



CHIPILI INTEGRATED DEVELOPMENT PLAN

2024-2034

*A spatially efficient, sustainable socioeconomic,
competitive and resilient green economy by 2034.*

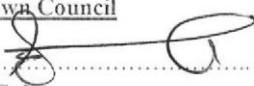


CHIPILI INTEGRATED DEVELOPMENT PLAN

APPROVAL OF THE CHIPILI INTEGRATED DEVELOPMENT PLAN

The Chipili Integrated Development Plan (IDP) is submitted to the Minister responsible for Local Government and Rural Development by ;

Chipili Town Council

Sign: 

Mr. Alex Zulu
Council Secretary

Sign: 

Cllr. Sweaven Chikota
Council Chairperson

Provincial Administration, Luapula Province

Sign: 

Mr. Alfred Banda
Executive Secretary
Luapula Province
Planning Authority

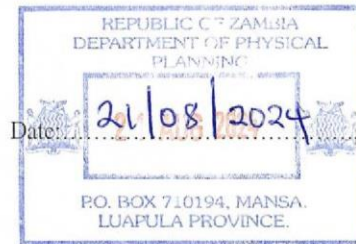
Sign: 

Mr. Mighty Mumba
Permanent Secretary
Luapula Province

Ministry of Local Government and Rural Development

Approved by 

Hon. Gary Nkombo (MP)
Minister of Local
Government and
Rural Development



CHIPILI VISION

Vision

A spatially efficient, sustainable socioeconomic, competitive and resilient green economy by 2034.

FOREWARD



The Chipili Integrated Development Plan(IDP) is the principal planning Document to guide Development for ten years running from 2024 to 2034 as required by the Urban and Regional Planning Act No.3 of 2015. In line with the vision 2030 as highlighted in the Eighth National Development Plan, the IDP Vision for *Chipili District: A spatially efficient, sustainable socioeconomic, competitive and resilient green economy by 2034.*

The formulation of the IDP is a legal requirement under the urban and Regional Planning Act No.3 of 2015. in light of this, Chipili District has prepared the Integrated Development Plan which is the principal planning document which will help the district to align its development goals to the national vision.

The main goal of this IDP is to provide a platform for growth of the District Economy , putting into consideration the social-economic transformation agenda in all the sectors. Chipili Town Council, is open to development and is committed to engage all the stakeholders in the preparation and implementation of the IDP.

The IDP provides an opportunity for interaction of the people of Chipili to foster a systematic growth which responds to the Eighth National Development Plan, Vision 2030, Smart Zambia Transformation Agenda 2064 where we envisage an efficient and smart District.

The plan endeavors to ensure equitable development in all the twelve wards(12) of Chipili District. The District needs accelerated Development to counter the parent District of Mwense by taking advantage of abundant natural Resources and direct all our efforts in ensuring that the untapped natural resources are fully utilized.

The IDP has outlined the District Development goals, strategies and priorities needed to carry out developmental activities in the District. I therefore encourage constant engagements with the grassroots in order to adhere to the outlines in this IDP and Support each other for the Development of Chipili

Cllr. Sweaven Chikota
Council Chairperson

EXECUTIVE SUMMARY



Chipili District was declared a District in the 2012 by His excellency the late president of Zambia Mr. Michael C. Sata(MHSRIP). The District Current Population stands at 47,210 according to the 2022 Census of population and Housing.

The implication of the district being new is that it will require befitting housing and office infrastructure which is quite inadequate to undertake the required assignments and deliver the needed development to all sectors of the District

Agriculture remains the main economic stay of the people in the District and it is practised at subsistence level as there are few commercial farmers in the District. There is need to enhance agriculture productivity in order to uplift the living standards of the people in the District by improving food security and lifting the people out of abject poverty.

The District has few education and health facilities to cater for the needs of the growing population of Chipili. The District has no skills training centre which leaves students with no option but to seek training from outside the District. Equally, the District does not have a District Hospital making it difficult to attend to challenges such as complicated deliveries and surgeries that require specialized treatment are referred to Mansa.

The road infrastructure is mostly under developed as the District is largely rural and thus road connectivity plays a very important part in the development of the District. The state of the roads becomes inaccessible and dilapidated in the rain season. A number of crossing points such as culverts and bridges on certain roads need to be rehabilitated.

Pennypross Wendy Chapewa
District Commissioner

ACKNOWLEDGEMENTS



The Chipili District Integrated Development Plan(IDP) was prepared through stakeholder engagements and community consultations. The document has been prepared in line with the Urban and Regional Planning Act No.3 which mandates all local authorities to prepare Integrated Development Plans. The preparation of IDP was aligned to the Eighth National Development Plan in a bid to address gaps in the planning processes and subsequent provision of services which translates into actual developments

The objective of the Chipili IDP is to promote development by enhancing agriculture productivity and diversity. The implementation shall not in any way contribute to environmental degradation by way of deforestation and unsustainable agriculture practices.

I wish to pay special gratitude to all District stakeholders who constitute the Chipili IDP Team for the valuable contributions from the initial stages of data collection to the actual plan formulation. Furthermore, I would like to extend my gratitude to the Ward Development Committees for their valuable contribution in the identification of projects and submissions during the Consultative processes.

Lastly, I would like to thank the German Development Cooperation(GIZ) for the technical and moral support in making the preparation of the IDP for Chipili a reality. The continued support played a vital role in enhancing the quality of the Document.

Alex Zulu
Council Secretary

Table of Contents

Cover page.....	i
Forward.....	ii
Excutive Summary.....	iii
Acknowledgments.....	ii
Table of Contents.....	iii
List of Tables.....	ix
List of Figures.....	x
List of acronyms.....	v
PART ONE: INTRODUCTION AND BACKGROUND	1
1.0 Introduction	1
1.1 Background.....	1
1.2 Declaration and Legal Status	2
1.3 Geographical Location.....	3
1.4 Physical Environment of Chipili District	4
1.4.1 Climate and Climate Related Stress	4
1.4.2 Rainfall.....	4
1.4.3 Topography and Landscapes	5
1.4.5 Temperature	7
1.4.6 Soils.....	7
1.4.7 Soil erosion.....	10
1.4.8 Hydrology.....	10
1.4.9 Vegetation	11
PART TWO (PLANNING SURVEY AND ISSUES REPORT)	14
PART TWO: PLANNING SURVEY AND ISSUES REPORT	15
2.0 Demographic Analysis.....	15
2.1 Historic Population Levels and Historic Population Growth Rates at district and ward levels from 2010.....	15
2.1.1 Population Distribution by Ward Level.....	15
2.1.2 Inclusion of New Wards.....	16
.....	16

2.1.3	Population Density by Ward Level.....	17
2.1.4	Population Density of Chipili relative to surrounding Districts	18
2.1.5	Population Growth Rate Trends Relative to other Districts	19
2.1.6	National Populations	20
2.1.7	Estimated Population of the District at Base Year.....	20
2.1.8	Age and sex Characteristics of Population at Base Year	21
2.1.9	Infant Mortality Rate in Chipili District.....	22
2.2.1	Estimated IDP Population projections.....	24
2.2.2	Estimated future Urban Population projections	24
2.3.	Current Population Characteristics	25
2.3.1	Age Groups	25
2.3.2	Expected Age and Sex Characteristics of Population at Year 5 and Year 10.....	25
2.3.3	Assessment of the Existing Land Use and Settlement Pattern in the District.....	25
2.3.4	Overall Human Settlement Pattern and Land Tenure	25
2.3.6	Urban Expansion/Peri-Urban Areas	26
2.3.7	Informal Settlements in Chipili District.....	26
2.3.8	Other Land Uses ion Chipili District.....	27
2.3.9	Land Use Schedule for Chipili District	27
2.4.2	The Impact of the Continuation of Existing Population Trends on Land Use and Spatial Development Patterns.....	31
2.4.3	Impact of The Continuation of Population Growth on Impact on Urbanizing Villages and Growth Nodes.....	31
2.4.4	Impact of The Continuation of Population Growth on Informal Settlements.....	32
2.4.5	Assessment of the Availability of Land for Planned Urban Expansion	32
	SECTORAL AND THEMATIC ANALYSIS	33
3.1.1	Key Government Priorities being Implemented at a Local Level	33
3.1.2	Management and implementation of the 8 th National Development Plan in Chipili District.....	33
3.1.1.3	Nutrition Education	47
3.1.1.5	Agriculture as key priority of the 8 th National Development Plan	47
3.1.2	Assessment of The Existing State of Development	48
3.2.1	Availability of service.....	48
3.3.3	Issues arising from Community and Stakeholder Participation.....	74
3.6	ENERGY, AND POWER SUPPLY	106
3.6.1	Key Government Priorities Being and To Be Implemented At A Local Level.....	106
3.6.2	Description of the Existing State Of Development	107

3.6.2.1 Availability of Service	107
3.6.2.2 Quality of Service Including Key Indicators Of Performance	109
3.6.3 Issues Arising From the Public Participation Process	109
3.6.4 Impact of Changes Anticipated Over the Next Ten Years	109
3.6.4.1 Population Change – Future Demand for Services and Facilities	110
3.6.4.2 Existing and Proposed Investment and Development Programmes	110
3.6.5 The Impact of the Continuation of Existing Trends on Land Use and Population Distribution Patterns	110
3.6.6 Environment and Climate Change Analysis.....	111
3.6.6.1 The Impact of Existing Trends on the Environment and Climate Change.....	111
3.6.6.2 The Impact of Environmental and Climate Change Issues on The Sector.....	111
3.6.7 Issues Arising Relating to Gender Groups and Vulnerable Groups	111
Men and Boys	112
HIV/AIDS	112
3.6.8 Summary	112
3.6.9 Consideration of the Underlying Factors Contributing To the Issues Identified.....	113
3.7 MINING SECTOR.....	113
3.7.1 Key Government Priorities Being and To Be Implemented At A Local Level	113
3.7.2 Description of the Existing State of Development	113
3.7.3 Issues Arising from the Public Participation Process.....	116
3.7.4 Impact of Changes Anticipated Over the Next Ten Years	117
3.7.5 The Impact of the Continuation of Existing Trends on Land Use and Population Distribution Patterns	117
3.7.6 Analysis of Impact on Environment and Climate Change	117
3.7.7 Issues Arising Relating to Gender Groups and Vulnerable Groups	118
3.7.8 Consideration of the Underlying Factors Contributing to the Issues Identified	118
3.7.9 Sector Summary	118
5.0: DEVELOPMENT FRAMEWORK	123
5.1 Vision For The Long Development Of The District.....	123
5.3 Development Objectives , Priorities and Development Strategies	124
5.4 Spatial Development Framework	133
5.4.1 Alternative Development scenarios.....	134
5.4.1.1 Scenario 1: Growth Node Concept.....	134
5.4.1.2 Scenario 2: Growth Poles	137
5.4.1.2.2 Chulu Luongo Pole.....	138

5.4.1.3. Scenario 3: Development Corridors	140
5.4.2 Chosen Saptial Development Scenario	142
5.4.2.1 Scenario 1: Growth Nodes as the best alternative.....	142
5.4.3 Land use Planning Policies and Proposals	142
5.4.3.1 Environmental, Social and Economic Aspects of Development.....	142
5.4.3.2 Protection Zones, Environmental Sensitivity, Cultural and Historical Importance.....	143
5.4.3.3 Protection of National and Regional Interests.....	143
5.4.3.4 Informal Settlements.....	143
5.4.3.5 Areas Under Traditional Authorities	144
IMPLEMENTATION PLAN.....	145
6.0 Implementation Program	146
6.1 Capital Investment Plan	146
6.2 Local Authority Financial Plan.....	156
6.2.1 Revenue Collection Efficiency of the Chipili Town Council	156
6.2.1.1 Assessment of current and potential revenue streams	156
6.2.1.2 Own Sources of Revenue (OSR)	156
6.2.1.3 External Sources of Revenues for Implementation.....	156
6.2.2 Assessment of the Revenue Base 2023-2024.....	156
6.2.3 Main Factors affecting Revenue Collection and Management	157
6.3 Programme For the Preparation of Local Area Plans and Other Detailed Planning Activities.....	157
6.4 Monitoring and Evaluation	158
6.4.1 Institutional Arrangements	158
6.4.2 Monitoring and Evaluation	158
CONCLUSION.....	0

LIST OF TABLES

Table 1: Showing Population densities by Wards	8
Table 2 Showing Soil Characteristics in Chipili District with Reference to Figure 26.....	19
Table 3: Vegetation Characteristics in Chipili District in the context of figure.....	37
Table 4: Showing Population Density by District, Luapula Province 2022.....	28
Table 5: Showing Population Density by gender per District, Luapula Province 2022.....	9
Table 6: Table Showing Land Use Zooning in Chipili District.....	21
Table 7: Summary of Main Roads in Chipili District.....	76
Table 8: Summary of Feeder Roads in Chipili District.....	77
Table 9: Quality of service including key indicators of performance under transport and communication sector.....	78
Table 10: Quality of Service including Key Indicators of Performances.....	80
Table 11: Existing and Proposed Investment and Development Programmes.....	52
Table 12: Aquaculture Productivity data of Fish farmers by ward in Chipili District.....	67
Table 13: Livestock in Chipili by veterinary camp.....	69
Table 16: Livestock Infrastructure Needs for Chipili District By 2028.....	61
Table 11: Showing number of Primary and Secondary Schools by Location and Province.....	46
Table 15: Showing Enrolment of Learners at ECE, Primary and Secondary in Chipili.....	76
Table16: Showing Staffing Levels by Gender in Chipili District.....	72
Table17: Showing Baseline education programs with key indicators.....	80
Table 18: Showing the Progression Rate in Chipili.....	81
Table 19: Showing Baseline education programs with key indicators.....	81
Table 20: Indicating the existing and proposed development Programmes	69
Table 21: Showing Staffing Levels of Health Personnel in Chipili District.....	88
Table 22: Summary of Health Services in Chipili.....	91
Table 23: Showing Key Performance and Indicators.....	93
Table 24: Showing existing and Proposed Developmental Projects in the District.....	95
Table 25: Showing water and Sanitation infrastructure Plan in Chipili District.....	104
Table 26: Showing IDP Development Objectives and Government Policy Direction.....	116
Table 27: Budget Expenditure and Sources of Income.....	149

List of Figures

Figure 1: Map Showing the Location of Chipili District in the Context of Luapula Province.....	1
Figure 2: Graph Showing Rainfall Patterns.....	30
Figure 3: Map Showing Geological Characteristics in Chipili District.....	33
Figure 4: Map Showing Types of Soil in Chipili District.....	34
Figure 5 Map Showing Hydrological Characteristics in Chipili District.....	37
Figure 6: Map Showing Vegetation Cover in Chipili District.....	38
Figure 7: Showing Current Population of Chipili District by Gender.....	5
Figure 8: Map Showing Ward Population Distribution in Chipili District (Inclusion of Kanshimba and Chulu-Luongo Wards).....	7
Figure 9: Bar Chart Showing Population Projections during the Plan Period.....	14
Figure 10: Graph Population Projections in Chipili District.....	15
Figure 11: Showing District Land Use Layout for Chipili District.....	39
Figure 12: Map Showing Settlements and Land Use in Chipili District.....	23
Figure 13: Mechanisms and Operational Implementation Plans at Local level.....	41
Figure 14: Map Showing Road Network in Chipili District.....	80
Figure 15: Bar-Chart Showing Enrolment of learners in ECE, Primary and Secondary in Chipili..	76
Figure 16: Pie-Chart Showing staff levels by Gender in Chipili District.....	78
Figure 17: Map Showing the Location of Health Posts in Chipili District.....	89
Figure 18: Chipili District Ward Household Drinking Water Joint Monitoring.....	100
Figure 19: Map Showing Synthesis of Core Issues in Chipili District.....	111
Figure 20: Chipili District Development Concept Map.....	123
Figure 21: Map Showing Chipili District Development Framework.....	126
Figure 22: Map Showing Chipili Human Settlement.....	127

LIST OF ACRONYMS

ART	Anti-Retroviral Therapy
IDP	Integrated Development Plan
CIP	Capital Investment Program
CSO	Central Statistical Office
GDP	Gross Domestic Product
PDCC	Provincial Development Coordinating Committee
DDCC	District Development Coordinating Committee
DPP	Department of Physical Planning
DWASHE	District Water and Sanitation Health
EMTCT	Elimination of Mother to Child Transmission
HMIS	Health Management Information Systems
ITCZ	Inter-Tropical Convergence Zone
LA	Local Authority
RHC	Rural Health Centre
DPP	Department Of Physical Planning
MLGRD	Ministry Of Local Government and Rural Development
PDCC	Provincial Development Coordinating Committee
8NDP	Eight National Development Plan
ICT	Information and Communication Technologies
JMP	Joint Management Plan
ZIAMIS	Zambia Integrated Agricultural Management Information System

PART ONE: INTRODUCTION AND BACKGROUND

1.0 Introduction

The Integrated Development Plan for Chipili District has been developed with maximum participation involving input from all levels of government administration. The document consists of five main parts namely; the introduction in part which highlights brief information on the background, history, location and physical features of the district. This is followed by planning survey and issues report in part two that brings into context the situation analysis of different sectors of socio-economic development, environmental status of the district and possible implications of the current trends in the planning period. Part three consist of the development framework where the long term vision, policies, development objectives, priorities and development strategies have been discussed. This is followed by implementation plan in part four that discusses the Capital Investment Plan, Monitoring and Evaluation Plan and the financial plan for Chipili District. The IDP is concluded with part five that acknowledges various materials used in the bibliography.

1.1 Background

Integrated Development Plans (IDPs) are an important instrument in effectively guiding collaborative growth, development and management of towns and cities in any country. The Government of the Republic of Zambia has realized the importance of developing and implementing IDPs in its towns and cities in order to facilitate multidimensional development. Through the Department of Physical Planning (DPP under the Ministry of Local Government and Rural Development (MLGRD), Government has embarked on an exercise to formulate and implement IDPs in all the towns in the ten (10) provinces in the Country. Chipili is one of the districts in Luapula Province where the IDP is being prepared and will be implemented.

The inequalities or disparities that exist between rural areas and urban areas in terms of social economic development have resulted to an increase in urbanization. Also, besides decrease in population, low Foreign Direct Investment and Domestic Direct Investment have fueled the increase in unemployment levels respectively in rural areas. This has resulted to poor social and economic delivery and high poverty levels being experienced more particularly by people living in rural areas.

Chipili is endowed with abundant natural resources such as hilly land, mineral deposits, water reserves, forestry, wildlife and other tourism scenarios which, if exploited, would quicken its economic growth. The Integrated Development Plan (IDP) is the district's principal strategic planning instrument, from which various other strategic documents will flow. It informs planning and development in the district.

Chipili District in its current status is characterized by comparatively low economic development as a result of low levels of investment and poor capital establishment. The District faces some restraints to economic growth which includes; lack of modern technology and ICT services, especially in sectors such as energy, mining , education, agriculture, tourism, health, employment and underdeveloped infrastructure as well as inadequate skilled man power. Therefore, there is need for a broad-based and integrated approach to facilitate and guide integrated development in the District. The Integrated Development Plan is therefore, expected to facilitate and stimulate development in Chipili District by opening up potential areas of investment and infrastructural development.

From its commencement in 2012, Chipili District has relied on sector plans through the District Development Coordinating Committee (DDCC) and the Provincial Development Coordinating Committee (PDCC) to guide it's implementation of developmental projects in the District. Additionally, the Ministry of Finance and National Planning (MFNP) under the Eighth National Development Plan (8NDP) developed a District Development Plan which is yet to be implemented. Therefore, the preparation and implementation of the Chipili IDP is anticipated to play a significant role in the promotion of development in the District and ensuring that it becomes a major contributor in the development of Luapula Province.

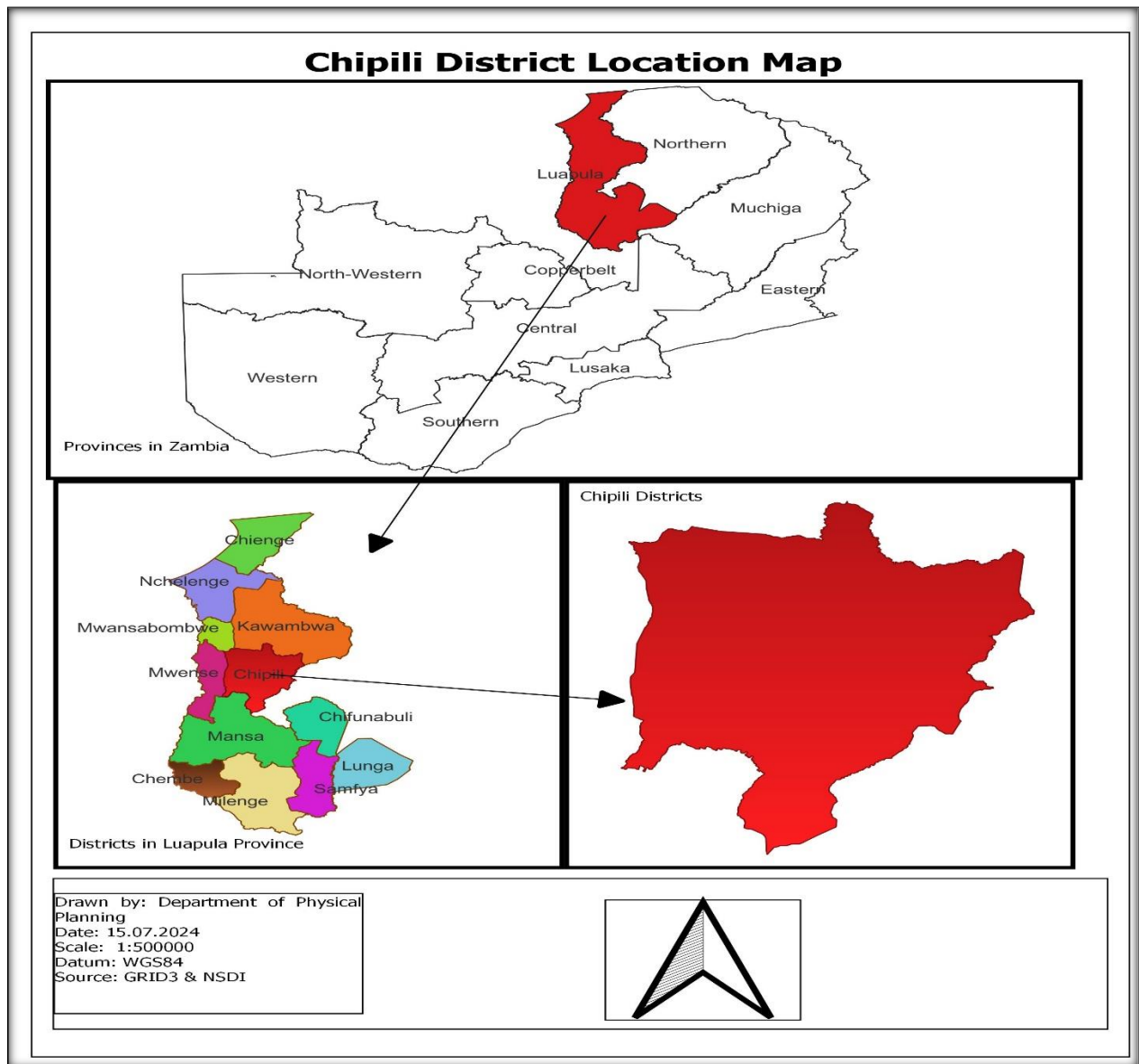
1.2 Declaration and Legal Status

Chipili was declared a district in 2012 by the late republican President Michael Chilufya Sata under Statutory Instrument No. 79 of 2012. The name Chipili is derived from the terrain which is mainly rocky and mountainous and in the local Chishinga language Chipili means "Big Mountain". Originally, the name is associated with the white Anglican Missionaries who built a church for prayers on top of the mountain in 1912. In addition, Chipili before its current legal status as a district used to be under Mwense District.

1.3 Geographical Location

Chipili District is one of the 12 districts in Luapula Province of Zambia located about 81 Kilometers away from Mansa; the Provincial Capital of Luapula Province between 10° and 11° south of the equator and 28.8° and 29.5° east of the Greenwich Meridian. The district has a total area of 4,319 km² and shares common boundary with Mansa to the south, Mwense to the west, Mwansabombwe to the north, Kawambwa, Luwingu to the east and Lupososhi to the southeast.

Figure 1: Map Showing the Location of Chipili District in the Context of Luapula Province.



Source, Chipili Town Council, Department of Planning, 2022

1.4 Physical Environment of Chipili District

This section basically presents environmental profiling and inventory with a view to understanding the physical and biological environment of Chipili District and how it shapes the social and behavioral changes. In addition, this part analyses how human driven activities influence the character of the settlement and how such culminate into proneness to socio-economic underdevelopment to the people of Chipili District.

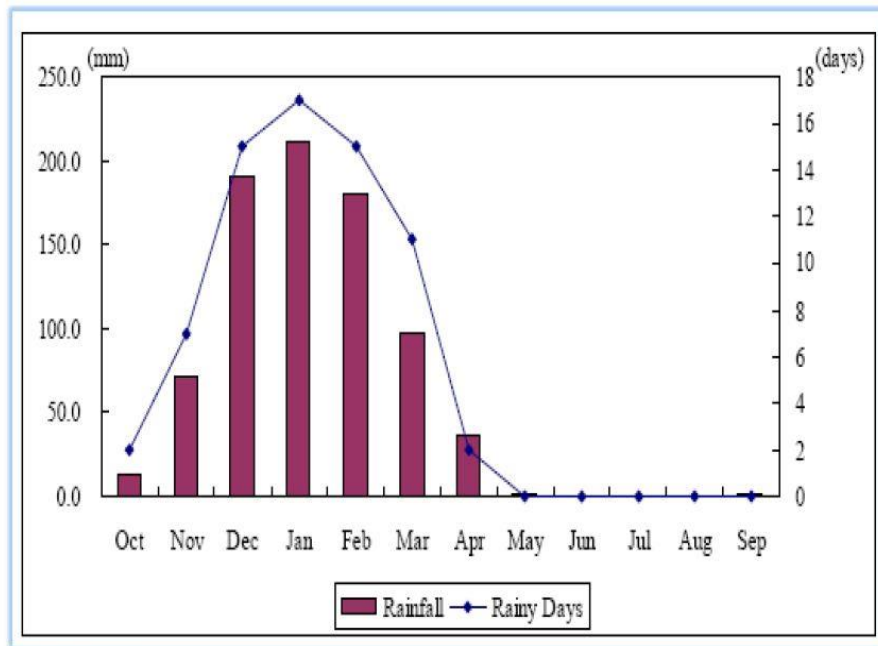
1.4.1 Climate and Climate Related Stress

Chipili's climate is typical of the Central African Plateau whose annual pattern of weather is largely determined by the movement of the Inter-Tropical Convergence Zone (ITCZ). The district experiences a tropical type of climate with a temperature range of between 19°C to 26°C. Mean monthly temperatures range between about 15° C in the cold season to about 28.9°C in the hot season when humidity is comparatively high. Minimum temperatures as low as 9.6° C have been recorded for July, the coldest month of the year while temperatures of 28 ° C and over are common for October, which is the hottest month. The district receives rainfall ranging between 1,000-1,500mm per year with a mean annual rainfall of 1,200mm. The high rainfall pattern in the district provides competitive and favourable conditions for diversified agriculture activities in the district ranging from livestock, agri-food production to fish farming.

1.4.2 Rainfall

The district is part of the high rainfall zone of Zambia. It receives rainfall ranging between 1,000–1,500mm per year with a mean annual rainfall of 1,200mm. Being in Agro Ecological Region III, the rainy season in Chipili District usually commences early that is from early November and climax occurs in January and February and little or no rain is received in the month of April which marks the end of the rainy season. Generally, the district has only one climatic zone. It is however important to state that Chipili is not spared by adverse effects of climate change, as a result the rainy pattern is gradually shifting negatively from having plenty rainfall in some places and little rainfall in some places. This means that in places which receives plenty of rainfall, agriculture and livestock farming thrives well whereas in places with little rainfall, agriculture and livestock farming suffers negative effects of drought arising from climate change as shown in figure 2

Figure 2: Graph Showing Rainfall Patterns in the District



Source: Urban Development Plan, 2017

1.4.3 Topography and Landscapes

The main geographical feature in the district is the Muchinga escarpment which is a narrow strip of steep slopes rising from 1,100m in the west to 1,250m in the east above level elevation. Generally, the district is a plateau with generally flat to gently undulating slopes ranging from 0-5% dominating with 75% to the north-eastern part and across the central region of the district. Further, 9% of the district is covered by a strip of dambos which are predominant on the eastern and northern regions running through to the south-western part. The plateau landscape in the district is characterized by plenty of grass and shrubs. The green pasture on the plateaus offers potential opportunity for local economic development in livestock farming and agriculture. The presence of dambos in the District has potential for water related developments as they act as water sources in the dry-season for fishing, livestock and human survival as shown in appendix.

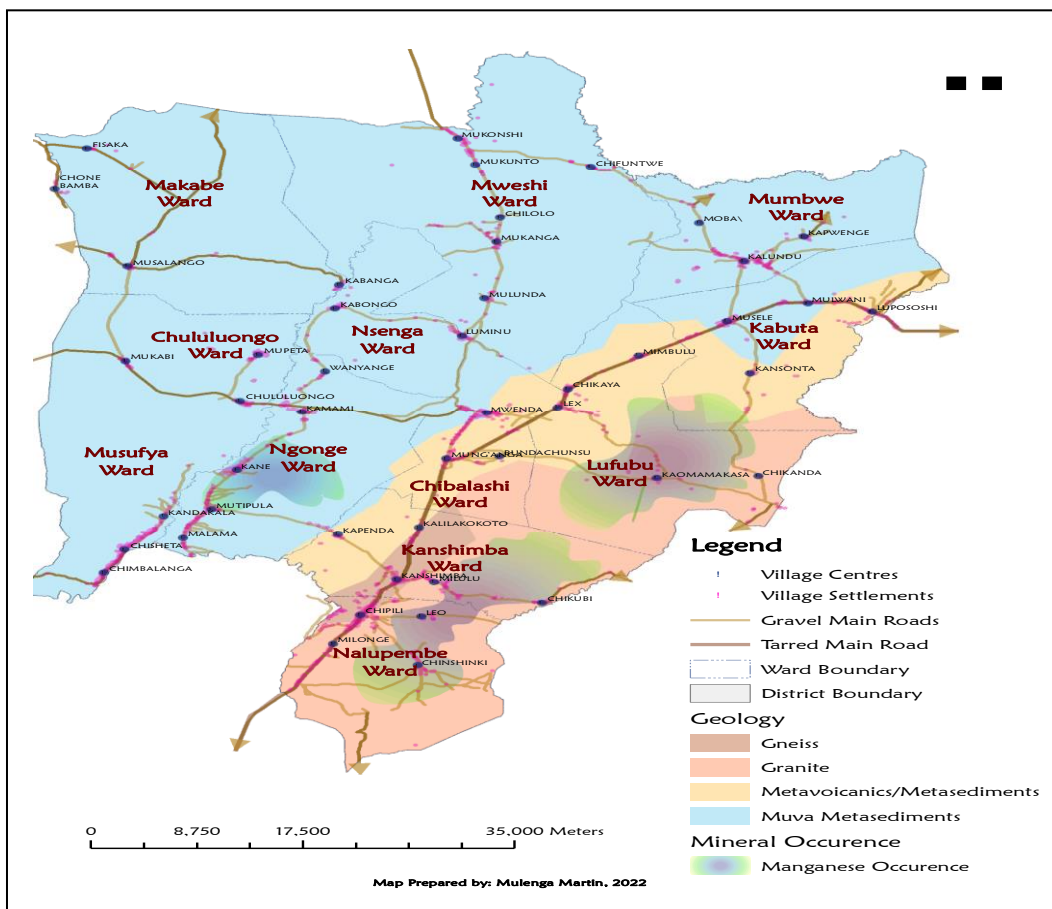
1.4.4 Geology

The Geology of Chipili district is classified into 4 categories which is the Muva Met sediments, Metavocanics, Gneiss and Granite rock formation (Kasumba and Chifwepa, 2016). The Muva Metasediments is the most common and widespread rock structure found in Chipili District. Metavocanics and granite formations cover the south -eastern part of the district as well. Muva rock structures found in the district are reported to be rich in quartzite, hematite, sandstone,

laminated siliceous mudstone, minor shales and conglomerate deposits (Daly and Unrug, 1982). Granite structures are also known to be rich in feldspars and quartz; and Gneisses are known to be rich in mica minerals and aluminous or ferromagnesian silicates. The rock structure cover mostly the north-western part of the district.

The geology of the area which consists of rocky materials close to the surface make clay soils heavy to dig and to cultivate and drain slowly after rain. As a result, the area is generally wet especially in the low-lying areas of the settlement during rainy season. It can therefore be concluded that, the predominant rock formation and types in Chipili district is of good use in the construction industry by providing materials such as crush stones and quarry for buildings, and road constructions, tiles and finishes due to the nature of their contents. The geology in the district thus offers mining prospects that can be a source of employment if well exploited.

Figure 3: Map Showing Geological Characteristics in Chipili District



Source: Chipili Town Council, Department of Physical Planning, 2021

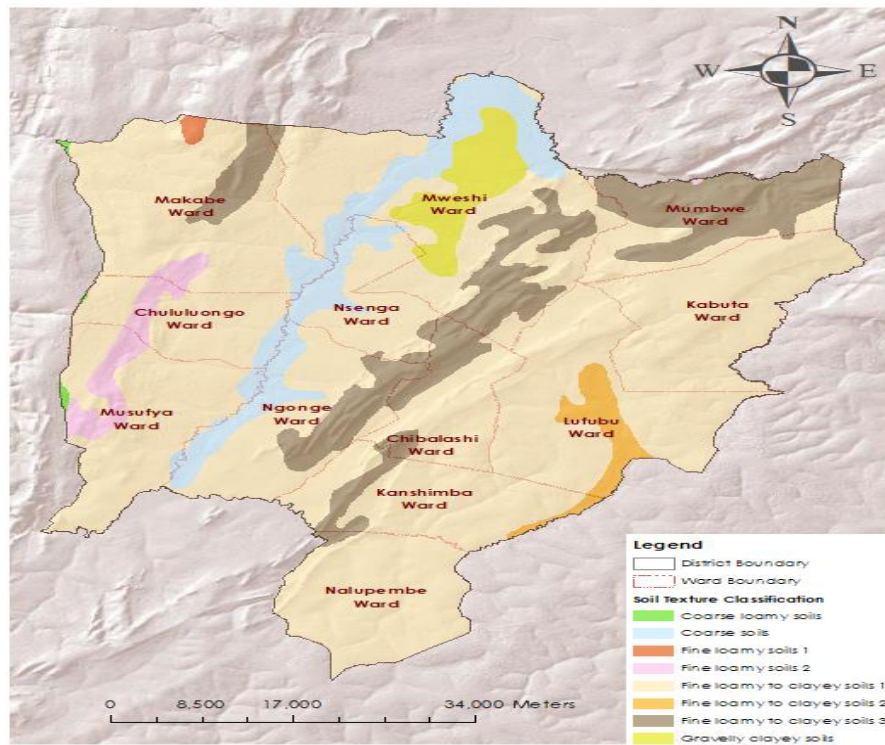
1.4.5 Temperature

Mean monthly temperatures range between about 15° C in the cold season to about 28.9°C in the hot season when humidity is comparatively high. Minimum temperatures as low as 9.6° C have been recorded for July, the coldest month of the year while temperatures of 28 ° C and above are common for October, which is the hottest month.

1.4.6 Soils

The soils in the district show a marked correspondence to the geological formations and the soil groups are specialized plateau soils. However, the soils types in Chipili vary according to underlying geology as shown in figure 4. Those developed over the Gneiss and Granite rock varies in texture and depth from red brown class to dark loamy soils. The soils in the district are generally fertile and support the natural forest species thereby providing opportunities for agriculture and Agroforestry. However, soils in some areas have low levels of fertility partly due to soil erosion as a negative externality of rainfall. As a result, many crops fail to grow well without external application of lime and fertilizers. Appendix shows the soil types and distribution in the district and the table shows the characteristics of the soil in reference to the Map in figure 4 and table 1.

Figure 4: Map Showing Types of Soil in Chipili District



Source: Chipili Town Council, Department of Physical Planning 2021

Table 1: Showing Soil Characteristics in Chipili District with Reference to Figure 4

Map Ref	Soil Texture Classification	Soil Description	Drainage	% Coverage	Soils Suitability
	Fine loamy to clayey soils 1	Well drained, deep to very deep, yellowish red to strong brown, friable, fine loamy to clayey soils having a clear clay increase with depth; with inclusions (20%) of moderately well drained to imperfectly drained, deep to moderately shallow, gravelly clay	Well drained	71.4	Legumes, Vegetables, Wheat, sweet corns and field crops.
	Fine loamy to clay soils 3	Association of well drained, moderately deep to deep, yellowish brown to dark brown, friable, fine loamy to clayey soils having a (chromi-haplic ACRISOLS) and well drained, shallow to moderately shallow, dark brown, friable, fine loamy soils; in places	Well drained	13.7	Fruit trees, vegetables, field crop

	Coarse soils	Very poorly drained, light brown to light yellowish brown, loose to very friable, coarse soils; in places with a humic topsoil (orthi-dystric GLEYSOLS)	Very poorly drained	7.5	Rice, cotton, pulses, Cassava
	Gravelly clayey soils	Well drained, very deep, dark red to red, friable, clayey soils with a fairly uniform texture throughout and a humic topsoil and frequent oxidic gravels in the subsoil (orthi-rhodic FERRALSOLS)	Well drained	3.1	Tobacco, Millet, Cassava
	Fine loamy soils 2	Well drained, shallow to moderately shallow, yellowish brown to yellowish red, friable, fine loamy soils, in places gravelly fine loamy to clayey (orthi-dystric LEPTOSOLS)	Well drained	2.2	Resource Potential for Wet Seasoned grazing, Forest Land and potential for production of Rice.
	Fine loamy to clayey soils 2	Poorly drained to very poorly drained, very deep, greyish brown to grey, slightly firm, fine loamy to clayey soils with a humic topsoil (orthi-umbric GLEYSOLS)	Poorly drained to very poorly drained	1.7	Vegetables, corns, Fruit trees
	Fine loamy soils 1	Well drained, moderately deep to deep, brown, friable fine loamy soils with a very weakly developed profile (orthi-dystric REGOSOLS) and quartzitic rock outcrops (lithic LEPTOSOLS)	Well drained	0.2	Vegetables, field crops, citrus fruit trees.
	Coarse loamy soils	Excessively drained to well drained, shallow to moderately shallow, dark brown to yellowish brown, friable, stony, gravelly, coarse to fine loamy soils (orthi-eutric LEPTOSOLS; rudic phase; with lithic LEPTOSOLS).	Excessively drained to well drained	0.1	Fruit trees, cassava, sorghum

Source: Chipili Town Council, Department of Physical Planning, 2021

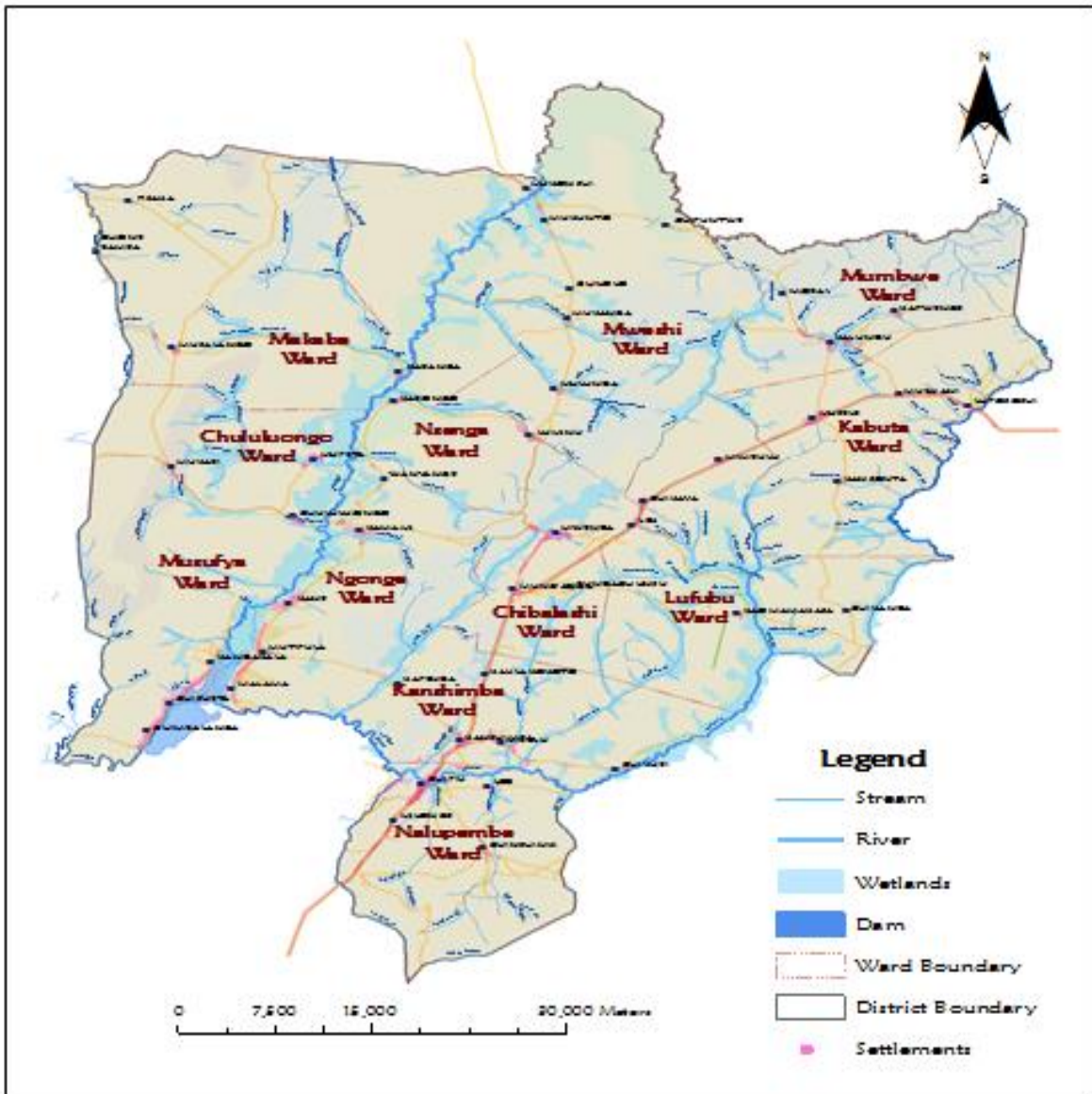
1.4.7 Soil erosion

A number of places in the district of Chipili experience soil erosion which upsets the balance that has developed among rainfall, storm water runoff, and the environment. This has resulted in an increase in the depression of vegetation cover in the district due to mostly human activities such as agricultural practices, indiscriminate timber harvesting (Mukula and other species), charcoal burning and settlements growth and developments. Undermining of vegetation cover in this regard generally threatens loss of livelihoods in the district, and in the long term affect key economic activities such as agriculture by inducing climate change, reduction in biomass and droughts.

1.4.8 Hydrology

The district consists of rivers, streams and springs. The longest river in the district is the Luongo River followed by Lupososhi and Lufubu Rivers respectively. The major streams include Chibalashi, Masesa, Luchinka, Chibwowo, Kanshimba, Milonge, Mweshi, Mumbwe, Mikwa, Luminu and Musufya among others. The district has about five (5) springs on the western part of Bululu hills and in Kalundu area of Mumbwe ward. underground water is also accessed in most parts of the district at a maximum depth of 70m dry season in hilly places and below 15m in water logged areas. The presence of available extensive surface water resources in the district possesses great potential for irrigation farming and other water related developments. However, very few farmers make use of these resources. This is partially due to lack of irrigation equipment, as well as limited knowledge on the needed skills. Despite this number of the aforementioned sources of surface water, Chipili district depends on ground water and lack piped water. In addition, the quality of the surface and groundwater is however poor, because of poor waste management and poor sanitation.

Figure 5: Map Showing Hydrological Characteristics in Chipili District



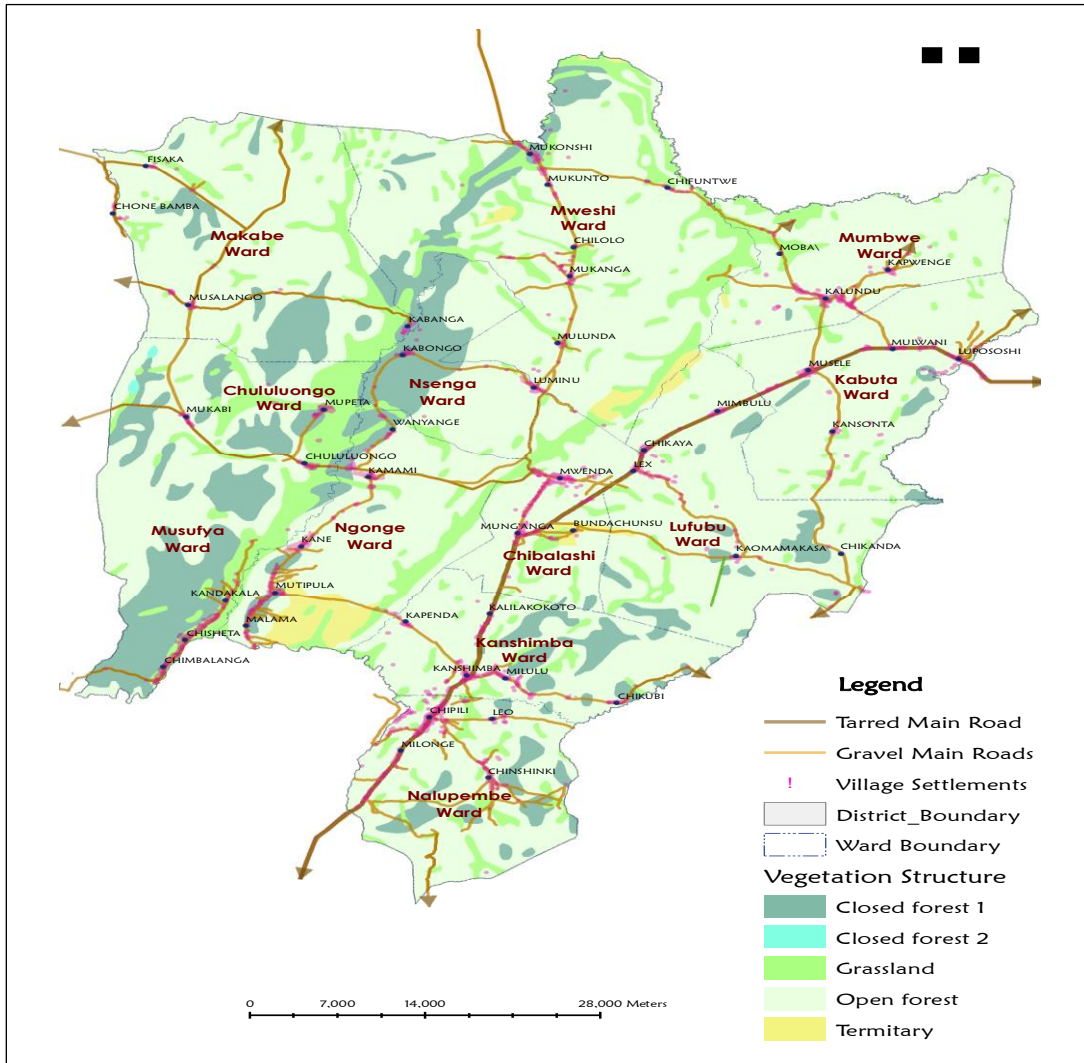
Source: Chipili Town Council, Department of Planning, 2021

1.4.9 Vegetation

Chipili has a Savannah type of vegetation which generally show a marked correspondence to the geological formations. The deciduous woodland known locally as “Miombo” which accounts for about 70% of the forested area is the main vegetation type found in the district. This woodland also provides valuable commercial species. It is found in the northern and eastern parts of the

district while in the southern and western parts of the district, the “Munga”, Savanna woodland, dominates the landscape as shown in figure 6.

Figure 6: Map Showing Vegetation Cover in Chipili District



Source: Chipili Town Council Planning Department, 2021

Table 2: Vegetation Characteristics in Chipili District in the context of figure 6

Color Code	Vegetation Feature Type	Forest Structure	Percentage Coverage
	Miombo woodland on plateau, escarpment and valley soils	Open forest	70.8
	All naturally treeless and grassy areas, comprising mountain and water shade grassland, Kalahari-sand plain, dambo,	Grassland	15.0

	floodplain, swamp and papyrus sudd.		
	Lake basin chipya	Closed forest	12.7
	Termitary associated vegetation, and bush groups within grassy drainage zones	Termitary	1.5
	Marquesia forest	Closed forest	0.0

Source: Chipili Town Council Planning Department, 2022

PART TWO (PLANNING SURVEY AND ISSUES REPORT)

PART TWO: PLANNING SURVEY AND ISSUES REPORT

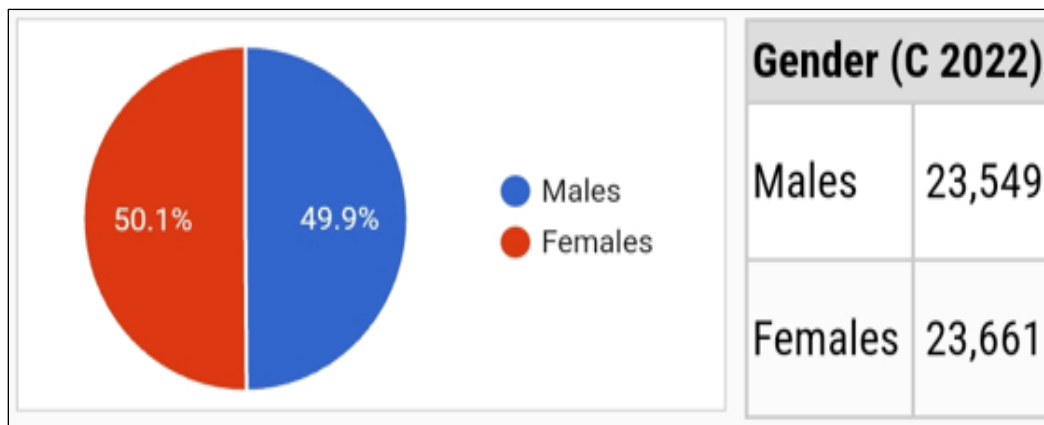
2.0 Demographic Analysis

The section below contains details of population dynamics within the district and includes historic population, total population, population distribution by ward, growth rate, the gender breakdown of this population, age distribution, population density, sex ratio and population characteristics. It is against this background that this report explains the trends of the economic growth. The status quo report discusses how these factors have been over the years and critically analyses functional sectors which have contributed to the state of the current socio-economic development of the District.

2.1 Historic Population Levels and Historic Population Growth Rates at district and ward levels from 2010

According to 2010 census, Chipili District had a population of 32,565 people as shown in table and table respectively. However, it is imperative to note that as of 2010 when this data was collected, Chipili was a Constituency under Mwense District. In addition, Chipili District had only ten wards implying that Chulu-Luongo and Kanshimba wards were not part of the district. Therefore, data such as fertility rate, birth rate, mortality rate and migration for the wards could not be disaggregated for Chipili District from the data collected under Mwense District as shown in figure

Figure 7: Showing Current Population by Gender



Source: Central Statistical Office, 2010

2.1.1 Population Distribution by Ward Level

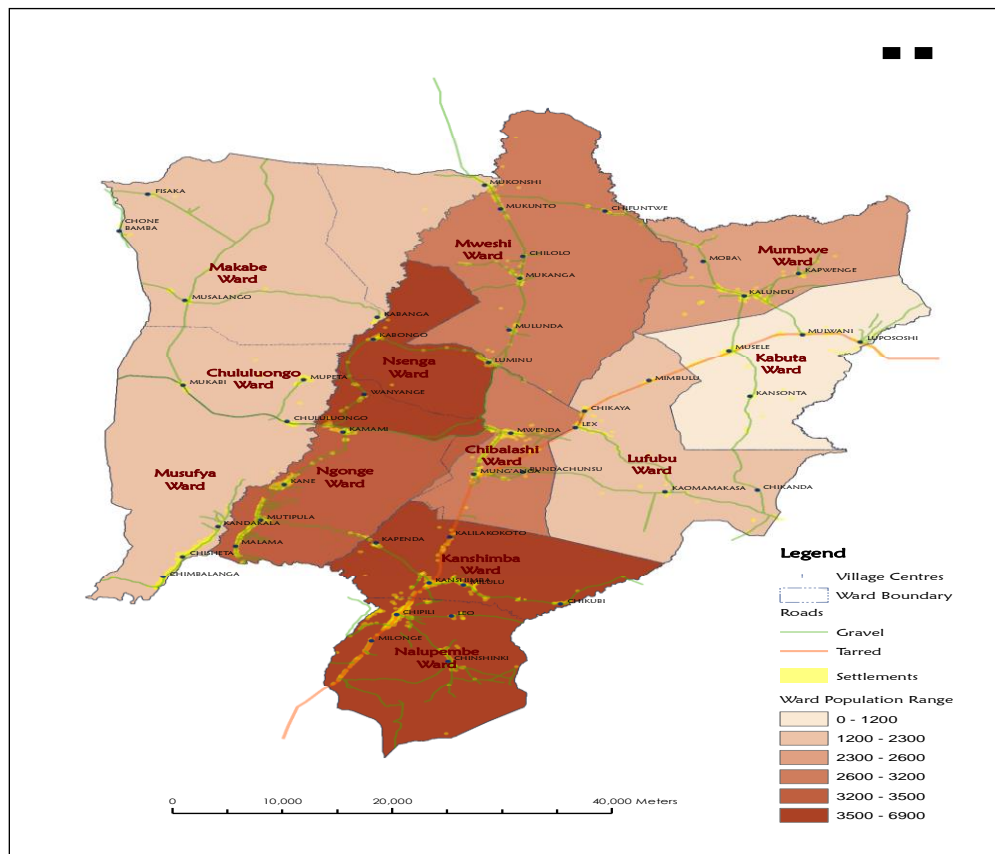
Chipili has one constituency called Chipili Constituency. Currently the constituency is segmented into 12 wards and these are; Chulu-Luongo, Kanshimba, Chibalashi, Kabuta, Lufubu, Mukabe,

Mumbwe, Musufya, Mweshi, Nalupembe, Nkonge and Nsenga wards as shown in figure 2. Furthermore, the district has forty-seven (47) zones. It is however important to mention that at the time demographical data was collected, the latest population data for Chipili district per ward was not yet published.

2.1.2 Inclusion of New Wards

In 2019, two new wards that is Kanshimba from Nalupembe and Chululuongo from Makabe Ward were delimited and overlaid on the 2010 ward population distribution. The Population of Chipili was concentrated much in the village centres of Nalupembe Ward. The major pull factors in this ward are and were availability of social economic amenities and services and trading opportunities such as selling of agro-products. This was also necessitated by historical missionary works as evidenced by the presence of the Chipili Mission Church. Figure 8 shows a Map that was overlaid and included the two new wards.

Figure 8: Map Showing Ward Population Distribution in Chipili District (Inclusion of Kanshimba and Chulu-Luongo Wards)



Source: Chipili Town Council, Department of Planning, 2022

2.1.3 Population Density by Ward Level

In terms of population per ward, Nalupembe and Nsenga were the least densely populated and Kabuta ward was found to be highly densely ward. The average population density of the district was at 8.18 people per Square Kilometres. Relatively, the population at provincial level is currently standing at 1,514,011 persons with population density of 29.94 per square kilometres and an annual population change of 3.6% between the periods 2010-2022. The population of Luapula in 2010 stood at 991,927 and 775,353 in 2000 while at national level, the population stands at 19,610,769 (Zamstat, 2022). This implies that the population densities for the particular wards relative to district and provincial population densities have been steadily increasing in some urban wards while others wards have remained low as illustrated in table 1. In certain wards such as Nalupembe and Nsenga, the population is high and this has been attributed to improved service delivery such as improved roads, food security and improved health facilities which act as pull factors in these areas.

Table 1: Showing Population densities by Wards

S/N	NAME OF WARD	POPULATION DENSITY(Km ²)
01	Nalupembe	1.610
02	Nsenga	1.319
03	Lufubu	0.446
04	Kabuta	0.299
05	Makebe	0.537
06	Chulu-luongo	0.409
07	Mumbwe	0.609
08	Mweshi	0.742
09	Nkongge	0.824
10	Kanshimba	0.601
11	Chibalashi	0.716
12	Musufya	0.710

Source: Central Statistical office, Luapula Province, 2022

2.1.4 Population Density of Chipili relative to surrounding Districts

The population density for Chipili district in 2000 census was recorded as 4.65 per square kilometre. In 2010 census, its population density however was recorded to be 7.85 per square kilometre while in 2022 population density current standing at 10.94 per square kilometre.

Comparatively, Chipili district is surrounded by other districts such as Mwense district on the western part whose current population is 122,602 with population density of 50.23 per square kilometre and an annual population change of 2.9%, Mansa district has a population of 327, 063 with population density standing at 42.06% and an annual population change of 4.0 between the periods 2010 to 2023 (Zamstat, 2022). On the North-western lies Mwansabombwe district whose current preliminary population is 58, 919 with population density of 49.62 per square kilometres and an annual population change of 2.3% between the year 2010 and 2022. Kawambwa is another district that neighbours Chipili district and has a population of 123, 652 with population density of 15.26 per square kilometre and an annual population change of 2.8% between 2010-2022 as shown in figure. Therefore, it is right to argue that the trend in population density implies that the district is experiencing an ever increase in population which in turn has created an urgent need for quality service delivery in sectors such as shelter, health, schools and food security which are poorly supplied at the moment.

Table 2: Showing Population Density by District, Luapula Province 2022

District Name	Population	Land Area	Population Density (Pop/ Land Area)
Chembe	51,532	2,190.4	23.5
Chienge	189,893	4,008.4	47.4
Chifunabuli	116,326	3,094.8	37.6
Chipili	47,210	4,316.7	10.9
Kawambwa	123,652	8,101.3	15.3
Lunga	39,383	3,839.5	10.3
Mansa	327,063	7,775.7	42.1
Milenge	56,543	6,140.8	9.2
Mwansabombwe	58,919	1,187.3	49.6
Mwense	122,605	2,440.7	50.2
Nchelenge	233,696	4,147.8	56.3
Samfya	147,189	3,323.7	44.3
Total	1,514,011	50,567.0	29.9

Source: Central Statistical Office, 2022

2.1.5 Population Growth Rate Trends Relative to other Districts

In 2010 the population growth rate for Chipili district was at 1.4 percent per annum. The main reasons for the slow population growth rate were due to high infant and child mortality rates arising from inadequate medical care and poor nutrition for pregnant women. According to 2000 census the district's population was around 27389 however in 2010 census the population increased by 15.8% to 32565. The population for the district for 2022 census is currently standing at 47210 translating to 31% population increase. On the other hand, Mwense's population during 2000 census was around 78370 however its population during 2010 census increased to 87276 translating to 10% increase. Latest population for Mwense district according to 2022 census is standing at 122605 depicting an increase by 28.8% (Zamstat, 2022).

In addition, the 2000 census revealed that the population for Kawambwa was around 66,957. However, in 2010 census the district experienced an increase in population to 89,120 translating to 24.8% population increase while in 2022, the population increased to 123,652 depicting 27.9% increase in population (Zamstat, 2022). This implies that though the population for Chipili district is small relative to its surrounding district, the district is experiencing a more steady increase in population growth rate. The steady increase in population growth has been attributed mainly by reduction in infant mortality rates which are basic indicators of any country's socioeconomic situation and an increase in quality of life. As a result, the district is confronted with the challenge of inadequate service provision such as school and health infrastructure, water, housing and other amenities related to human survival aiming at revitalising and effectively contribute to the reduction in infant and child mortality rate.

Table 3: Table Showing Population Density by Gender Per District in Luapula Province 2022

Province	2010 Population			2022 Population			Average Annual Population Growth Rate 2010-2022		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Chembe	11,463	11,931	23,394	26,153	25,379	51,532	7.1	6.5	6.8
Chiengi	56,542	57,683	114,225	93,609	96,284	189,893	4.3	4.4	4.3
Chifunabuli	40,856	42,481	83,337	56,856	59,470	116,326	2.8	2.8	2.8
Chipili	16,241	16,324	32,565	23,549	23,661	47,210	3.1	3.1	3.1
Kawambwa	44,083	45,037	89,120	61,224	62,428	123,652	2.8	2.8	2.8
Lunga	11,717	12,288	24,005	19,304	20,079	39,383	4.2	4.2	4.2
Mansa	100,873	104,125	204,998	160,174	166,889	327,063	3.9	4.0	4.0
Milenge	21,338	21,999	43,337	27,727	28,816	56,543	2.2	2.3	2.2
Mwansabombwe	22,008	23,286	45,294	28,544	30,375	58,919	2.2	2.2	2.2
Mwense	42,503	44,773	87,276	59,770	62,835	122,605	2.9	2.9	2.9
Nchelenge	76,124	76,683	152,807	115,785	117,911	233,696	3.6	3.7	3.6
Samfya	44,841	46,728	91,569	71,267	75,922	147,189	3.9	4.1	4.0
Total	488,589	503,338	991,927	743,962	770,049	1,514,011	3.6	3.6	3.6

Source: Central Statistical Office, 2022

2.1.6 National Populations

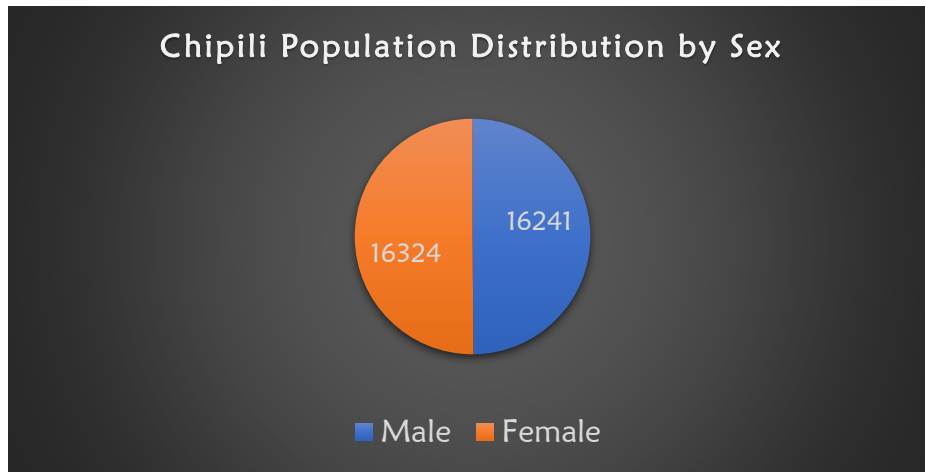
The national population has continued to grow at an average annual rate of 3.4 percent between 2010 and 2022 resulting to an increase in population from 2.8 percent in the 2000-2010 intercensal periods with an average annual population growth of 3.6 (Zamstat, 2022).

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 periods to 3.5 percent in the period 2010-2022 as shown in figure (Zamstat, 2022). The national population from the 2022 census reveals that there are 10, 007,713 female and 9,603,056 males. This implies that at national level, there are more females than males. When this is compared with the population trends at district level, a similar trend is observed where there are more female than male in Chipili district.

2.1.7 Estimated Population of the District at Base Year

Historical population trends in Chipili depicts an increase in population, for instance during 2000 census, Chipili had a population of 27, 389 and in 2010 census, the population grew to 32,565 showing an increase of 5176 translating to 15.8% (Zamstat, 2022). Furthermore, the population in Chipili District in 2010 comprised of 16,324 females and 16,241 males as shown in figure. The current population of Chipili District is now standing at 47,210 with 23,549 males and 23, 661 females depicting 31% population increase with annual population change of 3.2% between the period 2010-2022 as shown in figure (Zamstat, 2022).

Figure 9: Pie Chart Showing Chipili Population Distribution by Sex



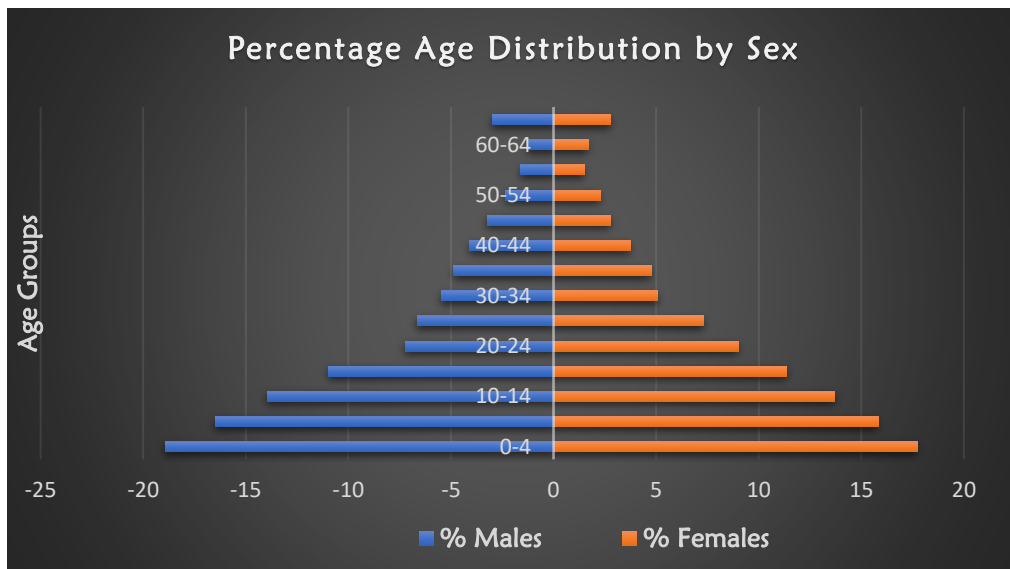
Source: Central Statistical Office, Luapula Province, 2018

2.1.8 Age and sex Characteristics of Population at Base Year

The age and sex characteristics of Chipili district at base year of 2010 indicates that the majority of the individuals are young female aged between the 4years and 28 years while that of the male population consist between 4 years and 24years with few people between age groups of 50 years to 60 years as shown in figure. This implies that the majority of the population for both female and male comprises young individuals aged between 4 to 20years on average as shown in figure 9. The population sex characteristics for the district imply that there are more females than males aged between 20 to 24years which are productive years. This has been attributed to migration of mostly males to other districts due to inadequate education services and lack of skills development facilities, which have drawn youths out of the district to pursue higher education and employment opportunities in more economically viable regions.

The impact of an ageing population is that in the longer term, the industries that may emerge may have difficulties recruiting young workers from the local population, thereby negatively affecting the Gross Domestic Product (GDP) of the district. This call for viable interventions that would create enabling economic opportunities for the young female population.

Figure 10: Bar Chart Showing Population Projections during the Plan Period



Source: Central Statistical Office, Luapula Province, 2018

2.1.9 Infant Mortality Rate in Chipili District

Chipili district has been experiencing high infant mortality during the base year of 2010 however, there has been a reduction in the infant Mortality rate and where it occurs, the causes of death have been attributed to inadequate systems for recording events such as births, and deaths, trained medical personnel and the fact that many deaths especially among the children occur at home. Infant mortality rate in Luapula Province has been on top region in Zambia. Latest information however reveals that the infant mortality rate of the province fell gradually from 97.3% per 1000 live births 2010 to 87.7 per 1000 live birth in 2022. Relative to infant mortality rate at national level has shown some gradual decrease from 40.2 deaths per 1000 live births in 2021 to 39.35 deaths per 1000 live births in 2022 indicating a decline of 3.08% decline (Zamstat, 2023). This implies that generally the infant mortality rate in Chipili District has also decline due to increased health care and food security systems.

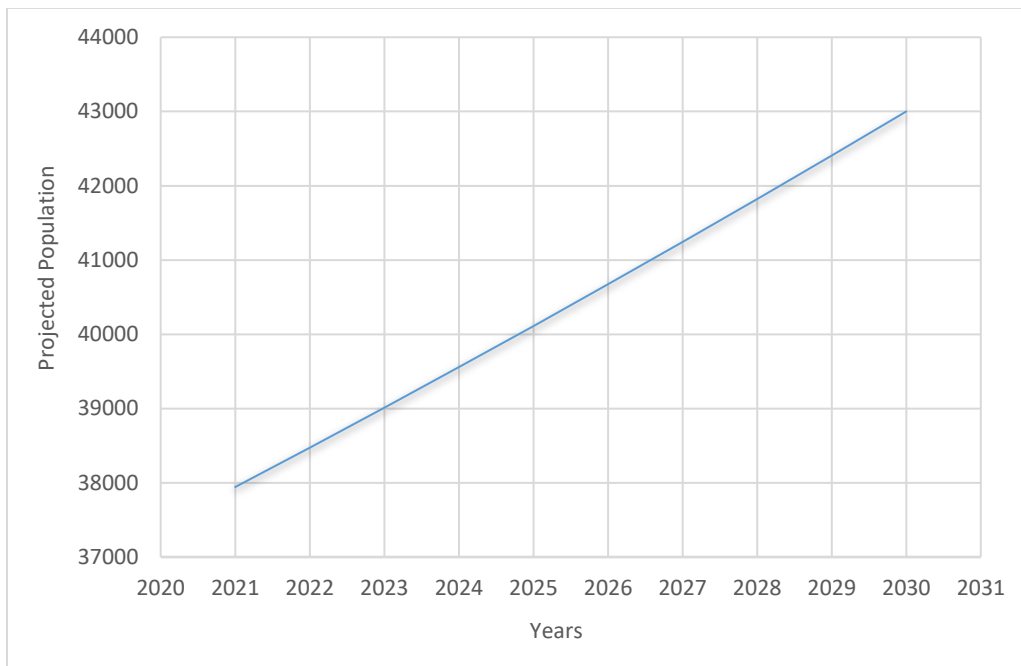
Migration also plays a significant part as it is evident in Chipili, where inadequate education services and lack of skills development has drawn youths out of the district to pursue higher education and employment in more economically viable regions in the country and thus the district is left with an aging population. The impact of an aging population is that in the longer term, the industries that may emerge may have difficulties recruiting young workers from the local population, thereby negatively affecting the Gross Domestic Product (GDP) of the district. In

addition, the economically active group shrinks and has to support a growing dependent population. However, the impact of population growth despite moderate is that there is intense pressure on both infrastructure and resources. Conversely, a high population also present opportunities if the district could use its regional competitive advantage to maximize economies of scale from the vast investment opportunities and natural resource capacity.

2.2.0 Population Projections

The district may experience slight increase in population during the IDP period to about 53500 people largely due to a number of factors such as reduced infant mortality due to improved maternal health services and other factors. For instance, during the IDP period the district may experience increased migration, improved life expectancy, reduced mortality and morbidity and reduced emigration which may come as a result of policy and natural interventions factors. However, the figure below depicts an estimate of the IDP area’s population projection during the Planning period dwelling on the growth rate of 1.4 percent per annum for the year 2010 ceteris pari bus.

Figure 11: Graph Population Projections in Chipili District



Source: Central Statistics Office, 2021

At ward level, the population characteristics of the wards are likely to follow the district pattern with the exception of Chibalashi Ward, the ward housing the district township which may likely be an urbanized ward with a relatively higher rate of growth. Unlike other wards which are

predominantly rural with agro-economies, sparsely populated and further away from a range of public municipal services, Chibalashi Ward will be characteristic of an urban settlement with unique development needs. Generally, the increasing public demand for land for residential, commercial, institutional and agricultural purposes 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.

2.2.1 Estimated IDP Population projections

Chipili district demographic profile and distribution has in the past 11 years changed largely due to delimitation and administrative changes which saw the creation of two more wards. However, the population for Chipili was still projected to grow albeit at a relatively lower rate of 1.4, lower than both the regional and national averages of 2.1 and 2.8 respectively.

Going by the 2022 population growth rate of 1.4, the base year population for Chipili district that is 37934, future population of the IDP area is approximately projected to be at 53, 943 (43935 by Ministry of Health) after 5 years, 58, 452 after 10 years and after 20years, the IDP population of Chipili district is estimated to be around 71645 and the distribution is mostly likely to entirely in the rural urbanizing centres.

2.2.2 Estimated future Urban Population projections

Suffice to mention that Chipili district is predominately covered by 97% rural areas with no or small areas which shows characteristics of urban areas. The urban nature of the district is covered mainly by the new district boundary which is currently under developed with minimum infrastructure and services. This implies that the majority of the population is still occupying the rural areas. However, Kanshimba Ward, Chibalashi Ward, Nkongwe Wards and Nalupembe Wards are likely to experience an increase in population of about 2.9% of their respective Ward population after 5years. In addition, these areas have the potential for estimated population increase to about 6.0% after 10years.

2.3. Current Population Characteristics

2.3.1 Age Groups

The District has had a very low median age of 16.2 meaning half the population is below this age relative to the national level (Zamstat, 2022). As can be observed in the figure below, the district's population is concentrated in the age groups below 30 years, giving rise to a youthful population (see figure 9).

2.3.2 Expected Age and Sex Characteristics of Population at Year 5 and Year 10

Basing on the 2022 population, the population of Chipili District by gender reveals that there are 23,549 males while 23,661 are females as shown in figure. This shows that the population of females increased by 7337 translating to 31% while that of males increased by 7308 from the base year population translating to 31%. This implies that Chipili District is likely to experience equal increase of population by gender of about 3500 males after five years and about 8000 males after 10years and about 18000 males after 20years. The population increase however by gender of females in Chipili district is likely to be more than that of the males after 10years.

2.3.3 Assessment of the Existing Land Use and Settlement Pattern in the District

2.3.4 Overall Human Settlement Pattern and Land Tenure

Chipili District has two types of land tenure system comprising of customary and state land approximately 97.8 % and 2.2 % respectively. Land tenure is the mode of ownership of land. In terms of land administration and alienation, customary land is administered by the traditional authority whereas state land is administered by Chipili town council on behalf of Ministry of lands.

2.3.5 Urbanizing Villages and Growth Nodes

Settlements in Chipili district are predominately rural in nature because of their low population densities, absence of higher order economic and administrative uses, prevalence of village houses made of traditional materials and construction techniques, and agricultural driven economies. Nalupembe, Kashimba, Nsenga, Chibalashi, Nkongwe and Mumbwe wards are among areas that are urbanised growth nodes in the district.

The form of the settlements in the district exhibits a kind of morphology determined through time and strongly influenced by the post-colonial missionary work (establishment of missionary churches), population size, possession or availability of infrastructure. The predominant settlement

patterns are linear and dispersed in nature. Linear settlement forms a straight or curved line of village houses, following the districts line of movement-mainly roads and the foot of the escarpment in some cases. Dispersed settlement pattern is also expressed in the presence of several houses, scattered over a distance as they follow a line of movement.

The predominant linear and sporadic settlement pattern in the district hinders adequate provision of social economic services and service delivery due to the fact that per capita cost of doing so in settlement patterns of this nature is high. This has seen high spatial socio-economic development injustice and exclusion in the provision of facilities, social economic services and economic opportunities.

2.3.6 Urban Expansion/Peri-Urban Areas

In the face of the aforementioned, the district has 8 notable village centres which exhibits nucleated settlement patterns. These are villages where the houses and buildings are grouped closely together, often around or besides features like Schools, churches, health centres and other social facilities. Names of these village centres in the district are Chipili, Kalunda, Lupososhi, Munganga, Mwenda, Mutipula and Kanshimba. The aforementioned village centers can be considered to be Urbanising Villages as they are beginning to, or has the potential to, transition into growth nodes with increased density of development. They are characterised by mainly housing developments built using permanent materials; presence of emerging non-agricultural economic activities, social facilities such as schools and health facilities as shown in figure 16. Among the notable urbanising village centres, Munga'nga is expected to lead the transition due to the establishment of a new township area (under Sate Land) which is housing the district administration facilities and various planned land use categories the local authority has and is yet to put on offer to the general public.

2.3.7 Informal Settlements in Chipili District

Chipili has one township area under state land of approximately 9400Ha located at Munganga area of Chibalashi Ward. This constitutes only about 2.2 per cent of the total district landmass. However, this has not limited development activities around the township area. A number of residential development and other uses are springing up in traditional land too. This development has a negative effect on the economic development and service delivery in the district since most of the properties falling within traditional land are not rateable, hence depriving the local authority of revenue which can otherwise be channelled to improving local service delivery. The township area is earmarked to be the hub of most economic activities in the district as well as the

administrative centre. Amongst the economic activities taking place in the district include; retail and wholesale trading, transport, and consumer services.

2.3.8 Other Land Uses ion Chipili District

The main forms of land use characterised in Chipili district as a whole is agricultural, roads, residential, institutional, commercial etc. Table shows the land use schedule in the district.

2.3.9 Land Use Schedule for Chipili District

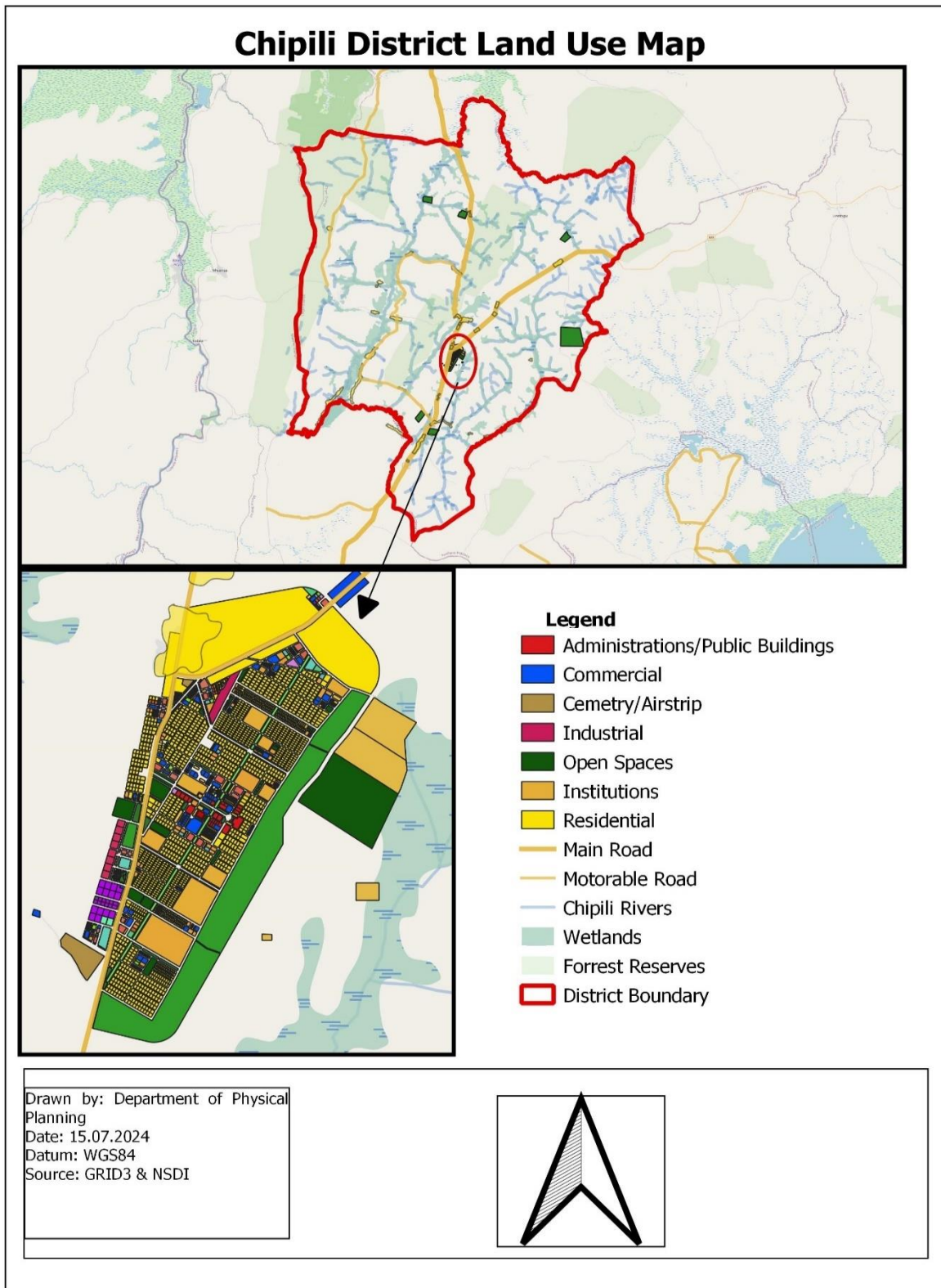
Table 5: Table Showing Land Use Zooning in Chipili District

S/No.	Land Use (Zoning)	Hectares	Percentage
1	Customary & Agricultural	33219	77.2
2	Roads	4585.2	10.7
3	Residential (Unplanned)	4042.8	9.4
4	Institutional	541	1.3
5	Residential (Planned)	273.4	0.6
6	Commercial	114	0.3
7	Open space	100	0.2
8	Place of Worship	59	0.1
9	Undetermined	43	0.1
10	Industrial	22	0.1
	Total	43000	100

Source: Chipili Town Council, 2022

Customary and Agriculture and unplanned residential in the customary area tops the land use schedule in the district. This indicates the need to engage into aggressive planning agreements with the local chiefs and upgrading of urbanising settlements to prevent further growth of unplanned settlements.

Figure 12: Showing District Land Use Layout for Chipili District



Source: Chipili Town Council, Department of Planning, 2023

2.4.1 Dispersed Pattern

These are mainly found in almost every ward which is typical village in nature. Dispersed pattern is exhibited in wards such as Mwenshi ward, Kabuta, Chulu-luongo, Nkonge ward and Musufya ward. The nature of houses in such wards are characterised by square bricks and have balconies, a standard style that shows influence of mission culture (Satoru Ijiri et al 2003). The linear type of settlement patterns are found in Chibalashi ward, Kanshimba, part of Kabuta and Nalupembe ward. The housing infrastructure in these areas are characterised by thatched grass roofs, burnt bricks and in some area's concrete blocks.

The form of the settlements in the district exhibits a kind of morphology determined through time and strongly influenced by the post-colonial missionary work (establishment of missionary churches), population size, possession or availability of infrastructure. The predominant settlement patterns of about 77% are linear while about 23% are dispersed in nature. Linear settlement forms a straight or curved line of village houses, following the districts line of movement - mainly roads and the foot of the escarpment in some cases. This type of settlement is evident especially along Mansa via Luwingu road, old Kawambwa road and Mutipula road. Dispersed settlement pattern is also expressed in the presence of several houses, scattered over a distance as they follow a line of movement.

The predominant linear and sporadic settlement pattern in the district hinders adequate provision of social economic services and service delivery due to the fact that per capita cost of doing so in settlement patterns of this nature is high. This has seen high spatial socio-economic development injustice and exclusion in the provision of facilities, social economic services and economic opportunities

In the face of the aforementioned, the district has 8 notable village centres which exhibits nucleated settlement patterns (see figure 12). These are villages where the houses and buildings are grouped closely together, often around or besides features like Schools, churches, health centres and other social facilities. Names of these village centres in the district are Chipili, Kalunda, Lupososhi, Munganga, Mwenda, Lupososhi, Mutipula and Kanshimba. The aforementioned village centers can be considered to be Urbanising Villages as they are beginning to, or has the potential to, transition into towns with increased density of development. They are characterised by mainly

housing developments built using permanent materials; presence of emerging non-agricultural economic activities, social facilities such as schools and health facilities. Among the notable urbanising village centres, Munga'nga is expected to lead the transition due to the establishment of a new township area (under Sate Land) which is housing the district administration facilities and various planned land use categories the local authority has and is yet to put on offer to the general public

2.4.2 The Impact of the Continuation of Existing Population Trends on Land Use and Spatial Development Patterns.

Chipili district has not been spared by population explosion necessitated by natural births and the steady improving quality of life. 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 Chipili may impact negatively on land use for the available ecologically sensitive areas such as forestry land cover, wet lands, agricultural land and water bodies as well as other uses such as recreational parks and service lanes if development control and monitoring is not adequately conducted.

On the other hand, population trends of this nature may cause outward expansion or sprawling of spatial development pattern of the district. Other negative impacts that may be observed from this sprawl includes; encroachments on forestry land cover, agricultural land, wetlands as well as springing up of unplanned settlements owing to the facts that huge tract of land is traditional.

2.4.3 Impact of The Continuation of Population Growth on Impact on Urbanizing Villages and Growth Nodes

The continuation of population growth on urbanizing villages and growth nodes has put pressure on growth nodes of Chipili district such as Nkongwe ward, Chibalashi ward, Mumbwe ward and Nalupembe wards. There is poor supply due to mining activities taking place, road construction, poor water supply, wild life, poor waste disposal and high energy consumption which have been exacerbated by the increasing population density especially in the growth nodes. In addition, there is shortage of housing and school infrastructure, poor health infrastructure and insufficient food security. Another notable impact is the poor transport network as most of the growth nodes lie along Luongo river where the mode of transport is the banana boats. Due to ever increasing population, people take long periods of time to cross from one area to another. For example, people doing business take hours to cross Luongo river from Nkongwe ward to Musufya as they have to

wait for hours for the boat to return from either direction making doing business very difficult as shown in figure

2.4.4 Impact of The Continuation of Population Growth on Informal Settlements

Notable informal settlements such as Munganga seem to be having pressure of inadequate service provisions arising from ever increasing population. This shortage of services such as housing, water, food, electricity and social amenities have created pressure on citizens into moving into low-quality housing areas, expanding the proportion of the population living in the area as projected in figure. This has increased the risk of unsanitary conditions that spread water borne diseases arising from poor waste disposal and contamination from pit latrines which are usually built closer to sources of water.

2.4.5 Assessment of the Availability of Land for Planned Urban Expansion

As national population grows, the amount of arable land available for farming will decrease from 240,000 hectares in 2017 to 220,000 in 2030¹⁴ (MoNDP, 2017). Population growth requires more land for individuals to live on as well as land on which to grow food to meet increasing demands. Population increase in Chipili district has created pressure on the availability of land for housing infrastructure, farming and for urban expansion. The planned urban areas reveal that most commercial and residential plots have been allocated to clients on first come first serve basis resulting in many people failing to acquire plots from planned areas. A high rate of population growth increases pressure on the land and exacerbates shortfalls in crop production due to unsustainable farming practices and economic and climate shocks (MoNDP, 2017).

SECTORAL AND THEMATIC ANALYSIS

3.0 Overview

This section discusses major challenges the district is facing in the following sectors; Agriculture and livestock, Health, Education, infrastructure and communication system flows and community development and service delivery. The IDP has been developed with maximum participation involving input from all levels of government administration.

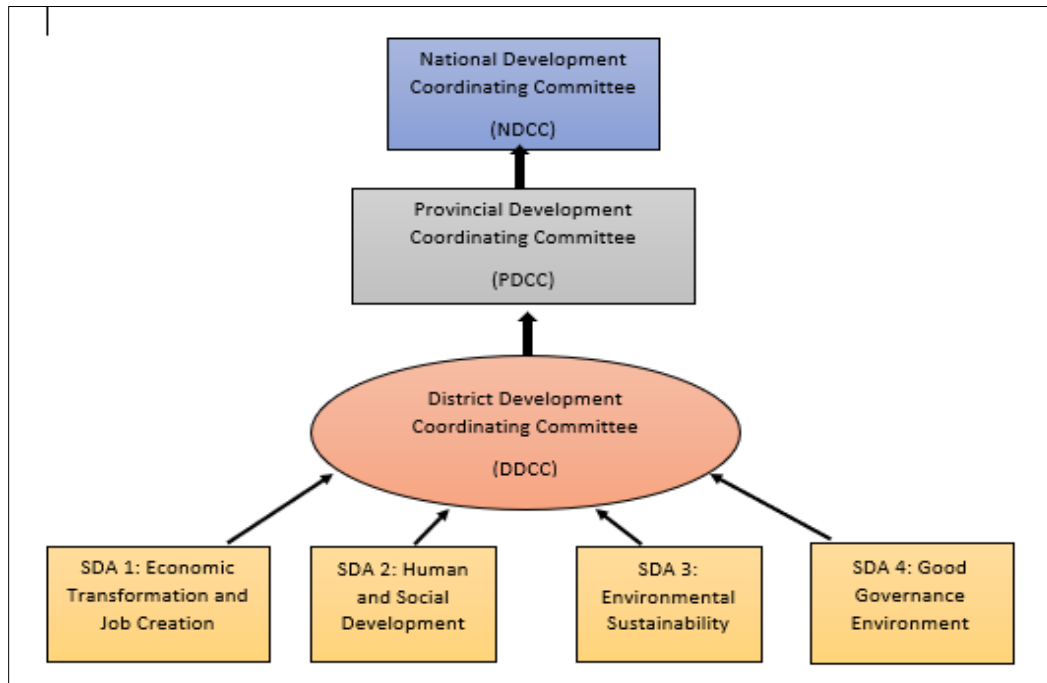
3.1.1 Key Government Priorities being Implemented at a Local Level

In line with the pillars of the Eighth National Development Plan, government has prioritised implementing economic projects for job creation in agriculture, health, fishing, education, environmental sustainability, good governance through community led projects and human and social Development.

3.1.2 Management and implementation of the 8th National Development Plan in Chipili District

The Chipili district Eighth National Development Plan is managed and implemented by the District Development Coordinating Committee and the local authority at district level working in coordination with all the governance structures such as the traditional leadership and Ward Development Committees. The DDCC ensures that Programmes are being implemented by the sectors concerned and escalate to the PDCC which in turn send the reports to the NDCC for the cabinet office to have reports and finally the presidency to be given the picture of how the districts are implementing their Programmes as shown in figure 14. In addition, the strategic development areas have been aligned with the five (4) Eighth National Development Plan Pillars. In order to attain socio-economic transformation for improved livelihoods, sectors have committed themselves to meeting targets through their outlined interventions based on the district integrated development plan.

Figure 14: Mechanisms and Operational Implementation Plans at Local level



Source: Chipili Town Council, Department of Planning, 2023

3.0 TRANSPORT AND COMMUNICATION SECTOR

3.1 Key Government Priorities Being and to Be Implemented At A Local Level (Review of Policies and Plans)

The government has prioritised the construction of main roads linking the district to other districts. The Mwenda-Kasomeno road, the Katakana-Lupososhi road and the Kanshimba Mwense road are among the main roads found in the district. Other works includes the gravel roads that link agriculture potential areas such as those in Mweshi ward, Musufya, Kaoma Makasa in Lufubu ward, Nkonge and Nsenga wards.

3.1.1 Key priorities of the 8th National Development Plan and how they are to be implemented at local level

The District shall priotise local roads by linking the productive areas to market places where goods and services shall be accessed.

3.1.2 Key priorities of sector specific national plans/strategies and how they are to be implemented at local level

The District intends to open roads through the use of Constituency Development Funds and Road Sector funds to work on both township roads and rural roads in order to open up the District to investment opportunities.

3.1.3 Status of implementation of existing plans and strategies in the plans in the districts

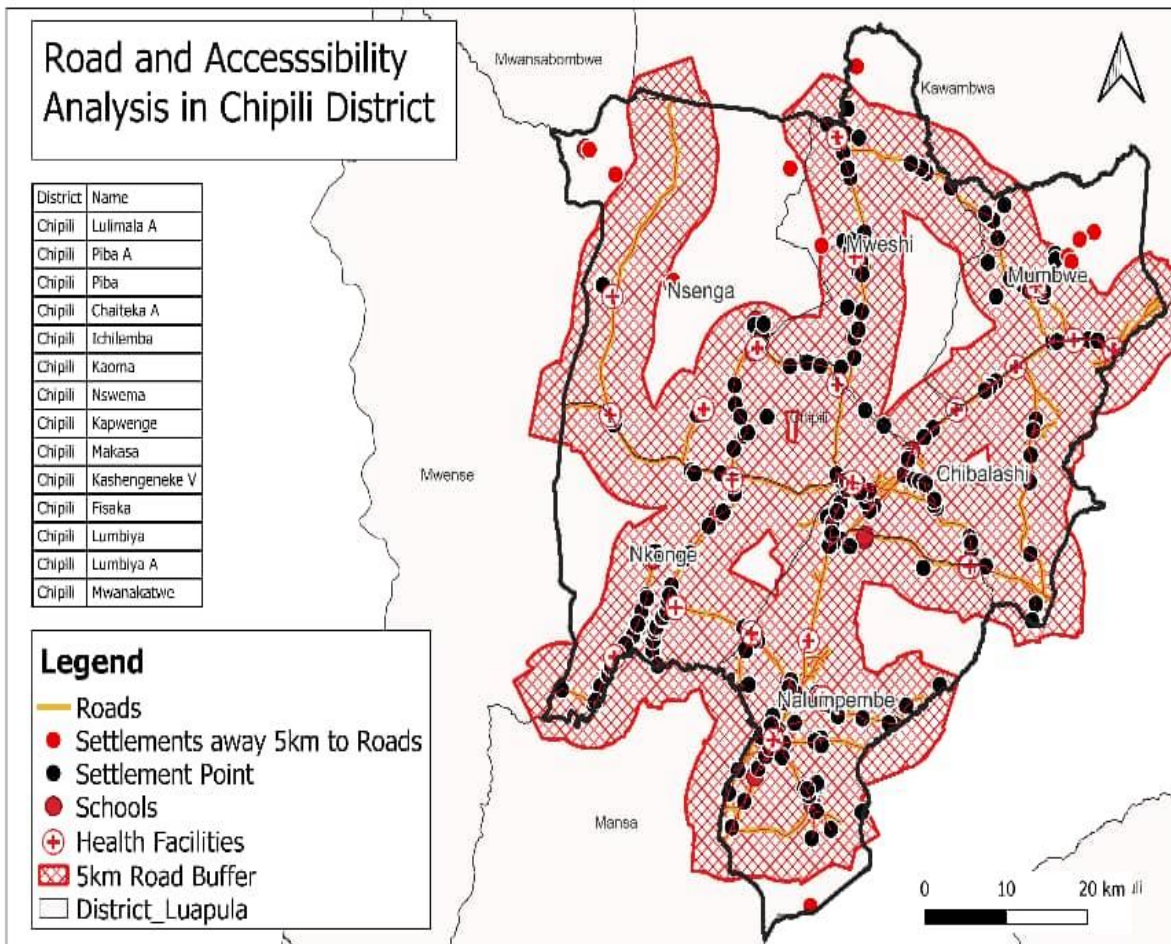
The existing state of road infrastructure and water transport in terms of adequacy in the district is currently standing at 30%.

3.2 State of Development in Transport and Communication Sector

The district has two main types of transport network namely; road transport which dominants in all the wards and a combination of road and water transport in nkonge and Musufya wards. The state of road network development in the district is bad as they are gravel in nature making it impassable during rainy season. In addition, both Mwenda Chiefdom and Mutipula Chiefdom have no single tarmac roads apart from the Mansa to Kasama road (M13) that passes through the two chiefdoms. The productive areas of the two chiefdoms however, have deplorable state of roads and bridges which are in bad conditions. This has made many subsistence farmers and other communities from being completely cut off from other surrounding areas during rainy season.

The district generally has poor road network which is mainly muddy with few upgraded roads to gravel standards. The district is connected to the main tarmac road linking Luapula Province to Northern Province via Luwingu (M13). Since most of the roads in the district and other feeder roads are all muddy in nature, this makes the roads very difficult to be used especially during the rainy season. As a result, this derails transportation of agriculture in-puts and produce inside and within the district. In addition, some areas such as Musufya, Nkonge, and Kabongo are separated by Luongo River where canoes and boats are the only means of transportation. However, the state of canoes and boats currently used are inadequate and are damaged posing a danger to the users.

Figure 15: Map Showing Road Network in Chipili District



Source: Chipili Town Council, Department of Planning, 2021

3.2.1 Availability of Service:

3.2.1.1 Transport infrastructure: Inefficient transport system

Under the Transport and communication sector of Chipili District, the discussion on services available has been inclined to road and water modes of transport and mobile network communication as the only services available under the sector. Under road transport, the district has a fairly good road network traversed by two (2) main roads divided into two (2) sections each. The first one of these sections is the Mansa-Chipili Road in the South of Chipili, the second one is Kawambwa to Chipili Road in the North, the third being Chipili-Mwense Road in the west and finally Chipili-Luwingu Road in the East. This is besides a network of feeder roads throughout the district. However, the feeder roads which links potential agriculture areas are in deplorable state and impassable especially during rainy season.

Table 6: Summary of Main Roads in Chipili District

Road Name	Distance (Within the District)	Description	Surface	Condition
M3	51 km	Connects Chipili to Luwingu district	Tarred	Very Good
M13	38 km	Connects Chipili to Mansa District	Tarred	Very Good
M3/M13	48 km	Connects Chipili to Kawambwa district	Gravel	Poor
M3	35 km	Connects Chipili to Mwense district	Gravel	Poor

Source: Chipili Town Council, Department of Planning, 2021

Table 7: Summary of Feeder Roads in Chipili District

Road Name	Distance	Description	Surface	Condition
Mulwani-Moba Road	17 km	Connects Kabuta Ward to Mumbwe Ward	Gravel	Good
Kalundu-Munkolongo Road	6.5 km	Connects Villages around Mumbwe ward	Gravel	Poor
Musele -Chikanda road	30 km	Connects Kabuta Ward to Lufubu Ward	Gravel	Good
Kaoma Makasa turn off - Kansonta Road	26.5 km	Connects Chibalashi Ward to Lufubu Ward	Gravel	16 km is good and 10.5 km is poor
Kanshimba-Chikubi Road	14 km	Connects villages in Kanshimba Ward	Gravel	Poor
Kanshimba-Kamami Road	38km	Connects Kanshimba ward to Nkongwe ward	Gravel	Very Good

Luminu -Chipowe Road	30 km	Connects Nkongwe ward to Nsenga Ward	Gravel	Very Good
Mukabi-Kabange via Musalango Road	25 km	Connects villages in Makabe Ward	Gravel	Very Good
Mununshi-Chonebamba Road	6 km	Connects villages in Makebe ward	Gravel	Very Poor
Fisaka-Mununshi	15 km	Connects villages in Makebe Ward	Gravel	Very Good
Mukula -Mpoposhi Road	15 km	Connects Villages in Makabe Ward	Gravel	Poor
Chilulongo-Mupeta Road	8 km	Connects villages in Chilulongo Ward	Gravel	Poor
Chipili -Chinshinki Road	16 km	Connects villages in Nalupembe Ward	Gravel	Very Poor
Chipili-Leo Road	10km	Connects Villages in Nalupembe Ward	Gravel	Poor
Chimbalanga-Kasosa Road	18 km	Connects Villages in Musufya Ward	Gravel	Very Poor

Source: Chipili Town Council, Department of Planning, 2021

The information presented in table 6 and 7 implies that most of the roads in the district are gravel except for the Mansa-Chipili-Luwingu Road (M13) which was upgraded to bituminous standard from 2013 to 2016 and has a stretch of about 89 km within the district.

Table 8: Quality of service including key indicators of performance under transport and communication sector

Programme	Project	KPI	Indicator Definition	Baseline	2019		2020		2021		Means of Verification
				2018	Target	Achieved	Target	Achieved	Target	Achieved	
	Opening of township roads	% of township roads Opened	Number of km of township Opened	15	5	1.7	5	0	5	0	Physical inspection

	Gravelin g of feeder roads	%of feeder roads gravelled	Number of km of feeder roads gravelled	200	30	25	30	15	100	93	Physical inspection
	Upgradi ng of Main roads to bitumino us standard	% of Main roads upgraded to bitumino us standards	Number of km of Main roads upgraded to bitumino us standard	73	35	0	35	0	35	0	Physical inspection
	Commu tation mast mountin g	% of communi cation of masts mounted	Number of communi cation masts mounted	5	2	0	2	0	1	0	Reports

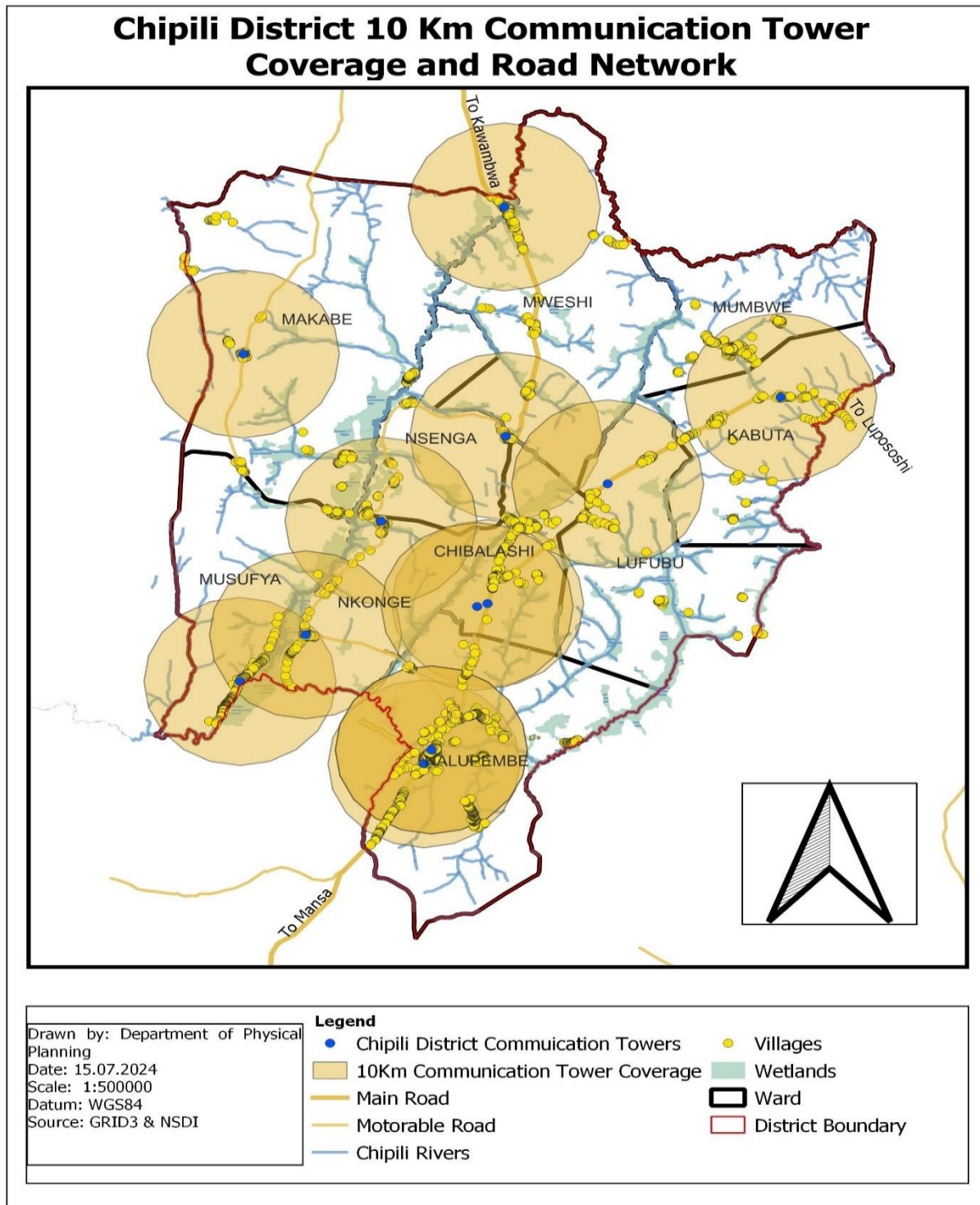
Source: Chipili Town Council, Department of Planning, 2021

From the table, it can be concluded that the quality of roads upgraded to bituminous standard is very low in the district. In addition the quality of feeder roads which are gravel in nature is very poor. This puts the district at a disadvantaged position in terms of the connectivity within and with neighbouring districts.

3.2.1.2 Communication

In terms of mobile connectivity, all the 12 wards in the district are connected to Zamtel Mobile network; in addition Airtel and MTN mobile network providers are also available but only in strategic areas of high population concentration. However, the existing state of operation of these communication providers is poor due to intermittent coverage of network as most areas in the district experience pathetic inter connectivity. The areas that need intervention include Makabe and Mweshi wards where there are very few towers of connectivity. See Figure 16 depicting the distribution of mast towers.

Figure 16: Map Depicting Distribution of Communication Towers in Chipili District



Source: Chipili Town Council Planning Department 2023

3.3 Issues Arising from the Public Participation Process

3.3.1 Availability of Service

During stakeholder consultations in the planning survey and issues report process, it was observed and reviewed that the transport and communication sector is fairly well in terms of road network system and interconnectivity in Chibalashi, Nalupembe, Kanshimba, Lufubu wards and the connectivity to Lupososhi district through Chipili-Kasama road is fair. On average, the stakeholders identified inadequate access to road transport services as a core issue in most far-flung areas.

The only Wards where there is full coverage of all three (03) network providers (Zamtel, Airtel and MTN) are Chibalashi, Nalupembe and part of Kanshimba. The rest of the wards only access limited Zamtel network.

3.3.2 Quality of Service Including Key Indicators of Performance

The quality of road and communication infrastructure in the district is low as already observed through community participation. On one hand, the Zamtel mobile network was confirmed to have covered the all district while the MTN and Airtel mobile networks covered selected areas of population concentration to mention Musufya, Mweshi, Mumbwe, Nsenga and Nkonge wards. Regarding communication on average, inadequate access to information and intermittent coverage of networks were identified as a core issues by most stakeholders and this hinders their participation in developmental Programmes. On the other hand, the quality of roads is generally poor as outlined in table 9 below.

Table 9: Quality of Service including Key Indicators of Performances

Program me	Project	KPI	Indicator Definition	Baseli ne	2023		Means of Verificati on
				2022	Targ et	Achiev ed	
	Upgrading of township roads to bituminous standard	% of township roads upgraded to bituminous standard	Number of km of township upgraded to bituminous standard	17.07	8.17	0	Physical inspection
	Graveling of feeder roads	%of feeder roads gravelled	Number of km of feeder roads gravelled	233	73	18	Physical inspection
	Upgrading of trunk roads to bituminous standard	% of trunk roads upgraded to bituminous standards	Number of km of trunk roads upgraded to bituminous standard	41.5	0	0	Physical inspection
	Commutat ion mast mounting	% of communicat ion of masts mounted	Number of communicat ion masts mounted	15	0	0	Reports

Source: Chipili Town Council, Department of Planning, 2022

3.4 Impact of Changes Anticipated Over the Next Ten Years

Construction and maintenance of roads in prioritised wards of Chipili district is expected to enhance economic development in agriculture, construction, energy, education, health and commercial sectors. This is because improved roads and communication network is expected to enhance transportation of materials and to increase accessibility to different support infrastructure sectors in the next Ten years.

3.4.1 Population Change -Future Demand for Services and Facilities

As a result of population growth and strategic location of the district in the promotion and facilitation of trade with adjacent neighbouring districts in the region, there is need to upgrade the Chipili - Kawambwa and Chipili-Kaputa roads to bituminous standard as well as rehabilitate the network of local feeder roads most of which are currently in a bad state to ease the movement of goods and services from one point to another thereby spurring economic development in the district and the region at large.

Regarding communication and Considering the importance of information and communication technology, the majority of communities in Chipili are lagging behind due to poor access to information which negatively affects their effective participation in district development and this exacerbate the rural- urban imbalances. It is therefore imperative that information and communication technology is enhanced so that the rural- urban imbalance currently witnessed are bridged with the view of residents fully participating in developmental Programmes and do businesses effectively and efficient.

3.4.2 Existing and Proposed Investment and Development Programmes

The fundamental existing issues in Chipili district include poor road net making agriculture in capable of expanding and not doing well. The district is endowed with favourable soils and rainfall for agriculture however, the existence of this investment is however, hampered by poor road infrastructure which tend to be very bad and impassable especially during rainy season. Most of the roads in the district is gravel and not well defined as shown in table 10.

The proposed investment road Programmes is the construction of tarmac roads connecting to the district to the inward and outside areas. The Katakana-Lupososhi road and Mwenda-Kansonta Roads are among proposed developmental projects that would connect the district with other neighbouring districts. Other projects under implementation through the Constituency Development fund include the rehabilitation Kapwenge Road 5.9 kilometres. Others are Milulu to chikubi (13kilometres), Mwenda to kapalaula (4.1 Kilometres) under world Bank funding. In addition, the Council has procured earth moving equipment to help in grading of township roads. The equipment include, motor Grader, Bachoe loader, Tipping Truck, fuel bowser and the roller Compactor.

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

Chipili district being both a transport node and corridor, it has been envisaged that settlement patterns will continue to be linear, meaning that infrastructure development, to a larger extent commercial and institutional springs up alongside the trunk roads for easy access to goods and services in the process influencing the population distribution pattern. It is also anticipated that the residential land use adjacent to the commercial land use in the Central Business District (CBD) will in the process be converted to commercial because of the increasing demand for communication services. In the same manner, communication masts and other forms of communication infrastructure attracts concentration of populations in order to maximize wide service coverage resuting nodal development of settlements around nearby communication infrastructure.

3.6 Environment and Climate Change Analysis

Climate change is likely to cause a lot of damage to transportation or road infrastructure in certain sections of the Chipili-Mwense and Chipili-Kawambwa Roads through more severe storms and flooding, and high storm surges, affecting the reliability and capacity of transportation systems. District connector roads will not be an exception to the adverse effects of climate change, they are also at high risk of being damaged due to storms and floods.

3.6.1 The Impact of Existing Trends On the Environment and Climate Change

Consistent road construction and maintenance in the district is anticipated to have negative impact on the environment as most trees and other important biodiversity will be cleared to pave way for road construction. This may result in increased soil erosion and drought due to reduced transpiration.

3.6.2 The Impact of Environmental and Climate Change Issues On the Sector

The impact of climate change is likely to cause a lot of damage to transportation or road infrastructure in certain sections of the Chipili-Mwense and Chipili-Kawambwa Roads through more severe storms and flooding, and high storm surges, affecting the reliability and capacity of transportation systems. District connector roads will not be an exception to the adverse effects of climate change, they are also at high risk of being damaged due to storms and floods.

3.7 Issues Arising Relating to Gender Groups and Vulnerable Groups

The lack of basic infrastructure in Chipili district often hits women hardest, particularly in the rural areas. For instance, it was noted that women and young girls are the main individuals responsible for providing care and sustenance to the household such as collecting firewood and fetching water from far places compared to the men and the boys. In this regard, when essential forms of road infrastructure and communication are not adequate as it is in Chipili, these vulnerable gender groups which include school learners, pregnant women and girls, elderly people and patients are forced to spend significant amounts of time travelling to access different services. This has resulted in reduced economic productivity among vulnerable and gender groups. The assumption is that improved road infrastructure and communication should be adequate to ensure equal and inclusive access to for everyone in the district. Unequal access to different modes of transport systems by women, girls and vulnerable groups in Chipili is another underlying factors. This is because women and girls rely mainly on walking as the main form of transport compared to men who usually bicycles.

3.8 Consideration of the Underlying Factors Contributing to The Issues Identified

One of the issues identified in transport and Communication sector is Poor road infrastructure and communication service delivery that has been caused by lack of maintenance and upgrading of the existing roads to gravel. Lack of periodic maintenance of bridges and feeder roads in the district

has resulted in these structures being washed away during rainy season resulting in certain population being cut off from accessing important services. Lack of prioritizing the construction and maintenance of roads is another underlying factor that is detrimental to development in the district.

3.9 Sector Summary

Poor road infrastructure and limited Communication has been identified as the major factors contributing to under development and access to productive areas.

3.1 AGRICULTURE

3.1.1 Key Government Priorities Being And To Be Implemented At A Local Level (Review of Policies and Plans)

The livestock development policy, the National Aquaculture Policy, Reduction and elimination of infectious diseases by 2030 through enforcement of the Animal Health Act No, 27 of 2010 and the 8th National Development Plan are among national policies that will impact on socio-economic development and environmental conditions in the district, including population change and settlement patterns within the district.

3.1.1.1 National Aquaculture Policy

The objectives of National Agriculture Policy include promotion of sustainable increase in agricultural productivity of major crops with comparative advantage. This can be achieved at local level through integrated sensitisation of sustainable agriculture practices such conservation farming as well as continuously improve of agricultural inputs and product market so as to reduce the cost of doing agribusiness among small scale farmers of Chipili district.

3.1.1.2 The elimination of infectious diseases by 2030

The elimination of infectious diseases by 2030 premised by legal framework of the Animal Health Act No. 27 of 2010 will be achieved by integrated surveillance, planning and monitoring by the department of health Chipili Town Council, Department of livestock in order to mitigate the spread of diseases.

3.1.1.3 Nutrition Education

Nutrition Education through food utilization trainings and cookery field demonstration is another priority being implemented in Chipili District. These priorities intend to increase agriculture production and productivity which is key in achieving food, income and nutrition security at household level in an environmentally sustainable manner. Increased agri-food production is a key objective that would be attained through the promotion of competitive, efficient, and transparent public and private sector driven marketing system in agricultural input and output mechanisms.

3.1.1.4 Promotion of Sustainable Agriculture

The National Agriculture Policy encourages sustainable agricultural practices, including conservation farming, and aims to increase productivity. In Chipili District, the focus is on integrated sensitization of sustainable agriculture practices, continuous improvement of agricultural inputs, and market development to support small-scale farmers. These efforts are essential for reducing the cost of agribusiness and enhancing food security.

3.1.1.5 Agriculture as key priority of the 8th National Development Plan

Agriculture is the main source of income and employment for the population of Chipili district. Sustained growth in the agriculture sector is an important factor in reducing poverty and improving the livelihoods for the communities of Chipili. The agricultural sector is guided by the National Agricultural Policy (NAP) which draws its mandate from the National Development Plans in this instance, the Eightieth National Development Plan (8NDP) 2022–2026. The 8th National Development Plan emphasizes economic transformation and job creation. This plan involves capacity building, empowerment, and the Constituency Development Fund to bring economic development closer to the people. Community participation in economic and budgeting decisions through Ward Development Committees is vital for human and social development

The key priorities being implemented in Chipili district under the Ministry of Agriculture include; sensitisation and promotion of climate-smart agricultural practices, through the provision of climate-sensitive seed varieties, land management practices (crop rotation and soil nutrition management). The other priority is irrigation development; the district is implementing smallholder irrigation promotion through the construction of both permanent and temporal weirs. In addition, at local level, the government through local authorities are empowering citizens with

capacity and financial building through Constituency Development Fund grants and community loans. In order to transform the economy of the people of Chipili, Government has prioritised agribusiness promotion through local entrepreneurship trainings and district value-chain analysis by implementing a market-oriented agriculture.

3.1.2 Assessment of The Existing State of Development

On agriculture and livestock, the state of development in the district is that the sector has diversified the economy growing of maize, rice, sorghum, millet, wheat, groundnuts, mixed beans, seed cotton, cassava, mango, avocado, sugar beans and other drought resistant crops. This is spearheaded by various departments and sectors which includes agriculture, livestock, water, and healthy. In addition, the status of livestock and fish development in the district is underperforming due to climate change, bad fishing practices, livestock diseases and limitations in the techniques for sustainable livestock and fish production. Despite the district receiving moderate rainfall coupled with fertile soils for agriculture and vegetation for livestock, the sector is however facing huge challenges ranging from poor road water transport infrastructure, livestock disease burden to slow transformation from small scale subsistence farming to commercial farming. These challenges have negatively affected the state of development of livestock and agri-food production.

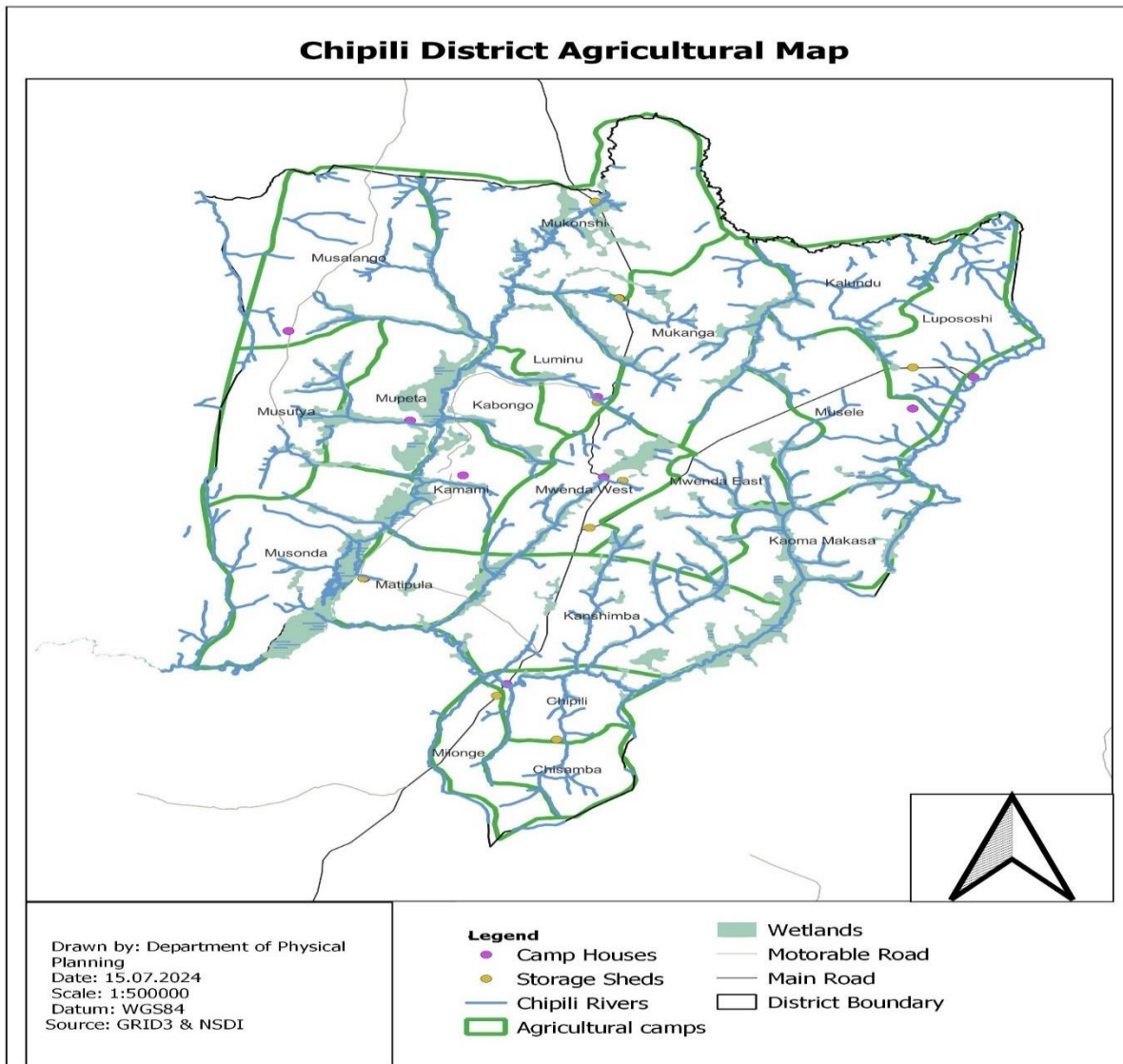
3.2.1 Availability of service

The performance crop agriculture in the district on various sectors of the economy is fair though it is very slow currently standing at 47%. The notable crops in agriculture includes cassava, sorghum, maize and millet. Agriculture seem to be showing some notable improvements especially the urban areas of the district, it is however important to state that there is low production in sorghum currently trailing at 31% and millet at 41% compared to maize and cassava which is in high production. In addition, successful agriculture development is not taking place in every ward in the district due to limited agriculture inputs and machinery, inadequate agriculture personnel and poor transport infrastructure. (Department of Agriculture and Livestock, Chipili district, 2021).

Chipili district has 15,805 farmers registered through the Zambia Integrated Agricultural Management Information System (ZIAMIS) and represents a 6.7% of all the farmers registered in Luapula province. The farmers are distributed across 21 agricultural camps which are further grouped into 5 blocks (Department of Agriculture and Livestock, Chipili district, 2021). Each camp is managed by an extension officer who offers extension services to the farmers. The state

of present supply of services from extension officer is inadequate as they are few to cover far areas making routine monitoring and sensitization difficult. The number of farmers is not expected to change significantly due to the large number of youths among the current farmers, therefore the demand is not projected to change. See Figure 17 below depicting agriculture services and infrastructure

Figure 17: Depicting Agriculture Camps



Source: Chipili Town Council Planning Department 2023

3.2.2 Quality of Service including key indicators of Performance

3.2.2.1 Poor yields/productivity

The quality of agricultural performance in the district is poor. The sector has persistently recorded low productivity levels. For instance, Maize yield averages are less than 2.0mt/ha compared to 10mt/ha potential for some varieties. In addition, the productivity levels in Cassava yield averages are 8 MT/ha compared to a potential of 30-40 MT/ha while Soybean yields are only 1.2 MT/ha compared to the potential of 3MT/ha. Further, Sorghum yields in the district are 0.4 MT/ha against their potential of 2 MT/ha, and rice yields are 1.3 MT/ha against the potential of 5 MT/ha while Groundnuts yields are 0.63 MT/ha against the potential of more than 3 MT/ha. Low yields are caused by low levels of adoption and/or uptake of improved agricultural technologies including agronomic practices, by poor animal husbandry, and by livestock diseases as well as limited access to improved quality seeds and breeds, and appropriate seed varieties.(Department of Agriculture and Livestock, Chipili District, 2021).

3.2.2.2 Inadequate extension support services

The extension farmer ratio stands at 1:1200 as compared to the recommended 1:400 and for livestock production up to 1:3000. The farmer population in the district has grown with increased demand for agricultural extension services without any corresponding increase in the number of extension workers at field level. In addition, the district faces inadequate operational logistical support such as transport, and appropriate accommodation (staff houses and offices). This is coupled with limited technical capacity and an inadequate/lack of supportive training centres (knowledge gap in participatory extension service delivery methods among graduates resulting in the ineffective dissemination of agricultural innovation). In addition, trainings in PEA methodologies inadvertently left out veterinary services and fisheries extension staff, thereby further widening the knowledge gap.

3.2.3 Issues Arising From The Public Participation Process

3.2.3.1 Availability Of Service

The agriculture sector in Chipili District faces several challenges that may hinder its ability to meet the growing demand for food and income. Some of these challenges cited by the public include low productivity in certain crops such as maize whose average yield of maize is estimated at 1.5 tonnes per hectare, which is below the national average of 2.5 tonnes per hectare. This is due to poor soil fertility, inadequate use of improved seeds and fertilizers, pests and diseases, erratic

rainfall and climate change. Poor infrastructure in the district was another critical area of concern by the community. The district has poor road network, which makes it difficult for farmers to access markets, inputs and services. The roads are also prone to flooding during the rainy season, which disrupts the movement of goods and people. The district also lacks adequate storage facilities, processing plants and irrigation schemes.

In addition, During stakeholder participation, it was discussed that the district is currently experiencing the cultivation of cassava, maize, sorghum, millet and beans. However, it was noted that the cultivation of these crops is on small scale and mainly for consumption and the remainder is sold on cheap price mostly to breweries and milling companies. In addition, there is lack of value addition to crops such as maize and cassava as a result, the farmers tend to lose financially as a result of low prices.

3.2.3.2 Quality Of Service Including Key Indicators Of Performance

The quality of services in agriculture is poor due to poor road infrastructure which has heavily hampered effective transportation of in-puts and crop yields. The roads which are mainly gravel in nature are bad making accessibility to far places within the district very difficult. High extension worker to farmer ratio: The district has only 12 extension workers to serve about 10,000 farmers. This means that each extension worker has to cover about 833 farmers, which is far above the recommended ratio of 1:400. This limits the access to information, training and technical support for the farmers.

From the public consultation, it was observed that the district is facing poor quality in agriculture resulting in poor yields and other related post-harvest losses. This has been attributed to over-reliance on some traditional storage structure, inadequate and dilapidated storage infrastructure increase post- harvest losses, pests, and difficulties in transportation arising from bad road network. Post-harvest losses can occur at all stages of the value chain between the farmer's field and the consumer's fork. It is estimated that total post-harvest losses in sub-Saharan Africa amount to one-third of total food production (in volume) (FAO,2011). In Zambia, high post-harvest losses range from 30-40% due to poor storage and handling given limited access to related technology, tools, and infrastructure. In addition, underdeveloped cold chains and processing also contribute to post-harvest losses especially for fruits and vegetables. In addition, the community revealed that the production of maize and sorghum is low relative to the production of cassava.

3.2.4 Impact of Changes Anticipated Over The Next Ten Years

3.2.4.1 Population Change – Future Demand for Services and Facilities

The population of the district is likely to increase to about 58, 452 during the Intergrated Development Plan period. As a result the demand for more arable land in agriculture is likely to increase. The demand in agriculture is likely to bring both negative and positive changes to the district. The district is likely to have increased production due to anticipated of agriculture land but at the same time, the district is likely to experience negative impacts of climate change due to the clearing of land.

3.2.4.2 Existing and Proposed Investment And Development Programmes.

Currently, the district through its Local Authority has identified potential areas for large scale farming and it is in the process of entering into Planning Agreements with two Chiefdoms that is Chief Mutipula and Chief Mwenda in order to venture into both large and small scale farming. In addition, Kapwenge Farm Block is the existing potential agriculture area the district has identified through the Office of the Vice President under, Resettlement Department. The area has a resettlement scheme that is expected to have more than 70 farmers engaging in different agriculture activities from crop to livestock and agro forestry.

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

Distribution Patterns

The agriculture sector is facing significant challenges due to the continuation of existing trends in land use and population distribution patterns. The increase in population for the district implies that population distribution pattern may be in the form of linear that is along the main road and river streams. However, the crop sub sector will face increased competition for land and water from the fisheries and livestock sub sectors, as well as from urbanization and industrialization. This may reduce the productivity and profitability of crop farming, especially for smallholders and marginal farmers. The crops sub sector will also have to cope with the impacts of climate change, such as droughts, floods, pests and diseases, which may affect crop yields and quality. To overcome these challenges, the crops sub sector will need to adopt more efficient and resilient farming practices, such as conservation agriculture, precision farming and agroforestry.

3.2.6 Environment and Climate Change Analysis

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

The agriculture sector is a major contributor to the global economy, food security and livelihoods. However, it also has significant environmental impacts, such as greenhouse gas emissions, land degradation, water pollution and biodiversity loss. These impacts can exacerbate the effects of climate change and threaten the sustainability of the sector and its sub-sectors (crops, fisheries and livestock). The impact of existing trends on the environment and climate change of the agriculture sector varies depending on the sub-sector. For example, crop production is responsible for about 60% of the sector's greenhouse gas emissions, mainly from fertilizer use, soil management and rice cultivation.

Efforts should be made to mitigate the environmental impacts of the agriculture sector and its sub-sectors, such as adopting more efficient and sustainable practices, reducing waste and losses, enhancing carbon sequestration and adaptation capacity, promoting diversification and innovation, and strengthening governance and cooperation.

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

The agriculture sector in Chipili district is vital for food security, income generation and poverty reduction. However, the sector is likely to be negatively affected by adverse effects of environmental and climate change. The effects of environmental and climate change may include soil erosion, deforestation, water scarcity, droughts, floods, pests and diseases. These issues affect the productivity and profitability of the sub-sectors of crops, fisheries and livestock, as well as the livelihoods and well-being of the farmers and fishers. For instance, soil erosion reduces soil fertility and crop yields, deforestation reduces biodiversity and water catchment areas, water scarcity limits irrigation and aquaculture potential, droughts and floods damage crops and infrastructure, pests and diseases reduce crop quality and animal health, and so on. Therefore, there is a need to address these issues for sustainable development of the agriculture sector and its sub-sectors in Chipili district. Some possible interventions include promoting conservation agriculture, agroforestry, rainwater harvesting, drought-tolerant and pest-resistant crop varieties, integrated pest management, climate-smart livestock production, sustainable fisheries management, and capacity building of farmers and fishers on adaptation and mitigation strategies.

3.2.7 Issues Arising Relating to Gender Groups and Vulnerable Groups

The agriculture sector in Chipili district faces several challenges related to gender and vulnerable groups, such as women, children, elderly and disabled people. There are more numbers of women, young girls and children who actively participate in agricultural activities than men and boys. These groups of women and girls are considered to be a source of labour creating a big challenge on the school going girls and children. The district has noted that the population comprising men and boys mostly participates less in agriculture of their own but engage in piece works in the cultivation of other peoples fields making women, children and elderly vulnerable. In addition, there is lack of access to land, credit, inputs and markets for women farmers, who constitute the majority of the agricultural labor force in the district and there is high prevalence of child labor, especially in the cassava and maize cultivation, which exposes children to health and safety risks and deprives them of education opportunities.

3.2.8 Consideration Of The Underlying Factors Contributing To The Issues Identified

The identified issues in agriculture were low yields and productivity and low extension services. The Underlying factors contributing to issues in the agriculture sector included critical shortages of effective transport networks due to bad roads, low staffing levels and ineffective tradition agriculture methods used. Some of the underlying factors of these challenges are:

3.2.8.1 Low investment in Agriculture

The farmers in the district have limited access to credit and financial services, which hinders their ability to invest in improved inputs, technologies and practices. The government and other stakeholders also have low budget allocation and expenditure for the agriculture sector, which affects the provision of public goods and services such as research, extension, infrastructure and subsidies.

3.2.8.2 Weak institutional capacity

The district has weak institutional capacity to plan, coordinate, implement and monitor agricultural policies and programs. The extension workers are poorly, motivated and equipped to deliver quality services to the farmers. The farmers' organizations are also weak and fragmented, which limits their collective voice and bargaining power.

3.2.8.3 High vulnerability

The district is highly vulnerable to external shocks such as climate change, natural disasters, price fluctuations and market failures. The farmers have low adaptive capacity and resilience to cope with these shocks, which exposes them to food insecurity, poverty and malnutrition.

3.2.8.4 Lack of Diversification

Lack of effective diversification in Agriculture is among core issues the district of Chipili is facing. Agriculture especially in crops such as sorghum, millet, maize and cassava are among the existing development ventures taking place in Chipili district. This venture however is facing serious challenges of lack of effective diversification making it difficult to survive adverse effects of climate change. The district has other potential agriculture areas such as horticulture.

3.2.9 Summary of the Agriculture Sector

Agriculture is the main economic activity in Chipili and it involves the cultivation of maize, cassava, millet, sorghum and other related crops. The district is also into livestock production of goats, cows, and piggy. The district however faces a number of challenges which includes low production, low investment, poor transport systems and lack of value addition mechanisms.

3.3 FISHERIES AND LIVESTOCK

3.3.1 Key Government Priorities Being and To Be Implemented at a Local Level (Review of Policies and Plans)

Government has continued to implement several interventions aimed at improving fisheries and livestock production and productivity in line with the aspirations of the Eighth National Development Plan (8NDP) and the Vision 2030. To fulfil its key mandate of improving livestock production and productivity, the notable Programmes that are being implemented include livestock stocking and restocking using improved livestock breeds, promotion of forage and fodder production and utilization, improved livestock infrastructure and improved livestock disease control. Despite these interventions, the livestock subsector still faces a number of disease outbreaks and other challenges throughout the country which has negatively affected its growth. The key priorities are critical for ensuring food security, economic growth, and sustainable development in the district. In Chipili District, the government has outlined key priorities for the

fisheries and livestock sectors, aligning with national policies and plans. These priorities are critical for ensuring food security, economic growth, and sustainable development in the district.

3.3.1.1 Sustainable Fisheries Development

The government recognizes the importance of fisheries in providing food and income for local communities. In Luapula Province, for instance, there are over 700 earthen fish ponds held by 140 fish farmers. These ponds play a significant role in fish production, with 54 percent of them stocked. The National Aquaculture Policy is a crucial policy instrument aimed at promoting the sustainable development of aquaculture in the district. The expansion of fish farming and the implementation of the policy are vital for increasing protein production and supporting the livelihoods of local communities.

3.3.1.2 Livestock Sector Enhancement

The livestock sector in Chipili District is characterized by a sizable herd of cattle (over 4500 herds) and a significant number of goats (over 20,000). However, productivity in the sector, measured by the rate of calving and kidding, remains low. To address this, the government is implementing policies such as the Livestock Development Policy and the Animal Health Act No. 27 of 2010. These policies aim to improve livestock health, promote better breeding practices, and eliminate infectious diseases by 2030. Strengthening the livestock sector is crucial for meeting the protein demand driven by population growth.

3.3.1.3 Economic Transformation and Job Creation

The 8th National Development Plan emphasizes economic transformation and job creation. This plan involves capacity building, empowerment, and the Constituency Development Fund to bring economic development closer to the people. Community participation in economic and budgeting decisions through Ward Development Committees is vital for human and social development.

3.3.1.4 Environmental Sustainability

Good governance and environmental sustainability are important aspects of development in Chipili District. Collaboration with devolved ministries such as forestry, natural resource management, mining, and agriculture is critical for promoting environmental sustainability and ensuring responsible land use.

Elements of national policies and plans that are being implemented at the local level include facilitation and support for the development of sustainable, diversified, and competitive fisheries and livestock sectors to ensure food and nutrition security, job creation, and GDP contribution. In

addition, the district is working on the reduction and elimination of animal diseases in the livestock sector to promote productivity while promoting new technologies in animal husbandry through sensitization, empowerment, capacity-building, and routine disease surveillance. In addition, the district is promoting and facilitating fisheries and livestock trade through market trends bulletins issued to different stakeholders via Ward Development Committees.

Further, the government has continued to review the current legislation under the Livestock sub-sector. Specifically, efforts were directed towards the amendment of the Animal Identification and Traceability, Veterinary and Para Professions and Livestock Development Bills aimed at improving the sustainable management of the sector. The finalization of the Ministry Strategic Plan was also prioritized during the period under review. Under animal health, Programmes such as vaccinations and immunization of animals were prioritized. Likewise, strengthening of extension service delivery, Research and Development (R&D) for sustainable fish and livestock production and productivity. Additionally, Government continued to enhance market linkages for both fish and livestock products in order to promote trade.

3.3.2 Description of the Existing State of Development

3.3.2.1 Availability of Service

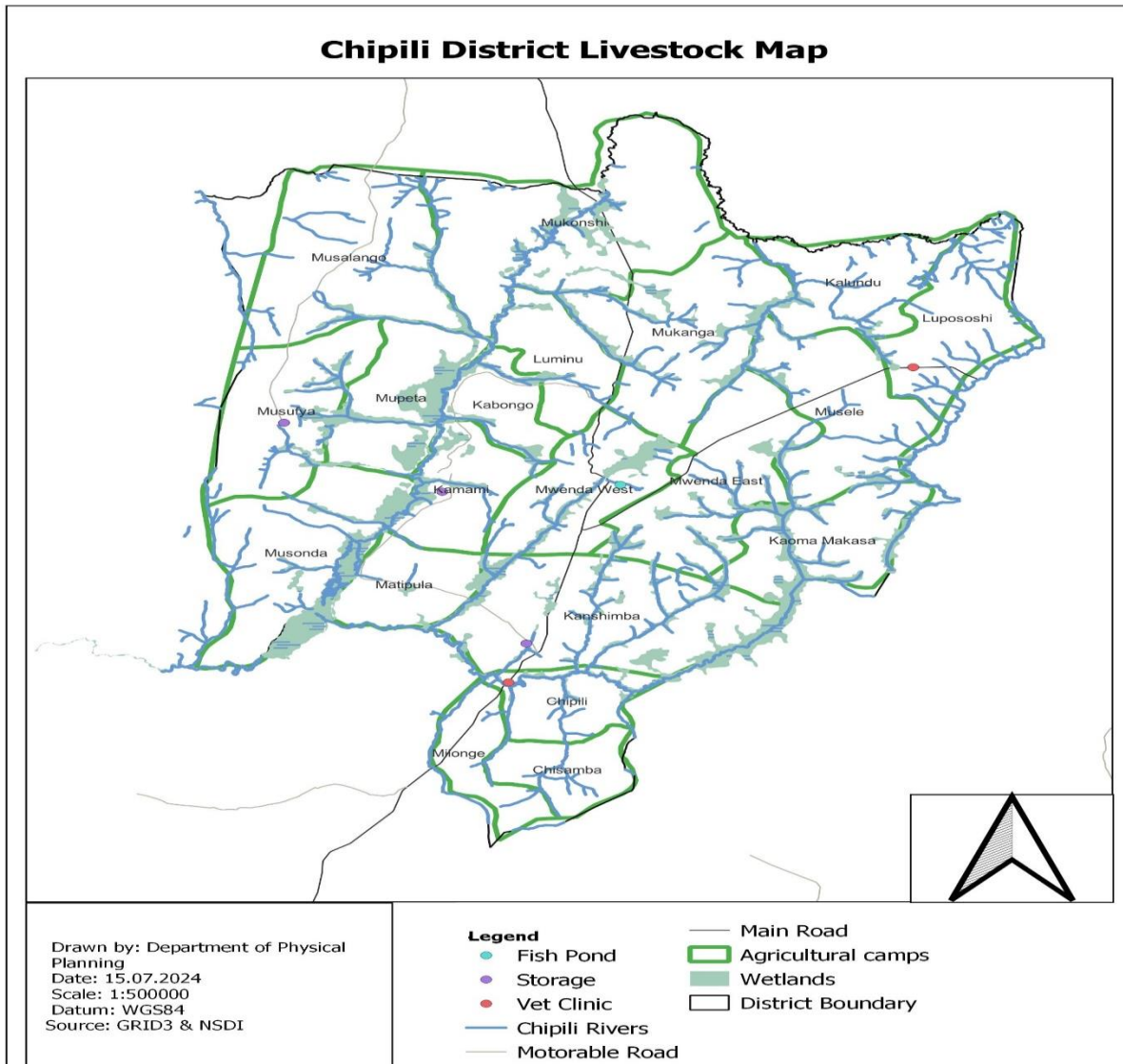
The district benefits from a comparatively abundant supply of services, including veterinary care which includes Dip tanks, Vet Clinics, livestock services and availability of pastures services, and aquaculture services(availability of wetlands). The district enjoys green pasture for much of the year for large ruminants due to dambos spread across the district and a relatively sizable herd especially for large ruminants. Chipili district has over 4,500 herds of cattle with over 20,000 goats. The Productivity (i.e. the rate of calving and kidding) in the sector is low. This has been attributed to lack of production knowledge on the part of farmers and the low number of breeding bulls in most kraals.

Most poultry farmers are those keeping village chickens and they are very few poultry farmers who are into layers and broilers. The major constraints have been the lack of poultry inputs like day old chicks and feed. The fisheries sector is growing with a total number of over 700 earthen fish ponds. These ponds are held by 134 fish farmers scattered across the district. 54 percent of these fish ponds are stocked.

The present available services/facilities include; Aquaculture services, Veterinary services and Livestock services which demand is increasing. For now, Chipili is a folder bank. The district lacks

an organized livestock market or facilities and traditions and culture that are not inclined towards livestock keeping. See the Figure 18 below depicting Veterinary services.

Figure 18 depicting veterinary services



Source: Chipili Town Council Planning Department 2023

A total number of ten thousand seven hundred and twenty-two (10,722) of the 15,805 producers registered with the Zambia Integrated Agricultural Management Information System (ZIAMIS) in the Chipili district own livestock. As the sector expands, however, there is a greater demand for additional services. The aquaculture productivity rate in the District is depicted in table 11 below.

Table 11: Aquaculture productivity data of fish farmers by ward in Chipili

SN	Wards	# Fish farmers	# Fish ponds	Actual surface area (m ²)	Stocking rate (fish/m ²)	Actual fingerling demand	Harvest size (g)	Est. Biomass (kg)
1	Chibalashi	26	75	14,544	5	72,720	250	18,180
2	Lufubu	7	18	5,990	5	29,950	250	7,488
3	Mumbwe	10	31	17,570	5	87,850	250	21,963
4	Kabuta	16	46	10,112	5	50,560	250	12,640
5	Nalupembe	20	37	8,150	5	40,750	250	10,188
6	Nsenga	12	63	34,562	5	172,810	250	43,203
7	Mweshi	11	47	8,523	5	42,615	250	10,654
8	Nkongwe	23	48	9,260	5	46,300	250	11,575
9	Makabe	11	20	3,365	5	16,825	250	4,206
10	Musufya	5	8	961	5	4,805	250	1,201
11	Kanshimba				5	-	250	-
12	Chulu Luongo				5	-	250	-
	Total	141	393	113,037		565,185		141,296

Source: Chipili Town Council-Department of Fisheries, Livestock and Veterinary Services,2023

3.2.2.2 Quality of Service Including Key Indicators of Performance

The quality of services in the sector is currently poor due to factors such as inadequate manpower, insufficient transport for extension staff, low community participation, and a lack of awareness and sensitization programs. The extension staffs are dispersed among seven veterinary/livestock camps. Each camp is anticipated to be overseen by three extension officers, namely an aquaculture assistant, a veterinary assistant, and an aquaculture assistant. Their responsibility is to furnish extension services to the fish and livestock producers. The Food and Agriculture Organization states that the ratio of one extension officer to farmer is 1:400; therefore, Chipili District is anticipated to have a minimum of 26 extension officers to assist farmers with animal health, livestock production, and aquaculture. The current provision of services by extension officers is insufficient, as their number is insufficient to cover large areas, which complicates routine monitoring and sensitization. For instance, Chipili District had only one (01) livestock assistant and four (04) veterinary assistants at the end of 2023, which is below the required ratio of extension workers to farmers. (Chipili District Office, 2023).

The district enjoys relatively good availability of services such as aquaculture services, veterinary services, and livestock services. However, there is a demand for more services as the sector is growing. The district in addition, is relatively free of major animal diseases of economic importance.

Key indicators of performance indicate that there is room for improvement in service delivery. In addition, the district's current sector services and facilities are in a deplorable state due to inadequate knowledge from farmers, low community participation, the absence of fisheries and livestock input suppliers in the district, and myths surrounding aquaculture and livestock. The current provision of each sector service (livestock development services, aquaculture services, and veterinary services) in the district is inadequate. The sector's subpar performance has been attributed to several underlying factors, including the government's failure to procure motor vehicles and motorcycles for extension purposes, inadequate awareness and sensitization programs, inadequate financing for stocking and restocking interventions as well as low staffing levels. More interventions of extensions officers need to be concentrated on Camps with relatively large numbers of animals such as Kamami with 2200, Chipili with 3,532 and Kalundu with 2330. On the other hand, camps with low populations of animals such as kaoma Makasa with 771 and

Mukonshi with 1068 require restocking and more animal husbandry services as depicted in table 12 below.

Table 12: Livestock population in Chipili by Veterinary Camp

Veterinary Camp	Cattle (Bovine)	Goats	Sheep	Pigs	Rabbits	Village Chickens	Broilers	Layers	Guinea fowls	Quails	Ducks	Total
Chipili	490	980		148	145	1020	400	-	20	12	317	3,532
Mwenda	400	300	12	8	-	350	200	-	17	-	40	1,327
Kaoma Makasa	160	280	18	153	-	100	-	-	10	-	50	771
Kamami	2,200	320	-	93	-	245	-	-	30	-	60	2,948
Mutipula	112	324	-	96	-	374	200	-	-	-	30	1,136
Mukonshi	86	273	48	532	-	109	-	-	-	-	20	1068
Kalundu	150	800	-	300	-	1000	-	-	30	-	50	2,330
Total	3,598	3,277	78	1,330	145	3,198	800	-	107	12	567	13,112

Source: Chipili Department of Fisheries, Livestock and Veterinary Services, 2023

3.2.3 Issues Arising From the Public Participation Process

3.2.3.1 Availability of Service

Issues arising from public participation revealed that the district has the potential to expand its livestock and fishing coverage provided the sector was prioritized. The district faces numerous challenges which includes: delays in assessment of an outbreak of diseases, livestock disease control and management. In addition, the community observed that the sector is not doing well and there is limited public engagement. There's a need to enhance public involvement in the development of the livestock and fisheries sector.

3.2.3.2 Quality Of Service Including Key Indicators Of Performance

During public consultation, it was revealed that the quality of fishing fingerlings is poor and inadequate. The community observed that in most cases the breed of fish supplied is prone to numerous diseases hence they experience stunted growth and die prematurely. In addition, livestock in the district is poor due to lack of disease control mechanisms. In addition, there is limited knowledge by the community on how to effectively take care of the animals. Moreover, the livestock infrastructure in the district is deficient, as at present there are merely two unfinished livestock service centers. The absence of facilities for livestock quarantine, dispatch, and marketing presents significant challenges in terms of disease control and animal marketing. At Mwenda, the District maintains an Aquaculture Breeding Center that provides producers with tilapia fingerlings. However, due to the absence of a hatchery, this establishment is unable to supply the fingerling requirements of producers both within and beyond the district. The dismal performance of the agricultural sector in Chipili District, particularly among small-scale farmers, has been attributed to several factors.

3.2.4 Impact of Changes Anticipated Over the Next Ten Years

3.2.4.1 Population Change-Future Demand for Services and Facilities

The population in the district is expected to grow by 1.6 percent annually representing about 47558 people. The increase in population is expected to push the demand for protein. The only sustainable way of meeting the demand for protein will be by increasing production in the poultry, fisheries and meat animals. This will call for increased investment in the fisheries and livestock sector. The population of large ruminants has grown over the past seven or five years hence depending on how

fast the district will develop in other sectors, like the commercial sector, this may push other players to support the fisheries and livestock subsector.

3.2.4.2 Existing and Proposed Investment And Development Programmes

Livestock is central to the livelihood of most people and is strategically important for food and nutrition security, a source of income, animal draught power and has aesthetic value. Currently, the sub-sector contributes 3.2% to the national GDP and 42% to the agriculture GDP and has the potential to deliver both agricultural led growth and socio-economic transformation as aspired by the Eight National Development Plan (8NDP) and the Vision 2030(8NDP, 2023). The demand for livestock and livestock products has remained sustainably high due to the steady population growth and the regional and international markets are also unmet.

Arising from the above, various investment and development programs have been identified in the livestock and fisheries sector to meet the growing demand and improve services. Some of the proposed development programs in the sector are outlined in table 13 below. In addition, various cooperatives and clubs have been supported to venture into livestock and fish farming using the Constituency Development funds(CDF) for the years 2022, 2023 and 2024.

Table13: Livestock Infrastructure Needs for Chipili District By 2028

Health Facilities	MFL Standards/Catchments	Population served	No	Plot Size Ha (Min)	Plot Size Ha (Max)	Existing No. Provided	Additio nal no. require d	Total Required based on a total population of 36,584 as of 2019 and 3739 increase in population by 2026	Total area require d
Livestock Service Centers	300 Herds of cattle.	5000 herds of cattle	1	50Ha	50Ha	2	5	More service centers will be needed as the population of livestock is projected to increase	50Ha
Mwenda Fish Farm	100000 fingerings	~	1	10 ha	10 ha	1	0	Production of fingerings will need to increase to meet the growing demand both in the district and the province	10 ha

Range Land/ for Livestock Under E-SLIP	300 Herds	300	1	20,000Ha	20,000 Ha	1	1	One more rangeland will be needed to cater for the growing grazing needs of large ruminants	20,000 Ha
Slaughter Slab/Abattoir	5,000Herds of Cattle	5,000	1			0	2	Two more slaughter slabs would needed if the projected livestock population growth would be realized	
Quarantine Centre	300 Livestock	300	1	100Ha	100Ha	0	1	A quarantine centre will be needed as more animals are being brought into the district.	100Ha

Source: Department of Fisheries, Livestock and Veterinary Services, Chipili District 2022

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

With the projected increase in the fisheries and livestock sector, more water and grazing land will be needed to accommodate livestock, impacting negatively on land use and population distribution patterns especially in dry seasons. The projected increase in the number of farmers involved in the agriculture fisheries and livestock sector will have different impacts on each sub sector, as well as on the environment and society. The fisheries sub sector will require more water resources to sustain the growing demand for fish and aquaculture products. This may lead to over-exploitation of freshwater and marine ecosystems, as well as conflicts with other water users, such as irrigation, hydro-power and domestic consumption. Moreover, the expansion of aquaculture may cause pollution, habitat degradation and biodiversity loss, especially if not regulated and monitored properly. The livestock sub sector will need more land for grazing and fodder production, which may result in deforestation, soil erosion and desertification. The conversion of natural habitats to pasture land may also reduce the availability of ecosystem services, such as carbon sequestration,

water regulation and wildlife conservation. Furthermore, the intensification of livestock production may increase greenhouse gas emissions, animal waste and antibiotic resistance, posing risks to human health and climate change mitigation.

3.2.6 Environment and Climate Change Analysis

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

The growth of the agriculture and livestock sector may have adverse environmental impacts, and efforts should be made to mitigate these. Since the population in the district is anticipated to continue increasing, more land is expected to be cleared for agriculture and livestock activities and this will turn cause adverse effects of climate change such as flooding, drought, and damage to biodiversity. Crop production consumes about 70% of the world's freshwater resources and causes soil erosion and nutrient runoff. Fisheries and aquaculture contribute to about 20% of the sector's greenhouse gas emissions, mainly from fuel use, feed production and processing. They also affect marine and freshwater ecosystems through overfishing, habitat destruction and invasive species. Livestock production accounts for about 15% of the sector's greenhouse gas emissions, mainly from enteric fermentation, manure management and feed production. Livestock production also occupies about 80% of the world's agricultural land and contributes to deforestation, desertification and biodiversity loss.

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

The sector may also be affected by environmental and climate change issues, which need to be addressed for sustainable development. As more land is cleared to pave way for agriculture and livestock, adverse effects of climate change such as drought and floods are likely to negatively cause more damage to agriculture and livestock sector. Fisheries and livestock faces many challenges arising from environmental degradation and climate change issues. These challenges includes; soil erosion, deforestation, water shortage, droughts and floods. These issues affect the fisheries and livestock production, as well as the livelihoods and well-being of the farmers and fishers.

3.2.7 Issues Arising Relating to Gender Groups and Vulnerable Groups

Both the male and female gender are involved in livestock rearing though more males are involved in the rearing of large ruminants and more women are involved in the rearing of small animals like goats and poultry. Very few vulnerable individuals like the disabled are involved in livestock rearing in the district. In addition, the district faces limited participation of women and vulnerable

groups in decision-making processes and extension services, which limits their access to information, skills and technologies. Furthermore, there is increased vulnerability of women and vulnerable groups to the impacts of climate change, such as droughts, floods, pests and diseases, which affect their food security and livelihoods. Gender-based violence and discrimination arising from the ownership of , which affects the physical and mental well-being of women and vulnerable groups and reduces their productivity and income.

3.2.8 Consideration Of The Underlying Factors Contributing To The Issues Identified

The major issues identified in the sector is low production which is a result of poor transport systems, adverse effects of climate change, low staffing levels, traditions and culture not favoring livestock keeping, and low community utilization of services.

3.2.9 Summary of the Livestock Sector

In summary, the livestock sector in Chipili District faces challenges and opportunities, and the plan should focus on improving service quality, enhancing public participation, addressing environmental impacts, and supporting the growth of the livestock and fisheries sectors to meet future demands and improve the livelihoods of the local population.

3.3 EDUCATION

Education is an important sector for the development of the country and the district has embraced education to be one of the important sector of the Integrated developmet plan.

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

3.3.1.1 Re-entry Policy

Provision of Education in the District is governed and regulated by the Education Act No.23 of 2011 its quest to contribute towards achievement of Development Outcome 1 of the Eighth National Development Plan (8NDP), “Improved Education and Skills Development,” the district implements the following policies, strategies and plans including free education policy from primary to secondary education in all public schools, Re-entry policy which allows girls who dropped out due to pregnancy to return to school after child birth, provision of early childhood education in thirty six (36) Primary Schools, provision of education to Learners with Special Education Needs (LSEN) through inclusive learning, provision of adult education, infrastructure development, ICT promotion and school health and nutrition.

3.3.1.2 Key Priorities of Sector Specific National Plans/Strategies

Currently, the key priorities in the sector are to ensure that no children sit on the floor during learning hours, that all schools should have new piped water schemes or boreholes where construction of water schemes is not feasible, water borne toilets by 2030 and to expand and improve infrastructure through the construction of new facilities and rehabilitation of existing ones. This is in an effort to improve the quality of the education service delivered to the learners a guided by the 8 NDP

3.3.2 Description Of The Existing State Of Development

3.3.2.1 Availability Of Service

Chipili district has forty-one (41) primary Schools, two (2) community schools and seven (7) secondary schools giving a total number of fifty-one (51) schools as depicted in table 14 . There are no tertiary institutions. Primary Schools are evenly distributed across the 12 wards in the district with a minimum of at least 3 schools per ward. A good number of schools are located within the 5km radius catchment, catering to the education needs of the communities, although 16 Primary schools are located above the standard 5km radius, a situation which leads pupils to cover long distances to access primary education services.

The district has two boarding schools namely Chipili Secondary and Mwenda Secondary which accommodate pupils from a distance of about 40 km to 50km, although one of the schools is currently incomplete and the boarding facilities are not yet operational.

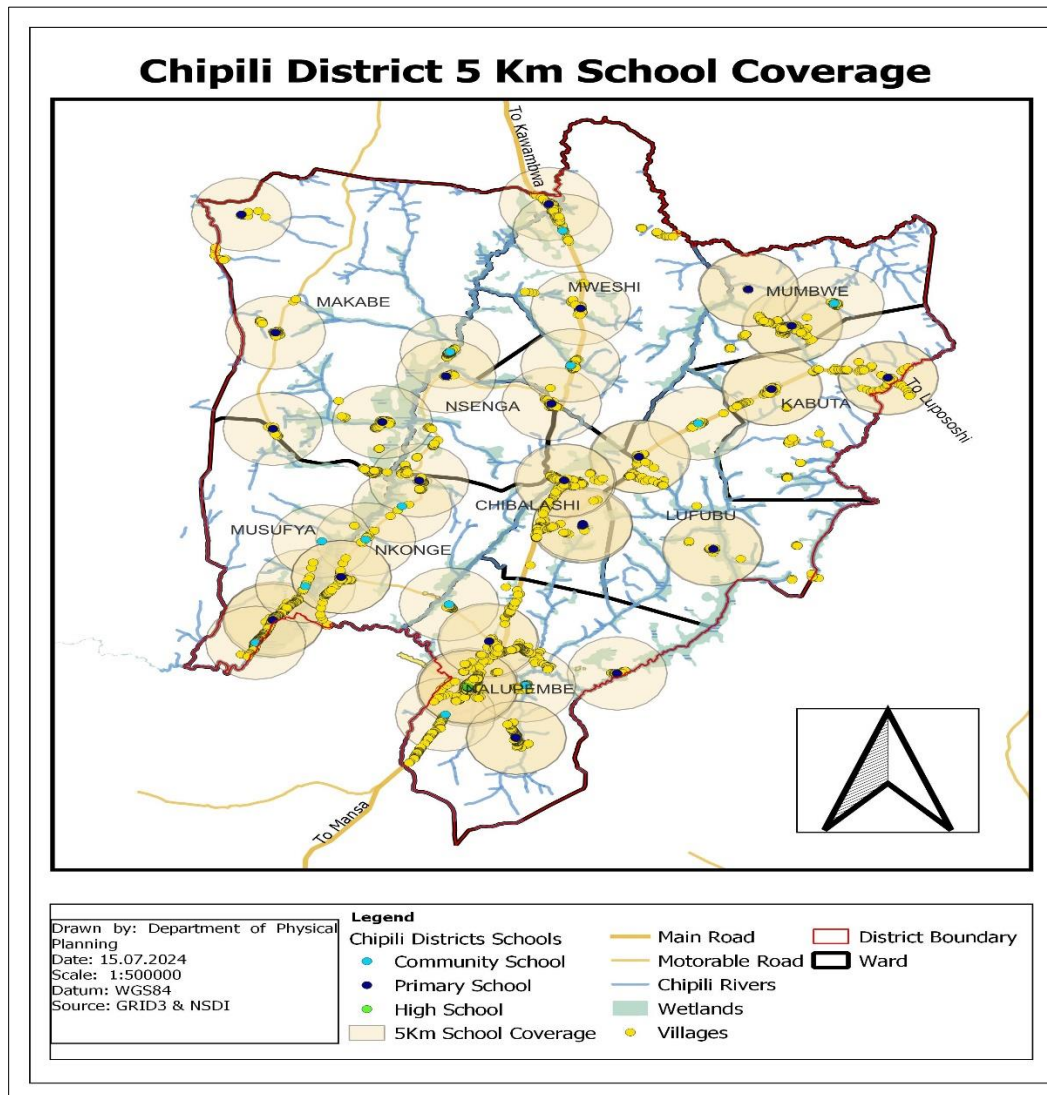
Table 14: Showing Distribution of Primary and Secondary Schools

DESIGNATION	RUNNING AGENCY	NUMBER OF SCHOOLS
Primary (1-7)	GRZ	27
Primary (1-9)	GRZ	14
Secondary (1-12)	GRZ	4
Secondary (8-12)	GRZ	2
Secondary (8-12)	GRANT-AIDED	1
Community schools	Community	3
	TOTAL	51

District Education Board Secretary, Chipili District ,2023

Generally, the total number of pupils has been increasing in the district between 2021 and 2023. The enrolment in 2021 for Early Child Education (ECE) was 184 boys (43.4%) and 239 girls (56.6%). This increased to 478 boys (44.9%) and 585 girls (55%) in 2022, representing an increase of 4.14 % for both boys and girls. In 2022, district enrolment for term 1 2023 is 602 boys (45%) and 803 girls (55%) representing an overall increase of 1.43%. (District Education Board Secretary, Chipili, 2023)

Figure 19: Map Showing Spatial Distribution of Schools in the District



Source: Chipili Council Physical Planning Department, 2021

The enrolment shows more girls being enrolled compared to boys in lower grades, but as the grades progress the number of boys tends to exceed that of girls in upper grades all the way to secondary level. Nevertheless, enrolment for the 3 years shows the Gender Parity Index (GPI) is lower than 1,

which means that they are more males than female attending school in the district generally. Table 1.0 below shows the number of pupils in the district in ECE, Primary and Secondary from 2021 to 2023. The total number of pupils enrolled increased from 13,142 to 17,997 which, shows an increase rate of 24% over the reporting period. The increase can be attributed to the continued effects of the 2021 introduction of free Education Policy from Grade 1 to 12, the growing number of community schools and the increase of classroom spaces through infrastructure development.

At ECE, there are more girls enrolled than boys with a total enrolment of 1,199 learners. The population of children in the age range of 3- 6 years who are eligible to access ECE services was 670. As for enrolment of early child hood, the coverage of care, learning and education services remains persistently low in the district due to lack of sufficient infrastructure, age appropriate furniture, long distance to the few ECE Centres and lack of qualified personnel.

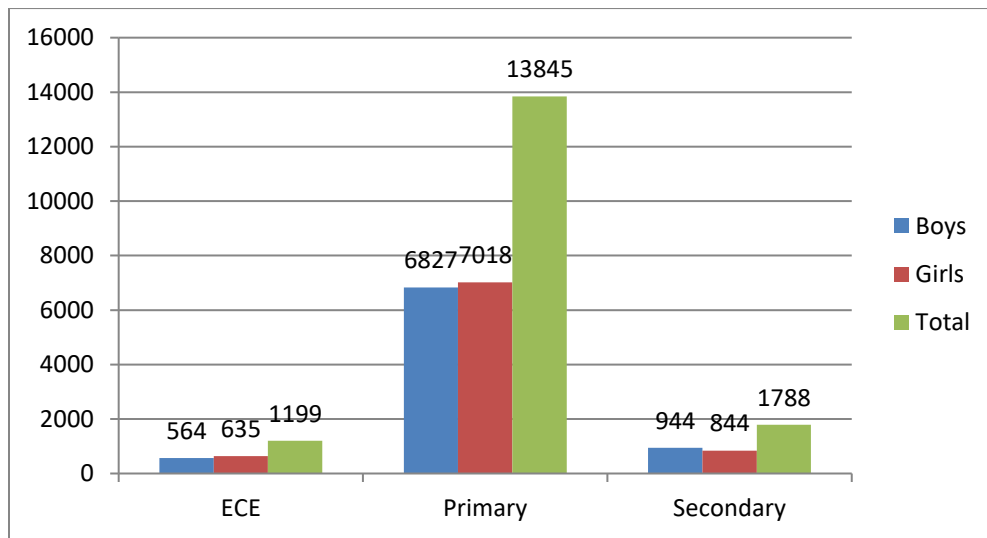
At primary education, there were 7018 girls enrolled in school against 6827 boys, and just like ECE there are more girls than boys accessing primary education. The situation does change at secondary level where we have more boys than girls progressing to secondary school. Overall, girls continue to be at a disadvantage with a large number of them dropping out in the upper primary and secondary grades.

Table 15: Show enrolment of learners at ECE, Primary and Secondary

YEAR	ENROLMENT			
	ECE	PRIMARY	SECONDARY	TOTAL
2021	526	10,705	1,911	13,142
2022	1,199	11,923	2,338	15,460
2023	1,784	13,274	2,932	17,992

District Education Board Secretary, Chipili District, 2023

Figure 20: Bar-Chart Showing Enrolment of learners in ECE, Primary and Secondary in Chipili



District Education Board Secretary, Chipili District, 2023

Human resource in the department of Education comprises teaching staff and non-teaching staff belonging to Teaching Service and Public Service Commission respectively. The district has a total number of 489 members of staff, i.e. a teaching staff of 455 and a total of 32 District and non-teaching staff.

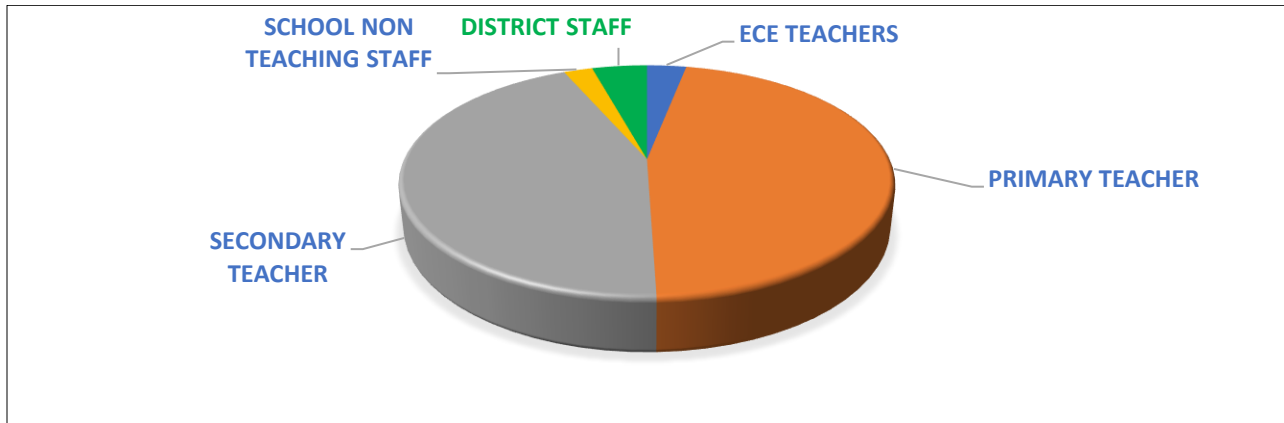
Table 16 and Figure 16 shows the staffing levels in the district distributed by category and gender for 2023 Term 1.

Table 16: Shows Staffing levels by gender in Chipili District

STAFFING			
	MALE	FEMALE	TOTAL
ECE	0	18	18
PRIMARY	96	130	226
SECONDARY	126	87	214
SUPPORT STAFF (Schools)	6	5	11
DISTRICT STAFF	16	5	21
TOTAL	244	245	489

District Education Board Secretary, Chipili District, 2023

Figure21 Shows Pie Chart with staffing levels by gender in Chipili district



District Education Board Secretary, Chipili District, 2023

3.3.2.2 Quality Of Service Including Key Indicators Of Performance

The quality of education in the district continues to be a challenge though national and district assessments have shown significant improvement in this area. In addition, the county's targets of an average score 40% in language and mathematics has not reached in either grade 5 or grade 9. Furthermore, the number of learners passing the grade 9 and grade 12 examinations in the district continues to be below at 50% and 54.3% respectively (UNICEF, 2022).

In many instances, the focus on access takes precedence over attention to the quality of the education service delivered when in actual fact, it is an assessment of quality that proves the extent to which a child has learned and how this knowledge can bring about personal, social and developmental benefits for the child. The quality of education in the district continues to be a challenge as revealed though various national and district assessments. According to Morgatroyd and Morgan (1994) education is defined as the determination of standards, appropriate methods and quality requirements by an expert body, accompanied by a process of inspection or evaluation that examines the extent to which practice meets these standards.

The Ministry carries out national assessment of learner achievement at Grade 5 and Grade 9 levels every two years. At Grade 5 the learning areas are Mathematics, English, Zambian Languages and Life Skills. At Grade 9 the subjects are English, Mathematics and Science. In addition, the county's targets of an average score 40% in language and mathematics has not reached in either

grade 5 or grade 9. Furthermore, the number of learners passing the grade 9 and grade 12 examinations in the district continues to be below at 50% and 54.3% respectively (UNICEF, 2022). Literacy assessments are based on several principles including the conviction that all learners, with appropriate support, can read and write and reading as a foundation skill for all learning.

Table 17 : Showing Baseline education programs with key indicators

Grade Level	Total Enrolment	Able to read	Able to read with difficulty	Not able to read	Not assessed	% able to read	% Able to read with difficulty	% Not able to read	% Not assessed
Grade 1	2,220	569	637	841	173	25.67	28.71	37.85	7.77
Grade 2	1,725	643	515	398	169	35.33	31.08	21.89	9.34
Grade 3	1,775	643	565	398	169	36.20	31.83	22.42	9.55
Grade 4	1,510	640	436	325	109	42.23	28.97	21.62	7.18
Grade 5	575	174	172	200	29	29.54	31.04	34.44	4.97
Grade 6	714	271	229	188	26	37.79	32.59	25.23	3.54
Grade 7	647	344	175	71	57	52.43	28.03	20.28	8.71
District Total	9,166	3,284	2,729	2,421	732	35.83	29.77	26.41	7.89

Source, District Annual Literacy Assessment Report 2022

As depicted in the table above, the annual Literacy assessment conducted in 2022 shows that out of 9,166 learners enrolled in the district between grade 1 to 7, only 3,284 representing 35.83% were able to read. These are the only learners who were able to read and learn content subjects. The implication is that 2,729 children who are able to read with difficulty and 2,421 who cannot read will fall behind and they are likely to drop out of school.

Furthermore, the number of learners passing the grade 9 and grade 12 examinations in the district continues to be below at 50% and 54.3% respectively (UNICEF, 2022).

Table 18: Shows the progression rate in Chipili District

LEVEL	2020	2021	2022
GRADE 7	53.3%	58.6%	68%
GRADE 9	53.3%	58.6%	55.6%
GRADE 12	54%	55.5%	56.98%

Source, District Annual Literacy Assessment Report 2022

In addition, the state of the school infrastructure however ranges from poor to moderate with the majority of the schools not electrified. In addition, most of the schools are not maintained hence are in bad shape. However, priority is to ensure that every school should offer quality education and. In addition, some schools are located very far making learners to cover long distances as they walk more than 5kilometres to get to these schools.

In addition, pupil to book ration should be 1:1 for text books and 1:4 for supplementary examinations are essentially used to test the proficiency of the knowledge of learners or other candidates for a qualification by oral, practical or written questions. The Current pupil to text book ratio stands at 1: 4 in Chipili .In the Zambian education system, examinations are used as a means of selection and certification. National examinations are conducted at Grades 7, 9 and 12 levels. Schools should comply with the following Ministry standards concerning water closets and hand wash basins for primary and secondary school learners:

Girls

1. 1 toilet for 20 learners;
2. At least 1 incinerator for the entire school;
3. 1 hand basin for every 20 learners.

Boys

4. 1 toilet for 25 learners;
5. 1 x 60cm urinal for 25 learners;
6. 1 hand basin for 25 learners.

From the above information, it is clear that the situation on the pupil toilet ratio in the district is poor as many learners do not have access to quality sanitation due to insufficient toilets and running water.

Disinfectants must be applied in all toilets/latrines at least once per day; cleaning must be carried out once a day and a bar of soap should be available in each classroom, for use in the ablution blocks.

3.3.3 Issues arising from Community and Stakeholder Participation

3.3.3.1 Availability Of Service

During the public consultation process of the planning survey and issues report, it was observed that education sector is able to provide secondary, basic and early childhood education in certain areas of the district while in other areas it is a nightmare to access these services because of non-availability of the services and long distances covered to access them. The major issues brought about by these gaps in services delivery is high illiteracy levels due to poor school infrastructure, lack of qualified personnel and inadequate or absences of schools in certain communities.

3.3.3.2 Quality Of Service Including Key Indicators Of Performance

The quality of education in the district continues to be a challenge though to the national though district assessments have shown significant improvement in this area. In addition, the country's targets of an average score 40% in language and mathematics has not reached in either grade 5 or grade 9. Furthermore, the number of learners passing the grade 9 and grade 12 examinations in the district continues to be below at 50% and 54.3% respectively (UNICEF, 2022).

Table 19: Showing Baseline education programs with key indicators

Programme	Project	KPI	Indicator Definition	Baseline 2018	2019		2020		2021		Means of Verification
					Target	Achieved	Target	Achieved	Target	Achieved	
Identify the Programmes Implemented in the periods under review	Maintenance of early childhood education centres (ECEC)	Early childhood education centres maintained	Number of ECECs maintained	11	41	12	44	13	46	17	MOGE reports

Identify the Programmes Implemented in the periods under review	Maintenance of early childhood education centres (ECEC)	Early childhood education centres maintained	Number of ECECs maintained	11	41	12	44	13	46	17	MOGE reports
	Monitoring of schools and teachers	Schools and teachers monitored on adhering to standards	Number of schools and teachers monitored	43 schools, 360 teachers	43 schools, 386 teachers	43 schools, 357 teachers	47 schools, 402 teachers	47 schools, 350 teachers	49 schools, 416 teachers	49 schools, 376 teachers	MOGE reports
	Construction of a day secondary school	Secondary school constructed.	Number of secondary schools constructed	6	1		1	1	1	On going	

Source: Chipili Town Council, Planning Department, 2021

In addition, the state of the school infrastructure however ranges from poor to moderate with the majority of the schools not electrified. Furthermore, most of the schools are not maintained hence are in bad shape. However, priority is to ensure that every school should offer quality education and that every child should have access to furniture through Constituency Development Fund as shown in figure. In addition, some schools are located very far making learners to cover long distances as they walk to get to these schools.

3.3.4 Impact Of Changes Anticipated Over The Next Ten Years

3.3.4.1 Population Change-Future Demand for Services and Facilities

Under the current fertility scenario, there is a projected increase of over 15,000 Primary school children by 2030. At national level, this has a major financial implication given that the government is implementing the free education policy from primary to secondary school. At district level, the expected increase in the number of children will increase the pupil-teacher ratio, the availability of adequate textbooks and other teaching and learning materials and an increase in demand for water and sanitation facilities in schools.

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 31, 718 representing 59 percent of the total district population is aged below 19 years. This is the predominant school going population from primary to secondary. Notably, the current district enrolment stood at 15, 916 which is almost half of the projected population which is likely to demand for education services district.

3.3.4.2 Existing and Proposed Investment And Development Programmes

The Local Authority through increased Constituency Development Fund (CDF), has constructed a number schools in the district. For example, 1x3 classroom block at Kalila Kokoto in Kanshimba ward a 1x3 classroom block at Luminu Secondary School in Nsenga ward and a 1x3 classroom block being Constructed at Lex Primary School in Chibalashi ward. Other existing developmental programs includes, maintenance of 1x3 classroom block at Luongo Primary School, a school laboratory at Mwenda Secondary School and some renovations being done at Luminu Primary School. In addition, the education department is currently implementing various policies that are aimed at improving the general health and well being of learners as they participate in school. Home Grown School Meals program, bursary and school requisite support to Orphans and Vulnerable Children (OVC) These Programmes are targeted at improving rates of absenteeism, retention, enrolment, attendance and reduction in early marriages and teenage pregnancies. With the current development Programmes, it is expected that more learners will progress to secondary school and therefore, this will increase the demand for secondary schools.

The implementation of infrastructure projects will have an upper hand in influencing the distribution of population in these project areas as it is human nature to live in close proximity to services so that people do not travel greater distances in accessing services. In this regard we can project that the population will be concentrated around these project areas because of the aforementioned reasons. The existing and proposed development programmes is depicted in table 20 below.

Table 20: Existing and Proposed Investment and Development Programmes

Existing investments	Proposed Programmes
<ul style="list-style-type: none"> ○ 49 Schools and 231 Classrooms ○ 58 Staff Houses ○ Construction of two 1x3 CRB at Mupeta ○ Construction of a Secondary School at Luminu ○ The District has 138 permanent toilets and 25 boreholes ○ Approximately 70 hectares of farm land in Mulunda area for Pine tree project ○ CAMFED Support for female education ○ Home Grown School meals for School Health and Nutrition needs. 	<ul style="list-style-type: none"> ○ Construction of DEBS Office in the CBD boundary ○ Completion of the Construction of Mwenda Boarding School ○ Connecting 41 schools to the Zesco Power grid ○ Construction of 30 boreholes and 89 VIP latrines. ○ Reconstruction of Chipili Secondary School ○ Construction of ECE Centres with child friendly infrastructure. ○ Rehabilitation and maintenance Chipili Primary, Milulu Primary, Musele Primary Mukabi, Mukonshi ○ Construction of Milonge Primary, 1x2 CRB at Kalundu and Lupososhi. ○ Rehabilitation of Staff houses at Mukonshi, Chinshinki, Mutipula and Kanshimba Primary Schools. ○ Procurement of desks in all schools ○ Recruitment and deployment of 250 teachers, 130 Primary, 80 Secondary and 40 ECE trained teachers ○ Construction of 49 kitchen shelters at all schools to facilitate the Home-Grown Schools meals program

Source: Chipili Town Council, Planning Department, 2021

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

The District is expected to have a growth of 1.6 percent growth rate and thus the impact on the already limited number of schools will entail construction of more schools to cater for the increased population. For areas like Kanshimba, Mwenda and Maipambe will require construction of additional classroom blocks which will in turn affect the morphology of the land use pattern in the affected areas.

3.3.6 Environment and Climate Change Analysis

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

Arising from the development needs identified during the community consultative meetings with line ministries and the Local Authority, it is foreseeable that a greater impact on the land use patterns will be expected from the implementation of infrastructure related projects and among them is clearing of forestry land cover and agricultural land to pave way for the proposed developments to take place across the district. It is therefore imperative to note that the clearing of forests and arable land will bring about destruction to biodiversity and other wild life habitats. In addition, the adverse effects of climate change may result in high temperatures, unprecedented rainfall patterns (droughts and flash floods), drying up of streams and rivers.

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

In the education sector, children are the most affected in the event of natural or man-made disasters which occur as a result of negative effects of climate change. Schooling and learning systems are disrupted affecting their right to education and inducing stressful situation due to the following;

Due to the drought and heavy rains (storms) which is associated with climate change there is poor agricultural yield and this reduces the availability of food in homes, which increases the levels of absenteeism and affects children's performance. Eventually they drop out of school due to hunger and malnutrition. In addition, heavy rains and floods also make roads impassable and cause severe damages to foot bridges and in severe instances, washes the bridges away completely. This poses a danger on the lives of children and inhibits their access to education facilities. Furthermore, intense heat associated with climate change brings health complications to the learners as they become dehydrated during very hot season thereby losing concentration in their learning. As a result of storms and heavy rains, School infrastructure is damaged hence there is prolonged disruption of education and limited access to education opportunities.

3.3.7 Issues Arising Relating to Gender Groups and Vulnerable Groups

Gender disparity in education has far-reaching consequences for individuals, communities, and societies. It hinders social and economic development, perpetuates inequality, and limits individuals' opportunities. Girls face multiple barriers to education including long distances to schools, lack of proper sanitation facilities, early marriage, and cultural beliefs prioritizing boys' education over girls'. These challenges perpetuate a cycle of gender inequality and hinder progress toward achieving universal education.

Currently, the district does not have any school specifically for physically challenged, vision and hearing impaired and the disabled at large. These individuals constitute vulnerable group who require special care and attention. In such situations, such learners are referred to Mambilima Special School, Mansa Secondary Secondary, and Lubwe secondary School. In addition, the district experience a massive reduction of progression of girls as they drop off and eventually forced to early marriage against their will.

3.3.8 Consideration Of The Underlying Factors Contributing To The Issues Identified

Inadequate school infrastructure and dilapidated old schools coupled with inadequate teachers are some of the core issues in the education sector the district is currently facing. Building of more primary schools in Nkongwe ward, Chibalashi ward, Mumbwe ward, Musufya ward, Kanshimba ward and Kabuta wards which shows inadequacies in education service provisions. In addition, currently the government through CDF is determined to invest in the provision of infrastructure such as desks and building of schools in areas such as Kabongo, Musufya, Mwenda, Kaoma Makasa and Mukanga.

3.3.9 Summary of Education Sector

Inadequate and uneven distributed education infrastructure is a major challenge Chipili district is facing as it is experiencing rapid growth in population especially in urban areas of the district.

3.4 HEALTH

The economic development of the district is highly dependent on the health of the people of Chipili. As a result, the district has taken keen interest in the health sector as part of its Integrated Development Plan.

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

The district has prioritized the reduction in child and maternal mortality, increasing access to quality health care services and improving the quality of health care. In addition, active disease surveillance and health promotion, reduction of new HIV infections, elimination of malaria, and reduction in new TB infections are among the key priority areas that are being implemented and shall be implemented in Chipili district. Another key priority is to provide quality cost effective health services to the people of Chipili district as close to the family as possible. This will be achieved through the construction of health facilities and staff housing, recruitment of skilled health personnel and improved road 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 (2022-2026), National Health Policy, and the (Eighth National Development Plan (2022 – 2026). This is to say; the plan does not depart from the main National Development Plan.

3.4.2 Description Of The Existing State Of Development

3.4.2.1 Availability Of Service

Chipili District has 19 health facilities, 10 Rural Health Centres, 9 Rural Health Posts and no District hospital. Chipili District has a 2030 projected total population of over 65,000 against 19 health facilities (10 Rural Health Centres, 9 Rural Health Posts and no Hospital) with the total number of beds at less than 81. The total number of beds in different health post is shown on table 22. However, the total number of bed spaces available is more than the number of beds available. 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. The district has no district hospital although land for a hospital was designated on the township layout plan. The trend is common across all wards, due to the vastness of the wards or non-availability of facility as in

the case of Kanshimba ward, and in such cases, pregnant women are more vulnerable. The challenge of access to health services is exacerbated by inadequate transport (ambulances) in all the facilities, inadequate motorbikes, inadequate maternity wings, inadequate water and sanitation facilities, lack of waiting shelter in some facilities and poor road infrastructure.

In terms of Human Resources availability only 2 out of 19 health facilities (10%) have a full complement of staff.

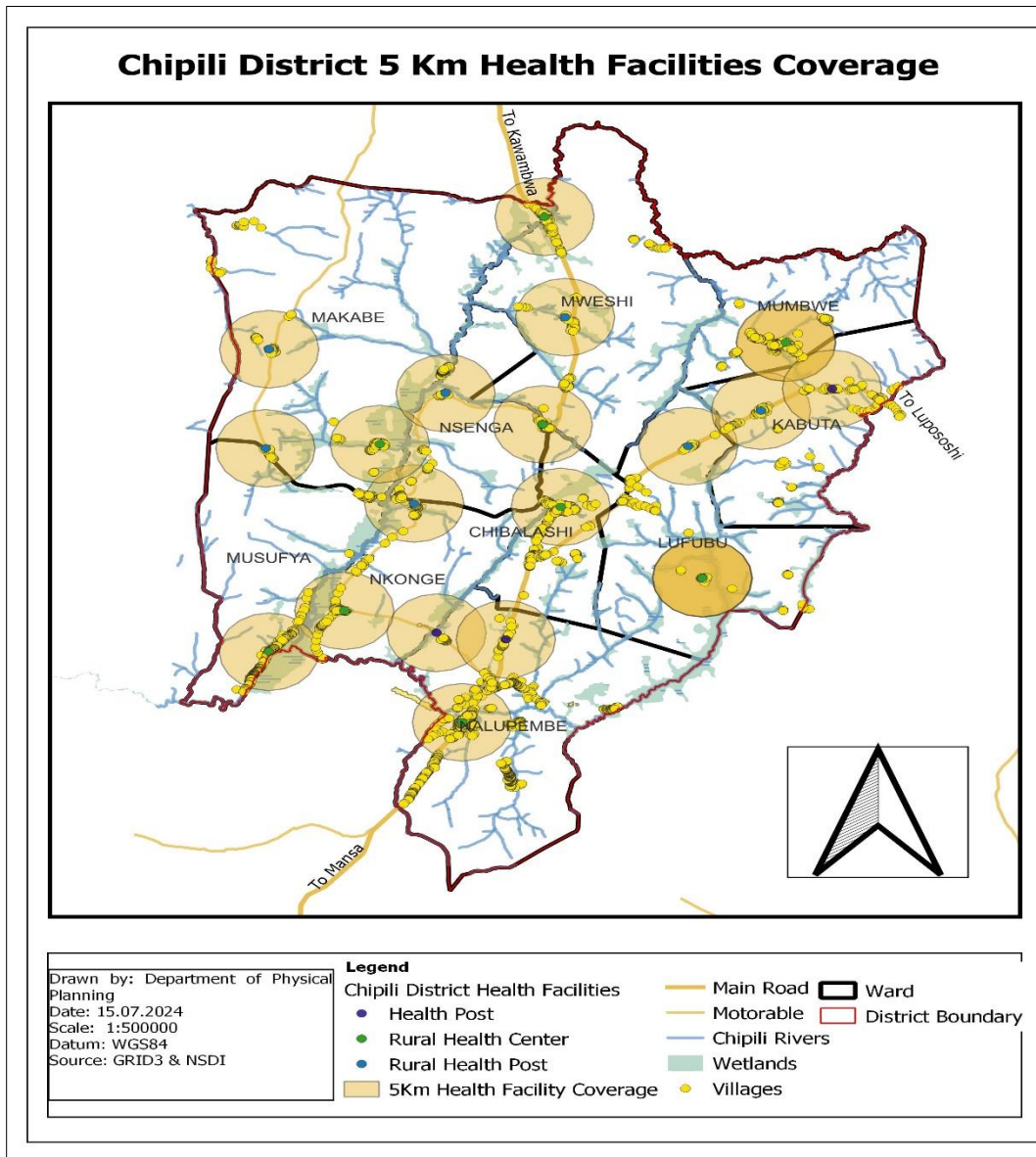
Table 21: Shows the staffing levels by category of staff in the district

Category	Establishment			Existing		
	DHO	Hospital	H/Cs	DHO	Hospital	H/C s
Medical Doctors	1	N/A	0	1	N/A	0
Nursing Staff	1	N/A	74	1	N/A	42
Clinical Officers	2	N/A	10	1	N/A	11
Medical Licentiate	0	N/A	0	1	N/A	0
Environmental Staff	3	N/A	18	2	N/A	8
Paramedical Staff	2	N/A	0	3	N/A	0
Non-Medical Professional Staff	11	N/A	18	4	N/A	1
Community Health Assistant	0	N/A	16	0	N/A	20
Others	9	N/A	74	7	N/A	51
Total	29		210	29		133

Source: District Health Department, Chipili, 2023

From the table it is evident that the District Health Office is operating at 67.78% staffing levels of the expected total establishment of 239 approved positions in the register and only 162 are funded, representing a shortage of 77. Each facility is manned by at least 1 qualified staff. However the district still has an inadequate number of clinical, Environmental health staff, midwives and watchmen.

Figure 22: Map Showing Spatial Distribution of Health Centers in the District



Source: Chipili Council Physical Planning Department, 2021

The district has neither a district hospital nor a mortuary or imaging services. Referrals are made to the neighboring districts such as Mansa, Lupososhi, and Kawambwa Districts. Despite not having a hospital, the district is offering all primary healthcare services including preventive, curative, Promotive and rehabilitative health services. All health facilities are providing EMTCT, HTCT services, while ART services have now been rolled to all facilities. The district only has one diagnostic centre at Mwenda RHC which is also not well stocked with standard equipment.

The information on the table is also displayed on figure to display the actual reality on the availability of health facilities in Chipili district.

Chisheta in Musufya ward is another notable clinic with insufficient number of personnel and infrastructure. The ward has a catchment area population of 2,488 however, the clinic has only 2 beds and three medical personnel. This is far below the health standards at district and provincial level. The standard for a rural functional clinic should have a minimum of 10-15 bed spaces with two beds at a waiting bay for emergencies. This implies that the quality of health provision in most rural clinics in Chipili district is compromised due to long distances from the clinic, poor road networks and inadequate infrastructure.

Table 22: Summary of Health Services in Chipili District

Name of facility	Zone/Ward	Level	Catchment population	Distance from DHO	Number of beds	Maternity Annex (Yes/No)	Waiting shelter	Power supply national Grid	Water Supply		
									Bore hole	Well	Comment
Chipili	Nalupe mbe	RHC	8,751	-	14	No	No	Yes	Yes (Electric)		
Chinshinki	Nalupe mbe	Health post	1,678	10km	2	No	No	No	Yes		Water scheme
Nil	Kanshimba	Nil	-	-	-	-					
Chisheta	Musufya	RHC	2,561	144km	2	No	No	Yes	Yes (manual)		
Mutipula	Nkongge	RHC	3,291	28km	4	No	No	Yes	Yes		Water scheme
Kamami	Nkongge	Health Post	1,899	42km	4	Yes	No	No	Yes (Manual)		
Mupeta	Chulu Luongo	RHC	1,706	58km	3	No	No	No	Yes (Manual)		
Mukabi	Chulu Luongo	Health Post	988	69km	3	No	No	No	Yes (Manual)		
Musalango	Makabe	Health Post	1,809	80km	4	No	No	No	Yes (Manual)		
Mukonshi	Mweshi	RHC	2,665	77km	4	No	No	No	Yes (Manual)		

Mukanga	Mweshi	Health Post	1,800	70km	2	Yes	No	No		Yes	Well
Luminu	Nsenga	RHC	2,512	45km	4	Yes	No	No	Yes (Manual)		
Kabongo	Nsenga	Health Post	2,053	61km	4	No	No	No	Yes (Manual)		
Lupososhi	Kabuta	RHC	2,053	67km	5	No	No	Yes		Yes	
Kalundu	Mumbwe	RHC	4,341	68km	7	No	No	No	Yes (Manual)		
Musele	Kabuta	Health Post	1,435	55km	5	No	No	No	Yes (Manual)		
Mimbulu	Lufubu	Health Post	1,236	51km	3	No	No	No	Yes (Manual)		
Kansonta	Kabuta	Health Post	849	65km	3	No	No	No	Yes (Manual)		
Mwenda	Chibalashi	RHC	5,835	30km	13	No	Yes	Yes	Yes (Manual)		
Kaoma Makasa	Lufubu	RHC	2,049	42km	6	No	Yes	No	Yes (Manual)		

Source: Ministry of Health, Chipili District, 2022

From table 22 it can be seen that most the health facilities have inadequate numbers of beds of which most are in a damaged state. The district has an inadequate number of maternity annexes as only 3/19 health facilities (15%) have a maternity annex. Only 2 health facilities have a waiting shelter. In terms of water supply most of the health facilities have defective boreholes which may greatly affect provision of services at the facility.

3.4.2.2 Quality Of Service Including Key Indicators Of Performance

In 2017, 46% of rural households in Zambia still lived outside a radius of 5km from a health facility (The National MoH target), compared to only 1% for the urban households (National Community Health Strategy, 2019). Moreover, health worker density in rural Zambia is 12.2 to 10,000 people, compared with the 22.8 minimum target set by WHO for

universal health coverage (Zambia Statistics Agency, Ministry of Health (MOH), 2018). Health workers that do operate, do so in rural health facilities lacking the infrastructure and equipment needed to provide basic health services to the communities they serve (National Community Health Strategy, 2019). Inadequate beds, linen and mattresses as shown in table 22 and this affects the quality of health services provided at facility level. Medical equipment in most health facilities in the district is inadequate as it does not meet the recommended standard for the level of a health facility or health post. This compromises patient's life and leads to poor diagnosis as in most cases the patient may be required to travel outside the district for further diagnosis and treatment.

In Chipili district, targeted communities and households are as long as 40km from the nearest health community facility posing a significant challenge exacerbated by poor roads and limited transport. This compromises the quality of health care provision in an event of emergencies especially that all rural health facilities in Chipili depend on only two ambulance for referrals. Poor roads and limited transport may lead to missed or delayed appointments, increased health expenditures and overall health outcomes.

Inadequate transport (motor bikes) in health facilities affects quality service provision in as far as integrated outreach services (immunizations, family planning, TB, environmental health services etc.) are concerned. Most of the facilities have nonfunctional obsolete motorbikes and if they are repaired they are prone to frequent breakdowns.

Rural Health Centres play an important role in providing essential medical services in remote communities and improving the quality of life for rural communities. Provincial Health Office in Luapula recognizes the need for community clinics to have access modern energy services for health facility for quality service delivery. This includes extending night-time service provision, running of medical equipment that needs electricity supply, attracting and retaining qualified health personnel as well as responding to delivery emergencies.

Most rural clinics in Chipili district lack access to reliable electricity due to remote location from the national grid. As a result, the capacity of these clinics to deliver quality health care is typically hampered. Only 5 out of 19 health facilities in the district are connected to

the national grid. The five(05) health facilities include Mwenda, Chipili, Mutipula, Lupososhi and chisheta.

Additional key performance indicators are presented in table 23 below

Table 23: Showing Key Performance and indicators

No	Indicator	2020	2021	2022	Means of Verification
	Maternal Health Indicators				
1	Percentage of Family Planning New acceptor (As a proportion of all FP attendance)	28	42	32	HMIS
	Percentage of 1 st Antenatal Coverage (1 st trimester)	87	89	95	HMIS
	% of teenagers attending 1 st ANC visit	25	27	26	HMIS
	Percentage of institutional deliveries	96	98	92	HMIS
	% of Skilled deliveries	96	98	92	HMIS
	% postnatal coverage within 6 days	99	100	100	HMIS
	% of HIV infected pregnant women who received antiretroviral to reduce the risk of mother to Child Transmission	100	100	100	HMIS
	Maternal Death (number)	0	0	1	HMIS
	Child Health and Nutrition				
	% of Fully immunised children under 1 year	108	91	112	HMIS
	Underweight prevalence	6.3	4.5	6	HMIS
	% children 6-59 months receiving Vit A supplementation	122	102	101	HMIS
	% children aged 12-59 months receiving deworming tablets	107	99	100	HMIS
	Facility Under five mortality rate	8/10 00	5/100 0	7/10 00	HMIS
	Child acute malnutrition rate	0	0	0	HMIS
	Communicable diseases				
	Malaria incidence rate	584/ 1000	595/1 000	710/ 1000	HMIS
	Malaria case fatality rate	4/10 00 adm	0/100 0 adm	0/10 00 adm	HMIS
	HIV prevalence rate (15-49 years)	401	3.93	3.82	HMIS
	HIV prevalence rate under 15	0.31	0.25	0.23	HMIS
	% of infants infected less than 8 weeks	0	0	0	HMIS
	HIV 95,95,95				HMIS
	TB notifications per 100,000 population	11	13	16	HMIS

	TB treatment success rate	100	100	100	HMIS
	TB cure rate	97	100	100	HMIS
	% of TB patients tested +ve for HIV on ART	100	100	100	HMIS
	TB case mortality	0	0	0	HMIS
	MDR TB	0	1	1	HMIS
	Notifiable diseases				
	AFP	0	0	0	HMIS
	Cholera	0	0	0	HMIS
	Dysentery	193	86	65	HMIS
	Covid 19	0	160	54	HMIS
	Mumps	11	99	59	HMIS

Source: District Health Office, HMIS, 2023

The district was performing well in most of the Maternal and Child Health Indicators. There was a slight increase in the percentage teenagers from 25% to 26% in 2022. At least 92% of deliveries conducted were skilled deliveries despite some facilities only having one qualified staff for example Kansonta, Mukabi and Mukanga Health (Posts District Health Office, HMIS, 2023)

Malaria incidence rate continues to be the highest cause of morbidity in both adults and children, followed by respiratory Infection: non-pneumonia and Diarrhea (non-bloody). Malaria also accounted for the leading cause of mortality for both adults and children (2020-7 deaths, 2021-4 deaths, 2022-4 deaths). These are deaths reported at the health facility but there could be community deaths as well not recorded (District Health Office, HMIS, 2023).

3.4.3 Issues Arising From The Public Participation Proces

3.4.3.1 Availability Of Service

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. 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 high morbidity rates were the core issues raised due to inadequate

health facilities, lack of referral hospital, inadequate maternity wings, inadequate transport at facilities, inadequate diagnostic centres and lack of expansion and upgrading of health facilities and inadequate staffing levels among others.

3.4.3.2 Quality Of Service Including Key Indicators Of Performance

The quality of health care in the district is poor due to limited health equipment, inadequate health personnel, long distances making access to health facilities difficult. Most communities have to travel to neighbouring districts for further treatment due to inadequate medical equipment and supplies for diagnosis and treatment and also lack of a district hospital. Most maternal and medical conditions are referred to Mansa General Hospital as the district has no hospital. Most health facilities do not have the full complement of staff to offer quality health services for example clinical officers, midwives, environmental health staff. The top causes of morbidity include malaria, diarrhoea, respiratory diseases non pneumonia with malaria being the highest cause of mortality.

3.4.4 Impact Of Changes Anticipated Over The Next Ten Years

3.4.4.1 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 38 beds; however, the total number of bed spaces is more than the number of beds available showing a deficit. Most of the health facilities have inadequate qualified personnel manning such facilities by virtue of their level (Medical standards) due to lack of staff houses and staff establishment. Wards such as Kanshimba are even more vulnerable as it has no facility while other wards have some communities covering more than 15km 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. With the increase in population over the years, there will be an increased demand for health care services i.e. adequate infrastructure and equipment: more health facilities and district hospital, staff houses, transport (ambulances, utility vehicles and motor bikes),adequate medical equipment and medical supplies, Human Resources for health (full complement and qualified staff per facility) to support the growing population.

3.4.4.2 Existing and Proposed Investment And Development Programmes

The district through CDF has witnessed a number of construction of health infrastructure in some wards. This includes health posts in Moba, Kabanga and in Mulwani. The existing core issues the district is facing are inadequate clinics, maternity wings in the district, equipment, electricity and health personnel. This possess a number of challenges which includes poor primary health delivery, unpreparedness for emergencies, high death rate in an event of a pandemic and poor disease surveillance. The proposed development projects include the construction of district Health office block and the construction of rural health posts in order to curb the long distances people walk to access health services.

Table 24: Showing existing and Proposed Development Projects in the District

Existing Investments	Proposed Development Programmes
<ul style="list-style-type: none"> • District Health Office Block • Maternity annex at Kamami Health Post • Water schemes at Chinshinki HP and Mutipula RHC by GIZ • Health post construction at Kabange, Moba and Mulwani 	<ul style="list-style-type: none"> • Construction of District Hospital with Mortuary • Construction of health posts • Construction of maternity wings • Procurement of ambulance and motorbikes for facilities • Construction of staff houses • Recruitment and deployment of health care workers • Construction of staff houses • Construction of mothers waiting shelters • Water schemes with ablution block and shower rooms • Medical Equipment including beds, mattresses and linen • Construction of a mini Hospital at Kanshimba

Source: Ministry of Health, Chipili District, 2022

3.4.5 The 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 forestry land cover and agriculture land and in certain circumstances loss of wetlands and encroachment on other land uses. 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.

3.4.6 Environment and Climate Change Analysis

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

Arising from the magnitude of developmental projects to be implemented, it is envisaged that there will be loss of forestry land cover and agriculture land and in certain circumstances loss of wetlands and encroachment on other land uses.

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.

As population explosion continues stimulating demand for health services and subsequently demands 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.

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

In the Health Sector, difficulties in accessing health facilities due to flooding which usually cuts certain communities when bridges are washed away, poor nutritional levels among the people due to drought and poor-quality drinking water have been identified as impacts of the environment and climate change on the sector.

3.4.7 Issues arising Relating to Gender Groups and Vulnerable Groups

Currently, the district does not have any health facility particularly for physically challenged, the elderly, vision and hearing impaired and the disabled. These individuals constitute a vulnerable group who require special health care and attention. In such situations, such patients are referred to Mansa General Hospital. The physically challenged, children and women in the district frequently have health challenges with worsened conditions that are made by unnecessarily and insufficient healthcare which are as a result of poor economic situation, long distance from the health facilities as well as cultural beliefs such as witchcraft. The physically challenged find it difficult to move long distances to access health care. In addition, women in communities do not have control over financial resources as they cannot spend money on their own health related issues basing on the gender aspect that resources have to be controlled by the males.

Similarly, 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. Furthermore, most women in the district shun hospital delivery as a result they tend to fear to deliver from the hospital for fear of undergoing Caesarean Section (C/S) even when their pregnancy is marked as a risk because culturally a Caesarean Section is unacceptable. In most communities, teenage children who may be sexually active are not in a position to access Adolescent Health services leading to teenage pregnancies

3.4.8 Consideration of The Underlying Factors Contributing To The Issues

Identified

Arising from the sector analysis it has observed that high morbidity rates were among the core issues raised due to inadequate health facilities, lack of referral hospital, inadequate maternity wings, inadequate transport at facilities, inadequate diagnostic centres and lack of expansion and upgrading of health facilities and inadequate staffing levels among others.

3.4.9 Summary of the Health Sector

The quality of health care in the district is poor due to limited health equipment, inadequate health personnel, long distances making access to health facilities difficult. Most communities have to travel to neighbouring districts for further treatment due to inadequate medical equipment and supplies for diagnosis and treatment and also lack of a district hospital. Most maternal and medical conditions are referred to Mansa General Hospital as the district has no hospital.

3.5 WATER AND SANITATION

Water and sanitation being a key component in human life, has a greater effect on land use and population distribution patterns . In addition, water and sanitation forms an important aspect for human survival. The district identified water and sanitation as a core issue the district is facing. This is because despite the district having numerous streams and rivers, it still faces challenges in accessing safe drinking water and proper sanitation.

3.5.1 Key Government Priorities Being And To Be Implemented At A Local Level (Review of Policies and Plans)

Chipili recognizes the need to depart from a sector-based planning to an integrated multi-sectoral development approach under the theme “Accelerating development efforts towards Vision 2030 without leaving anyone behind”. In order to achieve sustainable WASH service provision at district level, a multi-sect oral and multi-stakeholder approach has been adopted in line with the Eighth National Development Plan (8NDP), which is a “District Wide Approach” to Water, Sanitation and Hygiene (WASH) service provision. This approach seeks to strengthen the district with its actors in planning and

implementation of interventions that are aimed to achieve universal and sustainable WASH services, and the development of the integrated gender sensitive District WASH Investment Plan (DWASH IP), taking into account of Scaling Up Nutrition (SUN) serves this purpose.

Through the DWASH IP, the district with its actors anticipates to be continuously improving WASH delivery in all categories of WASH towards coordination of interventions and projects, including monitoring, evaluation and reporting of progress. The goal is universal coverage without leaving anyone behind in the entire district which can extensively be achieved through multiple borehole rehabilitation programs, construction of new water schemes and boreholes with hand pumps. The district also continues advocating for improved sanitation and hygiene practices through out all the chiefdoms in order to curb water borne diseases.

The main categories of WASH at district level are WASH in households/industries/commercial, WASH in schools, WASH in health care facilities and WASH in public places and markets. The coordination of these WASH categories is achieved through the District Water, Sanitation and Hygiene Education (DWASHE) Committee coordinated by the Council. The DWASHE Committee comprises the Council, Luapula Province Water and Sanitation Company, DEBS, DHO, NGOs and other district stakeholders.

3.5.2 Description of the Existing State of Development

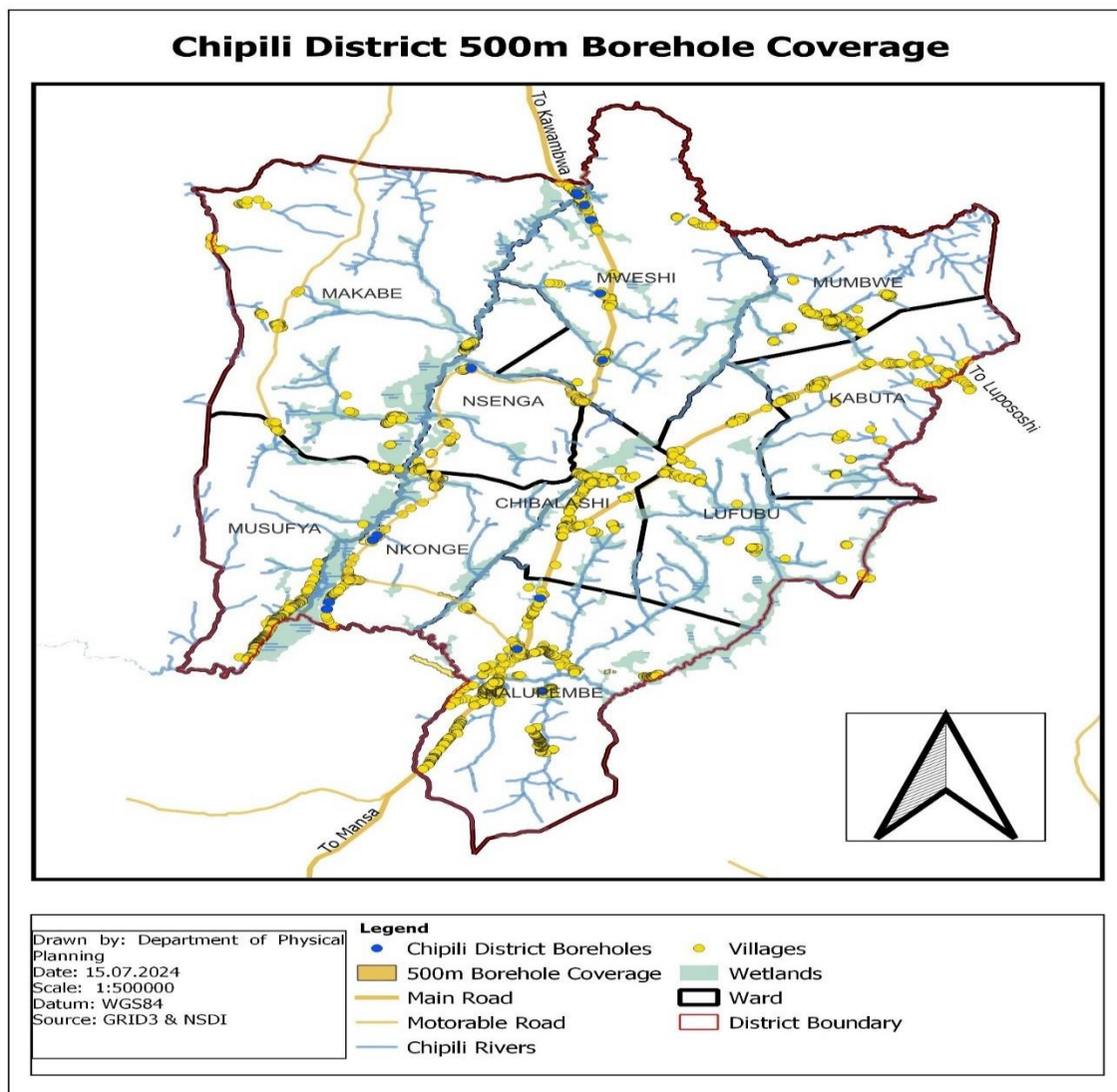
3.5.2.1 Availability of Service

Urban Water Supply

Chipili District is currently supplied by ground water sources, streams and rivers. Though these types of sources are considered to be good, but in some areas the groundwater is polluted by mineral contaminants such as iron and manganese and other bacteria's percolates down to the aquifer. Treatment and disinfection of borehole water is not always adequate and some boreholes are regarded as unsafe sources. However, with proper control of sources of pollution in the recharge areas combined with chlorination of water from Chipili Town Council boreholes, groundwater is considered to be an economic and reliable source of water in the district.

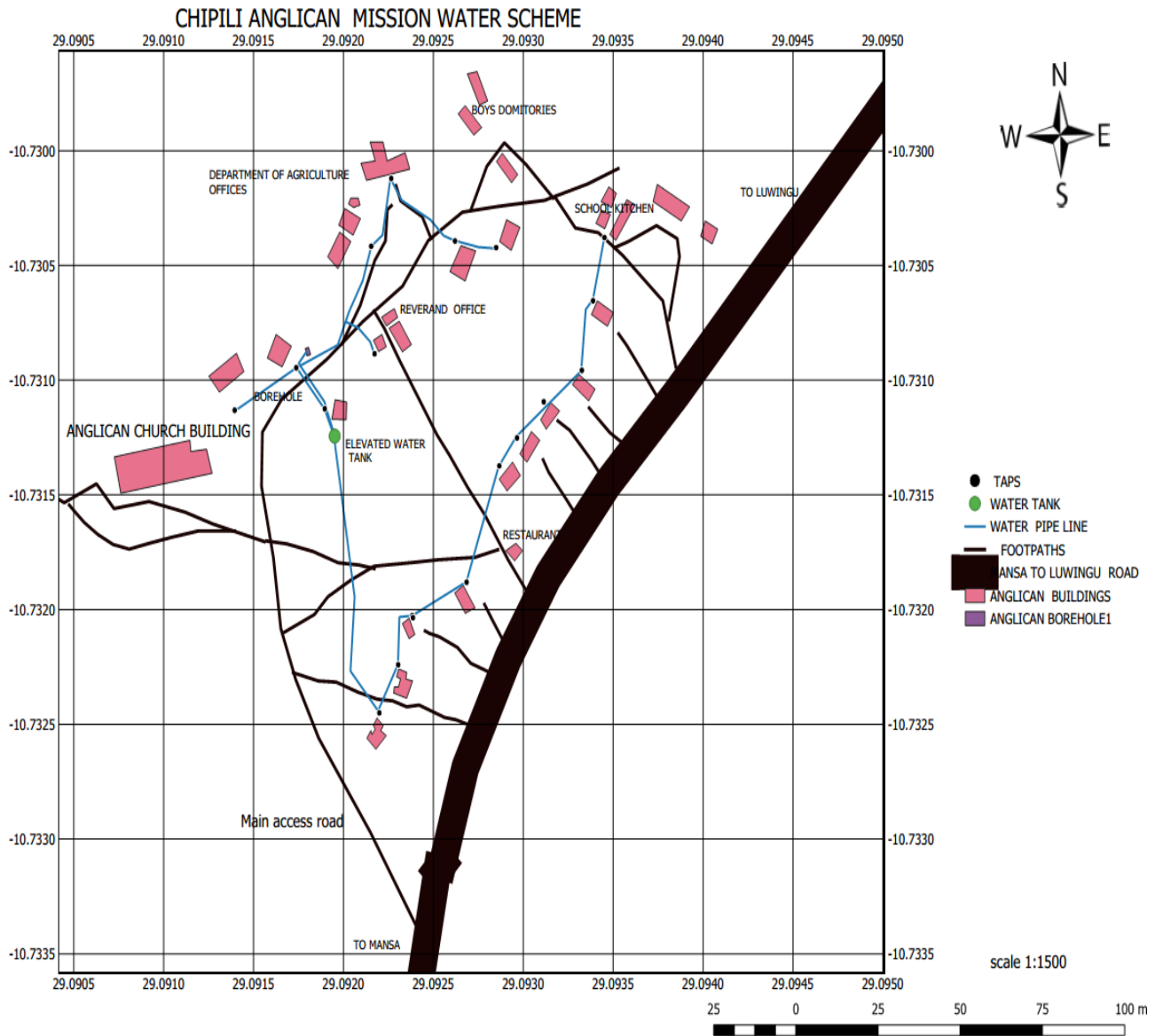
It is observed that majority (about 80%) of the households access water from unprotected wells and as 2022 only 24% access water from boreholes/tube wells. 98% of the population are willing to be connected to piped water schemes. The JMP drinking water service levels are illustrated on a map in Figure 23 depicting distribution of boreholes within Chipili District

Figure 23: Distribution of boreholes within Chipili



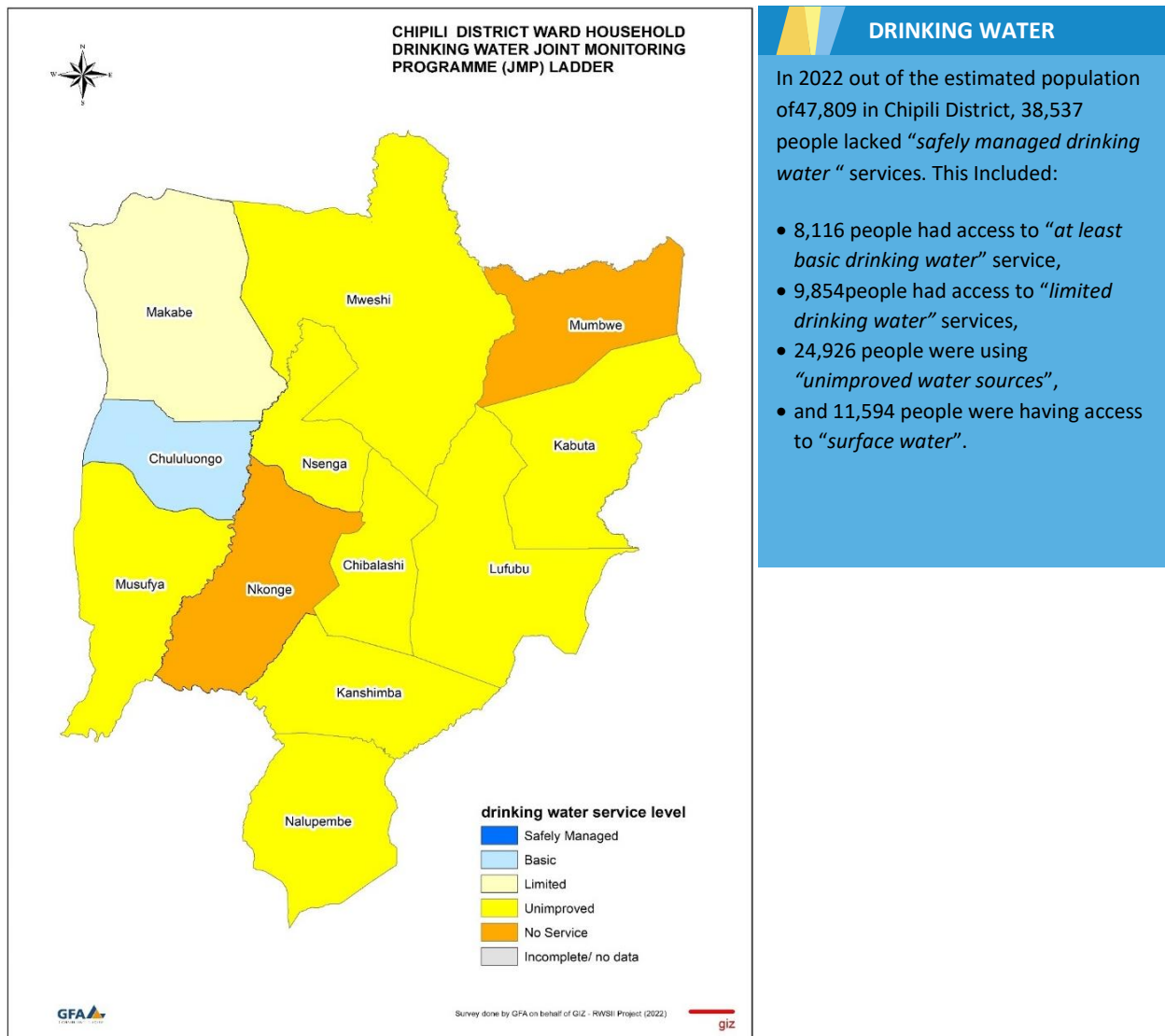
Source: Chipili Town Council, 2024

Figure 24: Showing Chipili Anglican Mission Water Scheme



Source: Ministry of Water Development and Sanitation, D-Wash, 2021

Figure 25: Chipili District Ward Household Drinking Water Joint Monitoring Programme



Source: GIZ Chipili WASH Baseline Report, 2022

As for sanitation, approximately 15% of Chipili District do not have toilets. Majority of the households use unimproved (unsafe) traditional latrines (50%). Out of the 85% that have access to sanitation facilities, only 18% share their sanitation facilities with other households (GIZ Chipili WASH Baseline Report, 2022)

As of 2022, majority of the population in Chipili District do not have access to hygiene services. From the population that has access to hygiene services, the most commonly used handwashing facility in Chipili is the basin and jar.

In 2022 out of the estimated population of 46,809 in Chipili district, 40,043 people lacked “safely managed sanitation“ services. This included:

- 18,936 people had access to “at least basic sanitation” service,
- 4,590 people had access to “limited drinking water” services,
- 24,100 people were using “unimproved sanitation facilities“,
- and 9,181 were ”practicing open defecation”.

With regard to hygiene, In 2021 out of the estimated population of 40,003 in district, people lacked “basic hygiene“ services. This included:

- 8,607 people had access to “limited hygiene” services,
- and 38,446 people with no hand-washing facilities at all.

Rural Water Supply

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 Chipili and more especially those in rural areas. The other common water sources available in the district include piped water recently constructed in Chipili area and Mutipula area, boreholes (most of which are Indian mark2 with GI pipes and high content of iron) and hand dug wells as well as streams and rivers though usually not clean and safe for household consumption.

Only about 6 per cent of Chipili households have access to piped water, implying that the remaining 94 per cent 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 17: Showing the Number and Status of Boreholes in Wards of Chipili District

WARD	WATER POINTS (Boreholes)	DEFICIT	AVERAGE POPULATION CATCHMENT	STATUS		BY TYPE	
				Functional	Non – functional	IM2	Afridev
Chibalashi	14	3	4164	11	03	08	06
Kabuta	9	5	1740	6	03	05	04
Lufubu	13	7	2594	7	06	05	08
Makabe	9	3	1886	8	01	03	06
Chulu-Luongo	6	6	1235	2	04	04	02
Mumbwe	8	4	3549	7	01	03	05
Musufya	9	4	3031	0	09	06	03
Mweshi	19	5	4314	15	04	09	10
Nkongwe	19	2	4789	19	0	12	07
Nalupembe	12	3	6059	0	12	09	03
Nsenga	18	3	7663	15	03	13	05
Kanshimba	07	3	3296	5	02	04	03
TOTAL	143	48	44321	96	47	81	62

Source: Chipili Town Council, Department of Planning 2021

The status in the table above will help identify the water points which need rehabilitation, Indian mark 2 (IM2) pumps that require change to Afridev pumps or stainless-steel pipes and of course identify areas which need new water points to meet the overwhelming demand for the services.

3.5.2.2 Quality of Service Including Key Indicators of Performance

The quality of services is linked to the realisation of National Urban Water Supply and Sanitation Programme (NUWSSP) and National Rural Water Supply and Sanitation Programme (NRWSSP), which in turn are aligned to Vision 2030, the 8th National Development Plan (NDP) and Sustainable Development Goals (SDGs). The objectives, strategies and targets falling under respective mandates of stakeholders from the D-WASH committee (CTC, LpWSC, Chipili DEBS, Chipili DHO) are the basis/measures to meet set targets for quality service delivery. Key indicator packages included the following:

- i. enhanced Inspections and Enforcement of Public Health Act under Chipili Town Council
- ii. improved WASH in Public Places and Markets under Chipili Town Council
- iii. enhanced Planning and Coordination under Chipili Town Council
- iv. improved Rural WASH & Nutrition under Chipili Town Council
- v. improved School WASH and Nutrition under Chipili DEBS
- vi. improved WASH in Health Care Facilities and Nutrition under Chipili DHO
- vii. improved WSS service delivery in Rural-Urban and Peri-urban areas under Luapula Province Water and Sanitation Company

From the above key performance indicators, it is argued that the quality of water and sanitation in Chipili district have been very poor as most of the community do not have access to clean water and safe sanitation. Currently, the district is not connected to piped water and conventional sewer system hence many households use water from wells, streams and a few areas have water from hand pump boreholes.

Existing and Proposed Investment and Development Programmes

The cost of achieving these quality services delivery indicators is estimated at **283,680,418ZMW** and at **311,893,815ZMW** for 2022-2026 and 2022-2030 respectively. Please refer to following table for the summary of indicators.

Table 25: Showing a Water and Sanitation investment Plan in Chipili District

Item No	Indicators	Institution	Responsible Unit, Function or Office	Service Target	Budget Amount 2022 to 2026 (ZMW)	Budget Amount Up to 2030 (ZMW)
1	Enhanced Inspections and Enforcement of Public Health Act	Chipili Town Council	Director of Works/WASH Section.	<ul style="list-style-type: none"> • Inspections and Enforcement within planning boundaries. 	9,728,345	13,987,545
				<ul style="list-style-type: none"> • Working with Traditional leaders in rural areas 		
2	Improved WASH in Public Places and Markets	Chipili Town Council	District Planning Office	<ul style="list-style-type: none"> • Bus stops and markets in urban and rural areas (growth centres) 	2,847,328	3,032,513
3	Enhanced Planning and Coordination	Chipili Town Council	District Planning Office	<ul style="list-style-type: none"> • Spatial, social and economic planning 	1,728,217	2,256,371
4	Improved Rural WASH & Nutrition	Chipili Town Council	Director of Works	<ul style="list-style-type: none"> • Rural WASH in settlements and growth centres 	10,778,035	16,407,975
				<ul style="list-style-type: none"> • Nutrition for entire district 		
5	Improved School	District Education	DEBS	<ul style="list-style-type: none"> • All schools in urban, 	69,571,079	86,855,782

Item No	Indicators	Institution	Responsible Unit, Function or Office	Service Target	Budget Amount 2022 to 2026 (ZMW)	Budget Amount Up to 2030 (ZMW)
	WASH and Nutrition	Boards Office (DEBS)		peri-urban and rural areas		
6	Improved WASH in Health Care Facilities and Nutrition	District Health Office (DHO)	DHO	<ul style="list-style-type: none"> All health care facilities in urban, peri-urban and rural areas 	43,123,531	43,977,901
7	Improved WSS service delivery in Urban and Peri-urban areas	Luapula Water and Sanitation Company (LpWSC)	LpWSC Chipili District with Director of Works	<ul style="list-style-type: none"> Urban and Peri-urban areas water supply and sanitation 	147,632,100	147,632,100
Grand Total					283,680,418	311,893,815

Source: Department of Works, Chipili District, 2022

3.5.3 Issues arising from the Public Consultation process

3.5.3.1 Availability of the Service

From the public participation, majority of the people revealed that the district suffers from poor water and sanitation services. It was noted that the district is not connected to the LpWSC as a result people are still relying on water from boreholes and traditional pit-latrines. The long distances to access water points in various wards defy the threshold of provision of a water point for every 500 people. This means that accessibility to water supply is limited. The public thus demanded that water and sanitation be included in the integrated development plan.

3.5.3.2 Quality of the Service Including Key Performance indicators

During the public consultation process it was heard that the quality of water and sanitation in Chipili district is very poor as most of the communities do not have access to safe and clean water and sanitation. Currently, the district is not connected to piped water and conventional sewer system hence many households use water from wells, streams and a few areas have water from hand pump boreholes. The contamination of ground water with iron and other manganese affects the quality of water supplied to the community.

3.5.4 Impact Of Changes Anticipated Over The Next Ten Years

The impact of a boom in population will not only affect space for construction of new water sites but also the quality of the water and sanitation services being offered. The water aquifer risks being disturbed by increased human activities thus posing a danger to human health.

3.5.4.1 Population Change – Future Demand for Services and Facilities

With the projected increase in population of the district to over 57000 in the IDP period, it is anticipated that the demand for safe drinking water and sanitation will increase. This implies that the IDP must be prepared to offer solutions in ensuring that issues of water and sanitation are well covered.

3.5.4.2 Existing and Proposed Investment and Development Programs

Investment Packages were identified by the stakeholders working individually as institutions. In an integrated approach, each key implementing institution was responsible for the development of investment packages as guided by their individual institutional policies and strategies, then link to national strategies and DWASHE as guided by the local authority. These investment packages in the integrated DWASH Investment Plan for the district feed into reporting structures of the national development plan and contribute to integrated development. This approach is following the approach for district sanitation planning guidelines by the MWDS. The relevant actors to agree on the DWASH IP are Luapula Water and Sanitation Company, line ministry district offices (LA, DEBs, DHO, etc.), NGOs, development partners, women's groups in the districts. Of particular note was

the collaboration with GIZ-funded Decentralisation for Development (D4D) programme that supports CTC in the formulation of the IDP.

GIZ RWS II facilitated the consolidation of investment packages by the district actors (CTC, Chipili DEBS, Chipili DHO and LpWSC). This process of consolidation involved detailed consultations with all stakeholders, including provincial offices of the Provincial Water Supply and Sanitation Officer, the Provincial Local Government Office and Provincial Planning Unit, etc.

Internally, the actors worked out detailed evidence-based activities using a consultative and participatory approach within each of their organizations. After that, these activities were jointly validated by actors and stakeholders, and presented as packages of measures. Thus, each of the measures ensured that they meet expectations for improvement as well as understanding of standards for quality construction. Detailed designs of WASH systems were also provided

All in all, there are seven categories of Investment Packages placed according to mandates of institution and these are:

- ✓ To Enhance Inspections and Enforcement of Public Health Act, under Chipili Town Council
- ✓ To Improve WASH in Public Places and Markets under Chipili Town Council
- ✓ To Enhance Planning and Coordination under Chipili Town Council
- ✓ To Improve Rural WASH & Nutrition under Chipili Town Council
- ✓ To Improve School WASH and Nutrition under Chipili DEBS
- ✓ To Improve WASH in Health Care Facilities and Nutrition under Chipili DHO
- ✓ To Improve WSS service delivery in Urban and Peri-urban areas under LpWSC

It is worth noting that every measure under a package is formulated as a specific objective that corresponds to the general objectives of Chipili DWASH IP presented in the previous. Each specific objective is further operationalised through a statement of a chosen strategy and a narrative description on how to achieve it. Current baseline values are also stated together with target values for 2026 and 2030, each of which was filled out and, committed to by the respective actor. It is important to underpin that the selection of district target

values was guided by their contribution to the national targets presented in 8NDP. The measures were costed using unit prices and quantities identified in collaboration with partners, and later bench marked using market research and technical expertise.

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

It is envisaged that the population of Chipili District shall increase from the current 46,809 to over 57,000 in ten years thus creating a demand for more water and sanitation services by the way of sinking boreholes and water points. In addition, the process will result for the demand for clearing of more land for establishment of water dams and treatment plant and sewer disposal facility. The population distribution will be affected as people tend to settle where the service is provided thus leaving areas of little services with few people which in turn affect the spatial distribution of settlements.

3.5.6 Environment and Climate Change Analysis

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

It is envisioned that increased population in the district will entail increased demand for more land. This will increase the demand for clearing of more land to create space for construction of water facilities. This will have a direct impact on climate change due to increased human activities aimed at enhancing water and sanitation provision.

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

The droughts and floods will affect the quality of the water table leading to waterborne disease outbreaks. In addition, the droughts will affect the water table leading to inadequate water supply to the communities. The shortage of safe clean water will force communities to resort to unclean sources of water supply such as rivers, shallow wells and streams.

3.5.7 Issues Arising Relating to Gender Groups and Vulnerable Groups

Chipili district, working with its partners, stakeholders, and agents aims to ensure that WASH service delivery covers all categories of WASH, is gender sensitive, addresses aspects of nutrition and socially inclusive in the township and rural areas, including growth

centers. The water and sanitation affects women and children mostly as they are ones who tend to fetch water for domestic use and thus increased distances from water points makes it difficult to fetch water thus subjecting women and children moving long distances.

3.5.8 Consideration Of The Underlying Factors Contributing To The Issues Identified

Poor access to the provision of safe drinking water and sanitation in the district have mainly been attributed by lack of treated piped water and sewer system by the Luapula Province Water and Sanitation Company. The major underlaying factor is the terrain of the area which are characterised by hills and rocks making it difficult to erect water facilities. The situation has caused many people to access unsafe water from shallow boreholes and nearby streams resulting into water borne diseases.

3.5.9 Summary of water and Sanitation

The District faces challenges of Inadequate water and sanitation facilities and long distances to water points which compels communities to draw water from hand dug wells which is not safe for Drinking thus causing health challenges which might come as a result of taking unhealthy water.

3.6 ENERGY, AND POWER SUPPLY

3.6.1 Key Government Priorities Being and To Be Implemented At A Local Level

Chipili District is endowed with abundant water resources and sunlight radiance and water which can be used to Construct off grid Solar Power plants and Mini Hydro power plants respectively. At local level our key priorities of the 8th National Development plan are;

- Increase access to electricity; Chipili district shall prioritize the expansion of the electricity grid in in both urban and rural areas to ensure that more households have access to electricity. This will be achieved through investment in new power plants, transmission lines and distribution networks.
- Promoting renewable energy; The District shall endeavor to prioritize the development of renewable energy sources such as Solar, Wind and hydro power to reduce dependence on fossil fuels and promote sustainable energy Practices. This will reduce deforestation of the already endangered national and local forests.

- Improving communication infrastructure; in order to improve access to communication services and promote economic development, The District shall prioritize the development of communication infrastructure, such as fiber optic cables and mobile phone towers in areas of need such as mweshi and makabe wards.
- Energy efficiency; The District shall prioritize policies and programs that encourage energy efficiency such as promoting the use of energy efficient appliances and incentivizing businesses to adopt sustainable energy practices.
- Promoting Private sector investment; in order to accelerate development and reduce the burden on public resource. The District shall promote Public Private Partnerships in the Provision of energy such as solar power and communication infrastructure.

3.6.2 Description of the Existing State Of Development

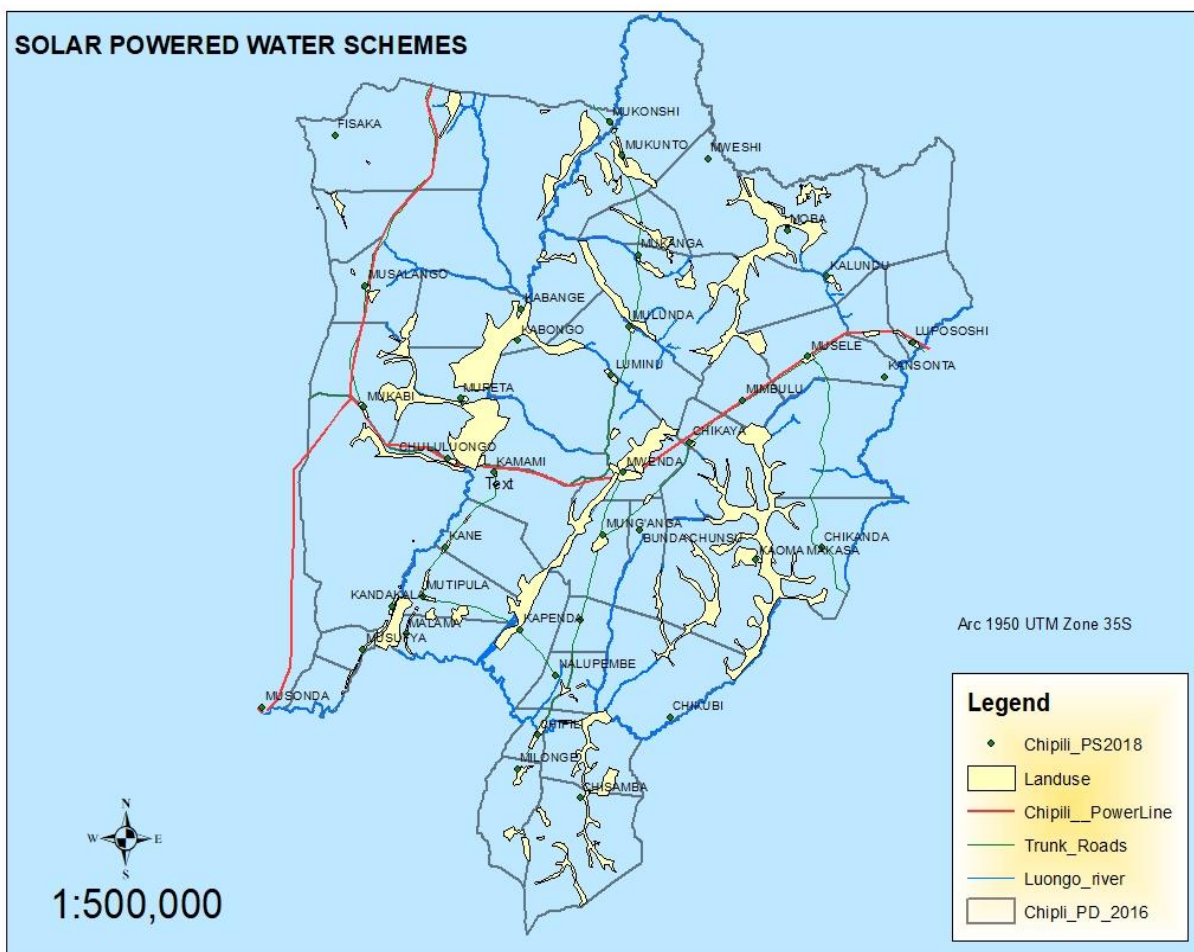
3.6.2.1 Availability of Service

The district has access to Hydro electricity through the National through a ZESCO Substation that steps down from 66KVA to 33KVA at Mwenda Sub-station. However, there are a number of Wards still not connected to the grid such as Makabe, Mweshi and Musufya wards There are Five (05) health facilities out of 19 are connected to the national grid at Chipili, Mutipula, Mwenda, Chifuntwe and Musele. In addition out of 55 Schools, only 8 Schools are connected to the National Grid namely, Munganga, Chisheta, Chikaya, Mwenda, Mutipula, Lupososhi and Chipili Secondary School. In addition two(02) Markets out of Four(04) are connected. The two markets include Mwenda and Maipambe in Chibalashi and Nalupembe wards Respectively. In addition, the District Education Board Secretary(DEBS) and the Police station are equally connected to the national Grid.

A significant proportion of the rural population lack access to electricity, with some communities still relying on traditional sources of energy such as firewood and charcoal. The district has benefited from the implementation of the National Electrification Program under the Rural Electrification Authority (REA) with most urban areas and some rural areas having access to electricity through the national grid. Chipili District has a total of seven (07) water schemes with solar connections are dotted around the District. However, the

water schemes have no storage facilities for power. Further, the district gets its solar power from private providers who sell solar products to individuals for lighting purposes. There is need to conclude the Construction of the Solar power plant at Kanshimba that will supply power to Luongo mine and Mwenda Sub station.

Figure 26: Distribution of solar powered water schemes and National Grid in Chipili District



Source: Chipili Town Council, Planning Department, 2023

3.6.2.2 Quality of Service Including Key Indicators Of Performance

Energy supply is unreliable, and the quality of energy services is poor. Most rural communities are not connected to the national grid and rely on fossil energy for cooking and heating. Electricity supply is not stable as it is usually cut from time to time. In an event of maintenance or faults, it usually takes more than twenty four hours to repair the fault. This is attributed to the fact that there is no physical presence of the utility company in the District and all faults are attended to by the Mansa office. The absence of an Office for the Utility Company makes it expensive for new clients who apply for electricity Connection as they have to travel over 80 Kilometres to access the mansa office. Despite travelling long distances in accessing services, it still takes longer periods exceeding 6 or more months before the applicants are attended to.

3.6.3 Issues Arising From the Public Participation Process

There is no office to report faults to in the District therefore, all the complaints have to be forwarded to Mansa. Energy supply is unreliable, and the quality of energy services is poor. Most rural communities are not connected to the national grid. Inadequate modern infrastructure for, energy and petroleum supply within the district and worse in rural communities due to absence of petroleum stations. There is need to scale up power distribution infrastructure to some communities and connect to all health facilities and administrative offices. Currently the District has one substation that steps down from 66KVA to 33KVA at Mwenda Substation. Small scale manganese mines, Schools and health facilities need to be connected to the grid. Absence of petroleum infrastructure (Filling Station or Fuel Depot) in the District affects the cost of doing business as the people are forced to travel long distances to neighboring districts where such infrastructure exists.

3.6.4 Impact of Changes Anticipated Over the Next Ten Years

It is anticipated that Improved energy distribution shall enable a conducive environment for business to both rural and urban communities. Secondly, it is envisaged that improved energy distribution shall increase employment opportunities for both rural and urban communities, from the Agriculture, tourism sectors, mining sectors and Commerce sector.

3.6.4.1 Population Change – Future Demand for Services and Facilities

The population increase will have a direct effect on the already limited energy sources and infrastructure. The future energy demands are increasing steadily, there is need to put another sub station at kanshimba to supplement the Mwenda substation to support Resettlement schemes. There is likely to be an increase in demand for energy services as the population grows.

In addition, there is need to construct a solar substation at Kanshimba that will supply power inot the national grid through Mwenda Substation and supply power to luongo mines and surrounding communities in Chief Mutipula.

3.6.4.2 Existing and Proposed Investment and Development Programmes

The District is supplied with hydro- electric power by ZESCO through the National Grid. Chipili district also has a a power plant at Musonda falls which derives its water source from Luongo river. The District anticipates to have Solar farms at Kanshimba using Public Private Partnerhsips and Rural Electrification Authority.

At the moment Chipili has over 2,500 surveyed plots which are earmarked to be given to the public. These parcels of land will require power connection as the clients develop the parcels. Other Clients for power are schools, community, millers and hospitals.

The energy potential for District is huge, The District boasts of the Luongo river which feeds the Musonda Falls Hydro power station. The Power Station feeds about 9 Mega watts into the national grid. There is need to consider petroleum infrstructure to spear head Development in the District. The District has some proposed sites suitable for construction of Min Hydro power plants on the Luongo River and Solar power plants at Kanshimba. To set up petroleum infrastructure through Private Partnership along the Mwenda Kasomeno road to support trade and commerce

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

The district has experienced an increase increase in investors in the Mining and Agriculture sector and improved infrastructure. It is anticipated that Improved energy, power supply and shall stimulate industrial growth, thereby creating job opportunities to both urban and rural communities. Additionally, Industrial growth boosts population distribution patterns, thereby increasing the pressure on the need for investment to processing plant to meet the

demands for construction materials, food from agriculture. The opening of the Mwenda Kasomeno road will impact on the linear development of of patterns thus creating demand for power in the new developed areas.

3.6.6 Environment and Climate Change Analysis

The impacts of environmental and climate change affect different sectors. These include damages to, power and energy infrastructure. The damages have delayed the growth in the energy, power supply and communication sector in district.

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

The continued increase in the demand for power will affect the environment negatively in the sense that more land will be required to be cleared, for the purpose of expanding the supply lines. The rate of Deforestation of the local forests will increase due to lack of alternative sources of energy. It will aslo have a positive impact in the sense that the populatiove is going to have access to the alternative source of energy. The initial cost on the the environment will be high but in the long it will help to decrease deforestation.

3.6.6.2 The Impact of Environmental and Climate Change Issues on The Sector

Climate change issues such increased flooding; wind loads have a negative impact on the physical resilience of the energy infrastructure. Changes in the water cycle or drought due to climate change have an impact on hydro power generation leading to increased load management hours. Hotter temperatures require more energy for cooling and cooler temperatures increases the need heating energy leading to the need for an increased consumption of energy.

3.6.7 Issues Arising Relating to Gender Groups and Vulnerable Groups

The energy sector remains one of the least gender diverse sectors and closing this gap will be vital as women are the key drivers of innovative and inclusive solutions. Women also lack access to energy.

There is a serious imbalance in roles played by women and the disabled people in the energy, power supply and communication sector. Most jobs are considered to the physically fit and male. Such perception as women can't install solar systems, women cannot be involved in most construction project as the gender is perceived weak.

Women and Girls

There is lack of skills training center in the clean energy production, women and girls can not easily receive such training. Apart from that there is also limited job opportunities in the energy sector.

Men and Boys

Men are considered to be final decision makers and boys are not given key leadership roles in the energy sector. Most research work, job opportunities and technology transfer decisions in the energy sector are considered for the aged and experienced.

Youths

The most pressing and challenging issues among the youths in the energy sector is limited job opportunities.

Disabled

The most pressing and challenging issues among the youths in the energy sector is limited job opportunities.

HIV/AIDS

Households with HIV positive members self stigmatize, this makes it difficulty to allocate resources equitably. The policy is to allocate resources equally and equitable.

3.6.8 Summary

The Energy supply is unreliable, and the quality of energy services is poor. In addition, inadequate modern infrastructure for, energy and petroleum supply within the district and worse in rural communities. Some power distribution infrastructure has been vandalized in some places. Lastly, the quality of energy infrastructure and services is inadequate and needs improvement.

3.6.9 Consideration of the Underlying Factors Contributing To the Issues Identified

In Most rural communities are not connected to the national grid, due to the fact that there is no supply infrastructure that has been put in place. Inadequate modern infrastructure for, energy and petroleum supply within the district and worse in rural communities. There list a long waiting list of client to be connected at ZESCO dating as far back as 3 years this has been attributed to lack of materials within the district needed to connect the clients. In areas such as Kabange and Kapwenge, there is need to connect power to service the farmblocks which are in the resettlement areas. The quality of energy infrastructure and services is inadequate and needs improvement.

3.7 MINING SECTOR

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

Mining is among the key drivers of economic transformation and job creation. The government recognizes mining as one of the key drivers for sustained economic growth. The key priorities of the Eighth (8th) National Development Plan with regard to mining are the promotion of mining of traditional and non-traditional minerals; and the promotion of value-addition and manufacturing.

3.7.2 Description of the Existing State of Development

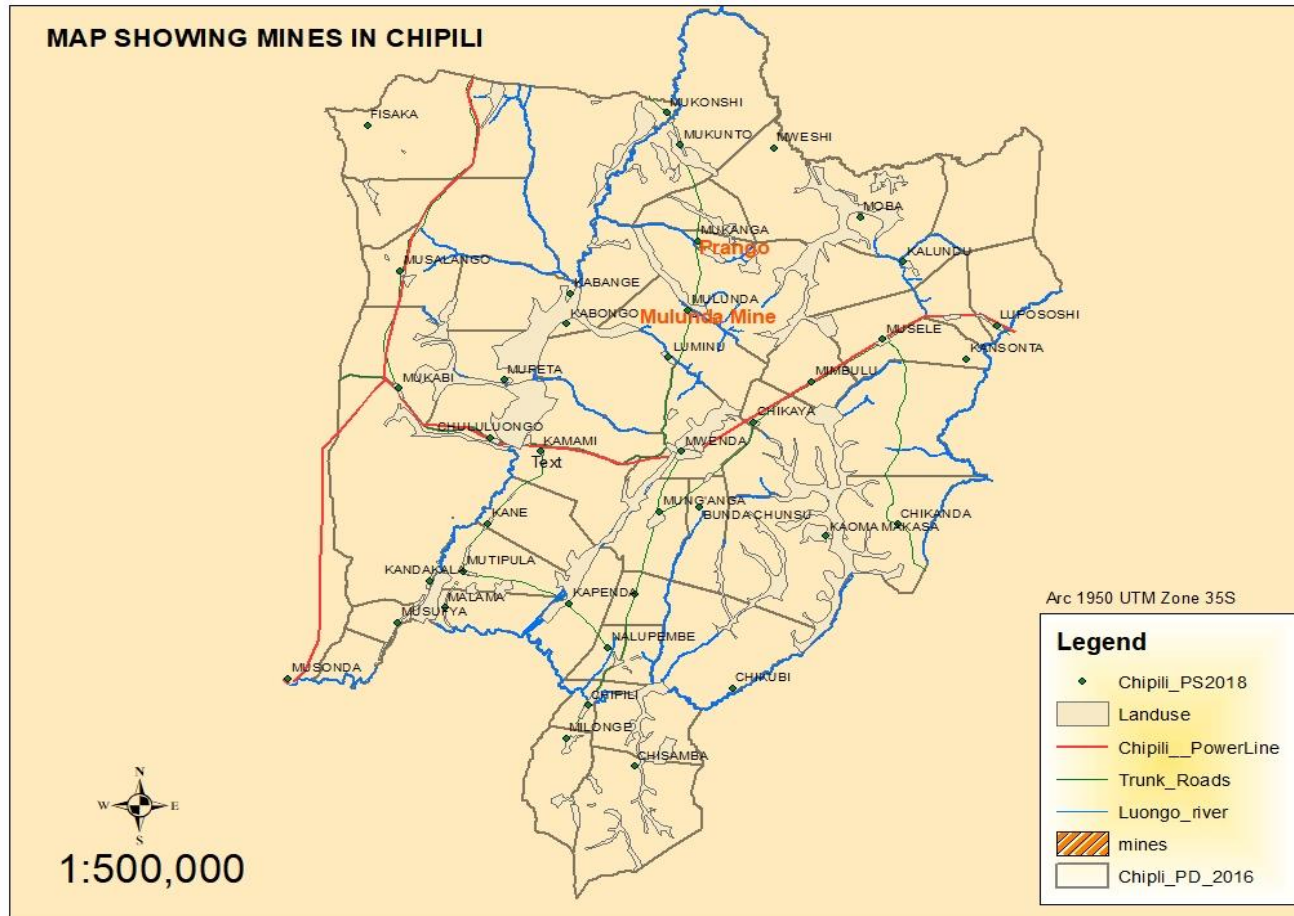
3.7.2.1 Availability of service

Luapula Province has enormous mineralisation of manganese ore deposits and several other mineral deposits. Minerals available include: Copper, Iron, Manganese, Sugelite lime, Gemstones and Gold among other minerals with Chipili District having Manganese, Iron and Sugelite among the most predominant.

The province keeps on recording an increase in the mining exploration licenses. The province had a total of 54 mining valid license owners plus 125 exploration licenses and the numbers keep on increasing as the applications are processed on a daily basis due to the available mineral resources in Luapula Province. However, currently only the mining of manganese is more prevalent but is also done at a very small scale due to limited capital for mining operations (Luapula Provincial Administration, PDCC Report 2023).

Chipili District is home to Luongo Mines under Musama Resources Limited located in Mutipula Area as depicted in the figure 27 below.

Figure 27: Depicting mines in Chipili



Source: Chipili Town Council Planning Department 2023

3.7.2.2 Quality of service including Key Indicators of Performance

There currently two(02) active exploration licenses in managnes in Chipili by African Mining Consultants for the exploration and Mining of Manganase and artisanal mining license under license No. 24094-HQ-AMR which was obtained for the purposes of mining of managanese.

The District boasts of Luongo Mines run by Musamu Resources limited. The Company has a large scale operating license and is operational with the mineral reserves of 430,000 tonnes of managanese at 40% grade. The mine is expected to produce 1 Million tonnes of Manganeseore per annum. Other Mines which have explorartion licenses in Chipili include Mukanga. Other areas such as Mulunda, the community is engage in the informal nature of the mining activities in the district which has led to the local people not having maximum benefits from the sector. In some instances, unconventional mining practices and a lack of adherence to health and environmental standards have led to accidents at mining sites. It is ensivaged well exploited, Chipili District has the potential to be a beacon of mining in Luapula and Change the economic fortunes of the Districs in the Province by providing employment and massive infrastructure development.

3.7.3 Issues Arising from the Public Participation Process

3.7.3.1 Availability of service

The lack of capital investments and fully operationalising the Luongo Mine despite official opening has contributed little in terms of corporate social responsibility (CSR) in terms of providing auxiliary services to the Community. The lengthy periods of explorations by mining companies without production leaves communities in suspense. The lengthy period has created a semblance of mistrust against prospectors in the local community who wished to see development, investment and job creation in the district. This has led to illegal mining by sections of the public who felt they were being priced out of the system and outwitted by larger corporations mining with the pretence of collecting samples for testing over a long period without any tangible local economic development.

3.7.3.2 Quality of service including Key Indicators of Performance

The status of the underdeveloped Artisanal and Small-scale mining sector is currently faced with several challenges including but not limited to; lack of access to investment capital, lack of geological information, and lack of basic technology in the mining process which makes it difficult to exploit the mineral resource potential of Chipili District to the fullest.

3.7.4 Impact of Changes Anticipated Over the Next Ten Years

3.7.4.1 Population Change – Future Demand for Services and Facilities

Population changes will cause increased need for natural resource extraction to drive the economy and provide services as well as demand jobs from the sector. This will necessitate formalization of operations in order to respond to employment demands. Mining sector job requirements will then push demand for specialised tertiary education to meet the human capital requirements.

3.7.4.2 Existing and Proposed Investment and Development Programmes

There is existence of illegal mining operations by communities and other business men does not in a way promote Local Economic Development, which benefits individuals and not the local economy. Environmental and Safety regulations are not adhered to leaving workers endangered by exposure to physical and biological hazards and uninsured and the environment at risk of degradation.

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

Distribution Patterns

The impact of continuation of trends as a result of population increase over the IDP period, settlement in the areas known to have mineral resources are likely to increase thus Clearance of land is expected to increase as people seek to settle in areas of opportunity expecting to be resettled and compensated.

3.7.6 Analysis of Impact on Environment and Climate Change

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

Environmental effects of mining can occur through formal and informal mining practices. Mining can cause erosion, sinkholes, loss of biodiversity, or the contamination of soil, groundwater, and surface water by chemicals emitted from mining processes. These processes also affect the atmosphere through carbon emissions which contributes to climate change.

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

Mining activities are energy intensive. Rising demand for more minerals will necessarily be associated with increases in energy needs. Zambia's current energy shortages are attributed to climate change effects on the hydrological system feeding the supply of hydro-electric power. Hence, load management can severely affect processes and key outputs of the mining sector. A sustainable energy plan will be needed to avoid deepening the challenges related to climate change.

Mining activities are also highly dependent on usage of large amounts of water whose availability can be hindered by drought. Stricter environmental controls in response to climate change can also increase mining operational costs. Lastly, Changes in temperature, extreme weather effects such as flooding can affect processes and adversely increase costs of excavation in cases of open pit mining.

3.7.7 Issues Arising Relating to Gender Groups and Vulnerable Groups

Mining operations traditionally employ a predominantly male workforce, resulting in limited opportunities for women in the sector. Women face barriers such as lack of access to training and education for mining-related jobs, as well as cultural biases and discrimination in recruitment and career progression.

3.7.8 Consideration of the Underlying Factors Contributing to the Issues Identified

The main issue affecting the mining sector under development of the existing mine and illegal mining which stems from limited access to capital investment finance, bureaucratic licensing procedures and limited access to geological information. This is compounded by lengthy exploration periods that deny possible developers access to mineral resources as large tracts of land are held on exploration licenses for speculation purposes over long periods without actual development which hinders the district from benefiting from job creation and local taxes as well as mineral royalties to the state.

3.7.9 Sector Summary

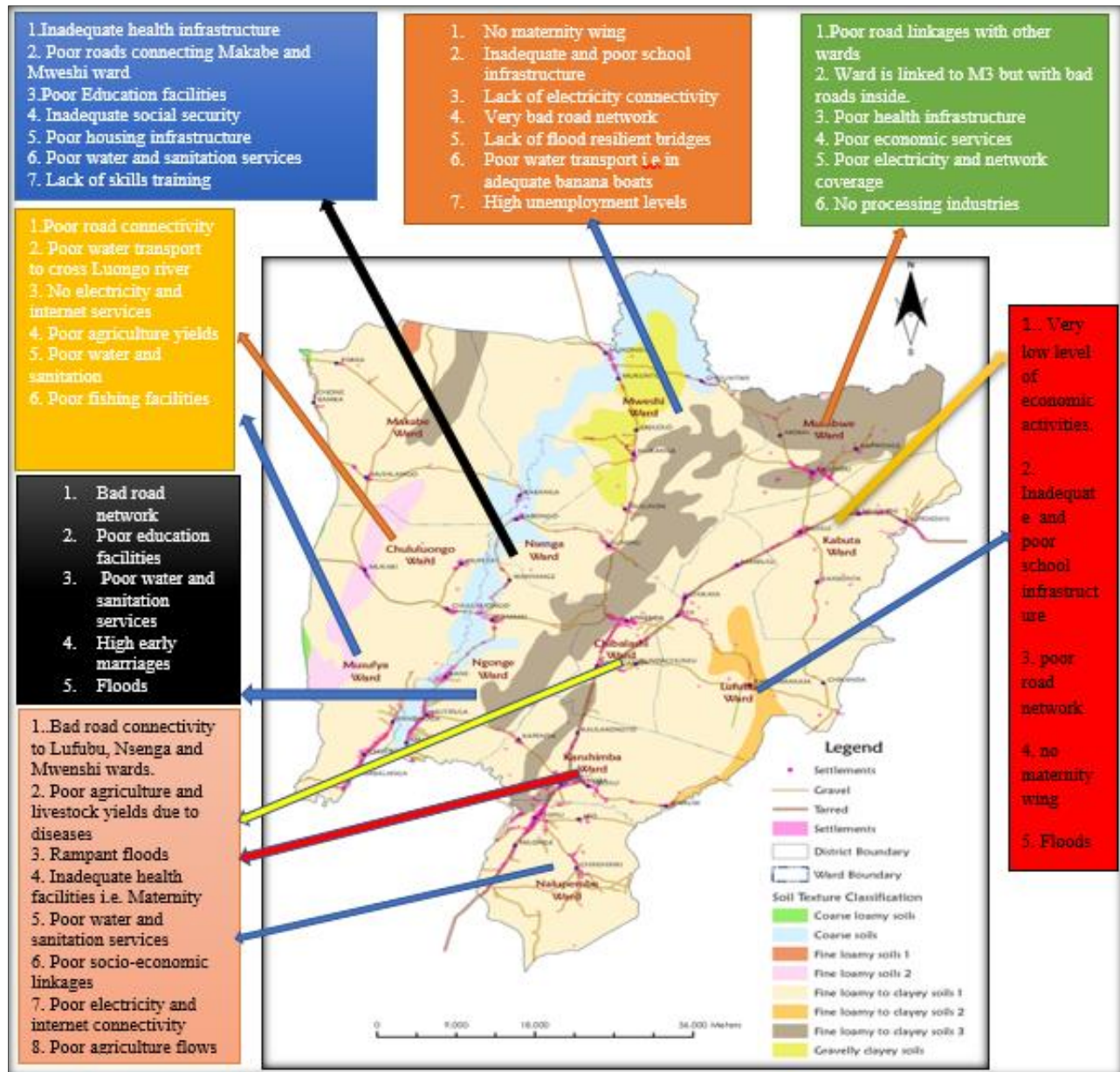
Illegal mining arises from a complex interplay of factors, including poverty-driven economic necessity, limited access to information, inadequate law enforcement, bureaucratic hurdles in legal mining processes. These factors collectively create an environment where individuals and groups find it profitable and feasible to operate outside of legal frameworks, often at great environmental and social cost. Addressing illegal mining necessitates comprehensive strategies that not only strengthen regulatory frameworks and enforcement but also address underlying socioeconomic issues, promote sustainable mining practices, and foster inclusive development to provide viable alternatives to illegal mining activities.

4.0 SUMMARY OF THE CORE ISSUES

S/N	Sector	Core Problem	Contributing Factors
1	Transport and Communication	<ul style="list-style-type: none"> • Poor road and Communication Infrastructure 	<ul style="list-style-type: none"> • Lack of maintainance of Infrastructure • Lack of Construction of new infrastructure
02	Agriculture	<ul style="list-style-type: none"> • Low productivity And production 	<ul style="list-style-type: none"> • Low investments in agriculture(New technologies) • Bad road networks • Low staffing levels • Low mechanisations
03	Livestock and Fisheries	<ul style="list-style-type: none"> • Low livestock and fisheries production 	<ul style="list-style-type: none"> • Climate Change • Low staffing levels • Traditions and Culture • Lack of value addition
04	Education	<ul style="list-style-type: none"> • Limited access to quality education • Low quality of education 	<ul style="list-style-type: none"> • Inadequate schools and infrastructure • Dilapidated school infrastructure • Long distance to school facilities • Low staffing levels
05	Health	<ul style="list-style-type: none"> • Limited access to quality health care • 	<ul style="list-style-type: none"> • Lack of referral centres • Inadequate transport facilities • Inadequate maternity annexes • Low staffing levels • Poor road newtorks to health facilities

06	Water & Sanitation	<ul style="list-style-type: none"> • Limited access to safe and clean water supply and sanitation 	<ul style="list-style-type: none"> • No Commercial Water Utility company in the district • Sparsely distributed settlements • Contamination of underground water • Lack of adequate number of Area Pump Menders to undertake Repair and Maintenance of boreholes
07	Energy	<ul style="list-style-type: none"> • Overdependence on Hydroelectric power • Limited access to clean energy solutions i.e., solar, wind and gas • 	<ul style="list-style-type: none"> • Low investment in the energy sector • Low investment in alternative energy source development • Lack of ZESCO presence in the district slows down rate of new connections
08	Mining	<ul style="list-style-type: none"> • Under-exploitation of Mining Sector 	<ul style="list-style-type: none"> • Unclear policy direction on mining of Sugilite • Low investments in the Mining Sector

Figure 19: Synthesis Map of Core issues in Chipili District



Source: Chipili Town Council, Department of Planning, 2023

PART THREE
DEVELOPMENT FRAMEWORK

5.0: DEVELOPMENT FRAMEWORK

5.1 Vision For The Long Development Of The District

Over the past decades, districts across the continent, both big and small are striving to be economically competitive, provide a high quality of life and create a place that people are proud to call home. As district look to the future, in most developing countries, conventional urban planning approaches are becoming inadequate in dealing with urban problems (Wapwera, 2014). Strategic Spatial planning is one of several planning approaches in support of sound and sustainable development of cities and metropolitan areas. UN-Habitat (2010:6) asserts that the main characteristic of strategic spatial planning is the focus on a set of strategic issues of principal importance for sustainable development issues that make the difference for the city as a whole. Thus, using strategic spatial planning an integrated development plan (IDP) of a district is formulated in which a spatial development framework is extracted. In order to derive goals, objectives and strategies, The section further uses the Problem-Tree analysis approach to identify the main overarching challenges faced in the District and priority areas for the development.

A Spatial Development Framework (SDF) Plan is to provide the local authority and other development agencies with a tool to assist them in making development decisions, which ensures that land use management and future land development within Chipili Town Council is based on the principle of sustainable development decisions and practices. Based on the vision and objectives contained in the IDP of Chipili Town Council, a Spatial Development Framework should reflect what the area will look like in the future. Thus, the process of this Spatial Development Framework was based on the package of plans concept which involved theory and analysis, formulation of vision statement, the actual SDF, precinct design and implementation. Thus this spatial development framework will provide direction to future planning and development of the settlement by integrating the spatial and socio-economic manifestation of various components of its urban structure. The SDF 2060 is premised on the notion of spatial transformation, defined through the principles of equity, justice, resilience, sustainability and urban efficiency which this SDF seeks to translate into a development policy.

5.1.1 Vision

A spatially efficient, sustainable socioeconomic, competitive and resilient green economy by 2034. The District seeks to address inadequate education infrastructure, contribute to various addition in the Agriculture sector as well as address long distance to education facilities and health by providing connectivity to markets and areas of productions.

5.2 Policies to Direct Development

The following policies are emanating from the summary of the core issues as outlined below

- ❖ Improved Road and Communication Infrastructure
- ❖ Increased Productivity And production
- ❖ Increased livestock and fisheries production
- ❖ Improved access to quality education
- ❖ Improved access to quality health care
- ❖ Improved access to safe and clean water supply and sanitation
- ❖ Increase access to alternative Energy Sources
- ❖ Exploit mineral resources

5.3 Development Objectives , Priorities and Development Strategies

TRANSPORT AND COMMUNICATION									
Goal: To improve Road and Communication Infrastructure									
Objective	Improve Road and Communication Infrastructure by 2034								
Strategy	Programme	Activity	Location by Priority	2024	2025	2026	2027	2028	Responsible Agency
Construction , maintainance transport and communication infrastructure	Construction of feeder roads	Grading of Feeder roads	All the Wards	20	20	20	20	20	LA and RDA
	Upgrading of roads to Bituminous Standards	Grading of roads,Construction of bridges and culvates	All the Ward	50	50	50	505	0	LA AND RDA
	Maintainance of Feeder roads	Construction of bridges, culvates and drainages	All Wards	50	50	50	50	50	LA AND RDS
	Erecting of Communication Towers	Identification of sites and construction of towers	Makabe, Mweshi and Musufya Wards		1		1	1	MOI
	Civil Aviation	Identification of land for an airstrip	Lufubu and Kanshimba Nalupembe			1			LA/ MT&L

AGRICULTURE SECTOR

Goal: To Increase Crop Production and Productivity

Objective	To increase crop production by 50% by 2028								
Strategy	Programme	Activity	Location by Priority	2024	2025	2026	2027	2028	Responsible Agency
Increase crop production	Agriculture mechanisation	Establishing of Irrigation schemes	All the wards	0	1	1	1	1	MOA
	Construction of weirs and dams	Construction of Dams	Musufya, Makabe, Chulu luongo, Chibalashi		1	1	1	1	MOA
	Planning Agreements with local chiefs	Securing of land for the purposes of opening up farm blocks	Chief Mutipula and Chief Mwenda		250	250	250	250	LA/MOA /Resettlement
	Empowerment of farmers with farming equipment	Investment in farming equipment(Tractors, planter, disk hallow)	All the 12 wards		2	2	2	2	MOA
Provide and Improve agriculture infrastructure	Construction , rehabilitation and maintainance of Roads	Grading, upgrading and maitainance of road networks	All the 12 wards		10	10	10	10	MOA
	Construction of storage facilities	Construction of storage sheds,	All wards		1	1	1	1	
	Construction of farmer training institute	Construction of one Farmer Training centre	Kashimba			1			
	Rehabilitation of camp houses.	Rehabilitating of 10 Camp houses	All camps		1	1	1	1	

Goal: To increase agriculture productivity and production

Objective	To increase crop productivity to 50% by 2028								
Strategy	Programme	Activity	Location by Priority	2024	2025	2026	2027	2028	Responsible Agency

Increase Agricultural Productivity	Staff recruitments	Recruitment of extension officers	All camps				0	0	LA and MOA
		Procurement of motorbikes	All camps		2	2	2	2	LA/MOA
	Improve access to farmer input support Program	Recruitment of new beneficiaires	All wards	1	1	1	0	0	MOA
	Value Addition to crops	Creation of value chain centres for groundnuts and cassava	Nalupembe, Chibalashi, Lufubu and Makabe wards		1	1	1	1	MOA/ZD A
	Training of farmers in Climate Smart Agriculture(CS A)	Establishment of Demo plots	All wards		10	10	10	10	MOA

Fisheries and Livestock

Goal: To Increase livestock Production and Productivity									
Objective	Increase livestock production and productivity by 50% by 2028								
Strategy	Programme	Activity	Location by Priority	2024	2025	2026	2027	2028	Responsible Agency
Increase livestock Production and Productivity	Livestock infrastructure development	Construction of Dip Tanks	All Camps		1	1	1	1	MOFL
		Construction of Abbatoir	Nalupembe, chibalashi				1	1	MOFL
		Construction of Slaughter Slab	All Camps				1	1	LA/MOFL
		Construction of VET Clinics	All camps			1	1	1	LA/MOFL
	Animal Restocking	Provision of loans for animal restocking and Agro businesses	All camps			10	10	10	MOFL/C EEC/LA
	Value addition	Construction of value addition centres	Nalupembe, kanshimba, Chibalashi						MoFL
	Recruitment of Extension officers	Employ 13 Extension staff	All Camps			5	5	3	MOFL

	Provision of Transport	Procure 13 Motorbikes	All Camps			5	5	3	MOFL
Goal: To provide timely and specific weather forecasting at District Level									
Objective	To provide Early warning and surveillance weather forecasting systems by 2028								
Strategy	Programme	Activity	Location by Priority	2024	2025	2026	2027	2028	Responsible Agency
Increase livestock Production and Productivity	Early warning and surveillance systems	Construction of of Early Warning Office	Kashimba	0	0	1	0	0	LA,MET, MOA
		Procurement of Early Warning Kits	Kashimba and Nalupembe		1	1	0	0	LA,MET, MOA
Goal: To increase fisheries production and productivity									
Objective	To increase fisheries production and productivity to 50% by 2034								
Strategy	Programme	Activity	Location by Priority	2024	2025	2026	2027	2028	Responsible Agency
increase fisheries production and productivity	Provision and rehabilitation of aquaculture infrastructure	Construction of Fish ponds and hatcheries	Chibalashi Ward	1	1	1	1	1	LA/MOFL
		Rehabilitation of existing infrastructure	All wards	10	20	30	40	50	LA/MOFL
	Recruitment of extension staff	Employ 13 extension staff	All Wards		5	5	3		MOFL
	Fish Restocking	Provide loans to Cooperatives and clubs to support Fingering production	All wards		10	10	10	10	LA/MOFL/CEEC
	Trainings and capacity buildings for fish farmers	Conduct trainings to 200 fish farmers	All wards		50	50	50	50	MOFL
	Provision of transport	Procurement of motor vehicle and Motorbike	All wards			1	1		

EDUCATION SECTOR

Goal: Increased access to quality education										
Objective	To increase access to quality education									
Strategy	Programme	Activity	Location by Priority	2024	2025	2026	2027	2028	Responsible Agency	
Enhance quality education through provision of basic education infrastructure	Infrastructure Development	Construction classroom blocks	Kanshimba, Mwenda and Maipambe		1	1	1	1	LA/MOE	
		Construction ablution blocks	Kabuta, Musufya, Nkonge, Chibalashi and Mumbwe		1	1	1	1	LA/MOE	
			Construction of Primary Schools	Kabuta, Musufya, Nkonge, Chibalashi and Mumbwe		1	1	1	1	LA/MOE
			Establishing additional examination centres	Kanshimba, Chipili, Chibalashi		1	1	1		LA/MOE
			Construction of ECE Centres with child friendly infrastructure	Nalupembe, Chibalashi		1	1	1		LA/MOE
			Construction of the DEBS office	Chibalashi				1		LA/MOE
			Connection of 41 schools to the national Grid	All wards		11	10	10	10	LA/MOE
			Construction of Staff Houses	Mukonshi, Chinshinki and Mutipula		1	1	1	1	LA/MOE
			Rehabilitation of Classroom blocks	Mukonshi, Chinshinki and Mutipula		1	1	1		LA/MOE
			Construction of school for the Disabled and OVCs	Kanshimba				1		LA/MOE
		Rehabilitation of Staff houses	Mukonshi, Chinshinki		1	1	1	1	LA/MOE	

			and Mutipula						
		Upgrading of Community Schools to primary Schools			1		1		LA/MOE
		Construction of 49 Kitchen Shelters for home-grown school meals program			15	10	10	14	LA/MOE
		Construction of a Skills Centre	Chibalashi				1		LA/MOE
		Construction of 2 Boarding Schools				1	1		LA/MOE
		Construction of a Library	Chibalashi			1			LA/MOE
		Provision of Desks							LA/MOE
Human Resource Development	Staff Recruitment	Recruitment of 250 Teachers	All wards		75	75	75	25	MOE

HEALTH SECTOR

Goal: Increased access to quality Health

Objective	To increase access to quality Health								
Strategy	Programme	Activity	Location by Priority	2024	2025	2026	2027	2028	Responsible Agency
Enhance quality healthcare through provision of Health infrastructure	Infrastructure Development	Construction District Hospital with a mortuary	Kanshimba, Mwenda and Maipambe				1		LA/MOE
		Construction of health posts	Kabuta, Musufya, Nkonge, Chibalashi and Mumbwe		1	1	1	1	LA/MOE
		Construction of Maternity wings	Kabuta, Musufya, Nkonge, Chibalashi		1	1	1	1	LA/MOE

			and Mumbwe						
		Construction of Staff Houses	Kanshimba, Chipili, Chibalashi		1	1	1		LA/MOE
		Construction of Mothers waiting Shelter	Nalupembe, Chibalashi		1	1	1		LA/MOE
		Construction of water Schemes with shower rooms	All wards		3	3	3	3	LA/MOE
Provision of machinery and equipment	Procurement	Procurement of medical equipment and beds	Mukonshi, Chinshinki and Mutipula		1	1	1		LA/MOE
		Procurement of Ambulance	Nalupembe	1					LA/MOE
		Connection of 19 Health facilities to National grid	All wards		8	8	2	1	MOH
		Procurement of motorbikes	All wards		3	3	3	3	MOH
Human Resource Development	Recruitment of Staff	Recruit health workers	All wards		10	10	10	10	MOH

WATER AND SANITATION SECTOR

Goal: Increased access to safe and clean water supply and sanitation

Objective	To increase access to safe and clean water and sanitation by 85% by 2028								
Strategy	Programme	Activity	Location by Priority	2024	2025	2026	2027	2028	Responsible Agency
Enhance access to safe clean water supply	Water Infrastructure development	Connection of water Supply to residential areas within the township	Chibalashi		20	20	20	20	LpWSC

and sanitation									
		Water Treatment Plant	Chibalashi			1			LpWSC
		Construction of an office for water utility Company	Chibalashi			1			LpWSC
		Construction of a Dam	TBA				1		LpWSC
		Construction of 4 industrial boreholes	Chibalashi, Nalupembe		1	1	1	1	LA/LpWSC
		Construction of 8 water schemes	Kanshimba, Chibalashi, Nkongwe and Nalupembe		2	2	2	2	LA/LpWSC
		Drilling and equipping of 80 boreholes	All wards		20	20	20	20	LA/MWD
		Repair of 47 Non functional boreholes	All Wards		15	15	15	2	LA
		Construction of sewer ponds and sewer lines	Chibalashi			1			UC
Enhance sanitation through WASH activities	Community Led Total Sanitation (CLTS)	Trigger all chiefdoms on CLTS to reduce ODF	All wards		3	3	3	3	LA
	Train and capacity build APMs	Identification and training of Area 60 Pump menders (APMs)	All wards		15	15	15	15	LA
Regional planning	Planning Agreements	Preparation of Local Area Plan	Kanshimba, Chibalashi, Nkongwe and Nalupembe		1	1	1	1	LA

ENERGY SECTOR

Goal: Increased access to safe and clean Energy

Objective To increase access to electricity by 50% by 2028

Strategy	Programme	Activity	Location by Priority	2024	2025	2026	2027	2028	Responsible Agency
Enhance generation, transmission and distribution of electricity	Energy Infrastructure development	Construction of Mini Hydro Power Station	Chipili			1			LA/ZESCO
		Construction of Substations	Chibalashi			1			LA/ZESCO
		Construction of Solar Energy Plant	Chibalashi			1			LA/ZESCO
	Connection to the National grid	Increase customer connections to the grid	Chipili		50	50	50	50	LA/ZESCO
	Rural electrification	Increase number of households to be connected to REA	Chipili		50	50	50	50	LA/ZESCO

MINING SECTOR

MINING SECTOR									
Goal: Increased Mineral Exploration and Extraction									
Objective	To increase Mineral Exploration to 50% by 2028								
Strategy	Programme	Activity	Location by Priority	2024	2025	2026	2027	2028	Responsible Agency
Enhance Exploration and Extraction of Minerals	Mineral Exploration	Operationalisation of existing mines	Chipili			1			LA/Ministry of Mines/ZDA
		Registration of Mines in the District	Chibalashi			1			LA/ZESCO
		Connnection of Solar Energy Plant to the Mines	Chibalashi			1			LA/ZESCO
	Mappping of all mining activities in the district	Site visits of all mines	All wards		2	2	2	2	LA/ZESCO
	Promotion and registration of small-scale mining cooperatives	stakeholder identification and engagement	All wards		1	1	1	1	LA/ZESCO

5.4 Spatial Development Framework

The development framework of Chipili will set out the development objectives, priorities and strategies of the district. These will be drawn from the following pertinent elements that provide assumptive approach to the identified problems of the district;

- a) Addressing Agriculture, transport network, social and economic aspects of development

- b) Ensuring the Protection of sensitive ecological zones, areas of environmental sensitivity or cultural and historical importance or areas of importance for disaster management purposes;
- c) Ensuring national and regional interests, policies and guidelines are clear tabulated in the Development Framework.
- d) Ensuring the Proposals to the development and use of land in neighbouring areas are in line with provided for regulations
- e) Projecting areas of future growth that could be under the jurisdiction of traditional authorities and proposed policies and proposals for those areas.
- f) Tabulating clearly areas where planning agreements can be done -under customary tenure.

5.4.1 Alternative Development scenarios

The Chipili IDP has three development scenarios

- 1) Nodes:
- 2) Growth Poles
- 3) Development Corridors

5.4.1.1 Scenario 1: Growth Node Concept

A total of six (6) wards have been proposed for the development of nodes due to their resource potentials and population trends. These are Nalupembe, Kanshimba, Nkongwe, Chibalashi, Mwenshi, Nsenga and Mumbwe ward. These growth nodes are developing because the social amenities available such as Schools, health facilities and markets which offer social services to the surrounding population. The nodes are further explained in terms of their potential resources for growth in the paragraphs below.

5.4.1.1.1 Lufubu Node

The growth node has great potential in agriculture and mining. The prospects of huge deposits of iron and manganese deposits in Lufubu ward will help to re-zone the area for promotion of extraction of the aforementioned minerals. In addition, the two areas are rich in cassava, maize, sorghum and livestock production. The two areas are expanding greatly hence the need for economic growth ventures.

5.4.1.1.2 Chibalashi Node

The growth node is rich in timber, agriculture, livestock, and has high potential for stone crushing. This calls for re-zoning of the area so that local people can be empowered through local

endowments. In addition, the wards will focus on the promotion of value addition and processing of the agriculture products in order to improve on job creation and reduce on high poverty levels.

5.4.1.1.3 Musufya Node

According to the suitability analysis conducted for the IDP, the growth area is ideal for the expansion of the district economic activities due to high population density which makes it easy to service the area by providing social amenities such as markets, schools and health facilities in one place. There are no environmentally sensitive features which can inhibit development of the node. In addition, its proximity to the commercially viable timber plantation and fishing that take place in Luongo river makes it suitable to attract other developments.

5.4.1.1.4 Nalupembe Node

The node is considered urban although a large portion of undeveloped land is used for agriculture. This is a fast growing area in the district located along Mansa- Luwingu road with investments in agriculture production and mining of manganese. Due to its locational advantage, the area has potential to develop into an urban area, which will further cause population growth. The increase in population will call for more investments in Housing developments, provision of commercial and social services such as education and health will be setup to support the health livelihoods of the people in the area. The current location for the upcoming Solar Plant in Nalupembe will promote the setup of other manufacturing industries and services that will support the existing Solar plant.

5.4.1.1.5 Makabe Node

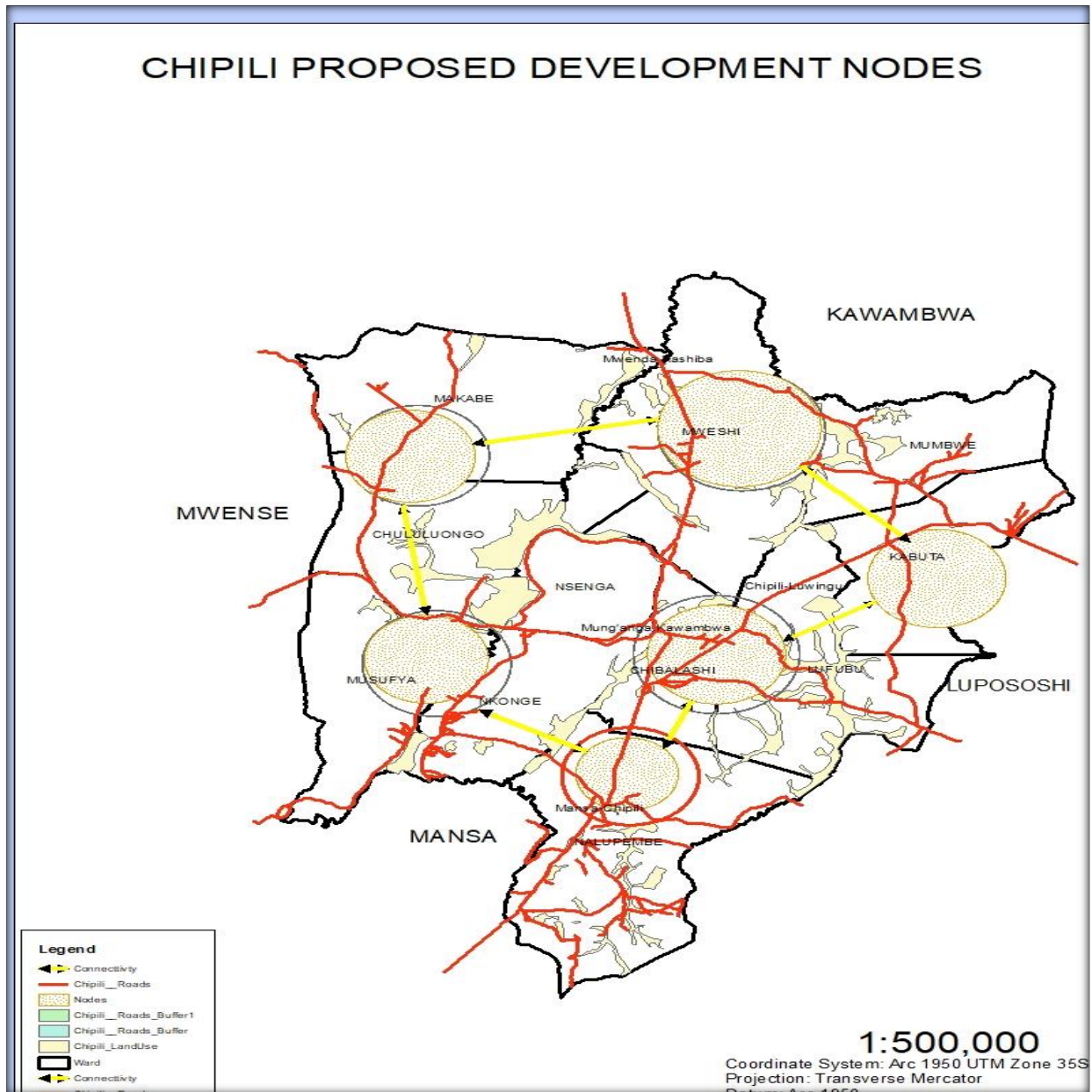
The growth node is a fast growing area sharing thick forests rich in different species of timber used in construction. In addition, the growth node has rich deposits of iron, manganese and quarry. During the IDP period the node will attract a lot of mining activities that will call for excision of the existing forest to facilitate for the extraction of iron and manganese. Furthermore, the node has potential for agriculture production of sugarcane, Rice and maize. The mining activity will attract population growth which will further result in demand for infrastructure development to support the mining in the area.

5.4.1.1.6 Mwenshi Node

The Node currently hosts the Luongo National forest No. 442, an area that has rich deposits of iron and manganese ores. The manganese mining is an essential part of Chipili district. It represents a potential platform to catalyse economic development and poverty reduction. Due to its unique chemical properties, manganese has found wide applications in battery cathodes, manufacturing, alloying of copper and aluminium, colourant in glass and use as a micronutrient element in fertilisers and animal feed. Manganese mining at Mulunda and Mukanga will be opened up for the Artisanal Small-Scale Manganese Mining for effective economic growth

Figure 28 below depicts the proposed development nodes.

Figure 28: Chipili District Development Concept Map



Source: Chipili Town Council, Department of Planning, 2023

5.4.1.2 Scenario 2: Growth Poles

5.4.1.2.1 Chibalashi Pole

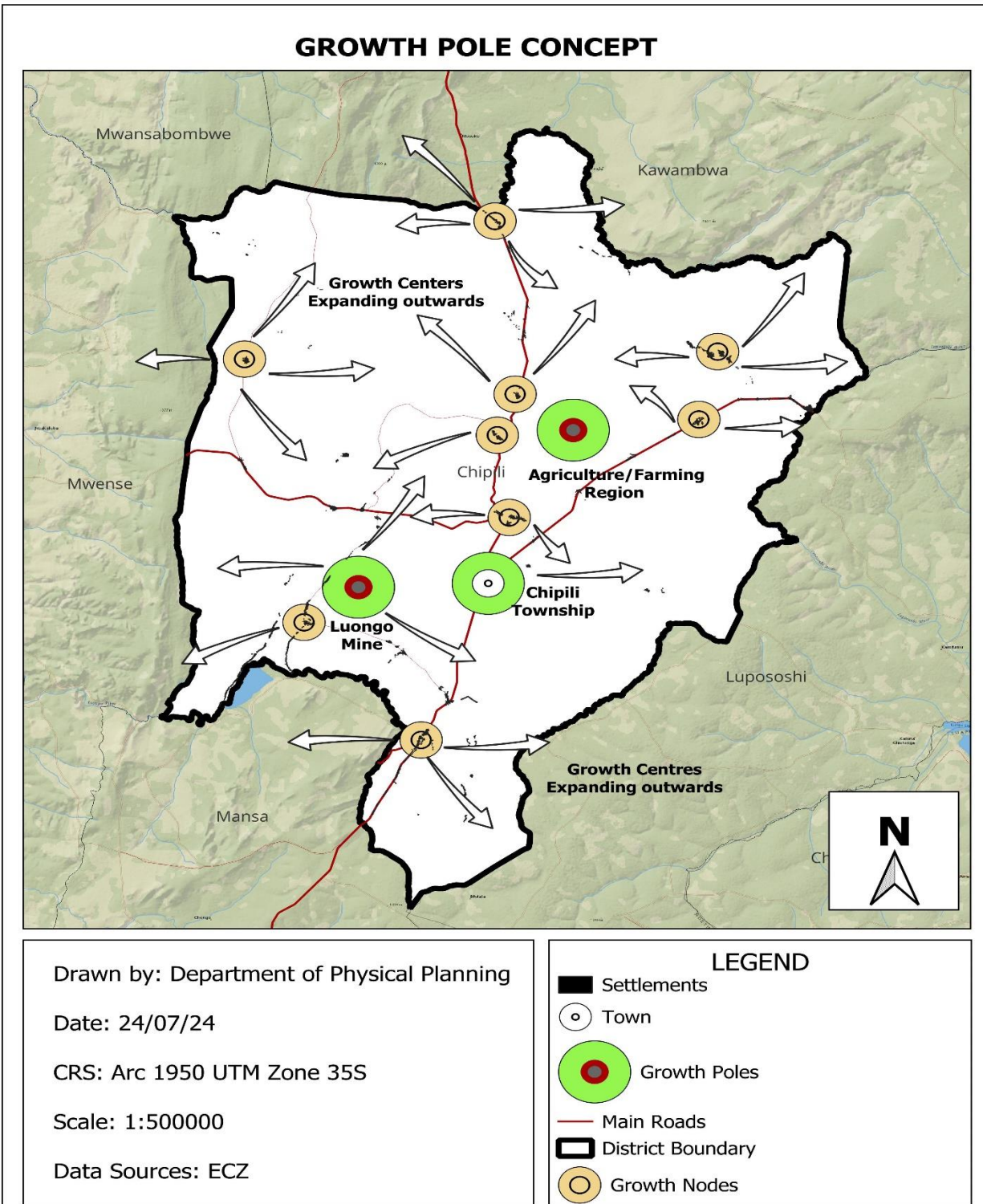
The area is posed to attract numerous development due its declaration as a township area with proposed massive infrastructure to support administration and provision of basic social services such as Government offices, District Hospital, post office, police station, civic centre, Recreation facilities such as stadium, shopping malls, Tertiary education facilities, markets and inter terminus bus stations and more. The above mentioned infrastructure will culminate in population explosion

in the IDP area. In addition, the surrounding villages such as Munganga will be upgraded into improvement areas to enable preparation of local area plans and subsequent provision of basic services. The surrounding areas falling under traditional leadership will see Local Area Plans being prepared through planning agreements which will attract investments and developments.

5.4.1.2.2 Chulu Luongo Pole

The manganese mining is an essential part of Chipili district. It represents a potential platform to catalyse economic development and poverty reduction. Due to its unique chemical properties, manganese has found wide applications in battery cathodes, manufacturing. The Chulu luongo area boasts of the Luongo Manganese Mine which is operational. Apart from the Luongo mine, the belt has a vast mineral ore deposit which has attracted other prospecting companies in the mining sector conducting feasibility studies to invest the mining of manganese and sugilite. The investment will attract a lot of labour force which will culminate into more demand for more auxiliary infrastructure like housing, education, Health, recreation. The area will require preparation of Local area plans through planning agreements. In addition the areas surrounding the mines will require subsequent upgrading to meet the needs of the growing population in the new mining town. Figure 29 below shows the proposed development growth pole development Concept.

Figure 29: Depicting Growth Pole Concept



Source: Chipili Town Council Planning Department 2023

5.4.1.3. Scenario 3: Development Corridors

A development corridor is a geographic linkage of specific urban centers or nodes, which are strategically created for the purpose of economic development within a particular region. The development corridor is assigned to the specified linear geographic area which is mostly bisected by an existing or potential infrastructure route or “**spine**”.

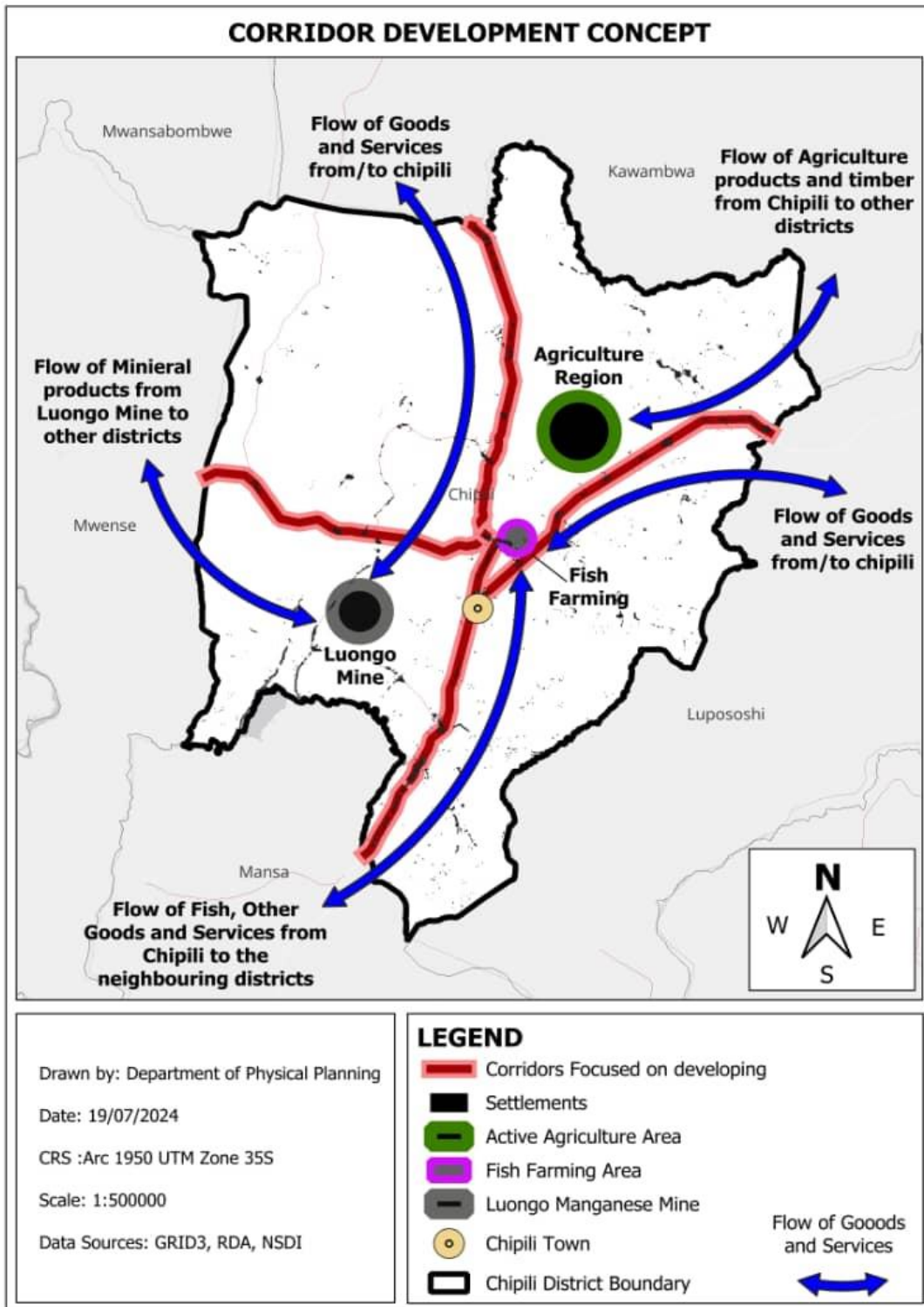
In this scenario there are two(02) development corridors which are proposed. The two corridors hinge on Agriculture , Fisheries and Livestock, Timber and Mining. The first corridor is proposed in Nalupembe, Kanshimba and Chibalashi wards as a development corridor for agriculture and mining with related value chains whilest, the second corridor is in Mwenshi ward as a timber, Fisheries and livestock and agriculture development corridor and linked to the Mwenda-Kasomeno Road.

5.4.1.3.1 Rationale of the Development Corridor

The Development Corridor concept is the proposed concept for the development of Chipili by linking it to strategic areas in the region with the Mansa Luwingu road as the main transport linkage. In implementing the Development Corridor concept, Chipili District will stand to greatly benefit from the investment not only in its jurisdiction, but in the areas linked across the corridor such as Munga’nga and areas along Mumbwe wards. The Development Concept is based on the District Development Concept which proposes the establishment of development nodes along the M3 and the linkage of these nodes to alternative routes within the District.

The rationale behind the Development Corridors is transport efficiency for imports and exports of Agriculture and Mining Produce from Chipili District to other parts of the Country. As such, the Development Corridors will link the Luapula province to the northern province via luwingu and Kasama; will also link Luapula province to Congo DR via Kashiba border. Further, the local and regional investment facilitated by the Development Corridor will enhance economic development of Chipili District, Luapula Province and Zambia at large. Figure 30 below shows the proposed Development Concept.

Figure 30 Depicting Corridor Development Concept



Source: Chipili Town Council Planning Department 2024

5.4.2 Chosen Saptial Development Scenario

The criteria for the selection of the best scenario is based on the following factors:- Environmental factors, potential to contribute to job creation, contribution to the local economy and national economy, demographic trends and social economic factors, political and technological factors.

5.4.2.1 Scenario 1: Growth Nodes as the best alternative.

The development scenario aims to increase access to Basic Services such as education, health, environmental services and social protection. By using the concept of growth poles and nodes, the idea is to strengthen service delivery through equitable distribution of education and health infrastructure in each ward to ensure that distances covered by populations are significantly reduced

5.4.3 Land use Planning Policies and Proposals

The Chipili IDP recommends that all the Wards to prepare Local Area Plans (LAPs) to prevent the growth of unplanned settlements, protection of environmental zones, development of areas under customary tenure, protection of regional and intersect resources in the district and to also manage the uncoordinated developments resulting from the frequent changes in land use, subdivisions and conversions from customary land to leasehold.

5.4.3.1 Environmental, Social and Economic Aspects of Development

- 1) Land use planning policies and proposals to improve, maintain or protect the environmental, social and economic aspects of development
- 2) In order to protect, maintain and improve the environmental, social and economic aspects of development, the district shall ensure that:
- 3) More and differentiated employment opportunities are created for young people;
- 4) Well planned human settlements closer to places of work;
- 5) Improve the quality public transport and safety of it;
- 6) Implement infill development for more holistic development
- 7) Promote cycling and walking through dedicated cycle and walking trails
Promote the development of dedicated public transport routes within and outside the wards in Chipili District.
- 8) Roll out Optic Fibre network and other economic infrastructure
- 9) Provide skills training to youth and women and youth/women led businesses

5.4.3.2 Protection Zones, Environmental Sensitivity, Cultural and Historical Importance

The following Land use planning policies and proposals shall be developed for protection zones, areas of environmental sensitivity or cultural and historical importance or areas of importance for disaster management purposes

- 1) Prohibition of development along the Chibalashi river and Luongo rivers and other ecologically sensitive areas and more particularly housing and industry
- 2) Improve the regulation of conservation and restoration of protected areas
- 3) Promote Tree Planting in public spaces and open spaces
- 4) Develop a comprehensive programme to protect historical and cultural sites
- 5) Mapping of historical and cultural sites
- 6) Prohibition of expansion of housing developments towards rivers, watershed, historical sites and other environmentally sensitive areas
- 7) Protection of National and Regional Interests

5.4.3.3 Protection of National and Regional Interests

The following Land use planning policies and proposals shall be developed and implemented for the protection of national and regional interests:

- 1) Maintain the quality of the water in the Luongo River
- 2) Ensure that the M3 Road is well maintained to ensure access
- 3) Protection of the Luongo River watershed and surrounding areas to ensure environmental sustainability

5.4.3.4 Informal Settlements

The following Land use planning policies and proposals will apply to informal settlements such as Munganga settlement in Chibalashi ward. These policies will be implemented together with appropriate building and land use controls as provided for in the Urban and Regional Planning Act of 2015;

- 1) Provide wider and more accessible roads
- 2) Improve access to health and education infrastructure
- 3) Ensure access to safe and clean drinking water provided at block level
- 4) Improve the health and safety of community services

- 5) Promote access to decent employment opportunities within the settlements
- 6) Prohibit the expansion of housing towards ecologically sensitive areas
- 7) Restrict expansion of housing developments to current settlement boundaries
- 8) Promote the use of sustainable building materials
- 9) Ensure that building regulations for housing and other developments are developed and implemented

5.4.3.5 Areas Under Traditional Authorities

The following Land use planning policies and proposals shall apply to areas under the jurisdiction of traditional authorities:

- 1) Planning agreements will be in place for the development of housing, commercial and industrial buildings
- 2) Provide incentives to local artisans and builders
- 3) Support traditional leaders to update their land use allocation maps
- 4) Encourage traditional authorities to prepare land use plans for their areas

PART FOUR
IMPLEMENTATION PLAN

6.0 Implementation Program

6.1 Capital Investment Plan

This section of the Implementation Program presents the cost and financing of all strategies to ensure that the objectives and strategies of the IDP are implemented. Both the Capital Investment Plan (CIP) and the Financial Plan (FP) are directly related to the priorities, objectives and strategies identified in the IDP. The Capital Investment Plan include investment in physical infrastructure and services which are identified as priorities for the district. The CIP is prepared for five years only and is aligned with the Medium-Term Expenditure Framework, and is directly related to the priorities, objectives and strategies of the IDP.

TRANSPORT AND COMMUNICATION									
Goal: To improve Road and Communication Infrastructure									
Objective	Improve Road and Communication Infrastructure by 2034								
Strategy	Programme	Activity	Location by Priority	2024	2025	2026	2027	2028	Responsible Agency
Construction , maintainance transport and communication infrastructure	Construction of feeder roads	Grading of Feeder roads	All the Wards	400,000	440,000	484,000	500,000	550,000	LA and RDA
	Upgrading of roads to Bituminous Standards	Grading of roads,Construction of bridges and culvates	All the Ward	400,000	450,000	500,000	550,000	600,000	LA AND RDA
	Maintainance of Feeder roads	Construction of bridges, culvates and drainages	All Wards	500,000	550,000	600,000	650,000	670,000	LA AND RDS
	Erecting of Communication Towers	Identification of sites and construction of towers	Makabe, Mweshi and Musufya Wards		250,000	250,000	250,000	250,000	MOI

AGRICULTURE SECTOR

Goal: To Increase Crop Production and Productivity									
Objective	To increase crop production by 50% by 2028								
Strategy	Programme	Activity	Location by Priority	2024	2025	2026	2027	2028	Responsible Agency
Increase crop production	Construction of weirs and dams	Construction of Dams	Musufya, Makabe, Chulu luongo, Chibalashi		1,500,000	1,600,000	1,	1	MOA
	Empowerment of farmers with farming equipment	Investment in farming equipment(Tractors, planter, disk hallow)	All the 12 wards		5,000,000	5,000,000	5,000,000	5,000,000	MOA
Provide and Improve agriculture infrastructure	Construction , rehabilitation and maintainance of Roads	Grading, upgrading and maitainance of road networks	All the 12 wards		3,000,000	3,000,000	3,000,000	3,000,000	MOA
	Construction of storage facilities	Construction of storage sheds,	All wards		750,000	750,000	750,000	750,000	MOA
	Construction of farmer training institute	Construction of one Farmer Training centre	Kashimba			2,300,000			MOA
	Rehabilitation of camp houses.	Rehabilitating of 10 Camp houses	All camps		1,000,000	1,000,000	1,000,000	1,000,000	MOA

Goal: To increase agriculture productivity and production

Objective	To increase crop productivity to 50% by 2028								
Strategy	Programme	Activity	Location by Priority	2024	2025	2026	2027	2028	Responsible Agency
Increase Agricultural Productivity	Value Addition to crops	Construction of value chain centres for groundnuts and cassava	Nalupembe, Chibalashi, Lufubu and Makabe wards		1,500,000	1,600,000	1,650,000	1,700,000	MOA/ZDA

Fisheries and Livestock

Goal: To Increase livestock Production and Productivity

Objective	Increase livestock production and productivity by 50% by 2028								
Strategy	Programme	Activity	Location by Priority	2024	2025	2026	2027	2028	Responsible Agency
Increase livestock Production and Productivity	Livestock infrastructure development	Construction of Dip Tanks	All Camps		500,000	550,000	500,000	500,000	MOFL
		Construction of Abattoir	Nalupembe, chibalashi				700,000	770,000	MOFL
		Construction of Slaughter Slab	All Camps				300,000	330,000	LA/MOFL
	Value addition	Construction of VET Clinics	All camps			350,000	385,000	425,000	LA/MOFL
		Construction of value addition centres	Nalupembe, kanshimba, Chibalashi						MoFL
		Provision of Transport	Procure 13 Motorbikes	All Camps			5	5	3

Goal: To provide timely and specific weather forecasting at District Level									
Objective	To provide Early warning and surveillance weather forecasting systems by 2028								
Strategy	Programme	Activity	Location by Priority	2024	2025	2026	2027	2028	Responsible Agency
Increase livestock Production and Productivity	Early warning and surveillance systems	Construction of of Early Warning Office	Kashimba	0	0	1,900,000	0	0	LA,MET,MOA
Goal: To increase fisheries production and productivity									
Objective	To increase fisheries production and productivity								
Strategy	Programme	Activity	Location by Priority	2024	2025	2026	2027	2028	Responsible Agency
increase fisheries production and productivity	Provision and rehabilitation of aquaculture infrastructure	Construction of Fish ponds and hatcheries	Chibalashi Ward	200,000	200,000	200,000	200,000	200,000	LA/MOFL
		Rehabilitation of existing infrastructure	All wards	1,000,000	1,000,000	1,300,000	1,400,000	1,500,000	LA/MOFL

EDUCATION SECTOR

Goal: Increased access to quality education									
Objective	To increase access to quality education								
Strategy	Programme	Activity	Location by Priority	2024	2025	2026	2027	2028	Responsible Agency
Enhance quality education through provision of basic education infrastructure	Infrastructure Development	Construction classroom blocks	Kanshimba, Mwenda and Maipambe		1,200,000	1,200,000	1,200,000	1,200,000	LA/MOE
		Construction ablution blocks	Kabuta, Musufya, Nkonge, Chibalashi and Mumbwe		600,000	600,000	600,000	600,000	LA/MOE
		Construction of Primary Schools	Kabuta, Musufya, Nkonge, Chibalashi and Mumbwe		2,500,000	2,500,000	2,500,000	2,500,000	LA/MOE
		Construction of ECE Centres with child friendly infrastrucure	Nalupembe, Chibalashi		300,000	300,000	300,000	300,000	LA/MOE
		Construction of the DEBS office	Chibalashi				2,500,000		LA/MOE
		Connection of 41 schools to the national Grid	All wards		1,200,000	1,200,000	1,200,000	1,200,000	LA/MOE
		Construction of Staff Houses	Mukonshi, Chinshinki and Mutipula		1,000,000	1,000,000	1,000,000	1,000,000	LA/MOE
		Rehalibitation of Classroom blocks	Mukonshi, Chinshinki and Mutipula		500,000	500,000	500,000	500,000	LA/MOE

		Construction of school for the Disabled and OVCs	Kanshimba				1,500,000		LA/MOE
		Rehabilitation of Staff houses	Mukonshi, Chinshinki and Mutipula		750,000	750,000	750,000	750,000	LA/MOE
		Upgrading of Community Schools to primary Schools			1,200,000		1,200,000		LA/MOE
		Construction of 49 Kitchen Shelters for home-grown school meals program			3,300,000	3,000,000	3,000,000	3,000,000	LA/MOE
		Construction of a Skills Centre	Chibalashi				5,500,000		LA/MOE
		Construction of 2 Boarding Schools				15,000,000	15,000,000		LA/MOE
		Construction of a Library	Chibalashi			1,800,000			LA/MOE

HEALTH SECTOR

Goal: Increased access to quality Health									
Objective	To increase access to quality Health								
Strategy	Programme	Activity	Location by Priority	2024	2025	2026	2027	2028	Responsible Agency
Enhance quality healthcare through provision of Health infrastructure	Infrastructure Development	Construction District Hospital with a mortuary	Kanshimba, Mwenda and Maipambe				3,500,000		LA/MOH
		Construction of health posts	Kabuta, Musufya, Nkongwe, Chibalashi and Mumbwe		1,300,000	1,300,000	1,300,000	1,300,000	LA/MOH
		Construction of Maternity wings	Kabuta, Musufya, Nkongwe, Chibalashi and Mumbwe		1,200,000	1,200,000	1,200,000	1,200,000	LA/MOH
		Construction of Staff Houses	Kanshimba, Chipili, Chibalashi		1	1	1		LA/MOH
		Construction of Mothers waiting Shelter	Nalupembe, Chibalashi		1	1	1		LA/MOH
		Construction of water Schemes with shower rooms	All wards		3	3	3	3	LA/MOH

WATER AND SANITATION SECTOR

Goal: Increased access to safe and clean water supply and sanitation									
Objective	To increase access to safe and clean water and sanitation by 85% by 2028								
Strategy	Programme	Activity	Location by Priority	2024	2025	2026	2027	2028	Responsible Agency
Enhance access to safe clean water supply and sanitation	Water Infrastructure development	Connnection of water Supply to residential areas within the township	Chibalashi		500,000	550,000	570,000	600,000	LpWSC
		Construction of Water Treatment Plant	Chibalashi			15,000,000			LpWSC
		Construction of an office for water utility Company	Chibalashi			1000,000			LpWSC
		Construction of a Dam	TBA				23,000,000		LpWSC
		Construction of 4 industrial boreholes	Chibalashi, Nalupembe		250,000	250,000	250,000	250,000	LA/ LpWSC
		Construction of 8 water schemes	Kanshimba, Chibalashi, Nkongwe and Nalupembe		700,000	700,000	700,000	700,000	LA/ LpWSC
		Drilling and equipping of 80 boreholes	All wards		1000,000	1000,000	1000,000	1000,000	LA/MWD
		Repair of 47 Non functional boreholes	All Wards		100,000	100,000	100,000	100,000	LA
		Construction of sewer ponds and sewer lines	Chibalashi				3000,000		UC

ENERGY SECTOR									
Goal: Increased access to safe and clean Energy									
Objective	To increase access to electricity by 50% by 2028								
Strategy	Programme	Activity	Location by Priority	2024	2025	2026	2027	2028	Responsible Agency
Enhance generation, transmission and distribution of electricity	Energy Infrastructure development	Construction of Mini Hydro Power Station	Chipili			3000,000			LA/ZESCO
		Construction of Substations	Chibalashi			1,500,000			LA/ZESCO
		Construction of Solar Energy Plant	Chibalashi			1,500,000			LA/ZESCO

--

MINING SECTOR**Goal: Increased Mineral Exploration and Extraction****Objective** To increase Mineral Exploration to 50% by 2028

Strategy	Programme	Activity	Location by Priority	2024	2025	2026	2027	2028	Responsible Agency
Enhance Exploration and Extraction of Minerals	Mineral Exploration	Operationalisation of existing mines	Chipili			200,000,000			LA/Ministry of Mines/ZDA
		Connnection of Solar Energy Plant to the Mines	Chibalashi			1,500,000			LA/ZESCO

6.2 Local Authority Financial Plan

The Financial Plan reflects standard operational budgets which Local Authorities will incur such as salaries and emoluments. The financial plan relates wholly to functions of and services provided by the Chipili Town Council. The purpose of the Financial Plan is to ensure that recurrent expenses for the implementation of the IDP are budgeted for. The expected output is a financial plan setting out the recurrent expenses for the implementation of strategies and Programmes

6.2.1 Revenue Collection Efficiency of the Chipili Town Council

6.2.1.1 Assessment of current and potential revenue streams

The Chipili Town Council revenue is low due to the low levels of economic activity in the district. The District is predominantly Agriculture. A thorough analysis of the revenue collection methods indicates that there are 4 Revenue Collectors are on permanent establishment. The Council does not collect any revenue from property rates as there are no houses on title as the District is a new District.

6.2.1.2 Own Sources of Revenue (OSR)

The different revenue streams identified include:

- 1) Levies and fees for various services
- 2) Government subventions (e.g. Local Government Equalization Fund (LGEF)
- 3) Funding from various sponsors and well-wishers

6.2.1.3 External Sources of Revenues for Implementation

Current and potential external sources of funding for the council include government funding and donor agency funding such as German Development Cooperation(GIZ). Chipili Council receives Constituency Development Funds (CDF) for community projects, loans, grants and bursaries. The Local Government Equalization Fund (LGEF), grants-in-lieu of rates and central government grants.

6.2.2 Assessment of the Revenue Base 2023-2024

The implementation of the IDP objectives, strategies and priority projects requires an assessment of the expected and potential revenue base for the planning period. The table below highlights the main revenue generating activities and/or services provided and planned for in the budget for the base year 2022 and from 2023 to current proposed budget of 2024

Table 27 : Budget Expenditure and Sources of Income

Sn.	Revenue Type	Projected 2022 Revenue	Collected 2022 Revenue	Projected 2023 Revenue	Collected 2023(end 2 nd Qtr)	Projection 2024
1	LGEF	9,559,381.00	10,207,778.00	10,369,000.00	5,090,125.00	11,489,240.00
2	Grants in lieu of Rates	431,200.00	281,760.00	212,552.00	490,000.00	490,000.00
3	CDF	25,7000.00	23,934,852.00	28,313,902.01	5,914,911.08	31,400,117.38
	Total	35,690,581.00	34,424,390.00	38,895,454.01	11,495,036.08	43,379,359.32

Source: Chipili Town Council, Department of Finance, 2023

6.2.3 Main Factors affecting Revenue Collection and Management

The council does not have an up to date inventory and revenue database to set overall targets for revenue collection and for its individual Revenue Collectors and hence make a prudent estimate of the revenue projection. It does not have proper mechanisms to know if all revenue has been collected and if all revenue has been accounted for.

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

Local Area plans for the IDP shall be developed from 2023 onwards as follows:

Phase 1: Urban Renewal (2023 – 2024)

The Munganga settlement to be included in the upgrading and urban renewal

Phase 2: New Development (2025– 2026)

New areas for housing Development in Chibalashi and Nalupembe wards as well as creating small holder farms

Phase 3: Linking the Wards (2027 – 2028)

Linking of Wards by opening up major roads which shall link the development **nodes**

6.4 Monitoring and Evaluation

6.4.1 Institutional Arrangements

All operations of Local authorities in Zambia are governed by the Local Government Act of 2019 of the Laws of Zambia. The IDP 2024 – 2034 will guide the operations of the various departments and sectors. In pursuit of a shared vision, all departments and sectors will be involved in the implementation of the IDP Programmes. Where there are inconsistencies in Programmes, the Vision 2030 shall prevail.

The District through the District Commissioner and Council Secretary will be overall responsible for providing policy guideline on the implementation of the IDP.

6.4.2 Monitoring and Evaluation

For effective monitoring of the integrated Development Plan, it is recommended that a Monitoring and Evaluation Committee be established to undertake the following activities:

All the heads of Departments (HoDs) will be responsible for operationalizing the IDP. The major functions for HoDs will include preparing annual work plans based on the Strategic Directions, Objectives and Activities derived from the IDP, implementing and monitoring of annual work plans, preparing monthly, quarterly and annual progress reports and Participating in evaluation activities. The Table below shows the Key outputs to be measured by the plan.

Sector	Transport and Communication									
Objective	Improve road and communication infrastructure by 2034									
Strategy	Program	Target 2024	Target 2025	Target 2026	Target 2027	Target 2028	Indicator	Source of Information	Frequency	Responsible Agency
Construction, maintainance of transport and communication infrastructure	Construct ion of Feeder roads		20km	20km	20km	20km	Number of Kilometres of feeder roads constructed	Assessment Reports	weekly	LA/RDA
	Upgradin g of roads to bitumino us standards		5km	5km	5km	5km	Number of Kilometres upgraded	Technical reports Appraisal	Weekly	LA/RDA
	Maintaina nce of Feeder Roads		20Km	20Km	20Km	20Km	Number of Kilometers, number of bridges maintained, number of culverts	Annual assement reports	Weekly	LA/RDA
	Civil aviation				500 Ha		Number of Hectares Secured	Chiefs affairs Reports		LA

Sector	Agriculture									
Objective	To increase crop production by 50% by 2028									
Strategy	Program	Target 2024	Target 2025	Target 2026	Target 2027	Target 2028	Indicator	Source Information	Frequency	Responsible Agency
Increase crop production	Agriculture mechanisation		1	1	1	1	Number of farms mechanised	Assessment Reports	weekly	LA/RDA
	Construction of weirs and dams		1	1	1	1	Number of Dams and weirs constructed	Technical Appraisal reports	Weekly	LA/RDA
	Planning Agreements with local chiefs		1	1	1	1	Number of Planning Agreements	Annual assessment reports	Weekly	LA/RDA
	Empowerment of farmers with farming equipment		2	2	2	2	Number of Farmers empowered with equipment	Chiefs affairs Reports		LA

Sector	Agriculture										
Objective	To increase crop production by 50% by 2028										
Strategy	Program	Target 2024	Target 2025	Target 2026	Target 2027	Target 2028	Indicator	Source Information	of Frequency	Responsible Agency	
Provision improvement and of Agriculture infrastructure	Construction, rehabilitation and maintainance of roads		10KM	10KM	10KM	10KM	Kilometers of roads constructed, rehaibilatetd and maintained	Assessment Reports	weekly	LA/RDA	
	Construction of storage facilities		1	1	1	1	Number storage facilities constructed	Technical Appraisal reports	Weekly	LA/MOA	
	Construction farmer training institute			1			Farmer training institute constructed	Annual assement reports	Weekly	LA/MOA	
	Rehabilitation of camp houses		1	1	1		Number of Cam houses rehabilitated			LA/MOA	

Sector		Agriculture								
Objective		To increase crop productivity by 50% by 2028								
Strategy	Program	Target 2024	Target 2025	Target 2026	Target 2027	Target 2028	Indicator	Source Information of	Frequency	Responsible Agency
Increase Agriculture Productivity	Staff recruitment		4	3	3		Number of Staff recruited	Assessment Reports	weekly	LA/MOA
	Improve access to FSIP		1	1	1		Number of beneficiaries recruited	Technical Appraisal reports	Weekly	LA/MOA
	Value addition		1	1	1	1	Number of value addition centres created	Annual assessment reports	Weekly	LA/MOA
	Training of farmers in CSA		10	10	10	10	Number of farmers trained in CSA	Annual assessment reports	Monthly	LA/MOA

Sector	Fisheries and Livestock									
Objective	To increase livestock production and productivity to 50% by 2028									
Strategy	Program	Target 2024	Target 2025	Target 2026	Target 2027	Target 2028	Indicator	Source Information	of Frequency	Responsible Agency
Increase livestock and production Productivity	Construction of Dip Tanks		1	1	1	1	Number of Dip tanks Constructed	Assessment Reports	weekly	LA/MoFL
	Construction of abattoir				1	1	Number of Abattoirs Constructed	Technical Appraisal reports	Weekly	LA/MoFL
	Construction slaughter slab				1	1	Number of slaughter slabs constructed	Annual assessment reports	Weekly	LA/MoFL
	Construction VET clinics			1	1	1	Number of VET Clinics constructed	Annual assessment reports	Monthly	LA/MoFL
	Animal Restocking		10	10	10	10	Number of animals restocked	Annual assessment reports	Monthly	LA/MoFL
	Construction of Value Chain Addition Centres		1	1	1	1	Number of Value Chain addition centres constructed	Annual assessment reports	Monthly	LA/MoFL
	Recruitment of Extension officers			5	5	3	Number of Extension officers Recruited	Annual assessment reports	Monthly	MoFL
	Provision of Transport			5	5	3	Number of vehicles procured	Annual assessment reports	Monthly	MoFL

Sector	Fisheries and Livestock									
Objective	To provide early warning and surveillance weather forecasting systems by 2028									
Strategy	Program	Target 2024	Target 2025	Target 2026	Target 2027	Target 2028	Indicator	Source Information of	Frequency	Responsible Agency
Increase livestock and Productivity	Construction of an early warning office			1			Number of offices Constructed	Assessment Reports	weekly	LA/MoFL
	Procurement of early warning kit		1	1			Number of early warning kit procured	Technical Appraisal reports	Weekly	LA/MoFL
	Provision of Transport			5	5	3	Number of motorbikes procured	Technical Appraisal reports	Weekly	LA/MoFL

Sector	Fisheries and Livestock									
Objective	To increase production and productivity to 50 % by 2028									
Strategy	Program	Target 2024	Target 2025	Target 2026	Target 2027	Target 2028	Indicator	Source Information of	Frequency	Responsible Agency
Increase production and Productivity	Fisheries and Construction of Fish ponds	1	1	1	1	1	Number of fish ponds Constructed	Assessment Reports	weekly	LA/MoFL
	Rehabilitation of existing infrastructure	10	20	30	40	50	Number of infrastructure rehabilitated	Technical Appraisal reports	Weekly	LA/MoFL
	Recruitment 13 Extension officers			5	5	3	Number of extension officers recruited	Assessment Reports	Quartely	LA/MoFL
	Fish restocking		10	10	10	10	Number of Fish ponds restoked	Assessment Reports	Quarterly	LA/MoFL
	Training of 200 Fish farmers		50	50	50	50	Number of Fish farmers trained	Assessment Reports	Quarterly	LA/MoFL
	Procurement of Motor Vehicle and Motorbikes			1	1		Number of Motor vehicles and Motorbikes procured	Assessment Reports	Quarterly	LA/MoFL

Sector	Education										
Objective	To increase access to quality education										
Strategy	Program	Target 2024	Target 2025	Target 2026	Target 2027	Target 2028	Indicator	Source Information	of	Frequency	Responsible Agency
Enhance quality education through provision of basic education infrastructure	Construction classroom blocks		1	1	1	1	Number of Classroom blocks constructed	Assessment Reports		weekly	LA/MOE
	Construction ablution blocks		1	1	1	1	Number of Ablution constructed	Technical Appraisal reports		Weekly	LA/MOE
	Construction of Primary Schools		1	1	1	1	Number of Primary Schools Constructed	Assessment Reports		Monthly	LA/
	Establishing additional examination centres			1	1	1	Number of additional examination centres	Assessment Reports		Monthly	MOE
	Construction of ECE Centres with child friendly infrastrucure			1	1	1	Number of ECE Centres Constructed	Assessment Reports		Monthly	LA/MOE
	Construction of the DEBS office			1			Number of DEBs office constructed	Assessment Reports		Monthly	LA/MOE

Sector	Education									
Objective	To increase access to quality education									
Strategy	Program	Target 2024	Target 2025	Target 2026	Target 2027	Target 2028	Indicator	Source Information of	Frequency	Responsible Agency
Enhance quality education through provision of basic education infrastructure	Construction of Staff Houses		1	1	1	1	Number of Staff houses Constructed	Assessment Reports	weekly	LA/MOE
	Rehabilitation of Classroom blocks		1	1	1		Number of Classroom blocks Rehabilitated	Technical Appraisal reports	Weekly	LA/MOE
	Construction of school for the Disabled and OVCs			1			Number of Schools constructed	Technical Appraisal reports	Monthly	LA/MOE
	Rehabilitation of Staff houses		1	1	1	1	Number of Staff houses Rehabilitated	Technical Appraisal reports	Monthly	LA/MOE
	Upgrading of Community Schools to primary Schools		1		1		Number of Community Schools rehabilitated	Technical Appraisal reports	Monthly	LA/MOE
	Construction of 49 Kitchen Shelters for home-grown school meals program		15	10	10	14	Number of Kitchen Shelters Constructed	Technical Appraisal reports	Monthly	LA/MOE

	Construction of a Skills Centre				1		Number of Skills training Centres Constructed	Technical Appraisal reports	Monthly	LA/MOE
	Construction of 2 Boarding Schools			1	1		Number of boarding schools Constructed	Technical Appraisal reports	Monthly	LA/MOE
	Construction of a Library			1			Number of libraries constructed	Technical Appraisal reports	Monthly	LA/MOE
	Provision of Desks		250	250	250	250	Number of Desks provided	Technical Appraisal reports	Monthly	LA/MOE
Human Resource Development	Recruitment of 250 Teachers		75	75	75	25	Number of teachers recruited and deployed	Technical Appraisal reports	Monthly	LA/MOE

Sector	Health									
Objective	To increase access to quality education to 60% by 2028									
Strategy	Program	Target 2024	Target 2025	Target 2026	Target 2027	Target 2028	Indicator	Source Information of	Frequency	Responsible Agency
Enhance quality healthcare through provision of Health infrastructure	Construction District Hospital with a mortuary			1			District hospital constructed	Assessment Reports	weekly	LA/MOH
	Construction of health posts		1	1	1	1	Number of health posts constructed	Technical Appraisal reports	Weekly	LA/MOH
	Construction of Maternity wings		1	1	1	1	Number of maternity wings Constructed	Assessment Reports	Monthly	LA/MOH
	Construction of Staff Houses			1	1	1	Number of staff houses constructed	Assessment Reports	Monthly	LA/MOH
	Construction of Mothers waiting Shelter			1	1	1	Number of mothers shelters constructed	Assessment Reports	Monthly	LA/MOH
	Construction of water Schemes with shower rooms		3	3	3	3	Number of water schemes constructed	Assessment Reports	Monthly	LA/MOH

Provision of machinery and equipment	Procurement of medical equipment and beds			1	1	1	Number of Medical equipment procured	Assessment Reports	Monthly	LA/MOH
	Procurement of Ambulance				1		Number of ambulances procured	Assessment Reports	Monthly	LA/MOH
	Connection of 19 Health facilities to National grid		8	8	2	1	Number of health facilities connected	Assessment Reports	Monthly	LA/MOH
	Procurement of motorbikes		3	3	3	3	Number of Motorbikes procured	Assessment Reports	Monthly	LA/MOH
Human Resource Development	Recruit health workers		10	10	10	10	Number of Health workers recruited	Assessment Reports	Monthly	LA/MOH

Sector	Water and Sanitation									
Objective	To increase access to safe and clean water and sanitation by 85% by 2028									
Strategy	Program	Target 2024	Target 2025	Target 2026	Target 2027	Target 2028	Indicator	Source Information of	Frequency	Responsible Agency
Enhance access to safe clean water supply and sanitation	Connnection of water Supply to residential areas within the township		20	20	20	20	Number of residential areas connected	Assessment Reports	weekly	LA/Water Utility
	Water Treatment Plant				1		Number of treatment plants constructed	Technical Appraisal reports	Weekly	LA/ Water Utility
	Construction of an office for water utility Company				1		Number of Office blocks constructed	Assessment Reports	Monthly	Luapula Water and sanitation Company
	Construction of a Dam			1			Number of Dams Constructed	Assessment Reports	Monthly	LA/Lw
	Construction of 4 industrial boreholes		1	1	1	1	Number of industrial boreholes Drilled	Assessment Reports	Monthly	LA
	Construction of 8 water schemes		2	2	2	2	Number of water schemes Constructed	Assessment Reports	Monthly	LA
	Drilling and equipping of 80 boreholes		20	20	20	20	Number of boreholes drilled and equipped	Assessment Reports	Monthly	LA

	Repair of 47 Non functional boreholes		15	15	15	2	Number of Non Functional boreholes repaired	WASH reports	Monthly	LA
	Construction of sewer ponds and sewer lines				1		Number Sewer ponds Constructed	District WASH Reports	Monthly	LA
Enhance sanitation through WASH activities	Trigger all chiefdoms on CLTS to reduce ODF		3	3	3	3	Number of Chiefdoms triggered	WASH reports	Monthly	LA
	Identification and training of Area 60 Pump menders(APMs)		15	15	15	15	Number of APMS prepared	WASH Reports	Quarterly	LA
Regional planning	Preparation of Local Area Plan		1	1	1	1	Number of LAPs prepared	Planning Reports	Yearly	LA

Sector	Energy									
Objective	To increase access to Electricity to 50% by 2028									
Strategy	Program	Target 2024	Target 2025	Target 2026	Target 2027	Target 2028	Indicator	Source Information of	Frequency	Responsible Agency
Enhance generation, transmission and distribution of electricity	Construction of Mini Hydro Power Station				1		Number of Mini Hydro Power Plants Constructed	Assessment Reports	Quarterly	LA/ZESCO/ZDA
	Construction of Substations					1	Number of Substations Constructed	Technical Appraisal reports	Quarterly	LA/ZESCO
	Construction of Solar Energy Plant				1		Number of Solar Plants Constructed	Assessment Reports	Quarterly	LA/ZESCO
	Connection to the National grid			1	1	1	Number of Clients connected to the National Grid	Assessment Reports	Quarterly	LA/ZESCO
	Increase number of households to be connected to REA			50	50	50	Number of Households connected to REA	Assessment Reports	Monthly	LA/MOE

Sector	Mining									
Objective	To increase access to Electricity to 50% by 2028									
Strategy	Program	Target 2024	Target 2025	Target 2026	Target 2027	Target 2028	Indicator	Source Information	Frequency	Responsible Agency
Enhance generation, transmission and distribution of electricity	Operation and maintenance of existing mines				1		Number of Mines Operational	Assessment Reports	Quarterly	LA/Ministry of Mines
	Registration of Mines in the District					1	Number of Substations Constructed	Technical Appraisal reports	Quarterly	LA/Ministry of Mines
	Connection of Solar Energy Plant to the Mines					1	Number of Mines connected to solar energy plant	Assessment Reports	Quarterly	LA/Ministry of Mines
	Promotion and registration of small-scale mining cooperatives		2	2	2		Number of Small scale Mining Cooperatives registered	Assessment Reports	Quarterly	LA/Ministry of Mines

	Mapping of all the mines		1	1	1	1	Number of Mines Mapped	Assessment Reports	Quarterly	LA/ Ministry of Mines
--	--------------------------	--	---	---	---	---	------------------------	--------------------	-----------	--------------------------

CONCLUSION

The preparation of the Integrated Development Plan was done through a wide consultation of various stakeholders who included the Community through the Ward Development Committee who provided the necessary Input by the submitting the core issues affecting the wards. The aspirations of the local communities were taken into consideration as a bench mark for the identification of priorities which also are in tandem with the Eighth National development plan and Vision 2030.

The Chipili Integrated Development plan has been prepared to act as a key principal planning tool to guide the Development of the the District. The IDP will act as a measuring tool which shall shape the Development needs of Chipili District and thus set dimensions for future development. The key sectors were identified included Health, Education, Agriculture, Water and Sanitation, Transport and Communication, Energy and Mining. The rationale for choosing the above sectors were arrived at after consideration of the existing trends, developments and proposed interventions in the identified sectors. Issues arising from the public consultations informed some of the decisions in coming with the scenarios of development to achieve the best results to move Chipili in the best direction.

The identification of key programmes and projects will form the cornerstone of project implementation at District level. All the projects shall be funded using locally generated funds, Government grants, Donor funds and other external funding. Through the local authority, some of the projects identified by the public through public consultations will be funded using the Constituency Development Fund. Alternatively, the Projects will equally be implemented using the Public-Private Partnerships model to ensure continuous flow of resources and bring about meaningful development in the project areas and also provide employment to the local communities.

In addition, to ensure that the projects and programs being undertaken are implemented in the stated time frame of the IDP, Monitoring teams at the District shall be constituted to ensure both Compliance and Quality which shall translate in value for money. The Community shall always be informed and engaged during the initiation and implementation of projects and programs to ensure transparency. The Integrated Development Plan for Chipili shall be reviewed every after Five years as stipulated in the Urban and Regional Planning Act No.3 of 2015.

REFERENCES

National Community Health Strategy 2019-2021, Community Health Unit, Ministry of Health (MOH), Zambia

Survey 2018. Lusaka, Zambia, and Rockville, Maryland, USA: Zambia Statistics Agency, Ministry of Health, and ICF.

Health Financing strategy, 2017-2027, Towards Universal Health Coverage for Zambia Ministry of Health (MOH), Zambia

Don de Savigny and Taghreed Adam (Eds). Systems thinking for health systems strengthening. Alliance for Health Policy and Systems Research, WHO, 2009

Monitoring the Building Blocks of Health Systems: A Handbook of Indicators and their Measurement Strategies, WHO, 2010

National Community Health Strategy 2019-2021, Community Health Unit, Ministry of Health (MOH), Zambia

Peter Timmer, “**Agriculture and Pro-Poor Growth: An Asian Perspective**,” Center for Global Development, Working Paper no. 63 (2005).

CSO, 2022 Census of Population and Housing Migration and Urbanisation Analytical Report; and CSO, 2010 Census of Population and Housing Population and Demographic Projections 2011-2035.

Ministry of National Development Planning (MoNDP), National Population Policy 2019 (Lusaka, Zambia: MoNDP, 2019).

Seventh National Development Plan 2017-2021, Volume I (Lusaka, Zambia: MoNDP, 2017), accessed at http://zambiaembassy.org/sites/default/files/documents/7NDP_final_07-06-17.pdf, on March 19, 2019.

United Nations Children’s Fund (UNICEF), **Barriers to Girls’ Education, Strategies and Interventions** (New York: UNICEF, 2000), accessed at https://www.unicef.org/teachers/girls_ed/BarrierstoGE.pdf, on Oct. 19, 2018. 23 World Bank, **Educating Girls, Ending Child Marriage** (Washington, DC: The World Bank, 2017), accessed at <https://www.worldbank.org/en/news/immersive-story/2017/08/22/educating-girls-ending-childmarriage>, on Oct. 19, 2018.

Gregory Randolph and Dhruv Jain, “Promoting Job Rich Urbanization in Zambia: More and Better Jobs,” Policy Paper no. 2 (2016),

Ministry of General Education, Directorate of Planning and Information, Educational Statistical Bulletin 2016, accessed at [http:// www.moge.gov.zm/?wpfb_dl=50](http://www.moge.gov.zm/?wpfb_dl=50), on Oct. 19, 2018.

Satoru, I. Makasa, P., Negoro H., and Ohuchi, H., (2003) the structure of Village with Similar Social and Cultural Backgrounds in Northern Part of Zambia.

Journal of Asian Architecture and Building Engineering 4:1 169-175.

WHO/UNICEF (2019) Progress on Sanitation and Drinking Water-2019 New York WHO.

Kruk ME, et al. Mortality due to low-quality health systems in the universal health coverage era: systematic analysis of amenable deaths in 137 countries. Lancet. 2018 Nov 17;392(10160):2203-2212

Zambia Statistics Agency, Ministry of Health (MOH) Zambia, and ICF. 2019. Zambia Demographic and Health Survey 2018. Lusaka, Zambia, and Rockville, Maryland, USA: Zambia Statistics Agency, Ministry of Health, and ICF.

Zambia Statistics Agency, Ministry of Health (MOH) Zambia, and ICF. 2019. Zambia Demographic and Health

Appendices

Showing Poor road network and Infrastructure at a Health Post in Chipili District



Source: Field data, Chipili Town Council Department of Planning, 2022

portunity
Manager
... self-starter to fill the
... of work experience in
... ment and be able to
... on the soil samples
... pping The Cultivable
... factors such as water
... surrounding and social
... ed CVs with at least 3
... allowed only during
035008627-23 24 04

**NOTICE OF INTENTION TO
APPLY FOR THE ELECTION OF
ADMINISTRATORS IN THE
URBAN AND REGIONAL
PLANNING DISTRICT
OF CHIPILI**
Dated on 24th April 2024

Notice is hereby given that after
the expiration and of seven days
from the date of this
publication, the AGNESS
ZULU of plot No. 1131 Kasasa
road Kaditshungu Lusaka province
of the republic of Zambia.
Respectfully intend to apply to
the High Court of the Zambia for
grant of letters of administration
relating to the estate of the said
JAPHET MUYILA. Any person
who may have any objections, or
any interest or claim or who may
be aware of any, assets or
liabilities of the estate of the said
JAPHET MUYILA please submit
written thereof to the
intending administrator as soon
as possible.
Dated at Lusaka this 23rd day of
April 2024.
AGNESS ZULU
INTENDING
ADMINISTRATOR
RSO350154/24.23.4

**CHUNDUKWA
RIVER LODGE**

EMPLOYMENT OPPORTUNITY - GENERAL MANAGER
Adapt General Manager for Chundukwa River Lodge

Requirements

- Min 15 years' experience
- Brand implementation
- Skills training, Laundry, housekeeping and service
- Setting Standard operating procedures for hotel
- Profitability - Financial reporting
- Project management - builders, design, and interiors
- Sales and marketing - international Market trends
- HR
- Responsible tourism systems for lodges based on environmental sustainability, social responsibility and eco standards
- Maintenance - Plumbing, Electrics

Contact, Email: reservations@chundukwa.com and
accounts@chundukwa.com
Phone number: 0978596833 R8674/23 04


CHIPILI TOWN COUNCIL

**NOTICE OF PREPARATION OF THE CHIPILI
INTEGRATED DEVELOPMENT PLAN**

Notice is hereby given that: Pursuant to section 40 of the Urban and Regional planning act, No.3 of 2015, Chipili District has prepared an Integrated Development Plan, which will cover a period of 10 years.

The Integrated Development Plan sets out objectives and policies to deliver an overall strategy for the proper planning and sustainable development of the area of the Development Plan. The draft plan is available for inspection at the Civic Center, Chipili Town Council, Chipili District Commissioner's office and Provincial Planning Office during normal business hours from 19th April 2024 to 24th June, 2024.

Chipili Town Council hereby invites any interested parties to make submissions in respect of the Chipili Integrated Development Plan to Mr. Alex Zulu, Council Secretary, Chipili Town Council or Mr. Alfred Banda Provincial Planner, Luapula Province, before 17:00 hrs on 24th June, 2024. Submissions may be made in electronic format by e-mail to alexzulu2004@yahoo.co.uk or alfredkatawa@gmail.com by the same time and date.



**Alex Zulu
COUNCIL SECRETARY**

RSO349787/17.24.04/2.4.05

Advert for the Chipili Integrated Development