponda-Chinsanka	45km		Water	Good
Kasoma lunga-Chilubi	50km	Connects Nsamba	Water	Bad
Bwalya Mponda-Chafye	35km		Water	Bad
Kalimankonde-Chilubi	45km	Mweshi	Water	Bad
Buyantanshi-Kalimankonde	15km	Feeder channel	Water	Bad
Chisale-Mutwamina	35km		Water	Bad

Source: Bangweulu Water Transport, 2023

There are footpaths/embarkments on the islands that help the communities' access services such as schools, health facilities, markets, police post, etc. Some of these roads/embarkments are in bad state due to flooding and require maintenance.

Figure 13: Lunga District Water Channels Map



Source: Department of Physical Planning, 2024.

3.3.2.1.2 Communication

Regarding communication, the District has MTN and Zamtel as its mobile network service providers with some parts of the district having Airtel mobile network. However, the network is of poor quality and some areas of the district are not even covered. Radio signal is poor as it can only be accessed via short wavelength and TV can only be accessed by way of using digital satellite devices.

3.3.2.2 Quality of Services including Key Performance Indicators

3.3.2.2.1Transport

Lunga people depends on the water channels for their transportation of goods and services within and outside district. Approximately Lunga district has about 510 km of water channels that traverse the district. The transportation of goods and services still remains a challenge in some parts of the district due to bad conditions of some channels. About 225km of the total 510km Water Channels are in good condition while the remaining 285km are in bad condition. On the other hand, footpaths are used to move from one part of the land to the other and approximately 4.5km of these footpaths are in good shape despite in some sections where the crossing points that needs to be worked on.

3.3.2.2.2 Mobile Network Coverage

Even though the District has mobile network coverage in some places, the quality is poor. Therefore, there is need to improve and increase the quality and network coverage area through the installation of more mobile network towers in the District.

3.3.2.2.3 Radio Signal Coverage

The District does not have its own radio and television stations, the signal received through short wave is of very poor quality propagating from Chilubi district. Hence, to improve community access to information, the District need to facilitate for the establishment of a radio station.

3.3.3 Issues Arising From The Public Participation Process

3.3.3.1 Availability Of Service

Arising from the stakeholder consultative meetings in the planning survey and issues report process, it was observed and noted that the Transport and Communication Sector does not provide public transport to the general public apart from private individuals and personal transport means. The services are very poor in most parts of the district due to clogging and silting of the channels and at certain times low water levels worsens the situation. On the other hand, poor mobile network and absence of radio signals were identified as core issues.

3.3.3.2 Quality Of Service Including Key Indicators Of Performance

The quality of services rendered to the district under the transport and communication sector are generally of poor-quality ranging from water transport, mobile network and to make the matters worse there are no TV and Radio signals. The only available TV signals are those accessed from the Digital satellite platforms.

3.3.4 Impact Of Changes Anticipated Over The Next Ten Years

3.3.4.1Population Change – Future Demand for Services and Facilities

The population of Lunga district is projected at 62,419 in the next ten years and this implies an increased demand for transport and communication services in the district. Currently, the demand for transport and communication services is quite high in the district and provides an opportunity to the sector in ensuring that measures and interventions are put in place in order to meet the envisaged future demand for services.

3.3.4.2 Existing and Proposed Investment And Development Programmes

Table 9: Existing and Proposed Investments and Development Programmes under Transport and Communication

Existing Investments	Proposed Development Programmes
• Water Channels • Communication Boosters • Starlink Satellite for internet use	• Widening and deepening of channels • Installation of mobile network towers • Establishment of Community Radio Station • Construction of landing jetties • Rehabilitation and maintained of walkways on the embankments • Completion of post office • Maintenance of water channels • Provision of Public Water Transport Vessel

Source: Lunga IDP Team, 2023

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

Population increase will trigger the demand to increase the transportation network system necessitated by establishment of new settlements. In order to carter for this, space will be needed for transport infrastructure development.

3.3.6 Environment and Climate Change Analysis

3.3.6.1. The Impact Of Existing Trends On The Environment And Climate Change

Transport and Communication Sector have huge Environmental impacts that are caused by opening up and rehabilitation of channels by excavating in fish breeding areas, removing of vegetation on site and changing the landscape by creating embarkment on the sides of the channels.

While, for radio stations and communication towers, portions of land are cleared in different locations to construct buildings and mount the towers so that there is no disturbance to the network.

3.3.6.2 The Impact Of Environmental And Climate Change Issues On The Sector

Climate change poses a threat to existing and future infrastructure, including high costs for adaptation, maintenance, and potential negative impacts on transit. Climate Change has come with projected precipitation, temperature, and flooding with this change, transportation infrastructure is likely to be affected by having low water levels for example, as a result, government and the Local Authority will have to source for resources from other developmental programs in order to fund transportation infrastructure for the maintenance and adaptation of the existing infrastructure. Excess rains resulting from Climate Change may affect TV signal and interrupt mobile network service.

3.3.7 Issues Arising Relating to Gender Groups and Vulnerable Groups

Under Transport and Communication Sector, the following are the issues arising relating to gender and vulnerable groups;

- ✓ The transport sector favours men in terms of job creation.
- ✓ Women and girls risk their lives as they pedal their canoes from one point to another due to lack of safety measure

3.2.8 Consideration Of The Underlying Factors Contributing To The Issues Identified

The following are underlying factors contributing to the issues identified in the transport and communication Sector relating to gender groups and vulnerable people.

- ✓ Dredging of channels is not seen as a job for women(both mechanical and manual)
- ✓ Canoe pedaling has been seen as a skill which is traditionally inherited from one generation to another.
- ✓ There is no law which deter people from using canoes

3.2.9 Sector Summary

The Transport and Communication Sector has been identified as a major driver of economic growth and development in modern times due to technological progress and advancements.

In terms of transport, Lunga district grapples with a myriad of challenges among them clogging and silting of channels making it difficult for people to navigate from one part of the district to another for purposes of accessing goods and services. It is blatant that out of the 510km of channels in the district only 225km are in good shape and the remaining 285km in bad shape and needs urgent attention to facilitate easy movement of goods and services between islands.

On the other hand, communication is another factor impeding development in lunga district due to absence of communication masts and radio station. The weak networks signals that the district receives are propagated from Chilubi District which are amplified a bit by the four mounted network booster in the four chiefdoms of the district. Weak radio signals are equally propagated from Chilubi District.

3.4 Energy Sector

3.4.1 Key Government Priorities Being And To Be Implemented At A Local Level

The Ministry of Energy with the support of the European Union under the "Increased Access to Electricity and Renewable Energy Production" (IAEREP) project launched the **National Energy Policy 2019** (NEP 2019) on 18th February 2020. Dynamics in the energy market, effects of climate change and advances in technology gave the impetus to the development of the National Energy Policy 2019. The overall objective of the NEP 2019 is to achieve optimal energy resources utilization to meet Zambia's domestic and non-domestic needs at the lowest total economic, financial, social, and environmental and opportunity cost and establish Zambia as a net exporter of energy.

3.4.2 Description Of The Existing State Of Development

3.4.2.1 Availability Of Service

Lunga district's energy sources include; firewood, reeds, charcoal, solar as well as petroleum. Solar power is the mostly used energy source for lighting, powering stereos and TV sets installed at household level as solar farms are not present in the district. Charcoal and firewood is used for cooking, heating and smoking of fish. On the other hand, petrol/diesel run generators are used where power supply needs are high especially in construction. Additionally, petrol run engine boats are used to transport goods and services. The district depends entirely on Samfya and Mansa for petroleum supply, it has no filling station.

3.4.2.2 Quality Of Service Including Key Indicators Of Performance

Currently, the service in this sector is non-existence as there are no systems in place to provide as well as regulate. However, Rural Electrification Authority (REA) has come in the district to put up Mini Solar Power Grids to provide electricity for lighting in homes and public institutions, but the establishment of a solar farm has not materialized to feed into the distribution lines that have been taken to settlement earmarked for connection. At the moment no household has been connected to any form of clean energy apart from individual have installed their own solar panels. As earlier indicated the demand for clean energy is very high both from individual households and public institutions, even though the services is non-existent.

3.4.3 Issues Arising From The Public Participation Process

3.4.3.1 Availability Of Service

During the Planning Survey and Issues Report under Community and institutional stakeholder engagements it was highlighted that the district needed clean energy sources for cooking, lighting and heating to avoid the over dependency on firewood and charcoal. Absence of the National Grid and lack of sources of clean energy was identified has the core issue.

3.4.3.2 Quality Of Service Including Key Indicators Of Performance

Currently, there are no energy supply services in the district, however, there is a stalled Rural Electrification Authority (REA) project that has been under implementation put up Mini Solar Power Grids to provide electricity for lighting in homes and public institutions.

3.4.4 Impact Of Changes Anticipated Over The Next Ten Years

3.4.4.1 Population Change – Future Demand for Services and Facilities

The boom in population as project at 62,419 in 2033 with the number of households estimated at 10,403 is a key indicator in terms of power consumption at household, institutional and commercial levels.

Currently there are no households connected to the national grid against 11,419 projected number of households meaning that there is already a high demand for services as well as facilities to meet the already risen demand. On the other hand, there are no institutions or business houses connected to the National Grid as the district entirely depend on alternative sources of energy for various uses.

3.4.4.2 Existing and Proposed Investment and Development Programmes

Table 10: Existing and Proposed Investments and Development Programmes under the Energy Sector

Existing Investments	Proposed Development Programmes
• A REA solar power line at Kasoma Lunga	• Establishment of solar farms in order to supply power to the whole district • Construction of a filling station • Connect Lunga District to the National Grid • Bio Gas Char Briquettes project

Source: Lunga IDP Team, 2023

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

The settlement pattern in Lunga is mostly concentrated in areas where economic activities like farming, fishing and trading are practiced. In terms of energy, households heavily relying on firewood, charcoal and solar for smoking fish, cooking and lighting. It is expected that when Mini Solar Grids are operational there will be a shift in population to areas that will have solar grids for the provision of energy for the aforementioned uses.

3.4.6 Environment and Climate Change Analysis

3.4.6.1 The Impact Of Existing Trends On The Environment And Climate Change

As the consumption of firewood and charcoal continues, the release of carbon monoxide gases increases which in turn depletes the ozone layer thereby causing surface warming. It is therefore likely that the aforementioned trend will have adverse effects on the environment and Climate Change.

3.4.6.2 The Impact Of Environmental And Climate Change Issues On The Sector

The following are the impacts of environmental and Climate Change issues on the energy sector;

- ✓ Damage to energy infrastructure
- ✓ Low hydro power supply due to unprecedented rainfall patterns

3.4.7 Issues Arising Relating to Gender Groups and Vulnerable Groups

The following are the issues arising relating to gender groups and vulnerable groups under the Energy Sector;

- ✓ Women spend a lot of time collecting wood fuel and burning charcoal which reduces the time spent on productive activities.
- ✓ The lack of access to electricity supply and alternative power prevents vulnerable groups from participating in other beneficial ventures such as education.
- ✓ The work load of finding alternative sources of energy especially wood fuel increases women's susceptibility to health risks.
- ✓ Women headed businesses do not operate at the optimal efficiency due to lack of power which makes doing business expensive.

3.4.8 Consideration Of The Underlying Factors Contributing To The Issues Identified

The underlying factors contributing to issues identified are mainly due to absence of clean energy in the district. There is literally no investment in clean energy and none of the households or public facilities are connected to the National Grid.

3.4.9 Sector Summary

The Energy Sector has not yet registered its presence in Lunga District for purposes of supply of clean energy. The district need clean energy sources for cooking, lighting and heating to avoid the over dependency on firewood and charcoal. During the IDP implementation period the population of lunga district has been projected to stand at 62,419 in 2033 translating into 10,403 households' further stimulating demand for clean energy in the district.

3.5 Education Sector

3.5.1 Key Government Priorities Being And To Be Implemented At Local Level

The following are some of the priority policies and plans being implemented under Education Sector at local level including their key features;

- ❖ Free Education Policy, 2022

In January 2022, the Government of the Republic of Zambia introduced the Free Education Policy from Early Childhood Education to secondary school level in all Government schools

- Zambia National ICT Policy, 2006
- Ministry of Education 2022-2026 Strategic Plan
- National Policy on Education of 1996 was premised on the philosophical rationale for future development of education on three broad considerations;
  - The role of the government in education
  - Principles for the development of education and practices; and
  - The aims of the national education system.
- Zambia Re-entry Policy of 1997 guarantees girls the right to stay in school as long as they chose to during the pregnancy, take a maternity leave and come back after delivery.
- The Eighth National Development Plan: During the implementation of the plan Government will ensure that all learners have access to equitable and inclusive quality education that prepares them to pursue higher education. This will be done through the recruitmentand placement of more teachers in needy areas, provision of free education from early childhood to secondary school and provision of bursaries, using a decentralized approach. Additionally, establishment and construction of more ECE centres, secondary schools and other school infrastructure, including completion of incomplete classroom structures, and accommodation for teachers, especially in rural areas,will be undertaken. Further, the education curriculum will be reviewed to ensure that it provides life relevant knowledge andskills and promotes the application of national values and principles.

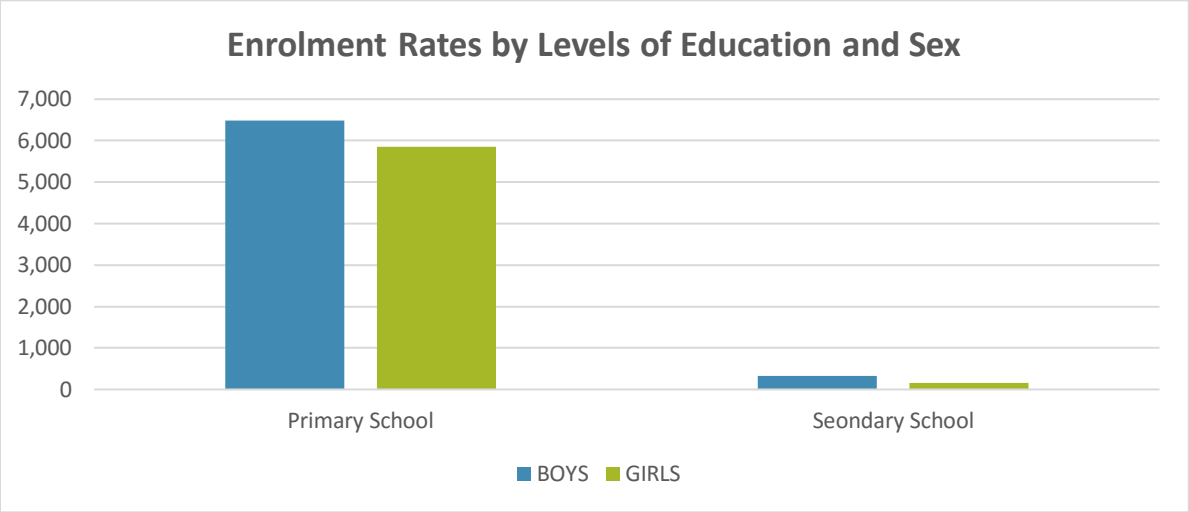
3.5.2 Description Of The Existing State Of Development

3.5.2.1 Availability Of Service

Lunga district has four (4) Secondary Schools, Nineteen (19) Primary Schools and 14 ECE centres annexed to existing classrooms while tertiary institutions for the provision of tertiary education are non-existing. In terms of Primary school education, all wards have a share of these primary schools.

However, the district has a number of challenges with school education services especially in terms of boarding and laboratory facilities. Some children come from communities as far as 20km from the nearest secondary school. This has a huge negative effect on the education progression rates to secondary and particularly on the girl child who are more vulnerable in such conditions. As can be observed from the general district enrolment rates 6,486 and 5,851 for boys and girls respectively at primary school as well as 330 and 154 for boys and girls respectively at secondary schools, there were more female learners at primary level than at secondary and more male learners at secondary level. Almost all schools have no proper sanitary facilities for pupils and teachers. The classroom space for pupils is not enough, hence the need to construct more classroom. The district has no administrative offices and houses for staff at the District Education Board.

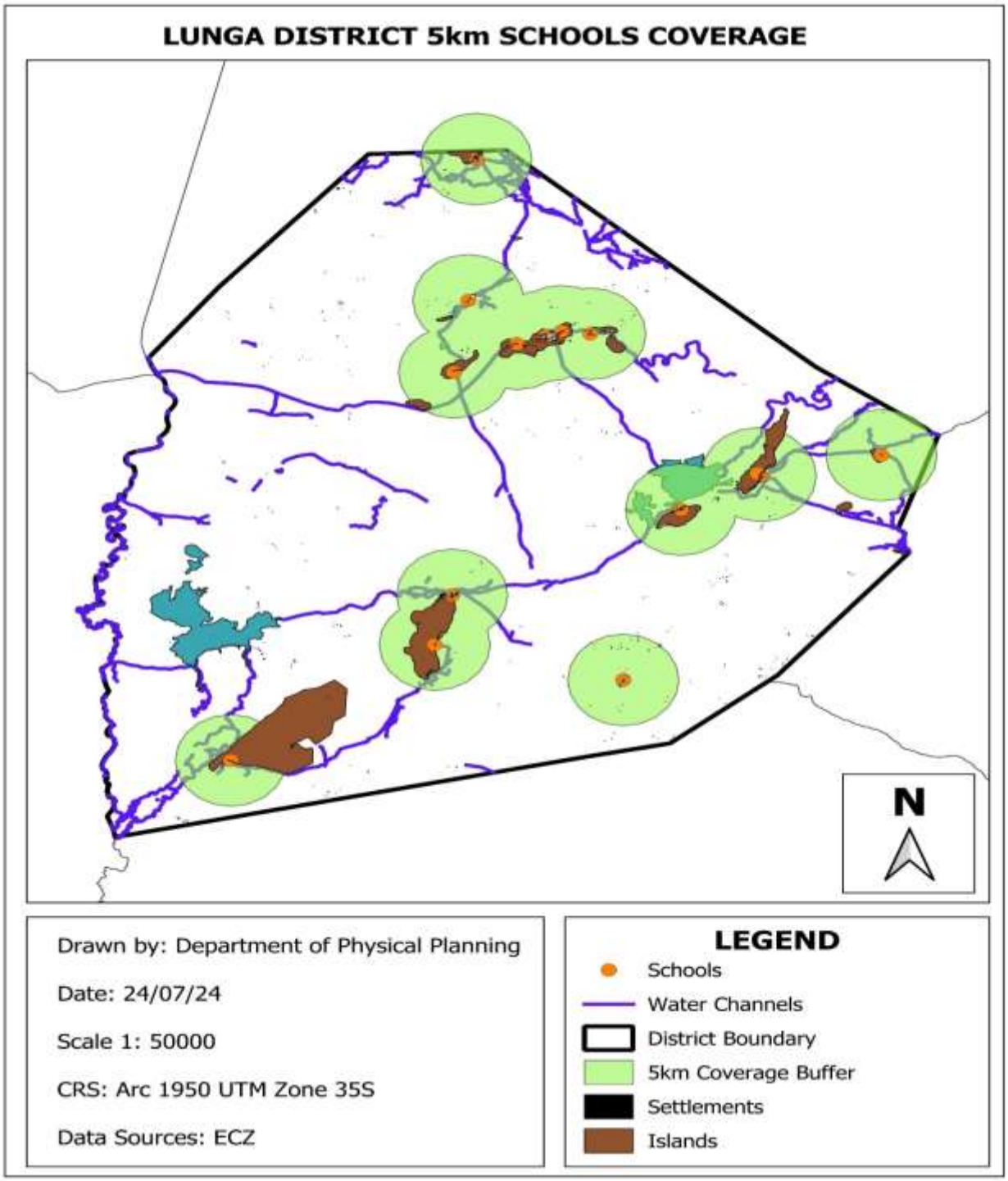
Figure????: Summary of Enrolment Rates by Levels of Education and Sex



Sources: Lunga IDP Team, 2023

Looking at the district enrolment levels, Mandwe primary School in Lubale Ward recorded the lowest with enrolment levels standing at 85 male and 77 female while Kasoma-lunga Primary School in Lunga Ward recorded the highest with enrolment levels standing at 608 male and 504 female indicating a huge discrepancy between the lowest and the highest enrolled schools. For details regarding district enrolment levels refer to Annexure "A" .

Figure 14: Lunga District 5km Schools Coverage Map



Source: Department of Physical Planning, 2024.

3.5.2.2. Quality Of Service Including Key Indicators Of Performance

In Lunga District, the provision of education services is in three folds and this includes Early Childhood Education, Primary Education and Secondary Education. Generally, the staffing levels stands at 308 against 26 staff housed creating a deficit of 282 staff houses. With regards to enrolment levels, generally the district stands at 12,821 in the absence of a fully-fledged Secondary Boarding School apart from initiatives made by school authorities to convert a 7 classroom blocks into dormitories across the district in order to keep a girl child in school. With the introduction of free education enrolment levels have increased and this has increased the teacher pupils ratio from the ideal 1:35 or 1:40 to 1:90 as is the case in Lunga district there by compromising on the quality of education.

3.5.3 Issue Arising From The Public Participation Process

3.5.3.1 Availability of Services

During the public consultation process of the planning survey and issues report, it was observed that education sector is providing secondary, primary and early childhood education in all the wards of the district while in other wards it is a nightmare to access these services because of the great distances covered to access them. The following were the major issues brought about by these gaps in services delivery.

- Inadequate classroom space.
- Inadequate and non-availability of water and sanitation facilities.
- Absence of laboratory facilities and equipment in secondary schools.
- Inadequate accommodation for teachers.
- Inadequate and absence of solar power at learning institutions.
- Absence of stand-alone ECE centres with appropriate infrastructure.
- Absence of proper boarding facilities for both girls and boys.
- Inadequate desks in learning institutions.
- Inadequate of water transport in schools which requires at least one boat and engine per zone to ease the transportation challenges.
- Unavailability of internet services in learning institutions.
- Incomplete and dilapidated infrastructure such as classrooms and houses.
- Non-availability of menstrual hygiene management (MHM) facilities in schools

3.5.3.2 Quality Of Service Including Key Indicators Of Performance

During the consultative meeting processes under the education sector, it was highlighted that the quality of education services being provided are seemingly slightly above average in certain schools due to the increased teacher pupil ratio and the increased number of classes' one (1) teacher is attending to in a day. Staff accommodation in the district is also contributing to compromised quality of education as most 91.6% of the teachers are not decently accommodate.

3.5.4 Impact Of Changes Anticipated Over The Next Ten Years

3.5.4.1 Population Change – Future Demand for Services and Facilities

Although the district is relatively well covered with schools, the demand for education services during the planning period is likely to increase considering the current population structure of the district. About 28, 891 representing more than 50% percent of the total district population is aged 14 years and below. This is the predominant school going population from primary schools. Notably, the current district enrolment stood at 14, 387 which is almost half of the projected population which is likely to demand for education services.

The deficit is even more at Early Childhood Education (ECE) level with only 12 ECE centres annexed to existing primary schools. There is a new policy direction which has directed that all primary schools must have stand-alone ECE centres with appropriate infrastructure.

3.5.4.2 Existing and Proposed Investment And Development Programmes

Table 11: Existing and Proposed Investment and Development Programmes under the Education Sector

Existing Investments	Proposed Development Programmes
○ 25 Schools ○ 60 Staff Houses ○ Construction of a 1x2 CRB at Itala Secondary. ○ Construction of 1 boarding facility at Itala Secondary. ○ Construction of 1x2 CRB at Chisale Primary. ○ Construction of a staff house at Buchinda Primary phase ○ Construction of a 1x2 CRB at Chafye Primary School. ○ Construction of a staff house at Mandwe Primary school. ○	○ Construction of 60 No staff houses. ○ Rehabilitation of 10 No CRBs ○ Construction of 4No dormitories at Bwalya Mponda, Kasoma lunga, Itala and Nsamba schools. ○ Primary and Secondary levels. ○ Construction of 25 ablution blocks at all three levels. ○ Construction of 10 classroom blocks at all levels ○ Construction of 10 ECE centres. ○ Procurement of 200 desks for secondary, 450 desks for primary and 500 desks for ECE levels. ○ Rehabilitation of 10 broken down bore holes. ○ Procurement and installation of solar lights at 25 learning institutions. ○ Procurement and installation of internet services at 24 learning institutions. ○ Procurement of boats and engines for 10 schools.

	○ Construction of administrative office for District Education Board. ○ Construction of 3 science and HE laboratories. ○ Procurement of laboratory equipment for 5 schools ○ Construction of a fully-fledged boarding school ○ Construction of trades training institute ○ Construction of staff houses ○ Construction of Ablution Blocks ○ Establishment of mechanized water scheme ○ Installation of solar panels in schools and staff houses

Source: Lunga IDP Team, 2023

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

Arising from the development needs identified during the community consultative meetings with WDCS and other stakeholders under education sector, it's envisaged that a greater impact on the land use patterns will be felt in the implementation of infrastructure related projects and among them is burning the grass, sand mining for block making to pave way for the proposed developments to take place across the district.

Most people of Lunga District live in small communities in swampy areas while others have established settlements as fishing camps along the natural water bodies. In summary, approximately 90% of the district population occupies only about 35% of the district surface due to massive water bodies that occur in the district. This implies that there is no enough land for infrastructure projects, the new projects will be done in areas with inadequate infrastructures. In terms of water and sanitation, the people of Lunga district get their water from open rivers, lakes, lagoon, or unprotected water bodies. In most cases the open water sources are badly contaminated and pose a great health hazard. With the presidential directive that all schools must have ablution blocks with running water, the district is likely to face challenges associated with high water table.

3.5.6 Environment and Climate Change Analysis

3.5.6.1 The Impact Of Existing Trends On The Environment And Climate Change

The increase in population for a particular locality stimulates demand for consumption of resources such as land, food, water, air, fossil fuels and minerals. In turn Waste products are generated as a result of consumption of resources such as air and water pollutants, toxic materials and greenhouse gases.

Lunga District has not been spared from the effects of population explosion resulting in the demand for additional education infrastructure, water and sanitation services, energy consumption and other natural resources.

In the case of increasing human activities on the environment the sector is likely to anticipate global warming due to atmospheric concentrations of greenhouse gases carbon dioxide (CO2), methane (CH4), and nitrous oxide (N2O) through burning of bushes and other related activities. At local level evidence of climate change is mainly in form of extreme weather events, droughts and floods. The latrines that exist are made out of inferior materials and do not last long and it is generally difficult to construct latrines because water tables are very high. This has led to change of ground water leading to high prevalence of water borne diseases such as cholera, dysentery and sometimes worm infection mostly in children which has a negative impact on pupils' enrolment, attendance and retention.

3.5.6.2 The Impact Of Environmental And Climate Change Issues On The Sector

Climate Change is both a reality and crisis. In the education sector, children are the most vulnerable in the event of natural or man-made disasters which occur as a result of Climate Change. Schooling and learning systems are disrupted affecting their right to education and inducing stressful situations due to the following;

- Due to the drought and heavy rains (storms) which is associated with climate change there is poor agricultural money to feed their harvest and thus parents find it difficult to raise money to feed their children and buy them school requisites. This trend increases absenteeism and dropout rates.
- There is poor agricultural yield due to the outbreak of insects and rodents which destroys the crops thereby making it extremely difficult for parents to raise funds to buy school requisites for their children.
- Intense heat associated with climate change brings health complications to the learners.
- As a result of storms and heavy rains, School infrastructure are damaged hence there is prolonged disruption of education and limited access to education opportunities. The education sector has recently seen high incidences of blown-off roofs on school infrastructures. E.g. Mwaba Chikonde Primary School 1X2 class room block had its roofs blown off while a staff house at Mbo yalubambe had its roof blown-off.

3.5.7 Issues Arising Relating to Gender Groups and Vulnerable Groups

In the Education Sector, the issues arising relating to Gender and Vulnerable Groups are as outlined below;

- ✓ Lack of knowledge, awareness and acceptance of the reality of girls, their different needs and competencies lead to sex stereotyping and some forms of discrimination. Some gender issues in education includes gender balance, violence against girls and sexual harassment.
- ✓ Girls are forced into early marriages. The district recorded 62 cases in the past 4 months of the year, 2023 in the report from DEBS.

3.5.8 Consideration Of The Underlying Factors Contributing To The Issues Identified

The underlying factors contributing to the issues identified in the education sector are as follows;

- ✓ mainly to do with cultural beliefs and norms about a girl child and
- ✓ Lack of understanding of gender equality and equity policies as there has been less education and sensitization on the issues surrounding gender equality and equity.

3.5.9 Sector Summary

The Education Sector through the Ministry of Education is mandated to provide quality education for all by making it more accessible, inclusive and relevant as well as ascribe to internal and global norms in terms of standards. In order to foster quality education for all and other tenets, policy direction has been given so that all Zambian citizens are able to pursue knowledge and skills, manifest excellence in performance and moral uprightness, defend democratic ideals, and accept and value other persons on the basis of their personal worth and dignity, irrespective of gender, religion, ethnic origin, or any other discriminatory characteristics. The need to improve the teacher and learner performance as well as quality of Education through strengthened supervision, material provision and encourage innovation in the implementation of the approved curriculum is of utmost importance to the wellbeing of our education system.

3.6 Health Sector

3.6.1 1key Government Priorities Being And To Be Implemented At A Local Level

National Healthy Policy, 2012

The National Healthy Policy of 2012 sets out policy measures that shall guide strategies and programmes in the health sector. The policy also takes into consideration various Regional and International Instruments, Protocols and Commitments which will ensure that Zambia's health programmes are integrated with the regional and global health system.

Under the Health Sector, the following are among the key priority areas that are being implemented and shall be implemented locally;

- Reduction of maternal and perinatal mortality
- Increasing access to quality health care services.
- Improving the quality of care
- Active disease surveillance and health promotion.

This will be achieved through the construction of health facilities and staff housing, recruitment of skilled health personnel and improved transport network in the district.

It is important and worth noting that the district plan details the direction that the health sector needs to undertake, the achievements and outcomes that will be attained, and the interventions that will be undertaken to make sure the targets are met. The health priority areas in this plan are in line with what is provided under the Ministry's strategic plan the (Zambia National Health Strategic Plan - ZNHSP (2017-2021)) and the (Eighth National Development Plan (2022 – 2026)). This is to say, the plan does not depart from the main National Development Plan.

3.6.2 Description of The Existing State Of Development

3.6.2.1 Availability of Service

Lunga District has a 2023 projected total population of about 42,210 against 7 health facilities with a combined total bed space capacity of 79. This huge discrepancy or service gap implies that the health facilities in the district are overwhelmed due to high demand for health services. On the other hand, most of the communities in almost all the wards are falling outside the 5km radius subjecting people seeking medical services to cover long distances to access the service.

Table 12: Summary of Health Facilities in Lunga District

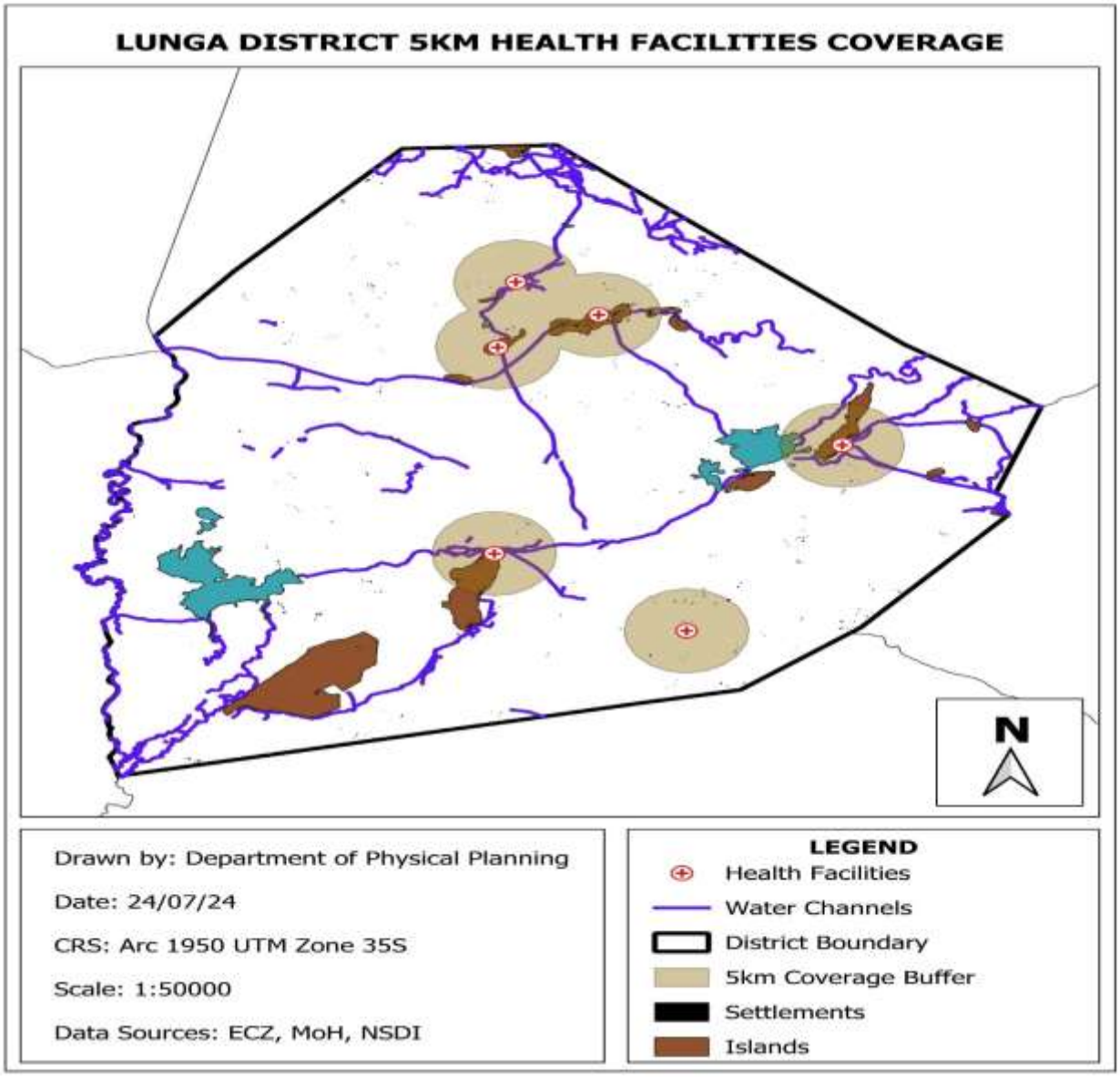
S/No.	NAME OF FACILITY	ZONE/WARD	LEVEL	DISTANCE FROM DHO	BED CAPACITY	Catchment Population	
						Male	Female
1	Kasoma Lunga	Lunga	RHC	5km	26	7504	8130
2	Bwalya Mponda.	Ncheta	RHC	88km	15	2042	2212
3	Nsalushi RHC	Nsalushi	RHC	33km	15	1825	1977
4	Kalima Nkonde RHC	Nkutila	RHC	18km	10	5746	6224
5	Mweshi RHP	Mweshi	HP	58km	6	1126	1220
6	Chafye RHP	Chumbwe	HP	130km	6	728	729
7	Matongo	Nsalushi	HP	45km	1	1553	1683

Source: Lunga DHO, 2023

While six wards have health facilities, namely lunga,Mweshi,Nsalushi,Ncheta,chumbwe and Nkutila as opposed to Itala,Shinga,Mashiba and Lubale wards who are seemingly the most affected due to non-availability of health facilities while Nkutila ward is affected due to the vastness of the wards and in such cases, pregnant women are more vulnerable. The challenge of access to health services is exacerbated by lack of water transport (ambulances) in all the facilities and poor state of water Channels.

Lunga District has no first level Hospital meaning that severe or critical case faced with at the health facilities are referred to Samfya District Hospital or Mansa General Hospital as the case may be depending on the gravity of the case at hand.

Figure 15: Lunga District 5km Health Facilities Coverage



Source: Department of Physical Planning, 2024.

3.6.2.2 Quality of Service including Key Indicators of Performances

Lunga District has a 2023 projected total population of about 42,210 against 7 health facilities with a combined total bed space capacity of 79. This huge discrepancy or service gap implies that the health facilities in the district are overwhelmed due to high demand for health services. On the other hand, most of the communities in almost all the wards are falling outside the 5km radius subjecting people seeking medical services to cover long distances to access the service.

Against a population of 42, 210, Lunga district has only one (1) medical Doctor, five (5) Clinical Officer and sixteen (16) Nurses that forms a formidable health service providing team in the district.

Regarding Water transport, the Health Sector has five (5) speed boats of which three (3) are non-runners and two (2) are runners against the seven (7) health facilities that are present. On the other hand, the Sector has three vehicles of which one (1) is an Ambulance used for referrals from Mpanta mainland to Samfya Hospital or any other referral hospitals as the case may be, the second is a utility vehicle as well as an operational vehicle.

3.6.3 Issues Arising from the Public Participation Process

3.6.3.1 Availability Services

During the public consultation process of the planning survey and issues report, it was observed that the Health Sector provides Primary Health Care (preventive) services at all health facilities in the district excluding the four wards without health facilities. These primary health care services range from public health, maternal and child health, pharmacy to mention, but a few. Arising from the consultations, it was observed that it is a challenge to access these services in places like Lubale, Shinga, Itala and Mashiba wards reasons being the absence of health facilities and distances covered to access these services. Limited access to quality health care services was a core issue as a result of high morbidity rates, inadequate health facilities, lack of expansion and upgrading of health facilities and inadequate staffing levels among others.

3.6.3.2 Quality of Service including Key Indicators of Performances

Adequate access to quality health services is very pertinent in our daily life taking into consideration that socio-economic transformation is championed by a healthy citizenry. Access to quality health services has been a challenge in Lunga mainly due to absences of health facilities in some parts of the district coupled with mobility challenges as a result of clogged channels and vastness of the district.

3.6.4 Impact Of Changes Anticipated Over The Next Ten Years

3.6.4.1 Population Change – Future Demand for Services and Facilities

Health service gaps were the most glaring both in terms of proximity to human settlements and accessibility. The existing few facilities are currently overwhelmed with demand for medical services from local and surrounding communities. The district only has 79 bed spaces against a

2033 projected population of 62,419 showing a huge deficit. Some of the few existing facilities are equally not easily accessible due to poor conditions of water channels coupled with inadequate qualified personnel manning such facilities by virtue of their level (Medical standards) due to lack of staff houses. Wards such as Shinga, Lubale, Mashiba and Itala are even more vulnerable as they have no facility while Nkutila has some communities covering more than 20km to access the existing facilities due to the spatial vastness of the ward. Without any strategic interventions, the trend is likely to increase with increased population.

3.6.4.2 Existing and Proposed Investment and Development Programmes

Table 13: Existing and Proposed Investment and Developments under Health Sector

Existing Investments	Proposed Development Programmes
o 4No Rural Health Centres o 3No Health Post o 18No Staff Houses o Constructed 1No health post at Mung'omba finish level. o Constructed of 1No health post at Itala 30% o Construction of 1No health post at Chibulu. o Construction of 1No health post at Chisale. o Stop GBV by Natwampane	o Construction of staff houses o Construction of health facilities in 8 wards o Construction of 2No Mini-Hospitals at Bwalya Mponda and Kasoma Lunga. o Provision of speedboats for Bwalya Mponda RHC, Kalima Nkonde RHC and Mweshi health post o Construction of maternity annexes 2No in Mweshi and Chafye. o Construction of district hospital

Source: Lunga IDP Team, 2023

3.6.5 Impact of the Continuation Of Existing Trends on Land Use and Population Distribution Patterns

Arising from the magnitude of developmental projects to be implemented under the Health Sector, it is envisaged that there will be loss of vegetation land cover and agriculture land and in certain circumstances loss of wetlands.

Apart from the proposed institutional infrastructure, private and individual developers have been equally anticipated to settle around these facilities for purposes of easy access to medical services there by bringing about a situation of population concentration around and along the anticipated institutional infrastructure.

3.6.6 Environment and Climate Change Analysis

3.6.6.1 The Impact Of Existing Trends On The Environment And Climate Change

As population explosion continues stimulating demand for health services and subsequently demand for health-related infrastructure development and other amenities, there is great pressure

exerted on the environments' natural resources such as land, food, water, air, fossil fuels and minerals. The consumption of these resources in turn leads to deforestation, environmental degradation and release of other toxic materials and greenhouse gases thereby causing surface warming or global warming.

If precautionary executed, the aforementioned infrastructure project will bear minimal negative impacts on the environment thereby lessening the adverse effects of climate change such as unprecedented rainfall patterns and high temperatures being experienced in most parts of the world.

3.6.6.2 The Impact Of Environmental And Climate Change Issues On The Sector

In the Health Sector, the following have been identified as impacts of the environment and climate change on the sector;

- ✓ Poor accessibility to health facilities and communities
- ✓ Poor nutritional levels among the people
- ✓ Poor quality drinking water
- ✓ High morbidity rates and subsequently mortality

3.6.7 Issues Arising Relating to Gender Groups and Vulnerable Groups

Under Health Sector, the following are issues relating to Gender and vulnerable Groups in Lunga District;

- ✓ Members of vulnerable populations (physically challenged, children and women) in the district frequently have health with worsened conditions that are made by unnecessarily insufficient healthcare which are as a result of economic situation, distance from the health facilities as well as cultural beliefs such as witchcraft.
- ✓ Failure to have autonomous family planning decisions, women do not make decisions to control birth even if their health is deteriorating but because of the fact that culturally they need to seek permission from the husband who may sometimes not be willing to accept whatever the decision resulting into the health condition of a woman being affected.
- ✓ Women shunning hospital delivery, most women fear to deliver from the hospital for fear of undergoing Caesarean Section (C/S) even when their pregnancy is marked as a risk one because culturally a Caesarean Section is unacceptable. Similarly, with the HIV testing services, women do not access the service unless a man says so.
- ✓ The same applies to children who gets off age who may be sexually active are not allowed to seek health services relating to that aspect.

3.6.8 Consideration Of The Underlying Factors Contributing To The Issues Identified

The underlying factors contributing to the issues identified under the Health Sector are as outlined below;

- ✓ Economic situation,
- ✓ distance from the health facilities

- ✓ Cultural beliefs such as witchcraft.
- ✓ most women fear to deliver from the hospital for fear of undergoing Caesarean Section (C/S) even when their pregnancy is marked as a risk one because culturally a Caesarean Section is unacceptable

3.6.9 Sector Summary

The Health sector is one of the critical sectors under the Human and Social Development Strategic Development Area of the Eighth national Development Plan and places much emphasis on ensuring equal access to health services for all. Lunga District health service delivery needs a face lift in terms of infrastructure development both office and staff accommodation, deployment of more staff as well as increased fleet of water vessels in order to adequately cover the district regarding health service delivery. Learning from the status quo Lunga district has not been adequately covered in terms of health service delivery despite its spatial uniqueness and the challenges that it's prone to in comparison with other districts in the country.

3.7 Water and Sanitation Sector

3.7.1 Key Government Priorities Being And To Be Implemented At A Local Level

National Water and Sanitation Policy, 2020

The National Water Supply and Sanitation Policy aims at setting clear and coherent policy measures to guide the development and implementation of national strategies and programmes to achieve improved water supply and sanitation

National Rural Water Supply and Sanitation Programme 2019-2030 (NRWSSP)

The overall objective of the 2019-2030 NRWSSP is: "Sustainable and equitable access to safe water supply and adequate sanitation to meet basic needs for improved health and poverty alleviation for all of Zambia's rural population in line with the Vision 2030 and the Sustainable Development Goals." The Programme has four specific objectives:

1. To Increase and improve the number of functioning Water Supply facilities in rural areas from 72% to100% by 2030, through systematic investments in new Water Supply facilities, rehabilitation, proper operations and maintenance of existing facilities;
2. To Increase access to adequate and appropriate, environmentally friendly sanitation facilities to 90% by the year 2030 at household level and public institutions in rural areas through hygiene promotion, sanitation marketing, construction of facilities and legal enforcement;
3. To strengthen systems for enhanced service delivery in the water and sanitation sub sector
4. To improve performance of the RWSS sub-sector in planning, implementation and management of RWSS services through effective monitoring, evaluation and reporting.

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The National Guidelines for sustainable Operations and Maintenance of hand pumps in Rural Area has been put place to provide guidance on the following issues;

- ✓ **Preventive Maintenance of Hand Pumps**
  Undertaking preventive maintenance ensures that the benefits realised can be maintained. Efforts need to be made for communities to be aware of the benefits of undertaking preventive maintenance. Preventive maintenance enhances the continuity of functionality of a hand pump, which will result in user confidence that might affect their willingness to pay for water services. As such, routine inspection should be carried out by the communities
- ✓ **Awareness**
  User communities' appreciation of the advantages of reliable and adequate safe water supply. This will see the manifestation of economic and social benefits and improvement in their health status. This is achieved through public campaigns
- ✓ **Training of Caretakers**
  The current trend of greater community involvement in management of water facilities has resulted in a shift in O&M responsibilities from skilled professionals to previously untrained community members who are expected to operate and maintain their facilities. Such a radical change of roles requires corresponding changes at the community level, hence the need for a water point caretaker. The caretaker will be in charge of day-to-day preventive maintenance of the water facility.

3.7.2 Description Of The Existing State Of Development

3.7.2.1 Availability Of Service

Water is a very crucial commodity in people's lives and access to adequate clean and safe drinking water has been a challenge to residents of Lunga as it is entirely a rural district. The district relies on the water from open water sources and ground water supply with a basic coverage for safe water supply at only 28%. The open water sources include the water channels within the district which are accessible to the community. The ground water is supplied through the boreholes which have been constructed in some communities and public institutions i.e. schools and health centers. The district is still lagging behind when it comes to water supply coverage with only 65 boreholes in the entire district of which most of these are abandoned by the communities due to high level of iron exceeding 5mg/l as compared to standard of 0.3mg/l. The boreholes which are mostly affected by this problem are those from the part of the district with clay soils i.e. Mweshi, Nkutila, Itala, Lunga and Mashiba wards whereas the other wards i.e. Nsamba, Chumbwe, Shinga and Ncheta are not affected as they have sandy soils.

The district has never had piped water supply system apart from the two solar systems at Kasoma Lunga and Bwalya Mponda rural health centers. The only communal piped water schemes (4no.) are being done at Kasoma Lunga under the funding from the Government through the Ministry of Water Development and Sanitation. The project has a total capacity of $50m^3$ of water and is

expected to service the population of Kasoma Lunga Island under Lunga ward. The table below shows the status of water points in the district as of July, 2021.

3.7.2.1.1 Rural Water Supply

The entire Lunga households have no access to water piped, implying that they 100% depends either on the boreholes or own sources of water. Below is a table highlighting the number of water points that are available in the district per ward including their status and the estimated population being served.

Table 14: Rural Water Supply in Lunga

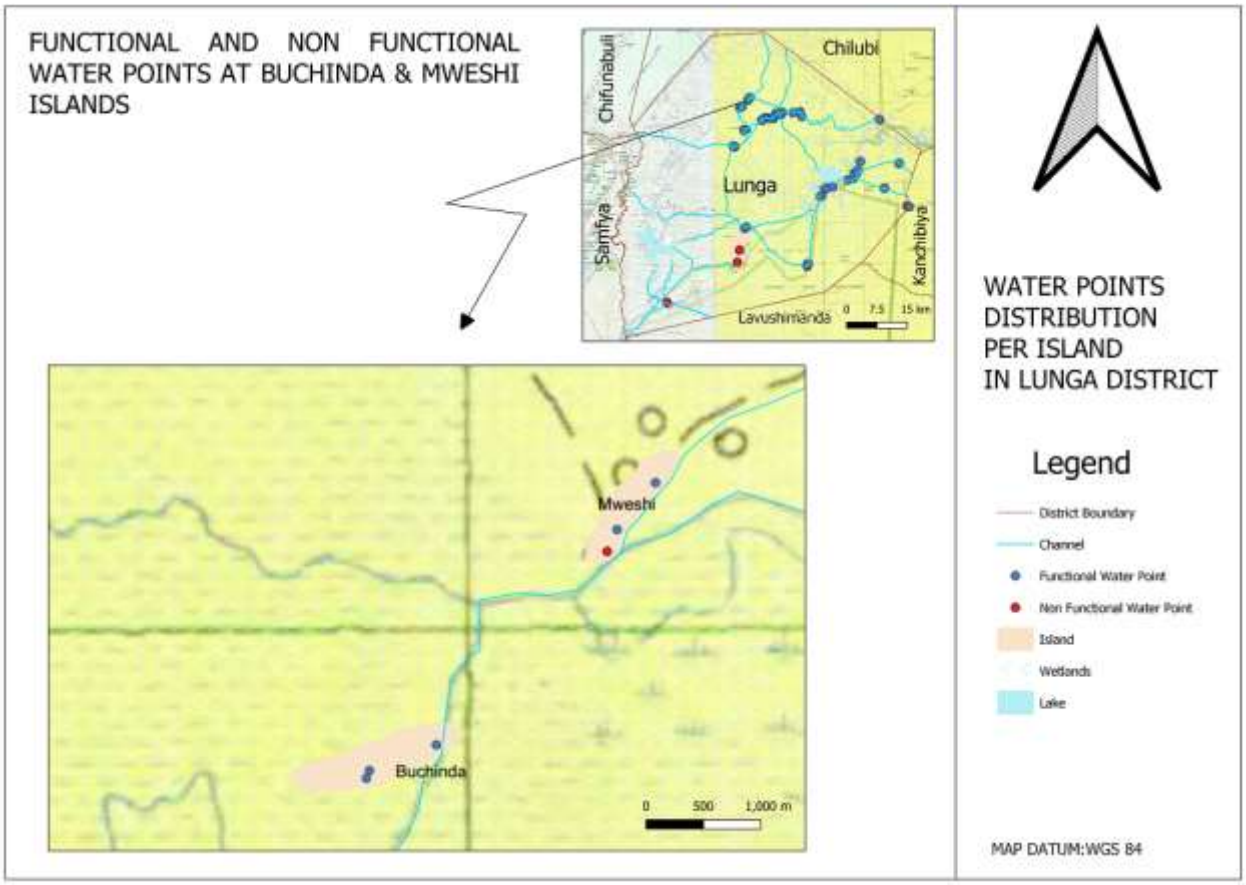
SNo	WARD	WATER POINTS (Boreholes)	AVERAGE POPULATION CATCHMENT	STATUS	
				Functional	Non – functional
1	Lunga	26	13,244	25	1
2	Nsalushi	8	7,649	7	1
3	Mweshi	6	6216	5	1
4	Ncheta	6	4,569	3	3
5	Itala	0	2,962	0	0
6	Nkutila	8	2684	7	1
7	Chumbwe	4	1,443	2	2
8	Lubale	6	1,319	4	2
9	Shinga	1	1,290	0	1
10	Mashiba	5	834	4	1
TOTAL		**70**	**42,210**	**57**	**13**

Source: Lunga Town Council, 2022

The status in table 11 will help identify the water points which need rehabilitation and of course identify areas which need new water points to meet the overwhelming demand for the services.

Below are the maps depicting the distribution of water points in all the islands of the district.

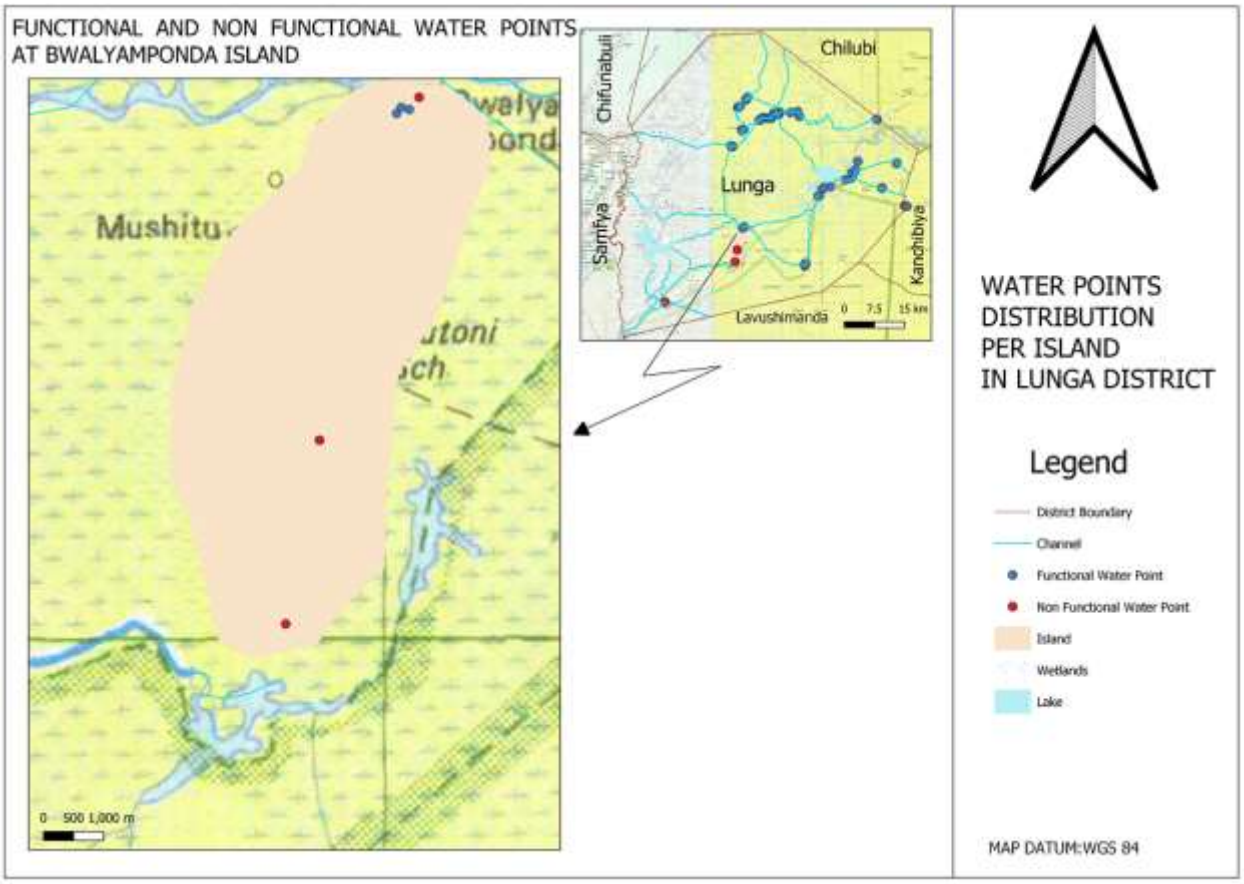
Figure 16: Functional and Non-Functional Water Points at Buchinda and Mweshi Islands



Source: Lunga Town Council, 2022.

As can be observed from the map above the two islands have a total of six water points of which only one from Mweshi island is non –functional while the rest are perfect working order except the quality of water is poor as they contain high amounts of iron content and require iron filtration systems to installed at the water points.

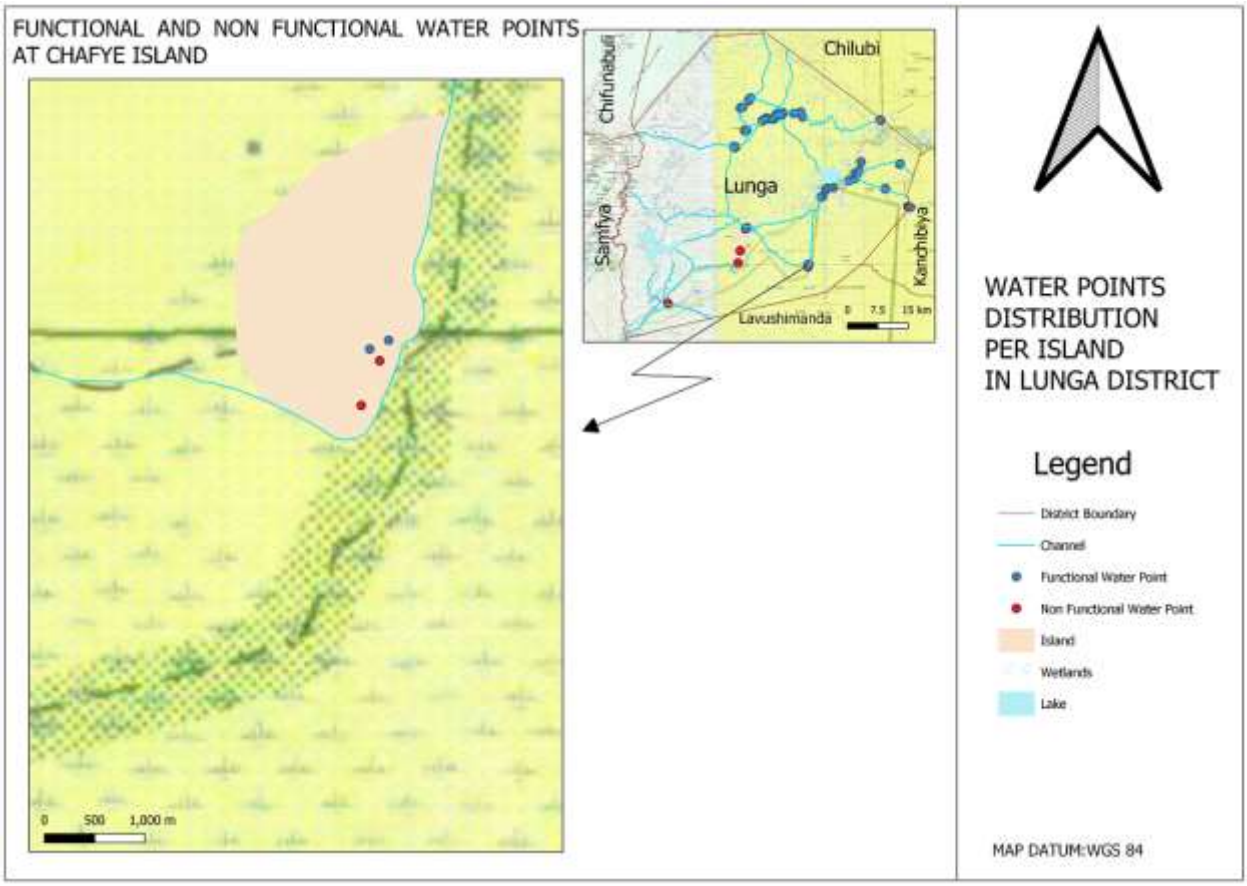
Figure 17: Functional and Non-Functional Water points at Bwalya Mponda Island



Source: Lunga Town Council, 2022.

It can be observed from the map above that Bwalya Mponda has a total of six water points out of which three are functional and the quality of water is okay at the island as it has minimal or normal iron content as compared to the water points from Mweshi and Buchinda above, this is mainly attributed to the sandy soils that characterizes the island.

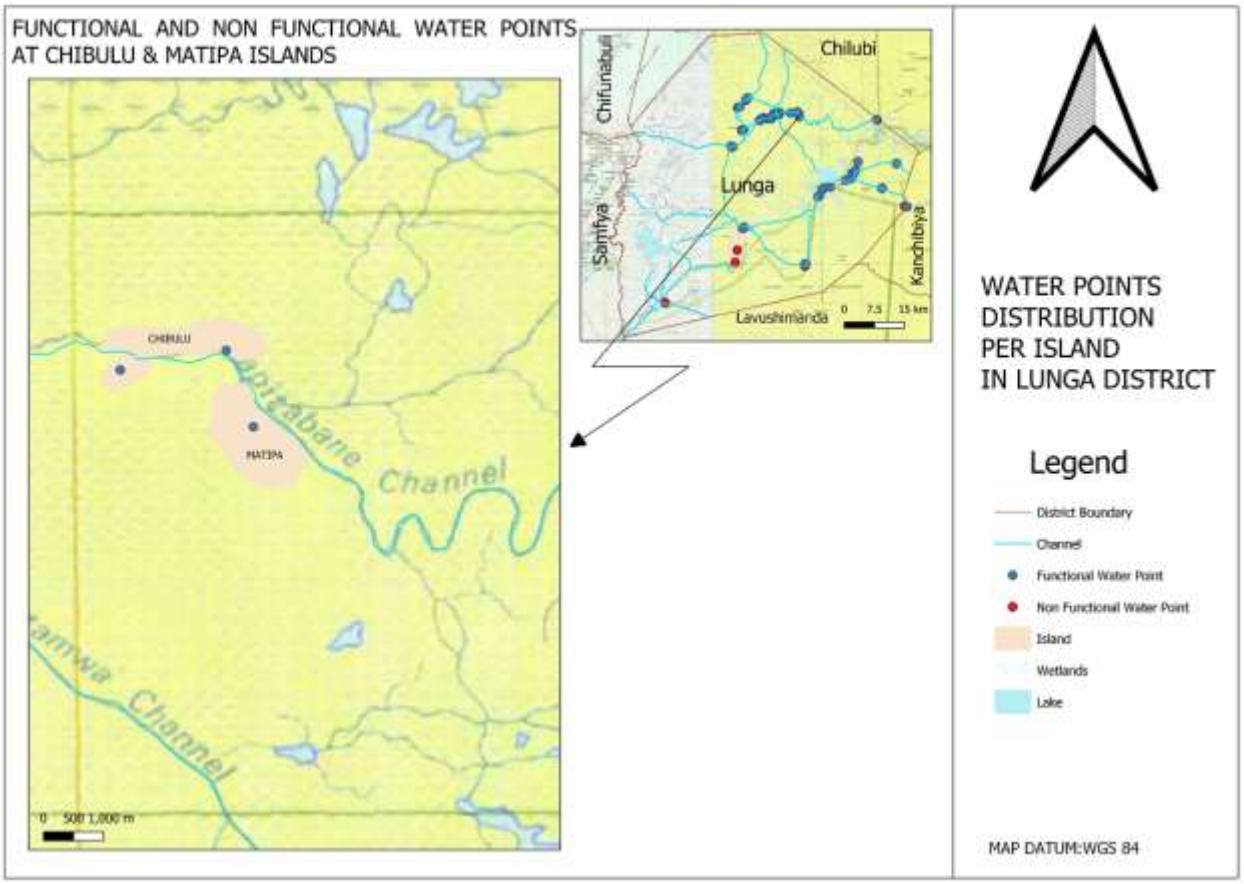
Figure 18: Functional and Non-Functional Water pointa at Chafye Islands



Source: Lunga Town Council, 2022.

Chafye Island has four water points of which two functional while two are not, the quality of the water is similar to that at Bwalya Mponda with less iron contact as the island has sandy soil formation.

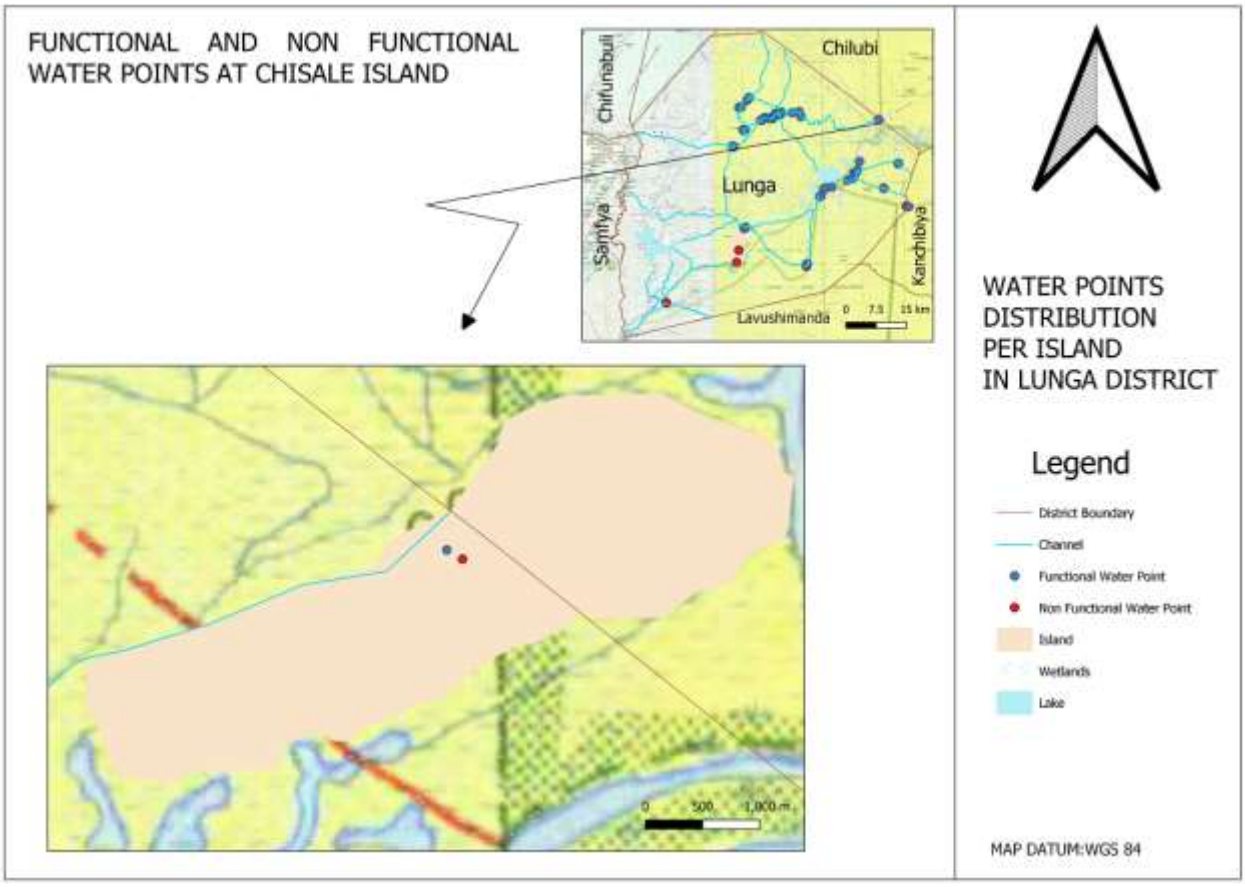
Figure 19: Functional and Non-Functional Water points at Matipa and Chibulu Islands



Source: Lunga Town Council, 2022.

For Chibulu and Matipa Islands, all the three water points are fully functional except the water quality is poor due to high iron content as both islands have a clay soil formation.

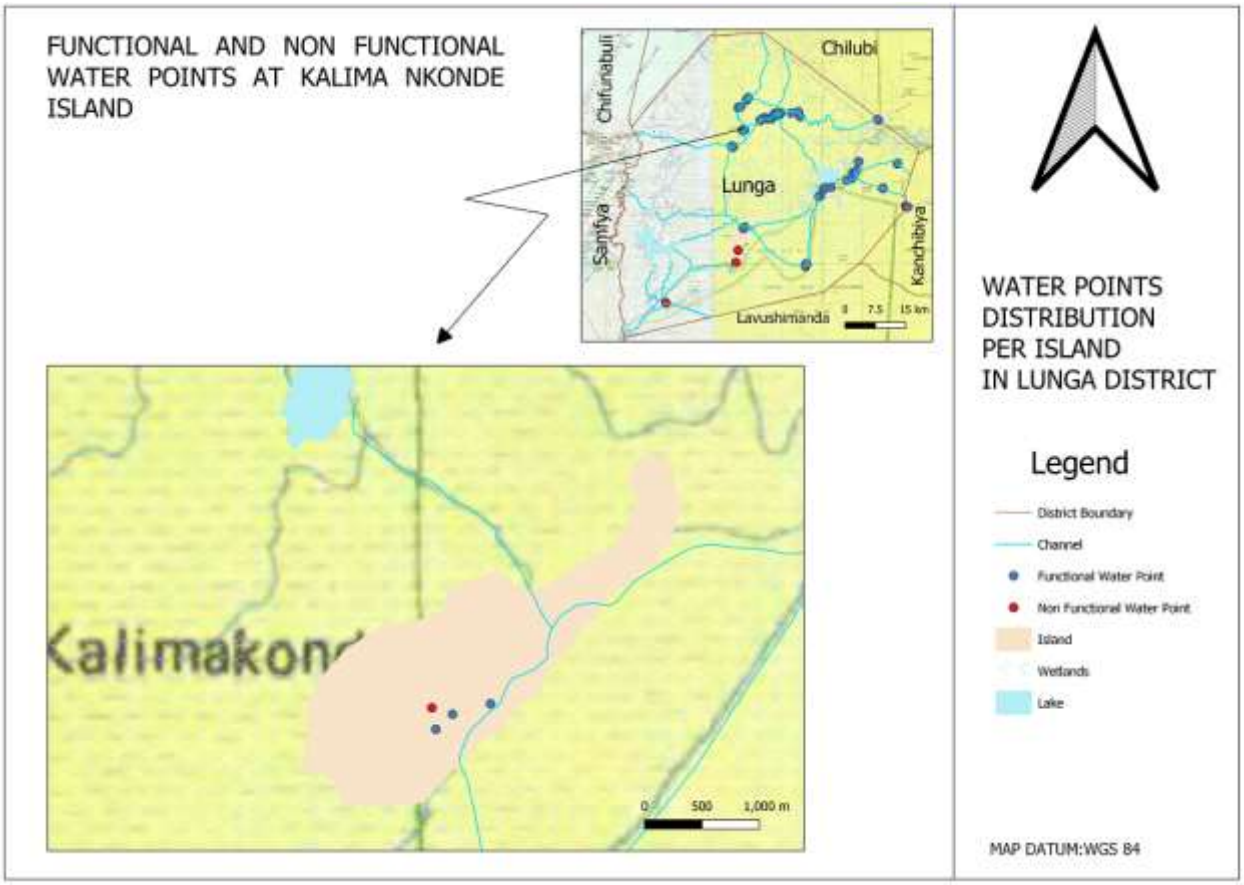
Figure 20: Functional and Non-Functional Water points at Chisale Islands



Source: Lunga Town Council, 2022.

Chisale Island has only one functional water point while the other one is non-functional, the quality of water is okay.

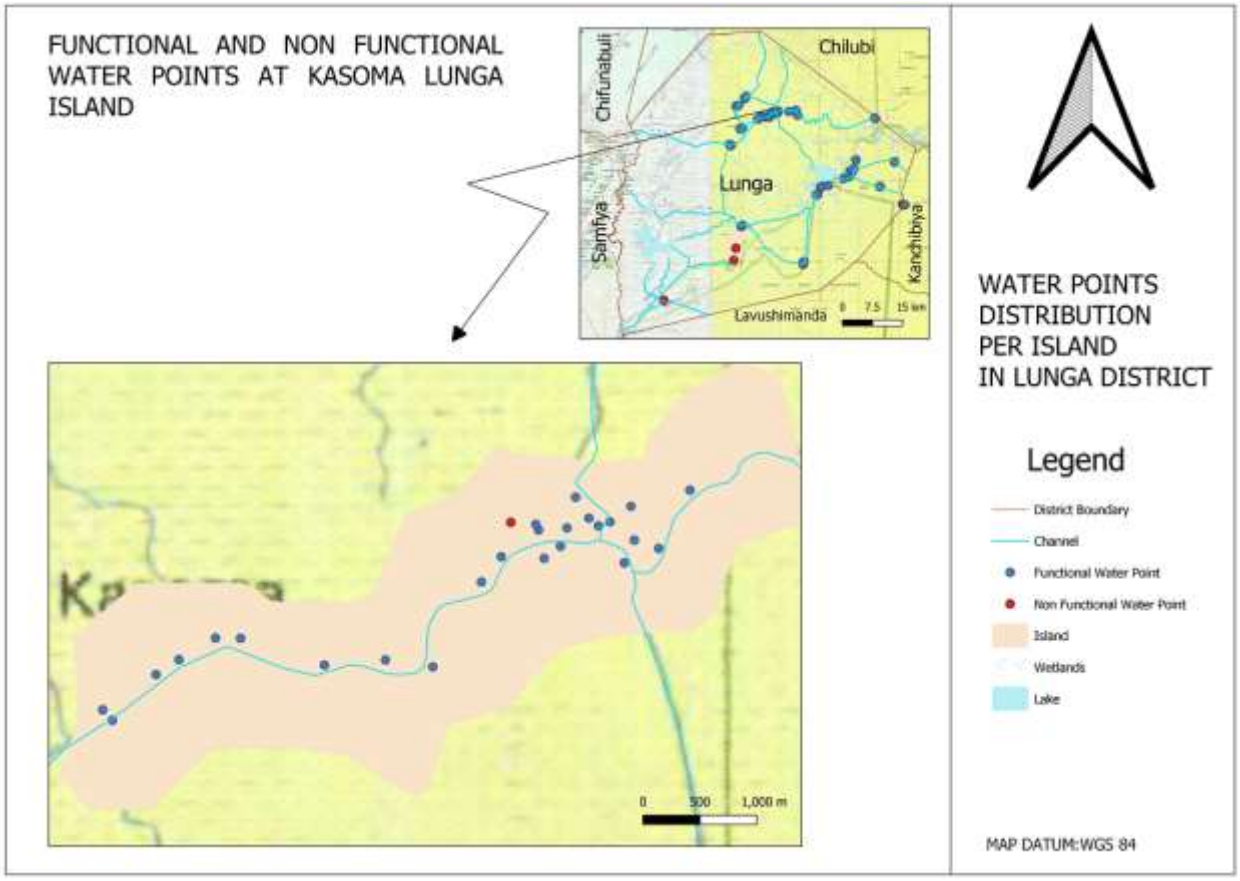
Figure 21: Functional and Non-Functional Water points at Kalima Nkonde



Source: Lunga Town Council, 2023.

Kalima Nkonde Island has four water points of which one is non-functional, for the functional water points the water quality is poor as it contains a lot of iron as the island has a clay formation.

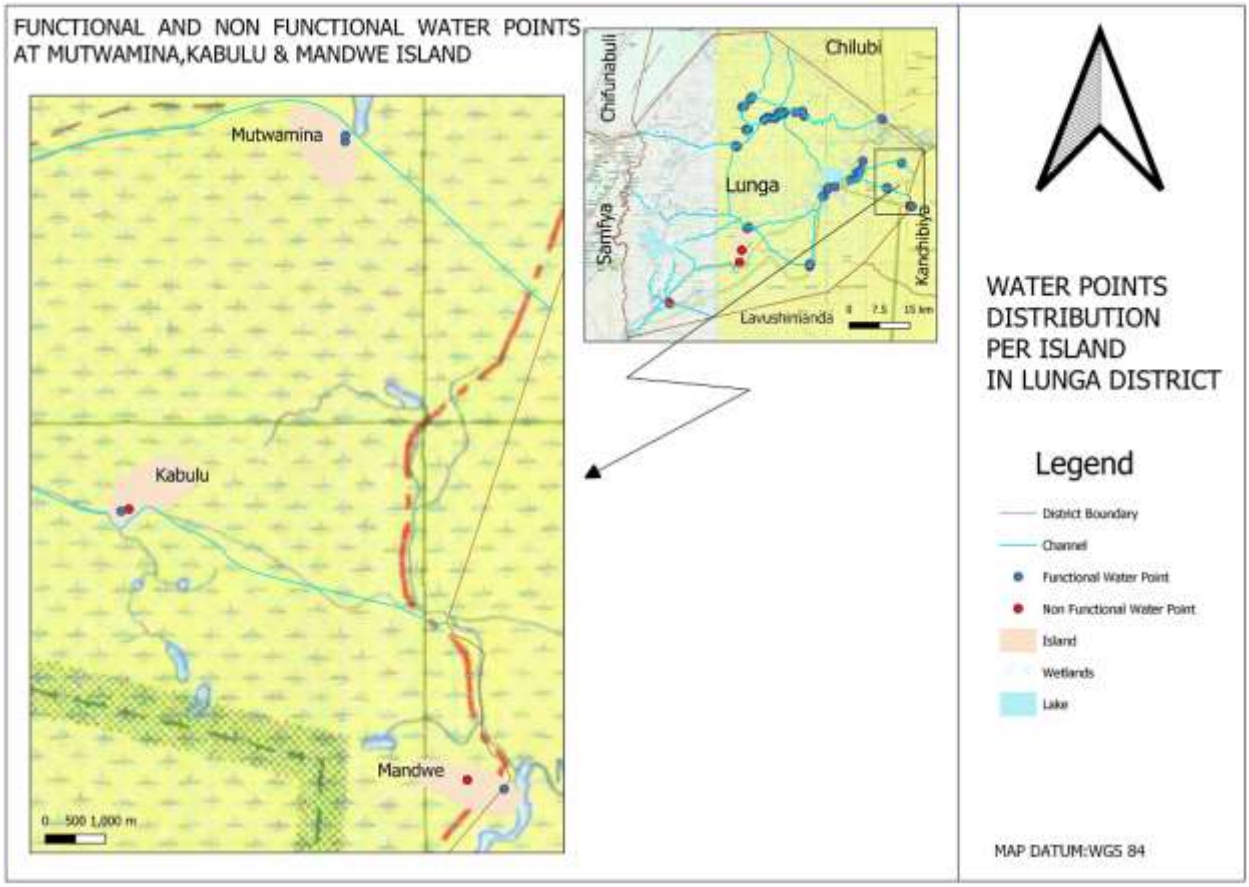
Figure 22: Functional and Non-Functional water points at Kasoma Lunga Island



Source: Lunga Town Council, 2022.

Kasoma Lunga has 26 water points spread across the island and has one out of the 26 that is non-functional while the functional ones are most unused due to having very high iron content and are mostly unused as the island also has a clay soil formation.

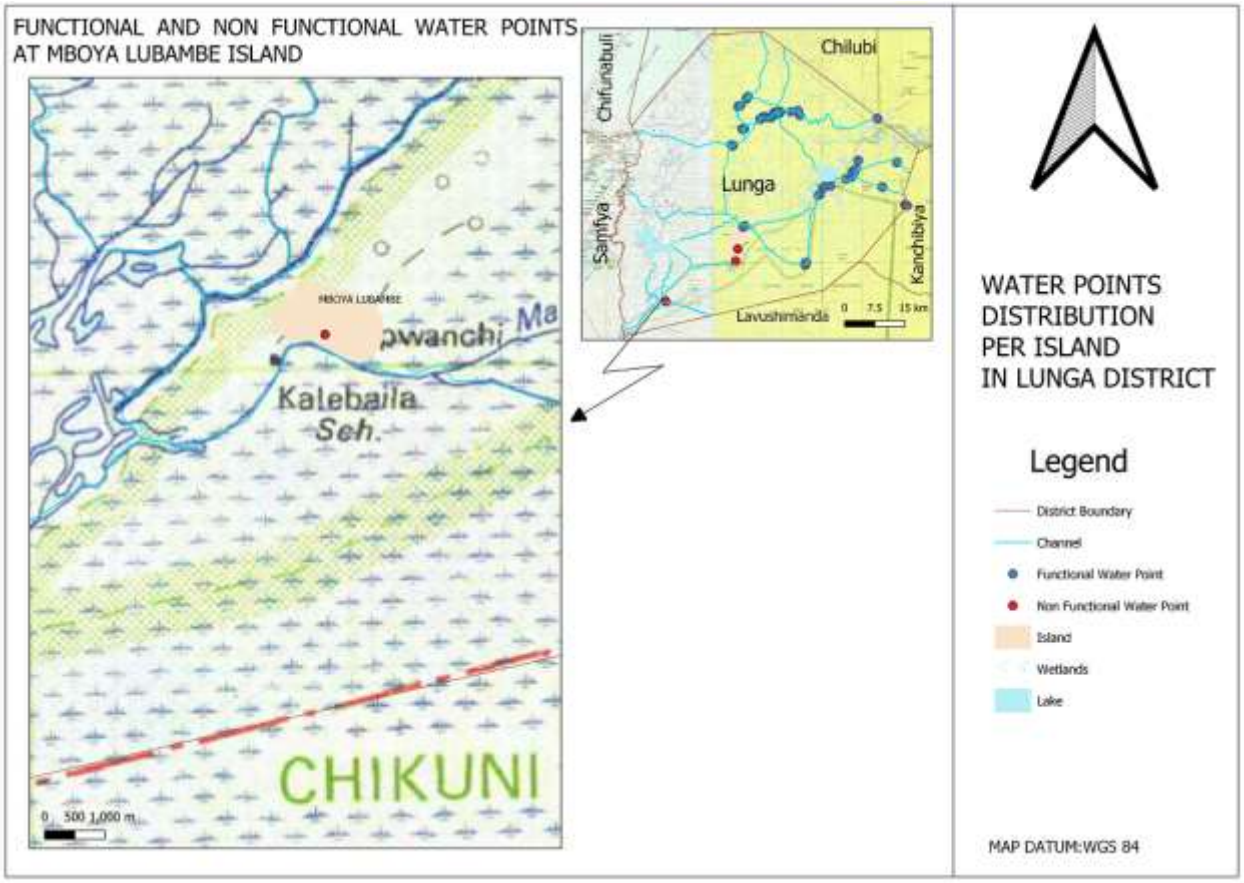
Figure 23: Mutwamina, Kabulu and Mandwe



Source: Lunga Town Council, 2022.

The map above shows three islands called Mandwe, Kabulu and Mutwamina, these have a total of six water points of among them two are non-functional, quality of water for the functional water points is okay with less iron content as all the islands have a sandy soil formation.

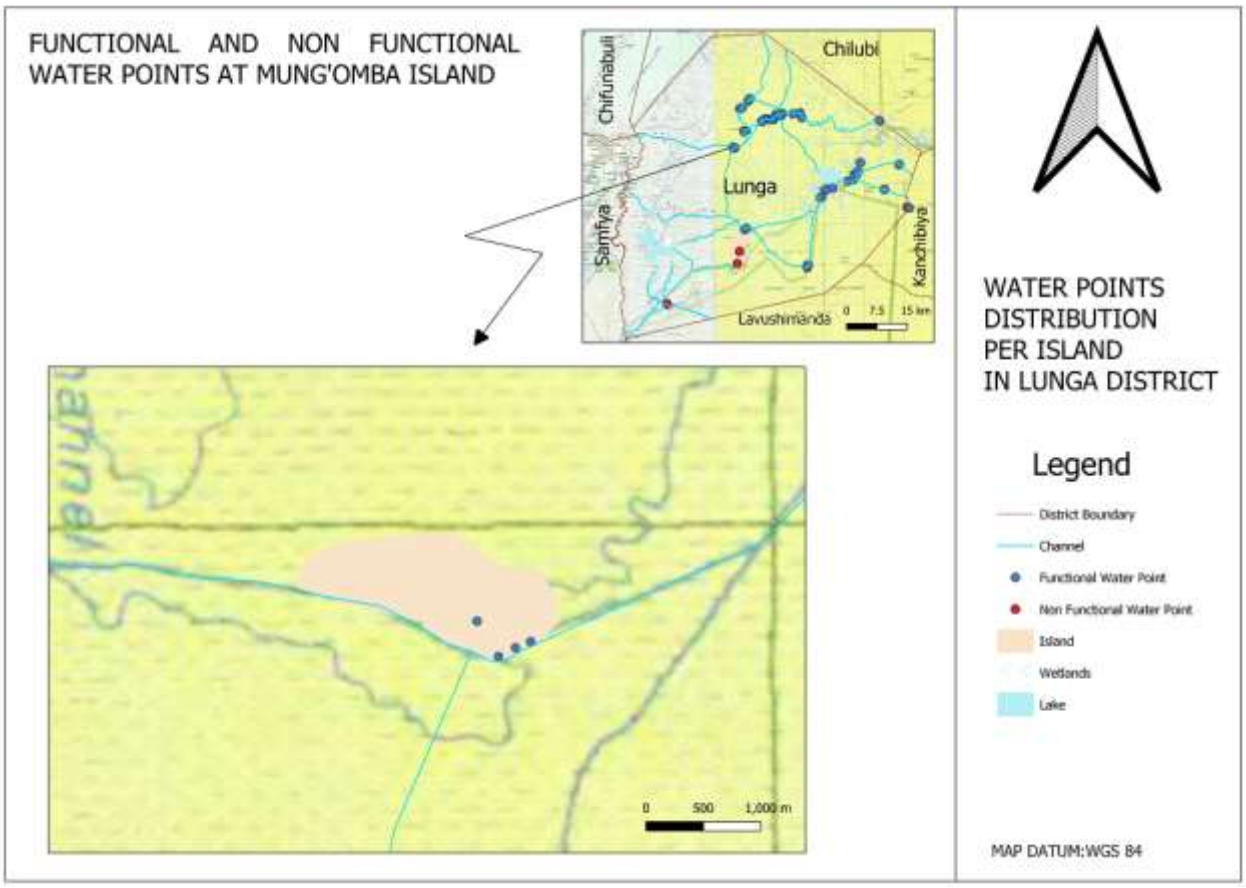
Figure 24: Functional and Non-Functional Water points at Mboya Lubambe Islands



Source: Lunga Town Council, 2022.

Mboya Lubambe Island has only one water point which is non-functional meaning the potential sources of water are shallow wells and the channel near the Island.

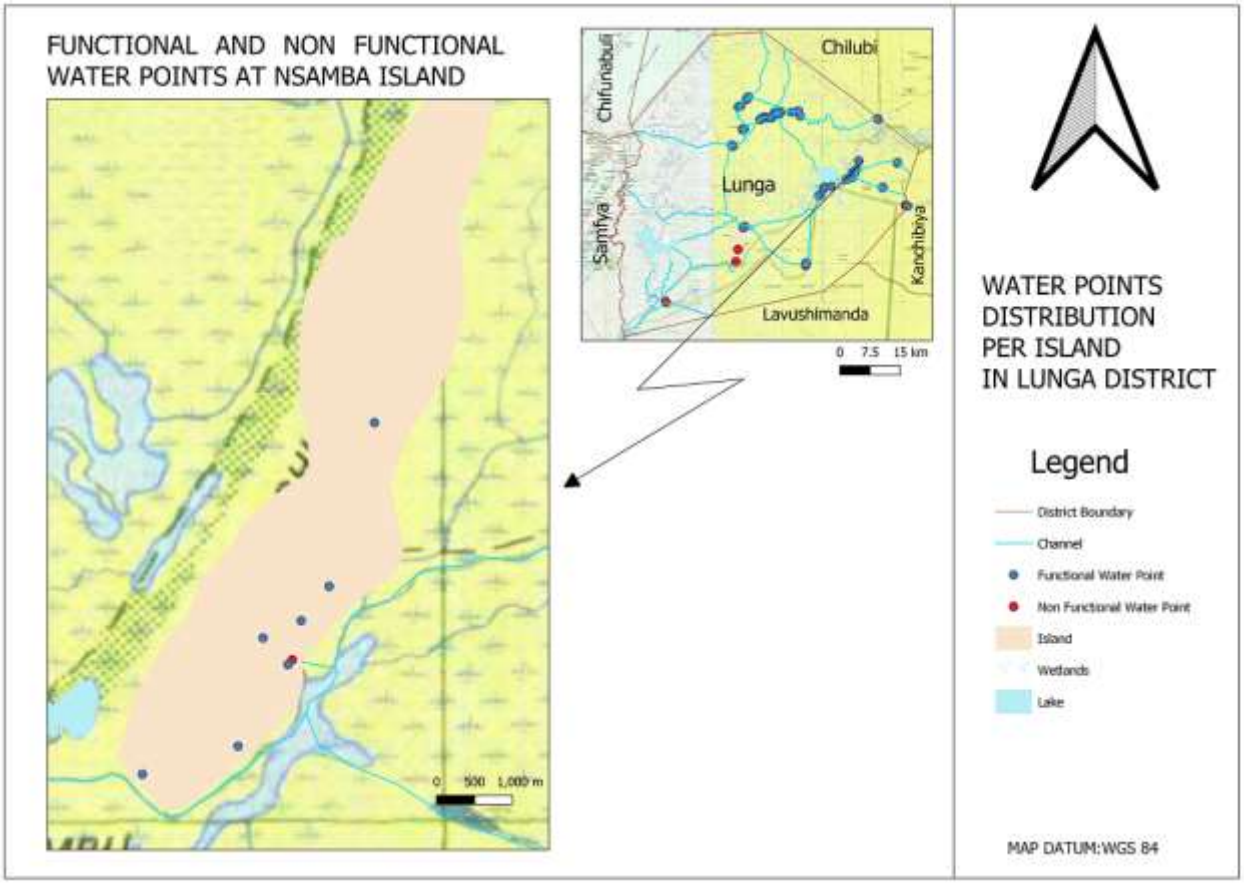
Figure 25: Functional and Non-Functional Water points at Mun'gomba Islands



Source: Lunga Town Council, 2022.

Mung'omba Island has four water points which are all functional except the water quality is poor as it has high iron content.

Figure 26: Functional and Non-Fuctional Water points at Nsamba Island



Source: Lunga Town Council, 2022.

Nsamba Island has eight water points of which seven are functional and one is non-functional, the water quality of the seven functional water points is of good quality with normal levels of iron content.

3.7.2.1.2 Sanitation and Hygiene

The main facilities that are used for capture and containment of feacal waste in Lunga district are traditional pit latrines and some Ventilated Improved Pit (VIP) latrines (mostly in institutions). Most households use pit latrines with structures made of locally available material such as reeds and burnt mud bricks with grass thatched roofs. These on-site facilities are usually buried once the pit latrines are full and then another suitable place is found within the residence to dig a fresh pit latrine. The pit latrines are not emptied.

3.7.2.2 Quality Of Service Including Key Indicators Of Performance

Lunga is one of the districts grappling with access to quality water and sanitation services in the province. The District as a projected population of 42,210 for 2023 against 57 functional boreholes. For instance there is no piped water in the district except boreholes that have been sunk in some parts of the district of which most of them have been abandoned because of high iron content while the rest of the population draw water from water sources that are unprotected. Of the available

70 points both function and dysfunctional, the district has only one (1) APM to look after all the water points. In terms of Sanitation the district has access to sewer network, therefore onsite sanitation takes a centre stage.

3.7.3 Issues Arising From The Public Participation Process

3.7.3.1 Availability Of Service

During the stakeholder consultative meetings of the Planning Survey and Issues Report of the integrated development planning it was observed as follows;

- The low access to safe water supply services in most communities resulting from poor quality of water from the boreholes (i.e. high iron contamination).
- Some communities still practicing open defecation. Most people attributed this to the collapsing of latrines whenever they are built by individual households and also to non-availability/inadequate local materials for construction of sustainable sanitation facilities.
- Some communities also pointed out the lack of space for constructing individual household latrines in some settlements of the district.

3.7.3.2 Quality Of Service Including Key Indicators Of Performance

At the moment there are no water and sanitation services being provided in the district and the following are the challenges being faces with;

- Lack of improved water services in some rural parts of the District especially in those areas which are difficult to reach due to inaccessibility to the areas.
- Water users unwilling to pay for water services, mainly due to poor water quality (high iron content).
- Inadequate supply of spare parts as the district has no spare parts shop.

3.7.4 Impact Of Changes Anticipated Over The Next Ten Years

3.7.4.1 Population Change – Future Demand for Services and Facilities

The demand for clean and safe drinking water in the district is just as high as was observed during community consultations. During the planning period the population of the district will expand as projected at 62,419, there will therefore be need to invest in the operation and maintenance of nonfunctional boreholes and construction of more mechanized water schemes in all the islands. However, with the projected district population increase, the demand for safe clean water supply will be equally high to meet the community demand.

3.7.4.2 Existing and Proposed Investment And Development Programmes

Table 15: Existing and Proposed Investments and Developments and Programmes under the Water and Sanitation Sector

Existing Investments	Proposed Development Programmes
○ Boreholes under construction ○ 65 boreholes already constructed boreholes	○ Water reticulation systems development ○ Rehabilitation of existing dysfunctional boreholes in the district and provision of water filters ○ Construction of ablution blocks in public places ○ Establishment of waste collection points ○ Construction of incinerators for burning of solid waste ○ Construction pf sewer networks ○ Sewerage treatment plant construction ○ Water treatment plant construction

Source: Lunga IDP Team, 2023

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

Water and sanitation being a key component in human life, has a greater effect on land use and population distribution patterns. To start with, population explosion is anticipated to stimulate demand for water and sanitation services resulting in consuming more land for establishment of water and sanitation facilities to meet the demand for the increasing population. As a result of demand for more land to expand the services other land uses will be affected such as encroachment on ecologically sensitive areas.

3.7.6 Environment and Climate Change Analysis

3.7.6.1 The Impact Of Existing Trends On The Environment And Climate Change

The expansion in water and sanitation facilities propelled by the increase in demand for water and sanitation services is anticipated to bear some negative impacts on the environment arising from the construction of water and sewerage treatment plants as well as installation of water and sewer networks. It's also anticipated that the construction activities to take place will in certain extents degrade the environment through clearing of vegetation land cover and carbon sequestration deprivation.

3.7.6.2. The Impact Of Environmental And Climate Change Issues On The Sector

The following are the impacts of environmental and climate change issues on the Water and Sanitation Sector;

- ✓ Impacts on people's rights to water and sanitation by causing floods and droughts
- ✓ Changes in precipitation and extreme temperatures results in scarcity of water
- ✓ Contamination of drinking water and exacerbation of the spread of diseases

3.7.7. Issues Arising Relating to Gender Groups and Vulnerable Groups

The following are the issues arising relating to gender groups and vulnerable groups under the water and sanitation sector;

- ✓ Women and children are made to walk long distances in order to fetch water
- ✓ Differently abled people face a lot of difficulties in accessing water

3.7.8 Consideration Of The Underlying Factors Contributing To The Issues Identified

Under the water and sanitation sector, the underlying factor contributing to the issues identified are ;

- ✓ Inadequate water points within the catchment area
- ✓ Unprotected water sources
- ✓ High content in situations where boreholes have been sunk

3.7.9 Sector Summary

Water is a very crucial commodity in people's lives and access to adequate clean and safe drinking water has been a challenge to a large number of residents in Lunga and more especially it being rural and remote. The common water sources available in the district boreholes, hand dug wells as well as streams and rivers though the latter sources are usually not clean and safe for household consumption.

None of Lunga households have access to piped water, implying that 100% per cent depends either on the boreholes or own sources of water.

Under the Water and Sanitation Sector the outlined below are core issues in the district if Lunga;

- o The low access to safe water supply services in most communities resulting from poor quality of water from the boreholes (i.e. high iron contamination).
- o Some communities still practicing open defecation. Most people attributed this to the collapsing of latrines whenever they are built by individual households and also to non-availability/inadequate local materials for construction of sustainable sanitation facilities.

Some communities also pointed out the lack of space for constructing individual household latrines in some settlements of the district.

3.8 Social Welfare Services Sector

3.8.1 Key Government Priorities being and to be Implemented at Local level.

3.8.1.1National Social Protection Policy 2014

The social welfare services sector is equally guided by the National Social Protection Policy of 2014, the policy puts greater emphasizes on the provision of equitable and basic social protection services for inclusive sustainable human community development The main Goal of the policy is reducing poverty, inequality and vulnerability. The Zambian Government is committed to reducing poverty and vulnerability among its population in general and for the poor and vulnerable segments of society in particular. Recognizing that vulnerability and the lack of resilience result from, cause and reinforce poverty, Government's poverty reduction efforts cannot side-line Social Protection. Traditionally, Government has included Social Protection programs as part of the broader social policy. However, Social Protection implementation continued to be fragmented, uncoordinated, poorly resourced and ineffectively evaluated. The formulation of this National Social Protection Policy was one of Government's dedicated efforts to ensure that the role of social protection in proper growth remains central and increases in systemic efficiency.

3.8.2 Description Of The Existing State Of Development

3.8.2.1 Availability Of Service

The Social Welfare Sector offers Statutory Services such as Juvenile Justice, Early Childhood Development (ECD), Gender Based Violence (GBV) & Human Trafficking. Non-statutory services such as Social Cash Transfer (SCT) and Public Welfare Assistance Scheme (PWAS). Currently the sector has 8,444 beneficiaries on the Social Cash Transfer Programme and 2,440 on Emergency Cash Transfer and due to limited resources, there are no beneficiaries on the Public Welfare Assistance Scheme.

3.8.2.2 Quality Of Service Including Key Indicators Of Performance

The of services provided by the Social Welfare Sector as aforementioned come in two folds that's Statutory and Non-statutory Services. The quality of services under Emergency Cash Transfer stands at 100% as all residents that have been affected by any form of hazards or disasters such as droughts or floods are assessed and put on the Programme. Under the Social Cash Transfers, the district is trotting at 73.4% in terms of coverage, meaning that if the district is trot at optimal level there is need to enumerate additional 3,000 beneficiaries provided resources are readily available.

3.8.3 Issues Arising from the Public Participation Process

3.8.3.1 Availability of Services

During the public consultation process of the planning survey and issues report, it was observed and noted that Social Welfare Sector provides services ranging from Social Cash Transfer, Emergency Cash Transfer, Public Welfare Assistance Scheme and Statutory Services. It was further indicated that these services (SCT) were present in all the 10 wards of the district. However, Public Welfare Assistance Scheme (PWAS) services were not available in all 10 Wards. These

services are offered to members of the general public basing on the eligibility criteria. Limited access to social welfare services was identified as a core issue.

3.8.3.2 Quality of Service Including Key Indicators of Performance

The quality of service provision under Emergency Cash Transfer stands at 100% as all residents that have been affected by any form of hazards such as droughts or floods are assessed and put on the Programme. Under the Social Cash Transfers, the district is trotting at 73.4% in terms of coverage, meaning that if the district is to trot at optimal level, there is need to enumerate additional 3,000 beneficiaries provided resources are readily available.

3.8.4 Impact of Changes Anticipated Over ten years

3.8.4.1 Population Change-Future Demand for Services and Facilities

Considering the fact that population has been projected at 62,419 for the implementation period of the IDP, the implication that there will be a proportionate increase in the demand for social welfare sectors services in the district.

On the other hand, the increase in demand for the aforementioned services will also stimulate demand for related facilities.

3.8.4.2 Existing and Proposed Investment and Development Programmes

Table 16: Existing and Proposed Investments and Development Programmes under Social Welfares Sector

Existing Investments	Proposed Development Programmes
o Social Cash Transfer o Public Welfare Assistance Scheme o Statutory Services o Speedboat (150Hp)	o An Office Block at Kasoma-lunga o Accommodation for Staff o Establishment of Safe Home o Establishment of Facilities for Juveniles in conflict with the law o Smaller boats to enable officers reach hard to reach islands in the District o Internet connectivity

Source, Lunga IDP Team,2023

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

As the population expands thereby stimulating demand for social welfare services which in turn stimulates demand for social welfare facilities such as safe homes and reformatory facilities, the identification of parcels of land for the establishment of such facilities takes a centre stage. If the aforementioned facilities where not planned for in the initial stage, then the impact on the land use will be that of change of land use.

In terms of population distribution, it is anticipated that since the aforementioned structures becomes homes for certain section of the population vividly there will be some population concentration within and around the facilities.

3.8.6 Environmental and Climate Change Analysis

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

Taking into Consideration the magnitude of the proposed developments, there will be minimal adverse impacts to be borne by the environment provided precautionary measures are put in place. As a result of minimal adverse impacts on the environment even the effects of climate change will equally be minimal.

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

Under the Social Welfare Sector, the following are the Environmental and Climatic Change issues impacting on the sector

- Risks of conflicts
- High poverty levels and hunger
- Separation of families
- Jeopardize the livelihood of vulnerable households

3.8.7 Issues Arising Relating to Gender Groups and Vulnerable Groups

Under Social Welfare Sector the following are issues relating to Gender and vulnerable Groups in Lunga District;

- Increased cases of Sexual Gender Based Violence
- Credits by male Social Cash Transfer Beneficiaries

3.8.8 Consideration Of The Underlying Factors Contributing To The Issues Identified

Under the Social Welfare Services Sector the following were the underlying factors contributing to the issues identified;

- ✓ Little or lack of awareness on Sexual Gender Based issues
- ✓ Excessive borrowing by Social Cash Transfer beneficiaries

3.8.9 Sector Summary

The Zambian Government is committed to reducing poverty and vulnerability among its population in general and for the poor and vulnerable segments of society in particular. Recognizing that vulnerability and the lack of resilience result from, cause and reinforce poverty, Government's poverty reduction efforts cannot side-line Social Protection. Traditionally, Government has included Social Protection programs as part of the broader social policy.

In the quest to reduce poverty and vulnerability among the population of Lunga District, The Social Welfare Sector is implementing the Social Cash Transfer with a beneficiary threshold of 8444 side by side implementing the Emergency Cash Transfer with a beneficiary threshold of 2,440.

3.9 Natural Resource and Environment Sector

3.9.1Key Government Priorities Being and To Be Implemented at a Local Level

The government at the local level working in a multi sectoral approach will continue to implement measures to conserve and protect the environment and natural resources. These include developing local initiatives to strengthen climate change mitigation and adaptation, promote community based natural resource management. This will be done in consideration of the 8NDP, National Policy on Environment 2008 and National Forestry Policy 2014 that aims at promoting sustainable utilization and protection of the environment and natural resources.

The National Forestry Policy, 2014 also encourages participatory Environmental management which is anchored on the active participation of local communities, traditional institutions, private sector and other stakeholders in the management and utilization of forest and natural resources at all levels of decision making, implementation, monitoring and evaluation. Furthermore, the policy also encourages the definition of stakeholder roles, resource tenure, costs and benefit sharing mechanism related to natural resources management, investments and forest industries development. The policy therefore, is aligned within the framework of the decentralization policy of 2004, Zambia's Vision 2030. Further, the Policy recognizes regional and international opportunities and obligations or frameworks such as the SADC protocols on forestry and other natural resources, CITES, SGDs, and forest related international conventions. Lunga District under forestry sector provides service as guided by the policy.

3.9.2 Description Of The Existing State Of Development

3.9.2.1 Availability Of Service

The Local Authority, Department of National Parks and Wildlife, Department of Fisheries and Livestock as well as The Forestry Department working with cooperating partners are implementing programs that ensure environmental protection, good management of natural resources and environmental education. Service Such as Afforestation and Re-afforestation, Extension Services, Agro-Forestry Service and Community-Tree-Nursery Establishment Services. Also providing alternative livelihoods in order to promote sustainable use and conservation of natural resources.

3.9.2.2 Quality Of Service Including Key Indicators Of Performance

The Natural Resource and Environment Sector under Lunga District plays a critical role in the provision of both environmental and ecosystems services. At the moment Lunga District has no Forestry Extension Officer apart from the District Forestry Officer and his assistant. Approximately about 2000ha of forest plantation has been established against two (2) Officers when under no circumstances the plantation is supposed to be manned by six (6) Extension Officers. Further the quality of services under this sector is compounded by absence of office and staff accommodation coupled with lack of transport.

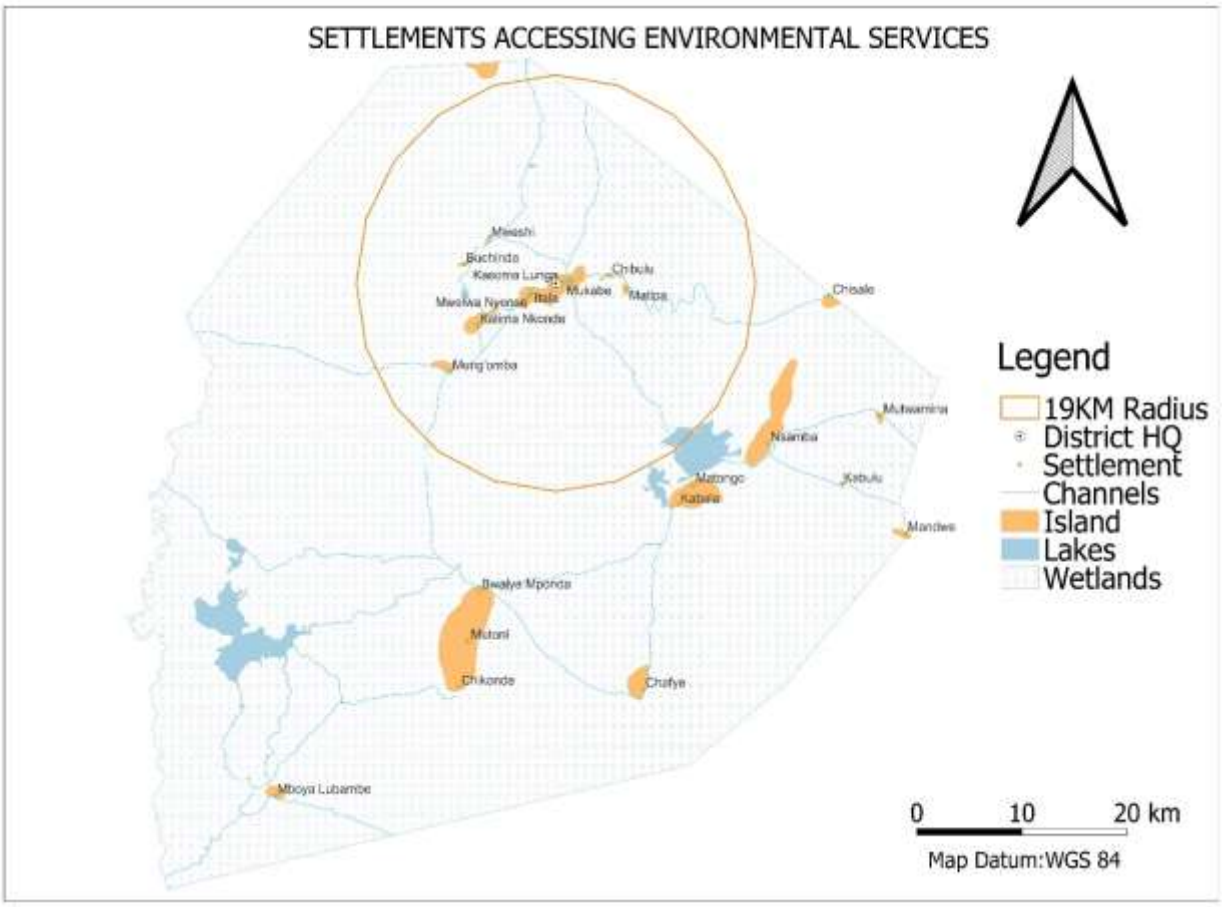
3.9.3 Issues Arising From The Public Participation Process

3.9.3.1 Availability Of Service

Stakeholders and Government Departments highlighted that challenges of continued bad fishing practices, uncontrolled bush fires and population increase has and will continue to negatively affect the environment and the natural resources. Continued promotion of alternative livelihoods was seen to be the best option to sustainable use of the environment and natural resources. The community acknowledged availability of service and knowledge on natural resources management, climate change and wildlife conservation. It was noted that most of the communities engaged emphasized that continued support to alternative livelihoods will help them reduce over dependence on the natural resources as their source of income.

The members of the community that are in far to reach areas such as Chafye in Chumbwe ward mentioned that it is difficult for them to access some services, as offices are found at Kasoma Lunga in Lunga ward.

Figure 27: Accessibility to Environmental Services



Lunga Town Council, 2021.

The Map above shows that the communities living outside the circled area find it difficult to access environment and natural resources services. This is because technical staff are found at the administrative center and only go to the other parts of the district after a long time. Mobility is also difficulty in the district as most of community members' travel using paddled canoes to access the services.

3.9.3.2 Quality Of Service Including Key Indicators Of Performance

During the stakeholder consultative meetings, it was indicated that the quality of services provided under the Natural Resources and Environment sector are quite very low in most cases attributing non-existent of Extension Officers in the department as well as lack of both office and staff accommodation coupled with lack transport.

3.9.4 Impact Of Changes Anticipated Over The Next Ten Years

3.9.4.1 Population Change – Future Demand for Services and Facilities

The projected increase in population will result in the increased demand for space for settlements, businesses and industries; this will negatively affect the environment and natural resources to pave way for infrastructure development. Increase in population will also increase the pressure on natural resources such as the demand for wood fuel and food will increase. The increase in population density will further result in the destruction of areas conserved for wildlife as the demand for land will increase.

3.9.4.2 Existing and Proposed Investment And Development Programmes

Table 17: Existing and Proposed Investments and Development Programmes under the Natural Resource and Environment Sector

Existing Investments	Proposed Development Programmes
○ Ecosystem-based Adaptation project ○ Reforestation project ○	○ Implementation Climate Resilience projects ○ Protection of the ecosystems ○ Establishment of Community Forest Management Groups ○ Establishment of 40Ha of NFR/ANR ○ Establish more Community Tree Nurseries.

Source: Lunga IDP Team, 2023

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

The population of Lunga is projected to increase from 39,383 in 2022 to an estimated figure of 62,419 in the year 2033. Majority of communities in Lunga District depend on fishing and farming as a source of their livelihood, this entails that an upwards increase in population will impact on the existing land use patterns. The impact of existing trend on land use will cause mushrooming

of settlements in conservation areas, leading to a demand for social facilities and services such water, sanitation, health facilities, and educational facilities.

3.9.6 Environment and Climate Change Analysis

3.9.6.1 The Impact Of Existing Trends On The Environment And Climate Change

The impact of the existing trends on the environment and Climate Change has been noticeable in Lunga district arising from the interventions that are being implemented by the natural resources and environment sector with financial support from TRALARD. The establishment of Community woodlots is a more than welcome aspiration as it is anticipated to contribute positively towards the combating of environmental degradation and climate change and will provide carbon sequestration services and forest products both wood and non-wood for the Local community. The emergency of community woodlots will entail the restoration of the environment, rainfall patterns and reduced temperatures. Hence, it is important to implement mitigation and adaptation measures to these impacts.

3.9.6.2 The Impact Of Environmental And Climate Change Issues On The Sector

The Natural Resource and Environment Sector is one of the sectors which has been massively affected by the impact of environmental and Climate Change issues has evidenced by

Vegetation cover clearing and disruption of ecosystems which are coupled with floods, dry spells. Late on a lot of pressure is currently being exerted on the natural resources due to climate change leading to occurrences of; Reduction/loss of vegetation cover from opening up of more land or forest areas for agricultural set of rain season, high temperatures and extreme low temperatures, damage to public and private property/infrastructure, soil erosion, sedimentation /siltation of water sources or bodies, dwindling water recharge and loss of bio-diversity.

Construction is also another activity which has major impacts on the environment and this is as result of population explosion which stimulates demand or pressure for accommodation and other related services. As a result of this pressure forests and ecologically sensitive areas are also cleared to pave way for massive infrastructure development. For instance a lodge has been constructed without observing the 100m buffer.

3.9.7 Issues Arising Relating to Gender Groups and Vulnerable Groups

The Naturals and Environment Sector identified the following as issues arising relating to gender groups and vulnerable groups;

- Women and children are currently walking long distances than before in search of; fuel wood, wild fruits, herbs or medicines.
- Men and women are moving and migrating long distances in search of fertile land for farming purposes
- There has been an increase in conflicts over natural resources e.g. land.
- Loss of soil fertility
- Scarcity of food, pasture and fodder, traditional medicines and household utility items.
- Loss of bio-diversity which affects micro climate of the sound environment

3.9.8 Consideration Of The Underlying Factors Contributing To The Issues Identified

The following are the underlying factors contributing to issues identified in the Natural Resource and Environment Sector;

- ✓ Depletion of forests closer to settlements
- ✓ Limited land for
- ✓ Cultural beliefs contributing to the marginalization of women and children

3.9.9. Sector Summary

The Natural Resource and Environment sector plays a significant role in the provision of both natural resources and environmental services in the District of Lunga as well as combating the adverse effects of Climate Change. To mitigate climate change and its adverse effects a plantation has been established as well as some nursery for purpose of re-aforestation and expanding the existing forest plantation. Among the available services in the district are forest extension services and services to do with the protection of natural resources such as shoebill guarding.

3.10 Housing and Infrastructure Sector

3.10.1 Key Government Priorities being and to be Implemented at local level

Below are some of the key government priority policy documents being implemented to spur

3.10.1.1 Eighth National Development Plan

This is a national planning document giving guidance on developmental priorities of the republic of Zambia as a higher order policy document and it operationalizes the district integrated development plan. The 8NDP has infrastructure both housing and infrastructure development embedded.

3.10.1.2 National Housing Policy 2020

National Housing Policy was crafted with focus on the need for Government to facilitate Housing delivery through improvements on institutional and regulatory frameworks, and coordination mechanisms in the midst of the growing housing demand.

3.10.2 Description of the Existing State of Development

3.10.2.1 Availability of Services

The housing and infrastructure services available in Lunga are purely provided by the Government through Ministries and Departments. The range of housing and infrastructure services available are staff accommodation, school infrastructure, health infrastructure, water infrastructure, office accommodation, communication infrastructure, energy infrastructure and so forth. Currently, there are no Housing Schemes for the general public and most of the houses developed by the private

sector or individuals are temporal in nature made of locally available materials such as mad bricks, mad and reeds which are grass thatched.

Table 18: Stock of Housing Unit in use in Lunga District

S/n	Provider		Category of houses	
	Government	**Private**	**Low Cost**	**Medium Cost**
	Name of institution			
1.	Education	0	26	0
2.	Health	0	12	0
3.	Agriculture	0	2	0
4.	Judiciary	0	4	0
Total		**0**	**44**	**0**

Source: Department of Infrastructure

Table 19: Stock of Housing Units under construction in Lunga District

S/n	Government	Category of houses			Total
	Name of Institution	**Low Cost**	**Medium Cost**	**High Cost**	
1.	Education	2			2
2.	Local Authority	20		1	21
3.	Infrastructure	20			30
4.	Zambia Police	8	2		10
5.	National Parks and wildlife	2			
Total		**50**	**12**	**1**	**63**

Source: Department of Infrastructure

Table 20: Other Public Infrastructure in Lunga District

S/n	Name of sector	Type of infrastructure	Number
1.	Education	Classroom Block(1X2)	21
		Classroom Block(1X3)	23
		Dormitories	1
		Ablution	1
		Laboratory	1
		Administration Block	1
2.	Health	Health Facility	12
		OPD	3

		Maternity Annex	3
		Mothers Shelter	1
		Incinerator	4
		Insaka Office	3
3.	Judiciary	Court Block	4
4.	Community Development	Guest	1
5.	Agriculture	NAMBOARD Block	1
6.	Fisheries and Livestock	Livestock Farmer Shelter	1
7.	Zambia Police	Police station	1
8.	Local Authority	Civic centre	1
		Markets	4
		Ablution Block	1
		Community hall	1
		Semi-detached Chalets	2

Source: Department of Infrastructure

3.10.2.2 Quality of Services Including Key Indicators of performance

The housing and infrastructure services in Lunga district are still at its infancy level as 99.37% of the residents are accommodated in indecent housing units usually made of mad bricks, mad and reed with thatched roofs where as 0.63% of the residents who seemingly are civil servants are living in semi decent housing units without connections to piped water and sewer system or septic tanks. The demand for housing infrastructure is quite huge both for civil servants and the non-civil servants.

3.10.3 Issues Arising from the Public Participation Process

3.10.3.1Availability of Services

Arise from the Planning Survey and Issues Report of the IDP process, it was observed that regarding housing and infrastructure development no attempts have been made to provide decent affordable housing to the general public by both the public and private sector aside from few housing units owned by government in public institutions. During the stakeholder consultative meetings it was also observed that public infrastructure services have been provided in public institutions such as schools, health facilities to mention a few.

3.10.3.2 Quality of Services Including Key Indicators of performance

The Quality of services provided under the housing and infrastructure development is seemingly on the lower side as compared to the population of the district. Under education sector for example, 26 housing units against 308 teachers giving a deficit of 182 housing units. On the other hand, there are 12 housing units against 97 health personnel giving a deficit 85. The huge gaps in infrastructure services compromises the quality of education and health services offered in these public institutions.

3.10.4 Impact of Changes Anticipated over ten years

3.10.4.1 Population Change – Future Demand for Services and Facilities

Lunga district is one of the most rural district in the Luapula Province with the projected population of 62,419 in 2033 attributed by factor such as natural births, and immigration. It is anticipated that the increase in population will have a ripple effect on the increased demand for housing and infrastructure services as already demonstrated in the current situation. To accommodate the increased demand for Housing and Infrastructure services, there is need to construct more housing and infrastructure and expand on the already existing facilities so that demand is equilibrated with the supply of services.

3.10.4.2Existing and Proposed Investment and Development Programmes

Table 21: Existing and Proposed Investments and Development Programmes under the Housing and Infrastructure Sector

Existing investments	Proposed development Programmes
o Market Shelters o Bridges or Crossing Points o Civic Centre o Boreholes o Staff houses o chalets o Bar and Restaurant o Guest houses o Office Blocks o Ablution Blocks o Health Infrastructure o School Infrastructure o Bulking Centre o Local Courts o MANBOARD Block	o Construction of Market Shelters o Construction of landing jetties o Installation of Street Lights o Construction of a Library o Establishment of a Fire Station o construct of waiting stations at the harbours o Construction of institutional houses o Construction of hospitality infrastructure o Construction of Administrative Blocks o Construction of correctional facility o Construction of Courts o Construction of Police Posts o Construction of a sports complex

Source: Lunga IDP Team, 2023

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

As population continues to increase, this calls for opening up of new development areas in order to house the increased population and provide the much needed housing and infrastructure services to the general public. The opening up of new development areas seeks for engagement of different stakeholders to reach a consensus on areas to be zoned in terms of land use in ordered to mitigate the conflicts of use among different stakeholders.

As new development areas are created and serviced, this will definitely attract who would be developers to develop their parcels thereby attracting concentration of populations especially that there is easy access to services. It is therefore anticipated that population distribution will follow the outward expansion of the town from the Central Business District.

3.10.6 Environment and Climate Change Analysis

3.10.6.1The Impact of Existing Trends on the Environment and Climate Change

It is anticipated that as development pressure takes place, there will be clearing of the vegetation land cover, encroachment on agricultural land and destruction to wildlife habitats and other ecologically sensitive areas. On the other hand, the development process will also demand for vegetation products such as grass and reeds thereby causing some sort of vegetation clearing and environmental degradation leading to rise in temperatures and unprecedented weather patterns resulting in floods and dry spells.

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

The following are the impacts of environmental and climate change issues on the Housing and Infrastructure Services Sector;

- ✓ Flooding of settlements
- ✓ Destruction to infrastructure such as blown offs and submerging of crossing points
- ✓ Destruction to markets shelters

3.10.7 Issues Arising Relating to Gender Groups and Vulnerable Groups

The following are the issues arising relating to gender groups and vulnerable groups under the municipal services sector;

- o It is very difficult for women and the vulnerable to access decent accommodation
- o Most infrastructure development designs do no incorporate the needs of the vulnerable
- o Only men are given an opportunity to participate in housing and infrastructure development

3.10.8 Consideration of the Underlying Factors Contributing To the Issues Identified

The following are the underlying conditions contributing to the issues identified under the Housing and Infrastructure Sector;

- o Lack of income to afford decent housing

- Lack of deliberate policies to incorporate the needs of the differently abled persons in designs
- Women are disregarded to participate in infrastructure development

3.10.9 Sector Summary

The Housing and Infrastructure Sector plays a central role in ensuring that housing and other infrastructure demands do not go far beyond the supply as this may bring about desperation regarding decent housing affordability in the district and the nation at large. In order to equilibrate the demand and supply of housing and other related infrastructure developments, the National Housing Policy was crafted with focus on the need for government to facilitate Housing delivery through improvements on institutional and regulatory frameworks, and coordination mechanisms in the midst of the growing housing demand. Housing and infrastructure development remains a challenge in Lunga district, there government and the private sector needs to much in terms of investment in this particular sector in order to accommodate the current and future demand for the aforementioned services.

3.11 Summary of Core Issues by Sector

The following were identified as core issues during both community and institutional stakeholder consultations per sector as tabulated in Table 23.

Table 22: Summary Of Core Issues

S/n	Sector	Core Issues	Contributing Factors to the Core Issues
1.	Agriculture	Low agriculture production and productivity	• Inadequate farm land • Expensive water transport • Inadequate extension services • Inadequate transport office and staff accommodation • Limited number of farmers accessing FISP
2.	Fisheries and livestock	Low fish and livestock production	• Reluctance by the community to engage in fish farming • Inadequate grazing land

			• Expensive water transport • Inadequate extension services • Inadequate transport, office and staff accommodation
3.	Transport and Communication	Poor Transport and communication Network	• Limited coverage of available telecommunication towers • Clogged water channels • Absence of TV and radio signal • Unavailable Public Water Transport Service
4.	Energy	• Non connection to the National Grid • Under exploitation of clean energy sources	• Low investments in energy sector-No service station
5.	Education	• Low access to education facilities • Low quality education service	• Poor transportation services • Limited available Boarding Schools • Inadequate office and staff accommodation • Absence of Laboratory school facilities and ECE centres with proper infrastructure • Inadequate water and sanitation facilities.
6.	Health	• Low quality of Health care services • Limited access to health facilities	• Absence of First Level Hospital • Poor transportation services and non-

			availability of Ambulances • Limited available Health facilities with maternity annexes or mother shelters • Inadequate Bed spaces • High morbidity due to prevalence of malaria, TB, maternal and child mortality rate, poor public health and nutrition
7.	Water and Sanitation	Low access to safe clean drinking water and sanitation services	• High iron content • Inadequate investment in water and sanitation
8.	Social Welfare Services Sector	Limited access to social welfare services	• Inadequate Social Cash Transfer funds • The eligibility criteria
9.	Natural Resource and Environment	Over dependence on natural resources	• Non exploitation of alternative livelihood
10.	Housing and infrastructure	Under development	• Uniqueness of the Lunga terrain •

Source: Lunga IDP Team, 2023

PART THREE-DEVELOPMENT FRAMEWORK

4.0 Development Framework

4.1 Vision for the Long Term Development of the District

This development framework has been development to set out the Vision, Goals, Objectives, Priorities and Strategies of the lunga Integrated Development Plan.

"A Self-sustained District anchored on Agriculture and Aqua Culture"

In this context **"Industrialised"** means having many businesses and factories involved in producing goods and services, where as **"self-sustained"** means maintaining or able to maintain oneself or itself by independent efforts.

4.2 Policies to Direct Development

The Lunga IDP will not be implemented in isolation but will to a larger extent depend or influence other existing policies and strategies at various levels due to the plans' multi – sectoral approach to development. The Lunga District IDP will localize various policies and plans to foster meaningful development in the IDP area and a few of them are as outlined below;

- Increase agricultural production and productivity
- Enhance fish and livestock production and productivity
- Enhance mobile network and provision of radio signals
- Improve access to clean energy
- Increase access to quality education services
- Increase access to quality education services
- Increase access to safe clean drinking water and Sanitation
- Increase access to social welfare services
- Increase exploitation of alternative livelihood
- Improve Housing and Infrastructure Development

4.3 Development Objectives, Priorities And Development Strategies

To arrive at the developmental objectives and strategies, an In-depth analysis of core issues was conducted using the problem tree analysis in order to ensure that the objectives and strategies responds to the causes rather than the symptoms, deal with the problem in context and consider potentials, opportunities and initiatives for solving core issue.

Table 23: Development Framework for Agriculture Sector

Goal 1: Enhance agriculture production and productivity									
Objective: To reduce the farmer to Extension Officer Ratio from the current 864:1 to the ideal 400:1 in order to enhance production and productivity by 10% by 2028.									
Strategy	**Program**	**Activities**	**Location by Priority**	**2024**	**2025**	**2026**	**2027**	**2028**	Responsible Agency
Improve agricultural production and productivity	Infrastructure development	Construction of 12 Staff Houses	Nsalushi, Nchetа,	Nil	3		3		Department of Agriculture
		Construction Farmers Training Centre	Kasoma Lunga			1			Department of Agriculture
		Construction of an Office Block	Kasoma Lunga		1				Department of Agriculture
		Construction of 4No community-based storage sheds	Lunga, Nsalushi and Nchetа		1	1	1	1	Department of Agriculture
	Agricultural mechanisation	Procuring of farming implements	All 10 wards	5	5				Department of Agriculture
	Farm Block establishment	Dev. Of 1No. Farm Block	Nsalushi		1				
	Farmer Input Support	Increasing number of beneficiaries	All 10 wards	900	1500	1800	2000	-	Ministry of Agriculture

	Program (FISP)	and crop diversification							
Improve agricultural production and productivity	Agribusiness development	Market Data Collection, Collation and Dissemination.	All 10 wards	48	96	144	192	240	Department of Agriculture
		Agricultural Commodity Market Linkages	All 10 wards	250	500	700	900	-	Department of Agriculture
		Establishment and Maintenance of Trade Database	All 10 wards	1					Department of Agriculture
		Agricultural Infrastructure Inspection	All 10 wards	2	6	10	14	-	Department of Agriculture
		Entrepreneurship Training in Farming as a Business	All 10 wards	40	250	500	920	-	Department of Agriculture
		Crops Value Chain Development	All 10 wards	1	2	3	4		Department of Agriculture
Improve agricultural production and productivity	Extension services support	Conducting field day	All 10 wards	10	20	30	40		Department of Agriculture
		Staff Recruitment	District		1	1			Department of Agriculture
		Registration of farmers on ZIAMIS	All 10 wards						Department of Agriculture
		Technical backstopping and monitoring of	All 10 wards	8	16	32	40		Department of Agriculture

		extension officer							
Improve agricultural production and productivity	Research and Development	Trial/demonstrations (Rice, Cassava & Maize)plots establishment	All 10 wards	7	37	67	97	127	Department of Agriculture
	Early warning and surveillance systems	Enhanced Early warning and Surveillance systems establishment	All 10 wards	44	80	120	80		Department of Agriculture/ FAO
Improve agricultural production and productivity	Irrigation Development	Small Scale Irrigation Technologies Promotion	All 10 wards		30	60	90	120	Ministry of Agriculture/TRALARD

Source: Lunga IDP Team, 2023

Table 24: Development Framework for Fisheries and Livestock Sector

Goal 1: Enhance fisheries and livestock production and productivity									
Objective: To increase the number of fish and livestock farmers from the current 20 and 225 to 100 and 500 respectively by 2028									
Strategy	**Program**	**Activities**	**Location by Priority**	**2024**	**2025**	**2026**	**2027**	**2028**	**Responsible Agency**
	Fisheries and Aquaculture development	Provision of extension to fish farmer and fish restocking by type	All 10 wards	10	20	30	40	50	MFL

Improve Fish production									
	Fish conservation and surveillance	Conducting patrols and sensitizations to enforce the fishing ban	All 10 wards	9	9	9	9	9	MFL
		Conducting patrols to curb the use of illegal fishing gears and methods	All 10 wards	6	6	6	6	6	MFL
Improve Livestock production	Production and extension	Training farmers in small livestock best practices	All 10 wards	10	10	10	10	10	MFL
	Prevention and control of animal diseases	Vaccination of livestock against identified diseases	All 10 wards	10	10	10	10	10	MFL
	Fisheries and livestock infrastru	Construction of Office Block	Kasoma lunga		1				MFL

	cture develop ment	Constructi on of Staff Houses	Kasom a lunga		2	1	1	1	MFL
		Procureme nt of water vessels	Lunga district		1		1		MFL
		constructi on of a laboratory	Kasom a lunga			1			MFL

Source: Lunga IDP Team, 2023

Table 25: Development Framework for Transport and Communication Sector

1. **Goal:** Enhance mobile network, water transport and provision of radio signals									
Objective: To improve the conditions of the Water Channels from the current 225km to 400km by 2028									
Strate gy	**Programme**	**Activity**	**Locati on by priorit y**	**202 4**	**202 5**	**202 6**	**202 7**	**202 8**	**Responsibl e**
Impro ve mobile networ k, water transp ort and provid e radio signals	Transport and Communica tion Infrastructur e developmen t	Widening and deepening of channels	In all the 10 Wards		50k m	50k m	50k m	25k m	Local Authority
		Constructio n of landing jetties	In all the 10 Wards		4	3	3	3	Local Authority
		Maintenanc e of water channels	In all the 10 Wards		60k m	55k m	55k m	55k m	Local Authority
		Rehabilitati on and paving of a footpath	Kasom a-lunga to Itala		1km	1km	1km		Local Authority

		Provision of public water transport vessels	In the entire district		2	1	1		Local Authority
		Mounting of communication masts	In the entire district		1	1	1	1	Ministry of communication
		Establishment of community Radio stations				1			Ministry of communication

Source: Lunga IDP Team, 2023

Table 26: Development Framework for the Energy Sector

1. **Goal: Improve access to clean energy**									
Objective: To increase the connection of households to clean energy from the current 0% to 20% by 2028									
Strategy	**Programme**	**Activity**	**Location by priority**	**2024**	**2025**	**2026**	**2027**	**2028**	**Responsible**
Promotion of investments Clean Energy	Clean production and supply	Establishment of solar farms	Nsamba and Bwalya Mponda		1	1			ZESCO& REA
		Construction of a filling station	Kasoma-Lunga		1				ZESCO& REA
		Connect Lunga District to the National Grid	Kasoma-lunga,Nsamba,Bwalya Mponda Kalima-Nkonde		1	1	1	1	ZESCO& REA

Source: Lunga IDP Team, 2023

Table 27"Development Framework for Education Sector

1. **Goal:** Increase access to quality Education services									
Objective: To reduce the teacher pupil ratio from the 1:90 to the ideal 1:35 by 2028									
Strategy	**Programme**	**Activity**	**Location by priority**	**2024**	**2025**	**2026**	**2027**	**2028**	**Responsible**
Enhance access to quality, equitable and inclusive education	Early Childhood Education	Centres of Excellence establishment and operationalization	All ECE schools	1	1	1	1	1	MOE
		ECE teachers deployment	All ECE schools	10	15	20	25	30	MOE
	Primary Education	Primary teachers deployment	All Primary Schools	43	50	75	100	120	MOE
		Primary teachers to teach STEM deployment	All primary schools	4	6	12	18	22	MOE
		Improve net enrolment rates at Primary School	All primary schools	20%	40%	60%	80%	100%	MOE

		through community engagement meeting and tradition leadership							
	Inclusive education (LSEN)	Improve access to education opportunities for Learners with Special Education Needs (LSEN) by qualified teachers in LSEN	All primary schools	2	4	5	6		MOE
	Secondary education	Secondary school teachers training and recruitment	All secondary schools	38	68	83	100		MOE
	Curriculum review	Capacity to develop locally made materials	All schools	4	8	16	20		MOE
		Curriculum and materials delivery system	All schools	1				1	MOE

		developme nt							
	Menstrual Hygiene Manageme nt (MHM)	Implement Programme s to support girl child education(e .g. sanitary towels, guidance counselling , ending child marriages, school fees etc.	All primary and secondary schools		8	8	8	8	MOE
	Technical Education Vocational and Entreprene urship Training	Create Out-of-school children (OOSC) access to education opportuniti es	All wards	10 0	20 0	30 0	40 0		MOE
		Implement ation of the two-tier career pathway(S kills training included)	All wards	50	10 0	15 0	20 0		MOE
	Education Infrastruct ure Developm ent	Constructio n of 60 No staff houses.			15	15	15	15	MOE

		Rehabilitation of 10 No CRBs			5	5			MOE
		Construction of 4No dormitories	Bwalya Mponda, Kasoma lunga, Itala and Nsamba schools.		2	2			MOE
		Construction of 25 ablution blocks at all three levels.	All wards		6	6	6	5	MOE
		Construction of 10 classroom blocks at all levels	All wards		2	3	3	2	MOE
		Construction of 10 ECE centres.	All wards		2	2	3	3	MOE
		Procurement of 200 desks for secondary, 450 desks for primary and 500 desks for ECE levels.	All wards	1,150					MOE
		Rehabilitation of 10			10				MOE

		broken down bore holes.							
		Procurement and installation of solar lights at 25 learning institutions.	All wards		7	6	6	6	MOE
		Procurement and installation of internet services at 24 learning institutions.	All wards		6	6	6	6	MOE
		Procurement of boats and engines for 10 schools.	All wards		2	2	3	3	MOE
		Construction of administrative office for District Education Board.	Kasoma-lunga			1			MOE
		Construction of 3 science and HE laboratories.	Bwalya Mponda, Nsamba and Itala		1	1	1		MOE

		Procurement of laboratory equipment for 5 schools	Bwalya Mponda,Nsamba,Itala,Mweshi and Kasoma lunga		2	2	1		MOE
		Construction of a fully-fledged boarding school	Nsamba			1			MOE
		Construction of a fully-fledge trades training institute	Bwalya Mponda		1				MOE
		Construction of 20 Ablution Blocks in schools	All wards		5	5	5	5	MOE
		Establishment of mechanized water scheme 24 schools	All wards		6	6	6	6	MOE
		Installation of solar panels in schools	All wards		6	6	6	6	MOE

		Installation of solar panels in 60 staff houses	All wards		15	15	15	15	MOE

Source: Lunga IDP Team, 2023

Table 28: Development Framework for Health Sector

1. **Goal:** Increase access to quality health care services									
Objective: Increase the hospital bed capacity from the current 79 to 200 by 2028									
Strategy	**Programme**	**Activity**	**Location by priority**	**2024**	**2025**	**2026**	**2027**	**2028**	**Responsible**
	Disease prevention and control	Prevention of communicable and non-communicable diseases through awareness creation	All wards	4	4	4	4	4	MOH
	Health education promotion	community sensitizations	All Wards	4	4	4	4	4	MOH
		engagement of church and traditional leaders	All Wards	4	4	4	4	4	MOH
	Maternal healthcare	Antenatal Care Sensitisation	All Wards	12	12	12	12	12	MOH
		Postnatal services within 48 hours	All Wards	365	365	365	365	365	MOH

	Family planning promotion	Women accessing Family Planning	All Wards	365	365	365	365	365	MOH
	Medicines and medical supply chain management	Medical supplies	All Wards						MOH
	Equipment and transport procurement and maintenance	Fleet maintenance			2	2	2	2	MOH
		Procurement of 3No speedboats	Bwalya Mponda RHC, Kalima Nkonde RHC and Mweshi health post		1	1	1		MOH
	HIV testing and treatment	95% of individuals know their status, 95% of positive individuals are put on ART and 95% of positive individuals are virally suppressed	All Wards						MOH
	Health Infrastructure	Construction of 20 staff houses	All Wards		5	5	5	5	MOH

	Developme nt								
		Construction of health facilities in 8 wards	All Wards						MOH
		Construction of 2No Mini-Hospitals	Bwalya Mponda and Kasoma Lunga.			1		1	MOH
		Construction of 10 No maternity annexes	All Wards		3	2	3	2	MOH
		Construction of First Level Hospital	Nsamba			1			MOH

Source: Lunga IDP Team,2023

Table 29: Development Framework for Water and Sanitation

Goal: Increase access to safe clean drinking water and sanitation									
Objective: To increase the number of functional boreholes from the current 57 to 200 by 2028									
Strategy	**Programme**	**Activity**	**Location by priority**	**2024**	**2025**	**2026**	**2027**	**2028**	**Responsible**
Improve access to clean and safe water supply and Sanitation	Sanitation and hygiene promotion	Implementation of Community Led Total Sanitation (CLTS)	All Wards		7	7	6	6	MWDS/LA
		Implementation of School Led Total Sanitation	All Wards		6	6	6	6	MWDS/LA

	Solid Waste Management	Waste collection points establishment	All Wards		7	7	6		MWDS/LA
		Incinerators construction	All Wards		7	7	6	6	MWDS/LA
	Water quality monitoring	Water quality testing	All wards		50	50	50	50	MWDS/LA
	Water and Sanitation Infrastructure Development	Development of 26No Water Reticulation Systems in communities	All wards		7	7	6	6	MWDS/LA
		Rehabilitation of existing 34 dysfunctional boreholes	All wards		9	9	8	8	MWDS/LA
		provision of water filters to 94 functional boreholes	All Wards		25	25	22	22	MWDS/LA
		Construction of 26 ablution blocks in market places	All wards		7	7	6	6	MWDS/LA
		Construction of 4 Mini	Kasoma-		1	1	1	1	LWSC

		Sewerage Systems	Lunga, Bwalya Mpond a, Nsamb a and Kalima - Nkonde						
		Construction of 25 ablution blocks at all three levels of Education.	All wards		6	6	6	5	MOE
		Establishmen t of mechanized water scheme in 24 schools	All wards		6	6	6	6	MOE
		Construction of 15 Ablution Blocks in Health facilities	All Wards		4	4	4	3	MOH

Source: Lunga IDP Team, 2023

Table 30: Development Framework for Social Welfare Sector

1. **Goal:** Increase access to social welfare services									
Objective: To increase Social Cash Transfer f coverage from the current 73.4% to 100% by 2028									
Strategy	**Programm e**	**Activity**	**Locatio n by**	**202 4**	**202 5**	**202 6**	**202 7**	**202 8**	**Responsib le**

			priority						
Lobby for more funding from Central Government	Social Welfare Infrastructure Development	Construction of Office Block	Kasoma-lunga		1				Social Welfare Dept.
		Construction of Staff Houses	Kasoma-lunga		2	2	2		Social Welfare Dept.
		Construction of a safe home	Kasoma-lunga			1			Social Welfare Dept.
		Construction of Juvenile facility	Kasoma-lunga				1		Social Welfare Dept.
	Procurements	Procurement of Smaller boats to enable officers reach hard to reach islands in the District	District		3				Social Welfare Dept.
		Internet connectivity	Kasoma-lunga			1			Social Welfare Dept.

Source: Lunga IDP Team, 2023

Table 31: Development framework for Natural Resources and Environment Sector

Goal: Increase exploitation of alternative livelihood									
Objective: Increase availability of natural resources and ecosystem protection by recruit 6 Extension Staff from the current 0 by 2028									
Strategy	**Programme**	**Activity**	**Location by priority**	**2024**	**2025**	**2026**	**2027**	**2028**	**Responsible**

Implementation of Climate Change Resilient programmes	Sustainable forest management	Establishing agro-forestry nurseries	Kasoma Lunga and Bwalya Mponda and Nsamba	1	1	1	1	2	Forestry Department
		Replanting with agro-forestry and tree crops on degraded and depleted lands for forest ecosystem	Mweshi, Chibulu, Chisale, Chafye and Mutwamina	1	1	1	1	2	Forestry Department
		Establishment of Community Forest Management Groups	Kasomalunga, Nsamba, Kalimankonde and Bwalya Mponda	1	1	1	1	1	Forestry Department
		Implementation OF Climate Resilience projects	All words.	1	1	1	1	1	Forestry Department
		Establishment of 40Ha of NFR/ANR	Nsamba ,Bwalya Mponda and Kasomalunga	1	1	1	1	1	Forestry Department
		Ecosystem protection	All words	1	1	1	1	1	Forestry Department
	Nature based solutions and climate change	Tree planting with agroforestry and tree crops for	Kasoma Lunga, Chibulu, Chisale, Bwalya Mponda,	1	1	1	1	1	Forestry Department

	mainstreaming	diversified and improve livelihoods and soil fertility through provision of firewood, poles, fodder etc	Mutoni, Matongo, Nsamba,Kalima Nkonde and Mweshi						
		Education and community awareness on climate change and the value of natural resources	Kasoma Lunga, Chibulu, Chisale, Bwalya Mponda, Mutoni, Matongo, Nsamba, Kalima Nkonde and Mweshi	1	3	3	4	5	Forestry Department
	Sustainable land and forest management	Designation of community forest areas for forest restoration	Kasoma Lunga, Bwalya Mponda, Nsamba and Kalima Nkonde	1	1	1	1	1	Forestry Department
	Water catchment protection and conservation	Community awareness on the environment and the value of natural resources	All wards	2	3	4	5	5	Forestry Department

Source: Lunga IDP Team, 2023

Table 32: Development Framework for Housing and Infrastructure Sector

Goal: Improve Housing and Infrastructure Development									
Objective: To increase the decent housing stock from the current 1.63 by % to 10% by 2033									
Strategy	**Programme**	**Activity**	**Location by priority**	**2024**	**2025**	**2026**	**2027**	**2028**	**Responsible**
Housing scheme and infrastructure development(NAPSA,NHA,PPP SHI)	Public Infrastructure Development	Construction of Market Shelters	all Wards		2	2	2	1	LA
		Construction of landing jetties	All wards		6	6	7	7	LA
		Construction of public Libraries	All chiefdoms		1	1	1	1	LA
		Installation of market security Lights	Lunga, Nsalushi and Ncheta ward			1	1	1	LA
		Establishment of a Fire Station	Lunga and Ncheta ward			1	1		LA
		construct of waiting stations at the harbours	All chiefdom		1	1	1	1	LA

		Construction of institutional houses	All wards		40	40	40	40	LA/MIUD
		Construction of hospitality infrastructure	All the chiefdoms		1	1	1	1	HOTELS BOARD
		Construction of administrative blocks	All government institutions		2	3	4	3	LA/MIUD
		Construction of correctional facility	Lunga ward			1			HOME AFFAIRS
		Construction of Magistrate court				1			HOME AFFAIRS
		Construction Police Posts	All ward		2	2	2	3	LA
		Construction of a sports complex	All chiefdom		1	1	1	1	LA

Source, Lunga IDP Team, 2023

4.5 Spatial Development Framework

In order to achieve the long-term vision and strategic goals of the district, the Spatial Development Strategy for Lunga will largely be influenced by the following Development Scenarios:

(i) Growth nodes
(ii) Growth Poles
(iii) Protection

4.5.1 Scenario 1: Growth Nodes Concept

These are areas where a higher intensity of land uses and activities will be supported and promoted. Under the Lunga Integrated Development Plan, four (4) Chiefdoms have been identified and proposed for the development of Growth Nodes as a result of the already existing settlement patterns as well as socio-economic activities taking place. Kalima-Nkonde, Kasoma-Lunga, Nsamba and Bwalya Mponda Chiefdoms demonstrates a lot of potential for development as they are already established settlements with a good number of social services such as health, education, social welfare and community development related including water and sanitation.

4.5.1.1 Kalima-Nkonde Growth Node

The Kalima-Nkonde node has potential in the agriculture and fisheries sector due to presence of arable wetlands for rice and sugar plantation as well as some upland in Mung'omba for cassava plantation whereas the Nkutila lagoons offers a greater opportunity for investment in the capture fisheries. Banana plantations also provides a good opportunity for local economic growth and development and creation of local employment in the chiefdom.

4.5.1.2 Kasoma-Lunga Growth Node.

The Kasama-Lunga Node has a seemingly urbanizing character as it the administrative centre of the district and epitome of civilization. The Node is the Central Business District and has potential to become the commercial hub of the district due to its location advantage and the business opportunities that are present as well as a good transport network through Buyantashi channel from Kasoma-lunga to Mpanta mainland. Being the Administrative Centre of the district, the Node hosts a good number of modern government infrastructure ranging from office accommodation to staff houses, business houses and other supportive services.

4.5.1.3 Nsamba Growth Node

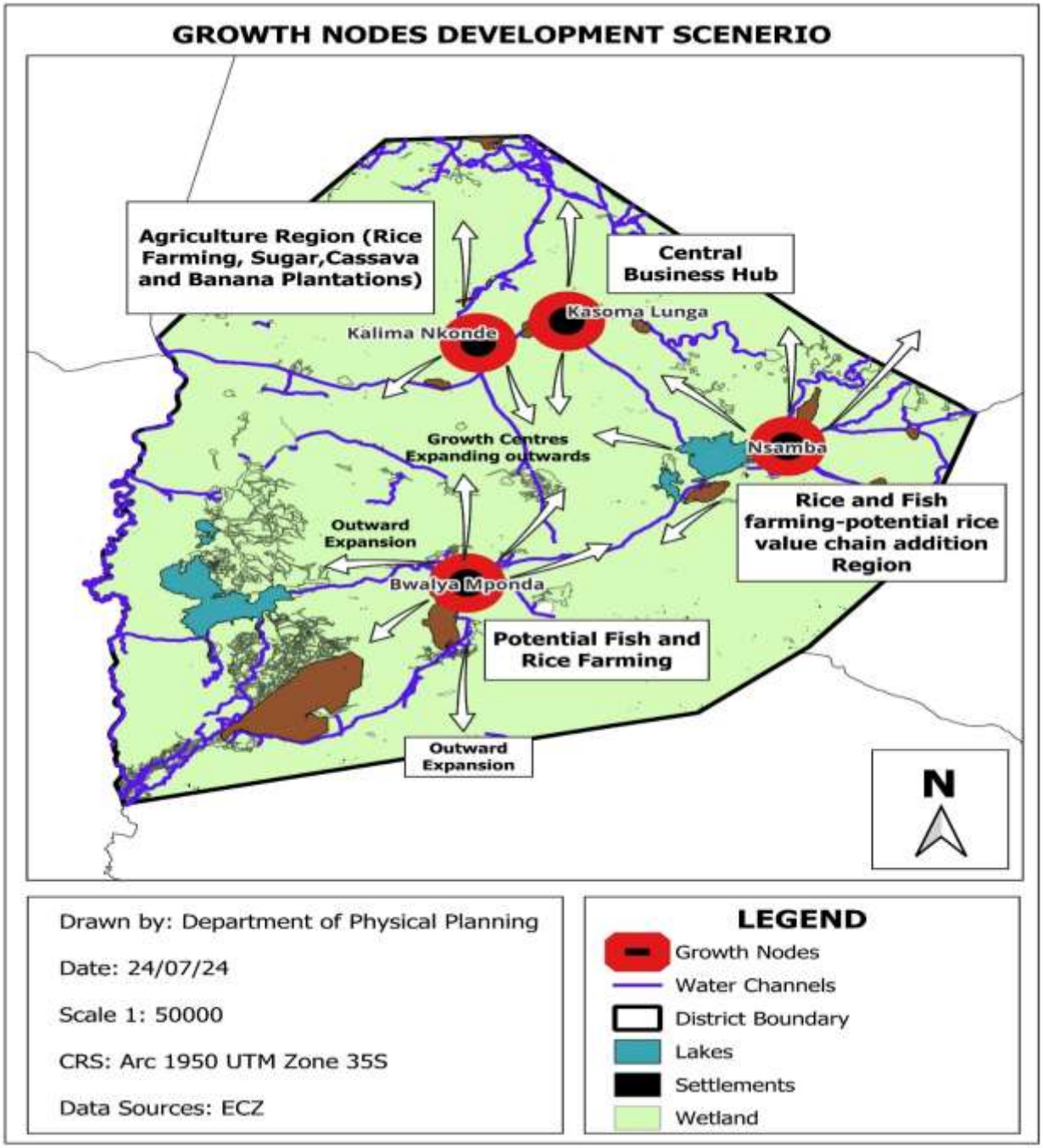
The Nsamba Node has the potential in fishing and rice farming and the already existing settlements and public infrastructure such as schools and health facilities present an opportunity for future expansion of the Node spatially, economically and socially. Nsamba is relatively large in land extent and this provides an opportunity to exploit the rice growing potential on a large scale as well as development of the rice value chains and creation of employment for the locals. On the

other hand fishing is one of the lucrative businesses present in the chiefdom as most of the fish caught finds its way on the Copperbelt and Kasumba-lesa.

4.5.1.4 Bwalya Mponda Growth Node

The Bwalya Mponda Node has potential in fish farming as well as rice farming due to arable wetlands. Most of the fish that leaves Lunga District comes from Bwalya Mponda and fishing is deemed to be the main economic stay of the residents. Due to the availability of water bodies fish farming presents a huge opportunity for this Node as this has already attracted population concentration in the Chiefdom. On the other hand rice farming again presents a huge opportunity for investment and establishment of Rice Value Chains as a way of exploiting this natural resource endowment and bring about job creation for the local communities.

Figure 28: Growth Nodes Development Scenerio



Source: Department of Physical Planning, 2024.

4.5.2 Scenario 2: Growth Poles

The central idea of the growth poles theory is that economic development, or growth, is not uniform over an entire region, but instead takes place around a specific pole (or cluster). Under the Lunga Integrated Development Plan, Kasoma-Lunga and Nsamba have been identified and proposed to be growth poles as a result of the pace at which they are developing spatially,

economically and socially as informed by the provision of social amenities and the concentration of population around the aforementioned amenities.

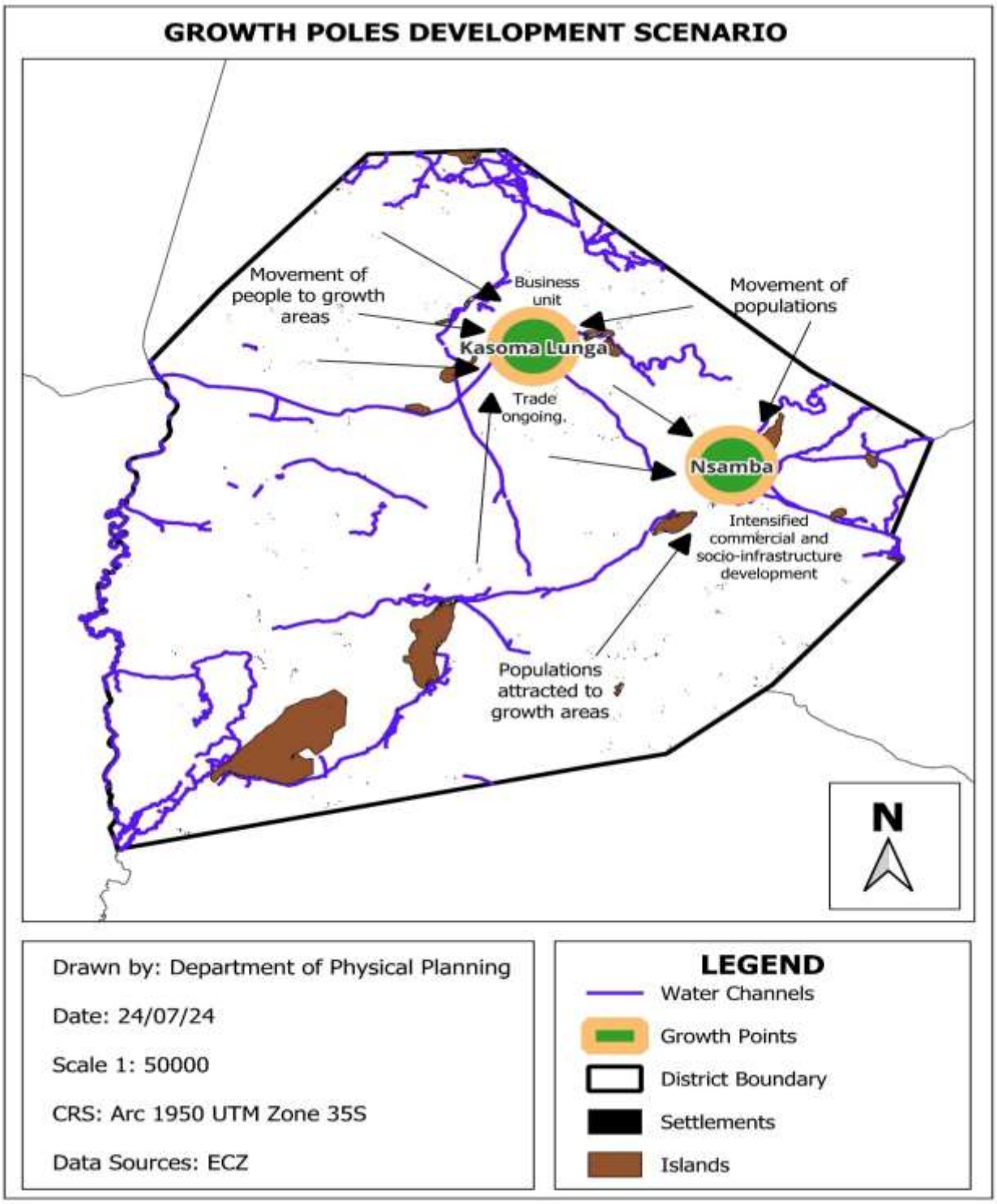
4.5.2.1 Kasoma-Lunga Growth Pole

The Kasoma-Lunga Growth Pole is characterized by high population concentration around a network of social services and amenities as well as business units that create an opportunity for commerce and trade. The Pole is seemingly urbanizing as the Central Business District and has potential to become the commercial hub of the district due to its location advantage. The Pole facilitates the movement of goods and services from Nsamba and Bwalya Mponda to Samfya through the Buyantashi Channel. Being the Administrative Centre of the district, the Node hosts a good number of modern government infrastructure ranging from office accommodation to staff houses, business houses and other supportive services. The settlement patterns in the Pole are mostly dense and in an unorderly manner as most of them are under customary land and made of locally available materials without adhering to planning standards and building regulations.

4.5.2.2 Nsamba Growth Pole

The Nsamba Growth Pole is second highest in terms of population concentration and its spatially vast providing an opportunity to become the mini administrative centre of the district for it has the capacity to hold a good number of infrastructure developments as the area is not water logged because of the presence of sand. The Growth Pole has the already existing settlements and public infrastructure such as schools and health facilities presenting an opportunity for future expansion spatially, economically and socially.

Figure 29: Growth Poles Development Scenerio

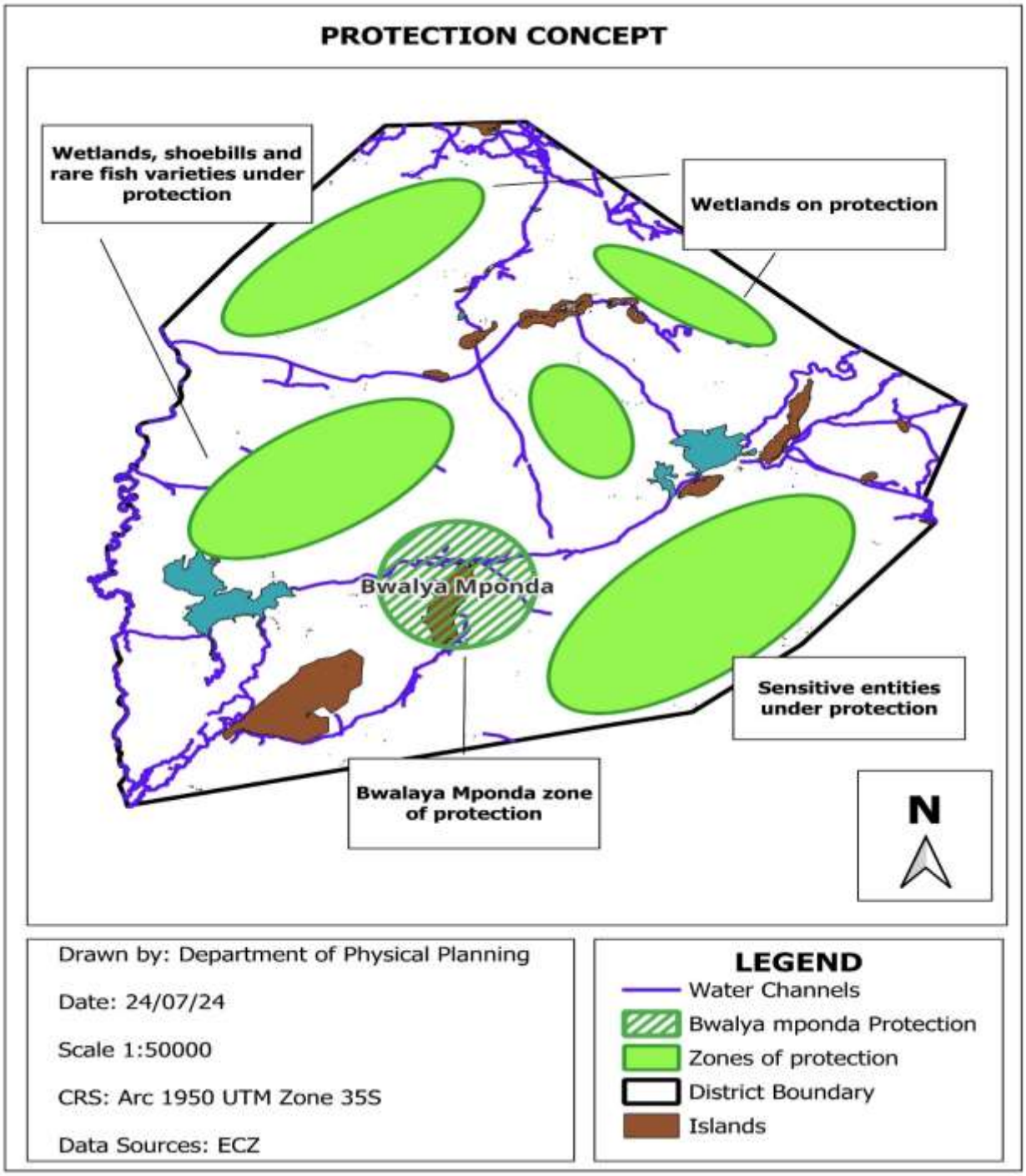


Source: Department of Physical Planning, 2024.

4.5.3 Scenario 3: Protection Concept

A spatial strategy aimed at protecting valuable natural, economic or heritage resources, such as agricultural land, wetlands, ecological corridors or scenic landscapes. Under the Lunga Integrated Development Plan, Bwalya Mponda Protection has been identified and proposed as a protected area as a result of ecologically and environmentally sensitive entities that needs protection and conservation during the implementation of the IDP. Entities such as wetlands, shoebills and fish breeding grounds needs protection for continuous sustainace of the flow of both environmental and ecosystem services. Keen interest should be taken into account as well develop Bwalya Mponda using the aforementioned concept knowing well that it falls within the Bangweulu wetlands which is a protected area.

Figure 30: Protection Scenerio Concept



Source: Department of Physical Planning, 2024.

4.5.4 Chosen Spatial Development Scenario

To arrive at the best scenario for the development for the spatial strategy for Lunga IDP, The criteria embraced the following variables:- demographic trends and socio-economic variables, Environmental variables, contribution to the local economy and job creation.

4.5.4.1 Growth Nodes as the best Scenario

Under the Lunga IDP the selected best scenario is premised on the enhanced access to quality of life, social and human development through the provision of Basic Services such as health, education and social protection. Additionally the scenario has also focused on climate change and resilience as well as environmental sustainability and the continued provision of both environmental and ecosystem services to the general public. Furthermore the scenario has embraced the principles of equity in the distribution of goods and services across the district and shortened distance regarding access to services such as education and health.

4.6 Reconciliating the objectives and strategies and the spatial development framework

The Lunga spatial development framework depicts the desired spatial form for the achievement of the agreed goals and objects.it should and be informed by the goals, objectives and strategies and projects established in the earlier stages of the IDP process. Below is the alignment of between the spatial strategy and the goals, objectives, strategies and projects.

Table 33: Reconciling the Objectives and Strategies and the Spatial Development Framework

Key Considerations for Spatial Analysis	**Key Considerations For A Spatial Development Strategy**	**Issues To Be Considered In Aligning Spatial Strategy With IDP Objectives, Strategies and Projects**
Enhance Agriculture production amd productivity		
Mapping of existing Agricultural camps	Identification of commun ities in need of extension services	Distance to the nearest camps, staffing levels and catchment population
Enhance Fisheries and Livestock production and productivity		
Mapping of existing Fisheries and Livestock camps	Identification of commun ities in need of extension services	Distance to the nearest camps, staffing levels and catchment population
Improve access to clean energy		

Mapping of existing infrastructure connected to clean energy	Identification of communities in need of clean energy	Distance to the nearest source of clean energy and the catchment population
Increase access to quality education services		
Mapping of all existing schools	Identification of communities in need schools	Distance to the nearest schools and enrolment levels and staffing
Increase access to quality health services		
Mapping of existing health facilities	Identification of communities in need of health facilities	Distance to the nearest health facility, population and related infrastructure
Increase access to safe and clean drinking water and sanitation		
Mapping of all existing water points	Identification of communities in need safe and clean drinking water	Distance to the nearest water point,catcment population,pulic infrastructure available
Increase the exploitation of alternative livelihood		
Mapping of all existing alternative livelihood programmes	Identification of communities in need of alternative livelihood programmes	Distance to the nearest alternative livelihood programmes, beneficiary population and other related interventions
Improve access to housing and public infrastructure		
Mapping of existing public infrastructure	Identifying and mapping communities in need of public infrastructure	Distances to the nearest public infrastructure, population

Source, Lunga IDP Team, 2023

4.7 Land Use Policies and Proposals

During the planned period of the IDP, there has been envisioned significant changes in the land use patterns of Lunga district. At the centre of land use planning is the preparation of Local Area Plans for all existing settlements in all the wards of the district and future developments to come. Local Area Plans (LAP) will be prepared in order to ensure that there is protection of ecologically sensitive areas, coordination of development both in unplanned settlements as well as customary for purposes of providing adequate socio-economic, environmental and the much needed municipal services.

4.7.1 Land use planning policies to improve, maintain or protect the environmental, social and economic aspects of development.

In order to improve, maintain or protect the environmental, social and economic aspects of development the following shall be taken into consideration.

1. Creation of opportunities for various types of employment
2. Increased access to social services as social infrastructure will be improved during the IDP period
3. Skills Development through provision of trainings
4. Empowerment of already trained Youths, Women and the Community.

4.7.2 Land use planning policies and proposal for specific protection zones, areas of environmental sensitivity of cultural and historical importance of area of importance for disaster management purposes.

During the implementation period of Lunga IDP, it important that deliberate efforts are made to come up with Land use planning policies and proposals for specific protection zones, areas pf environmental sensitivity of cultural and historical importance and these include the following among others;

i. Creation of buffers between rivers and settlements
ii. Regulation of settlements in environmentally sensitive areas and restoration of natural resources
iii. Mapping of all Heritage, cultural and sites of historical importance.
iv. Protection of heritage, cultural and historical sites
v. Promotion of climate resilience initiatives

4.7.4. Land use planning policies and proposals for informal settlements

Following land use planning policies and proposals for informal settlements will be taken into account during the Lunga IDP implementation period;

i Promote the regularization of settlements
ii Increase access to social services through the provision of adequate social infrastructure
iii Restrict the future springing up of informal settlements
iv Promotion of the use of locally available building materials in order to enhance affordability of decent housing

4.7.5. Land use planning policies and proposals for areas under the jurisdiction of traditional authorities and proposed policies and proposals for those areas.

During the IDP implementation period, the following land use planning policies and proposals for areas under the jurisdiction of the traditional authorities will apply;

i Planning Agreements will be effected to plan for land under traditional authority in terms of commercial, housing, public and other uses.
ii Encourage their Royal Highness to prepare and update village land use plans
iii Encourage their Royal Highness to established data bases for all the villages under their Chiefdoms for purposes of planning.

5.0 PART FOUR- IMPLEMENTATION PROGRAMME

5.1 Capital Investment Plan

The purpose of Lunga IDP Team preparing the capital investment plan is to ensure that the objectives and strategies of the IDP are implemented and it is therefore essential that there is consideration of the cost and financing of the strategies.

Table 34: Capital Investment Plan for Agriculture Sector

Goal 1: Enhance agriculture production and productivity									
Objective: To reduce the farmer to extension Officer Ratio from the current 864:1 to the ideal 400:1 in order to enhance production and productivity by 10% by 2028									
Strategy	**Programs**	**Activities**	**Location by Priority**	**2024**	**2025**	**2026**	**2027**	**2028**	**Responsible Agency**
Improve agricultural production and productivity	Infrastructure development	Construction of 12 Staff Houses	Nsalushi, Nchetа,	nil	2,700,000		2,700,000		Department of Agriculture
		Construction Farmers Training Centre	Kasoma Lunga			3,500,000			Department of Agriculture
		Construction of an Office Block	Kasoma Lunga		1,500,000				Department of Agriculture
		Construction of 4No community-based storage sheds	Lunga, Nsalushi and Nchetа		1,800,000	1,800,000	1,800,000	1,800,000	Department of Agriculture
	Agricultural	Procuring of	All 10 wards						Department of

	mechanisation	farming implements							Agriculture
	Farm Block establishment	Dev. Of 1No. Farm Block	Nsalushi		5,000,000				
Improve agricultural production and productivity		Construction of value Chain Centre	All 10 wards				3,600,000		Department of Agriculture

Source: Lunga IDP Team, 2023

Table 35: Capital Investment Plan for Fisheries and Livestock Sector

Goal 1:Enhance fisheries and livestock production and productivity									
Objective: To increase the number of fish and livestock farmers from the current 20 and 225 to 100 and 500 respectively by 2028									
Strategy	**Program**	**Activities**	**Location by Priority**	**2024**	**2025**	**2026**	**2027**	**2028**	**Responsible Agency**
Improve Fish production and	Fisheries and livestock infrastru	Construction of Office Block	Kasoma lunga		1,800,000				MFL

productivity	cture development	Construction of Staff Houses	Kasoma lunga		1,800,000	1,890,000	1,980,000	2,070,000	MFL
		Procurement of water vessels	Lunga district		140,000.00		154,000.00		MFL
		Construction of a laboratory	Kasoma lunga			1			

Source: Lunga IDP Team, 2023

Table 36: Capital Investment Plan for Transport and Communication Sector

1. **Goal:** Enhance mobile network, water transport and provision of radio signals									
Objective: To improve the conditions of the Water Channels from the current 225km to 400km by 2028									
Strategy	**Programme**	**Activity**	**Location by priority**	**2024**	**2025**	**2026**	**2027**	**2028**	**Responsible**
Improve mobile network, water transport and provide radio signals	Transport and Communication Infrastructure development	Widening and deepening of channels	In all the 10 Wards		7,500,000.00	7,875,000.00	8,250,000.00	4,312,500.00	Local Authority
		Construction of landing jetties	In all the 10 Wards		14,000,000.00	11,025,000.00	11,550,000.00	12,075,000.00	Local Authority
		Maintenance of water channels	In all the 10 Wards		2,700,000.00	2,598,750.00	2,722,500.00	2,846,250.00	Local Authority

		Rehabilitation and paving of a footpath	Kasoma-lunga to Itala		110,000.00	115,500.00	121,000.00		Local Authority
		Provision of public water transport vessels	In the entire district		10,000,000.00	5,250,000.00	5,500,000.00		Local Authority
		Mounting of communication masts	In the entire district		2,250,000.00	2,362,500.00	2,475,000.00	2,587,500.00	Ministry of communication
		Establishment of community Radio stations				2,000,000.00			Ministry of communication

Source, Lunga IDP Team, 2023

Table 37: Capital Investment Plan for the Energy Sector

Goal: Improve access to clean energy									
Objective: To increase the connection of households to clean energy from the current 0% to 20% by 2028									
Strategy	**Programme**	**Activity**	**Location by priority**	**2024**	**2025**	**2026**	**2027**	**2028**	**Responsible**
Promotion of investments Clean	Clean Energy production and supply	Establishment of solar farms	Nsamba and Bwalya Mponda		10,000,000	10,500,000			ZESCO &REA

Energy		Construction of a filling station	Kasoma-Lunga		8,000,000				MIUD
		Connect Lunga District to the National Grid	Kasoma-lunga,Nsamba,Bwalya Mponda Kalima-Nkonde		1,000,000	1,050,000	1,100,000	1,150,000	ZESCO &REA

Source, Lunga IDP Team, 2023

Table 38: Capital Investment Plan for Education Sector

Goal: Increase access to quality Education services									
Objective: To reduce the teacher pupil ratio from the 1:90 to the ideal 1:35 by 2028									
Strategy	**Programme**	**Activity**	**Location by priority**	**2024**	**2025**	**2026**	**2027**	**2028**	**Responsible**
Enhance access to quality, equitable and inclusive education	Education Infrastructure Development	Construction of 60 No staff houses.	All ward		120,000,000	126,000,000	132,000,000	138,000,000	MOE
		Rehabilitation of 10 No CRBs			2,500,000	2,625,000			MOE
		Construction of 4No dormitories	Bwalya Mponda, Kasoma lunga, Itala and Nsamba schools.		3,000,0000	3,150,0000			MOE

		Construction of 25 ablution blocks at all three levels.	All wards		7,200,000	7,560,000	7,920,000	6,900,000	MOE
		Construction of 10 classroom blocks at all levels	All wards		2,600,000	4,095,000	4,290,000	2,990,000	MOE
		Construction of 10 ECE centres.	All wards		1,800,000	1,890,000	2,970,000	3,105,000	MOE
		Procurement of 200 desks for secondary, 450 desks for primary and 500	All wards	2,700,000					MOE

		desks for ECE levels.							
		Rehabilitation of 10 broken down bore holes.			1,000,000				MOE
		Procurement and installation of solar lights at 25 learning institutions.	All wards		245,000	220,500	231,000	241,500	MOE
		Procurement and installation of internet services at 24 learning institutions.	All wards		1,200,000	1,260,000	1,320,000	1,380,000	MOE

		Procurement of boats and engines for 10 schools.	All wards		280,000	294,000	462,000	322,000	MOE
		Construction of administrative office for District Education Board.	Kasoma-lunga			3,500,00			MOE
		Construction of 3 science and HE laboratories.	Bwalya Mponda, Nsamba and Itala		2,000,000	2,100,000	2,200,000		MOE
		Procurement of laboratory equipment for 5 schools	Bwalya Mponda,Nsamba,Itala,Mweshi and Kasoma lunga		800,000	840,000	400,000		MOE

		Construction of a fully-fledged boarding school	Nsamba			28,000,000			MOE
		Construction of a fully-fledge trades training institute	Bwalya Mponda		5,000,000				MOE
		Construction of 20 Ablution Blocks in schools	All wards		6,000,000	6,300,000	6,600,000	6,900,000	MOE
		Establishment of mechanized water scheme 24 schools	All wards		3,000,000	3,150,000	3,300,000	3,450,000	MOE

		Installation of solar panels in schools	All wards		19,200	20,160	21,120	22,080	MOE
		Installation of solar panels in 60 staff houses	All wards		48,000	50,400	52,800	55,200	MOE

Source: Lunga IDP Team, 2023

Table 39: Capital Investment Plan for Health Sector

Goal: Increase access to quality health care									
Objective: Increase the hospital bed capacity from the current 79 to 200 by 2028									
Strategy	**Programme**	**Activity**	**Location by priority**	**2024**	**2025**	**2026**	**2027**	**2028**	**Responsible**
	Medicines and medical supply chain management	Medical supplies	All Wards						MOH
		Procurement of 3No speedboats	Bwalya Mponda RHC, Kalima Nkon		1,500,000	1,575,000	1,725,000		MOH

			de RHC and Mweshi health post						
	Health Infrastructure Development	Construction of 20 staff houses	All Wards		4,500,000	4,725,000	4,950,000	5,175,000	MOH
		Construction of health facilities in 8 wards	All Wards						MOH
		Construction of 2No Mini-Hospitals	Bwalya Mponda and Kasoma Lunga.			8,400,000		9,200,000	MOH
		Construction of 10 No maternity annexes	All Wards		7,500,000	5,250,000	8,250,000	5,750,000	MOH
		Construction of First Level Hospital	Nsamba			24,150,000			MOH

Sources: Lunga IDP Team, 2023

Table xx: Capital Investment Plan for Water and Sanitation Sector

1. **Goal:** Increase access to safe clean drinking water and sanitation									
Objective: To increase the number of functional boreholes from the current 57 to 200 by 2028									
Strategy	**Programme**	**Activity**	**Location by priority**	**2024**	**2025**	**2026**	**2027**	**2028**	**Responsible**
Improve access to clean and safe water supply and Sanitation	Solid Waste Management	Incinerators construction	All Wards		1,050,000	1,102,500	990,000	1,035,000	MWDS/LA
	Water and Sanitation Infrastructure Development	Development of 26No Water Reticulation Systems in communities	All wards		3,500,000	3,675,000	3,300,000	3,450,000	MWDS/LA
		Rehabilitation of existing 34 dysfunctional boreholes	All wards		900,000	945,000	880,000	920,000	MWDS/LA
		provision of water filters to 94 functional boreholes	All Wards		962,500	918,750	847,000	885,500	MWDS/LA

		Construction of 26 ablution blocks in market places	All wards		8,400,000	8,820,000	7,920,000	8,280,000	MWDS/ LA
		Construction of 4 Mini Sewerage Systems	Kasoma-Lunga, Bwalya Mponda, Nsamba and Kalima-Nkonde		5,000,000	5,250,000	5,500,000	5,750,000	LWSC
		Construction of 25 ablution blocks at all three levels of Education.	All wards		7,200,000	7,560,000	7,920,000	6,900,000	MOE
		Establishment of mechanized water scheme in 24 schools	All wards		3,000,000	3,150,000	3,300,000	3,450,000	MOE
		Construction of 15	All Wards		6,000,000	6,300,000	6,600,000	5,175,000	MOH

		Ablution Blocks in Health facilities							

Source: Lunga IDP, 2023

Table 40: Capital Investment Plan for Social Welfare Sector

Goal: Increase access to social welfare services									
Objective: To increase Social Cash Transfer f coverage from the current 73.4% to 100% by 2028									
Strategy	**Programme**	**Activity**	**Location by priority**	**2024**	**2025**	**2026**	**2027**	**2028**	**Responsible**
Lobby for more funding from Central Government	Social Welfare Infrastructure Development	Construction of Office Block	Kasoma-lunga		2,000,000.00				Social Welfare Dept.
		Construction of Staff Houses	Kasoma-lunga		1,700,000.00	1,785,000.00	1,870,000.00		Social Welfare Dept.
		Construction of a safe home	Kasoma-lunga			892,500.00			Social Welfare Dept.
		Construction of Juvenile facility	Kasoma-lunga				1,650,000.00		Social Welfare Dept.
	Procurements	Procurement of Smaller boats to enable officers reach hard to reach islands	District		1,200,000.00				Social Welfare Dept.

		in the District							
		Internet connectivity	Kaso ma-lunga			28,350.00			Social Welfare Dept.

Source: Lunga IDP, 2023

Table 41: Capital Investment Plan for Housing and Infrastructure Sector

Goal: Improve Housing and Infrastructure Development									
Objective: To increase the decent housing stock from the current 1.63 by % to 10% by 2033									
Strategy	**Programme**	**Activity**	**Location by priority**	**2024**	**2025**	**2026**	**2027**	**2028**	**Responsible**
Housing scheme and infrastructure development (NAPSA,NHA,PPP, SHI)	Public Infrastructure Development	Construction of Market Shelters	all Wards		1,900,000.00	1,995,000.00	2,090,000.00	1,092,500.00	LA
		Construction of landing jetties	All wards		21,000,000.00	22,050,000.00	26,950,000.00	28,175,000.00	LA
		Construction of public Libraries	All chiefdoms		1,900,000.00	1,995,000.00	2,090,000.00	2,185,000.00	LA
		Installation of market security Lights	Lunga, Nsalushi and Nchela ward			367,500.00	385,000.00	402,500.00	LA
		Establishment of a	Lunga and			8,400,000.00	8,800,000.00		LA

		Fire Station	Nchet a ward						
		construct of waiting stations at the harbours	All chiefdom		350,000.00	367,500.00	385,000.00	402,500.00	LA
		Construction of institutional houses	All wards		34,000,000.00	35,700,000.00	37,400,000.00	39,100,000.00	LA/MIUD
		Construction of hospitality infrastructure	All the chiefdoms		22,000,000.00	23,100,000.00	24,200,000.00	25,300,000.00	HOTELS BOARD
		Construction of administrative blocks	All government institutions		4,000,000.00	6,300,000.00	8,800,000.00	6,900,000.00	LA/MIUD
		Construction of correctional facility	Lunga ward			7,875,000.00			HOME AFFAIRS
		Construction of Magistrate court				2,625,000.00			HOME AFFAIRS
		Construction Police Posts	All ward		3,000,000.00	3,150,000.00	3,300,000.00	5,175,000.00	LA
		Construction of a sports	All chiefdom		1,000,000.00	1,050,000.00	1,100,000.00	1,150,000.00	LA

		comple x							

Source: Lunga IDP Team, 2023

5.1.1 Local Authority's Financial Plan

This chapter discusses the summary of resources and requirements for implementing the IDP and further the strategies for mobilizing the resources and areas targeted to ensure efficient utilization. The financial plan takes into account the Medium Term Expenditure Framework (MTEF).

The table shows the Revenue projection for the years 2022 and 2026

REVENUE PROJECTION FOR THE NEXT FIVE (5) YEARS

Programme	Implementing agencies	Estimated income per year					Total
		2022	2023	2024	2025	2026	
Local taxes	LA	8,000	8,000	3,720	3,720	3,720	27,160
Fees and charges	LA	277,272	334,272	105,018	105,918	105,918	928,398
Licenses	LA	30,000	30,000	15,720	15,720	15,720	107,160
Levies	LA	283,000	283,000	100,000	100,000	100,000	866,000
Permits	LA	31,700	31,700	3,200	3,200	3,200	73,000
Charges	LA	57,000			-	-	57,000
Total Local revenue		**686,972**	**686,972**	**227,658**	**228,558**	**228,558**	**2,058,718**
Grants & Other Receipts							
National Support	GRZ	8,307,638	10,479,369	10,875,369	10,875,369	10,875,369	51,413,114
Constituency Development Fund	GRZ	25,700,000	28,313,902	30,635,642	30,635,642	30,635,642	145,920,828
Other Grants & devolved	Donor	64,000	-		-	-	64,000
Health grants	GRZ		-	1,308,181	1,308,181	1,308,181	3,924,543
Roads garant	GRZ		-	316,490	316,490	316,490	949,470
Grnts in lieu of rates	GRZ			1,440,000	1,440,000	1,440,000	4,320,000
Capital grants (ZDSP/WB)	Donor			7,509,651	3,766,804	3,766,804	15,043,259
Other Receipts	LA		64,000	25,000	25,000	25,000	139,000
Totals Grants & others		34,071,638	38,857,271	52,110,333	48,367,486	48,367,486	221,774,214
	Totals	**34,758,610**	**39,544,243**	**52,337,991**	**48,596,044**	**48,596,044**	**223,832,932**

5.2.1 Comparison of budgeted own source revenue stream against own revenue collected

YEARS	2022			2023			2024		
Details	Approved Budget	Actual	Percentage	Approved Budget	Actual	Percentage	Approved Budget	Actual	Percentage
	K	K	%	K	K	%	K	K	%
Local taxes	8,000	2,250	28	8,000	1,943	24	3,720	3,886	104
Fees and charges	277,272	31,600	11	334,272	700	0	105,018	4,500	4
Licenses	30,000	650	2	30,000		-	15,720	12,500	80
Levies	283,000	51,703	18	283,000	68,561	24	100,000	86,520	87
Permits	31,700	1,350	4	31,700	-	-	3,200	3,200	100
Charges	57,000		-			-			-
National Support	8,307,638	10,489,875	126	10,479,369	10,346,200	99	10,875,369	10,875,369	100
Constituency Development Fund	25,700,000	23,739,910	92	28,313,902	27,261,470	96	30,635,642	30,635,642	100
Other Grants & devolved		199,329	-		460,137	-			-
Health grants			-			-	1,308,181	1,308,181	100
Roads garant			-			-	316,490	316,490	100
Grnts in lieu of rates			-			-	1,440,000	864,000	60
Capital grants (ZDSP/WB)			-			-	7,509,651	6,007,721	80
Commercial venture			-		(55,521)	-	25,000	35,000	140
Other Receipts	64,000	39,276	61	64,000	391,557	612	-	-	-
Gland Total	**34,758,610**	**34,555,942**	99	**39,544,243**	**38,475,045**	**97**	**52,337,991**	**50,153,009**	**96**

a) Local Taxes (Personal levy)

The collection efficiency in 2022 was at 28 % out of the total budget of K8, 000.00 only K2, 250.00 was collected, where as in 2023 the Council collection efficiency was at 24% from a budget of K8, 000.00 only K1,943.

b) Fees and Charges

The collection efficiency was at 11% for 2022 as compared to 0% for the year 2023. Out of the total budget of K272, 272 only K31, 600 was collected in the year 2022

c) Licenses

The collection efficiency was at 2% for 2022. Out of the total budget of K30, 000 only K650 was collected in the year 2022 where as in 2022 the Council did not collect anything out of a total Budget of K30, 000 resulting in a 0% collection efficient due collection challenges and change of some key management staff.

d**) Levies**

The collection efficiency was at 18% for 2022. Out of the total budget of 283,000.00 only K51, 703 was collected where as in 2023 the Council collected K68, 561 out of budget of K283, 000 giving a collection efficiency of 24%.

e**) Permits**

The collection efficiency was at 0% for the year 2022 out of the budgeted K31, 700, poor performance was due to non-availability of potential businesses and industries where the authority can realize revenue from in the district.

f) Charges

The collection efficiency was at 0 % for 2022 out of the budgeted collection of K57, 000. There was no budget allocation for charges for years 2023 and 2024 respectively as the council had service plots but are not on demand by the general public for development.

YEARS	2022			2023			2024		
Details	Approved Budget	Actual	Percentage	Approved Budget	Actual	Percentage	Approved Budget	Actual	Percentage
	K	K	%	K	K	%	K	K	%
Local taxes	8,000	2,250	28	8,000	1,943	24	3,720	3,886	104
Fees and charges	277,272	31,600	11	334,272	700	0	105,018	4,500	4
Licenses	30,000	650	2	30,000		-	15,720	12,500	80
Levies	283,000	51,703	18	283,000	68,561	24	100,000	86,520	87
Permits	31,700	1,350	4	31,700	-	-	3,200	3,200	100
Charges	57,000		-			-			-
National Support	8,307,638	10,489,875	126	10,479,369	10,346,200	99	10,875,369	10,875,369	100
Constituency Development Fund	25,700,000	23,739,910	92	28,313,902	27,261,470	96	30,635,642	30,635,642	100
Other Grants & devolved		199,329	-		460,137	-			-
Health grants			-			-	1,308,181	1,308,181	100
Roads garant			-			-	316,490	316,490	100
Grnts in lieu of rates			-			-	1,440,000	864,000	60
Capital grants (ZDSP/WB)			-			-	7,509,651	6,007,721	80
Commercial venture			-		(55,521)	-	25,000	35,000	140
Other Receipts	64,000	39,276	61	64,000	391,557	612	-	-	-
Gland Total	**34,758,610**	**34,555,942**	99	**39,544,243**	**38,475,045**	**97**	**52,337,991**	**50,153,009**	**96**

5.2.3 Areas where council collected below its forecast revenue in the budgets

a) Local Taxes (Personal levy)

Being a new district a lot of officers who had being deployed in the district had the pay points in the districts where they come from which are in the process of being moved to Lunga further there are very few business establishment which are eligible for personal levy charges

b) Fees and Charges

The council had not yet procured a dedicated passenger and cargo vessel for use on commercial basis to enhance revenue base as planned.

c) Licenses

Being a new district there are very few business establishments that can be able to pay licenses

d) Permits

Being a new district there are very few business establishments that can be able to pay permits

f) Charges

The plots have not yet been numbered and the process of survey and mapping has not yet been concluded by 2022 and 2023 hence the council did not collect anything in respect of the above.

5.2.4 Revenue Collection Challenges

1. Lack of Transport
2. Low staffing levels in view of revenue collectors
3. Very few business establishments in the districts
4. Very few officers who are eligible for payment of personal levy being a new district
5. Poor channels network making it impossible to reach certain areas
6. Poor public communication network which makes it impossible to communicate effectively
7. Vastness of the district
8. Lack of established revenue centers in the respective key areas.
9. Lack of sensitization
10. Lack of stakeholder involvement

Identification of the Revenue Base for the First Five Years of the Implementation of the RIDP

Following the identification of possible revenue resources and related challenges the LA faces in revenue mobilization, a projection of possible annual revenue inflows was deduced taking into consideration strategies to be implemented and guiding principles/circulars from relevant parties.

The table below gives a projection of income for the LA for the next five years

REVENUE PROJECTION FOR THE NEXT FIVE (5) YEARS							
Programme	Implementing agencies	Estimated income per year					Total
		2022	2023	2024	2025	2026	
Locally generated revenue		686,972	686,972	227,658	228,558	228,558	2,058,718
National Support (LGEF)	GRZ	8,307,638	10,479,369	10,875,369	10,875,369	10,875,369	51,413,114
Constituency Development Fund	GRZ	25,700,000	28,313,902	30,635,642	30,635,642	30,635,642	145,920,828
Other Grants	Donor	64,000	-		-	-	64,000
Devolved -Health grants	GRZ		-	1,308,181	1,308,181	1,308,181	3,924,543
Roads garant	GRZ		-	316,490	316,490	316,490	949,470
Grnts in lieu of rates	GRZ			1,440,000	1,440,000	1,440,000	4,320,000
Capital grants (ZDSP/WB)	Donor			7,509,651	3,766,804	3,766,804	15,043,259
Other Receipts	LA		64,000	25,000	25,000	25,000	139,000
	Totals	34,758,610	39,544,243	52,337,991	48,596,044	48,596,044	223,832,932

1. **Locally Generated Revenue**

There is an observable decrease locally sourced revenue due to lack of industrial incorporated entities where the much needed revenue is derived from.

Below is the table showing the calculation of revenue sources

LOCALLY GENERATED							
REVENUE PROJECTION FOR THE NEXT FIVE (5) YEARS							
Programme	Implementing agencies	Estimated income per year					Total
		2022	2023	2024	2025	2026	
Local taxes	LA	8,000	8,000	3,720	3,720	3,720	27,160
Fees and charges	LA	277,272	334,272	105,018	105,918	105,918	928,398
Licenses	LA	30,000	30,000	15,720	15,720	15,720	107,160
Levies	LA	283,000	283,000	100,000	100,000	100,000	866,000
Permits	LA	31,700	31,700	3,200	3,200	3,200	73,000
Charges	LA	57,000			-	-	57,000
Total Local revenue	Totals	686,972	686,972	227,658	228,558	228,558	2,058,718

5.2.7 National Support Financing

REVENUE PROJECTION FOR THE NEXT FIVE (5) YEARS							
Programme	Implementing agencies	Estimated income per year					Total
		2022	2023	2024	2025	2026	
National Support (LGEF)	GRZ	8,307,638	10,479,369	10,875,369	11,527,891	11,527,891	52,718,158
	Totals	8,307,638	10,479,369	10,875,369	11,527,891	11,527,891	52,718,158

2. **CONSTITUENCY DEVELOPMENT FUND (CDF)**

The provision for CDF is K32.6million as per guideline from the Ministry of Local Government years 2024 and going forward

REVENUE PROJECTION FOR THE NEXT FIVE (5) YEARS

Programme	Implementing agencies	Estimated income per year					Total
		2024	2025	2026	2027	2028	
Constituency Development Fund	GRZ	32,600,000	32,600,000	32,600,000	32,600,000	32,600,000	163,000,000
	Totals	32,600,000	32,600,000	32,600,000	32,600,000	32,600,000	163,000,000

3. Local Government equalization fund (LGEF) is projected reach K12.0 million in foreseeable years.

REVENUE PROJECTION FOR THE NEXT FIVE (5) YEARS

Programme	Implementing agencies	Estimated income per year					Total
		2024	2025	2026	2027	2028	
National Support (LGEF)	GRZ	10,875,369	11,527,891	12,334,844	12,334,844	12,334,844	59,407,791
	Totals	10,875,369	11,527,891	12,334,844	12,334,844	12,334,844	59,407,791

b) GRZ SUPPORT TOWARDS LINE MINISTRIES AND PUBLIC INFRASTRUCTURE

GRZ SUPPORT

REVENUE PROJECTION FOR THE NEXT FIVE (5) YEARS

Programme	Implementing agencies	Estimated income per year					Total
		2024	2025	2026	2027	2028	
Devolved -Health grants	GRZ	1,308,181	1,308,181	1,308,181	1,308,181	1,308,181	**6,540,905**
Roads garant	GRZ	316,490	316,490	316,490	316,490	316,490	**1,582,450**
Grnts in lieu of rates	GRZ	1,440,000	1,440,000	1,440,000	1,440,000	1,440,000	**7,200,000**
	Totals	**3,064,671**	**3,064,671**	**3,064,671**	**3,064,671**	**3,064,671**	**15,323,355**

c) DONOR SUPPORT

DONOR SUPPORT

REVENUE PROJECTION FOR THE NEXT FIVE (5) YEARS

Programme	Implementing agencies	Estimated income per year					Total
		2024	2025	2026	2027	2028	
Capital grants (ZDSP/WB)	Donor	7,509,651	7,509,651	7,509,651	7,509,651	7,509,651	37,548,255
	Totals	7,509,651	7,509,651	7,509,651	7,509,651	7,509,651	37,548,255

5.2.8 Lunga Resource Mobilization Strategies for Five (05) to Ten (10) Years

5.2.8.1 Strategies for Resource Mobilization

• Maintain a database for all taxpayers and traders in the district

• Use simple segmentation to identify larger collection opportunities

• Target collections for clients with the largest outstanding debts

• Ensure regular updates to the taxpayer registry

• Introduce account managers to oversee different types of levies

• Use of technology platforms for paying of levies, fees and charges

• To Increase public education •

To prosecute tax defaulters

• To motivate revenue staff

• To Provide Logistics for revenue mobilization

5.2.8.2 Revenue Enhancement Strategies

• Maintaining updated information on debtors

• Improved billing practices

• Ensure effective Communication and reminders with the respective debtors

• Accommodating the challenges experienced by the debtor

• Legal enforcements to debts that are more than 120 days

• Engaging of private collection agencies on commission basis in revenue collection.

• Identify new sources of revenue and investments

• Establish more revenue collection points

• Provision of incentives to those who are able to settle their accounts in time.

5.2.8.3 Revenue Collection Strategies

• Use of revenue collection agencies

• Equip revenue collectors with revenue collecting skills

• Leveraging on technology

• Stakeholder involvement in sensitization meetings on the benefits of paying for services

• Provision of transport specifically for revenue collection

5.2.8.4 Development Partners

• Establish a developmental agenda which will be appealing to development partners

• Identification of key areas that will call for the need for development partners

5.2.8.5 Public Private Partnerships

• Changes in policies and laws

• Socio –cultural changes

• Improvement of current mechanisms and process

• Financial and capital capacity building

5.2.8.6 Areas Where PPP Is Expected According To the Estimates

▪ Agriculture ▪

Shopping mall

▪ Hospitality industries

▪ Education ▪

Forestry

▪ Poverty alleviation

▪ Processing industries

▪ Mining

▪ Infrastructure development

▪ Transport

▪ Technology

▪ Water and sanitation

▪ Health

▪ Social services

▪ Sporting facilities

▪ Tourism

5.2.8.7 Exploiting the Untapped Resources

• Creating of by-laws to cater specifically for untapped Revenue sources

• Engaging in public private partnership in establishing mining, manufacturing industries and processing industries

• Technological advancement

5.2.8.8 Strategies for Assets, Financial Management and Capital Financing

• Implement a policy on Asset management

• Implement a policy management on the profitability of assets

• Implement a policy on the disposal of assets

• Incorporate the legal framework on financial management

• Venture into capital growth by embracing capital financing

5.2.8.9 Financial Management Strategies

• Ensure effective cash flow management

• Compliance to relevant financial regulations

• Provide means for growth through investment

• Meet the demands of employees and customers

• Support operations

• Meet the demands of shareholders and expectations of the stakeholders

• Effective audit procedures

5.2.8.10 Loans and grants

• Ensure an effective budget for the projects or activities to be funded is provided to its completion

• Ensure the amount required for financing is adequate as per budget

• Ensure contingency is taken care of in the planning process

• Determine if the loan will be short term or long term that will suit the needs of the loan (period)

• Determine the interest rate of the loan obtained if it is significant according to the cash flow

• Promote local enterprise partnership by accessing grants from cooperating partners for funding

• Encourage Small and Medium enterprises and source for funding to fund such enterprises for economic growth

• Ensure community programs that will meet the needs of the less privileged to enable them have access to grants

. • Provided adequate requirements for government aided programs and activities to be financed by grant

5.3 Monitoring and Evaluation Plan

To trace the progress made in the implementation of the Lunga Integrated development Plan, the monitoring and Evaluation Plan is not an exception. The Monitoring and Evaluation will consist of a team from the District Development Coordinating Committee at District level and the Ward Development Committee knowing very well that the programmes and projects monitored and evaluated have been identified and initiated by the community.

Table 42: Monitoring and Evaluation Plan for Agriculture Sector

Monitoring and Evaluation plan for Agriculture Sector							**Indicator**	**Source of information**	**Frequency**
Objective	To reduce the farmer to Extension Officer Ratio from the current 864:1 to the ideal 400:1 in order to enhance production and productivity by 10% by 2028.								
Strategy	**Programme**	**Target Y1**	**Target Y2**	**Target Y3**	**Target Y4**	**Target Y5**			
Improve agricultural production and	Construction of 12 Staff Houses	Nil	3		3		Number if Staff Houses constructed	Reports	Annually
	Construction Farmers Training Centre			1			Farmers Training Centre Constructed	Reports	Annually

productivity	Construction of an Office Block		1				Office Block Constructed	Reports	Annually
	Construction of 4No community-based storage sheds		1	1	1	1	Number of Community based Storage Sheds Constructed	Reports	Annually
	Procuring of farming implements	5	5				Farming Inputs procured	Reports	Annually
	Dev. Of 1No. Farm Block		1				Farm Block developed	Reports	Annually
	Increasing number of beneficiaries and crop diversification	900	1500	1800	2000	-	Number of farmers increased and crops diversified	Reports	Annually
	Market Data Collection, Collation and Dissemination.	48	96	144	192	240	Proportion of data collected, collated and disseminated	Reports	Annually
	Creation of Agricultural Commodity Market Linkages	250	500	700	900	-	Agricultural Commodity Market Linkages Created	Reports	Annually
	Establishment and Maintenance of Trade Database	**1**					Trade Database established and maintained	Reports	Annually
	Agricultural Infrastructure Inspection	2	6	10	14	-	Agricultural infrastructure inspected	Reports	Annually

	Conduct Entrepreneurship Training in Farming as a Business	40	250	500	920	-	Entrepreneurship Training in farming as a business conducted	Reports	Annually
	Crops Value Chain Development	1	2	3	4		Crops Value Chai developed	Reports	Annually
	Conducting field day	10	20	30	40		Field day conducted	Reports	Annually
	Registration of farmers on ZIAMIS						Farmer registered on ZIAMIS	Reports	Annually
	Conduct Technical backstopping and monitoring of extension officers	8	16	32	40		Technical backstopping and monitoring of extension officers conducted	Reports	Annually
	Trial/demonstrations (Rice, Cassava & Maize)plots establishment	7	37	67	97	127	Trial/demonstrations plots established	Reports	Annually
	Enhanced Early warning and Surveillance systems establishment	44	80	120	80		Enhanced Early warning and Surveillance systems established	Reports	Annually
	Small Scale Irrigation Technologies Promotion		30	60	90	120	Small Scale Irrigation Technologies Promoted	Reports	Annually

Source: Lunga IDP Team, 2023

Table 43: Monitoring and Evaluation Plan for Fisheries and Livestock Sector

Monitoring and Evaluation plan for Fisheries and Livestock							**Indicator**	**Source of information**	**Frequency**
Objective	To increase the number of fish and livestock farmers from the current 20 and 225 to 100 and 500 respectively by 2028								
Strategy	**Programme**	**Target Y1**	**Target Y2**	**Target Y3**	**Target Y4**	**Target Y5**			
Improve Fish and Livestock production	Provision of extension to fish farmer and fish restocking by type	10	20	30	40	50	Number of extension services provided and number of fish restocked by type	Reports	Annually
	Conducting patrols and sensitizations to enforce the fishing ban	9	9	9	9	9	Number of patrols and sensitizations conducted to enforce the fish ban	Reports	Annually
	Conducting patrols to curb the use of illegal fishing gears and methods	6	6	6	6	6	Number of patrols conducted to curb illegal fishing gears and methods	Reports	Annually
	Training farmers in small livestock	10	10	10	10	10	Number of farmers trained in	Reports	Annually

	best practices						small livestock best practices		
	Vaccination of livestock against identified diseases	10	10	10	10	10	Number of live stocks vaccinated against identified diseases	Reports	Annually
	Construction of Office Block		1				Number of Office Blocks constructed	Reports	Annually
	Construction of Staff Houses		2	1	1	1	Number of staff houses constructed	Reports	Annually
	Procurement of water vessels		1		1		Number of water vessels procured	Reports	Annually
	construction of a laboratory			1			Number of laboratories	Reports	Annually

Source: Lunga IDP Team, 2023

Table 44: Monitoring and Evaluation Plan for Transport and Communication Sector

Monitoring and Evaluation plan for Transport and Communication		**Indicator**	**Source of information**	**Frequency**
Objective	To improve the conditions of the Water Channels from the current 225km to 400km by 2028			

Strategy	Programme	Target Y1	Target Y2	Target Y3	Target Y4	Target Y5			
Improve mobile network, water transport and provide radio signals	Widening and deepening of channels		50km	50km	50km	25km	Kilometers of channels widened and deepened	Reports	Annually
	Construction of landing jetties		4	3	3	3	Number of Landing Jetties constructed	Reports	Annually
	Maintenance of water channels		60km	55km	55km	55km	Kilometers of water channels maintained	Reports	Annually
	Rehabilitation and paving of a footpath		1km	1km	1km		Kilometers of a Footpath Rehabilitated and paved	Reports	Annually
	Provision of public water transport vessels		2	1	1		Number of public water vessels provided	Reports	Annually
	Mounting of communication masts		1	1	1	1	Number of communication Masts mounted	Reports	Annually
	Establishment of community Radio stations			1			Number of Community Radio Stations established	Reports	Annually

Source: Lunga IDP Team, 2023

Table 45: Monitoring and Evaluation Plan for the Energy Sector

Monitoring and Evaluation plan for Energy Sector							**Indicator**	**Source of information**	**Frequency**
Objective	To increase the connection of households to clean energy from the current 0% to 20% by 2028								
Strategy	**Programme**	**Target Y1**	**Target Y2**	**Target Y3**	**Target Y4**	**Target Y5**			
Promotion of investments in Clean Energy	Establishment of solar farms		1	1			Number of Solar Farms established	Reports	Annually
	Construction of a filling station		1				Filling Station Constructed	Reports	Annually
	Connect Lunga District to the National Grid		1	1	1	1	Lunga District connected to the National Grid	Reports	Annually

Source: Lunga IDP Team, 2023

Table 46: Monitoring and Evaluation Plan for Education Sector

Monitoring and Evaluation plan for Education Sector							**Indicator**	**Source of information**	**Frequency**
Objective	To reduce the teacher pupil ratio from the 1:90 to the ideal 1:35 by 2028								
Strategy	**Programme**	**Target Y1**	**Target Y2**	**Target Y3**	**Target Y4**	**Target Y5**			
Enhance access to quality	Centres of Excellence establishment and	1	1	1	1	1	Number of Centres of Excellence established and	Report	Annually

, equitable and inclusive education	operationalization						operationalization		
	ECE teachers deployment	10	15	20	25	30	Number of ECE Teacher deployed	Reports	Annually
	Primary teachers deployment	43	50	75	100	120	Number of Primary Teacher deployed	Reports	Annually
	Primary teachers to teach STEM deployment	4	6	12	18	22	Number of Primary Teachers to teach STEM deployed	Reports	Annually
	Improve net enrolment rates at Primary School through community engagement meeting and tradition leadership	20%	40%	60%	80%	100 %	Percentage of improved net enrolment rates Primary School through community engagement meeting and tradition leadership	Reports	Annually
	Improve access to education opportunities for Learners with Special Education	2	4	5	6		Proportion of learners with special Education needs by qualified teachers LSEN with	Reports	Annually

	Needs (LSEN) by qualified teachers in LSEN						improved access to education opportunities		
	Secondary school teachers training and recruitment	38	68	83	100		Number of Secondary School teacher trained and recruited	Reports	Annually
	Capacity to develop locally made materials	4	8	16	20		Number of capacity development locally made materials	Reports	Annually
	Curriculum and materials delivery system development	1				1	Curriculum and material delivery systems developed	Reports	Annually
	Implement Programmes to support girl child education(e.g. sanitary towels, guidance counselling, ending child marriages, school fees etc.		8	8	8	8	Number of programmes implemented to support girl child education(e.g. sanitary towels, guidance counselling, ending child marriages, school fees etc.	Reports	Annually

	Create Out-of-school children (OOSC) access to education opportunities	100	200	300	400		Proportion of Out-Of-School Children access to education created	Reports	Annually
	Implementation of the two-tier career pathway(Skills training included)	50	100	150	200		Two-tier career pathway(Skills training included) Implemented	Reports	Annually
	Construction of 60 No staff houses.		15	15	15	15	Number of staff houses constructed	Reports	Annually
	Rehabilitation of 10 No CRBs		5	5			Number of CRBs rehabilitated	Reports	Annually
	Construction of 4No dormitories		2	2			Number of dormitories constructed	Reports	Annually
	Construction of 25 ablution blocks at all three levels.		6	6	6	5	Number of Ablution Blocks constructed	Reports	Annually
	Construction of 10 classroom blocks at all levels		2	3	3	2	Number of Class Room Blocks constructed	Reports	Annually

	Construction of 10 ECE centres.		2	2	3	3	Number of ECE Centre constructed	Reports	Annually
	Procurement of 200 desks for secondary, 450 desks for primary and 500 desks for ECE levels.	1,150					Number of Desk procured	Reports	Annually
	Rehabilitation of 10 broken down bore holes.		10				Number of boreholes rehabilitated	Reports	Annually
	Procurement and installation of solar lights at 25 learning institutions.		7	6	6	6	Number of solar lights procured and installed at learning institutions	Reports	Annually
	Procurement and installation of internet services at 24 learning institutions.		6	6	6	6	Number of internet services procured and installed at learning institutions	Reports	Annually
	Procurement of boats and engines		2	2	3	3	Number of engines and boats procured	Reports	Annually

	for 10 schools.								
	Construction of administrative office for District Education Board.			1			Administrative Block for District Education constructed	Reports	Annually
	Construction of 3 science and HE laboratories.		1	1	1		Number of science and HE laboratories constructed	Reports	Annually
	Procurement of laboratory equipment for 5 schools		2	2	1		Number of laboratory equipment procured	Reports	Annually
	Construction of a fully-fledged boarding school			1			Fully-fledge secondary school constructed	Reports	Annually
	Construction of a fully-fledge trades training institute		1				Fully-fledged trades training institute constructed	Reports	Annually
	Construction of 20 Ablution		5	5	5	5	Number of Ablution	Reports	Annually

	Blocks in schools						Blocks constructed		
	Establishment of mechanized water scheme 24 schools		6	6	6	6	Number of mechanized water schemes developed	Reports	Annually
	Installation of solar panels in schools		6	6	6	6	Number of schools installed with solar panels	Reports	Annually
	Installation of solar panels in 60 staff houses		15	15	15	15	Number of houses installed with solar panels	Reports	Annually

Source: Lunga IDP Team, 2023

Table 47: monitoring and Evaluation Plan for Health Sector

Monitoring and Evaluation plan for Health Sector							**Indicator**	**Source of information**	**Frequency**
Objective	Increase the hospital bed capacity from the current 79 to 200 by 2028								
Strategy	**Programme**	**Target Y1**	**Target Y2**	**Target Y3**	**Target Y4**	**Target Y5**			
	Prevention of communicable and non-communicable diseases through awareness creation	4	4	4	4	4	Number of awareness campaigns conducted to prevent communicable diesaes	Report	Annually

	community sensitizations	4	4	4	4	4	Number of community sensitizations conducted	Reports	Annually
	engagement of church and traditional leaders	4	4	4	4	4	Churches and Traditional leaders engaged	Reports	Annually
	Antenatal Care Sensitisation	12	12	12	12	12	Number of antenatal care sensitizations	Reports	Annually
	Postnatal services within 48 hours	365	365	365	365	365	Number of Postnatal services conducted within 48 hours	Reports	Annually
	Women accessing Family Planning	365	365	365	365	365	Number of Women accessing Family Planning	Reports	Annually
	Medical supplies		12	12	12	12	Number of medical supply activities conducted	Reports	Annually
	Fleet maintenance		2	2	2	2	Number of fleets maintained	Reports	Annually
	Procurement of 3No speedboats		1	1	1		Number of speed	Reports	Annually

							boats procured		
	95% of individuals know their status, 95% of positive individuals are put on ART and 95% of positive individuals are virally suppressed							Reports	Annually
	Construction of 20 staff houses		5	5	5	5	Number of staff houses constructed	Reports	Annually
	Construction of health facilities in 8 wards		2	3	3		Number of health facilities constructed	Reports	Annually
	Construction of 2No Mini-Hospitals			1		1	Number of mini Hospitals constructed	Reports	Annually
	Construction of 10 No maternity annexes		3	2	3	2	Number of maternity Annexes constructed	Reports	Annually

	Construction of First Level Hospital			1			First level hospital constructed	Reports	Annually

Source: Lunga IDP Team, 2023

Table 48: Monitoring and Evaluation Plan for Water and Sanitation Sector

Monitoring and Evaluation plan for Water and Sanitation Sector							**Indicator**	**Source of information**	**Frequency**
Objective	To increase the number of functional boreholes from the current 57 to 200 by 2028								
Strategy	**Programme**	**Target Y1**	**Target Y2**	**Target Y3**	**Target Y4**	**Target Y5**			
Improve access to clean and safe water supply and Sanitation	Implementation of 26 Community Led Total Sanitation (CLTS) Programmes		7	7	6	6	Number of Community Led Total Sanitation Programmes implemented	Report	Annually
	Implementation of 24 School Led Total Sanitation Programmes		6	6	6	6	Number of School Led Total Sanitation Programmes implemented	Reports	Annually

	Establishment of Waste collection points		7	7	6	6	Number of Waste Collection Points established	Reports	Annually
	Incinerators construction		7	7	6	6	Number of Incinerators constructed	Reports	Annually
	Water quality testing		50	50	50	50	Number of water samples tested	Reports	Annually
	Development of 26No Water Reticulation Systems in communities		7	7	6	6	Number of Water Reticulation Systems developed	Reports	Annually
	Rehabilitation of existing 34 dysfunctional boreholes		9	9	8	8	Number of dysfunctional boreholes rehabilitated	Reports	Annually
	provision of water filters to 94 functional boreholes		25	25	22	22	Number of water filters provided	Reports	Annually
	Construction of 26		7	7	6	6	Number of	Reports	Annually

	ablution blocks in market places						Ablution Blocks constructed		
	Construction of 4 Mini Sewerage Systems		1	1	1	1	Number of Mini Sewerage Systems constructed	Reports	Annually
	Construction of 25 ablution blocks at all three levels of Education.		6	6	6	5	Number of Ablution Blocks constructed	Reports	Annually
	Establishment of mechanized water scheme in 24 schools		6	6	6	6	Number of mechanized water schemes established	Reports	Annually
	Construction of 15 Ablution Blocks in Health facilities		4	4	4	3	Number of ablution Blocks constructed	Reports	Annually

Source: Lunga IDP Team, 2023

Table 49: Monitoring and Evaluation for Social Welfare Sector

Monitoring and Evaluation plan for Social Welfare Sector	**Indicator**	**Source of**	**Frequency**

Objective	To increase Social Cash Transfer f coverage from the current 73.4% to 100% by 2028							**information**	
Strategy	**Programme**	**Target Y1**	**Target Y2**	**Target Y3**	**Target Y4**	**Target Y5**			
Lobby for more funding from Central Government	Construction of Office Block		1				Office Block Constructed	Reports	Annually
	Construction of Staff Houses		2	2	2		Number of Staff Houses constructed	Reports	Annually
	Construction of a safe home			1			Safe Home constructed	Reports	Annually
	Construction of Juvenile facility				1		Juvenile Facility constructed	Reports	Annually
	Procurement of Smaller boats to enable officers reach hard to reach islands in the District		3				.Number of smaller boats procured	Reports	Annually
	Provide Internet connectivity			1			Internet connectivity provided	Reports	Annually

Source: Lunga IDP Team, 2023

Table 50: Monitoring and Evaluation for Natural Resources and Environment Sector

Monitoring and Evaluation plan for Natural Resource and Environment Sector							**Indicator**	**Source of information**	**Frequency**
Objective	Increase availability of natural resources and ecosystem protection by recruit 6 Extension Staff from the current 0 by 2028								
Strategy	**Programme**	**Target Y1**	**Target Y2**	**Target Y3**	**Target Y4**	**Target Y5**			
Implementation of Climate Change Resilient programmes	Establishing agro-forestry nurseries	1	1	1	1	2	Number of agr-forestry nurseries established	Report	Annually
	Conduct Replanting with agro-forestry and tree crops on degraded and depleted lands for forest ecosystem	1	1	1	1	2	Number of replanting with agr-forestry and tree crops 0n degrarde lands for forest ecosystem conducted	Reports	Annually
	Implementation OF Climate Resilience projects	1	1	1	1	1	Number of Climate Resilience project implemented	Reports	Annually

	Establishment of 40Ha of NFR/ANR	1	1	1	1	1	Number of NFR/ANR Ha established	Reports	Annually
	Ecosystem protection	1	1	1	1	1	Ecosystems protected	Reports	Annually
	Tree planting with agroforestry and tree crops for diversified and improve livelihoods and soil fertility through provision of firewood, poles, fodder etc	1	1	1	1	1	Tree planting with agrforestry and tree crops for diversified and improved livelihood and soil fertility through provision of firewood, poles fodder setc conducted.	Reports	Annually
	Conducted Education and community awareness	1	1	1	1	1	Education and community awarenes s on climate	Reports	Annually

	on climate change and the value of natural resources						change and value of natural resources conducted		
	Establishment of Community Forest Management Groups	1	1	1	1	1	Number of community firest Management Groups established	Reports	Annually
	Conduct Community awareness on the environment and the value of natural resources	2	3	4	5	5	Community awarenes s on the environment and the value of natural resource	Reports	Annually

Source: Lunga IDP Team, 2023

Table 51: Monitoring and Evaluation for Housing and Infrastructure Sector

Monitoring and Evaluation plan for Housing and Infrastructure Sector							**Indicator**	**Source of information**	**Frequency**
Objective	To increase the decent housing stock from the current 1.63 by % to 10% by 2033								
Strategy	**Programme**	**Target Y1**	**Target Y2**	**Target Y3**	**Target Y4**	**Target Y5**			
	Construction of		2	2	2	1	Number of Market Shelters	Report	Annually

	Market Shelters						constructed		
	Construction of landing jetties		6	6	7	7	Number of Landing Jetties constructed	Reports	Annually
	Construction of public Libraries		1	1	1	1	Niumber of Public Libraries constructed	Reports	Annually
	Installation of market security Lights			1	1	1	Number of market security lights installed	Reports	Annually
	Establishment of a Fire Station			1	1		Fire Station established	Reports	Annually
	construct of waiting stations at the harbours		1	1	1	1	Number of waiting stations constructed	Reports	Annually
	Construction of institutional houses		40	40	40	40	Number of Institutional Houses constructed	Reports	Annually
	Construction of hospitality		1	1	1	1	Hospitality Infrastructure	Reports	Annually

	infrastructure						constructed		
	Construction of administrative blocks		2	3	4	3	Number of Administrative Blocks constructed	Reports	Annually
	Construction of correctional facility			1			Correctional Facility constructed	Reports	Annually
	Construction of Magistrate court			1			Magistrate Court constructed	Reports	Annually
	Construction Police of Posts		2	2	2	3	Number of Police Posts constructed	Reports	Annually
	Construction of a sports complex		1	1	1	1	Sports Complex constructed	Reports	Annually

Source: Lunga IDP Team, 2023

PART FIVE

6.0 Conclusion

Lunga district is one of Zambia's districts with a very unique terrain has made up of a few islands and the Bwengweulu Wetlands. To actualize the vision of the lunga IDP the district will have to enhance Fisheries and Livestock production and productivity as well as Agriculture production and productivity. It is hoped that with the district immense potential in in the aforementioned sectors, sustainable local economic development and economic transformation will be realized for general welfare of the people of Lunga District.

Being the road map for development at district level, the IDP is envisaged to drive the development agenda of the district through settlement expansion by way of providing physical developments such as social infrastructure, economic and environmental services.

The implementation of programmes and projects in the Lunga IDP will be supported through the development framework as it is the skeleton of the plan embedding the development aspiration of the people of Lunga.

It is critically important that the Lunga IDP is implemented for the district to attain the vision set out in the plan to realize the benefits of working in an integrated manner as a whole.

7.0 References

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Appendices

Appendix i: Flooding at Kasoma Lunga in 2019

Source: Lunga Town Council, 2021

Appendix ii: Kasoma Lunga Satellite Image

KASOMA LUNGA SATELLITE IMAGE

Source: ESRI, 2018