



# NCHELENGE INTERGRATED DEVELOPMENT PLAN 2024-2034



“A developed district with sustainable service delivery  
and social economic development towards an equal  
society by 2034”

## **LIST OF MAPS**

Map 1: Wards in Nchelenge District

Map 2: Location of Nchelenge District

Map 3: Population Density at Ward Level

Map 4: Settlement Pattern in the District

Map 5: Showing the Growth Nodes of Nchelenge District

Map 6: Showing Land Use Pattern of Nchelenge District

Map 8: Spatial Distribution of Schools in Nchelenge District

Map 9: Location of Site for Mini Hydro Power Plant at Kundabwika Falls

Map 10: Refuse sites in the district

The map 11: catchment of communication towers within 10 km

Map 12: the roads and canals within Nchelenge District

Map 13: Location of Site for Mini Hydro Power Plant at Kundabwika Falls

The Map 14: shows areas electrified by R.E.A

Map 15: settlement extent within 5km buffer of health facilities in Nchelenge District

Map 16: The Camps in Nchelenge District

Figure 17: Agriculture Services Provided in the District

Map 18: Tourism Sites in Nchelenge District

Map 19: forest reserves in the district

The map 20: shows growth points through economical diversification in the IDP area.

Map 21: promote sustainable settlements

The map 22: below shows the Greenbelt development scenarios

## **LIST OF APPENDECIES**

Appendecix 1

Appendecix 2

Appendecix 3

Appendecix 4

Appendecix 5

Appendecix 6

Appendecix 7

Appendecix 8

Appendecix 9

Appendecix 10

## **LIST OF FIGURES**

Figure 1: Trends in Population Size of IDP Area

Figure 2: Historic Growth Rates of Luapula Province, Nchelenge and Other Districts

Figure 3: Ward Population in 2000 And 2010

Figure 4: Percentage Distribution of District Population by Ward

Figure 5: Population Trends in Urban and Rural Areas

Figure 6: Pyramid showing sex and characteristics of population at base

Figure 7: Future Population Estimates of IDP Area

Figure 8: Life Expectancy of Nchelenge District

Figure 9: Number of Deaths Recorded In the District Since 2017

Figure 10: Births Per 1000

Figure 11: Number of Deliveries

Figure 12: Kafimbwa Settlement In 2013

Figure 13: Kafimbwa Settlement In 2022

Figure 14: School Ratios

Figure 15: Characteristics of DRA

Figure 16: Institutional Water Supply and Sanitation

Figure 17: Sanitation Service Chain

Figure 18: Major Sources of Energy

Figure 19: Energy Sources and utilization at National level

## **LIST OF TABLES**

Table 1: Historic Population and Growth Rates of IDP Area

Table 2: Historic Population and Growth Rates of IDP Area

Table 3: Population Trends at Ward Level

Table 4: Population Density of Nchelenge and other wards

Table 5: Ranking Of Population Density of Wards in Nchelenge Constituency

Table 6: Urban and Rural Population Trends

Table 7: District Population at Base Year

Table 8: Fertility Rates of Nchelenge and Other Districts

Table 11: Status of Water Points

Table 12: Status of Water Service

Table 13: Water Supply Coverage Targets and Population Projections

Table 14: Roads in Nchelenge District

Table 15: Status of Bridges in Nchelenge

## **LIST OF ACRONYMS**

|        |   |                                                   |
|--------|---|---------------------------------------------------|
| AHH    | - | Adult Headed Household                            |
| AIDS   | - | Acquired Immune Deficiency Syndrome               |
| BOMA   | - | British Overseas Management Authority             |
| BSA    | - | British South African Company                     |
| CBD    | - | Central Business District                         |
| CBO    | - | Community Based Organization                      |
| CDC    | - | The Commonwealth Development Corporation          |
| CDF    | - | Constituency Development Fund                     |
| CEO    | - | Camp Extension Officers                           |
| CHAMP  | - | Comprehensive HIV/AIDS Management Project         |
| CHAZ   | - | Churches Health Association of Zambia             |
| CHH    | - | Child Headed Household                            |
| CIP    | - | Capital Investment Programme                      |
| CSO    | - | Central Statistical Office                        |
| CWAC   | - | Community Welfare Assistance Committees           |
| CWUSE  | - | Community Water Users and Sanitation Educators    |
| DATF   | - | District HIV/AIDS Taskforce                       |
| DDCC   | - | District Development Coordinating Committee       |
| DIP    | - | Decentralization Implementation Plan              |
| DISS   | - | Department of Infrastructure and Support Services |
| DPPH   | - | Department of Physical Planning and Housing       |
| DRC    | - | Democratic Republic of Congo                      |
| DWASHE | - | District Water and Sanitation Health Education    |

|       |   |                                                |
|-------|---|------------------------------------------------|
| ECCDE | - | Early Childhood Care Development and Education |
| ECZ   | - | Environmental Council of Zambia                |
| EIA   | - | Environmental Impact Assessment                |
| FBO   | - | Faith Based Organisation                       |
| FHH   | - | Female Headed Household                        |
| SNDP  | - | Seventh National Development Plan              |
| FRM   | - | Forestry Resource Management                   |
| FSPP  | - | Food Security Pack Programme                   |
| GDP   | - | Gross Domestic Product                         |
| GDP   | - | Gross Domestic Product                         |
| GIS   | - | Geographical Information Systems               |
| GRZ   | - | Government of the Republic of Zambia           |
| HIV   | - | Human-Immuno Deficiency Virus                  |
| HKO   | - | House Keeping Ophans                           |
| HRA   | - | Human Resource Groups                          |
| HRH   | - | His/Her Royal Highness                         |
| IDP   | - | Integrated Development Plan                    |
| IT    | - | Information Technology                         |
| LWSS  | - | Luapula Water Supply and Sanitation            |
| MOA   | - | Ministry of Agriculture                        |
| MCH   | - | Maternal Child Health                          |
| MDGs  | - | Millennium Development Goals                   |
| MEWD  | - | Ministry of Energy and Water Development       |
| MLGH  | - | Ministry of Local Government and Housing       |

|        |   |                                                    |
|--------|---|----------------------------------------------------|
| MMMD   | - | Ministry of Mines and Minerals Development         |
| MoE    | - | Ministry of Education                              |
| MOH    | - | Ministry of Health                                 |
| MOL    | - | Ministry of Lands and Natural Resources            |
| MoU    | - | Memorandum of Understanding                        |
| NGOCC  | - | Non-Governmental Organisation Coordinating Council |
| NGOs   | - | Non-Governmental Organisations                     |
| NHA    | - | National Housing Authority                         |
| NHC    | - | Neighbourhood Health Committees                    |
| NHCC   | - | National Heritage Conservation Commission          |
| NTC    | - | Nchelenge Town Council                             |
| PDCC   | - | Provincial Development Coordination Committee      |
| PEs    | - | Peer Educators                                     |
| PMTCT  | - | Prevention of Mother to Child Transmission         |
| PWASHE | - | Provincial Water and Sanitation Health Education   |
| PWASP  | - | Public Welfare Assistance Scheme Posts             |
| RDA    | - | Road Development Agency                            |
| REA    | - | Rural Electrification Authority                    |
| RHC    | - | Rural Health Centre                                |
| RTSA   | - | Road Transport and Safety Agency                   |
| TIHH   | - | Terminally Ill Headed Household                    |
| UNDP   | - | United Nations Development Programme               |
| UNFPA  | - | United Nations Population Fund                     |
| UNHCR  | - | United Nations High Commission for Refugees        |



|        |   |                                                    |
|--------|---|----------------------------------------------------|
| UNICEF | - | United Nations Children Fund                       |
| USAID  | - | United States Agency for International Development |
| UY     | - | Unemployed Youth                                   |
| VCT    | - | Voluntary Counselling and Testing                  |
| VEG    | - | Village Extension Officers                         |
| WASHE  | - | Water and Sanitation Hygiene Education             |
| WDC    | - | Ward Development Committee                         |
| WFP    | - | World Food Programme                               |
| ZANACO | - | Zambia national commercial bank                    |
| ZAPC   | - | Zambia Agency Production Centre                    |
| ZAPD   | - | Zambia Agency for Persons with Disabilities        |
| ZDA    | - | Zambia development agency                          |
| ZEMA   | - | Zambia Environmental Management Agency             |
| ZESCO  | - | Zambia Electricity Supply Corporation              |
| WDC    | - | Ward Development Committee                         |

## Table of Contents

|                                                                                                                                     |    |
|-------------------------------------------------------------------------------------------------------------------------------------|----|
| FORWORD.....                                                                                                                        | 13 |
| PREFACE.....                                                                                                                        | 14 |
| ACKNOWLEDGEMENT .....                                                                                                               | 16 |
| 1.0 INTRODUCTION.....                                                                                                               | 18 |
| 1.1 INTRODUCTION AND BACKGROUND.....                                                                                                | 18 |
| 1.2 GOVERNANCE STRUCTURE.....                                                                                                       | 19 |
| 1.3 TRADITIONAL LEADERSHIP .....                                                                                                    | 20 |
| 1.4 DISTRICT ADMINISTRATION/ POLITICAL SYSTEM AND GOVERNANCE.....                                                                   | 21 |
| 2.0 DEMOGRAPHIC ANALYSIS .....                                                                                                      | 22 |
| 2.2. Population Density.....                                                                                                        | 31 |
| 2.3 Population and Population Growth Rates of Urban and Rural Areas.....                                                            | 36 |
| 2.4 Estimated Population at Base Year .....                                                                                         | 37 |
| 3.0 POPULATION PROJECTIONS.....                                                                                                     | 40 |
| 3.1 Estimate of Future Population.....                                                                                              | 40 |
| 4.0 ASSESSMENT OF THE EXISTING LAND USE AND SETTLEMENT PATTERN IN THE DISTRICT .....                                                | 45 |
| 4.1 Overall Settlement Pattern .....                                                                                                | 46 |
| 4.2 Urbanizing Villages and Growth Nodes.....                                                                                       | 48 |
| 4.3 Informal Settlements .....                                                                                                      | 50 |
| 4.4 URBAN EXPANSION/PERI-URBAN AREAS.....                                                                                           | 50 |
| 4.5 Other Land Uses .....                                                                                                           | 53 |
| 5.0 ASSESSMENT OF THE IMPACT OF THE CONTINUATION OF THE POPULATION GROWTH ON THE LAND USE .....                                     | 55 |
| 5.1 ASSESSMENT OF THE IMPACT OF THE CONTINUATION OF THE POPULATION GROWTH ON THE OVERALL SETTLEMENT PATTERN.....                    | 55 |
| 5.2 ASSESSMENT OF THE IMPACT OF THE CONTINUATION OF URBANIZING VILLAGES AND GROWTH NODE.....                                        | 56 |
| 5.3 ASSESSMENT OF THE AVAILABLE LAND FOR PLANNED URBAN EXPANSION.....                                                               | 57 |
| 5.4 ASSESSMENT OF THE IMPACT OF THE CONTINUATION OF POPULATION GROWTH ON INFORMAL SETTLEMENTS – NEW, EXPANDING AND DENSIFYING ..... | 58 |
| 5.5 ASSESSMENT OF THE IMPACT OF THE CONTINUATION OF POPULATION GROWTH ON OTHER LAND USES .....                                      | 58 |
| 6.0 SECTORAL AND THEMATIC ANALYSIS.....                                                                                             | 59 |
| 6.1 Introduction to Community Development And Social Services .....                                                                 | 59 |

|                                                                                                                                                           |     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 6.1.1 Key Government Priorities to be implemented at Local Level .....                                                                                    | 59  |
| 6.1.1.1 Key Priorities of the 8th National Development Plan .....                                                                                         | 59  |
| 6.1.1.2 Key Priorities of Sector Specific National Plans.....                                                                                             | 59  |
| 6.1.1.3 Status of Implementation of Existing Plans and Strategies in the District                                                                         | 60  |
| 6.1.2 Description of the Existing State of Development.....                                                                                               | 61  |
| 6.1.2.2 Assessment of Availability of Services.....                                                                                                       | 62  |
| 6.1.2.2.1 Social cash transfer .....                                                                                                                      | 62  |
| 6.1.4 Assessment of the Impact of Changes Anticipated Over the Next Ten Years ....                                                                        | 63  |
| 6.1.4.2 Identification of communities where growth will occur and where future services and facilities are likely to be needed .....                      | 63  |
| 6.1.4.3 Assessment of the Likely Impact of Ongoing and Committed Investment and Development Program on Land Use and Population Distribution Patterns..... | 63  |
| 6.1.5 Analysis of Impact of Environment and Climate Change .....                                                                                          | 63  |
| 6.1.6 Issues Arising Relating to Gender Groups and Vulnerable Groups.....                                                                                 | 64  |
| 6.1.6.1 Women and girls.....                                                                                                                              | 64  |
| 6.1.6.2 Men and boys .....                                                                                                                                | 64  |
| 6.1.7 Issue Statements and Assessment of External Factors Contributing to the Issue .....                                                                 | 64  |
| 6.2 EDUCATION .....                                                                                                                                       | 65  |
| 4.1 Sanitation Infrastructure and Service Level.....                                                                                                      | 86  |
| 4.2 Sanitation Challenges and Gaps .....                                                                                                                  | 87  |
| 4.3 Institutional Water Supply, Sanitation and Hygiene .....                                                                                              | 88  |
| 4.3.1 Institutional Wash Challenges and Gaps .....                                                                                                        | 88  |
| 6.7 SOLID MANAGEMENT.....                                                                                                                                 | 93  |
| 6.4 TRANSPORT AND COMMUNICATION SECTOR.....                                                                                                               | 101 |
| 6.5 ENERGY.....                                                                                                                                           | 118 |
| 6.6 HEALTH AND NUTRITION SECTOR.....                                                                                                                      | 130 |
| 6.8 AGRICULTURE .....                                                                                                                                     | 153 |
| 6.8.1.3 Status Of Implementation Of Existing Plans And Strategies In The District                                                                         | 160 |
| 6.8.1.3.1 Infrastructure development .....                                                                                                                | 160 |
| 6.9 Tourism and Hospitality Industry.....                                                                                                                 | 207 |
| 7.1 VISION FOR THE LONG-TERM DEVELOPMENT OF THE DISTRICT .....                                                                                            | 229 |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 9.0 CROSS SECTORAL GOALS AND OBJECTIVES TO ADDRESS THE CORE ISSUES .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 232 |
| 9.1 PROGRAMS TO ACHIEVE IDENTIFIED GOALS AND OBJECTIVES.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 232 |
| 10.0 SPATIAL DEVELOPMENT FRAMEWORK .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 278 |
| 10.1 Identification of Alternative Spatial Development Scenarios That Might Be Able to Address the Identified Issues and achieve goals and objectives. ....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 278 |
| 10.2 Chosen Spatial Development Scenario .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 286 |
| 10.3 Land Use Planning Objectives and Strategies .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 288 |
| PART FIVE- CONCLUSION OF THE IDP .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 405 |
| The District has formulated the integrated development plan with a view to have a well coordinated and development. The identified programs will be implemented through the available district structures in collaboration with other stakeholders both non state and state actors. Resources to finance the plan will be from government support, locally generated revenue and support from other cooperating partners. The vision of the district will be achieved with consented efforts from stakeholders which involves a multi disciplinary and integrated approach to ensure issues identified by the community are addressed with utmost efficiency. .... | 405 |
| APPENDICES .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 407 |

## **FORWORD**

Nchelenge District is a fisheries and agriculture influenced socio-economic environment, therefore, the district endeavours to continue strengthening the fisheries and agriculture sector by providing an enabling environment. This can only be achieved through multi-sectorial interventions which are carefully orchestrated by all players in development. The Nchelenge District Integrated Development Plan 2021-2030 uses the multi-sectorial approach as guided in the Seventh National Development Plan (7NDP) to tackle the problems being faced in the district and to foster development for the good of the local people and the country at large.

The goal of this plan is ‘to provide quality and equitable services through creation of socioeconomic opportunities in a transparent, accountable and sustainable manner’. This will be done through the creation of market for fisheries and agriculture produce, value addition to products, job creation and provision of essential services for human development. The actualization of this plan depends on the full participation of stakeholders, i.e.; Government departments, NGOs, FBOs, CSOs and many more. The usual support from cooperating partners is needed and the hope is that the support continues throughout the implementation of the plan and beyond. Let us develop our district and make it a better living place for everyone.



Godfrey Monta Mpundu

**COUNCIL CHAIRPERSON**  
**NCHELENGE DISTRICT**

## **PREFACE**

The Nchelenge District Integrated Development Plan (IDP) is a conclusive plan that highlights the needs of the district and endeavours to offer solutions to these needs through strategies that are practical and close to the situation on the ground. The formulation of the IDP is legally backed by the Urban and Regional Act No.3 of 2015 and the Seventh National Development Plan (7NDP) that give that recognize the document as the principal planning document in the district.

- The document has three main parts which include the Planning Survey and Issues Report (PSIR), the Development Framework, and the Implementation Plan. The Planning Survey and Issues Report consists discusses the issues being faced by the district according to each sector. There are 11 (Eleven) core issues that were identified in the document and this is the order of importance; Poor Road infrastructure, water canals and communication coverage
- Low agriculture production and productivity
- Lack of investment and exploration in the tourism sector
- Poor road infrastructure, water canals and communication coverage
- Limited access and availability of electricity and other sustainable sources of energy
- Uncontrolled Spatial Development in The District
- High poverty levels at 77%
- Limited access to quality health care services
- Inadequate access to clean and safe water
- Low literacy levels in the district at 32%

These Core issues are discussed further in the Development framework where Goals, Objectives, Strategies, outputs, inputs and opportunities are formulated. This is done in order to respond adequately to problems being

faced by the local communities in the district. The Implementation Plan has the Financial Plan, Capital Investment Plan and the Monitoring & Evaluation Plan. This part of the document discusses the funding situation, how the resources may be used and when the progress tracked when carrying out the activities.



Dennyson Chishimba

**DISTRICT COMMISSIONER  
NCHELENGE DISTRICT**

## **ACKNOWLEDGEMENT**

The Integrated Development Plan is the principal strategic planning instrument which gives an overall framework for development within the local authority area and guide and inform planning, budgeting, management and decision-making by all sectors in the local authority area. It places a greater emphasis on the integration of socio-economic planning and spatial planning.

The Nchelenge IDP benefited from contributions from stakeholders through various consultative processes at district, ward and zonal levels. This was done to build consensus and ownership. The enthusiastic IDP team demonstrated professionalism in the way they coordinated the formulation of the plan by encouraging unity and togetherness in quest to bring about development in our district. This shows that we can achieve everything laid down in the document.

In this regard, special thanks go to the various stakeholders that contributed to the contents of the Plan and to all residents of Nchelenge District who participated in the development of the Plan. I would also like to acknowledge the contribution of the private sector institutions, civil society organizations, faith-based organizations and traditional leaders. Sincere appreciation goes to the Cooperating Partners for their support towards the development of this Plan. Special thanks go to the Germany Agency for International Cooperation (GIZ) who offered technical and financial support throughout the process of preparing this document.

Special thanks also go to all line Ministries, the Provincial Planning Unit, Civic leaders, Ward Development Committees and other Government institutions for the tireless efforts and commitment towards the development of this Plan.

Lastly, but not least, I would like to convey my deepest appreciation to members of staff in the Department of Development Planning at Nchelenge Town Council, including the entire management team for offering coordination and guidance during the preparation of the document.





Collins Ndilema

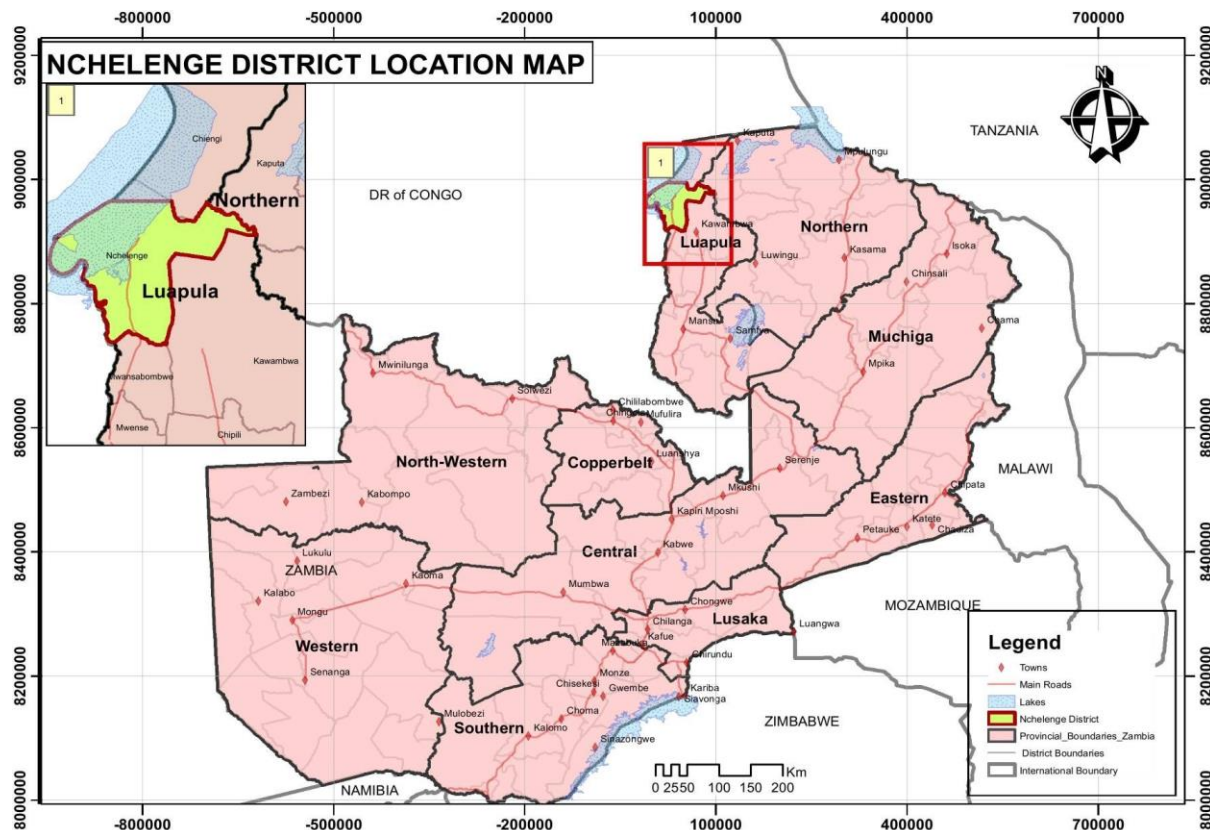
**COUNCIL SECRETARY  
NCHELENGE DISTRICT**

## 1.0 INTRODUCTION

### 1.1 INTRODUCTION AND BACKGROUND

Nchelenge District is located in the Northern part of Luapula province, 250KM away from Mansa the provincial capital. The total area of Nchelenge is 4, 092 KM Sq of which 2090 KM sq. (60%) is land, 400KM sq. (10%) is swamps and 1602 (30%) is water. Nchelenge District shares borders with Chiengi in the north and Kawambwa in south-east. In the western, it borders with the Democratic Republic of Congo of which Lake Mweru mark natural boundaries. Main features of the district include the Luapula valley and Lake Mweru shore, the Luapula River and dambos with significant islands being Isokwe, Kanakashi, Kilwa and Chisenga.

Map 1: Location of Nchelenge District

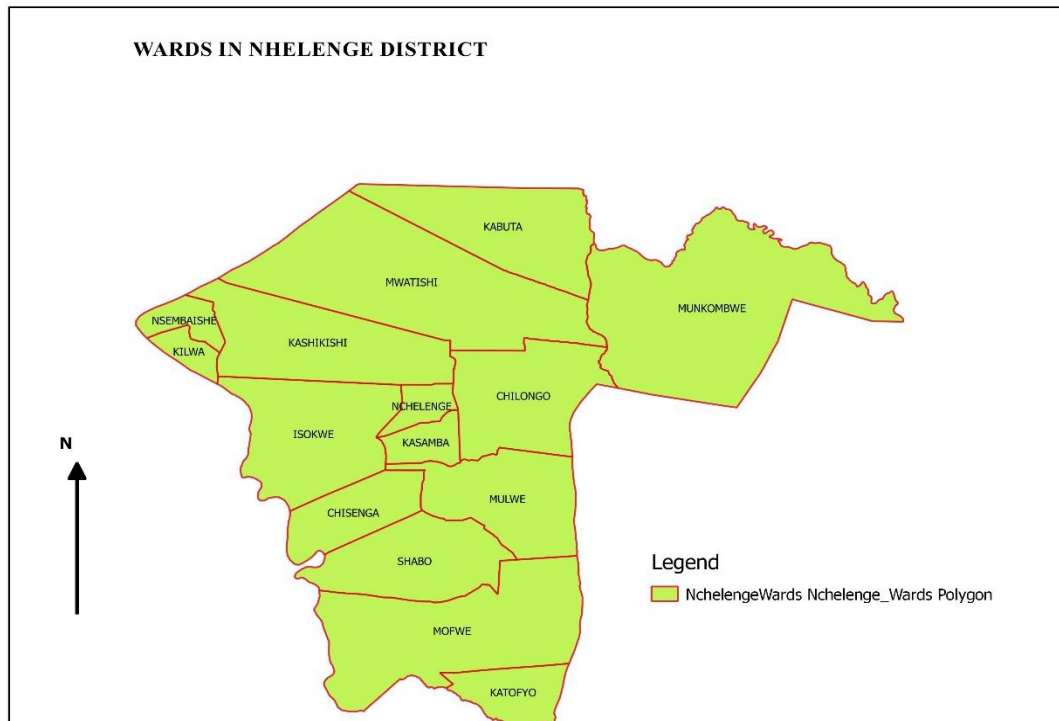


Source: drawn by Planning Department-Nchelenge Council (2019)

### 1.1.1 WARDS IN THE DISTRICT

The district has one constituency and fifteen (15) wards. Before the delimitation exercise that took place in 2020, the district had 13 wards but afterwards two more wards were added which include Nsembaishe and Isokwe wards.

Map 2: Wards in Nchelenge District



*Source: drawn by Planning Department-Nchelenge Council (2021)*

## 1.2 GOVERNANCE STRUCTURE

### 1.2.1 DISTRICT ADMINISTRATION

The office of the District Commissioner heads the District administration. The overall objective is to facilitate the co-ordination of Central Government functions and all developmental activities as well as harmonize these functions with those of local authorities in order to ensure effective implementation of

development programmes in the district. The goal is to enhance efficiency and accountability in implementation of programs.

### 1.3 TRADITIONAL LEADERSHIP

The major tribes of Nchelenge are the Lunda in the South under Chiefs Kanyembo and Kambwali, Shila in the North under Senior Chief Mununga. There is also Chief Nshimba of Kilwa Island for the Shila tribe. The Lunda occupy the area between Kasumpa village in the South and Mwatishi River. In the traditional system, the organization is based on the family and people in the villages are all related. The founder of the village is a Village Headman who is accountable to the Chief. The village Committee headed by the village Headman decides on issues like land, divorces, witchcrafts and quarrels. Nchelenge is largely rural with no infrastructure and economic activities. Nchelenge started in about 1956 as a Sub-Boma of Kawambwa and was later upgraded into a district. The district derives its name from Imi Kelenge, a type of wild fruit-bearing tree that was common in the area. It is because of the early European settlers could not pronounce the local name, it eventually changed to Nchelenge.

The district has three islands situated on Lake Mweru, namely: Kilwa, Chisenga and Isokwe. Kilwa is the largest and perhaps most important of the three islets. It is said that the Scottish explorer David Livingstone once stayed on the Island on one of his odysseys. The island was also a popular place with slave traders. The huge caverns found on the island are said to contain some ancient rock paintings, as well as inscriptions of David Livingstone, himself. It is hard to talk about Nchelenge and not mention Kashikishi. And many people usually talk about the two as though they were different places, with Kashikishi receiving a greater mention. The reason is simple, Kashikishi is a trading center on the edge of Lake Mweru, is what has made Nchelenge district popular, and if one is travelling by bus to the district, it is where the bus station is located. Most of the people live in the valley along the main road, which runs very close to the Luapula River and the lakeshore. A major feature

of Nchelenge District is that villagers are continuous from the Southern border to the Northern border. The major settlement areas are Nchelenge Boma, Kashikishi and Kabuta.

#### 1.4 DISTRICT ADMINISTRATION/ POLITICAL SYSTEM AND GOVERNANCE

There are two types of administrative systems in the district namely; District Administration and Local Government. The former is headed by the District Commissioner while the latter is Nchelenge Town Council headed by the Council Chairperson. The District Commissioner chairs the District Development Coordinating Committee (DDCC) while the Council Secretary is the Co-chairperson. The secretary of the DDCC is the District Planning officer under Nchelenge Town Council. Nchelenge has one Constituency called Nchelenge represented by an elected Member of Parliament. The district is further divided into fifteen Wards: Kabuta, Isokwe, Kasamba, Katofwe, Kilwa, Nsembaisha, Nchelenge, Kashikishi, Shabo, Chilongo, Chisenga, Kashikishi, Kasamba, Munkombwe and Mofwe. In accordance with the Decentralization Policy, the district has fifteen Ward Development Committees (WDCs) which are fully operational in all the wards.

#### Topography

For the purposes of this report, the geographical coordinates of Nchelenge are - 9.345 deg latitude, 28.734 deg longitude, and 3,061 ft elevation.

The topography within 2 miles of Nchelenge contains only modest variations in elevation, with a maximum elevation change of 213 feet and an average elevation above sea level of 3,095 feet. Within 10 miles contains only modest variations in elevation (528 feet). Within 50 miles contains significant variations in elevation (2,500 feet).

The area within 2 miles of Nchelenge is covered by water (71%), shrubs (11%), and trees (10%), within 10 miles by water (62%) and cropland (24%), and within 50 miles by trees (32%) and water (31%).

#### Climate and Average Weather Year Round in Nchelenge

In Nchelenge, the wet season is warm, muggy, and overcast and the dry season is hot, windy, and mostly clear. Over the course of the year, the temperature typically varies from 59°F to 91°F and is rarely below 56°F or above 94°F.

Based on the beach/pool score, the best times of year to visit Nchelenge for hot-weather activities are from *mid* to *late May* and from *mid July* to *late September*.

## 2.0 DEMOGRAPHIC ANALYSIS

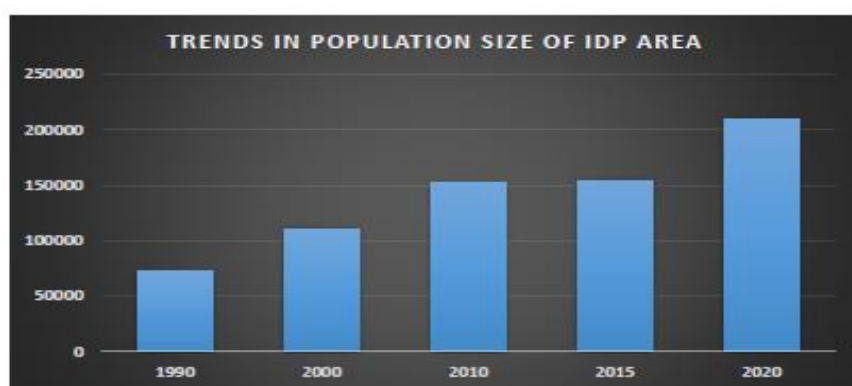
The Population in Nchelenge District is the second highest in Luapula Province and has a Population of 233,696 as depicted in the 2022, Census Summary Report. Nchelenge district has the highest population density with 5.3 persons living per square kilometre. The population has been increasing and there has been 65% percentage increase in population from 2010 to 2022. the high rate of population growth is attributed to the interaction of high fertility estimated at 5.2 births per woman and also the reducing mortality in the recent years.

The structure of the population shows there are more females than males with minimal disparity but the percentage of the females of child bearing age is at 31.7 % of the population hence the population is expected to continue increasing over the years. The life expectancy at birth for women at base year is

estimated at 51.3 while for men it is at 46.5 and the expectancy for women is anticipated to be increasing until 2035.

The table below shows the trends in population from 1990 to 2020. The population as taken during the 1990 Census was 72,761 whilst the 2000 Census captured a population of 111,119 representing an increase of 52.7% over a 10-year period.

Figure 1: Trends in Population Size of IDP Area



Source: ZAMSTATS, 2015

The previous census conducted in 2010 recorded a population of 152807 indicating a percentage increase of 37.5 % from 2000.

The information in the table below shows that there have been more females than except for the captured population in 2000 and 2015 with percentages of women at 49.29% and 42.36 % respectively. Although there has been records of more females than males, the disparities have not been much which is at an average difference of 0.43%.

Table 1: Historic Population Trends of IDP Area

| HISTORIC POPULATION TRENDS OF IDP AREA |            |            |            |            |           |
|----------------------------------------|------------|------------|------------|------------|-----------|
| YEA<br>R                               | Male       | Femal<br>e | Total      | %<br>Males | % Females |
| 199<br>0                               | 36369      | 36392      | 72761      | 49.98<br>% | 50.02%    |
| 200<br>0                               | 56342      | 54776      | 11111<br>9 | 50.70<br>% | 49.29%    |
| 201<br>0                               | 76124      | 76683      | 15280<br>7 | 49.82<br>% | 50.18%    |
| 201<br>5                               | 89059      | 65461      | 15452<br>0 | 57.64<br>% | 42.36%    |
| 202<br>0                               | 10398<br>7 | 10583<br>7 | 20982<br>4 | 49.56<br>% | 50.44%    |

*Source: CSO 2000, CSO 2010 and CSO projections 2015*

Table 2 below shows the population trends and growth rates of Nchelenge district and other districts in Luapula province including the trends of the province. The population for Luapula Province grew at 37.4% during the period 1990- 2000 with the fastest growing districts being Chienge and Nchelenge. During the period 1990 to 2000 the population of Nchelenge District grew at a high rate of 4.3% making it the second fastest growing district in the district while Chienge district was the fastest growing district at average annual growth rate 5.9%. Mansa the provincial Capital was at growth rate of 3.1 % over a 10 year period of 1990 to 2000. The rate of population increase of Nchelenge and Chienge was drastic from 1990 but thereafter the average annual growth rate began to reduce.



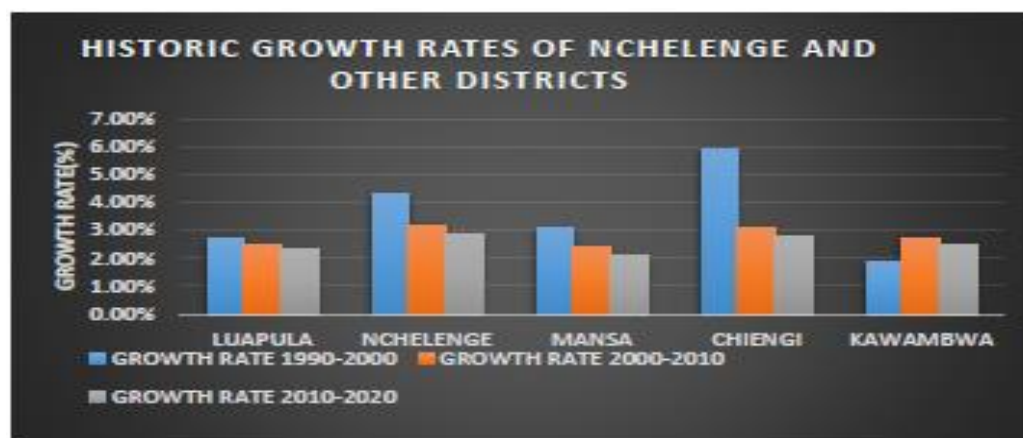
Table 2: Historic Population and Growth Rates of IDP Area

|                       | TOTAL POPULATION |               |               |               |               | GROWTH RATE       |                   |               |
|-----------------------|------------------|---------------|---------------|---------------|---------------|-------------------|-------------------|---------------|
|                       | 1990             | 2000          | 2010          | 2015          | 2020          | 1990<br>-<br>2000 | 2000<br>-<br>2010 | 2010-<br>2020 |
| LUAPULA               | 564,493          | 775,353       | 991,927       | 1,127,453     | 1,276,608     | 2.7               | 2.5               | 2.3           |
| <b>NCHELEN<br/>GE</b> | <b>72,761</b>    | <b>111119</b> | <b>152807</b> | <b>154520</b> | <b>209824</b> | <b>4.3</b>        | <b>3.2</b>        | <b>2.9</b>    |
| MANSA                 | 132500           | 179749        | 228392        | 257517        | 288749        | 3.1               | 2.4               | 2.1           |
| CHIENGI               | 47290            | 83824         | 114225        | 133501        | 155498        | 5.9               | 3.1               | 2.8           |
| KAWAMBW<br>A          | 85307            | 102503        | 134414        | 154294        | 176332        | 1.9               | 2.7               | 2.5           |

Source : CSO 2000, CSO 2010 and CSO projections 2015

As shown in the chart below in figure 2, the population growth rate of Nchelenge District has been growing at a high rate in comparison to the whole province and other districts such as Mansa and Kawambwa. The most noticeable period of population increase for Nchelenge District was from 1990 to 2000 and this was the same case for Chieng district. This can be attributed the location of the two districts where the major livelihood activity is fishing which pulled people from other areas for fish trade. Luapula Province as a whole has however been increasing at steady rate since 1990 with rates moving from 2.7% dropping to 25% to 2.3%.

Figure 2: Historic Growth Rates of Luapula Province, Nchelenge and Other Districts



Source: CSO 2000, CSO 2010 and CSO 2013

### 2.1.1 Historic Population and Growth Rates of IDP Area at Ward Level

Table 3 shows the population changes and growth rates of wards in the IDP area in 2000, 2010 and population of wards in 2022. The population captured in the 2000 Census showed that Kashikishi ward had the highest population in the District at 19,774 followed by Kabuta ward at 17,423. The reasons for the recorded high population in the said two wards is because they are the major market centres for fish and sardines (chisense) hence pulled population from other districts and wards for the purposes of fish trade.

The least populated ward in the year 2000 was Munkombwe Ward and one of the contributing factors to the low population is that people find it a challenge to settle in the area due to the deplorable state of the road network which makes it difficult for transportation of agricultural produce and also its geographical location hinders the movement of people from other wards. In addition, there is massive fertile virgin land suitable for farming with little fishing activity because it is further from Lake Mweru hence in most cases people only shift to the area during the farming season and later go back to the

wards where they are settled permanently when they are done with cultivation. At the time of the 2000 census, Chilongo ward had not yet been created which is why there is no population figure for the said ward in that particular year.

Table 3 below shows that in 2010, Chilongo ward had the highest population at 37,810 while Munkombwe ward continued to have the lowest population in the district. The population of Nchelenge Ward reduced from 7639 to 1272 showing a negative growth rate of -6.37% because it was realigned to create a new ward which is Chilongo ward thereby affecting the 2010 population. After realignment of Nchelenge Ward, a bigger proportion of the Ward was demarcated towards the creation of Chilongo Ward hence that's where most of the population was captured and with the high fertility rate, there was a high population increase. To add on, the increase in population of Chilongo Ward is because the area has fertile virgin land suitable for agriculture which prompted people from other wards such as Shabo, Nchelenge, Kabuta and Kasamba to migrate there for the purposes of farming after the fish catches in Lake Mweru started reducing.

The drastic drop in population and reduction in the number of households in Shabo ward in 2010 is because that people migrated to other wards to engage themselves in other livelihood activities as the fish catches started reducing. Mulwe ward was captured with the highest growth rate representing 5.64% followed by Kahikishi Ward at 5.22% and Mwatishi at 4.21%. With the reduction in the fish catches, people from other wards such as Shabo started migrating to Mulwe Ward for the purposes of charcoal burning especially in the Mantampala Local Forest and also to conduct trade with Kawambwa District via the Mulwe Mantampala Road. There was a refugee settlement in Kawambwa District which was bordering with Mulwe Ward hence there was increased interaction for trade. Additionally, natural population increase as a result of increased births contributed to increased population increase in Mulwe ward. As of the 2010 Census, Kashikishi ward had the highest number of households at 4,847 which increased by from the year 2000 while

Munkombwe had the least number of households. This is because Kashikishi ward remained the centre for commerce and trade in the district while the road leading to Munkombwe Ward became even more dilapidated hindering movement of people to the ward. The total number of households for the district had increased from 24,369 in 2000 to 30,157 in 2010 representing an increase of 23.8% during the period because of migration and natural population increase.

Table 3: Population Trends at Ward Level

| WARD       | YEAR   |        | 2022   | ANNUAL<br>GROWTH<br>RATE (%) | NUMBER<br>OF<br>HOUSEHOLDS |       |
|------------|--------|--------|--------|------------------------------|----------------------------|-------|
|            | 2000   | 2010   |        | 2000-<br>2010                | 2000                       | 2010  |
| Kabuta     | 17423  | 8,419  | 12,876 | -9                           | 3589                       | 1,655 |
| Mwatishi   | 12,152 | 16,364 | 25,026 | 4.21                         | 2657                       | 3,103 |
| Munkombwe  | 1031   | 1,658  | 2,536  | 0.63                         | 215                        | 317   |
| Kilwa      | 7035   | 8,668  | 13,256 | 1.63                         | 1713                       | 1,786 |
| Kashikishi | 19774  | 24,989 | 38,217 | 5.22                         | 4282                       | 4,847 |
| Nchelenge  | 7639   | 1,272  | 1,945  | - 6.3<br>7                   | 1671                       | 233   |
| Chilongo   | 0      | 37,810 | 57,825 | 37.81                        | 0                          | 7489  |
| Chisenga   | 9691   | 10,192 | 15,587 | 0.50                         | 2318                       | 2,096 |
| Kasamba    | 9905   | 12,912 | 19,747 | 3.01                         | 2222                       | 2,610 |
| Mulwe      | 7300   | 12,937 | 19,785 | 5.64                         | 1568                       | 2,569 |
| Shabo      | 7089   | 4,049  | 6,192  | - 3.0<br>4                   | 1500                       | 821   |
| Mofwe      | 4590   | 6,663  | 10,190 | 2.07                         | 973                        | 1,298 |

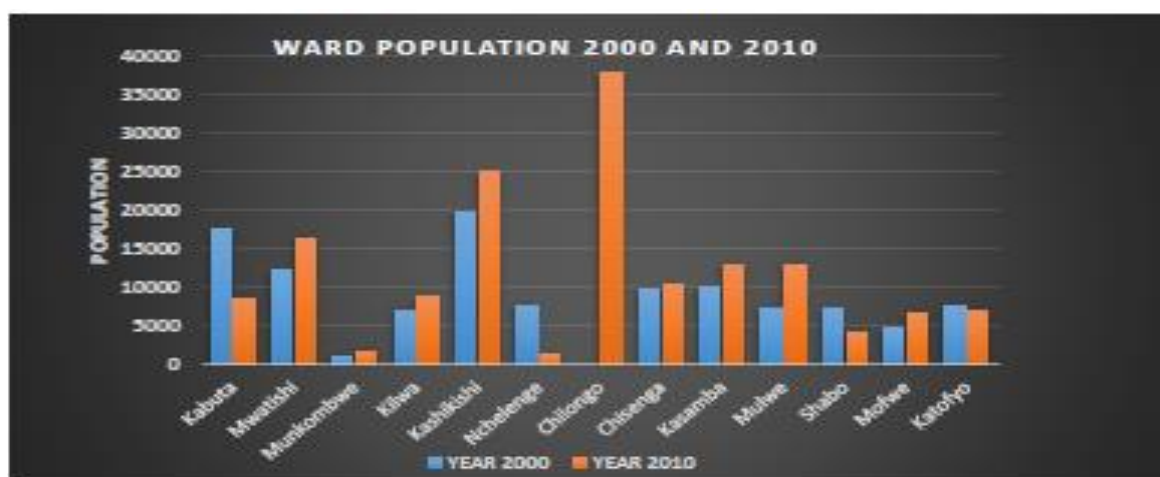
|         |         |         |         |            |        |        |
|---------|---------|---------|---------|------------|--------|--------|
| Katofyo | 7490    | 6,874   | 10,513  | - 0.6<br>2 | 1661   | 1,333  |
| TOTAL   | 111,119 | 152,807 | 233,696 | -          | 24,369 | 30,157 |

Source: CSO 2000 , 2010 and 2022

### Population

As shown in figure 3 Kashikishi Ward is one of the wards with high increase in population because the main trading activities take place and it hosts the two major big markets in the district. The ward is the major a point of trade for those coming in the district from other towns and the neighbouring Democratic Republic of Congo. The major economic activity in the district is fish trading which mostly takes place in Kashikishi, Mwatishi and Kabuta wards. The bad road network adversely affects the movement of people to Mwatishi and Kabuta wards as they conduct their business. With the reducing fish catches, most of the fishing is being done further on the waters which contributes to seasonal migration of people to Kilwa and Chisenga Ward.

Figure 3: Ward Population in 2000 And 2010

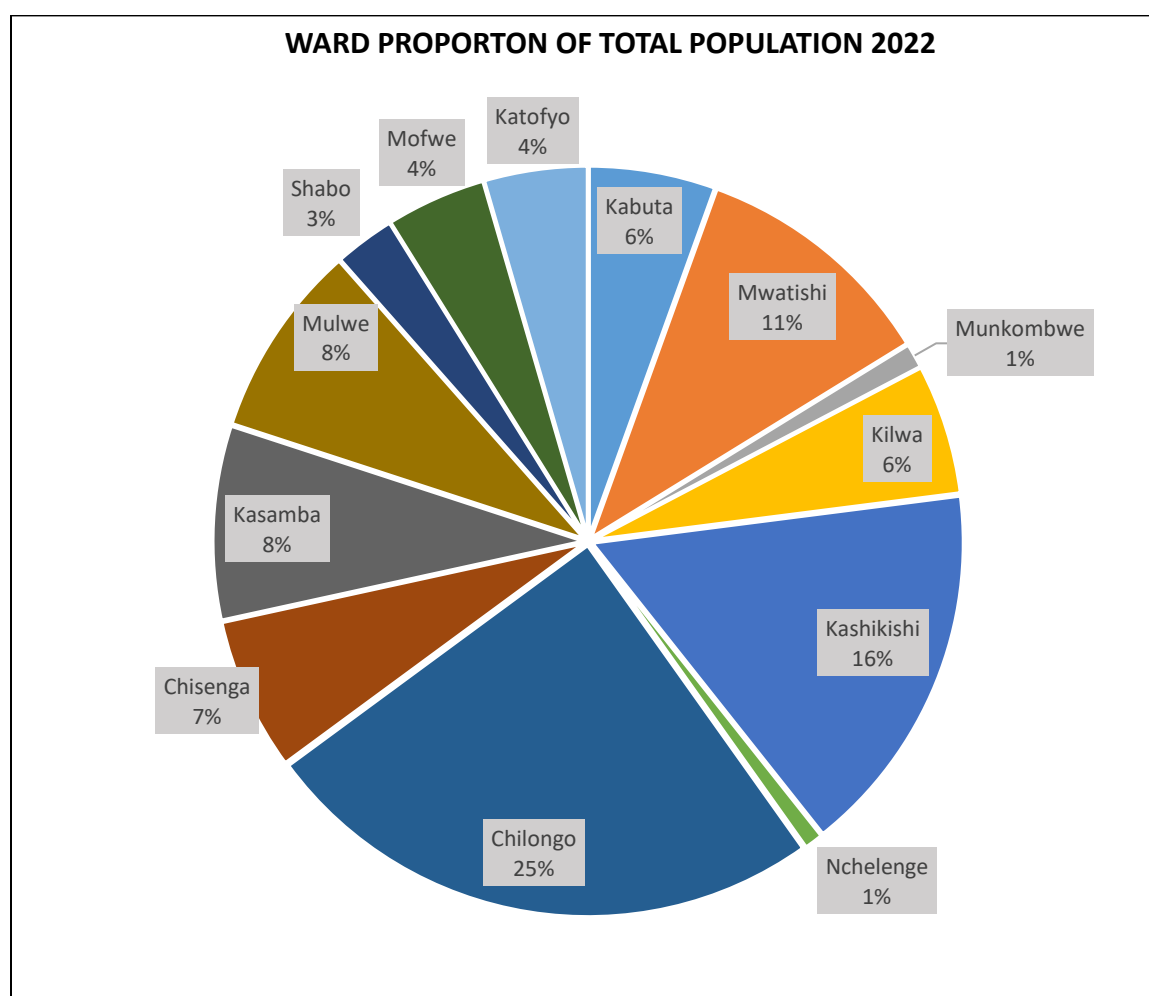


Source: CSO 2000 and CSO 2010

### 2.1.2 PERCENTAGE SHARE OF POPULATION BY WARD (2022)

The chart below shows the percentage share of the district population by ward. Chilongo Ward had the largest percentage share of the district population at 25% of the district population followed by Kashikishi ward with 16% of the district population. Mwatishi Ward had the third largest share of 11 % (16,364) of the district population. Munkombwe and Nchelenge ward had the least share of the district population at 1%.

Figure 4: Percentage Distribution of District Population by Ward



Source: CSO 2010 Population Summary Report and CSO 2022 Preliminary Report

## 2.2. Population Density

The table below shows the population density of the IDP area in comparison to Luapula Province and other districts within the province. The population density for the District was 37.4 persons per square kilometre in 2010 and increased to 56 .3 persons per square kilometre in 2022 representing a 50% rise. This shows that the population of the District has increased because of natural population increase and migration thereby leading to more people being settled in the wards of the District. In comparison to other Districts in Luapula Province, the population density for Nchelenge remains the highest from 2000 up to 2022. The second densely populated District in Luapula Province is Chiengwe District which is at 47.4 persons per square kilometre. Both Chiengwe and Nchelenge District depend on fishing as their major livelihood activity with increased migration of people from other districts which has also contributed to increased population density. To add on, there is a big proportion of the Lake Mweru and other water bodies in the two districts hence people have to compete for the suitable land which does not flood for housing and farming hence settle so close to one another leading to increased population density. With the high population density, the district is required to adequately plan and provide water and sanitation services to prevent the spread of waterborne diseases. To add on, much attention should also be given on sensitisation and offer of health services for prevention of communicable diseases.

Table 4: Population Density of Nchelenge and other wards

| POPULATION DENSITY OF NCHELNGE AND OTHER DISTRICTS |                             |                         |                         |
|----------------------------------------------------|-----------------------------|-------------------------|-------------------------|
| District                                           | Land Area(Km <sup>2</sup> ) | Population Density 2010 | Population Density 2022 |
| LUAPULA                                            | 50,567                      | 19.6                    | 29.9                    |
| NCHELENGE                                          | 4147                        | 37.4                    | 56.3                    |
| MANSA                                              | 7,775                       | 23.1                    | 42.1                    |
| CHIENGE                                            | 4008                        | 28.8                    | 47.4                    |

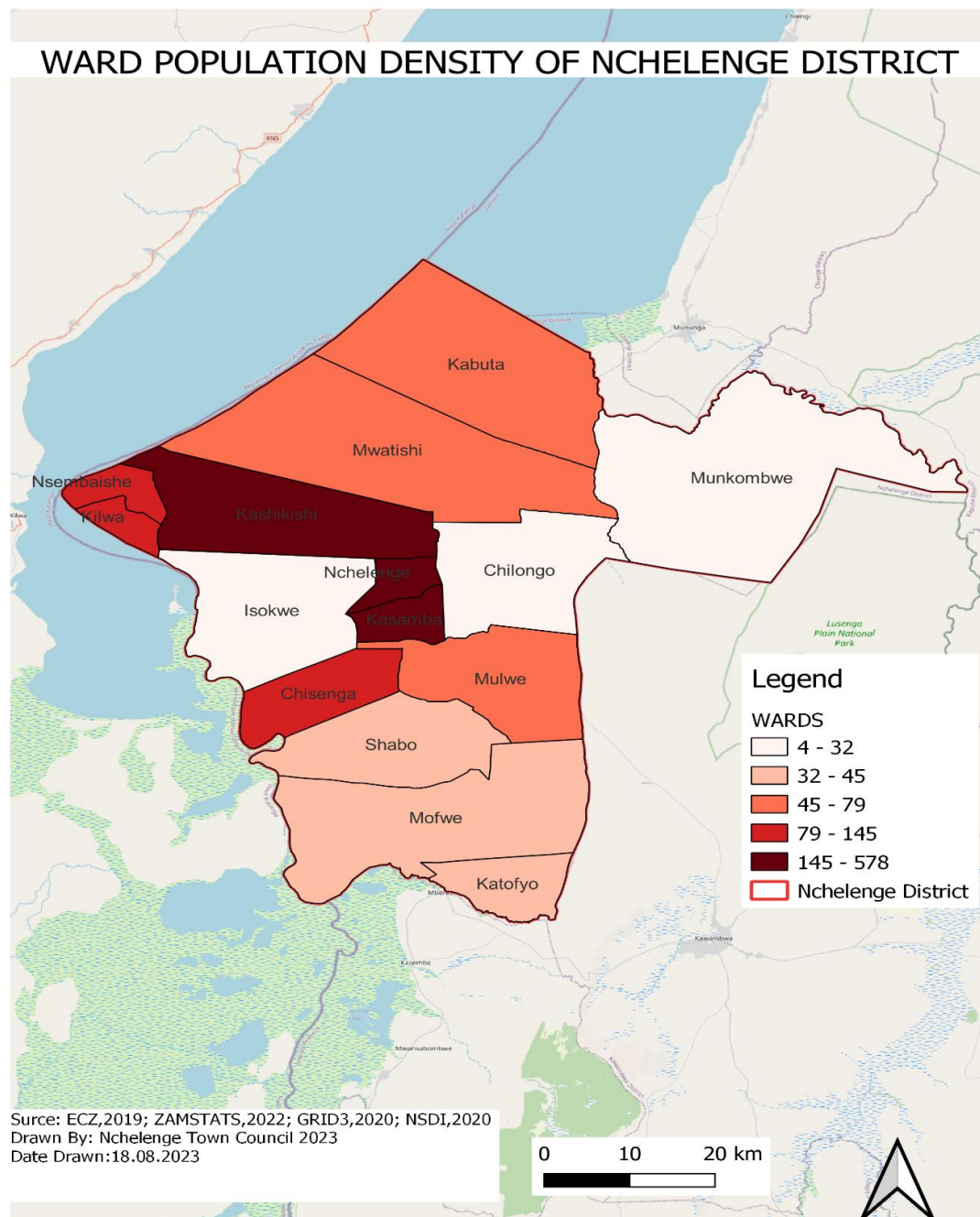
*Source: CSO 2010 and CSO 2022 Summary Report*

### *2.2.1 Population Density at Ward Level*

Map 3 shows the population density for the wards as at 2022 projected population of the wards. It should be noted that Nsembaishe and Isokwe are not indicated because there was still no information on the population of the said wards to enable the calculation of the population density.

Map 3: Population Density at Ward Level





*Source: ECZ (2019), ZAMSTATS (2022) - drawn by Physical Planning (2023)*

From the information given in the map, Chilongo has the highest population density followed by Kasamba Ward at 167.2 persons per square kilometre. Chilongo Ward has fertile and suitable land for farming hence there are a

number of people that have moved there from other wards with limited farming land such as Nchelenge and Kashikishi wards. Kasamba has the smallest share of the district land area but with a high population which has contributed to a high population density. Kashikishi follows after Kasamba with a high population density because of the high population in the area relative to the size of the ward and this is caused by migration of people from other wards for trading activities.

The settlement of people in the wards such as Kashikishi, Kabuta, Kasamba, Mwatishi and Kilwa which are in proximity to Lake Mweru and other water bodies has shown that people are concentrated along the shores of the Lake and surrounding streams for fishing including other uses of water. The Kilwa ward is considered as an island because the area is surrounded by Lake Mweru. There is also a concentration of people living along the Nchelenge Mansa Road for easy transportation of their goods which is mostly fish and other goods to the markets. Chisenga and Kilwa wards also have a high population density of more than 100 persons per square kilometres because they are both characterised by high population due to fishing but the surface area of the wards is small causing people to live in concentrated spaces.

Nchelenge Ward is considered as the administrative centre of the district and most of those settled in the ward comprises the workforce of government departments hence it is not characterised by a high population density.

The areas that have a high population density as shown in the map will require to be prioritised for water and sanitation services to prevent water waterborne diseases and also ensure that social services are provided close to the people as much as possible. The district should also prioritise to provide solid waste collection services, family planning services, and good health services to avoid communicable diseases and also intensify efforts with regards to GBV, SEA and controlling the spread of HIV/AIDS in the densely populated wards. If an area has high population density, there is pressure on the natural environment

because people are competing for limited resources. There is therefore need for the district to prioritise planning for initiatives that address sustainable management of the natural environment in the wards which are densely populated. Table 5 shows the ranking of wards in the district according to the population density with the highest densely populated ward being Chilongo and the lowest Munkombwe Ward. Munkombwe ward is the least densely populated ward in the district because it has the lowest population and a large share in square kilometres of the district land thereby contributing to settlement of communities far apart from each other.

Table 5: Ranking Of Population Density of Wards in Nchelenge Constituency

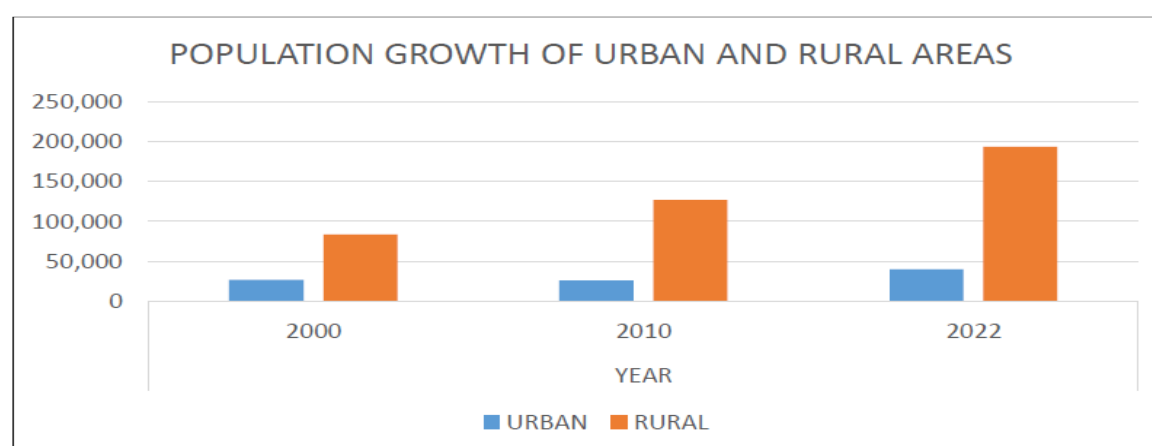
| S/<br>N | POPULATION DENSITY AT WARD LEVEL(2022) |            |
|---------|----------------------------------------|------------|
|         | WARD                                   | NO.RANKING |
|         |                                        |            |
| 1       | CHILONGO                               | 1          |
| 2       | KASAMBA                                | 2          |
| 3       | KASHIKISH                              | 3          |
| 4       | KILWA                                  | 4          |
| 5       | CHISENGA                               | 5          |
| 6       | MWATISH                                | 6          |
| 7       | MULWE                                  | 7          |
| 8       | KABUTA                                 | 8          |
| 9       | KATOFYO                                | 9          |
| 10      | NCHELENGE                              | 10         |
| 11      | SHABO                                  | 11         |
| 12      | MOFWE                                  | 12         |
| 13      | MUNKOMBWE                              | 13         |

*SOURCE: CSO 2010, CSO 2022*

## 2.3 Population and Population Growth Rates of Urban and Rural Areas

The IDP area is predominantly rural with only two wards namely Nchelenge and Kashikishi considered to be urban. Nchelenge Ward is considered urban because it is the administrative centre of the district and services such as piped water, electricity and other social services are provided although not adequate. The other thirteen wards are however considered rural with most of them characterised with a high population.

Figure 5: Population Trends in Urban and Rural Areas



SOURCE: CSO 2010, CSO 2000 and CSO 2022

Following the 2000 census of population, 75.3% of the total population was considered rural with a small proportion considered urban. In 2010, the percentage share of rural population increased to 83% while that of the urban population reduced from 25% to 17.1%. At national level, urban areas recorded a decline in the growth rate from 4.2 percent during the 2000-2010 period to 3.5 percent in the period 2010-2022. The population trends and livelihood activity on the district has shown that most people are engaged in fish trading and agriculture hence most of the areas in the wards are considered villages with a few identified as urbanising villages. The information has shown that the district has not been experiencing the urban to rural migration but most of the

population is settled in the rural areas. The urban population dropped in 2010 because of the realignment of Nchelenge ward to create another ward Chilongo which is considered rural.

The information as shown in table 6 indicates that the areas considered rural need to be provided with adequate social services including electricity because they hold the largest share of population which has continued to increase. With increased population in the rural areas, there is pressure on the forest cover for agriculture and energy purposes hence need provision of electricity as well as improved farming practices. The high population in the rural areas is an indication that there will be need for housing and infrastructure which might lead to haphazard development if not controlled.

Table 6: Urban and Rural Population Trends

|       | POPULATION |         |         | NO.<br>HOUSEHOLDS |        |
|-------|------------|---------|---------|-------------------|--------|
|       | YEAR       |         |         |                   |        |
|       | 2000       | 2010    | 2022    | 2000              | 2010   |
| URBAN | 27,413     | 26,261  | 40,162  | 5,953             | 5,080  |
| RURAL | 83,706     | 126,546 | 193,534 | 18,416            | 17,588 |

*Source: CSO 2000, CSO 2010 and CSO 2022*

From the table above, the number of households in rural areas reduced in 2010 showing that there was migration of people. At national level, the rural areas have the largest share of households at 57.6% and the urban households at 42.3%.

## 2.4 Estimated Population at Base Year

The 2022 census preliminary report indicated the population of Nchelenge District at 233,696

Showing an increase of 52.9 % from 152,807 which was recorded in 2010. The increase in population has been as a result of natural population increase

caused by increased births in the district. Additionally, there is migration of people from other districts for the purposes of trade and those employed in the formal sector. The table below shows the statistics of the population at base year with males at 49.8% and females at 50.2 % of the district population signifying more females. At national level, the percentage of males is 49% while females is at 51% of the total population. There has been an increase in the population growth rate from 2.9 to 3.6 showing a rise of 0.7. Mansa the provincial capital has the highest population in Lupaula Province at 327,063 while Nchelenge District has the second highest share of the population in Luapula Province. In addition to the district population, Nchelenge district has a refugee settlement in Mantampala of Mulwe Ward with a population of about 7,320 as of 2022.

Table 7: District Population at Base Year

| DISTRICT  | 2010 population |         |         | 2022 population |         |         | AVERAGE ANNUAL GROWTH RATE |
|-----------|-----------------|---------|---------|-----------------|---------|---------|----------------------------|
|           | MALE            | FEMALE  | TOTAL   | MALE            | FEMALE  | TOTAL   |                            |
| NCHELENGE | 76,124          | 76,683  | 152,807 | 115,785         | 117,911 | 233,696 | 3.6                        |
| MANSA     | 100,873         | 104,125 | 204,998 | 160,174         | 166,889 | 327,063 | 4.0                        |

*(CSO Preliminary Report, 2022)*

#### *2.4.1 Migration and Mobility*

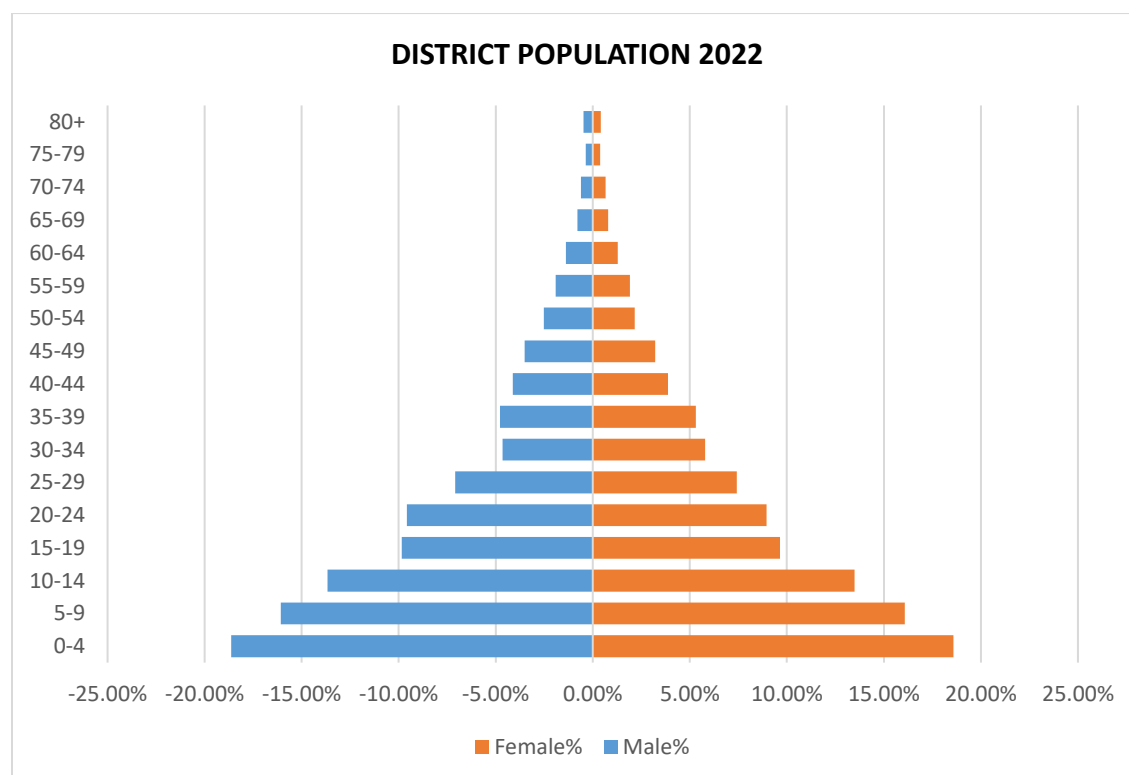
The period from 1990 to 2000 showed a very high increase in population until the year 2010. The endowment of the district with natural water bodies the main being Lake Mweru led to the area being a fishing hub pulling people from other towns because of fish trade. The District borders with the Democratic Republic of Congo and movement of people across the two countries takes place because of trade. When there is political instability in the bordering DRC, there have been situations where citizens from there have migrated to Nchelenge District to seek refuge. In 2017, thousands of refugees from the DRC migrated to Nchelenge District and later a refugee settlement was created in Mulwe Ward. The population of the refugees has been varying because there are still some migrating into the district and other refugees decide on voluntary repatriation to go back to their country after some time. As of 2022, the total population of refugees in Mantampala Settlement of Mulwe Ward was at 7320 with 3731 females and 3589 males.

#### *2.5 Age and Sex Characteristics Of Population At Base*

The population age structure of the IDP area at base year is depicted in the pyramid below. The relatively high population growth rate for the district which at 3.6% has crowned into a young population with about 48.2 % of the population aged below 15 years and 21.8% aged below 35 years. The working population aged 15-64 years for both male and females is at 49.5% of the total population while the population of the older age group above 65 years is at 2.2 % of the total population. The population age structure of the district depicts that there is a big proportion of the dependant population at 50.5 % which includes those aged 0 to 14 years and the older population of above 65 years of age. The labour force or the working population is at 49.4 % of the population which therefore shows that the dependency ratio in the district at 102 having a population with more of the young and elderly that need to be taken care of. With a population having the aged 0 to 9 years at 34.7 %, the district needs to put in extra effort to facilitate programs that concentrate on the health care,

nutrition and early childhood education. The working population which is at 49.4 % needs to be supported with employment and livelihood skills to be able to support the dependant population. Nchelenge District with 22% of the population aged 0 - 19 years also needs to focus on programs that address teenage pregnancies, early marriages, secondary education, skills development and sexual abuse.

Figure 6: Pyramid showing sex and characteristics of population at base



*(CSO Projections, 2011-2035)*

### 3.0 POPULATION PROJECTIONS

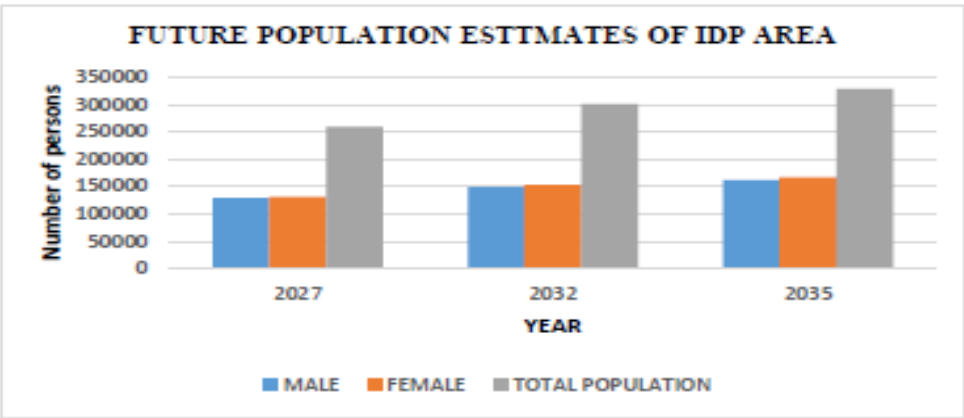
#### 3.1 Estimate of Future Population

With the average annual growth rate of the district at 3.6, the population of the IDP area is expected to continue increasing in the next 5 years to reach an estimated population of 259,230 and 301,256 in the next 10 years as shown in the chart below. The existence of refugees in Mulwe Ward is most likely



expected to contribute to rise in population as they settle with the host community. There is a likely hood that others may not go back to their country of origin but begin families in the country of refuge thereby leading to population increase especially in Mulwe Ward and wards surrounding the refugee settlement. The population of Nchelenge Ward is expected to increase at higher rate in the next ten to twenty years because of the district hospital that has been constructed as people will be moving towards the area to settle.

Figure 7: Future Population Estimates of IDP Area



(CSO Projections, 2011-2035)

### 3.1.1 Estimate of Fertility Rate

Nchelenge district as shown in the table below has had high fertility rates since 2011 but this rate has been gradually reducing. The estimates provided in the CSO 2010 projections indicate that the rates are likely to reduce to as low as 5 births per woman which would be lower than districts such as Kawambwa. The reduction in fertility rates is as a result of increased accessibility of contraceptives by women. The ministry of health in collaboration with other partners such as SUNTA have been working to sensitise women on the use of family planning.

The high fertility rates are a threat to the environment because it means there will be more population growth putting pressure on land use and natural resources. Even with the increased population in Nchelenge District, the

livelihood activity continues to be fishing without noticeable expansion in other economic activities. There is therefore need for the district to diversify its economic activities in order to support the expanding population.

Table 8: Fertility Rates of Nchelenge and Other Districts

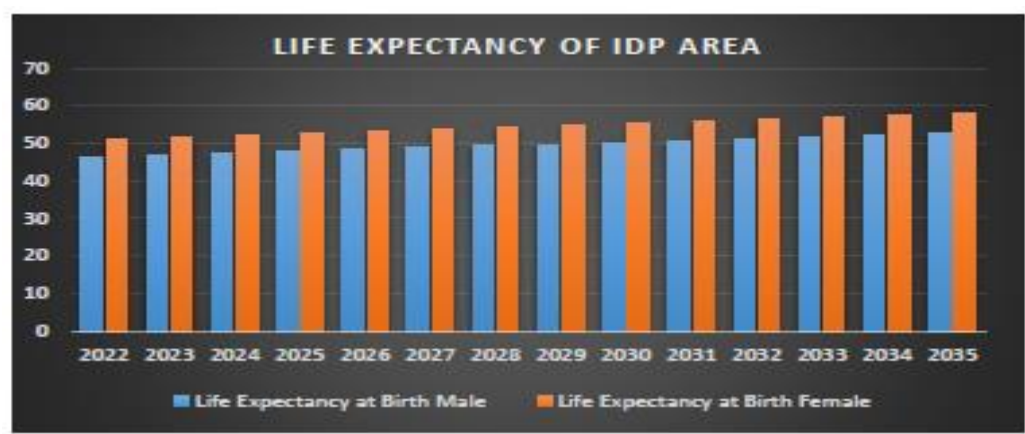
|         | DISTRICT  | BIRTHS PER WOMAN |      |      |      |      |      |
|---------|-----------|------------------|------|------|------|------|------|
|         |           | 2011             | 2016 | 2020 | 2025 | 2030 | 2035 |
| LUAPULA |           | 7.1              | 6.7  | 6.4  | 6    | 5.6  | 5.2  |
|         | NCHELENGE | 6.8              | 6.4  | 6.1  | 5.7  | 5.4  | 5    |
|         | MANSA     | 6.8              | 7.1  | 6.1  | 5.7  | 5.4  | 5    |
|         | KAWAMBWA  | 7.6              | 7.1  | 6.8  | 6.4  | 5.9  | 5.5  |

(CSO Projections, 2011-2035)

### 3.1.2 Life Expectancy of IDP Area

The chart below shows that the life expectancy of females in the IDP area is higher than that of males and is expected to continue increasing until 2035. This is because of the day to day livelihood activities women engage themselves as accepted in the district culture compared to the activities men are required to do. The culture setup in the district allows for men to carry out hard manual work compared to the women hence this easily exposes their bodies to illness and injury. The lower life expectancy of men can also be attributed to their social lifestyle in which they engage themselves in excessive beer drinking exposing themselves to various diseases as opposed to women.

Figure 8: Life Expectancy of Nchelenge District

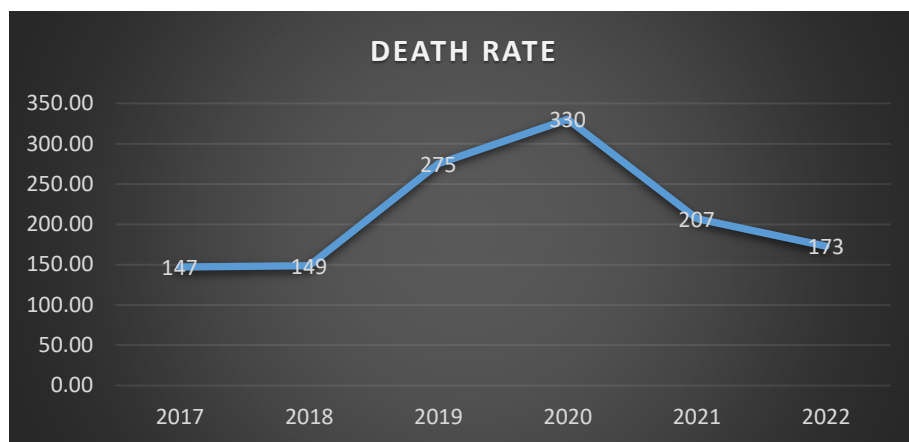


(CSO population projection 2011 -2035)

3.1.3 Annual Number of Deaths Recorded in IDP Area

The number of deaths that have been recorded in the district depict that deaths increased in 2019 and 2020. In the period 2017 to 2020, the staffing levels were very low in the health facilities thereby reducing the level of care given to patients. During the same period, the supply of drugs in facilities was so erratic hence patients were required to buy from their own resources and those that did not manage to acquire drugs died. There was however a noticeable reduction in the number of deaths to 207 deaths per 100,000 of district population in 2021 due to increased level of care being provided at the health facilities. The recorded number of deaths further reduced to 172 per 100,000 district population in 2022 attributed to increased staffing levels and availability of medical supplies in facilities.

Figure 9: Number of Deaths Recorded In the District Since 2017



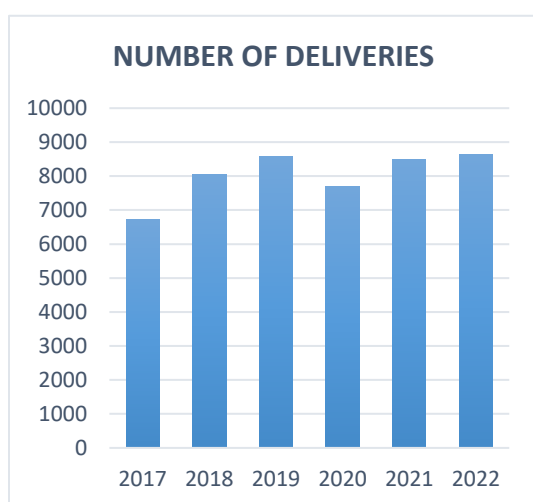
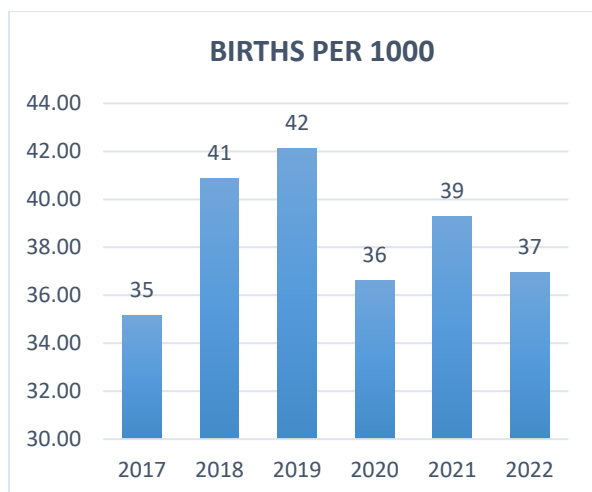
Source: Nchelenge DHO, 2022

### 3.1.4 BIRTHS

The number of deliveries in the IDP area as shown in the charts below increased from 2017 up to 2019 and reduced by 10.3 % in 2020 to a total of 7685 deliveries. The number of deliveries therefore increased again in 2021 to 8502 deliveries. The increase in the number of deliveries in the period 2021 to 2022 is because the ministry of health intensified health promotion through sensitisations with the community and traditional leaders on the importance of receiving skilled maternal healthcare. Additionally, maternity annexes were constructed in some health facilities thereby giving an opportunity for expectant mothers to deliver in health facilities under the care of skilled health personnel. In 2017, the number of deliveries and births were low because many women were shunning to deliver from health facilities because most they had no maternity annexes. In 2020 the numbers of deliveries also reduced because more health posts were opened but without skilled staff and some of them are Ntoto, Kapema and Kasumpa health posts.

Figure 10: Births per 1000 Deliveries

Figure 11: Number of



*Source: Nchelenge DHO, 2022*

*Source: Nchelenge DHO,*

*2022*

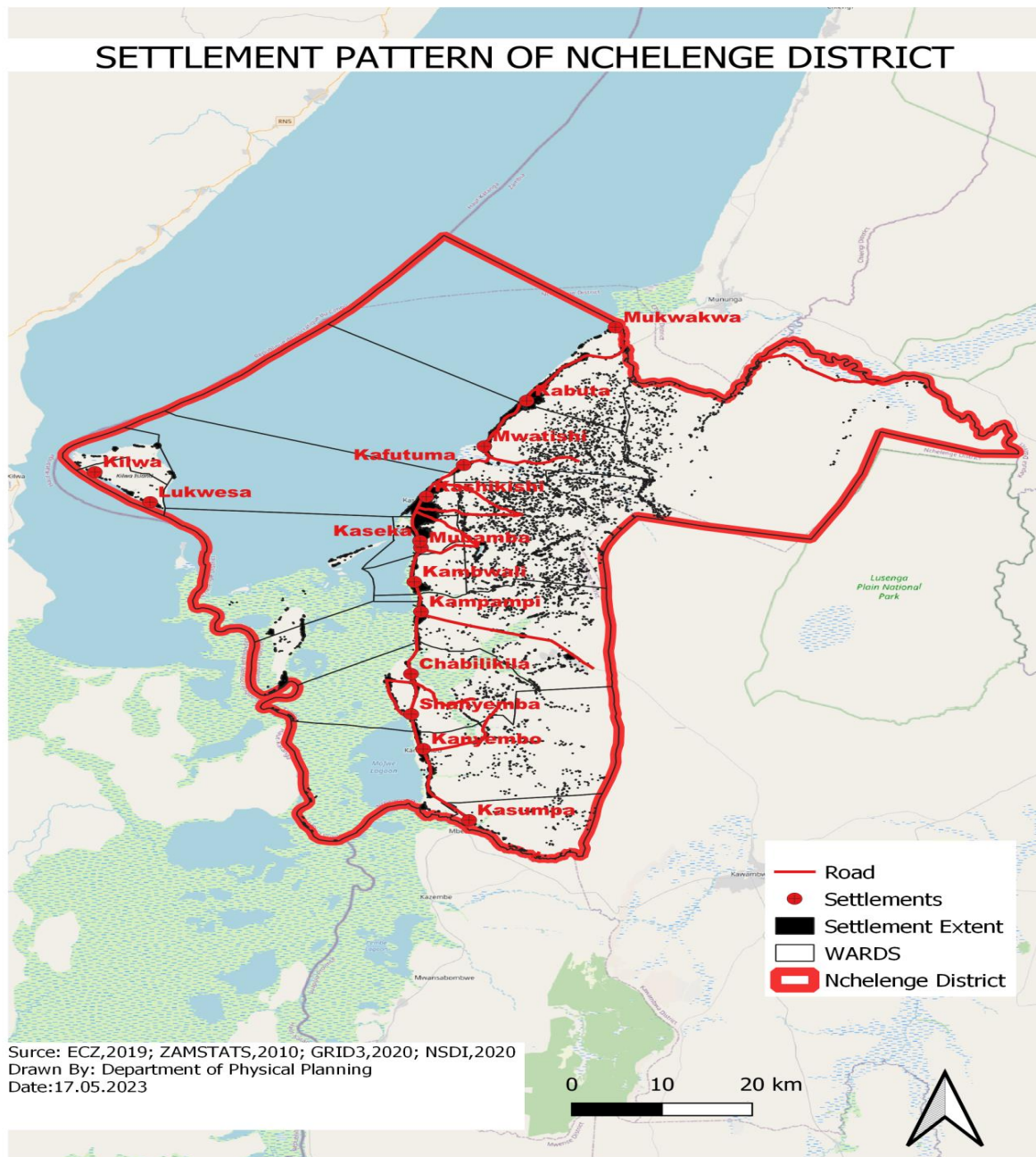
#### 4.0 ASSESSMENT OF THE EXISTING LAND USE AND SETTLEMENT PATTERN IN THE DISTRICT

This section highlights the general condition of the settlements in Nchelenge District. The section includes a spatial analysis of the settlements in terms of land tenure and growth patterns. The analysis has identified that there is a lot of uncontrolled development in the land surrounding. Nchelenge Township Given the fact that most developments in traditional areas take place

haphazardly. The dominant land tenure system in the district, according to the report, is the customary land tenure system, which gives the traditional leadership more say over how land is allocated and used. The district's land is primarily owned by local customs, with the remainder being state property.

#### 4.1 Overall Settlement Pattern

Map 4: Settlement Pattern in the District



Source : ECZ 2020, ZAMSTATS 2010, GRID 3 2020, NSDI 2020, drawn by Physical Planning 2023

The settlements in the district are concentrated along Mansa –Nchelenge road (D79) forming the linear type of settlement. The settlements are in close proximity to prominent facilities of commerce and trade and water bodies. The

other type of settlement pattern is dispersed which is more concentrated in areas surrounding water points (boreholes) health centres and schools. People have also opted to settle near Lake Mweru and there are also settlements in the forest reserves due to encroachments, for economic activities such as beekeeping, timber production and charcoal burning, thereby putting a lot of pressure on existing natural resources and the environment, which has negatively affected the management of natural resources. It is worth noting that, settlement patterns are important in that they determine the service provision in the district.

#### *4.1.1 Chiefdoms*

The district has three chiefdoms namely Kambwali Chiefdom Royal Establishment headed by Senior Chief Kambwali, Kanyembo Chiefdom headed by her Royal Chieftainess kanyembo and Royal Establishment headed by Senior Chief Mununga. These three chiefdoms have great influence on the development in the district as half of the district's land is under their control.

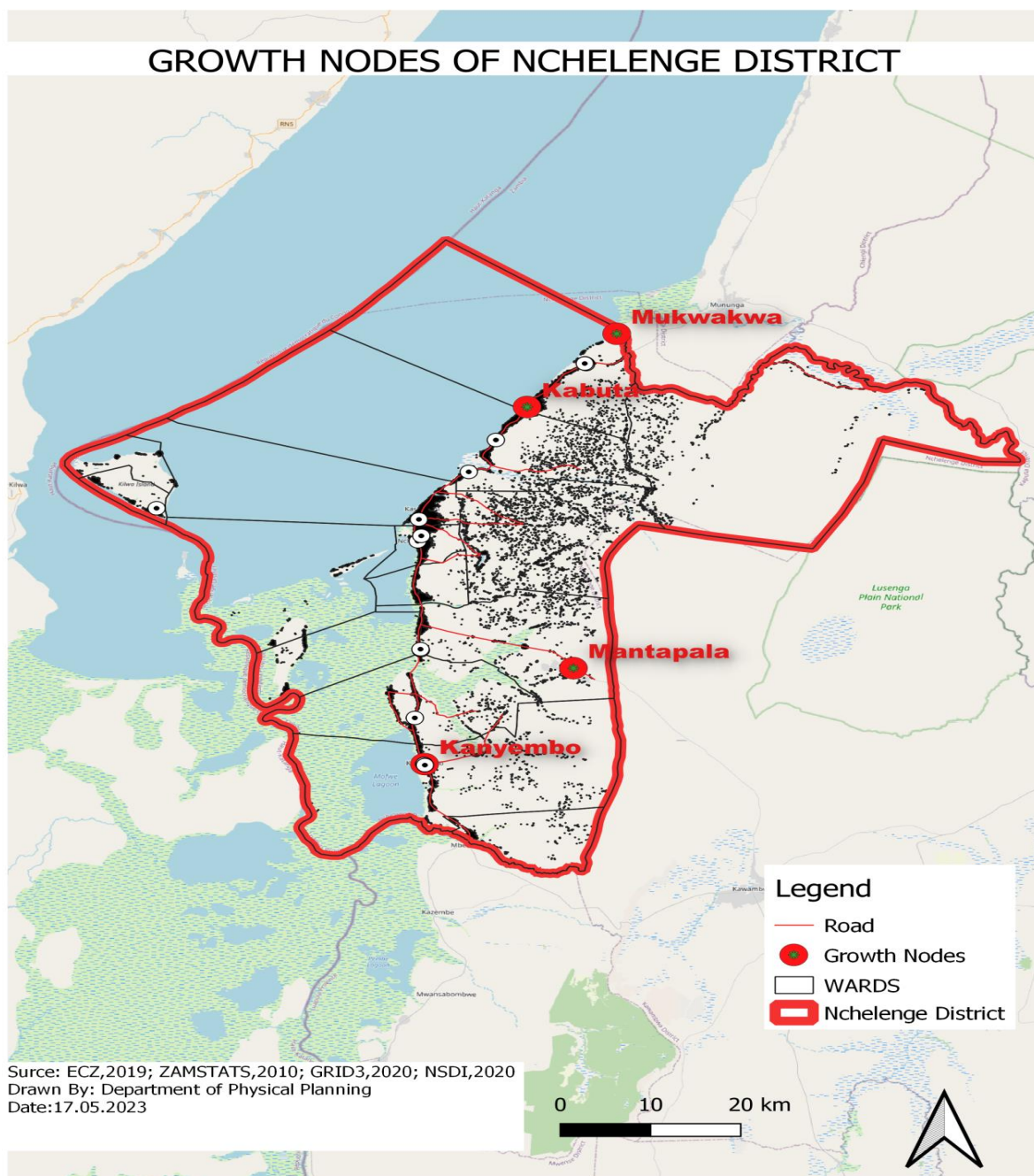
#### *4.1.2 Housing Developments*

Nchelenge District has about 2 peri-urban settlements which is Nchelenge and Kashikishi. When it comes to Nchelenge Township, there is no clear divide between state and traditional land in terms of the development. Uncoordinated development in the areas in close proximity to the Township land characterizes the expansion of this land.

### **4.2 Urbanizing Villages and Growth Nodes**

Map 5: Showing the Growth Nodes of Nchelenge District





Source: ECZ 2020, ZAMSTATS 2010, GRID 3 2020, NSDI 2020, drawn by Department of Physical Planning 2023

As shown in map 5, the villages that are urbanizing and have potential for growth nodes includes Mukwakwa, kabuta, Kanyembo and those in Mantapala area (nsemiwe, piyala, sekesa, refugee resettlement, posa and seya). This is due to the economic activities such as beekeeping, farming, fishing and gardening as their major livelihood in these areas. Additionally, the presence of the refugees from Congo possesses high possibilities of population increase due to new birth rates adding pressure on the existing land use.

#### 4.3 Informal Settlements

Much of the settlements in the district are informal. This is spread across the township boundary of the district. These areas include Kafimbwa, Kaseka and Chilongoshi.

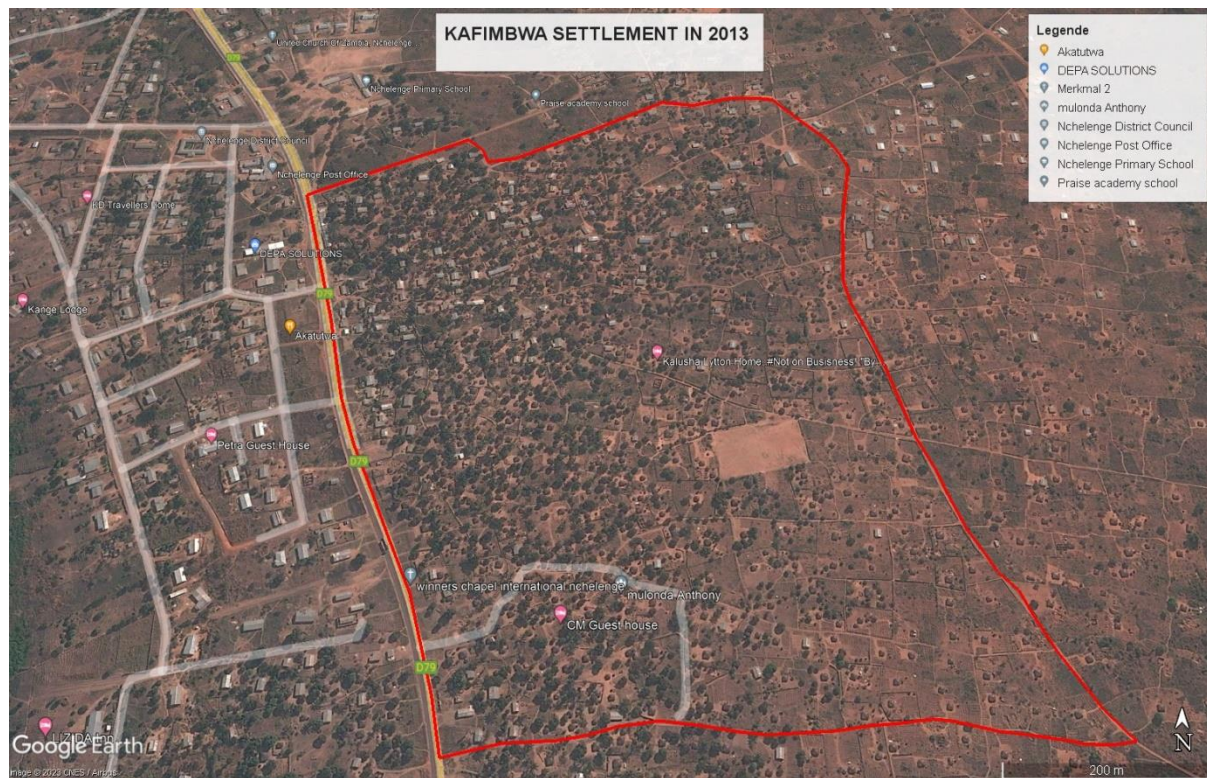
The construction of these informal settlements is not subjected to any building standards. Lack of building standards, has led to disorderly developments and created problems of inaccessibility to some houses and provision of services such as electricity and piped water.

The challenges faced by informal settlements includes the existing poor water services, poor sanitation and drainage systems. These problems have contributed greatly to the slow rate of construction of formal housing in the township.

#### 4.4 URBAN EXPANSION/PERI-URBAN AREAS

Figures below shows the expansion of the peri-urban in Kafimbwa settlement from the period of 2013 to 2023

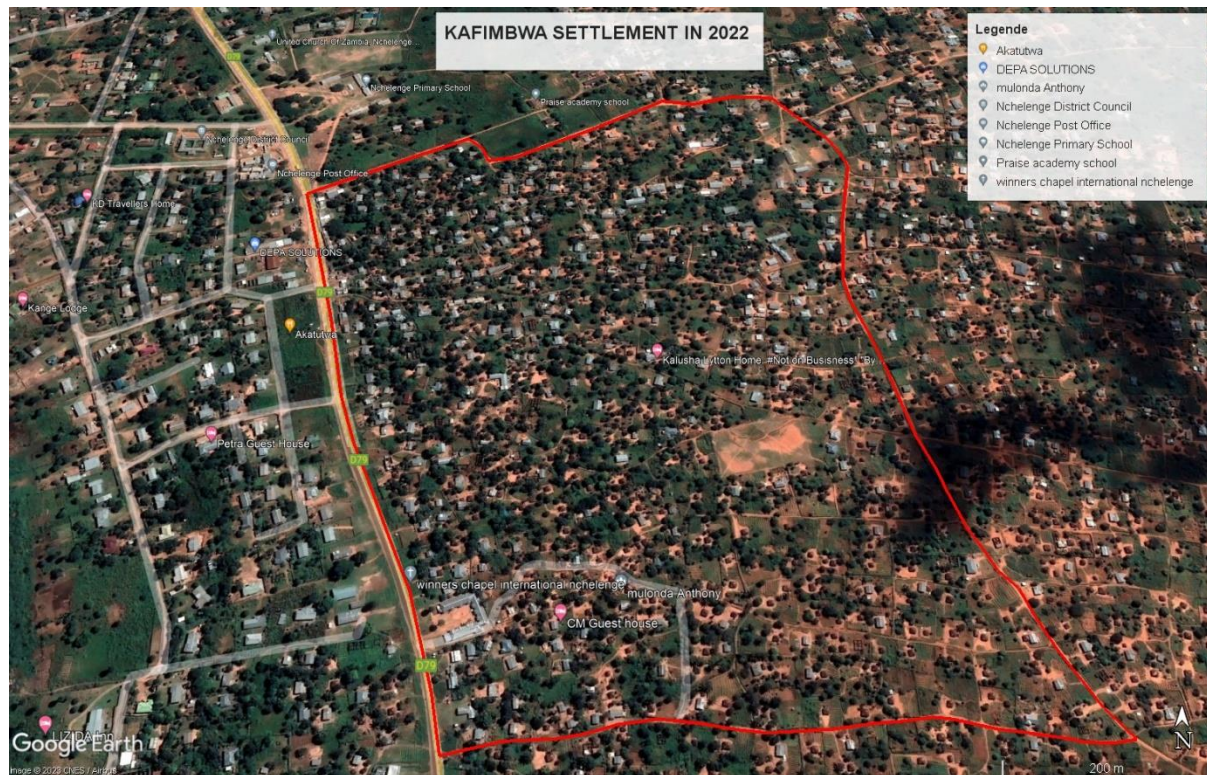
Figure 12: Kafimbwa Settlement In 2013



Source: google earth, 2013



Figure 13: Kafimbwa Settlement In 2022



Source: google earth, 2022

The areas in which peri-urban is expanding include Kafimbwa village, Nchelenge ward and Kashikishi ward. Kafimbwa and Kashikishi are one of the areas where there is peri-urban expansion ,these old settlement are clustered more on the north -eastern part of the district representing older settlement pattern .The new settlement pattern have shown a shift in population distribution towards the central ,northern ,southern and western parts such as improvement in roads access ,establishment of services such as schools ,health facilities ,accessibility of water ,and increasing economic activity .the changes in settlement patterns and population distribution therefore show a

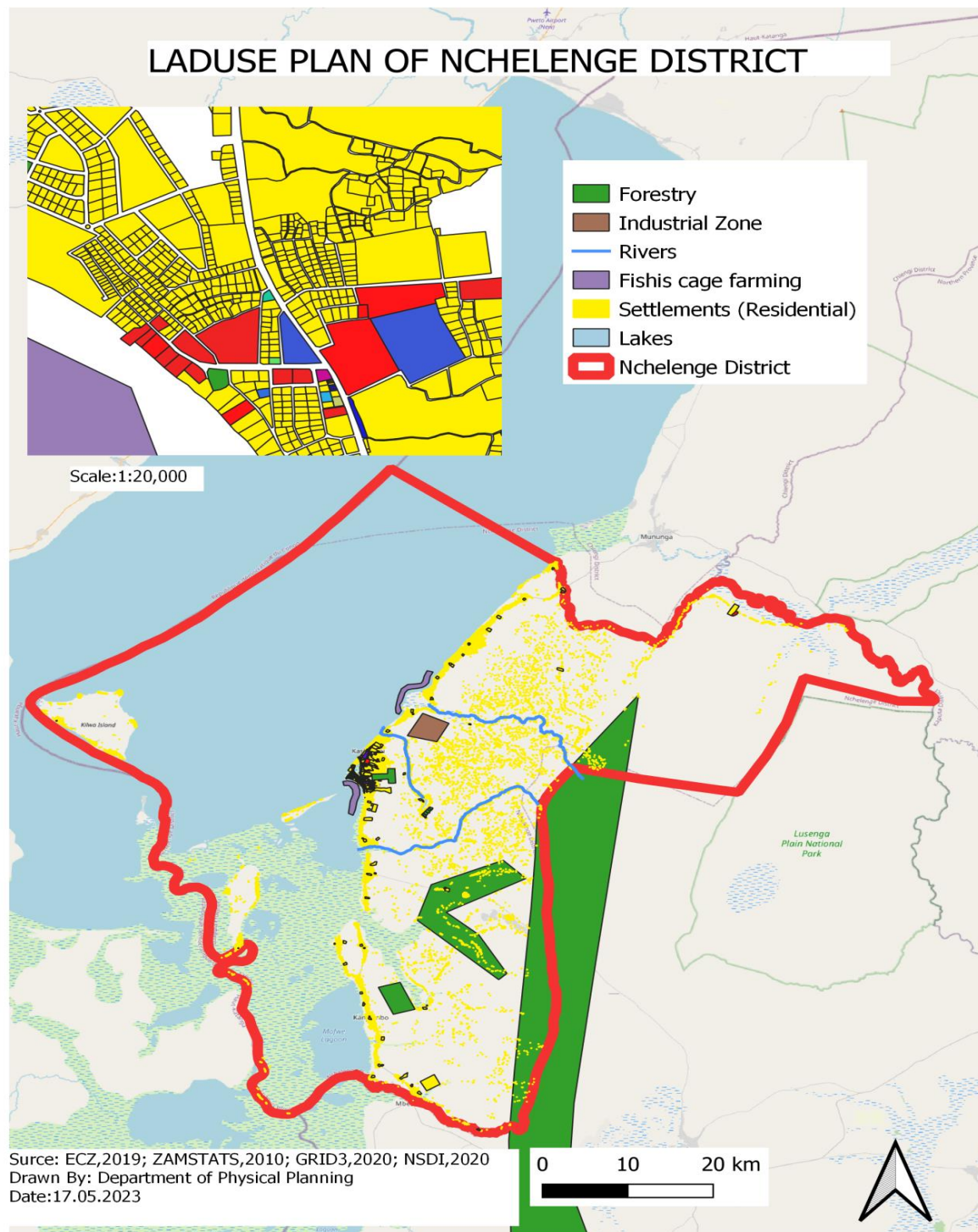
general trend of rural -urban migration ,and also settlement resulting from people coming from other district for employment .

#### 4.5 Other Land Uses

According to the 2023 valuation roll, the Nchelenge Township is a mixed-use development area with over 825 properties, though some properties were not included. A road network will provide access to the properties. The different land uses consist of:

- Key government institutions - health, education and security as well as administration
- Commercial – properties for retail market, offices and a bank
- Transportation – an airstrip, bus station, fuel station
- Private and Government institutions
- Agriculture – Small Holdings
- Public spaces – places of worship
- Community amenities- parks and open spaces
- Power Supply - ZESCO Sub Stations
- Low, medium and high-cost residential properties

Map 6: Showing Land use Pattern of Nchelenge District



Source: ECZ -2019, ZAMSTATS -2010, GRID 3- 2020, NSDI -2020

## 5.0 ASSESSMENT OF THE IMPACT OF THE CONTINUATION OF THE POPULATION GROWTH ON THE LAND USE

### 5.1 ASSESSMENT OF THE IMPACT OF THE CONTINUATION OF THE POPULATION GROWTH ON THE OVERALL SETTLEMENT PATTERN

There has been continuous population growth in the district over the recent years especially the areas along the Mansa-Nchelenge Road following the linear type of settlement. This increase will have a negative impact on the settlement pattern as most of the people prefer to settle where there are economic activities and good road networks. Hence making the area become prone to many diseases. The population of Nchelenge is expected to continue growing in the next five years to reach an estimated population of 259,230 and 301,256 in the next ten years, according to the CSO projection (2015). This means that there will be a high demand for land. Population growth will inevitably result in higher demand for services like new housing and competing land use priorities, which will result in encroachments on the forest cover.

There is a change in land use for example, residential to commercial, due to the demand for land. Currently there has been a trend of what has been happening in low density some residential houses have been converted into office spaces like world vision and other organisations. Looking at population characteristics, we see a sharp increase in the age range from 0 to 19 years old. This population has a wide range of interests, from those pursuing an education to those looking for job opportunities and others in employment. With a high unemployment rate, most people in this age group tend to fall into evils such as drug and alcohol abuse, prostitution and petty crime. Programs to support youth to engage in various income-generating activities, for example: In the field of agriculture and agribusiness, the establishment of technical and vocational training (TEVET) Centers in the district is essential to equip youth with technical skills and create a competitive workforce for the whole province.

## 5.2 ASSESSMENT OF THE IMPACT OF THE CONTINUATION OF URBANIZING VILLAGES AND GROWTH NODE

The Continuation of Population Growth on Urbanizing Villages and Growth Node is alarming resulting into high demand for land. This trend will have an impact on land-use in the following ways:

- a) Increase in demand for services: There will be an increase in demand for services such as schools, health facilities, water supply and sanitation, markets, etc. This will create pressure on existing infrastructure and services, and subsequently result in the need for establishment of more of these facilities to cater for the growing population.
- b) Housing and infrastructure: All the developments will require land, and therefore along with other existing land-uses such as farming, animal grazing, burial sites, forest reserves, and so on, there will be an increase in demand for land for housing and infrastructure.

In the absence of services such as electricity, water and sanitation, natural resources such as forests will continue being used unsustainably. Furthermore, communities in these areas will continue to rely heavily on unsustainable agricultural practices as it remains their only means of livelihood and food security, causing further environmental degradation. Development planning for the District must therefore be balanced, with targeted investments in all areas of the district in order to provide alternative sources of livelihood, sustainably manage and harness natural resources which are unique to these areas, and reduce over-reliance on these resources especially in rural areas.



### 5.3 ASSESSMENT OF THE AVAILABLE LAND FOR PLANNED URBAN EXPANSION

Due to the scarcity of land as a resource, continued rural-urban migration and resettlements, may also lead to mushrooming of informal settlements in planned and unplanned areas of the district thereby causing land use conflicts. In order to Plan for Urban Expansion Development planning in all areas of the district will therefore require; land, and therefore along with other existing land-uses such as farming, animal grazing, burial sites, forest reserves, and so on, there will be an increase demand for land for housing and infrastructure. This may pose as a challenge due to the scarcity of land as a resource.

Continued rural-urban migration and resettlements, may also lead to mushrooming of informal settlements in planned and unplanned areas of the district thereby causing land use conflicts. The subsequent rise in economic activity and demand for services could focus development on those areas in the next 10 years, causing urbanisation but also possibly leaving already underdeveloped areas such as Mukombwe, Katofye and Shabo wards neglected.

Over the next 10 years, the population density will increase with more people looking for land resulting in the creation of squatter (unplanned) settlements as the majority of the land is under customary tenure.

In order to achieve sustainable spatial growth, sustainable plans will be required to guide the opening up of additional development areas, paying particular attention to sensitive areas. Additionally, local authorities will need to go into planning agreements as provided for under the Urban and Regional Planning Act No. 3 of 2015 to ensure a balanced development across the IDP area. Currently the council has been given 125 hectares of land near the newly constructed district hospital by his royal highness chief Kambwali as such the council has engaged the department of physical planning to do local area plans

for the same land.

#### 5.4 ASSESSMENT OF THE IMPACT OF THE CONTINUATION OF POPULATION GROWTH ON INFORMAL SETTLEMENTS – NEW, EXPANDING AND DENSIFYING

The Continuation of Population growth on Informal Settlements will have an impact on the existing land use patterns. The increase in population will cause mushrooming of settlements in conservation areas, leading to high rate of deforestation and degradation in and around the forest reserves making demands resulting in climate change and high poverty levels. Additionally, there will be increased demand for social facilities and services such water, sanitation, health facilities, and educational facilities.

#### 5.5 ASSESSMENT OF THE IMPACT OF THE CONTINUATION OF POPULATION GROWTH ON OTHER LAND USES

The increased population growth in Nchelenge district will increase the demand for other Land uses. It is anticipated that human settlements will be established in ecologically sensitive areas. There will be need for the local authorities to engage traditional leaders through planning agreements and strengthen their capacity to undertake development control and enforce building standards and zoning controls to prevent the mushrooming of unplanned and illegal settlements. An increase of unplanned settlements in the district is on the rise. This will have an adverse impact on underground water sources and surface water.

Thus, the Local Area Plans for these areas will be required to take into account environmental quality, service quality and social and cultural impacts of the developments.

## **6.0 SECTORAL AND THEMATIC ANALYSIS**

The section provides an in-depth analysis of core issues raised in the IDP area in various thematic areas which include; education, health, tourism, water and sanitation, agriculture, forestry, energy, transport and communication.

### **6.1 Introduction to Community Development And Social Services**

One of the significant issues Zambia faces today is determining how to reduce poverty and economic disparities among its people. Despite the fact that the economy has continued to improve in recent years, with real GDP growth of more than 5%, the majority of Zambians remain extremely poor. It is important to note that for a long time, a sizable segment of the population has been subjected to stringent economic reforms as well as unforeseen extreme weather conditions, which have elevated their vulnerability to poverty over time.

#### **6.1.1 Key Government Priorities to be implemented at Local Level**

In order to support human development and dignity, the community development and social services sector offers social protection services to households headed by incapacitated individuals. The district initiates several projects and programs aimed at vulnerable groups, including households headed by women and households headed by children. The Department of Community Development, the Department of Social Welfare, the Local Authority, and additional collaborating partners offer the services.

##### **6.1.1.1 Key Priorities of the 8th National Development Plan**

The government is focusing on improving the welfare and livelihoods of the poor and vulnerable in order to reduce poverty, vulnerability, and inequality under Strategic Development Area 2 of human and social development and Development Outcome 4: Reduced, Poverty, Vulnerability, and Inequalities of the 8th National Development Plan. Reducing violence against women and girls, and expanding social security coverage, and improving multi-sectoral disaster management are among the government's top priorities (GRZ, 2022).

##### **6.1.1.2 Key Priorities of Sector Specific National Plans**

In Nchelenge district, the Social Welfare Services Sector is governed by the National Social Protection Policy of 2014. The Public Welfare Assistance Scheme (PWAS) and the Social Cash Transfer (SCT) are two social welfare projects offered under the Social Assistance Pillar of the National Social Protection Policy. The delivery of fair and fundamental social protection services is preferred under these programs in order to promote inclusive, sustainable human community development.

#### 6.1.1.3 Status of Implementation of Existing Plans and Strategies in the District

The Government continues to harmonize and strengthen social protection delivery systems at district and community levels in order to improve efficiency in the delivery of social protection programs and address multiple causes of poverty and vulnerability.

To address the high levels of poverty the district has implemented national government programmes to reduce poverty, vulnerability and inequality in line with the human and social development pillar of the eighth national development plan. The programs being implemented include the Social Cash Transfer programme, Public welfare assistance scheme, Food security pack programmes and CDF empowerment programmes. The local authority is supporting the community with empowerment funds as a government programme by allocating 20% of the CDF funds for youth women and community empowerment. The district will support the communities with The CDF empowerment by working with the WDCs to identify vulnerable and poor communities. The district has been implementing the social cash transfer programme to provide support to the most vulnerable and over the years the district has been working in line with national efforts to increase the access for the vulnerable to the programme. In 2018, the total beneficiaries under the SCT programme in the district were 4710, in 2019 beneficiaries increased to 5663 while 9340 were captured in 2021. In 2022, 11309 were captured under the programme and the district further plans to expand the access to the programme in the district. The district has also been providing food security packs to vulnerable but viable households to improve food security at household level. The distributions have been fluctuating over the years with 482 household in 2019, 365 in 2020, 500 in 2021.

The district through the youth, women and community empowerment component of the constituency development fund has been supporting women and youth groups with grants with a purpose to improve the welfare and livelihoods of the people. The programme started in 2022 and so far 1853 beneficiaries have been supported with empowerment grants and loans under CDF. The district intends to scale up the number of beneficiaries over the years and also partner with other stakeholders to provide training in various livelihoods. The local authority in collaboration with other partners and stakeholders has been implementing other livelihood projects such as TRALARD which focuses on providing sustainable livelihoods to people to make them resilient with an aim to reduce indiscriminate exploitation of natural resources. With the said project, 1,100 people have benefited from wards namely, Nchelenge, Kilwa, Munkombwe and Mwatishi.

### 6.1.2 Description of the Existing State of Development

According to a survey conducted by the World Bank Group and CSO (2015), provinces that have shown the highest poverty rates in the country are western, Luapula, Eastern and Muchinga Province. The well of regions are clustered around Copperbelt and Lusaka province because of the mining activities including the proliferation of industries. Nchelenge district is ranked number 36 as a poor district in Zambia with a poverty headcount of 0.77 while Mansa is ranked 55 with a poverty headcount of 0.65. Other districts such as Chiengi are ranked poor at 24 with poverty headcount of 0.81 and Samfya with poverty headcount of 0.92 ranked poor at number 2. Based on the statistics conducted, Nchelenge District is one of the 12 districts of Luapula, with a high percentage of population living in poverty which stands at over 70% with insufficient income to meet their daily food requirement. It can be noted that districts without a wide base of economic activities such as mining, manufacturing and other heavy industrial activities tend to have a high poverty headcount which is attributed to the low disposal of income in the district. Samfya, Chiengi and Nchelenge districts have over the years highly depended on fishing as the major livelihood activity but due to overfishing, there has been a reduction in the number of sold fish on the market thereby reducing the income for households. Access to social protection services such as food security packs, social cash transfers, and public welfare assistance for the vulnerable increased between 2006 and 2021.

## 6.1.2.2 Assessment of Availability of Services

### Social Protection

#### 6.1.2.2.1 Social cash transfer

The goal of the Social Cash Transfer program is to eliminate intergenerational poverty transfer in households it covers as well as extreme poverty.

Furthermore, this satisfies the government's goal of creating "a nation with capacity to promote and provide sustainable security against constant or periodic critical levels of deprivation and extreme vulnerability by 2030." Money given by the government to nongovernmental organizations and disabled people or households is known as social cash transfers or non-contributory payments. Individuals 65 years of age and above, those with verified severe disabilities, households headed by children, patients receiving palliative care for chronic illnesses, and households headed by women are the primary recipients of the program's benefits. The programme is in all the Wards on the mainland of the District. The beneficiaries receive K400.00 (able bodied) and K800.00 (physically challenged) every bimonthly. The total caseload under the social cash transfer is 11,309 beneficiaries

#### 6.1.2.2.4 Village Banking

The village banking project is aimed at strengthening the capacity of the two participating local micro finance institutions to provide sustainable micro finance services to the poor, especially women. The project seeks to develop an effective and viable model of micro credit delivery. Nchelenge district has 40 beneficiary groups under the village banking project, of which all are women. From this trend it's worth noting that the concept is not gender balanced. Men and the youth have not taken keen interest to be part and parcel of the village banking

#### 6.1.2.2.5 Food security packs

The district has also been providing food security packs to vulnerable but viable households to improve food security at household level. The distributions have been fluctuating over the years with 482 household in 2019, 365 in 2020, 500 in 2021. Currently the number still remain at 500 individuals have benefitted. However, the number is a drop in the ocean looking at the poverty levels in the communities. These beneficiaries are mainly women meaning the other vulnerable groups such the youths, differently abled are not receiving the services. Most empowerment programmes under this sector have not received funding for some time from the Government. This calls

for support from the Non-Governmental Organizations to supplement on government efforts

#### 6.1.4 Assessment of the Impact of Changes Anticipated Over the Next Ten Years

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

With the average annual growth rate of Nchelenge district at 3.6, the population of the IDP area is expected to continue increasing in the next 5 years to reach an estimated population of 259,230 and 301,256 in the next 10 years. This means that in terms of service provision, there is need to increase the number of sub centres to effectively serve the district. For instance, the other areas not serviced also need a fair share. In addition, the Department of Social Welfare only has CWACs as opposed to sub centres. The CWACs should be motivated by providing them with transport for them to services the areas better.

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

The vulnerable populations residing close to Kafimbwa and Kaseka, the district's current administrative center, stand to benefit more from empowerment programs than do those residing further away, such as residents of Kilwa and Chisenga Island. This indicates that communities residing on the district's periphery are not receiving enough information about the program.

##### 6.1.4.3 Assessment of the Likely Impact of Ongoing and Committed Investment and Development Program on Land Use and Population Distribution Patterns

The need for social welfare services rises along with the population. The need for social welfare facilities, such as safe homes and reformatory facilities, is heightened by population growth. It is imperative to identify land parcels in the Nchelenge Township planned area for the construction of these facilities. The impact on land use will be a proliferation of changes in land use if the aforementioned facilities are not planned for at the outset.

#### 6.1.5 Analysis of Impact of Environment and Climate Change

Households with low incomes, unstable food sources, and limited access to necessities. People may use child labor to obtain more food if such a situation exists. It is sufficient to say that there is a possibility that a shortage of food will lead to an increase in prostitution and HIV infections. Additional

consequences of low productivity brought on by less rainfall include rising hunger rates that endanger nutrition, particularly for the most vulnerable populations, like children under five, and rising charcoal consumption that degrades the environment and causes deforestation and biodiversity loss. Following support, the majority of beneficiaries frequently venture into agriculture, which is adversely affected by the dry spell that occurs during the dry season. Agricultural cooperatives in the district mainly deal in maize, beans, groundnuts and rice. However, their businesses have adversely been affected by dry spells which has left them poorer and more vulnerable.

#### 6.1.6 Issues Arising Relating to Gender Groups and Vulnerable Groups

##### 6.1.6.1 Women and girls

High levels of poverty in the country were more prevalent among female-headed households compared to male headed households in both rural and urban areas. According to the 2015 Living Conditions Monitoring Survey, poverty for female-headed households was at 56.7 percent. This was higher than that for households headed by males, at 43.3 percent.

Female-headed households were more likely to experience cultural discrimination in access to education and other public services. Women's lack of access to land, credit or production inputs is also a stumbling block. It restricts their choice of economic opportunities and it is the root cause of their heavy work burden and time constraints. It affects both their participation in existing cooperatives and the setting up of new ones. Without independent assets it is also difficult for women to invest in their own right in cooperatives. Furthermore, carrying out income-earning activities in addition to their non-paid work as mothers and home-makers, often leaves little time or energy to attend meetings or carry out other additional tasks. Levels of education is lower than men's and their business experience and knowledge of cooperatives is very often limited.

##### 6.1.6.2 Men and boys

In general, the men in the district do lament that government development initiatives tend to prioritize and empower women more than men, despite the fact that some men struggle as widowers to balance work and raising children.

#### 6.1.7 Issue Statements and Assessment of External Factors Contributing to the Issue

The primary concern that came up during the Nchelenge district's consultative meetings was the district's high poverty rates, which are caused by the underempowerment of women. Inequitable access to education and productive resources, including land, household labor, and the advantages of



empowerment programs, are some of the factors causing gender disparities (GRZ, 2022).

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## 6.2 EDUCATION

### *6.2.1 Key Government Priorities to Be Implemented at a Local Level*

Zambia's Vision 2030 places a strong emphasis on creating quality human capital, including spending money on education and skill-building. All forms of education should result in a productive and diverse labour force that can close skills gaps and allow all citizens to contribute to and profit from the country's economic expansion. Several measures will be used by the education sector in conjunction with other sectors to make sure that efforts are directed toward realizing Zambia's Vision 2030. In addition, the tactics will improve everyone's inclusion and involvement, taking into account their age, gender, and any disabilities they may have. Additionally, a focus will be focused on raising the standard and applicability of education. The following will receive top consideration:

- Infrastructure development;
- Teacher training, recruitment and deployment improvement;
- Equity and inclusive education enhancement;
- Youth and adult literacy expansion and improvement; and
- Policy coordination, planning and information management improvement.

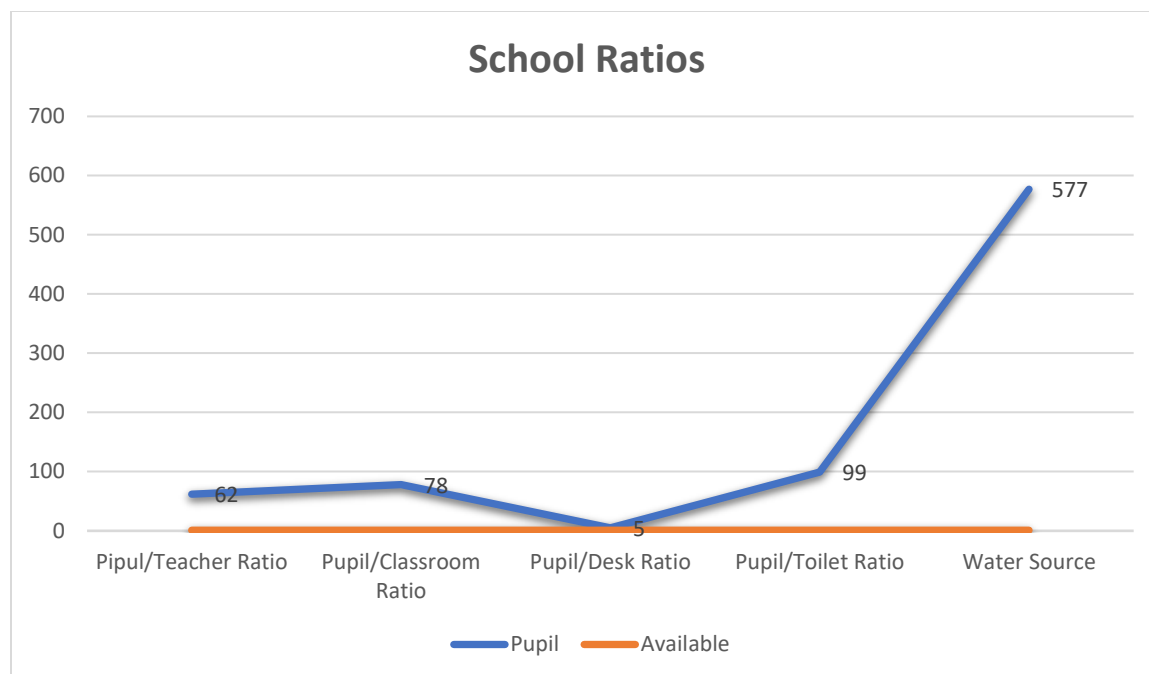
#### 6.2.1.1 Key Priorities of the 8<sup>th</sup> National Development Plan and how they are to be implemented at a Local Level

The District Education Board has been implementing key government priorities at local level as mandated through the teaching of learners, provision of teaching and learning materials, improving learner performance, and provision of infrastructure, furniture, provision of water and sanitation facilities.

Through the provision of enhanced access to quality, equitable and inclusive education, to actualize this Nchelenge District Education Board's focus is to reduce the high pupil-teacher ratio from the current 62:1 compared to the National Standards of 45:1 at Primary while the pupil-classroom ratio which stands at 78:1 compared to National standards of 45:1 at Primary and 20:1 for Secondary, the pupil- desk ratio stands at 5:1 compared to the National standards of 2:1 double seater and 1:1 single seater desks, the pupil-toilet ration is at 99:1 compared to the National Standards of boys (25:1) and girls (20:1) per drop hole.

The district further, will work towards improving the literacy and numeracy levels which are currently low at 32% and 48% respectively compared to the 100% National standard. Information Communication Technology (ICT) is one of the modern-day skills being imparted to learners in the district however, out of 26 schools only 15 schools are offering the subject. Learners with special educational need are also a focus for the district to increase enrolments by increasing the number of SEN Units from the current 3 to 5 Units.

Figure 14: School Ratios



*Source: Nchelenge District Education Board Data, 2022*

#### 6.2.1.2 Key Priorities of Sector Specific National Plans/Strategies and How They Are to Be Implemented at a Local Level

Nchelenge District will guarantee that all students have access to fair and inclusive quality education that equips them to pursue further education, in line with the government's aim. This will be accomplished by employing a decentralized approach to provide bursaries, free education from early infancy through secondary school, and the recruitment and placement of more teachers in underserved areas.

The Nchelenge district will also put emphasis on bolstering the regulatory and quality assurance frameworks, which will also apply to private sector facilities that provide vocational skills training. The main emphasis, according to Nchelenge priority, would be on changes to the bursary and student loan systems, which will help students who are unable to pay their tuition. Additionally, scholarships and student loans will be targeted toward STEM (Science, Technology, Engineering and Mathematics) fields in order to promote the growth of an inventive society.

The Nchelenge district will also place emphasis on investments in Research and Development particularly in higher education institutions. Utilizing multiple monies, including the Strategic Research Fund and the Science, Technology and Innovation Youth Fund, will be used to accomplish this.

#### 6.2.1.3 Status of Implementation of Existing Plans and Strategies in the District

In order to meet some of the national objectives of reducing the pupil-teacher ratio, the district recruited 150 teachers in the 2022 teacher recruitment and were deployed in various schools within the district, the teacher deficit is 422 teachers. Infrastructure development still remains a challenge as 78 pupils a class beyond the National standard of 45:1 and a double seater desks is shared a on average 5 pupils 1 desk per class compared to the National standard of 2

pupils per double seater desk. Looking at the state of infrastructure in community schools the following will need new classroom blocks and desks such as Kapela, Kapema, Kalilanshindo, Kenani East, Chilongo, Chibwili, Chifwalo, China, Mercy, and Young Peace Marker.

#### *6.2.1 Assessment of the Existing State Of Development*

The district has not seen much of development in terms of infrastructure, however, support was received from the government and Non-Governmental Organizations (NGOs) in the construction of Mantapala A and B, Lupili Day Secondary School, a Day Secondary being constructed under the Zambia Education Enhancement Project (ZEEP) on going, Construction of a 1X3 Chilongo Community School, 1x3 Kilwa Primary, Completion of a 1x2 Laboratory Chinsamba School and rehabilitation of Matoola Community School (CDF). The completion of the above stated projects will help reduce the pupil-classroom ratio for the district by 2% from the current 78:1 to 76:1.

##### **6.2.1.1 Assessment Of The Overall Performance Of The District**

Nchelenge district has for a long time experienced poor results in National Examinations. This has been at all grade levels where results have been consistently low over a number of years and low literacy levels across all grades. The district has been looking for means and ways of improving learner performance.

The following are found to be some of the major causes of poor learner performance in the district.

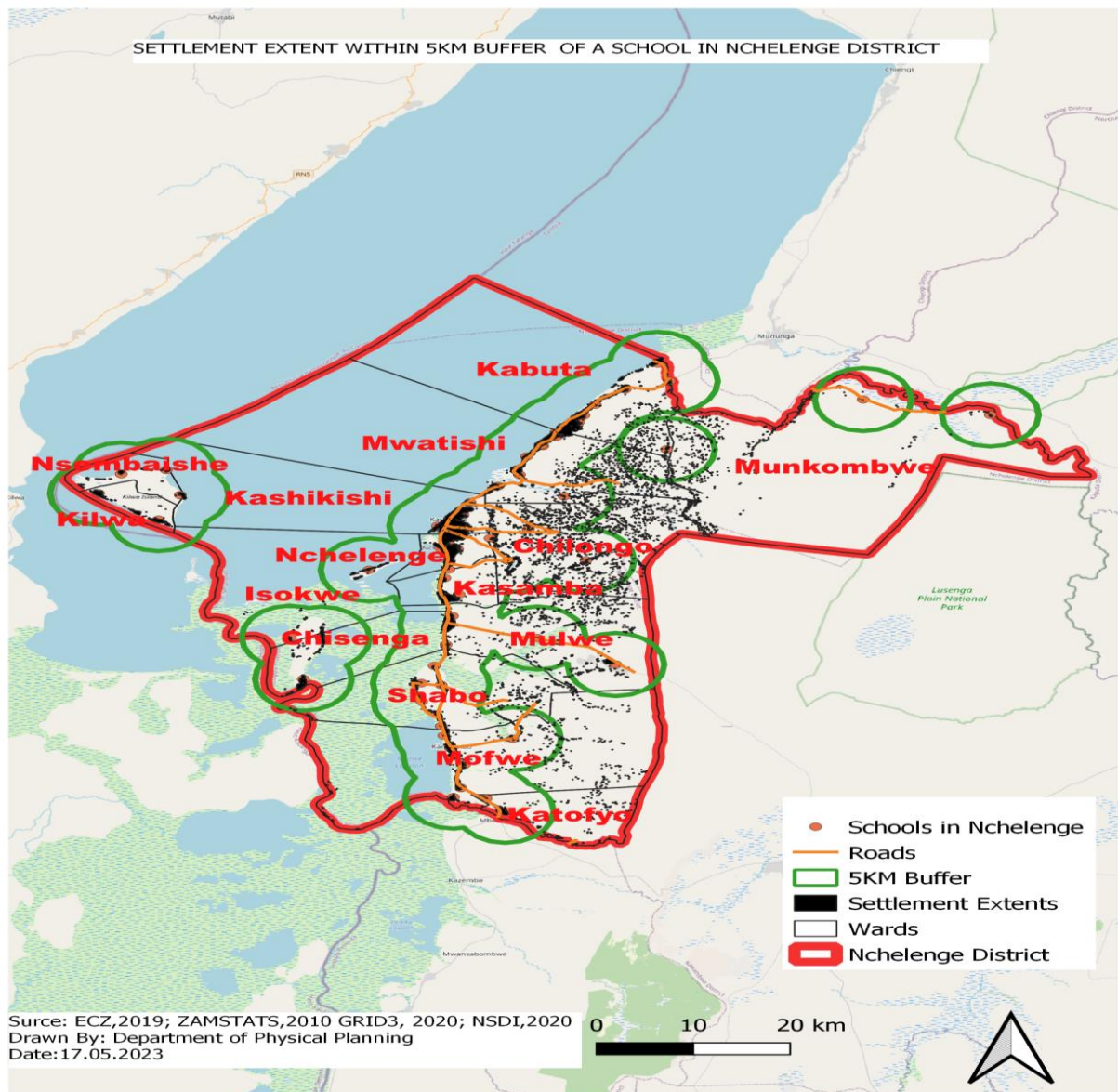
- Poor educational management and supervisory skills at all levels (District, Schools). This is causing the district not meeting the set targets at all levels.
- Poor staffing levels in some schools

- Inadequate and dilapidated school infrastructure. This situation is causing unconducive learning environment which is not favourable to both teachers and learners.
- Inadequate desks in most schools: 2:1 desk compared to the current status of 6:1 at the district, Inadequate transport for administration leading to ineffective monitoring delivery services causing a low performance at all levels.

**6.2.1.2**      Assessment of the availability of services relevant to this sector and identification of communities who do not have access to basic services and facilities

The district has generally covered all the areas. All the communities have access to education services. However, there is need to upgrade more primary schools to Secondary schools in some zones in order to decongest some schools. There is need to construct more classrooms at combined secondary and newly gazetted primary schools.

Map 8: Spatial Distribution of Schools in Nchelenge District



Source : ECZ 2019, ZAMSTATS 2010, GRID 3 2020, Nchelenge DEBS 2022,

Drawn by: Department of physical planning 2023

**6.2.1.3** Assessment of the quality of services relevant to this sector compared to key indicators of performance and historic performance and identification of shortfalls

It is expected that every 5 kilometres, there must be a school as per national education standards for Zambia. From the spatial data provided on the map

above Nchelenge district has distances between schools of about 8 kilometres apart which is not a very good distance to be covered by learner.

Therefore, in order to reduce the distance covered by learners to access educational services in the district. There is need to build more schools in the affected IDP areas such as the area between Kapako primary and Munkombwe primary need a school to help the community around that place to access education services.

Looking at the geographical location of munkombwe primary school, it is imperative that the school be turned into a full boarding school which will cater for Nchelenge and Chienge communities, considering that vastness of the land. Linkage of a road from munkombwe to kapema primary school will provide great opportunity to the people of Kapema to access educational services.

#### *6.2.2 Assessment of the Existing State Of Development Based on Issues Arising From Community and Stakeholder Consultations*

During the community stakeholders meeting, the communities stated that they lacked classrooms in schools, the infrastructure is dilapidated, desks were inadequate, and they also stated the need to have more teachers in schools in most of the wards. In Munkombwe, parents were concerned about the Kapako Bridge which gets flooded hence cutting off learners from accessing the school from across villages. They requested that the bridge be constructed to reduce learner absenteeism due to floods. The other issue is on the Islands such as Chisenga Primary and Isokwe have no secondary schools in their areas as most of the learner stop school when they reach grade 7 or 9 as upper secondary is only on the main land.



#### 6.2.3.1 Issues from Public Participation Process Relating to the Overall Performance of the Sector.

The issues coming from the Public Participation Process in Nchelenge District include the following;

- Inadequate Class rooms
- Inadequate Teachers
- Lack of teaching and learning material
- Inadequate Desks
- Lack of teachers houses hence teachers travelling long distances
- Inadequate funding

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

The community that surrounds Miba desires for a school in the area as the only school which was providing service closed 3 years ago. Due to population demand, this area need a facility to provide educational services.

Chungu community of mantapala area also need an education facility as the population is steadily increasing.

The community school at kanwabatondo should be reopened, as it will cater for children who travel long distance to munkombwe primary school.

#### 6.2.3.3 Issues from Public Participation Process Relating to the to the Quality of Services

The public appreciate the services being offered in the education sector, especially the introduction of the free education policy which has contributed to the influx of children into schools. Hence, an outcry on;

- Infrastructure development
- Provision of enough furniture

- Teaching and learning materials and reduction in pupil teacher ratio etc.
- There is high demand on the number of keeping girls in school (KGS), Campaign for Female Education (CAMFED), Churches Health Association of Zambia (CHAZ) beneficiaries to be put on the program
- Poor road network infrastructure leading to some schools in the district.

### **6.2.2 Assessment of the Impact of Changes Anticipated Over the Next Ten Years**

It is expected that most of the schools will have more classrooms space due to the decentralization of the CDF in the district, if on average 3 No. 1x3 blocks are constructed per year it is expected that 30 new classroom blocks will be constructed thereby reducing the pupil-classroom ratio to 67:1 from the current 78:1. Due the decentralization of the teacher recruitment to the district the pupil-teacher ratio is expected to reduce if on average the district is given to recruit 40 teachers per year, from the current 62:1 to 42:1 all things being equal. The pupil-desk ratio is also expected to reduce if on average 400 desks are constructed per year, the ratio will be 3:1 as opposed to the current 5:1.

#### **6.2.4.1 Quantify Future Demand for Services and Facilities Based on the Estimates of Population Change**

The increase in Population growth centres in the next 10 years will have impact on the number of services.

There will be shortage of land because more industries are likely to be set up, more farming activities will be conducted due to readily available Congo DR market and reduced fishing activities due to depleted fish in lake mweru. Moreover, there will be more demand for construction of more schools as the population increases.

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

Places like Kabuta East, Munkombwe, Mantapala and Lunde are places likely to be overpopulated in the next 10 years as a result of increased farming activities attributed to good soil fertility.

#### 6.2.4.3 Assessment of the Likely Impact of Ongoing and Committed Investment and Development Programmes on Land Use and Population Distribution Patterns

There will be serious shortage of land due to population increase. See to it that the pace of population growth is matched by adequate provision of educational infrastructure, there is need to encourage village collections as ways of settlement to ease the provision of schools and ensure pupils have access to facilities.

#### 6.2.5 Analysis of Impact of Environment and Climate Change

Climate change affects a number of things in the environment, in schools due to changes in the climate, access to schools by learner is limited as some roads are cut off during the rainy season such as in Munkombwe and Kapema Primary of Nchelenge district. Schools are encouraged to venture into production units to supplement on the school feeding programming, however, heavy rainy destroys crops cultivated by schools. During the dry season the classroom environment are usually hot thereby reducing learner concentration in class.

#### *6.2.6 Issues Arising Relating to Gender Groups and Vulnerable Groups*

The majority of children are impacted by coming from households with children in charge, while some kids are involved in illicit activities since they come from poor families. Boys would engage in stealing, and girls would engage in

prostitution. One of the problems that prevents a girl from concentrating in class or finishing school is early marriage.

#### *6.2.7 Issue Statements and Assessment of External Factors Contributing To the Issue*

- 62 pupils are taught by 1 teacher compared to the national standard ratio of 35 pupil: 1 teacher at secondary level and 45 pupils : 1 teacher at primary level
- About 5 pupils share a desk in the IDP area against the national standard ratio of 2 pupils: 1 double seater desk and 1 : 1 single seater desk
- 78 pupils access one classroom in the IDP area compared to the national standard of 35 pupil: 1 classroom at secondary level and 45 pupils : 1 classroom at primary level
- 99 pupils share a toilet in the IDP area compared to the national standard of 25 boys: 1 drop hole and 20 girls : 1 drop hole of a toilet
- Pupil absenteeism is high due to streams being flooded in some wards in the IDP area
- High poverty rate causes high absenteeism rate among pupils in the IDP area
- The pupil-toilet ratio is four time more compared to the recommended standard per drop hole
- Less than 90% of community schools have access to clean water in the IDP area

#### *6.3.2 Assessment of the Existing State of Development*

##### **Rural Water Supply and Sanitation**

The district currently has 565 boreholes water coverage of about 75% compared to the 100% target by 2030 as aligned to the SDGs-JMP 2017 and

the 8NDP, the district is marred by water quality problems caused by high levels of iron in most areas and salt in some areas mostly the islands.

The district is implementing Community Led Total Sanitation in all the 15 wards with a total of about 66 community champions trained with the support from UNICEF and USAID. Out of the 256 villages in the district 187 villages were certified Open Defecation Free. The district sanitation coverage is at 73% compared to the target 2030 which is at 100% as the district is faced with challenges in accessing the 4 island wards namely; Isokwe, Chisenga, Kilwa and Nsembaishe.

### Urban Water Supply and Sanitation

The water utility company Luapula Water and Sanitation Company is responsible for provision water supply to the township (Nchelenge and Kashikishi Ward) in Nchelenge District. With a total number of 7,234 urban households, the township is serviced by LuaWSC with 920 water connections as at 2022.

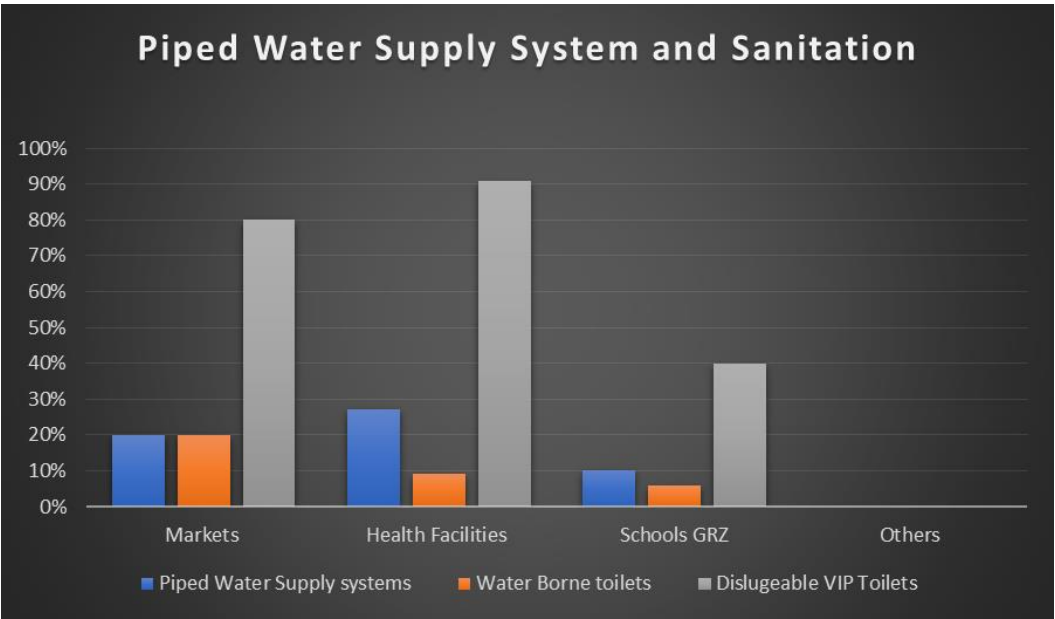
Out of the 15 wards in Nchelenge, only residents in the township or planned area are serviced by the utility company accounting for approximately 11.8 per cent of the total township population have access to piped water through LpWSC network. The utility company has no capacity for expansion and provision of good services and is unable to provide safe water for drinking.

The number of connections as at 30/09/2023 was 1205. The company is currently rehabilitating the Water Treatment Plant and distribution network through the government funded project. This will improve water quality, and allow the company to service remote areas. The company (LpWSSC) is currently implementing several initiatives to improve service delivery. This includes

creating a WhatsApp Group to enhance communication with its customers, and introducing mobile payment facilities among many other initiatives.

In addition, The Company is currently constructing a new Water Treatment plant in Chiengi District through a government funded project.

Figure 16: Institutional Water Supply and Sanitation



Source: Nchelenge district 2022

Out of the 22 health facilities and 69 GRZ schools the district is on course to implement piped water supply systems and has so far constructed systems in 8 institutions both health facilities and schools. The district has 1 community water scheme in Kabuta ward serving a community of a population 3,500 people, the scheme was commissioned in 2016.

Water Service Delivery Model (SDM)

There are three models for water service delivery in the rural areas of Nchelenge District which are:

- Community managed – Village Water, Sanitation and Hygiene (VWASH) Committee manage most of these;
- Self-supply model and;
- Institution managed.

The table 12 below gives a brief description of these models including their performance and the number of facilities under these models.

Table 10: Overview of Water Service Delivery Models

| S/<br>N. | Water SDMs           | Main<br>Variant                           | Description                                                                                                                                                                                                                                | No. of<br>Facilitie<br>s | Performance                                                                                                      |
|----------|----------------------|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------------------------------------------------------------------------------|
| 1        | Community<br>Managed | Water<br>points<br>with<br>hand<br>pumps. | The water facility has been provided to the community as a whole. Community members contribute a certain amount of money for maintenance of the facility. They also elect a Village WASHE Committee to be in charge of the water facility. | 565                      | 75% of these water points are functional with a reliability of 30%. There are few consistently paying for water. |
| 2        | Community<br>Managed | Piped<br>water<br>Scheme                  | Community collects user fees for maintenance. They also have an elected scheme WASHE committee                                                                                                                                             | 1                        | 100% functional and 50% reliability as the spring is seasonal                                                    |

|   |                     |                             |                                                                                                                                                 |     |                                                                     |
|---|---------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------------------------------------------------------------------|
| 2 | Self-Supply         | Private wells               | These are privately owned wells.                                                                                                                | Nil | -                                                                   |
| 3 | Institution Managed | Water point with hand pump. | The facility is mostly provided by a government department like MWDS under the Department of Water resource development or the Local Authority. | 8   | 100% functional and reliability as it is managed by an institution. |

*Source: Nchelenge Town Council, 2022*

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

Nchelenge district is among the districts in Luapula province that implemented Sustainable Operation & Maintenance Programme SOMAP, supported by JICA by 2016, therefore has a well-established Operation and maintenance (O&M) system. Through the programme;

An established supply chain management of hand pump spare parts; Capacity development and establishment of community structures in community-based management and development of water supply infrastructure.

However, studies have shown Kilwa, Chisenga and Isokwe Islands and Munkombwe wards have been marginalized due to accessibility issues, resulting in high poverty levels and generally, under underdevelopment such as inadequate services, of which water and sanitation services are no exception.



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

#### 1. Water Supply Services

This section provides the water supply infrastructure and the service delivery models. Included in the section is an analysis of the water service delivery based on the definitions applied by the World Health Organization (WHO) and UNICEF Joint Monitoring Program (JMP) for monitoring the Sustainable Development Goals (SDGs). At the end of the section the challenges and gaps are presented.

#### 2. Water Supply Infrastructure

The infrastructure for water supply in the rural areas of the district currently (as at December, 2022) constitute the following water points shown in Table10.

Table 11: Status of Water Points

| S<br>/<br>N | Water Points                                                     | Rural | District Status        | National Standard    |
|-------------|------------------------------------------------------------------|-------|------------------------|----------------------|
| 1           | Number of boreholes with hand pumps                              | 565   | 85% Rural water supply | 100%                 |
| 2           | Number of water wells (unprotected)                              | 45    |                        |                      |
| 3           | Number of water wells (protected)                                | -     |                        |                      |
| 4           | Number of springs                                                | 4     |                        |                      |
| 5           | Number of Institutional (Health Facilities & Schools) with piped | 14    | 13% out of 105 target  | 100% target for 2030 |

|   |                                  |   |                                 |                      |
|---|----------------------------------|---|---------------------------------|----------------------|
|   | schemes                          |   | institutions<br>district        |                      |
| 6 | Number of communal piped schemes | 1 | 17% out of 6 target communities | 100% target for 2030 |

*Source: Nchelenge Town Council -Works Department, 2019*

The rural area, with a population of 115,913 is mainly served by boreholes with hand pumps and wells. The boreholes are mainly fitted with the Indian mark II, AFRIDEV and stainless-steel India mark II hand pumps. The boreholes were mainly provided by the Government of the Republic of Zambia, Japan International Cooperation Agency (JICA) and UNICEF.

Table 11 below provides an overview of the performance of water supply services based on the following indicators:

- Functionality: water supplies that are working;
- Reliability: working even if they were out of service for not more than 10 days,
- Accessibility: total time taken by water users to fetch water from the water supply which should not have been more than half an hour and;
- Quality of water delivered: how safe the water is as perceived by the users.

Table 12: Status of Water Service

| S/N | Indicator                                                                      | Hand Pumps % Score                                           |
|-----|--------------------------------------------------------------------------------|--------------------------------------------------------------|
| 1   | Water supply coverage – % of population with access to improved water services | 75% (Compared to the national Target of 100% target by 2030) |
| 2   | Functionality – % of functional rural                                          | 75%(Compared to the national                                 |

|   |                                                                                                     |                                |
|---|-----------------------------------------------------------------------------------------------------|--------------------------------|
|   | water supply services                                                                               | Target of 100% target by 2030) |
| 3 | Reliability – % of facilities that are functional and were out of service for not more than 10 days | 30%                            |
| 4 | Accessibility – % of households that spend less than 30 minutes on a round trip fetching water      | -                              |
| 5 | Quality – % of water points perceived to have safe water by users.                                  | -                              |

*Source: Nchelenge Town Council -Works Department, 2019*

### 3. Water Supply Coverage, Challenges and Gaps

The WHO/UNICEF JMP Report (2017) which monitors progress made towards the attainment of the SDGs, defines water services as improved if they meet the following criteria:

- Accessible on the premises;
- Water should be available when needed; and
- Water supplied should be free of contamination.

Basic services are defined as drinking water from an improved source from which a round trip takes 30 minutes or less to collect water, but if it takes more than 30 minutes for a round trip, then it is considered to be a limited service. Access to basic drinking water for rural Nchelenge stands at 75%. The improved drinking water sources included protected wells, boreholes, public tap, own tap, other taps e.g. from nearby building, water kiosk, bottled water, protected spring and rain water.

The main challenges and gaps found in the water supply coverage are presented below. These are based on both the analysis provided from

secondary sources and findings from the field work including the Public Consultations that were carried out in Nchelenge which are:

- Low access to water services in rural areas.
- Water users unwilling to pay for water services.
- Reliability of existing water supply facilities is low due to poor operation and maintenance that results in frequent breakdowns.
- Lack of improved water services in some rural parts of the district especially in those areas which are difficult to serve due to inaccessibility to the areas.
- Water perceived to be of poor quality as it comes out with a brown hue due to rust.
- Inadequate water points leading to long queues and crowding when drawing water from the water points.
- Frequent breakdowns of boreholes due to inadequate servicing.
- Limit on how much water can be fetched in some area
- There are not enough Area Pump Menders (APMs) to attend to broken down boreholes.
- Some boreholes produce water with a brown hue due to rusted water pipes.
- High iron content in water for some boreholes.
- The available water points are not sufficient to cater for the growing population.
- Failure of community members to contribute towards the maintenance or repair costs for boreholes.
- Worn out parts of the borehole hand pumps resulting in frequent breakdowns.
- Rust in the hand pump makes it difficult to pump the water.
- Some hand dug wells dry up in the hot season especially in October.

- The water is not chlorinated because chlorine is in most often times not found at the local health facilities. Furthermore, Chlorine is expensive to buy and not always found in the local community shops.

Given the statistics on the district population, water points, APMs, community champions (CCs), V-WAHEs and tool boxes. It can be seen from the same that the district has inadequate facilities to meet the water supply needs of the district.

#### Issues Raised In Public Consultation – Focus Group Discussions

- Water perceived to be of poor quality as it comes out with a brown hue due to rust.
- Inadequate water points leading to long queues when drawing water from the water points.
- High iron levels in water from boreholes.
- Frequent breakdown of boreholes due to inadequate servicing.
- Drying up of some boreholes in the dry season.
- SOMAP shop is found at the central business district (CBD), which is far from communities that need the spare parts for the boreholes.
- The two Island wards have no spare parts shops
- The district has no transport of its own to reach out to the two island wards.
- Chlorine not always easily found both at the RHCs and in shops.
- Inadequate number of Area Pump Menders (APM). More community members need to be trained as APMs to reduce on down time.
- Community members not willing and some are unable to make monthly contributions towards operation and maintenance of water points.

#### 4. Sanitation and Hygiene

This section presents the main sanitation infrastructure planned and adopted in rural areas of Nchelenge District along the sanitation service chain. This

comprises mainly capture and containment. The section also provides an estimate of sanitation coverage and covers the status of hygiene service delivery. The figure below gives the overall sanitation chain.

Figure 17: Sanitation Service Chain-



Source: UNICEF 2019

Sanitation is defined as the provision of facilities for the safe disposal of and treatment of human excreta to promote a sustainable healthy environment. There are 5 levels of sanitation as defined by the WHO/UNICEF JMP Report (the sanitation ladder). These are: Safely managed, basic limited, unimproved and open defecation

#### 4.1 Sanitation Infrastructure and Service Level

The main facilities that are used for capture and containment of faecal waste in Nchelenge include traditional pit latrines and Ventilated Improved Pit (VIP) latrines. Nchelenge households in rural areas basically use traditional pit latrines with institutions (schools and health facilities) using VIP pit latrines. Households use pit latrines with structures made of burnt mud bricks with grass thatched roofs and with bathrooms made of the same local materials. These on-site facilities are usually buried once the pit latrines are full and

another suitable place is found within the residence to dig a fresh pit latrine. The pit latrines are not emptied.

Basic access to sanitation in rural Nchelenge is 53% (UNICEF, 2019). An analysis of the sanitation infrastructure against parameters of improved services for pit latrines shows that these are still basic sanitation facilities because they do not meet all the criteria for improved services. Improved services mean having an adequate super structure, cleanable smooth floor, lid to cover the pit latrine hole and a hand washing facility at the entrance of the toilet. However, it is noted that at least households though not meeting all 4 parameters have pit latrines. It thus can be assumed that open defecation still occurs. Basic sanitation needs to be improved to a level of safely-managed sanitation service level as per JMP WASH ladder.

## 4.2 Sanitation Challenges and Gaps

The sanitation challenges and gaps that have been identified are based on the analysis of sanitation service provision found in the district and the district undertaken. These are as follows:

- There are low levels of households that have access to basic sanitation facilities (53%)
- The adoption of households for hand washing practices with soap or ash at critical times is 30.2%. This is low but can reach higher percentages with a continuation of good hygiene practice awareness in the district through Community Led Total Sanitation (CLTS) Approach under the Ministry of Health.
- Despite CLTS awareness program under the Ministry of Health and despite the presence of toilets, some community members still practice open defecation.
- Need for more permanent sanitation facilities as they use temporary pit latrines that easily collapse during the rainy season.

- Inadequate toilet facilities for learners in some rural schools leading to exceeded recommended pupil: toilet ratio of 25 boys to one toilet and 20 girls to one toilet.
- Thefts of hand washing facilities – buckets are stolen.
- Due to the sandy nature of the soils, the pit latrines are quite shallow and fill up in a few years.
- Toilets collapse in certain areas that are sandy; that leads to shared toilets by households.
- Need to be taught how to build permanent toilet structures due to the challenge of collapsing toilets from sandy soils.
- Community members sometimes only put up hand washing facilities when they know that the health staff that teaches on good hygiene practices is checking for compliance in households. Need for more CLTS awareness.

#### 4.3 Institutional Water Supply, Sanitation and Hygiene

The global effort to achieve sanitation and water for all by 2030 is extending beyond the household to include schools, healthcare facilities and workplaces. The WHO/UNICEF JMP 2018 Report gives the first comprehensive global assessment of WASH in schools and establishes a baseline for the SDG period. The school age population in Zambia accesses WASH services as follows: 79% accesses basic water services, 66% accesses basic sanitation services and 54% accesses basic hygiene services (WHO/UNICEF, 2018). This is at national level.

##### 4.3.1 Institutional Wash Challenges and Gaps

The challenges were identified as follows:

- Inadequate improved sanitation facilities for rural schools.
- Inadequate basic sanitation facilities for rural schools.
- Schools do not have safe disposal of menstrual pads for girls.
- The rural schools do not have bathrooms for girls for menstrual hygiene management.



- Most institutions have hand washing facilities but face challenges with provision of water and soap.
- Inadequate of investment in sanitation and water supply infrastructure.
- Data was not collected from all schools and health facilities.
- Inadequate funds to build proper sanitation facilities.
- Water tends to reduce and/or dry up in the boreholes in the hot season especially between September and October.
- Some boreholes are non-functional.
- Inadequate number of water points to cater for the growing population especially that communities around the schools and health facilities use water points found at these institutions.
- The boreholes are not enough to cater for both the institutions and the community population.
- Toilets are not enough to cater for the large pupil population.

#### 6.3.3 Assessment of the Existing State Of Development Based on Issues Arising From Community and Stakeholder Consultations

- Inadequate funds to build proper sanitation facilities.
- Water tends to reduce and/or dry up in the boreholes in the hot season especially between September and October.
- Some boreholes are non-functional.
- Inadequate number of water points to cater for the growing population around the institutions as community members draw water from the school and rural health facility.
- Toilets are not enough to cater for the pupils.
- The sanitation facilities at schools do not have menstrual hygiene management (MHM) services for the girl child.
- There is a need to have much more permanent structures for toilets because the current ones which are mostly temporary for most households tend to collapse easily in the rainy season.

- Some community members still practice open defecation.
- Water perceived to be of poor quality as it comes out with a brown hue due to rust.
- Inadequate water points leading to long queues when drawing water from the water points.
- High iron levels in water from boreholes.
- Frequent breakdown of boreholes due to inadequate servicing.
- SOMAP shop is found at the central business district (CBD), which is far from communities that need the spare parts for the boreholes.
- The two Island wards have no spare parts shops
- Chlorine not always easily found both at the RHCs and in shops.
- Inadequate number of Area Pump Menders (APM). More community members need to be trained as APMs to reduce on down time.
- Community members not willing and some are unable to make monthly contributions towards operation and maintenance of water points.

#### 6.3.4 Assessment of the Impact of Changes Anticipated Over the Next Ten Years

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

Using the CSO rural population projections (see Appendix V), and the needs assessment that was conducted in 2019, the 2019 coverage was 63%, and the 2030 target of 100% (GRZ, 2006) coverage. This has been translated into a series of interim water supply targets as shown in the following table.

Table 13: Water Supply Coverage Targets and Population Projections

| Year | 2019 | 2024 | 2029 | 2030 | Total |
|------|------|------|------|------|-------|
|------|------|------|------|------|-------|

|                                                   |         |             |             |         |         |
|---------------------------------------------------|---------|-------------|-------------|---------|---------|
| Coverage                                          | 63%     | 80%         | 97%         | 100%    |         |
| Rural Population                                  | 191,518 | 213,566     | 240,688     | 246,513 | 246,513 |
| Period                                            |         | 2020 - 2024 | 2025 - 2029 | 2030    |         |
| Total Population Covered by end of period         | 120,657 | 170,464     | 232,593     | 246,513 | 246,513 |
| Additional Population to Be Covered During Period |         | 49,807      | 62,129      | 13,920  | 125,856 |

*Target Coverage has been pro-rated between the 2019 base and 2030 target of universal coverage; Population covered and to be covered has been computed by the district.(source; Nchelenge DHO)*

6.3.4.2 Identification of communities where growth will occur and where future services and facilities are likely to be needed. The rural growth centres are Mkwakwa, Kanyembo and Kashikishi. These growth centres require solar powered piped water schemes which service a population of 800 people, a much wider coverage unlike borehole hand pumps which service 250 people.

#### **6.3.4.3 Assessment of the Likely Impact of Ongoing and Committed Investment and Development Programme on Land Use and Population Distribution Patterns**

The population statistics show the increase in population which will continue over the next 10 years. Water is a basic requirement for each household which implies that more water points will be developed to meet the population including sanitation facilities. There is likelihood of pressure on land to construct septic tanks and soakaways and pit latrines because there is no company providing sewerage services. The population distribution shows that it is skewed towards water resources.

#### **6.3.5 Analysis of Impact of Environment and Climate Change**

The district experiences very hot temperatures in dry season and heavy rainfall in rainy season. This change in climate contributes to drying up of water points and small streams which are a source of water for the communities.

#### 6.3.5.1 The Impact of Development Trends in the Sector On The Environment And Climate Change

The commercial utility company Luapula water and sewerage company operating in the district is expanding its networks and conducting maintenance of equipment .this programme involves excavation of and contribute to soil erosion. The commercial utility ensures its operations have little effect on climate change. Since the topography of Nchelenge District is prone to erosion, The CU ensures them backfill every trench excavated during network expansion and maintenance repairs.

However, climate change is adversely affecting the operations of the commercial utility. For instance, the main supply pipe in kashikishi was completely damaged as a result of soil erosion caused by sporadic floods on 14<sup>th</sup> March, 2023. Further, the use of pit latrines impacts the environment in a way that the effluent gets discharged into the ground and mixes with under ground water which results in the contamination of water. The construction of the new sewerage treatment plant by the commercial utility will involve the cutting down of trees which will contribute to deforestation.

#### 6.3.5.2 The Impact of Environmental and Climate Change Issues on the Sector

Floods carry pollutants including fertilizers and other chemicals into water bodies, thus negatively impacting water quality, especially for human consumption. An increase in the frequency and severity of high temperature episodes has also been observed. If this trend continues then we are likely to see a reduction in the volume of water bodies.

#### 6.3.6 Issues Arising Relating to Gender Groups and Vulnerable Groups

##### 6.3.6 .1 Women and girls

Women and girls most of the responsibility for domestic water supply as they have have to spend most of their productive time to be in ques at water point or move long distances to fetch water. Most of the sanitation facilities don not support menstrual hygiene.

#### 6.3.6 .4 Disabled

The toilets that are constructed in homes are not user friendly for persons with disabilities including the water services.

## 6.7 SOLID MANAGEMENT

The inappropriate and often careless handling of both Municipal and Industrial waste including those that are hazardous has often created problems for human health and the environment. It is a well-known fact that sustainable environment and natural resource management plays a vital role in the socio-economic development of country (Environmental Council of Zambia, 2004: Viii).

### 6.7.1 Key Government Priorities to Be Implemented at a Local Level

The Local Government Act No. 2 of 2019 mandates the Local Authority to manage refuse removal, refuse dumps and disposal of solid waste (Local Government Act, 2019). Nchelenge Town Council ensures that government regulations are upheld by continuing to establish guidelines to prevent communicable diseases brought on by inadequate waste management. This is done through collection of garbage in some parts of the district.

Additionally, the Local Authority ensures that the current government directives on Keep Zambia Clean Green and Healthy campaign are implemented every Friday.

#### 6.7.1.1 Key Priorities of the 8th National Development Plan and how they are to be implements at a Local Level

In the 8th NDP, the Government highlights a strategy to improve sanitation services that will strengthen sewerage and solid waste management by enhancing financing to address the constraint of inadequate infrastructure in the sanitation sub-sector. Promotion of sustainable sanitation practices will also be scaled-up. Government has enhanced allocation of the Constituency Development Fund to assist in accelerating investment in the water sector. The constituency development fund has been increased from 1.6 million Kwacha to 28 million Kwacha for each constituency. In light of the above, the government has given directives to all Local Authorities to prioritize water and sanitation services and waste management. Therefore, at local level, Nchelenge Town council is implementing the directive given to improve its services to the community and develop sustainable waste management practices through community engagements with an aim to bring about behavioural change. Additionally, the local authority has increased the refuse collection points as well as procured some waste management equipment.

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

The Solid Waste Regulations and Management Act of 2019 mandates the local authority to facilitate provision of solid waste services under this Act and ensure, in liaison with other appropriate authorities. Nchelenge Town council currently provides the solid waste services in 3 main markets located in Kashikishi ward and Nchelenge ward. This is done through provision of cleaning services, provision of waste bins and collection of municipal waste.

#### 6.7.1.2 Status of Implementation of Existing Plans and Strategies in the District

Solid Waste Management is a mandate of the Local Authority and so measures have been put in place to deal with waste in the district. Currently there are three solid waste collection points at the three main markets namely Old Kashikishi, New Kashikishi and Mupundu market. All these markets are used

as central collection points. The council has also positioned waste bins in designated points of the CBD and surrounding areas for refuse disposal. Solid waste at the market is collected once after every after one week and disposed at the dumpsite located in Kashikishi Ward. The current dumpsite is located 8 km from the furthest collection point. The local authority has also procured equipment to be used for solid waste collection these are a tipper truck and a tractor.

Currently, waste collection service is not being offered at household level. Individual households dig temporal refuse pits at their premises and bury them once full, others burn their waste and practice indiscriminate waste disposal.

#### 6.7.2 Assessment of the Existing State of Development

There are three main markets where solid waste management services are being provided namely Mupundu market, old Kashikishi market and new Kashikishi market. The markets are found in Nchelenge and Kashikishi wards which have an estimated total population of 36,965. An average of 554.48 tonnes of waste is generated per month and only 280-350 tonnes of solid waste is being collected per month. The percentage of the collected waste is at 63% leaving 37% of the waste unaccounted for. These practices will eventually have an effect on the environment if not controlled.

##### 6.7.2.1 Assessment of the Overall Performance of the District

Nchelenge District has a total population of 223052. It is estimated that an average of 3346 tonnes is generated per month and only 280-350 tonnes of solid waste is being collected per month. There percentage of the collected waste in the entire district is at 11% leaving 89% of the waste unaccounted for as it is disposed off using different methods such as; individual households dig temporal refuse pits on their premises and bury them once full and

indiscriminate disposal. This will eventually have an effect on the environment.

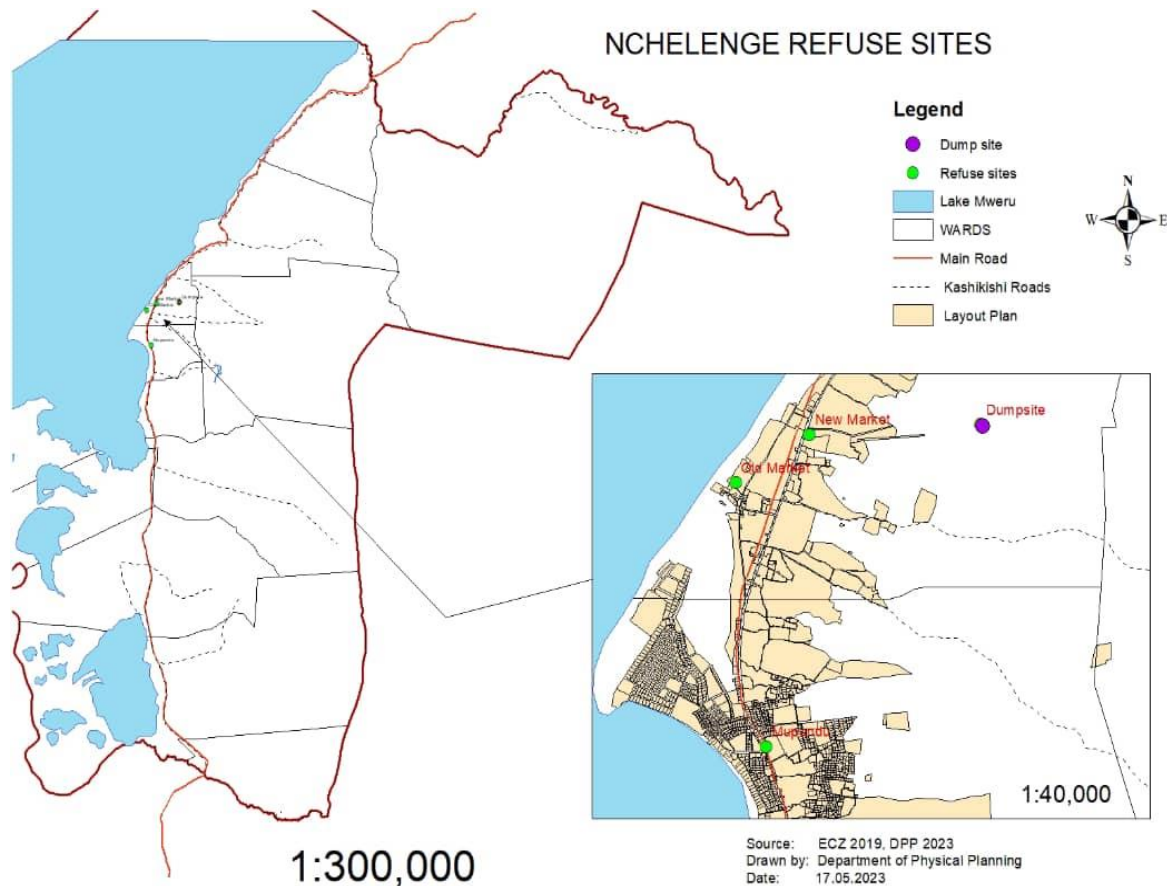
#### 6.7.2.2 Assessment of the Availability of Services Relevant to this Sector and identification of communities who do not have access to basic services and facilities

Currently Nchelenge has three solid waste collection points at the three main markets, which is used as a central collecting point. The council has also positioned waste bins in designated points of the CBD and surrounding areas for refuse disposal. Solid waste at the market is collected once after every two weeks and disposed at the dumpsite located in Kashikishi Ward. These services are only servicing a small number of communities that are within the CBD (Nchelenge and Kashikishi ward) leaving the remaining 13 wards without access to these services.

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Map 9: Refuse sites in the district





Drawn by :Nchelenge Town Council 2023

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

The quality of service delivery in the IDP area stands at 11%. This is due to shortfalls such as unavailability of land for use as a dumpsite because most of the land in the IDP area is customary land, vehicle to service dumpsite (compactor), metal and plastic bins and human resource are not adequate to efficiently manage solid waste generated in the district. Additionally, there is a bad road network making it difficult to reach most places within the district.

The indicators for performance are; timely collection of garbage, availability of bins in the main markets and public places where service is being provided, availability of transport and adequate personnel to collect the waste.

### 6.7.3 Assessment of the Existing State of Development Based on Issues Arising from Community and Stakeholder Consultations

#### 6.7.3.1 Issues from Public Participation Process Relating to the Overall Performance of the Sector.

During our public participation process in various wards the community stated that the local authority has improved in collection frequency of garbage and provision of waste bins. Furthermore, they expressed the need for more bins in some areas within Kashikishi ward and also the need to expand service delivery to other places like Kabuta, Mwatishi, Mofwe, mulwe, Nsembaisha, Kilwa and Chisenga wards.

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

During our public participation process in various wards. The communities expressed how it has been challenging for them to handle waste as they have no access to solid waste management services. They stated that they had no refuse collection being done in their wards, they have no bins and no refuse bay for storing their waste and due to this they resort to digging pits and indiscriminate disposal.

#### 6.7.3.3 Issues from Public Participation Process Relating to the to the Quality of Services

The communities stated that the quality of the solid waste management service has improved and is working well in the serviced communities but there is still a need for improvement.

#### 6.7.4 Assessment of the Impact of Changes Anticipated Over the Next Ten Years

The population of Nchelenge district has been growing at a high rate. The population of Nchelenge is projected to increase by 86% percent from 223,052 in 2022 to an estimated 259230 in 2032. With the increased population in the IDP area, the amount of waste being produced is estimated to increase to an amount of 7777 tones. This will increase the demand in service delivery and the local authority will be required to coming up with new strategies to increases the percentage of the collected waste in the IDP area.

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

The population of the IDP area has been growing at a high rate. The population of Nchelenge is projected to increase by 86% percent from 223,052 in 2022 to an estimated 259230 in 2027 thus the increased population in the IDP area will increase the amount of waste being produced to an estimated amount of 7777 tones. This will increase the demand in service delivery and the local authority will be required to coming up with new strategies to increases the percentage of the collected waste in the IDP area.

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

The following villages seems to be urbanizing villages and have potential for growth nodes such as Kabuta, Mukwakwa, Mubamba and Kanyembo villages this is due to the fast-growing business. Nchelenge and Kashikishi are one of the areas where there is peri-urban expansion and population increase is expected from people coming from other district for employment.

#### 6.7.5 Analysis of Impact of Environment and Climate Change

All types of pollution, including air, land, and water pollution, cause the impact on the world's climate. The gases that thicken the ozone layer are made out of

a component of solid waste. This worsens the weather and melts the ice caps, which raises the sea level and has an adverse effect on people's homes and natural environments (Ejaz et al, 2010). The local authority is not doing enough to prevent environmental and climate change impact in this area due to a lack of resources.

#### 6.7.5.1 The Impact of Environmental and Climate Change Issues on the Sector

Future developing and operation of waste management infrastructure and other facilities may be impacted by environmental and climate change. Given the possibility for changes to an array of variables that affect waste management operations, including temperature, cloud cover, patterns of rainfall, wind speed, and storms. Dumpsites, for instance, can be used long after they have been shut down. Climate change may have an effect on capital assets because they will be in operation for decades, such as energy from waste plants and materials recovery facilities (Bebb and Kersey, 2003). In the recent years, Nchelenge district has experienced changes in the rainfall patterns, flash floods and so these factors have potential impacts on the waste management sector.

#### 6.7.6 Issues Arising Relating to Gender Groups and Vulnerable Groups

In waste management, gender concerns affect decision-making as well as routine handling tasks. In waste management programs, the exclusion of women's perspectives and contributions has led to strategies that do not fully address the waste problem; this prevents long-term and sustainable outcomes while escalating existing gender inequalities.

##### 6.7.6.1 Women and girls

Increasing the participation of women in the refuse industry and mainstreaming gender in the waste sector could lead to waste management operations that are more effective and efficient. Improper disposal of sanitary materials and diapers due to unavailability of the waste collection services

#### 6.7.6 .2 Men and boys

Improper disposal of condoms due to unavailability of the waste collection services.

#### 6.7.6.3 Youths

The sector is dominated by youths due to the nature of works

#### 6.7.6.4 Disabled

Due to non-availability of waste collection service, people with special needs are prone to injuries if waste is not properly disposed of.

#### 6.7.7 Issue Statements and Assessment of External Factors Contributing to the Issue

The core issues raised in this sector are unavailability of waste management services in 13 wards, inadequate machinery to service the dumpsite and no land allocated for use as a dumpsite across the district. A big portion of land is under the custody of the traditional leadership and so it has not been easy to acquire land for a legalized dumpsite. The local authority has inadequate funds to procure machinery such as compactor for managing the dumpsite, employing adequate personnel to work at the site and also manning the dumpsite.

### 6.4 TRANSPORT AND COMMUNICATION SECTOR

A well-functioning transport system has potential to reduce the overall cost of doing business, thereby contributing to the attainment of diversified and resilient economy for sustained growth and socio – economic transformation. An improved transport system and infrastructure will enable efficiency in the movement of goods and people. Nchelenge remains determined to deliver

improved transport infrastructure to grow the economy and improve socio-economic opportunities within the district.

#### 6.4.1 Key Government Priorities being implemented at Local Level

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

- Improve the road transport network connectivity in the district through upgrading of townships roads to bituminous standard and chip and spray and grading of the feeder roads in the rural areas.
- Procuring of a pontoon to be used for transporting of goods and services to the islands.
- Diversification of the transport sector towards the rail way mode of transportation.

The government has prioritized economic transformation and job creation as a strategic development area to focus on positioning the country as a regional transport hub through the maintenance, development, modernization and integration of roads, air and water transport. At provincial level, the Road Development Agency (RDA) is collaborating with local authorities to conduct routine maintenance of trunk roads for connectivity across the province. There are three major roads which are overseen by RDA in the District which include the Nchelenge Mansa Road (D79) which is 250 Km, Nchelenge-Chieng-Lunshinda (110Km) and Mulwe (Mantampala) - Kawambwa Road (80km). The 2023 road sector annual work plan has included the Mansa –Nchelenge road as a priority for maintenance. In addition to the trunk roads, the local authority has been procuring earth moving equipment through the constituency development fund (CDF) to enable routine maintenance of the township and feeder roads. There are however intentions by the local authority to work with traditional leaders to open up more roads in growing villages to enhance connectivity to enable the participation of the local communities in the

economy. In order to implement priorities of the eighth national development, maritime and inland waterways under the ministry of transport and logistics have been devolved to the local authority to improve and maintain water transport. The communities have been engaged to identify critical water canals that need maintenance and request for funding from the constituency development funds (CDF). To add on, water transport infrastructure will be periodically maintained with available funds through the local authority to improve the transportation of cargo and people from the islands to the mainland.

#### 6.4.1.2 Description of the State of the transport sector

Road and water transport is the main transportation system used in the district. There are two main trunks road which passes through Nchelenge CBD going to government offices, the lake and the other road goes to the neighboring districts hence forming the central connector or conduit to neighborhoods and neighboring districts of Chiengi, Kaputa, Mwansabombwe and Kawambwa. This is currently the only road that links the West to the East or vice versa, as such all traffic has to pass through the CDB of Nchelenge, including heavy duty trucks carrying goods, minerals coming from DRC Congo proceeding to the mines in Copperbelt for processing. Other transportation infrastructure in the district includes township roads, the majority of which are deteriorated and without proper drainages. The average comfortable travelling speed is 15 to 20 kilometers per hour. In terms of air transport, Nchelenge district has no one Airport and the local authority should engage the Chiefs so that land is reserved for an Airport. The Mweru water transport has set priorities to the strategies by Government through the maritime largely entail rehabilitation of the water ways and canals with the intention of making the canals navigable in order to enhance the fishing industry and improve livelihoods in the district. It is a priority of the sector which has now been

devolved to the council to ensure harbors are well maintained and there is safety of water transport, which is vital for the socioeconomic development of the District. Through the constituency development funds (CDF), the local authority will work with the communities to identify roads, water canals and bridges which should be constructed or maintained.

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

The roads maintenance strategic plan of RDA guides on the maintenance of roads in the country and is aimed at setting the pace for the provision of the maintenance activities on the core road network. The local authority has taken a lead at local level to work on roads prioritized by the communities in the District and it is a mandate of the local authority that key roads that lead to public institutions such as schools, trading places, settlements, health facilities and also farm blocks are passable. It is a priority of the local authority to annually budget capital projects with consultation from the communities which include road, drainage and bridge rehabilitation. The Mweru water transport has set priorities to the strategies by Government through the maritime largely entail rehabilitation of the water ways and canals with the intention of making the canals navigable in order to enhance the fishing industry and improve livelihoods in the district. It is a priority of the sector which has now been devolved to the council to ensure harbors are well maintained and there is safety of water transport, which is vital for the socioeconomic development of the District. Through the constituency development funds (CDF), the local authority will work with the communities to identify roads, water canals and bridges which should be constructed or maintained. Nchelenge district is one of the districts implementing the project called Transforming landscapes for resilience and development (2020 – 2024). The TRALARD aims at improving



transportation, trade and positively impacting the local economy, making transportation more accessible and cost effective for the community.

#### 6.4.1.3 Status of Implementation of Existing Plans and Strategies in the District

The modes of transport used in Nchelenge District is water and road transport. Cars, motorbikes and bicycles are used for transportation of goods and people on the roads while boats are used on the lake. The major roads are, Nchelenge-Mansa road and Nchelenge lunchinda road which pass through the center of the District connecting to Chiengi and Mansa District. The Nchelenge- Mansa road is tarred but in a deplorable state whiles the Nchelenge –Lunchinda road is a gravel road which is equally in a deplorable state. The remaining roads in the District are gravel and are also in deplorable state hence need maintenance, upgrading and rehabilitation. The state of the roads are deplorable condition and have never been modernized or upgraded to bituminous standard in Nchelenge District. It has been however noted that in other districts such as Samfya under the - IRSP township roads which are of bituminous standard were constructed and Kawambwa under the IRSP project township roads were also constructed. The deplorable state of roads in the District has been a major hindrance to economic activities in the District. Communities engaged in trading of fish and other goods spend more time on the roads transporting merchandise which is expensive to sustain their livelihood activities. The wards in the north of the District connected along the Nchelenge lunchinda road have challenges of accessibility especially in the rain season with having situations where services such as health and education cannot be accessed by the communities because the roads are impassable. The local authority procured earth moving equipment which include a grader, Front End loader and tipper truck to enable maintenance and construction of roads. Through the initiative of procuring earth moving equipment, the District

through the local authority has graded 50 km of roads. The roads once graded are constantly maintained after each rainy season because the drainage system is poor.

#### 6.4.2 Assessment of the Existing State of Development

##### 6.4.2.1 Assessment of the Overall Performance of the District

##### 6.4.2.2 Transport

The roads in the District are in bad state. Farmers find it difficult to transport their agriculture produce. The overall state of the District in terms of road network and bridges is poor. There is need as the District to improve on the road network which will result in the economic development of the District. Nchelenge district has 10 named township roads measuring a stretch of 20 km out of which are gravel and in poor condition. There is dire need as a district to invest in the maintenance of roads and drainages most of the roads are not tarred. The importance of feeder roads are a vital link to farmers and the market, feeder roads enable farmers transport their produce with less difficulty. Nchelenge district has 60 feeder roads spread across various wards. The feeder roads measure a total distance of 1, 215km table shows the total distance and condition. Most feeder roads are badly damaged and require a lot of capital injection to make the farming areas accessible. Most bridges are in poor condition and require a lot of capital injection for rehabilitation and reconstruction to make the areas easily accessible especially during the rainy season when most streams are overflowing. There is however poor drainage system in the District more especially Nchelenge, Kashikishi and Kabuta wards. The District is constructing drainages in Kashikishi ward in order to control the flow of water which contributes to forming gullies in the township. There are a number of streams across the District and bridges haven't been constructed to enable connectivity. There are critical bridges connecting wards that have been washed away such as the Kapako Bridge which connects

Munkombwe Ward to the rest of the District and Shikapande Bridge which connects Chilongo to Kashikishi wards. The wards have been cut off from the rest of the District which has been challenging for farmers to transport their goods from the farms to the market. To add on, providing health services has been a challenge for an ambulance to move across the bridge to get to the ward in case of emergencies.

Water canals are channels used for moving on the water and there are 5 major canals in the District used by communities of Isokwe, Kilwa, Nsembaise and Chisenga. The canals are required to be rehabilitated every after 6 months but unfortunately they have not been dredged for the past five years and are blocked making accessibility a challenge for the communities that rely on water transport. Landing jetties were constructed in 2019 but have since been washed away and new jetties need to be constructed. The District with support from CDF worked on a 3.2 km of harbours which include Mukumwa Mweru, Mumba Mweru, Seketeni Mweru, Kambwali Mweru and Kasamba Mweru.

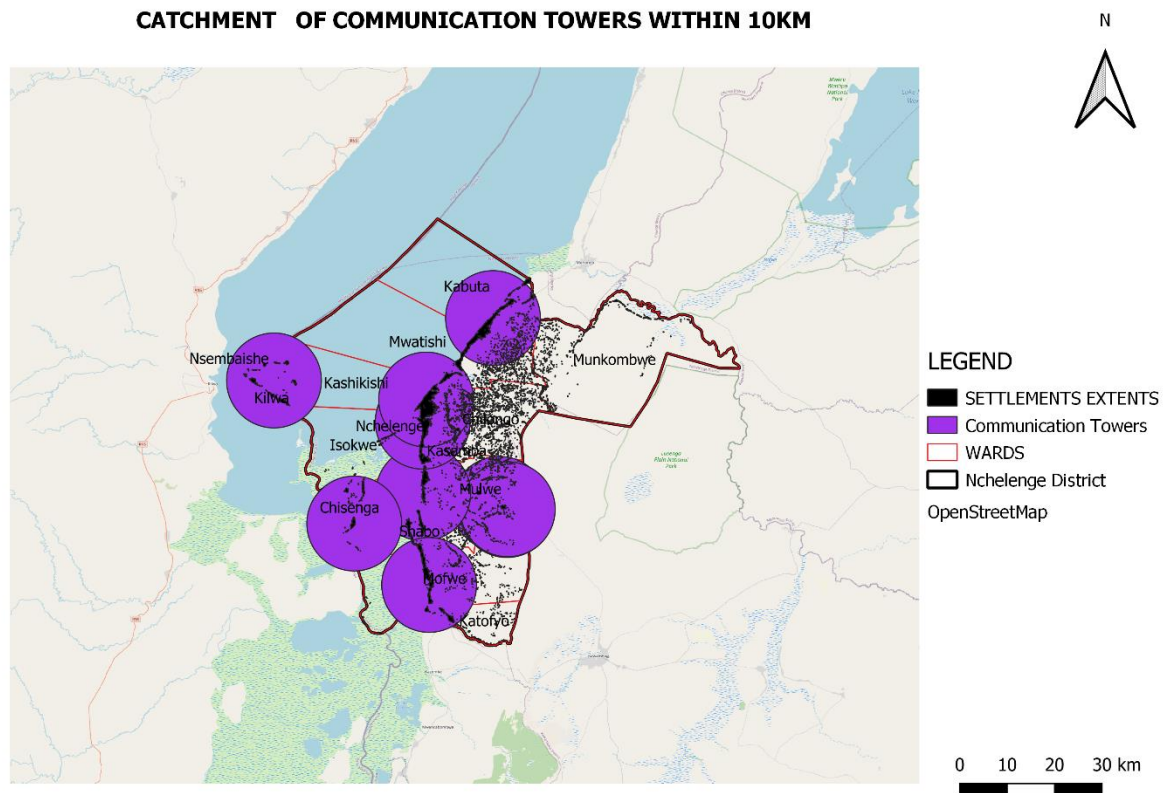
The District has one airstrip which belongs to St Paul's mission hospital with a tarmac runway but the state of strip does not correlate with the standards of aviation authority because it is heavily encroached and has potholes.

The district has one gazette bus station which is located in Kashikishi at kashikishi new market. Mostly, buses from other parts of the country coming into Nchelenge park there. Taxis mostly park at Kashikishi new market has they do not have a gazetted station where they can park from. Mweru water transport provides a large boat known as kapale to transport traders and consumers goods on the lake.

#### **6.4.2.3 Communication**

The district is serviced by three mobile network service providers namely Airtel, MTN and Zamtel. The network coverage encompasses all the wards but with challenges in some places. There is one local radio station Luapula Radio which is privately owned and has an 80% coverage in the district.

The map 10 below shows the catchment of communication towers within 10 km Radius and mukombwe and katofye doesn't have communication towers due to less population



Drawn by: Department of planning Nchelenge Town Council, 2023

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

Roads are inaccessible using motor vehicles hence communities have resorted to be using motorbikes. Roads connecting schools and health facilities are in bad state. Referral cases are conducted in very challenging conditions and in

some places such as Munkombwe there is no bridge connecting the ward hence vehicles cannot cross over. Roads like Munkombwe, Mantapala, Nchelenge – Kabuta road (main Land) and Kilwa, Chisenga (Islands). Farmers cannot transport their Agriculture produce which results in less economic development. Water canals are blocked and communities move on the open waters which is not safe. Communities in Isokwe and Chisenga have tremendous challenges in moving to the mainland to access services such as health and the market. There is one water bus which transports cargo and people to the Islands. The vessel consumes a lot of fuel and the routes are not sustainable to ensure maintenance and constant movement of the vessel.

The district has 10 communication towers to cover for mobile network but the network is very poor in some places.

Table 14: Roads in Nchelenge District

| S/N | NAME OF THE ROAD             | WARD      | DISTANCE(KM) | STATUS |
|-----|------------------------------|-----------|--------------|--------|
| 1   | Munkombwe                    | Munkombwe | 50           | Poor   |
| 2   | Mutono-kalilanshindo-Napemba | Chilongo  | 26           | Poor   |
| 3   | Kapela to Kabuta East        | Kabuta    | 21           | Poor   |
| 4   | Kalweo-Kapilimungomba        | Mwatishi  | 25           | Poor   |
| 5   | Sawmill                      | Kasamba   | 20           | Poor   |
| 6   | Mantapala                    | Mulwe     | 30           | Poor   |

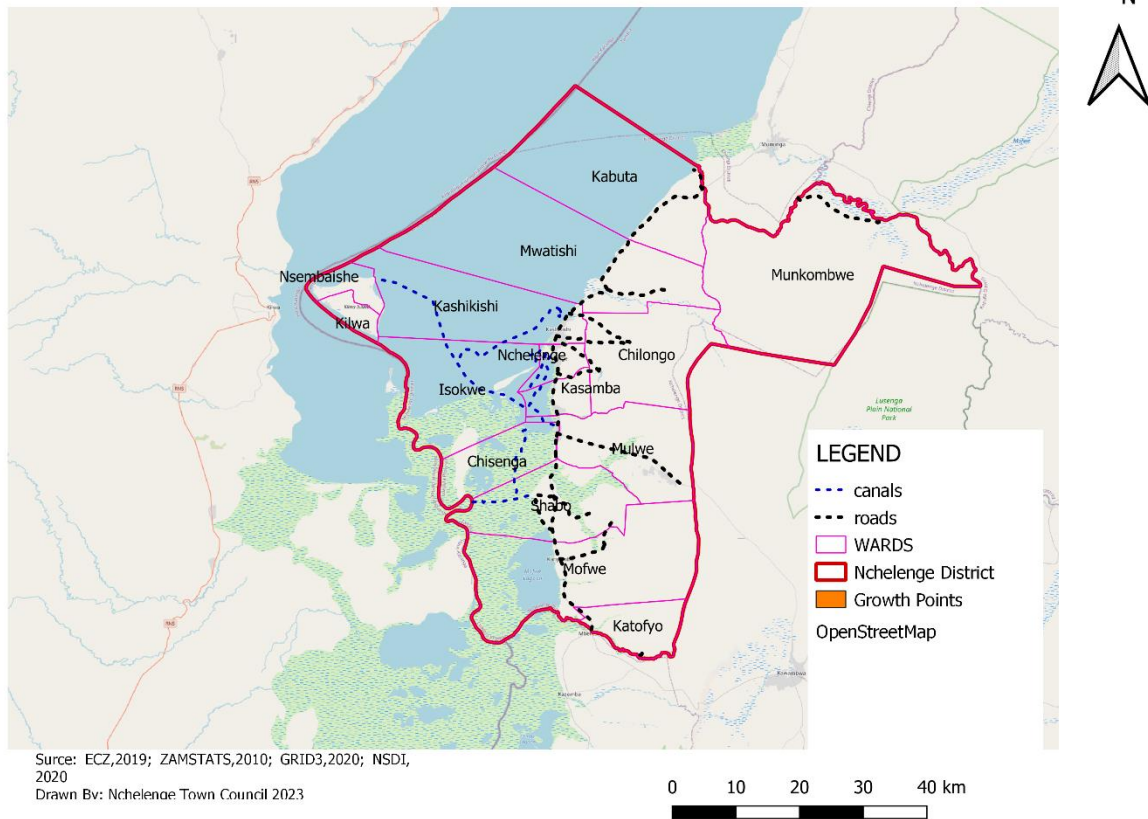
|    |                                           |            |                                |                          |
|----|-------------------------------------------|------------|--------------------------------|--------------------------|
| 7  | Kasumpa-kabalenge                         | Katofyo    | 20                             | Poor                     |
| 8  | Mubamba sela                              | Chilongo   | 25                             | Poor                     |
| 9  | Lupemba-kennani bridge                    | Nchelenge  | 15                             | Poor                     |
| 10 | Mumpundu-nalwendo-kapambwe                | Kashikishi | 15                             | Poor                     |
| 11 | St. Pauls mission Hospital(D79) to kabuta | 25         | Kashikishi,mwatishi and kabuta | Accessible with potholes |
| 12 | Seketenpi to kennani rubber               | 15         | kasamba                        | Poor                     |
| 13 | Kanyembo Chikumbi                         | 14         | mofwe                          | Poor                     |
| 14 | Mumpundu nalwendo tokapambwe              | 14         | kashikishi                     | Poor                     |
| 15 | Zamtel junction to Nchelenge clinic       | 5          | Nchelenge                      | Poor                     |
| 16 | Kapele kabuta east                        | 15         | kabuta                         | Need to be graded        |
| 17 | Shichishipula kalubuli                    | 16         | kabuta                         | Need to be graded        |
| 18 | Nachipika kepipa                          | 15         | Mulwe                          | Need to be               |

|    |                                     |    |                                |                                              |
|----|-------------------------------------|----|--------------------------------|----------------------------------------------|
|    |                                     |    |                                | graded                                       |
| 19 | Kilwa Island(ring road)             | 50 | Kilwa                          | Need to be cleared manually                  |
| 20 | Kalimbwa open prisons               | 20 | kasamba                        | Need to be graded and gravelling             |
| 21 | Kabalenge chibeka via mupopo        | 20 | katofyo                        | Need to be graded and gravelling             |
| 22 | Chabilikila-kapambwe                | 10 | shabo                          | Need to be graded and gravelling             |
| 23 | Chisenga- chipashi-kashengeneke     | 10 | chisenga                       | Need to be graded/clearing the road manually |
| 24 | Nchelenge township roads            | 20 | Nchelenge and Kashikishi wards | Need to be up to bituminous standard         |
| 25 | Kabuta market to Kabuta police post | 2  | Kabuta                         | Need to be graded and drainage system        |
| 26 |                                     |    |                                |                                              |

*Source: Works Department, Nchelenge Town Council 2022*

*Map 11 below shows the roads and canals within Nchelenge District*

# ROADS AND CANALS WITHIN NCHELENGE DISTRICT



*Drawn by: Department of planning Nchelenge Town Council 2023*

Table 15: Status of Bridges in Nchelenge

| S/N | NAME OF BRIDGE            | WARD      | REMARKS                   |
|-----|---------------------------|-----------|---------------------------|
| 1   | Nachondwa At Lunde Stream | Shabo     | Needs rehabilitated       |
| 2   | Kapako Over Kapako Srream | Munkombwe | Being worked on under CDF |



|    |                   |           |                                       |
|----|-------------------|-----------|---------------------------------------|
| 3  | Mwansamita        | Munkombwe | Need construction                     |
| 4  | Kefulwa           | Kabuta    | Need construction                     |
| 5  | Mantapala         | Mulwe     | Need construction                     |
| 6  | Kalweo            | Mwatishi  | Need construction                     |
| 7  | Kalimbwa          | Kasamba   | Need construction                     |
| 8  | Shikapande        | Chilongo  | Need construction                     |
| 9  | Mwansa Mita       | Munkombwe | Need construction                     |
| 10 | Chungu            | Shabo     | Need construction                     |
| 11 | Mantapala         | Mulwe     | Need construction                     |
| 12 | Kennani Rubber    | Chilongo  | Being worked on under TRALARD project |
| 13 | Kasumpa-kabalenge | Katofyo   | Need construction                     |

*Source: Works Department, Nchelenge Town Council 2022*

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

A standard constructed road should have drainages and well compacted gravel to ensure accessibility of the road throughout the year. The roads in Nchelenge district are however applied with light grading and without drainages hence in most cases are destroyed in rainy season making them impassable. There is more traffic on the roads with more people using the road transport. With the development of the refugee settlement in Mulwe ward, the Mulwe –Mantampala

Road has become even more dilapidated due to heavy vehicles transporting goods and timber to the settlement.

#### 6.4.3 Assessment of the Existing State Of Development Based on Issues Arising From Community and Stakeholder Consultations

The major issues faced by the community is the poor state of feeder roads which makes them inaccessible to transport their goods to and from the farm blocks. The roads are so much in a poor state which is a challenge to access schools and health centres. The township roads are all gravel roads in a deplorable state causing delay of movement of vehicles. The wards that use water transport raised an issue over the blocked canals which makes it difficult to move to the mainland for trade and accessing other social services. The community also indicated that they need harbours with necessary facilities such as water and sanitation. Some areas in the district still have challenges of communication because they have little to no coverage of mobile and radio network. Munkombwe, Mwatishi on the far eastern side, Kilwa, Katofyo, Nsembaishe and Chilongo wards communities raised an issue of communication challenges.

#### 6.4.4 Assessment of the Impact of Changes Anticipated Over the Next Ten Years

Over the next 10 years, the population of the district is expected to increase to 301,256 from 233,696. Increased population will require increased demand for good and quality Communication. There is expected increase of motorised transport both on road and water with increased road traffic. The Nchelenge Mansa road is tarred and mostly used road in the district and with increased population, there is estimated increase of vehicle and traffic on the road.

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

The establishment of the two proposed satellite towns would represent an alternative development scenario. One satellite town would be in the Mununga Chiefdom's Mukwakwa area, and the other one would be in the Kambwali Chiefdom's Kanyembos area. In addition to serving as growth hubs for the district, these two will be the satellite points. This will allow development in the district to grow from three growth point being in Nchelenge ward, Kabuta east area, Mukwakwa satellite and Kanyembo Satellite. In the case of Nchelenge District According to the CSO 2022 projections, the total population for the district is 233, 696, there's need to adopt the green belt land-use planning concept in order to prevent Population growth will inevitably result in higher demand for services like new housing and competing land use priorities, which will result in encroachments on the natural resources and greenbelt. Therefore, the local authority in coordination with the Provincial Planning Authority is in the process of preparing land use plans, which will incorporate greenbelt land use concept to preserve the green belt for future land use. These are all worthwhile aims that, if achieved, A spatial strategy which incorporates green belt which will be backed up by development control policies and strategies

#### 6.4.4.2 Assessment of the Likely Impact of ongoing and Committed Investment and Development Programmes on Land Use and Population Distribution Patterns

Focusing specifically on the Nchelenge Township, any subdivisions or alterations in land use will be handled according to the guidelines set by the spatial planning legislation, as outlined in the Urban and Regional Planning Act 3 of 2015. The district's spatial development should align with social and economic activities. All development must adhere to the applicable rules and standards. Environment conservation should be a priority, and where

necessary, measures to mitigate potential negative impacts will be implemented. There should be promotion of infill development on unused land to enhance the population density in development corridors and existing growth centres. The development along main public transport routes should be encouraged to increase density in current areas.

#### 6.4.5 Analysis of Impact of Environment and Climate Change

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

The increase in population has called for more land for housing, social services and trade which implies cutting down trees to create access roads with gravel. To add on, land has to be cleared including cutting trees for the construction of communication towers. These trends which require the clearing of vegetation contribute to climate hazards and risks.

##### 6.4.5.2 The Impact of Environmental and Climate Change Issues on the Sector

Nchelenge district experiences high temperatures and heavy rainfall which cause flooding. Heavy rainfall causes erosion of roads and flooding of bridges which are washed away. The district through the local authority has to invest in road infrastructure which is resilient to climate hazards. Wind contributes to a lot of waves which makes it difficult for movement on the lake.

#### 6.4.6 Issues Arising Relating to Gender Groups and Vulnerable Groups

##### 6.4.6 .1 Women and girls

In areas that flood and bridges are washed away, women and girls are vulnerable to crossing streams as they go to the fields and school. Most of the roads in the district become impassable in the rainy season which makes it difficult for them to access social amenities such as schools, maternal and antenatal health care. Transportation of goods also becomes a challenge, especially for the female gender who is mostly engaged in small scale

businesses. Additionally, poor telecommunication, radio and TV also deprive vulnerable groups of an equal opportunity to access information

#### 6.4.7 Issue Statements and Assessment of External Factors Contributing to the Issue

There is poor road infrastructure and poor communication network in the district. The contributing factor to be the inadequate funding. The district does not have adequate earth moving equipment for road works and the sparsely settlement pattern in some wards makes the provision of road infrastructure and telecommunication services costly.

#### 6.4.8 The Impact on the Environment and Climate Change

The use of road and water transport has potential negative impact on the environment and climate change. The major source of energy for cars, pontoons, trucks and buses in Nchelenge are fossil fuels, which contribute to the emission of greenhouse gases that are a major contributing factor to climate change. The other potential negative impact of road transportation on the environment can be degradation of air quality. In addition, due to the poor state of the roads in the district, mostly constructed from gravel material, there is high dust emission resulting in air pollution. Conversely, climate change has an impact on the road infrastructure. The lack of drainage infrastructure contributes to soil erosion and flooding in the galleries. These possess both an environmental and health hazard. Therefore, there is need to provide climate change interventions in the road network such as culverts and drainages to ensure that they are resilient to climate change.

#### 6.4.9 Issues Arising Relating to Gender Groups and Vulnerable Groups

Due to poor or non-existence of bridges and drainages on the road infrastructures, the roads are easily damaged and surfaces develop gullies and potholes during the rainy season. This results in vulnerable groups like women, the disabled and children failing to access facilities such as hospitals and schools. Additionally, women in farming equally get affected as their produce and general movements become hampered as a result of the poor road network.

#### 6.4. Issues arising from the Public Consultations

During the public consultations, the communities in all the five (15) wards identified the poor road network as a challenge that needed to be addressed. They proposed rehabilitation of roads, construction of drainages and culverts as a priority.

#### Core issue

The transport network is poor in the district. Most of the roads lack the supporting infrastructure such as drainages, culverts, street lighting, pedestrian walk ways and bridges. The District has no designated bus routes and a modern bus station.

### 6.5 ENERGY

Energy plays a vital role in facilitating activity in all sectors of the economy. To ensure universal access to safe, reliable and affordable energy at the lowest cost, there is therefore, need to intensify promotion of solar technology and use of gas in order to reduce wood utilization, thereby saving the environment from further degradation. According to ZESCO, only 4500 households are being

supplied with electricity in the district representing a portion of 15% of the total households showing that 75% are not being supplied with electricity.

#### 6.5.1 Key government priorities being implemented at local level

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

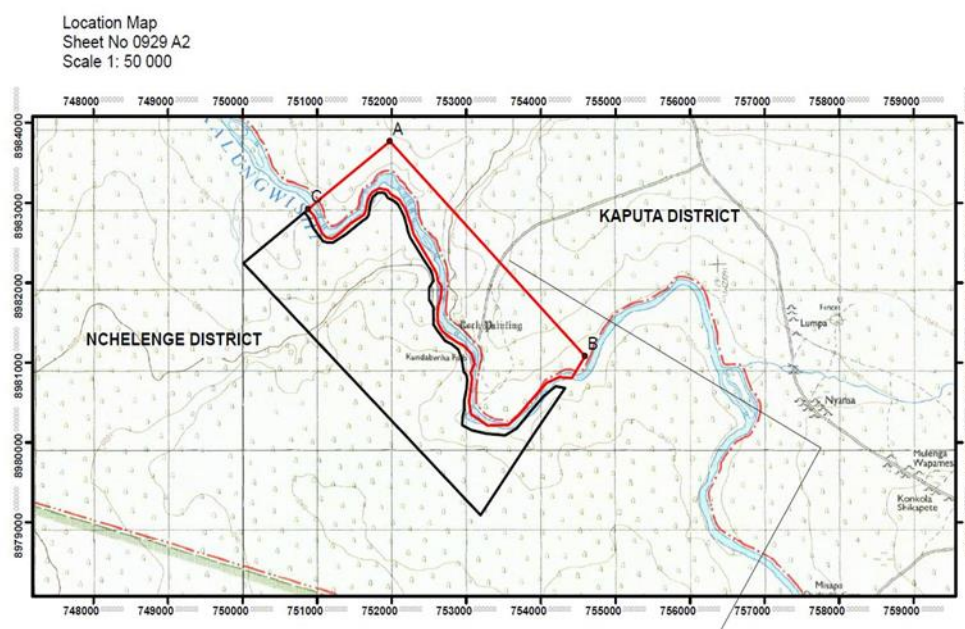
The district is working towards achieving the objectives of the Industrialized and diversified economy pillar of the 8th national development by focusing on enhancing generation, transmission and distribution of electricity diversifying to other renewable energy sources. The goal towards enhancing transmission and distribution of electricity will be done through promoting energy saving to reduce losses.

ZESCO is providing electricity to the community with power tapped from Mbereshi (66-33kv) which is 7.5 MVA. The district was at 2.5 MVA and updated to 5MVA because ZESCO in order to meet the increasing demand for electricity. The Rural electrification authority has been providing electricity to settlements not serviced by ZESCO and will continue to provide electricity in areas identified by the community as urgently needing the service.

ZESCO will work with the community through the Ward Development Committee leaders to provide energy saving bulbs to the communities without charging them for the service. Through the constituency development funds, REA has been allocated an amount of 1 million Kwacha to electrify public facilities in the district and this will be done in collaboration with the local authority.

As a priority of the 8NDP to generate electricity, the district through ZESCO will construct a mini hydro power plant at Kundabwika Falls to generate 151MW of electricity. The site of the project borders with Kaputa District as shown in the map below.

Map 12: Location of Site for Mini Hydro Power Plant at Kundabwika Falls



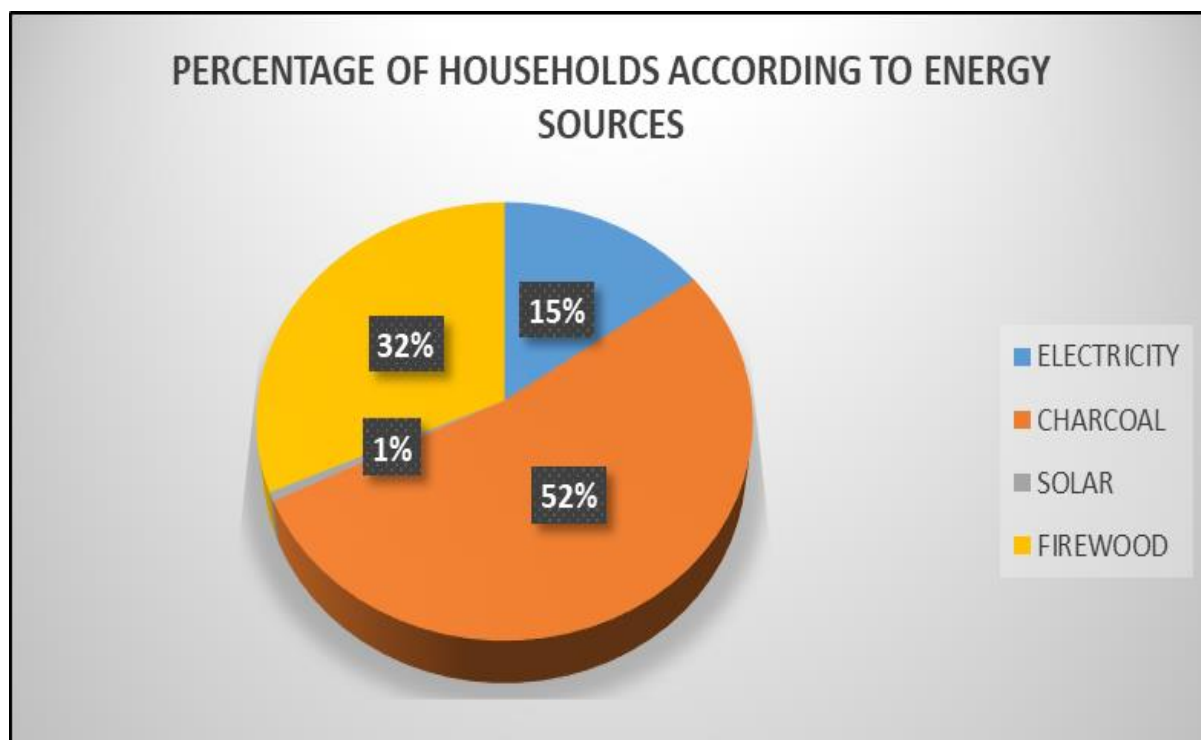
Source: Department of physical Planning, 2021

6.5.1.2 The Status of Implementation of Existing Plans and Strategies in the District Nchelenge is connected to the national grid up to Mukwakwa and only 15 percent of the households have access to electrical power for lighting and cooking purpose as shown in the map below. The rest of the district however use, solar, charcoal or firewood as alternative sources of energy. Nchelenge District has 4500 households that are supplied with electricity which represents 15% while 52% are dependent on charcoal for energy. Power is sourced from the main grid from Mbereshi at 66-33kv 7.5mva and supplied in the district from Kasumpa upto Mukwakwa. The district has one substation



which is 33/11/KVMA situated at the administrative center along the D75 road.

Figure 18: Major Sources of Energy

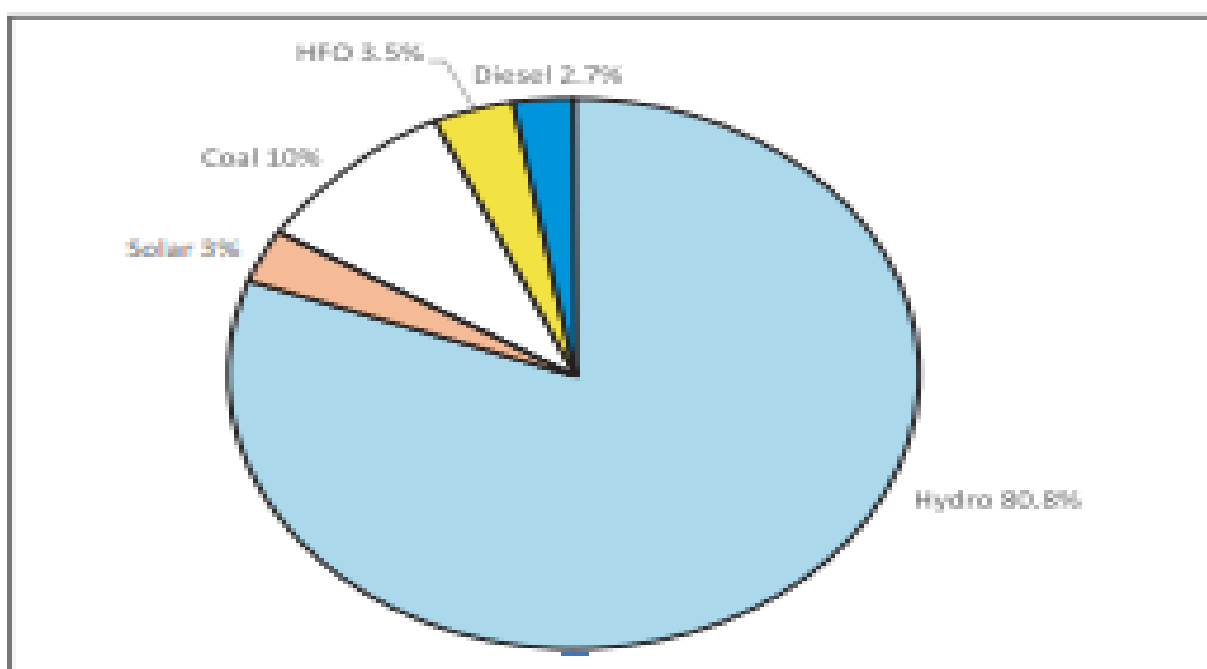


Source: Nchelenge Town Council Strategic Plan, 2021

At national level 84.5 percent of rural households use firewood for cooking, followed by charcoal at 13.2 percent of households. In urban areas, most households use charcoal for cooking at 59.1 percent, and firewood at 6 percent. In Nchelenge district, most of the households are using charcoal including those in electrified areas so as to reduce costs incurred on paying for electricity because there are areas which have abundant vegetation. The demand for electricity in Nchelenge has been rising with increased number of buildings, shops, houses under construction by the local people in the district. However, power supply in the past was at 2.5 MVA which was not corresponding with demand of 1.7, as a result it was putting pressure on the

transformer. To address this challenge, ZESCO upgraded the electricity to 5mva, this entails that currently ZESCO is addressing the high demand of power supply to communities within reach and has capacity to provide the service to more households or commercial entities that still wants to be connected to the national grid. The connections can however be done to those communities settled along the line Kasumpa up to Mukwakwa while those settled in areas without transformers are serviced by REA or have no electricity.

Figure 19: Energy Sources and utilization at National level



*Source: National Energy Policy (2019)*

Figure 19 shows the consumption levels of various energy sources at national level which include Hydroelectricity, coal, diesel and hydroelectricity. From both figure 18.and figure 19 it is noticed that there is low access to solar energy and this is because there is low investment due to high cost of capital for renewable energy systems. Low investment has been done in attaining SDG

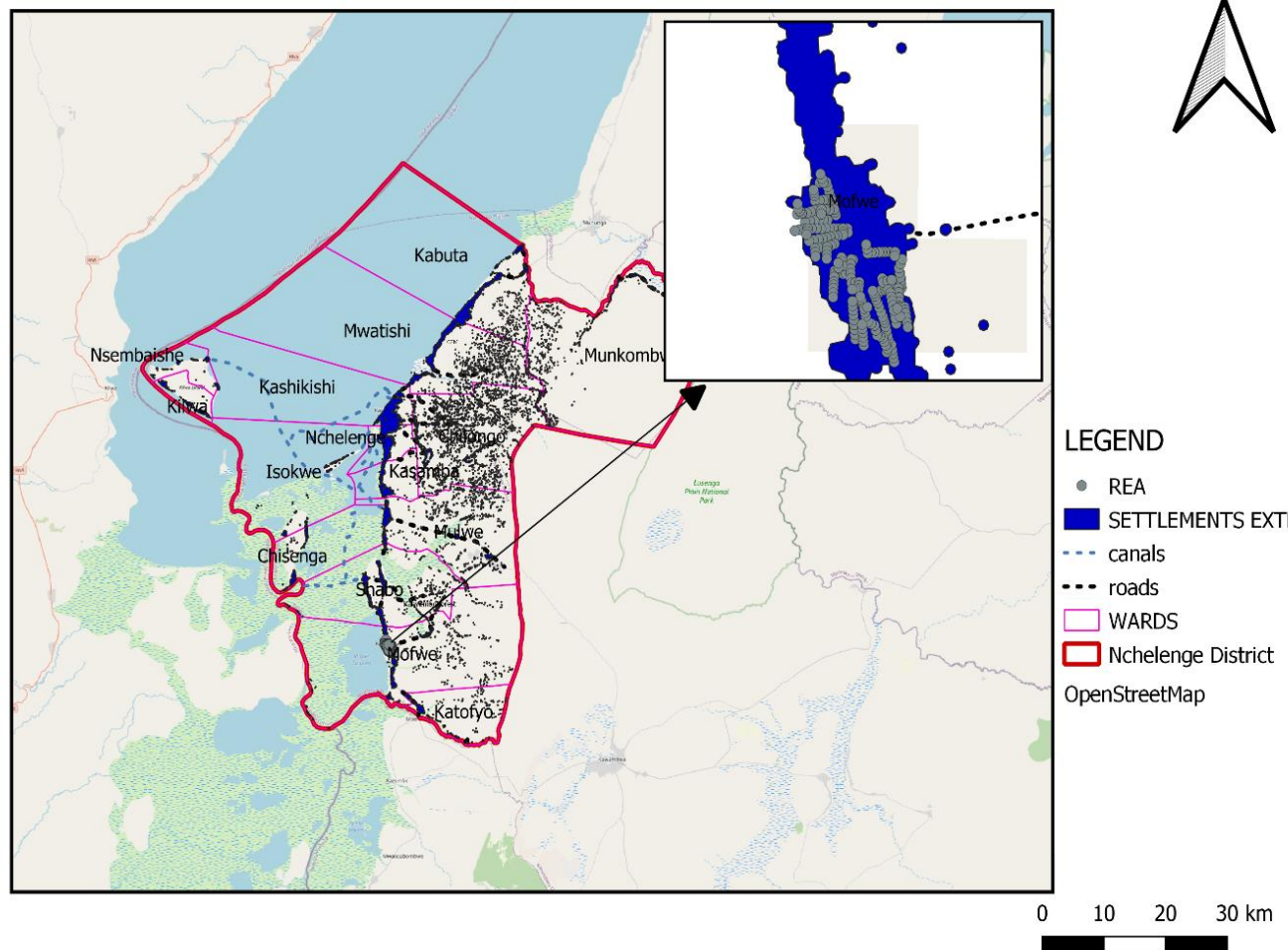
number of ensuring affordable clean energy for all. Most of the consumers of electricity at national level are the mines and manufacturing industries. In Nchelenge district, electricity is mostly for domestic use at household level with a few accessing for commercial purposes such as hammer mills. The district has not heavy industries that require huge consumption of electricity.

#### 6.5.1.2.1 Connections by REA

In order to accelerate electricity access in rural areas of the district, the rural electrification authority (REA) has been improving access to electricity to areas with no transformers. According to the CDF guidelines that were given, all public service institutions should be electrified. To respond to this directive, the local authority allocated funds amounting to 1 million Kwacha from the CDF allocation for 2023 to electrify critical public facilities and a memorandum of understanding has since been signed with the Rural Electrification Authority (REA) over the said project. Nchelenge has a number of rural areas that remain unconnected to electricity which translate to 75% of the households without electricity. However, with the coming of REA in the district in 2022 a number of households now have access to electricity.

The Map 13 below shows areas electrified by R.E.A

## AREA ELECTIFIED BY R.E.A IN NCHELENGE DISTRICT



Drawn By: Nchelenge Town Council 2023

### 6.5.1.2.2 Challenges in the energy sector

Nchelenge ward is the only planned ward in the district while the fourteen (14) wards are not planned because the wards are under customary land. This has

led to not having proper boundaries. There's so much encroachment of the way-leave by the community by constructing houses and commercial buildings due to lack of proper planning and engagements between the traditional leadership and the Council.

#### 6.5.1.2.3 Fossil Fuels

Diesel and petrol fuel is used by the community mainly for motorbikes, vehicles and boats. Some also use diesel fuel to power hammer mills especially in areas where electricity is not provided. The district currently has one filling station which is operating in the district and another one being constructed at 80% completion which are both owned by private companies. The only operating filling station in the district also services Chiengi district hence there is high demand for petroleum products.

### *6.5.2 Assessment of the Existing State Of Development*

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

According to ZESCO, only 4500 households are being supplied with electricity in the district representing a portion of 15% of the total households showing that 75% are not being supplied with electricity. ZESCO increased its supply to 5MVA so as to increase the number of connections hence more property owners can be connected but connections can only be done in areas where there are transformers. REA has been working to supply electricity in rural areas not serviced by ZESCO but there are still areas which are not powered.

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

The communities indicated that the electricity is supplied to the areas closer to the Nchelenge Mansa road while those in the outskirts are deprived of electricity. Some schools and health facilities are not electrified in the district. They would want electricity to be extended in such areas as well. Even when connected, the ZESCO tariffs are high hence would rather use firewood or charcoal. The communities would want to have their commercial properties and houses electrified but the connection fees are high. The streets are very dark at night hence street lights are needed.

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

During the public consultation, the communities explained that only a few houses were connected to electricity with those that are further from the main road having no access to electricity due to limited number of distribution lines. Isokwe, Chisenga, Nsembaishe and Kilwa wards are not electrified. This poses a challenge for the schools to conduct ICT lessons as well as healthcare provision at the health centers. Solar energy is an alternative for the communities not connected to hydro power but the challenge is the solar equipment is expensive. It is a challenge to find trees for charcoal or firewood in Isokwe, Chisenga, Nsembaishe and Kilwa wards because they are very scarce.

#### 6.5.3.3 Issues from Public Participation Process Relating to the to the Quality of Services

The communities indicated that abrupt power outages were experienced which negatively affected their businesses and the operation of incubators for those in poultry production.

#### 6.5.4 Assessment of the Impact of Changes Anticipated Over the Next Ten Years

The population growth of the district in the next ten years means increased need for energy sources. If there is increased deforestation because of charcoal production, the district will be highly vulnerable to climate risks and hazards which include flooding, droughts, and strong winds.

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

With the construction of the district hospital in Mubamba area of Nchelenge, the population in the area is likely to increase and electricity services will be required. The urbanizing villages and growth nodes identified which include Kanyembo, Kabuta and Mulwe will require to be electrified because population in the areas is increasing because of trade.

##### 6.5.4.2 Assessment of the Likely Impact of Ongoing and Committed Investment and Development Programmes on Land Use and Population Distribution Patterns

With the ongoing programme of electrifying rural communities, the land use will be affected because the areas will have to be realigned in order to have access roads to pave way for erection of electricity poles. This is because the areas are not planned without proper property or road boundaries making it difficult to erect poles. As electrification of areas continues, the land use of the areas will have to change by zoning the areas to have proper boundaries of land uses. If the areas are electrified, it is likely for the communities to have less dependency on charcoal or firewood hence less destruction of forest cover. With the committed development of constructing a mini hydro power plan, the population around Kundabwika falls will increase.

#### 6.5.5 Analysis of Impact of Environment and Climate Change

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

Trees are cut down in order to provide poles for electricity provision hence as the sector expands to increase number of communities provided with electricity, the area cleared for poles also increases. The areas that are not serviced with electricity are highly dependent on cutting down trees for charcoal and firewood which has contributed to strong winds and high temperatures because of vegetation cover loss. Currently, the majority of the district population is heavily dependent on wood and charcoal for cooking and candles or paraffin lamps for lighting during night. This over dependence on forest is expected to worsen by the year 2030, as the resource is likely to be exploited to levels where the rainfall pattern is affected.

The district also experiences heavy rainfall causing floods in some places which destroy infrastructure and field crops.

The development of filling stations in the district to increase supply of petroleum products contaminates underground water and water bodies through surface water runoff. The construction of filling stations includes clearing of vegetation cover which is supposed to trap carbon emissions that destroy the ozone layer. The unburnt fuels from fuel loading operations pollutes the immediate surrounding at filling stations.

#### 6.5.5.2 The Impact of Environmental and Climate Change Issues on the Sector

Climate change has contributed to very hot temperatures and reduced rainfall which has negatively affected the provision of hydroelectric power as it is highly dependent on water. The power which is supplied in the district is from the main grid of supply which is hydro power electricity and it was highly affected with the reduced water levels in the Kariba causing power outages and load shedding. There is therefore need for investment in renewable energy in the sector in order to avoid issues of load shedding in the future. The high



temperatures experienced in the district are favorable for solar energy especially for wards such as Kilwa, Nsembaishe, Chisenga and Isokwe.

Over the past years Nchelenge has experienced power outages and regular interruptions in the service due to load shading. Measures to curb this crisis have been put in place by different consumers. Alternative sources of energy such as solar energy, wood and charcoal have been used. Wood and charcoal, however, have contributed to adverse climate change due to large numbers of trees being cut to meet the ever –rising demand.

#### 6.5.6 Issues Arising Relating to Gender Groups and Vulnerable Groups

In respect to gender, the majority of citizens depend on wood and charcoal for basic energy needs such as cooking and heating. Most households rely on locally sourced biomass for their daily energy needs. Hence, they are increasingly vulnerable to biomass and energy scarcities.

##### 6.5.6.1 Women and girls

Energy is very sensitive to gender in that most women spend most of their productive time collecting firewood to prepare a meal for their family such that little to no time is left for them to do other activities. Women in female headed households in areas where trees are now scarce such as the island wards walk very long distances just to collect firewood and have no time for other constructive activities. Girls are sent to collect firewood for use at the expense of their education and in most cases even fail to attend school thereby contributing to increased illiteracy levels. Fetching of water from boreholes is through manual pumping which is time consuming as opposed to water supplied from solar powered or electrified water schemes.

##### 6.5.6.2 Men and boys

With the increased demand for charcoal, men have engaged in selling of charcoal for their livelihood activities which poses a threat to the environment.

Boys spend most of their time fetching firewood and cutting down trees for charcoal which reduces their time to be in school.

#### 6.5.6.3 Youths

With the increasing demand for petroleum products and limited accessibility to the products, men and youths have used the opportunity to engage themselves in illegal fuel vending to support their livelihood. This poses a risk of fire because the fuel is not properly stored.

#### 6.5.6.4 Disabled

With limited access to hydro and solar electricity, there is dependency on firewood for energy but accessing this resource is a challenge for the disabled who may not manage to move long distances.

#### 6.5.6.5 HIV/AIDS

There is labor shortages because sick persons are less able to work while the other women and girls spend time to look after the sick as the disease progresses.

#### 6.5.7 Issue Statements and Assessment of External Factors Contributing To the Issue

There is limited access to electricity for domestic and commercial use. This is because the utility company being ZESCO is not adequately expanding electricity lines to all the areas in the district. Another factor is that the community lacks capacity to pay for connection of electricity and finds it cheaper to use firewood.

### 6.6 HEALTH AND NUTRITION SECTOR

The following is an analysis of the health sector in Nchelenge District. The health sector is one of the major sectors driving development in the district. The District Health Director (DHD) at the District Health Office (DHO) heads it. The sector's mandate is to provide equitable access to cost effective, quality

healthcare services as close to the family as possible in order to improve the health status of people in Zambia so that they can contribute to socio-economic development. At district level, the department of Health is one of the devolved departments that now report to the Local Authority, as guided by the National Decentralization Policy of the Republic of Zambia.

#### *6.6.1 KEY GOVERNMENT PRIORITIES TO BE IMPLEMENTED AT A LOCAL LEVEL*

In order to mitigate the challenges and improve health care services, government has put in place several policies and strategies for specific aspects of health.

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

It is a priority of the plan under the human and social development strategic development area to improve health, food and nutrition through strengthening public health, increasing access to quality health care, promoting the participation of non-state actors in health care delivery, strengthening integrated health systems and enhancing food security and nutrition. Nchelenge district is implementing programs in order to achieve the above stated development outcome aiming at improving health and health related services in the district. The goal of the health sector is to enable the environment habitable and disease free. To achieve the stated priorities of the plan, interventions at district level aimed at increasing access to quality health care by scaling up recruitment of health personnel to reduce the health personnel to population ratio and ensuring availability of medicines and medical supplies in health centres.

With these interventions, the client to health personnel ratio is expected to reduce as follows: 3,500 persons per doctor in 2026 from 6,750 in 2020, 3,000 persons per clinical officer from 4,600 and 500 persons per nurse/midwife from 750.

In addition, the development of climate resilient health infrastructure, as well as the equipping of health facilities will be prioritized. In order to address nutrition deficiencies, the district has partnered with other stakeholders such as SUNTA, World Vision and WFPA to fight stunting through provision of nutrition supplements and also empowering communities with livelihood activities such as backyard gardening, livestock rearing , village banking and provision of WASH facilities.

Further, in order to facilitate wider health care delivery, the national health insurance scheme will be rolled-out to include the informal sector in the district. The district also plans to facilitate partnerships with the private sector by sending medical personnel for specialised courses in order to create centres of specialization in the provision of health services.

It is expected that the availability of essential drugs and medical supplies will increase to at least 95 percent fill rates by 2026 from 60 percent in 2020. In addition, the proportion of hospitals with fully functional recommended equipment will improve to 85 percent by 2026 from 40 percent in 2020. Further, the national health insurance scheme will target to achieve universal coverage by 2026, from the 35 percent coverage recorded in 2021.

On disease burden particularly malaria, the district will scale up the Quality Improvement project which is being conducted in Kabuta where it has yielded some positive gains on the ground. Proposed malaria interventions to be scaled up include; Insecticide Treated Nets-ITNs, Active Case Detection, Indoor Reside Spray-IRS and Environmental Management through Health Education. Furthermore, there is a proposed program to train 500 Community Volunteers in Integrated Community Case Management-ICCM (in areas with no health facilities such as Isokwe and Nsembaishe).

#### 6.6.1.2 Specific National Plans/Strategies and how they are to be implements at a Local Level

At district level, implementation of priority areas of the national health strategic plan shall be undertaken through surveillance activities in partnership with UNICEF and WHO committedly in view of preventing occurrence of any outbreak of communicable diseases such as cholera and typhoid. Another priority of the district is to address factors contributing to high maternal and infant mortalities, which will be done by constructing more health posts, maternity annexes and employing midwives.

It is the expectation of the government according to the national health strategic plan that the issues aligned to environmental health and sanitation are addressed in order to have societies that are free from water borne diseases, this will be done by working with other partners such as UNICEF to install water schemes at public institutions and in the community. Other diseases that are a priority to be prevented are Ebola and Poliomyelitis diagnosed in neighbouring Congo DR, which will be addressed through active surveillance by the district.

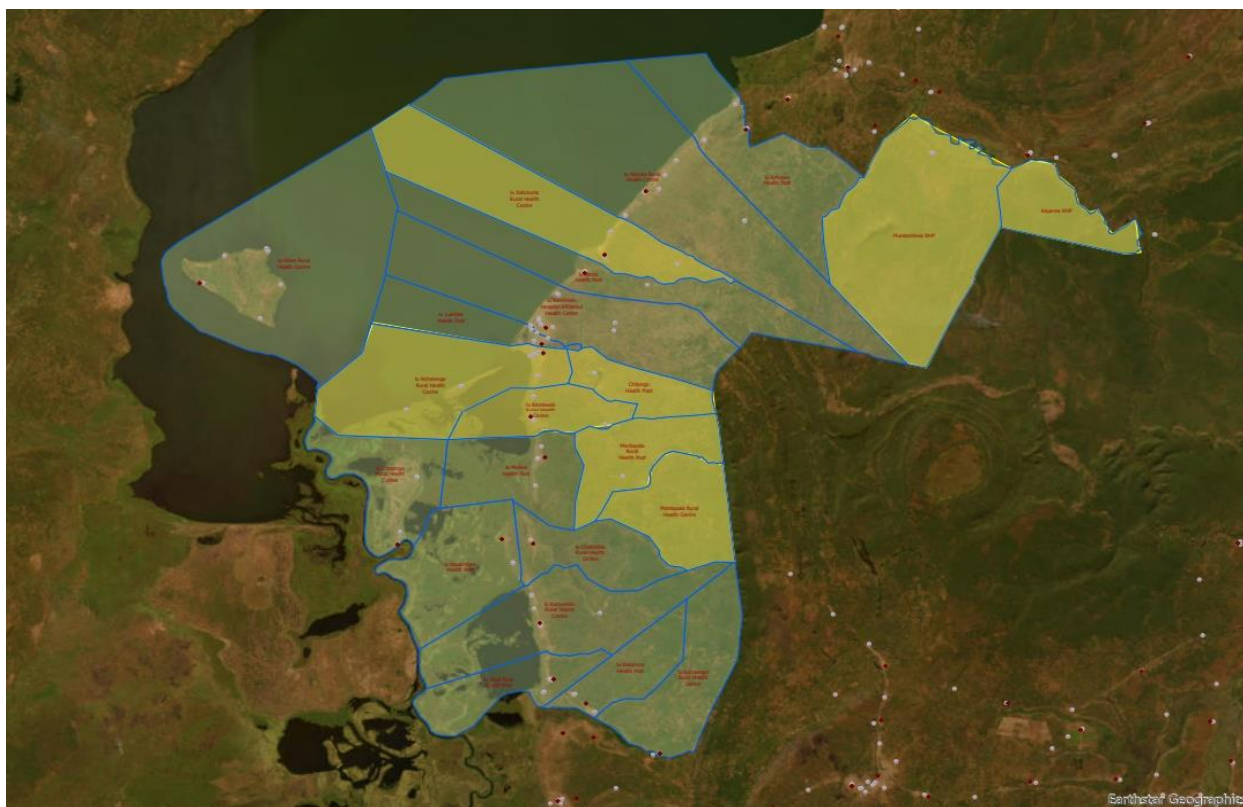
The National Health Policy underscores government's commitment to provide equitable access to cost effective quality health services as close to families as possible in a caring, competent and clean environment. The policy has been developed with the context of the vision 2030 and has taken into consideration other relevant national regional and global health related policies, protocols and strategic frameworks, including the Sustainable Development Goal (SDGs) number 3 i.e. Good health and well-being: ensure healthy lives and promote wellbeing for all, at all ages. Nchelenge district will endeavour to implement the requirement of the national health policy by utilising the opportunity of the constituency development fund to construct more health centres.

#### 6.6.1.3 Status of Implementation of Existing Plans and Strategies in the District

To enhance quality service provision, the district is divided into three Segments namely north, south and islands. These are further broken down into 255

zones in order to improve planning, supervision and coordination, thereby improving service delivery. The district has worked to improve distribution of health facilities in the district by constructing seven (7) health posts from 2021 to 2022 and one district hospital whose works are underway. The number of health centres has since increased from 15 centres in 2017 to 23 centres in 2022. An additional health centre in Mwatishi ward is being construction with support from CDF. The district has plans to complete construction of health post in Kapema area of Munkombwe ward. There is one mission hospital in the district (St Paul's Mission Hospital) which provides health care services to the communities across the district and the district is collaborating with non-governmental organizations supplementing in the delivery of quality health care such as PAMO Plus, Right to Care, UNHCR, WHO, SUN-TA, CIRDZ, UNICEF, UNFPA, and World Vision. These partners have helped in the improving of health care services as close as possible to the communities through mobile services.

**Figure: 20** below shows segregates the type of facilities that are currently operational in the district.



## DISTRIBUTION OF HEALTH CENTERS IN NCHELENGE DISTRICT

| TYPE OF FACILITY | 2017                      | 2022                                                   |
|------------------|---------------------------|--------------------------------------------------------|
|                  | NUMBER OF HEALTH FACILITY | NUMBER OF HEALTH FACILITY                              |
| Hospital         | 1                         | 1 and 1 district hospital currently under construction |
| Health Centre    | 10                        | 12                                                     |
| Health Post      | 4                         | 10                                                     |

|       |    |    |
|-------|----|----|
| Total | 15 | 23 |
|-------|----|----|

Source : District Health Office, 2022

In order to reduce the client to qualified health personnel ratio at local level, the district recruited 56 qualified health personnel hence reducing the ratios. Health work force increased from 249 in 2017 to 497 by August, 2022 representing an increase of 199.6% after the national recruitment exercise of 11270 health personnel across the country.

#### **6.6.1.3.1 Key Performance Indicators for Nchelenge**

The district has been working towards achieving goals of the national development plan and other sector plans. This is shown using the key performance indicators highlighted in the table below:

Table 18: Key Performance Indicators for Nchelenge

| S/N | INDICATOR<br>COVERAGE             | YEAR |            |           |          |          |
|-----|-----------------------------------|------|------------|-----------|----------|----------|
|     |                                   | 2017 | 2018       | 2019      | 2020     | 2021     |
| 1   | Fully Immunized < 1 year          | 61.5 | 73.4       | 73        | 85.5     | 88.7%    |
| 2   | Underweight rate under five years | 1.4  | 3.1        | 2.5       | 2.1      | 1.3      |
| 3   | Wasting rate under five years     |      | 0.72       | 0.65      | 0.35     | 0.78     |
| 4   | Stunting rate under five years    |      | 5.9        | 4.1       | 0.63     | 0.56     |
| 5   | Malaria incidence all ages        |      | 361.9/1000 | 254/1000  | 712/1000 | 555/1000 |
| 6   | Malaria fatality rate             |      | 45/1000    | 60.7/1000 | 45/1000  | 67/1000  |



|    |                                                 |           |        |        |        |        |
|----|-------------------------------------------------|-----------|--------|--------|--------|--------|
| 7  | ANC 1 <sup>st</sup> Visit Total                 | 84.6<br>% | 101%   | 88.6%  | 91.9%  | 96.6%  |
| 8  | Institutional Deliveries                        | 69.5<br>% | 81.4%  | 84.7%  | 74%    | 80.3%  |
| 9  | Postnatal within 48 hours                       |           | 40.5%  | 38.8%  | 33.5%  | 27.2%  |
| 10 | Maternal death in the facility                  | 10        | 13     | 8      | 2      | 3      |
| 11 | TB treatment success rate                       |           |        | 100%   | 97.9%  | 98.8%  |
| 12 | HIV positive clients with suppressed viral load |           |        | 79.1%  | 90.4%  | 90.1%  |
| 13 | Voluntary male medical circumcision done        |           | 7 ,945 | 5 ,891 | 7 ,654 | 2 ,416 |

*Source: DHIS2, 2021*

According to the information shown in the table above, the district has recorded positive trends in key performance indicators such as fully immunized, institutional deliveries, first antenatal care attendance, underweight rate, HIV viral load suppression, malaria incidence per 1000, institutional deliveries and skilled deliveries.

The percentage of fully immunised children who are less than a year old has increased from 61.5% in 2017 to 88% in 2021 due to increased staffing levels and increased sensitisations. The underweight ratio has decreased from 1.4 in 2017 to 1.3 in 2021, because of increased interventions by the district in collaboration with other partners to fight stunting.

The district has been doing the indoor residue spraying (IRS) in all the wards, insecticide treated nets (ITN) distribution and management of malaria cases to reduce the incidence and the fatality rates of malaria. Despite the efforts that the district is implementing, the malaria incidence and fatality rates are increasing due to poor health seeking behaviour by the communities, shunning from having their houses sprayed and the use of the ITNs for fishing. To add on, there is an increase in the mosquito population vector that have become resistant to insecticides. The maternal death rate has been decreasing since 2017 to 3 in 2021 because of the increase in qualified medical personnel and provision of additional training to the existing medical personnel in emergency obstetrics care (EmoC). In addition, there is more sensations in the communities, which has contributed to an increase in the number of mothers attending antenatal care (ANC). The HIV suppression rate has increased from 79% in 2017 to 90% in 2021 because of increased sensation for people to access treatment.

#### 6.6.1.3.2 Communicable and Non-Communicable Diseases

The district has intensified its surveillance systems in order to reduce on the number of communicable diseases. The most common communicable disease in Nchelenge district is cholera because of poor WASH facilities especially communities along the shores of Lake Mweru such as Kashikishi, Nchelenge, Kasamba, Kilwa, Chisenga, Isokwe and Nsembaishe Wards. The district is sensitising the communities on all the wards on early health seeking behaviour and regular medical check-ups because there is an increase in communicable diseases such as hypertension, diabetes and asthma which if not properly managed leads into serious complications.

The national priority is to have essential drugs and medical supplies in all health facilities with desired stock availability level at 80% minimum but most health facilities in the district are still facing challenges of having inadequate

supplies. The district has however embarked on procurements to cushion on the shortages of drugs and medical supplies.

### *6.6.2 ASSESSMENT OF THE EXISTING STATE OF DEVELOPMENT*

#### *6.6.2.1 Assessment of the Overall Performance of the District*

The table below shows the existing health facilities and the catchment population according to standards in relation to the shortfall in the district. The health centers are 10 against the required number 12 thereby having a shortfall of 2 health centers. The health posts are 11 against the required number 20 making a shortfall of 9 health posts. The district hospital standards according to ministry of health is one against a total population of 80,000. There is no district hospital currently operating. There is however one district hospital which is under construction. The district has one general (mission hospital) and its serving the entire population. The information given in the table below shows that there are still some people without access or limited access to health facilities.

**Figure: 21** below shows spatial distribution and analysis of the catchment areas In the district.

**DISTRIBUTION OF HEALTH CENTERS IN NCHELENGE DISTRICT**



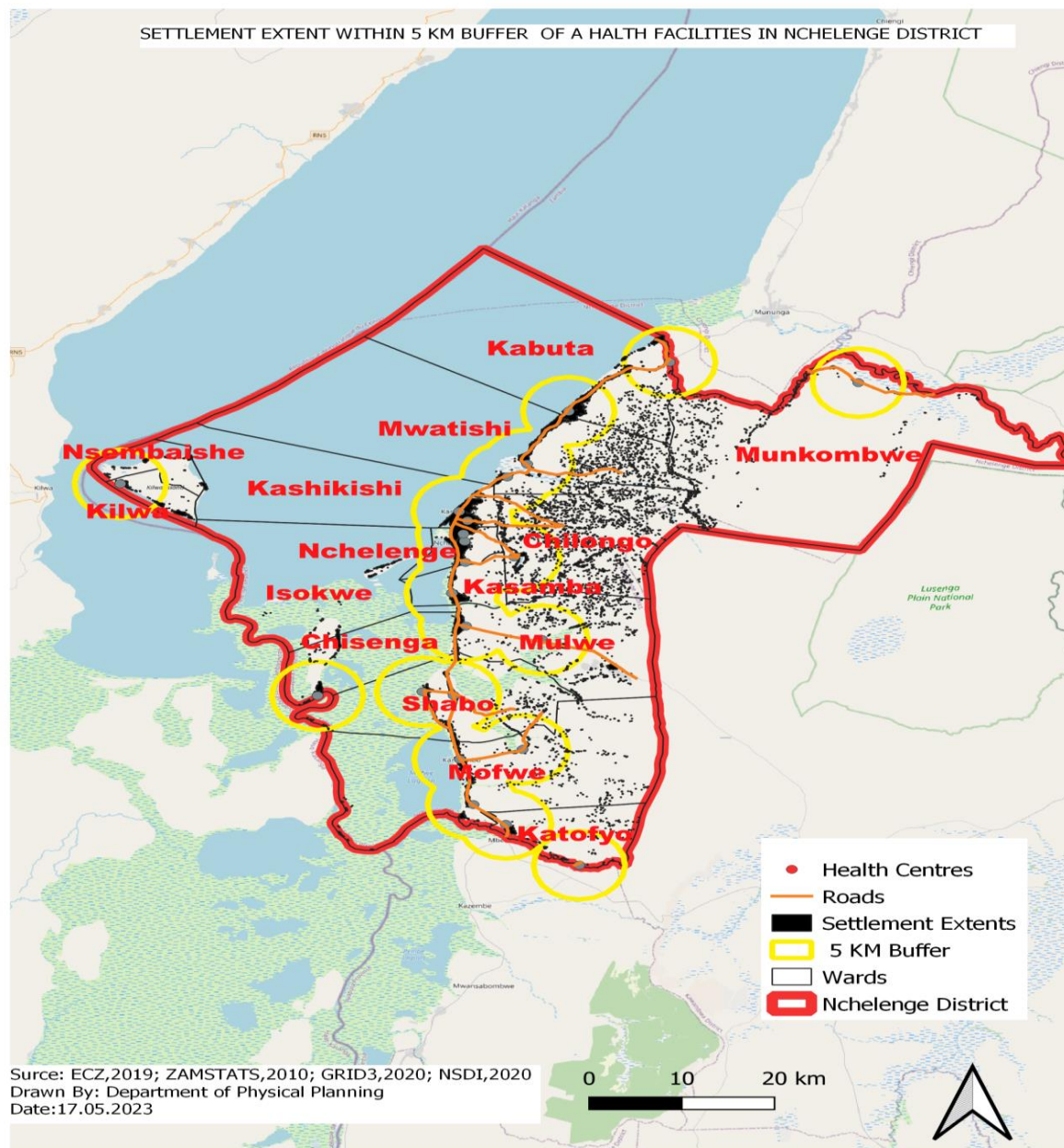
|                   |                                                                                          |        |   |       |       |    |   |    |
|-------------------|------------------------------------------------------------------------------------------|--------|---|-------|-------|----|---|----|
| Urban Health Post | 1/5000 population, size is based 600-800/1000 population or 1.8-2.4 Ha/30,000 population | 5,000  | 1 | 0.3Ha | 0.4ha | 11 | 9 | 20 |
| District Hospital | 1/80,000 population (source MoH)                                                         | 80,000 | 1 |       |       | 0  | 2 | 2  |
| General Hospital  | 1/80,000 population (source MoH)                                                         | 80,000 | 1 |       |       |    | 1 | 1  |

*Source: 8<sup>th</sup> NDHP and MOH-Nchelenge, 2022*

#### 6.6.2.2 Assessment of the Availability of Services and identification of communities who do not have access to basic services and facilities

Despite having the 23 health facilities, the district has other communities that still walk close to 15km just to gain access to health services. Other than that most facilities are under staffed and lack the Medical equipment such as Intensive Care Unit-ICU, a full set of physiotherapy and dental equipment. These communities are Shikapande, Isokwe, Chinsamba, Kalilanshindo, Mulanga, Mukwakwa, Chiba, Kapema and Lunde.

Map 13 : settlement extent within 5km buffer of health facilities in Nchelenge District



*Source: ECZ 2019, DHO Nchelenge 2022 and drawn by Department of Physical Planning*

The Map above shows the distribution of health facilities in the wards. It shows the 22 health facilities across the district. Currently Isokwe ward has no any health facility. In terms of settlement patterns, the map shows that most people have settled along the lakeshores of Lake Mweru and Luapula River and that is

where most of the health facilities are lying. The map further shows that areas between mwatishi ward and munkombwe ward have the most people who are facing challenges to access health services within the 5 KM radius and need for more health posts in these areas. These areas are mostly farming blocks

6.6.2.3 Assessment of the quality of services relevant to this sector compared to key indicators of performance and historic performance and identification of shortfalls.

The demographic trends in Nchelenge district have shown a high increase in population over the years with the population of the district at 233,696 as of the CSO 2022 preliminary report. The increase in population translates to having an increased population that needs to have access to basic services and facilities.

The district has been providing health care services and facilities to the communities however, the quality of service received by the communities do not meet the national standards. One aspect used to assess the quality of service is the client to qualified health personnel ratio, which is expected to be 3,500 persons per doctor in 2026 from 6,750 in 2020; 3,000 persons per clinical officer from 4,600; and 500 persons per nurse/midwife from 750. The ratio for the district at base year is 6,750 persons per doctor; 4,600 persons per clinical officer and 750 persons per nurse/midwife. All the health facilities in the district have qualified health personnel but they are not adequate to serve the current and future population as seen from the ratio hence quality of health service provided is not to the expected standard.

Table 20: Status of District Performance In Relation To National Standard

| S/<br>N | INDICATOR<br>COVERAGE             | NATIONAL<br>STANDARD | YEAR  |            |           |          |          |
|---------|-----------------------------------|----------------------|-------|------------|-----------|----------|----------|
|         |                                   |                      | 2017  | 2018       | 2019      | 2020     | 2021     |
| 1       | Fully Immunized < 1 year          | 95%                  | 61.5  | 73.4       | 73        | 85.5     | 88.7%    |
| 2       | Underweight rate under five years | Rate < 6             | 1.4   | 3.1        | 2.5       | 2.1      | 1.3      |
| 3       | Wasting rate under five years     | Rate < 6             |       | 0.72       | 0.65      | 0.35     | 0.78     |
| 4       | Stunting rate under five years    | Rate < 6             |       | 5.9        | 4.1       | 0.63     | 0.56     |
| 5       | Malaria incidence all ages        | 150 and below        |       | 361.9/1000 | 254/1000  | 712/1000 | 555/1000 |
| 6       | Malaria fatality rate             | 0                    |       | 45/1000    | 60.7/1000 | 45/1000  | 67/1000  |
| 7       | ANC 1 <sup>st</sup> Visit Total   | 55% and above        | 84.6% | 101%       | 88.6%     | 91.9%    | 96.6%    |
| 8       | Institutional Deliveries          | 100%                 | 69.5% | 81.4%      | 84.7%     | 74%      | 80.3%    |
| 9       | Postnatal within 48               | 100%                 |       | 40.5%      | 38.8%     | 33.5%    | 27.2%    |



|    |                                                 |                             |    |        |        |        |        |
|----|-------------------------------------------------|-----------------------------|----|--------|--------|--------|--------|
|    | hours                                           |                             |    |        |        |        |        |
| 10 | Maternal death in the facility                  | 0                           | 10 | 13     | 8      | 2      | 3      |
| 11 | TB treatment success rate                       | 75% and above               |    |        | 100%   | 97.9%  | 98.8%  |
| 12 | HIV positive clients with suppressed viral load | 95% and above               |    |        | 79.1%  | 90.4%  | 90.1%  |
| 13 | Voluntary male medical circumcision done        | Not indicated its voluntary |    | 7 ,945 | 5 ,891 | 7 ,654 | 2 ,416 |

*Source: DHIS2*

According to the information shown in the table above, the district has recorded positive trends in key performance indicators such as fully immunized, institutional deliveries, first antenatal care attendance, underweight rate, HIV viral load suppression, malaria incidence per 1000, institutional deliveries and skilled deliveries.

As indicated in the table shown, the national standard of fully immunised children who are less than a year old is 95 % while the district is at 88%. It can be noted from the trends over the years that the district has been aiming to reach the national standard as the percentage has been increasing from 61.5% in 2017 to 88% in 2021 because staffing levels in the health facilities have increased including intense community sensitisations. The district has

however failed to reach the 95% standard because of inconsistent supply of some antigens and inadequate cold chain facilities for some health facilities such as Kasumpa in Katofyo Ward, Mantampala in Mulwe Ward and Ntoto health facility in Mwatishi Ward. The levels of immunised children however lower in the said wards compared to other wards and cases of measles were recorded in the communities of Mwatishi ward.

Concerning the underweight ratio, the district is doing well as it is within the required range of less than 6. The underweight ratio has decreased from 1.4 in 2017 to 1.3 in 2021 this is due to interventions by the district in collaboration with other partners to fight stunting.

The national standard for malaria incidence rate should be 150 and below but the incidence rate for the district has been fluctuating above the required standard. The district has been doing the indoor residue spraying (IRS) in all the wards, distributing insecticide treated nets (ITN) and management of malaria cases to reduce the incidence and the fatality rates of malaria. Despite the interventions, the district continues to record a high malaria incidence rate due to poor health seeking behaviour by the communities, shunning from have their houses sprayed and use of ITNs for fishing. To add on, there is an increase in the mosquito population vector which has become resistant to insecticides.

It is a national requirement that no death from malaria should be recorded in health facilities. The district has however been recording an increase in the number of malaria deaths since 2017 because of poor adherence by the community to the high impact interventions undertaken by the health sector to prevent incidences of malaria. The other reasons for the high malaria death rate is because of the lack of access to health facilities in some wards such as Isokwe and Nsembaishe ward where there are no health facilities at all. Some communities have limited access to health facilities because they are located (health facilities.) above 5km radius. The accessibility to health services

provision is limited, as some health facilities do not provide full components such as laboratory and blood transfusion services.

The maternal death rate has been decreasing since 2017 and was recorded at 3 in 2021 because of the increase in qualified medical persons which increased from 249 in 2017 to 471 in 2022 and provision of additional training to the existing medical personnel in emergency obstetrics care (EmoC). The national standard of recorded maternal death should be zero .The district has no specialised doctors to handle complicated maternal cases, dilapidated roads and inadequate ambulances have contributed to recording maternal deaths.

Postnatal coverage is low and has been recorded at 27% in the district while the national standard is 100%. According to health guidelines, a woman that has just delivered should be kept for 48hrs to acquire postnatal services but they are usually discharged in less than the required time because of inadequate infrastructure such as maternity annexes and medical equipment. The district has not yet attained the national required standard of institutional deliveries and the figures have been fluctuating below the required 100% since 2017. There is inertia by some women to deliver in health facilities which are manned by male staff such as Mwatishi, Munombwe, Chisenga and Kilwa wards hence these areas record low numbers of institutional deliveries. Some health facilities have no mothers waiting shelters for pregnant women moving distant places while other communities fail to access health facilities for delivery because they are not able to cover the long distance. The district is performing well concerning providing antenatal care services, which have been recorded at 95% and is above the national target of 55%.

During the bi-annual assessments in the year 2021, it was found that only St. Pauls's Mission Hospital, Kashikishi HAHC, Nchelenge RHC and Chabilikila RHC met the National standards. The cross cutting missing standard identified was the incinerator. The district has prioritized lobbying for

construction of incinerators, VIP toilets, Mothers shelters, Maternity annexes and provision of medical equipment in all the 21 health facilities. Other facilities have dilapidated and needs renovations and maintenance.

The district TB cure rate has been decreasing with the current being approximately 60 percent. Data analysis indicate that the reasons for the decrease include; non-evaluation of the client, treatment failure, defaulting and death. In order to address that, DHO has scheduled some mentorship visits will be coupled with technical support. Maternal and Neonatal Mortalities; Arising from an increase in maternal and neonatal mortalities, interventions to reduce deaths include mentorship, technical support and construction of maternity wards, waiting shelters and postnatal rooms.

### *6.6.3 Assessment of the Existing State Of Development Based On Issues Arising From Community and Stakeholder Consultations*

#### **6.6.3.1 Issues from Public Participation Process Relating to the Overall Performance of the Sector**

The participation process brought to light the need for Health Facilities, which would match the current and projected population. The existing 21 Health posts and a mission hospital is not adequate to service the district. A District Hospital and 9 more health posts are required to meet demand. Further, there are a number of challenges, which include low staffing levels, inadequate medical equipment and infrastructure, among others including mother's shelters, maternity wings, patient's beds and linen, VIP toilets and ambulance services. The quality of health service delivery in health facilities is generally good as a qualified health staff *operates* each health facility.

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

Some communities like Shimpundu, Lunde, Mutampuka, Chiba, Mulanga, Isokwe, and Chinsamba which have an approximate population of more than 6,000 each walk distances as long as 15km to nearest health facilities. Communities and stakeholders also identified the need for maternity wards and mothers' shelters at health facilities to reduce home deliveries and infant mortality.

#### 6.6.3.3 Issues from Public Participation Process Relating to the Quality of Services

The district has been providing health care services and facilities to the communities however, the quality of service received by the communities are not up to standard. All the health facilities in the district have qualified health personnel but they are not adequate to serve the current and future population.

#### 6.6.4 Assessment of the Impact of Changes Anticipated Over the Next Ten Years

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

In order to cope up with the increasing district population projected at 402,000 people by the year 2030, the district will require in total 30 health facilities to meet demand. Additional health facilities will be required in the following areas; Shimpundu, Lunde, Mwatishi, Chilongo, Chiba, Mulanga, Isokwe, Kapema, and Chinsamba, this will help bring health services as closer to people as possible. The district would also need to have a District Hospital covering Facility referrals in the northern part of the district. Qualified personnel will be needed in order to meet the demand among them Medical Officers, Midwives, Environmental Health Technologists Clinical Officers and support staff. Health equipment such as Intensive Care Unit-ICU, a full set of physiotherapy and dental equipment will also be required.

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

The following villages seems to be urbanizing villages and has potential for growth nodes such as Kabuta, Mukwakwa, Mubamba and Kanyembo villages this is due to the fast-growing business. Nchelenge and Kashikishi are one of the areas where there is peri-urban expansion and population increase is expected from people coming from other district for employment.

#### *6.6.5 Analysis of Impact of Environment and Climate Change*

##### 6.6.5.2 The Impact of Environmental and Climate Change Issues on the Sector

Climate change impact on the health sector has been seen through changes in weather patterns that have led to emergence of new and complicated diseases such as Ebola and COVID 19. Climate change contributes to high malnutrition due to a decrease in the agro production as a result of floods and droughts. Further climate change contributes to increased cases of malaria and diarrhoea as high temperatures provide favourable environments for breeding of vectors. Isokwe, Kanakashi, Kilwa, Chandwe, Shinjoni and some parts of Kambwali had recorded cholera cases due to climate change characterized with heavy rains and high temperatures. In order to attend to the increased cases of diseases caused as a result of changes in the climate, the health sector will need investment in more health infrastructure, research and employ more qualified health personnel.

##### 6.6.5.1 The Impact Of Development Trends in the Sector On The Environment And Climate Change

Existing trends in the health sector are attributed to lack of incinerators at 18 health centres in the district. Except for St Pauls' Mission hospital, Chabilikila, Kashikishi and Nchelenge urban clinic, therefore this means that for all flammable waste is disposed of through open burning in all the health centres leading to high rise of different greenhouse gases to the atmosphere and also polluting the air which affects the surrounding environment. The sector also contributes to climate change in terms of land clearing for

construction of the same 18 health center's this therefore implies that the health sector highly contributes to climate change.

#### *6.6.6 Issues Arising Relating To Gender Groups and Vulnerable Groups*

##### 6.6.5.2 Women and girls

Women identified challenges relating to early marriages, teenage pregnancies and violence against women. The discussion also revealed that the prevalence of HIV/AIDS is higher for women than that of men, because of women's limited decision-making power on their sexuality and health. The top priority projects for women were the construction of maternity and mothers' shelters.

Reproductive health services and education are not easily accessible for women and girls at health facilities in Munkombwe, Chisenga, Nsembaishe and Kilwa wards. The named wards have high rates of home deliveries due to long distances to health facilities. Most women prefer going to traditional healers for such services.

##### 6.6.5.3 Men and boys

The health facilities do not offer adequate private spaces for men to access men's healthcare services such as HIV and reproductive health services

##### 6.6.5.4 Youths

Wards have inadequate equipment for diagnosing cases. Especially in the most disadvantages wards such as kilwa ,chisenga and nsembaisha

##### 6.6.5.5 Disabled

The differently abled face major challenges to access health facilities due to long distances to and in between facilities. The health facilities have no health personnel that deal with people with special needs. Concerns on unsuitable health infrastructure towards differently abled persons were raised and proposals to provide ramps, wider entrances and suitable toilets were made.

##### 6.6.6.5 HIV/AIDS



#### *6.6.7 Issue Statements and Assessment of External Factors Contributing To the Issue*

Some of the underlying factors contributing to inadequate number of health infrastructure, equipment and staff can be attributed to inadequate funding towards the sector in the district and deployment to the district. The sparsely settlement pattern further contributes to challenges in accessing health services as the centers do not cater for the 5 kilometers radius prescribed.

#### *6.6.8 Summary*

Despite the 21 Health facilities and one mission Hospital not being adequate to meet demand, the sector serves within available resources. With population projected to grow and the IDP in place, all issues highlighted will serve as a guide to serve communities better. The close monitoring through the splitting of the catchment areas into zones has seen the DHO ensure effective service delivery. The district is at least meeting the requirements according to the law which states that the presence of health services must be available and the provision of this service is slowly fitting into the SDG number three (3) i.e. good health and well-being: ensure healthy lives and promote wellbeing for all, at all ages.

However, inadequate medical equipment, inadequate patient's beds and linen, lack of mother's shelters for waiting space, No maternity wings in some health facilities and motorized transport to conduct outreach activities including ambulance services still poses a danger to communities

### **6.8 AGRICULTURE**

Agriculture provides the main support for Zambia's rural economy and growth in the agricultural sector is the clearest avenue through which poverty reduction in Zambia can be achieved (Chisanga & Chapoto, 2015). Indeed, Nchelenge can reduce its current levels of poverty through agriculture. However, for agriculture to be utilised to support the economy of Nchelenge and to reduce poverty, a plan that will identify resources, gaps and appropriate

actions to explore district strengths and opportunities needs to be developed. This Integrated Development Plan (IDP) in Nchelenge is expected to be a game changer that will be used to transform the agricultural potential of Nchelenge into the main support for the district economy.

Fishing is the major economic activity in the district which is mostly capture fisheries and is the main source of livelihood for the community. Over the years the fish catches have drastically reduced and the main fish available is Chisense fishing. However, there is rampant use of illegal fishing methods such as the use of trawl nets (Kashebondwe and Fidanana) and Mono filament nets which has contributed to depletion of fish in the Mweru –Luapula Fishery.

Small livestock and birds are one of the main economic activities in Nchelenge district, however large animals are also kept but on a small scale. Livestock production program is done on the main land, and it is estimated that more than 300 individual farmers are involved in poultry farming.

The district has a lot of perennial streams which includes Kenani Mwatishi, and Luapula River with vast fertile land suitable for growing of pasture, folder, and farm products which helps in livestock production, The streams supply's water during the dry season the district has 3 island which has 4 wards, this is where most people especially traders afford to buy livestock at a lower price, the area has palatable soil and abundant water, folder and pasture but there is limited land for large ruminant animals. The majority of animals kept are small, birds and large animal's (pigs). Some animals are sold to DR Congo which is an opportunity for Nchelenge to produce and export. In terms of livestock, the main animals in the districts are cattle, sheep, goat and pig. Livestock plays an important economic and socio-cultural role in the district for the wellbeing especially of rural households, such as food supply, source of income, asset saving, source of employment.

### *6.8.1 Key Government Priorities to Be Implemented at Local Level*

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

The 8<sup>th</sup> National Development Plan aims at Enhancing research and development, and innovation capacity by giving priority to research and development (R&D). The 8NDP will focus on developing a high-quality research base with a critical mass of highly qualified human resource, modern and adequately equipped infrastructure and a technology development structure that will popularize science and technology for promotion and creation of a national culture of research and innovation. Ultimately, an increase in national research activities in all sectors of the economy to enhance value addition for increased productivity will be achieved.

Nchelenge district will therefore be required to implement its research and development (R&D) programmes and activities through collaborative efforts with a number of both local and international stakeholders and partners. Through these partnerships and collaboration, the district's capacity will be enhanced in many ways, which include resource mobilization, human capital development, especially the disabled and marginalized, upgrading of research facilities and technology transfer. These partnerships and collaboration are influential in the adoption of technologies and hence in the realization of intended impact on the target communities in Nchelenge district.

Research and development will be initiated by establishing research facilities, recruiting and deploying research staff and undertaking participatory studies of livelihood activities in the agricultural community of Nchelenge to generate information that will facilitate decision making.

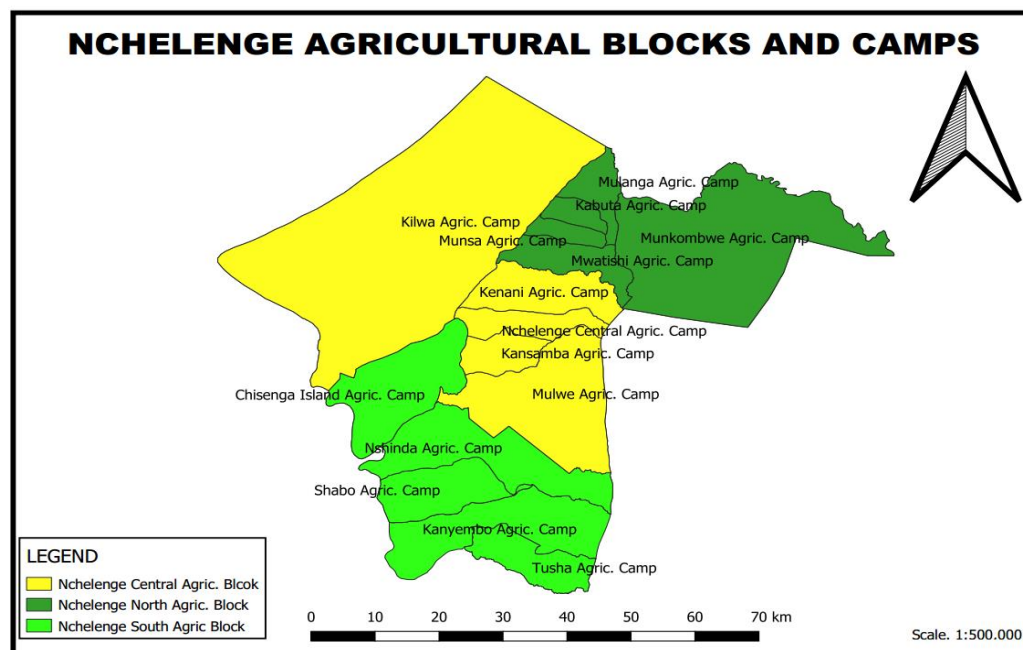
The sector plans to facilitate increase in rural incomes, increase in nutrition security and increase in food security by promoting increased production and increased productivity of crop by products in Nchelenge district. Increasing agriculture production and productivity is a key strategy for development outcome 1 of the 8<sup>th</sup> National Development Plan (8NDP) (MFNP, 2022)

### 6.8.1.2 Key Priorities of Sector Specific National Plans/Strategies and how they are to be implements at a Local Level

#### 6.8.1.2.1. Infrastructure development

In Infrastructure development, construction and rehabilitate of 30 agricultural camp houses and 03 agricultural block houses will be undertaken to improve the living conditions of camp extension officers and block extension officers so that the officers can be motivated to provide extension services to the agricultural community in the 15 Wards of Nchelenge IDP. The construction of suitable state of the art technology farm level storage structures to facilitate quality production and quality storage of crop by products in Nchelenge will be facilitated.

**Map 14:** shows the Camps in Nchelenge District



#### 6.8.1.2.2 Agricultural mechanization

Agricultural mechanization will be implemented by facilitating the procurement of agricultural equipment such as tractors/ Animals and tractor/ Animal drawn implements through dissemination of information to the agricultural community in the 15 Wards of Nchelenge IDP. Other interventions will include facilitating the procurement of recommended crop harvest and value addition technologies that will promote efficient production by the agricultural community in Nchelenge of quality crop by products. Training of steers into work oxen will be undertaken to promote increased size of cultivated land.

#### 6.8.1.2.3 Farmer input support

Farmer input support will be facilitated by the procurement and distribution of recommended agricultural inputs to trained beneficiary farmers in the 15 Wards of Nchelenge to improve the supply and delivery of agricultural inputs to small scale farmers in Nchelenge district through sustainable private sector participation at affordable cost in order to increase household food security and incomes (MoA, 2022).

#### 6.8.1.2.4 Agroforestry and tree crops development

Agroforestry and tree crops development will be undertaken by facilitating the procurement and the planting of recommended agroforestry tree species to improve soil structure and soil fertility and by facilitating the procurement of fruit trees and the establishment of orchards in agricultural communities such as farms and schools in the 15 Wards of Nchelenge district.

#### 6.8.1.2.5 Agribusiness development

In order to promote Agribusiness development, Inspection of agricultural marketing infrastructure will be undertaken to provide advice to stakeholders,

collection, analysis and dissemination of agricultural marketing information to facilitate decision making, entrepreneurship training and development and facilitation of market linkages will be undertaken in Nchelenge and in markets of other IDPs in order to promote access to agricultural market information. Promoting access to agricultural market information is one of the measures in the SNAP aimed at improving the efficiency of agricultural markets for inputs and outputs (MoA and MFL, 2016).

#### 6.8.1.2.6 Irrigation development

Irrigation development will be triggered through canal lining for Munsa irrigation water scheme canal and Kenani irrigation scheme water canal, upgrading of two simple weirs to permanent weirs, construction of 3 irrigation canals in selected camps and increase facilitate the increase of area under irrigation in Nchelenge through sensitization meetings that are expected to help farmers in Nchelenge to expand their crop fields by utilizing the established irrigation infrastructure. Promoting the efficient use of the available water resources for irrigation, promoting high value irrigable crops among small and medium scale farmers, improving the management of small holder irrigation schemes and promoting establishment of irrigation schemes especially for small holder farmers are measures in the SNAP that are aimed at increasing production and productivity of crops (MoA and MFL, 2016).

#### 6.8.1.2.7 Research and development

The Zambia Vision 2030 identifies Science, Technology and Innovation (STI) as a key foundation supporting the Vision's pillars in attaining wealth creation, social welfare and international competitiveness. Further, it identifies agriculture as one of the key sectors to deliver the 10% annual economic growth rate envisaged under the economic pillar. To achieve this, the

transformation of smallholder agriculture from subsistence to an innovative, commercially-oriented and competitive agricultural sector is critical.

#### 6.8.1.2.8 Extension Services Support

Extension services support will commence with facilitating the establishment in the 15 Wards of demonstration plots of recommended agricultural practices to motivate adoption of the recommended agricultural practices by farmers in Nchelenge. Procurement of motor cycles and of extension kits for camp officers to improve service provision to the agricultural community of Nchelenge. Other important tools that motivate adoption and that Facilitate market linkages are field days, roadshows and agricultural shows which will continue to be undertaken in all the 15 Wards of Nchelenge.

#### 6.8.1.2.9 Early Warning And Surveillance Systems

Early warning and surveillance systems will be driven by regular monitoring of crop performance in the crop fields that are located in the 15 Wards of Nchelenge to identify growth challenges in order to solicit/ recommend solutions and by providing regular information of crop performance to stakeholders in order to solicit/ recommend solutions towards the Identified crop performance challenges.

#### 6.8.1.2.10 Farm Block and Resettlement Schemes

Farm block and resettlement schemes will be instigated by identifying locations in Nchelenge district that is suitable for establishment of a farm block/ resettlement scheme followed by Procuring the land through established channels, Plan the land into recommended parcels, Advertise the identified and planed land for development and monitor the utilization levels of the planned land.

#### 6.8.1.2.10 Capture Fisheries and aquaculture

The government of Zambia is keenly developing both the aquaculture and fisheries sub-sectors through various strategies at national, provincial and district levels and this is in view to offset the fish deficit the country is experiencing which is at 87,000 metric tons (Farmers Review Africa, 2022) translating into a reduction in the consumption per capita from 12 kg in the 1970s to 11 kg in 2012. The strategies includes ; increase in fingerling production, establishment of fish cage culture, improvement of fish pond culture and increase in access to fish farming inputs. However, these strategies are being implemented through the government project called Zambia Aquaculture Development Project Enterprise (ZAEDP). On the other hand, the government is promoting sustainable utilization of the fisheries which contributes 152 506 MT of fish. ( FAO, 2022). In order to achieve a sustainable utilization of the fishery, the Department of Fisheries has marked two points (Mifimbo and Kasungwa breeding areas) and on the lake as breeding grounds which are the mouths of Luapula and Kalungwishi Rivers and are permanently closed from fishing throughout the year, the Department carry out routine water patrols to enforce sustainable fishing methods and fishing gears, fishers folk trainings and sensitization on sustainable fishing methods. The department also carries stock assessment research (Gill Net Survey and Catch Assessment Survey) in order to assess the impact of the enforcement efforts.

#### 6.8.1.3 Status Of Implementation Of Existing Plans And Strategies In The District

##### 6.8.1.3.1 Infrastructure development

Nchelenge district has a total of 9 agricultural camp houses and 3 agricultural block houses. The 9 camp houses are far from being motivational to the tenant officers due to the dilapidated nature of those houses, hence the need to be rehabilitating them.



#### 6.8.1.3.2. Agricultural Mechanization

Mechanization is applied to agricultural situation to facilitate efficiency in farm work practices. These include plowing, cultivations, sowing, row-crop work, harvesting and stationary power take off (PTO) work. Machines like tractors and tractor drawn implements are applied to increase efficiency on successful farms. A total of 16,704 residents of Nchelenge have been registered as people who are practicing agriculture. However, only 2 tractors exist in Nchelenge district. These are owned by: one the Correctional Services being used to till land and the other owned by the town council is being used for non-agriculture work such as ferrying garbage. Farmers in Nchelenge tilled 12,004.93 Ha in the 2021/2022 agricultural season and that tilled coverage was just a fraction of against the district land area of 2.78% tilled land against the total area of 431,300 Ha.

#### 6.8.1.3.3 Farmer Input Support

Implementation of an FIS is expected to supply and deliver recommended agricultural inputs to small scale farmers in Nchelenge district through sustainable private sector participation at affordable cost in order to increase Agricultural production and productivity. Nchelenge district has a total number of 16,704 farmers (GRZ, EU, & FAO, 2023). Only 3,600 farmers receive Farm Input Support through the Farmer Input Support Program (FISP) leaving 13,104 farmers to source for inputs that may be either recommended ones or traditional ones. Only 21.55% of the Agricultural population receives documented recommended farm inputs and the implication is that the remaining 78.45% agricultural population may be using un-recommended farming inputs thereby compromising the level of agricultural production and productivity of Nchelenge district.

#### 6.8.1.3.4 Agribusiness development

Nchelenge district on has one formal Agri-business system that is supported by the Government of the Republic of Zambia (GRZ) through the Food Reserve Agency (FRA). Other than the FRA Agri-business system of purchasing maize grain and soya bean pulse from farmers in Nchelenge the rest of the systems are informal and are not well documented. The FRA system seems to be crowding out other crop value chains that lack predictable structures.

There is high competition between fish mongers of the lake's harvest and aquaculture producers in the way they market and sale their respective merchandise, in the sense that fish mongers would highly compromise on the quantity and price of their merchandise depending on the customers' financial capacity which is not the case in aquaculture. Hence, this competition has disadvantaged fish farmers of the local market. To this effect, there is need to establish market linkages between places of production and market hotspots. This can be achieved through advertising fish products via modes such as radio or other internet modes so as to access and maximize on the buying potential of the fish products. On the other hand, fish feed cost is another factor affecting the aquaculture industry in Nchelenge district, for the reason that majority of individual farmers are unable to procure fish feed and resort to traditional way of grow fish (extensive aquaculture). Furthermore, the hike in fuel has affected the prices of Chisense for the reason that Chisense fishing operation is highly dependent on kerosene and gasoline.

#### 6.8.1.3.5 Agroforestry and tree crops development

There is no record of farmers that are using agroforestry in Nchelenge district despite the fact that only 21.55% of the farmers in Nchelenge received inorganic fertilizer through the Farmer Input Support Program (FISP) for the agricultural season 2022/2023 (GRZ, EU, & FAO, 2023).

#### 6.8.1.3.6 Irrigation development

Nchelenge has one permanent weir in Kabuta camp and 07 simple weirs being; 03 in Kenani, 02 in Munkombwe, 01 in Kabuta and 01 in Munsa agricultural camps which are operational and are being used for irrigation purposes while they are also used to supply water to fishponds in Kabuta and Kenani camps. The permanent weir has a potential of irrigating 65Ha of land, however, only 35 and 40 ha are being irrigated currently.

#### **6.8.1.3.7** Extension services support

Nchelenge district currently has 4 motorcycles that are runners and 7 motorcycles that none runners.

#### **6.8.1.3.8** Early warning and surveillance systems

The district is divided into 15 agricultural camps. These are divided into 04 agricultural zones (AZ) per camp, thus, the district is divided into a total number of 60 AZs. Currently, there are only 07 pheromone traps.

#### **6.8.1.3.9** Farm block and resettlement schemes

Nchelenge only has one scheme of 2000 Ha at Mantapala refugee camp. The scheme at Mantapala was meant to accommodate 4000 refugee beneficiaries to the exclusion of the host community of 16704 farmers who own unplanned farmlands that are not in one location.

#### 6.8.1.3.10 Livestock services

In view of actualizing the existing plans, the sector has been working on achieving specific objectives. The district has no District veterinary officer or Livestock officer only three veterinary assistants operating in the camps. However, the department of Veterinary has one staff houses at Chabilikila research station. In addition, there is no Dip-tank for controlling ectoparasites for cattle such as ticks, lice, flea and others In addition; about 1200 livestock

are treated each year for various diseases like Tick-borne and bacterial diseases. Also, about 20 000 chickens in the district are vaccinated against diseases like Newcastle, Gumboro, fowl pox and Coryza. Further, the district deworms about 2650 animals per annum.

### *6.8.2 ASSESSMENT OF THE EXISTING STATE OF DEVELOPMENT*

The current level of development in agriculture can be said to be in its toddler state when compared to other districts like Kawambwa which boasts of centre pivots as a form of irrigating fields of cassava plants.

The district has 19 active and producing under ZAEDP – CEEC project in which 10 are in fish cage culture and 9 in fish pond culture with a production of 39.75 MT, however the farmers have just exploited 1% of the total production potential. Additionally, the district has about 100 fish farmers with total pond surface area of 36, 900 m<sup>2</sup> with the production capacity of 45 MT of fish per year. However, due to financial constraints to access quality feed and fingerlings the individual farmers have continued performing poorly (2 MT as of 2022) in comparison to the production potential. According to the frame survey of 2015 by the department of fisheries which is conducted every after 10 years, Lake Mweru produced 17 MT of fish annually, which led to intensifying the fisheries management strategies

#### *6.8.2.1 Assessment of the Overall Performance of the District*

The agricultural community in the IDP area has experienced low crop production and low crop productivity. This is due to; poor state of infrastructure development, little or non-use of agricultural mechanization, only 21.55% of the agricultural community are given recommended for agricultural input through the government FIS, maize oriented value chain restricted agribusiness development, non-existent agroforestry and tree crops development that does not support biodiversity in agriculture, a struggling

drive towards irrigation development, lack of appropriate laboratories to support community based research and development, weak extension services support, insufficient early warning and surveillance systems, and lack of farm block and resettlement schemes that promote localised agriculture. Crop production and crop productivity can be romped up if the necessary measures that have been itemised are put in place.

In the last 2020-2021, the livestock department under Enhanced Smallholder Livestock Investment Programme (E-SLIP) has distributed 3646 chickens to farmers, cattle 17 cattle were given to four group farmers and 29 goats to nine farmer groups. In addition, three farmer groups received five pigs each. Six groups received 45 goats each and seven groups received 60 chickens each, this was done with the help of TRALARD Project. Under Scaling up Nutrition (SUN) the district has nine demo farmers and 30 follower farmers. The district has no abattoir and the slaughter slab and has one livestock service shelter In addition, there is yet to have a veterinary clinic and pharmacy, which hinder the growth of the sub-sector in the district

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

Some basic services are available, but even those available are not sufficient as they cannot promote the desired high production and the desired high productivity of crop products. The important factors that have contributed to the lack of or to insufficient availability of services include poor road infrastructure that does not encourage private developers or service providers to set up structures in the agricultural communities of Nchelenge district. Improved road network would motivate agribusiness-oriented value chain players to set up services such as input distribution outlets, crop by product bulking centres closer to the agricultural community in Central, Chisenga Island, Kabuta, Kanyembo, Kasamba, Kenani, Kilwa Island, Mulanga, Mulwe,



The agricultural community in Nchelenge experiences low quality extension services mainly due to a poorly motivated extension worker who are accommodated in dilapidated housing. A shortfall of 21 agricultural camp houses and 3 agricultural block houses exists in the proposed 30 camps of the district. For those that are accommodated are in houses that are dilapidated and it consumes the workers time to patch up their housing as opposed to using their time to provide extension services.

Quality of training that is offered to the agricultural community is very low because farmers are subjected to blitz training because stakeholders need to go back to their locations immediately after the training is done for the day. Housing the trainer in the community for some time would promote understanding of the material to the trainee community, therefore, a conducive FTC would facilitate improved learning and improved adoption of recommended technology FTC is dilapidated and it lacks facilities such as water borne toilets and a kitchen to support residential trainings to the agricultural community.

Harvested produce is subjected to diverse range of biotic and abiotic stresses due to utilization of lack of traditional structures to store the produce. These subject the stored produce to spoilage thereby reducing the quality of the produce, but also reduce the volume available for use or for sale. There are only 02 improved structures in Nchelenge district, one in Kashikishi ward and one in Nchelenge ward that belong to the FRA. They are available to provide quality storage for agricultural produce, hence, the need for about 03 more state of the art technology structures district wide and 1 smaller one to be located in each camp to make a total of 15 storage structures.

#### 6.8.2.3.1 Agricultural mechanization

A tractor belonging to the Correction Service and a few ADP animals are used to provide good quality service to the interested members of the community.

However, the services are not sufficient because only a small number of the 16,704 are accessing those services. There are animals in Munkombwe, Kenani and in Shabo, but they are not trained to conduct ADP activities. Ramping up the numbers would facilitate the good quality agricultural mechanization services to the entire agricultural community to increase the area of land tilled to about 10% or more of the land in Nchelenge.

#### 6.8.2.3.2 Farmer Input Support

The quality of service for the provision of agricultural inputs is good for the beneficiaries that are under the government FISP and a few other service providers. However, the number of farmers that are exposed to that quality service still remains a low percentage of 21.55%. An affirmative action that would target distribution of farming inputs to all the 16,704 farmers in Nchelenge district would strongly contribute towards an increase in the level of agricultural production and agricultural productivity.

#### 6.8.2.3.4 Agribusiness development

Nchelenge district has only one formal Agri-business system that is supported by the Government of the Republic of Zambia (GRZ) through the Food Reserve Agency (FRA). Other than the FRA Agri-business system of purchasing maize grain and soya bean pulse from farmers in Nchelenge the rest of the systems are informal and they are not well documented. The FRA system seems to be crowding out other crop value chains that lack predictable structures. A well-structured agri-business system such as out grower schemes of diverse crops would motivate farmers to increase their levels of Agricultural production and productivity.

#### 6.8.2.3.5 Agroforestry and tree crops development

There is no record of farmers that are using agroforestry in Nchelenge district despite the fact that only 21.55% of the farmers in Nchelenge received



inorganic fertilizer through FISP for the agricultural season 2022/2023 (GRZ, EU, & FAO, 2023). Setting up of agroforestry nursery at Nchelenge FTC would facilitate constant supply of recommended agroforestry and fruit tree species to the agricultural community in the district.

#### 6.8.2.3.6 Irrigation development

Nchelenge has one permanent weir in Kabuta camp and 07 simple weirs being 03 in Kenani, 02 in Munkombwe, 01 in Kabuta and 01 in Munsa agricultural camps which are operational being used to harvest water for irrigation purposes while they are also to supply water to fishponds in Kabuta and Kenani camps. The water harvested in the permanent weir has a potential of irrigating 65Ha of land, however, only 35 and 40 ha are being irrigated currently. On the other hand, Mwatishi, Kefuba and Mantapala streams are suitable for the construction of dams for increased rainwater runoff harvesting, however, due to lack of funds, an assessment on the potential irrigable hectareage has not been done. An assessment to establish the potential irrigable land needs to be undertaken to establish suitability for irrigation. Increasing land under irrigation would facilitate perennial increased production and increased productivity on season and off season.

#### 6.8.2.3.7 Research and development

Nchelenge district does not have any agricultural research facility nor any lab equipment thus making it difficult to undertake any R and D in the district. Earlier efforts to promote R and D left 04 houses that are located in Shabo camp. The 04 houses are now hosting extension staff and they are in a dilapidated state. Establishment of research facilities, purchase and installation of lab equipment at FTC, and recruiting and deploying research staff would go a long way in promoting R and D in Nchelenge that will facilitate improved agricultural production and productivity by recommending appropriate interventions.

#### 6.8.2.3.8 Extension services support

Nchelenge district currently has 4 motorcycles that are runners and 7 motorcycles that are non-runners. The implication of having 4 motorcycles when the district has employed 15 extension officers is that 11 officers are denied optimum interaction with their agricultural community therefore, reducing their chances of facilitating adoption of recommended agricultural practices. The situation is exacerbated by the lack of orientation, refresher training and/or in-service trainings for extension service providers. Most extension service providers are direct entries from college and they lack the appropriate field experience of providing extension services hence the need to give them orientation, refresher training and/or in-service trainings to facilitate confident service provision to the agricultural community.

#### 6.8.2.3.9 Early warning and surveillance systems

Nchelenge experiences poor early warning and surveillance systems currently. The only early warning system that exists is the provision of pheromone traps that are used to monitor the activity of fall army worms (FAW) (*Spodoptera frugiperda*). The district is divided into 15 agricultural camps which are divided into 04 agricultural zones (AZ) per camp, thus, the district is divided into a total number of 60 AZs. Currently, there are only 07 pheromone traps against the total of 60 AZs leaving a deficit of 53 AZs without equipment that facilitates early warning and surveillance to the agricultural community in Nchelenge Town. Moreover, the information that is gathered from the traps is sent to the top hierarchy without any analysis to facilitate recommendations. Information gathered from surveillance is easily lost due to lack of a strong storage system. On the other hand, the district lacks a weather information system for the provision of weather information, thus, the agricultural community is unable to monitor weather patterns to guide farming activities.

#### 6.8.2.3.10 Farm block and resettlement schemes

There are no farm blocks or resettlement schemes in Nchelenge district except the 2000 Ha at Mantapala refugee camp. The scheme at Mantapala was meant to accommodate 4000 refugee beneficiaries. That plan left out the host population of 16704 registered farmers that depends on private unplanned farms that are irregularly scattered throughout Nchelenge. The growing population of Nchelenge must trigger the establishment of a farm block and / or a resettlement scheme in the district to facilitate a secure land for agricultural activities. Moreover, it would facilitate easier one-location environment for stakeholders that require/offer agricultural services in one place as opposed to searching for services in different irregular locations.

### 6.8.3 Assessment of the Existing State Of Development Based On Issues Arising From Community and Stakeholder Consultations.

6.8.3.1 The community has also noticed that the state of development in the crops sector needs urgent attention and issues such as lack of roads/waterways, bridges, improvement in the agricultural value chain, lack of agricultural inputs. Issues from Public Participation Process Relating to the Overall Performance of the Sector

#### 6.8.3.1.1 Infrastructure development

The agricultural community in Nchelenge experiences lack of infrastructure and has expressed its desire for the maintenance of Mangamu-Lukosha, Kabalenge-Kasumpa and Kasumpa roads and the construction of Mpopo-Chibeka and Kasumpa-Chifu road and the construction of one bridge at Mpopo and another at Chifu in Katofyo ward. Other infrastructure needs expressed by the public in Katofyo ward included the dredging of Nsongela-Lukokeshu canal from Mbereshi stream and the clearing of Kasumpa-Lukokeshu canal. The public in Kasamba ward has identified the need for rehabilitation of roads and bridges, and dredging of water canals. Monkombwe needs bridges and crossing points at Kapako, Kamwebe, Chipali, Kamulunga, Mwansamita, Mwinshi and Luakole. Kilwa island ward lacks a planned and a well-established road

network; therefore, they are proposing the construction of a well-defined road network to facilitate transportation of goods and services. Chisenga ward needs regular dredging of Shabo-Chisenga and Kampampi-Chipashi canals in addition to the need for embankments or bridges at Musense, Bwembya and Micensa. Embankments are required at Chiongo between Kalesa and Kandoshi, one at Shichola and another at Shikasuba in Isokwe ward. In addition, one bridge at Kashengeneke needs construction to facilitate transportation. Other infrastructural requirements for Isokwe included the construction of Chota-Kanshimanwa, Chitondwe-Kanshimanwa and Chipasa-Chitondwe canals and the rehabilitation of Mupolombwe-Chitondwe and Kamibombo canals in Kashilu area.

Mwatishi ward have issues with lack of accommodation for its agricultural staff. To that effect, they have proposed the construction of one agricultural camp house in Mwatishi zone of Mwatishi camp and another one in Mulonda zone of Munsa camp. Mwatishi ward agricultural community bemoans the lack of roads to transport their agricultural produce and to haul in agricultural inputs, thus, they proposed the construction of the following roads: i) Muyeba through Kalweo to Kapili Mung'omba road; ii) Mulonda to Kefulwa feeder road; iii) Shimpundu through Mululete Katindili feeder road; and Fwengeni to Mululete feeder road. On the other hand, Kabukwa Bridge on Muyeba through Kalweo to Kapili Mung'omba road and another bridge on Shimpundu through Mululete Katindi feeder road were also submitted as being important for the Mwatishi agricultural community and therefore, required to be constructed to ease movement of agricultural inputs and agricultural inputs. The community also wishes that internet network and mobile phone connectivity are major communication issues that it grapples with, hence their proposal to erect one network tower in the eastern part of the ward in Mulule area in order to boost connectivity and to enhance communication in their ward.

The agricultural community in Nchelenge ward has identified water and road transport as an important issue to the development of the ward and, therefore, they have proposed the construction of a 20km canal at Chisukulu sanga and Menso, and the construction of 40km township roads and the associated road furniture such as the drainage system in the ward.

#### 6.8.3.1.2 Farmer Input Support

The desire for early provision of agricultural inputs and, indeed, an increase in the number of farmers to be added on FISP has been expressed by the community in Katofyo ward.

#### 6.8.3.1.3 Agribusiness development

The community in Katofyo ward desires the construction of Milling plants and the provision of markets for their farm produce. Kasamba ward community members also expressed the need for the construction of a milling plant as a component of the grain value chain. Lack of employment was recognized as an important issue that can be resolved by establishing a new milling plant in the ward

Mutabwa, Mulonda, Mwatishi, Kazembe, Mpondamali, Ntoto, Shilundika in Mwatishi ward, Chisenga Island, Kilwa Island and Isokwe ward communities expressed their desire to have market outlets for their agricultural produce.

To facilitate marketing of agricultural commodities especially maize, a new satellite depot is being proposed in Chofwe Mulengas village of Mwatishi agricultural camp.

Nchelenge wards recognizes the important role that establishment of a milling plant can play in the agricultural value chain by providing a market for its grain and as an unemployment reduction strategy.

#### **6.8.3.1.4 Irrigation development**

In Chisenga ward, the agricultural community expressed their desire to utilize part of the water in the Luapula River and its Lagoons for perennial agricultural production through irrigation.

#### **6.8.3.1.5 Extension services support**

Kilwa island ward requested for the position of agricultural assistant for Kilwa camp to be filled in order to improve the provision of extension services to that ward.

Isokwe ward intends to procure a boat to ease transportation challenges that government workers including extension staff experience to access all parts of the island. The majority livestock and fish farmers in the district have limited access to livestock and aquaculture services which includes extension services, veterinary and inputs.

#### **6.8.3.1.6 Early warning and surveillance systems**

The Chisenga ward agricultural community experiences floods and drought during the rainy season and strong winds hence the need to establish the early warning and surveillance system in that ward.

#### **6.8.3.1.7 Farm block and resettlement schemes**

Chisenga island ward suggested that they had sufficient space for major economic activities such as farming, however, the area needs to be surveyed to assess its suitability for the establishment of either a farm block or a resettlement scheme.

In order to resolve the important issue of lack of employment, Mwatishi ward has proposed the need to establishing a sugar plantation.

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

**6.8.3.2.1** Infrastructure development

Dilapidated infrastructure including the Mangamo-Lukosha road, Kabalenge-Kasumpa road, Kasumpa-...road, Mpopo-Chibeka road, Kasumpa-Chifu road and the bridge at Mpopo and another one at Chifu in Katofyo ward have been noted as constraints to agricultural development. Other infrastructure needs expressed by the public in Katofyo ward included the blocked Nsongela-Lukoksha canal from Mbereshi stream and the blocking of Kasumpa-Lukoksha canal. Kasamba ward identified dilapidated roads and bridges, and blocked water canals as major issues that are blocking agricultural development.

On Kilwa island ward, lack of a planned and a well-established road network was the major infructure issue that was observed to be inhibiting agricultural development. Irregular dredging of Shabo-Chisenga and Kampampi-Chipashi canals, unsafe crossing sites at Musense, Bwembya and Micensa were noted to be hindering agricultural development in Chisenga ward.

Lack of embarkments at Chiongo between Kalesa and Kandoshi, at Shichola and at Shikasuba in Isokwe ward are dragging development. Absence of a bridge at Kashengeneke impedes transportation of goods and services. Other infrastructural issues for Isokwe included absence of Chota-Kanshimanwa, Chitondwe-Kanshimanwa and Chipasa-Chitondwe canals and the blockage of Mupolombwe-Chitondwe and Kamibombo canals in Kashilu area.

Mwatishi ward have issues with lack of accommodation for its agricultural staff in Mwatishi zone of Mwatishi camp and lack of another one in Mulonda zone of Munsa camp which is an impediment to the provision of extension services in the ward.

Mwatishi ward agricultural community bemoans the lack of roads to transport their agricultural produce and to haul in agricultural inputs due to lack of the following roads: i) Muyeba through Kalweo to Kapili Mung'omba road; ii) Mulonda to Kefulwa feeder road; iii) Shimpundu through Mululete Katindili feeder road; and Fwengeni to Mulule feeder road. On the other hand, Kabukwa Bridge on Muyeba through Kalwe to Kapili Mung'omba road and another bridge on Shimpundu through Mululete Katindi feeder road were also submitted as being important for the Mwatishi agricultural community, but the roads are non-existent and, therefore, movement of agricultural inputs and agricultural inputs is a big challenge. Lack of a network tower in the eastern part of the ward in Mulule area is a stumbling block to communication due to intermittent and slow internet network and mobile phone connectivity hence communication within the ward and to the outside of the ward is a major issue.

The agricultural community in Nchelenge ward has identified water and road transport as an important issue to the development of the ward due to lack of a 20km canal at Chisukulu sanga and Menso, and the dilapidated or lack of 40km township roads and the associated road furniture such as the drainage system in the ward.

Kilwa island ward requested for the position of agricultural assistant for Kilwa camp to be filled in order to improve the provision of extension services to that ward.



Isokwe ward intends to procure a boat to ease transportation challenges that government workers including extension staff experience to access all parts of the island.

Mostly, the population which is far from the CBD of the district which beyond the radius 5 km and more are the most affected in accessing the extension services, veterinary and inputs (Fingerlings, Veterinary Drugs & Feed)

#### **6.8.3.2.2 Farm block and resettlement schemes**

Lack of major economic activities such as farming despite have a vast expanse of land has been an issue for the agricultural community of Chisenga Island Ward; therefore, it is struggling with high levels of unemployment and lack of commodities. Mwatishi ward also cited the lack of plantations as an ingredient to high unemployment levels in that ward.

#### **6.8.3.3 Issues from Public Participation Process Relating to the to the Quality of Services**

Poor quality of agricultural extension services is experience in Mwatishi ward due to lack of accommodation for its agricultural staff in Mwatishi zone of Mwatishi camp and lack of another one in Mulonda zone of Munsa camp.

Weak agricultural value chains due to lack of market outlets for agricultural produce in Chisenga island ward, Katofyo ward, Isokwe ward, Mwatishi ward (Mutabwa, Mulonda, Mwatishi, Kazembe, Mpondamali, Ntoto, Shilundika and in Chofwe Mulengas village) and on Kilwa island ward.

The community is not frequently visited by extension officers and has thus led to a knowledge gap in the sub-sector and the distance to where the community would access the services other than extension services which include access to livestock and aquaculture inputs are long.

#### 6.8.4 Assessment Of The Impact Of Changes Anticipated Over The Next Ten Years

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

The population of Nchelenge district stands at a sum of 233,696 people with an annual growth rate of 3.6% according to the census of population and housing that was conducted in the year 2022, but in ten years' time, it is expected to grow to a total of 334,963 people using the Exponential Growth Population Model (Hathout, 2013). That increase will represent a percentage increase of 43.33% from the population estimate of the year 2022 to the predicted population of 2032.

##### 6.8.4.1.1 Infrastructure development

The population growth of 43.33% in 2032 will require a more than 40 % increase in the current state of infrastructure of Nchelenge district. It is for that reason that the number of agricultural camps needs to increase by a percentage of 43% from the current 15 agricultural camps to a sum of 22 agricultural camps. Hence, an increment of 7 agricultural camps may need to be created in the district. A corresponding number of 7 agricultural camps would be required to accommodate additional camp extension officers in the newly created camps. There will be need to also increase the number of agricultural blocks from the current 3 to 4 to accommodate the corresponding increase in the number of camps.

The FTC would have to be expanded by increasing the size of the conference room and adding at least 2 more hostels to accommodate the increase in the number of farmers enrolled for residential trainings at any time.

The increase in the population by the year 2032 will imply in an increase of 03 more state of the art technology structures district wide and 1 smaller one to be located in in each camp to make a total of 22 storage structures.

#### **6.8.4.1.2** Agricultural mechanization

The increase in the population by a total of 43.33% also implies a corresponding increase of 2,883 farmers from a total of 16,704 registered farmers to a total of 19,587 farmers. In view of the above, 4 tractors would be required to service the agricultural community in the envisaged 4 agricultural blocks.

#### **6.8.4.1.3** Farmer Input Support

The number of farmers that are benefiting from the farmer inputs is expected to hit a big number of 19,587 farmers from the current low of 3,600 farmers

#### **6.8.4.1.4** Agribusiness development

A sum of eight value chains targeting cassava, maize, groundnuts, Bambara nuts, sweet potato, pumpkins, sugar cane and mixed beans need to be developed to supply the demand that would come with the increase in the population by the year 2032.

#### **6.8.4.1.4** Agroforestry and tree crops development

Every one of the 19,587 farmers would be required to establish a agroforestry and tree crop lots by the year 2032.

#### **6.8.4.1.5** Irrigation development

More than 65Ha of land would need to be irrigated from the permanent weir in Kabuta camp and the number of temporal weirs need to increase to a total of 10 from the current number of 07. On the other hand, 03 dams at Mwatishi, Kefuba and Mantapala streams, respectively, are required to be constructed to increase on the level of rain water runoff harvesting to facilitate perennial increased production and increased productivity on season and off season.

#### **6.8.4.1.6** Research and development

Establishment of a research facility, purchase of lab equipment at FTC, recruitment and deployment of research staff would be promoting R and D in Nchelenge that will facilitate improved agricultural production and productivity by recommending appropriate interventions.

#### **6.8.4.1.7** Extension services support

A supply and support for the maintenance of 22 motorcycles will facilitate on farm visits by agricultural extension officers to the agricultural community to provide advice to the envisaged number of 19,587 farmers. The provision of regular orientation, refresher training and / or in-service trainings for extension service providers will facilitate provision of updated recommended services to the agricultural community by extension workers. Population increase will subsequently result in the increase of fisher folks, livestock and fish farmers hence the increase in demand for extension services. Furthermore, the increase in the fisher folks will translate in an increase of fishing effort on the Mweru-Luapula fishery which will result in decline in the fish catches. According to FAO 2006, annual capture fisheries output per person has declined from 11.4 kg in the 1970s to 8 kg in the 1990s, and to 6.4 kg in 2003. Overall increases in total fish production are less than increases in population.

#### **6.8.4.1.8** Early warning and surveillance systems

Provision of 60 pheromone traps allocated to one respective AZ will facilitate early warning of FAW and will facilitate interventions. Applications for the storage of surveillance data need to be developed and issued to the envisaged 22 extension staff. On the other hand, an automatic weather information system for the provision of weather information to enable the agricultural community the ability to monitor weather patterns to guide farming activities will be required.

#### **6.8.4.1.9 Farm block and resettlement schemes**

At least one farm block and / or one resettlement scheme need to be established in the district by the year 2032 to service the target population of 19,587 farmers in Nchelenge and others investors who may express interest.

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

Kenani and Kasheta villages are places where growth nodes are expected, but conference room and storage shed of the respective villages are dilapidated, therefore, they need new constructions or rehabilitations of the Lima cooperative conference and of Ntoto cooperatives storage shed, respectively.

The growing community in Katofyo, Mwatishi, and Kasamba and Nchelenge wards require the construction of milling plants to promote diversified agricultural value chain by providing a market for its grain and also as an unemployment reduction strategy.

Chisenga island, Kilwa island and Isokwe wards are growing agricultural communities that would require market outlets and shelters for their agricultural produce to strengthen their agricultural All ward growth nodes need agroforestry and tree crops to adapt to and to mitigate the adverse weather effects of climate change.

Due to population increase and its possible impact on the subsector, fisheries extension on sustainable fishing will be needed and construction of fisher folk walls in Kabuta, Kashikishi, Kilwa and Chisenga wards. In addition, Livestock service centres will be another subsector infrastructure that will be required to constructed in the all three livestock camps so as to bring closer the livestock services to the community.

#### 6.8.4.3 Assessment of the Likely Impact of On-going and Committed Investment and Development Programmes on Land Use and Population Distribution Patterns

An increment of 7 agricultural camps will reduce the agricultural extension officer to farmer ratio a lower ratio of 1:890.3 from the current ratio of 1:1,113.6. A reduced extension officer to farmer ratio will facilitate increased interaction between agricultural extension workers and farmers.

The expansion of the FTC by increasing the size of the conference room and adding at least 2 more hostels will accommodate the increase in the number of farmers enrolled for residential trainings at any time.

The increase in the number of state of the art technology storage structures district wide and 1 smaller one to be located in in each camp to make a total of 22 storage structures will reduce harvest and crop storage losses that are being experienced currently.

Improvement in the quality of the roads will increase the flow of traffic and investment in agricultural activities leading to an increase in settlements and in population as the district becomes attractive to investors. Population will crowd around the areas that will have increased socio-economic activity as a result of investment facilitated by improved infrastructure.

Due to the continuous support and development in the aquaculture and livestock sub-sector, it is anticipated that such beneficiaries and would be investors would be clustered in wards with dambos that is in Chilongo, Shabo, Mulwe, Katofyo and Munkombwe. With high trends of fish trade, Kashikishi and Kabuta are anticipated to be occupied more by fish traders and processors who would exploit land in such ventures.

### *6.8.5 Analysis of Impact of Environment and Climate Change*

#### **6.8.4.2** The Impact Of Development Trends In The Sector On The Environment And Climate Change

The developmental changes under agriculture elicit change of land use that may facilitate deforestation and soil disturbance. Deforestation is likely to reduce entrapment of greenhouse gasses, reduce windbreak, escalate damage to infrastructure by strong winds and increase soil erosion among other effects. Soil disturbance will facilitate poor drainage, flooding, leaching and poor water retention among other adverse effects. Fisheries and livestock production activities contribute to deforestation and improper disposal of veterinary drugs. On the other hand, the subsector adds biomass to the environment.

##### **6.8.5.1.1** Agricultural Mechanization

Use of tractors and animal drought power would lead to an increase in the size of land under cultivation, hence, deforestation, disturbances of the soil structure and an increase in the release of hydrocarbon gasses from the tractors and from the ADP animals leading to ozone layer depletion. Depletion of ozone layer could lead to an increase in atmospheric temperatures and an increase to harmful radiation from the sun.

##### **6.8.5.1.2** Farmer Input Support

An increase in the quantity of use of recommended agricultural inputs is expected to lead to an increase in the use of agro chemicals, thus, disturbing the soil biotic environment and, therefore, disturbance in the soil structure.

##### **6.8.5.1.3** Agribusiness development

A development of eight crop value chains would trigger a corresponding increase in the volume of agricultural crop products, increased productivity of agricultural activities. Increase in the volume of agricultural crop products,

increased productivity of agricultural activities is likely to promote the volume of effluent and indiscriminate garbage disposal. Increased volume of effluent and indiscriminate disposal of garbage may lead to clogging of storm drains and facilitate flies that promote water borne and food borne diseases.

#### **6.8.5.1.4** Agroforestry and tree crops development

If every one of the 19,587 farmers established an agroforestry plantation and tree crop plantation by the year 2032, there would be an increase in leaf drop and increased rhizosphere (root) activity. Increase in leaf drop and increased rhizosphere (root) activity is likely to increase biodiversity on the soils thereby triggering improvement in the soil structure and in soil fertility, reduction of soil degradation, and improvement in the rate of carbon sequestration into plant biomass from leaf fall. Increased volume of wind break from by the tree canopies and rhizospheric activity will reduce wind speeds, raindrop impact on the soil by the tree canopy and reduced erosion because soil will be bound by the tree roots.

#### **6.8.5.1.5** Irrigation development

More than 65Ha of land would need to be irrigated from the permanent weir in Kabuta camp and the number of 07 temporal weirs, and construction of 03 dams at Mwatishi, Kefuba and Mantapala streams, respectively, will increase land under water harvesting leading to siltation at the dam and weir sites. Siltation at the dam and weir sites can cause rising of the river beds and increase chances of rivers drying up. On the other hand, there will also be likelihood increased utilization of agrochemicals and the agrochemicals may find themselves in the runoff into the river, thus, affecting aquaculture life.

#### **6.8.5.1.6** Research and development

Establishment of a research facility, purchase of lab equipment at FTC, recruitment and deployment of research staff would promote R and D in Nchelenge may increase the level of soil structure, drainage and soil biology



disturbance at the site of construction. Chemical effluent from the laboratories when operational may hurt the environment.

#### **6.8.5.1.7**      Extension services support

A supply and support for the maintenance of 22 motorcycles will contribute to increased release of hydrocarbons into the atmosphere from the cycles. Increase in the volume of hydrocarbons into the atmosphere would contribute to damaging the ozone layer, thereby, increasing the amount of greenhouse gases and harmful radiation from the sun. Servicing of the motorcycles would promote oil effluent into the soil thus disturbing the soil biology and, maybe, through surface run off, into the rivers thus disturbing the aqua life of the water bodies.

#### **6.8.5.1.8**      Early warning and surveillance systems

Provision of 60 pheromone traps may have little to no effect on the environment and to the atmosphere as pheromone attractant may be a biological substance. Construction of automatic weather information system may have negligible impact on the environment during installation and no impact during its operation.

#### **6.8.5.1.9**      Farm block and resettlement schemes

Establishment of at least one farm block and / or one resettlement scheme requires massive land clearing during operation for the farms, construction of farm structures and working the farms. Huge disturbance of the environment and of the atmosphere would be experienced through deforestation, burning and constructions. Emissions from the fires will contribute to ozone damage, deforestation will lead to reduced entrapment of greenhouse gasses, reduce windbreak, escalate damage to infrastructure by strong winds and increase soil erosion among other effects. Soil disturbance will also be experience and it will

facilitate poor drainage, flooding, leaching and poor water retention among other adverse effects.

**6.8.5.2** The Impact of Environmental and Climate Change Issues on The Sector  
Due to the change in the rainfall patterns as a result of climate change, the agriculture sector has been affected by floods, dry spells and strong winds. Farmers have their fields destroyed by heavy rainfall and strong winds which reduce the harvest thereby contributing to poor food security. Strong winds hinder movement of fishers during fishing on the lake and contributes to reduced fish catches. Dry spells affect livestock and crops.

#### **6.8.6 ISSUES ARISING RELATING TO GENDER GROUPS AND VULNERABLE GROUPS**

The customary land tenure system is prevalent in the district where authority to grant access to the land is vested in the traditional authority. Land for aquaculture and livestock production among smallholder farmers is mainly communal and it is being utilised without guaranteed security of tenure mainly with the women and girls, youths and the disabled.

#### **6.8.5.3** Women and girls

##### **6.8.5.3.1** Infrastructure development

Most infrastructure lack women and girl friendly public conveniences such as ablutions thereby, leaving such a group with no option, but to use open spaces or bushes to answer calls of nature. The above scenario eliciting women and girls use of open spaces or bushes to answer calls of nature predisposes them dangers such as gender-based violence (GBV). Infrastructure development of storage sheds, embankments, bridges, roads and drainages should consider women and girl friendly public conveniences such as ablution in strategic places to protect the dignity of women and girls of Nchelenge.

##### **6.8.5.3.2** Agricultural mechanization

Some of the equipment relating to agricultural mechanization such a hammer mill that requires cranking is not women and girl user friendly. Special

consideration must be taken into consideration to acquire production and / or processing equipment that are women and girls friendly. Moreover, training before use must be done to ensure user information is passed on to for woman and girl beneficiaries before they start utilizing any agricultural machines. Operational safety must also be emphasized to woman and girl beneficiaries so that their health remains protected before, during and after use of agricultural machines in Nchelenge IDP.

#### **6.8.5.3.3 Farmer Input Support**

Only 37.42% of the 3600 beneficiaries of FIS under FISP during the 2022/2023 were women. The beneficiary percentage is smaller than the total number of 7485 female farmers that are registered on the farmers' register of Nchelenge district (GRZ, EU, & FAO, 2023). In view of the small percentage of 37.42% women and girls beneficiaries on FISP, more women need to be included on FIS to promote gender equity in the agricultural community of Nchelenge district.

#### **6.8.5.3.4 Agribusiness development**

Construction and operation of milling plants, and the construction of market shelters need to take into consideration accessibility and user ability of women and girls as outlined in section 6.6.1.1 and in section 6.6.1.2 above.

#### **6.8.5.3.5 Agroforestry and tree crops development**

Agroforestry and tree crops development is a woman and girl friendly program and its implementation will not likely raise any issues except during selling of the seedlings to the community of Nchelenge district.

#### **6.8.5.3.6 Irrigation development**

Woman and girl accessibility across water canals and across weirs and dams need to be taken into consideration during the construction of irrigation facilities such as weirs, weirs and dams in Nchelenge district.

#### **6.8.5.3.7 Research and development**

Establishment of research facilities in Nchelenge need to be easily accessible by not just men but also women and girls. Research and development topics must include all gender and the physically challenged.

#### **6.8.5.3.8** Extension services support

Extension training sessions must be held in women and girls friendly environments to promote and to attract for women and girls participation in improving agricultural production and productivity in Nchelenge district. Procurement of equipment such as motorcycles that are meant for utilization in agricultural extension sessions in Nchelenge district must take into consideration the usability by female beneficiaries in order to reduce female user hazards associated with utilization.

#### **6.8.5.3.9** Early warning and surveillance systems

Installations for the implementation of early warning and surveillance activities must be easily accessed by women and girl users and they should not make users to hesitate to use them. Difficult accessibility to such installations by women and girls will reduce equitable access to early warning and surveillance data. Reduced equitable accessibility would delay prediction of hazards and therefore delay provision of adaptation and mitigation recommendations.

#### **6.8.5.3.10** Farm block and resettlement schemes

Establishment of farm block and resettlement schemes need inclusion of women and girl's friendly public conveniences such as ablutions prevent use of open spaces or bushes to answer calls of nature. Roads, bridges and other user-friendly furniture that promote ease accessibility will promote equitable utilisation of such establishments by women and girls in Nchelenge district.

#### **6.8.5.4** Men and boys

##### **6.8.5.4.1** Infrastructure development

Infrastructure such as roads lack men and boy friendly public conveniences such as ablutions thereby leaving such a group with no option, but to use open

spaces or bushes to answer calls of nature. The above scenario eliciting men and boys use of open spaces or bushes to answer calls of nature predisposes them to dangers such as snake bites and promotion of water borne diseases. Infrastructure development of storage sheds, embankments, bridges, roads and drainages should consider men and boy friendly public conveniences such as ablutions in strategic places to protect the dignity of the environment of Nchelenge IDP.

#### **6.8.5.4.2 Agricultural mechanization**

Training before use must be facilitated to ensure user information is passed on to men and boy beneficiaries before they start utilizing any agricultural machines. Operational safety must also be emphasized to man and boy beneficiaries so that their health and that of others remains protected before, during and after use of agricultural machines in Nchelenge IDP.

#### **6.8.6.2.3 Farmer Input Support**

Men and boys receive the biggest percentage of 62.58% of the 3600 beneficiaries of FIS under FISP during the 2022/2023 (GRZ, EU, & FAO, 2023). However, the number of recipients is still small compared to the total number of 9331 registered male farmers and, therefore, the number of men and boy beneficiary needs to be increased to promote increased agricultural production and productivity of the agricultural community of Nchelenge district. Agribusiness development

Construction and operation of milling plants, and the construction of market shelters need to take into consideration accessibility and user ability of men and boys.

#### **6.8.6.2.4 Agroforestry and tree crops development**

Men and boys have no issues to implement agroforestry and tree crops except during selling of the seedlings to the community of Nchelenge district. Suitable structures for selling need to be constructed. Currently, men and boys who are

involved with agroforestry and tree crops development just wander around in search of buyers because they have no known location where they sell their produce.

#### 6.8.6.2.5 Irrigation development

Men and boys are the major users of irrigation facilities, but they work without protective equipment. Sensitization of men and boys that are working in irrigated areas of Nchelenge on the use of protective equipment would facilitate longevity of their lives from the harsh environments that are associated with irrigation such as muddy environments.

#### 6.8.6.2.7 Research and development

Construction of research and development facilities in Nchelenge needs to consider easy accessibility to research and development facilities by men and boys. Research and development topics must also include men and boys to promote inclusive participatory research and development.

#### 6.8.6.2.8 Extension services support

Extension training sessions must be held in men and boys' friendly environments to promote and to attract men and boys' participation in improving agricultural production and productivity in Nchelenge district. Agricultural extension sessions in Nchelenge district must be undertaken in environments that promote respect for both men and boys' beneficiaries in order to promote male participation in the adoption of recommended practices.

#### 6.8.6.2.9 Early warning and surveillance systems

User instructions for the installations of early warning and surveillance facilities must be given to men and boy beneficiaries to promote equitable access to early warning and surveillance data. Increased equitable accessibility would facilitate real time prediction of hazards and therefore quicken provision of adaptation and mitigation recommendations against hazards.

#### 6.8.6.2.10 Farm block and resettlement schemes

Formation of farm block and/ or resettlement schemes need inclusion of men and boy friendly public conveniences such as ablutions because their availability prevents the use of open spaces or bushes to answer calls of nature. Roads, bridges and other user-friendly furniture that promote easy accessibility will promote equitable utilisation of such establishments by men and boys to motivate them to participate in the increment of production and productivity agenda of Nchelenge district.

#### 6.8.6.3 Youths

##### 6.8.6.3.1 Infrastructure development

Youths use incomplete and abandoned infrastructure to mask themselves during occasions of substance abuse and to have illegal sex sessions, and Nchelenge experiences high unemployment levels among the youths. Construction of storage sheds, embarkments, bridges, roads and drainages need to be completed quickly to elicit appropriate utilisation so that youths are prevented from using them for illicit activities and undertaking infrastructure development needs to employ youths to reduce on youth unemployment. Working with the youth during infrastructure development will also facilitate transfer of infrastructural development knowledge and experience. If the youths of Nchelenge district obtain infrastructural development knowledge and experience, they will be motivated to create their own businesses that will offer infrastructural development services if their respective locations.

##### 6.8.6.3.2 Agricultural mechanization

There are high unemployment levels among the youths of Nchelenge district and agricultural mechanization will require instructors, operators, machine repair mechanics, replacement part dealers and other logistical needs that may demand involvement of energetic people like the youths to satisfy. In view of the demands of agricultural mechanization, youth unemployment will be reduced in Nchelenge district.

#### 6.8.6.3.3 Farmer Input Support

Increment in the volume of farmer input support will elicit loading and offloading activities, increase in the volume of production and hence it will demand the manpower of the unemployed youths of Nchelenge to participate in the loading and offloading of inputs and agricultural crop produce. Employed youths will be enabled to marry and, therefore, establish responsible families.

#### 6.8.6.3.4 Agribusiness development

Construction and operation of milling plants, and the construction of market shelters will increase the volume of trade and commerce, thereby, eliciting the participation of the unemployed youths to participate in exchange for wages. Enumerated youths will have the power to raise families, therefore, contribute to reduced youth delinquency.

#### 6.8.6.3.5 Agroforestry and tree crops development

Unemployed youths of Nchelenge town can help to make the town greener if they took part in raising, selling, landscaping and planting of agroforestry and tree crop seedlings in the district.

#### 6.8.6.3.6 Irrigation development

The construction of dams, weirs, canals, laying of pipes, repair, maintenance and setting up irrigation sprinklers and / or other irrigation furniture is tedious work that will demand the absorption of a significant number of unemployed youths from the streets and street corners of Nchelenge town, hence, a reduction in the levels of unemployment in the town. Removal of the youths from the street will enable them to earn an income to support their families.

#### 6.8.6.3.7 Research and development

Construction of research and development facilities, laying experimental plots, collecting data, repair and maintenance of laboratory equipment, maintenance



of the laboratory surrounding are all tasks that demand the energy from the unemployed youths of Nchelenge town to undertake and to receive remuneration for those tasks. Employing the youths of Nchelenge town will facilitate a reduction in youth unemployment levels of the town and promote Nchelenge society approved morals for the youths of the town.

#### 6.8.6.3.8 Extension services support

There is a small number of youths that take part in the agricultural crop activities of Nchelenge town. Targeting unemployed youths in extension trainings will facilitate transfer of recommended practices to the future of agriculture development in Nchelenge.

#### 6.8.6.3.9 Early warning and surveillance systems

Availability of early warning and surveillance systems facilitate adaptation and mitigation intervention against biotic and / or abiotic hazards that could otherwise interrupt the source of livelihoods for the youths of Nchelenge town. Floods, droughts and strong winds can lead to losses of crops fields and damage infrastructure that is meant to facilitate generation of income to the youth, therefore, early warning and surveillance systems will enable preparedness against the hazards to promote normalcy. Disrupted livelihoods of the youth would definitely promote unemployment among the youth groups of Nchelenge IDP.

#### 6.8.6.3.10 Farm block and resettlement schemes

Unemployed youths can be encouraged to settle in structured farm blocks and / or resettlement schemes so that they contribute to the agricultural crop production and productivity of Nchelenge district. Moreover, they will be earning incomes from sales of their agricultural crop products in order to improve their livelihoods and those of their families.

#### 6.8.6.4 Disabled

##### 6.8.6.4.1 Infrastructure development

Most disabled populations have accessibility issues of agricultural infrastructure. Infrastructure development such as the construction of storage sheds, embankments, bridges, roads and drainages in Nchelenge district must take into consideration access friendly structures for the disabled population so that they easily access the structure to participate in increased production and productivity of agricultural crops. Disabled citizens' participation in the infrastructure development to increase agricultural crop production and productivity will enable them to generate incomes for their livelihoods and the livelihoods of their respective families.

#### 6.8.6.4.2 Agricultural mechanization

Use of agricultural machinery that require manual operation will disadvantage their use by the disabled population. In order to facilitate the utilization of agricultural machinery by the disabled population, electrically automated agricultural machinery is advised. Use of automated agricultural machinery to process or to produce agricultural crops will motivate the disabled population to participate in agricultural crop production and productivity. On the other hand, disabled communities need to be consulted before the procurement of agricultural machinery.

#### 6.8.6.4.3 Farmer Input Support

Most of the disabled people may not be accommodated in the input distribution promoting them to depend on their able-bodied counter parts. Inclusive distribution of agricultural crop inputs to the disabled people will reduce dependency syndrome of the disabled on their able-bodied counterparts. Distribution of agricultural crop inputs to the disabled citizens of Nchelenge town will promote self-reliance and less dependence on their able-bodied counterparts.

#### 6.8.6.4.4 Agribusiness development

Disabled citizens may need special requirements to be considered during the construction and the operation of milling plants, and the construction of market shelters to increase access to the volume of trade and commerce. Participation of the disabled citizens of Nchelenge town will be solicited before, during and after the construction, maintenance and the operation of milling plants, and of the market shelters to ensure that special needs of the disabled are not overlooked.

#### 6.8.6.4.5 Agroforestry and tree crops development

Most of our disabled citizens in Nchelenge are rendered vulnerable when hazards that require quick mobility and / or quick interventions occur. Lack of agroforestry and tree development in Nchelenge IDP increases the vulnerability of the disabled to environment hazards and may not be able to adapt and / or mitigate effects of agricultural crop hazards without assistance. An agroforestry and tree crops development program would facilitate natural adaptation and mitigation to hazards by the disabled citizens of Nchelenge town.

#### 6.8.6.4.6 Irrigation development

In Nchelenge District people with disabilities (PWDs) are not actively involved in irrigated farming due to the nature of the irrigation technology that is being promoted in the district which is labor intensive and requires people to be physically fit. The Government of Zambia through the technical cooperation project with Japan between 1<sup>st</sup> March, 2013 and 30<sup>th</sup> June, 2017 capacity-built farmers on how to construct simple weirs and canals under the Community Based Small-holder Irrigation (T-COBSI) project (Jica website). The process of simple weir and canal construction is labor intensive and this disadvantages PWDs to adopt this technology.

Nevertheless, there may be other irrigation technologies that may be ideal for PWDs such as pressurized irrigation (Drip, Sprinklers...). While these may be

ideal for PWDs, they can be expensive and this maybe be a problem for most small-scale farmers.

#### 6.8.6.4.7 Research and development

Research and development in agriculture mainly involves manual labor to set up, plough, plant, applying fertilizer, applying agricultural chemicals, harvesting, threshing, sorting, weighing and storage of experimental plots. Use of manual labor in research and development in Nchelenge may disadvantage the disabled citizens of Nchelenge to participate in the program. Utilisation of automated labor-saving equipment to undertake research and development activities in Nchelenge IDP may increase the participation of the vulnerable disabled citizens in research and development of agricultural crop technologies.

#### 6.8.6.4.8 Extension services support

The current support given to agricultural extension services involves provision of motorcycles as a one size fits all mobility solution to providing extension services to small scale farmers in the agricultural community of Nchelenge town. In the even that a disabled extension officer is recruited and deployed to Nchelenge, that officer may experience challenges to operate a motorcycle, hence, there is need to consider mobility support that is automated and that is easy to mount by disabled agricultural extension officers that may be deployed to Nchelenge town. Failure to provide such support will markedly reduce the agricultural extension delivery services of a disabled extension officer if they were deployed to Nchelenge. Disabled officers if deployed to Nchelenge town may have accessibility challenges, therefore, construction or rehabilitation of agricultural extension staff houses must make provisions for easy accessibility by the disabled citizens such as farmers and / or officers. Inclusion of such provisions such as rumps will markedly enable the disabled citizens to participate in the activities that are aimed at improving the adoption of recommended cultural practices to improve production and productivity in the district.

#### 6.8.6.4.9 Early warning and surveillance systems

Our disabled citizens in Nchelenge could be among the most vulnerable groups when hazards that require quick mobility and / or quick interventions occur. The vulnerable groups of the district such as the disabled need early mobility to protect them and their property against the adverse effects of biotic and abiotic hazards, but that facility is lacking in Nchelenge currently. Establishment of early warning and surveillance systems will improve the safety of the disabled from natural hazards because they will be evacuated to safety before any hazards strikes.

#### 6.8.6.4.10 Farm block and resettlement schemes

Unemployed youths can be encouraged to settle in structured farm blocks and / or resettlement schemes so that they contribute to the agricultural crop production and productivity of Nchelenge district. Moreover, they will be earning incomes from sales of their agricultural crop products in order to improve their livelihoods and those of their families.

### 6.8.6.5 HIV/AIDS

#### 6.8.6.5.1 Infrastructure development

The implementation of infrastructure development elicits migration of citizens that are involved in the development from their families to the sites of development. Citizens that take part in infrastructure development are tempted to indulge in sexual activities outside their homes, thereby, predisposing themselves to sexually transmitted infections (STIs) such as HIV/AIDS. Camp site contracted infections are then transmitted back to the campers' homes when they visit their families (take away infections). Sensitisation activities coupled with the distribution of protective materials such as condoms at infrastructural development sites of Nchelenge district could help to lower the transmission rates of STIs. Other sensitisation messages could include the provision of PREP to those who have been exposed to STIs.

#### 6.8.6.5.2 Agricultural mechanization

Operators of agricultural machinery may require to spent long hours away from their matrimonial homes and spend most of that away time with workmates and communities of opposite sex as they operate. Temptation to indulge into sexual relationships with workmates or communities in the areas of operation may arise and if those temptation are succumbed to, there may be a high likelihood of transmission and of contracting STIs such as HIV/AIDS. Work oriented sensitizations of the predisposing factors to STIs, distribution of condoms and sensitization and provision of PREP could reduce transmissions in the agricultural mechanization sites of Nchelenge district.

#### 6.8.6.5.3 Farmer Input Support

The current form of distribution of farmer inputs require that leaders of beneficiary farmer groups travel from their locations in Nchelenge district to the central business district (CBD) to undertake transactions that enable them to redeem agricultural inputs. The visits to the CBD to redeem inputs may take at least two days before the beneficiaries can be allowed to redeem their inputs. The time of waiting to redeem inputs can tempt some of the beneficiary leaders into sexual relation with partners that are new to them, thus, predisposing themselves to contraction of STIs. If the exposed beneficiaries are likely to transmit the contracted STIs to their homes, therefore, increasing the spread. Sensitizations on the predisposing factors to STIs, distribution of condoms and sensitization and provision of PREP at input redeeming locations and at lodges could help to lower transmissions in the farmer input distribution sites of Nchelenge district from the office of the District Agricultural Coordinator (DACO) to the warehouse managers of the inputs.

#### 6.8.6.5.4 Agribusiness development

Citizens that take part in the construction and the operation of milling plants, and the construction of market shelters to increase access to the volume of trade and commerce may also be involved in interactions that could expose them transmission pathways of STIs. Moreover, increase in the number of

value chains comes with it the need for the players of the value chains to travel and lodge far away from their homes as they try to dispose of their produce. Traveling and lodging far away from their homes exposes the players of the various value chains to cross interactions with partners that are not their spouses. Cross interactions with partners that are not their spouses may expose the players of commodity value chains to unprotected sexual relationships that may transmit infections such as HIV/AIDS to them. Exposed players that go back to their legal spouses in Nchelenge IDP could transmit the acquired infections to their spouses. Sensitization sessions on the predisposing factors to STIs, distribution of condoms and sensitization and provision of PREP at lodges and at trading sites could help to lower the rates of transmissions in the trading sites of Nchelenge district. The work productivity of STI patients could be lower than the work productivity of individuals who are healthy, therefore, players need to be sensitised to rush to nearby health facilities if they begin presenting symptoms of STI.

People living with HIV/AIDS need money to take care of their needs and those of their families, therefore, involvement in agribusiness development activities will help them with income to settle their bills.

#### 6.8.6.5.5 Agroforestry and tree crops development

Similar to other programs, agroforestry and tree development activities may demand frequent traveling away from players' homes to sell or to buy agroforestry and tree crop seed, seedlings and to plant or to bud/ graft them. Traveling to sell or to buy agroforestry and tree crop seed, seedlings, to plant or to bud/ graft and to monitor them away from spouses predisposes the players to interactions that may result into unprotected sexual relationships among players. Unprotected sexual relationships can lead to increased levels of STIs among players of the agroforestry and tree crops development in Nchelenge.

Nutrition issues affect people living with HIV/AIDS. Leaves, seed and roots of agroforestry species such as *Cajanus cajan* contain high levels of calcium (33mg, 581mg and 597mg), magnesium (111 milligrams (mg), 138.8mg and 130mg), carbohydrate (65.6mg, 56.2mg and 90.3mg) and iron (4.8mg, 51.5mg and not detected) per 100grams (g), respectively (Table 1) (Yang, et al., 2020). Incorporation in meals and consumption of such agroforestry species could contribute to the good health of people living with HIV/AIDS in Nchelenge district. Moreover, the bye products could also be sold for income.

Table 1. The basic nutritional composition of leaves, seeds and roots of *Cajanus Cajan*.

| Nutrients         | C. cajan (per 100g) |       |       |
|-------------------|---------------------|-------|-------|
|                   | Leaves              | Seeds | Roots |
| Calcium (mg)      | 33                  | 581   | 597   |
| Magnesium (mg)    | 111                 | 138.8 | 130   |
| Carbohydrate (G)  | 65.6                | 56.2  | 90.3  |
| Iron (mg)         | 4.8                 | 51.5  | ND    |
| Sodium (mg)       | 19.7                | 32.5  | 108   |
| Crude protein (g) | 19.4                | 22    | 2.4   |
| Water (g)         | 11.5                | 14.3  | 3.3   |
| Crude ash (g)     | 3.6                 | 12    | 3.6   |
| Manganese (mg)    | ND                  | 6.8   | 0.7   |
| Crude fat (g)     | ND                  | 5.5   | 0.4   |
| Copper (mg)       | ND                  | 1.4   | 1     |



|           |     |     |     |
|-----------|-----|-----|-----|
| Sugar (g) | ND  | ND  | ND  |
| Zinc (mg) | 2.1 | 0.7 | 0.7 |

Source: (Yang, et al., 2020)

#### 6.8.6.5.6 Irrigation development

Construction and setting up of irrigation infrastructure and equipment are tasks that may rob the implementers of their families during the time that they will be working. It is that time that they will be away from their families that irrigation development personnel might find themselves in unprotected sex situations, hence, exposing themselves and their host communities to STIs. Notification by health personnel to irrigation development personnel and their host communities in Nchelenge coupled with distribution of sexual protective gear such as condoms will help to control the spread of STIs among the vulnerable people of the district. Communities who are at risk of exposure need to be sensitised on the availability of PREP and on the need to seek early treatment.

#### 6.8.6.5.7 Research and development

Undertaking Research and development in agriculture may involve traveling and lodging away from one's station to set up, plough, plant, applying fertilizer, applying agricultural chemicals, harvesting, and threshing, sorting, weighing, storage, sampling and collecting data from experimental plots in agricultural communities. Traveling and lodging away from one's station to set up, plough, plant, applying fertilizer, applying agricultural chemicals, harvesting, threshing, sorting, weighing, storage, sampling and collecting data from experimental plots may predispose the research officers to interactions that may motivate them to indulge in unprotected sexual relations with partners that are not their spouses. If research officers to interactions that may motivate them to indulge in unprotected sexual relations with partners that are not their

spouses, they risk contracting or transmitting STIs such as HIV/AIDS and to spread them. Undertaking sensitization sessions on the predisposing factors to STIs, distribution of condoms, and sensitization and provision of PREP at research and development facilities, lodges and at research sites could help to lower the rates of transmissions in the communities around the research and development sites of Nchelenge district.

People living with HIV/AIDS are sensitive to issues of nutrition in their diets, therefore, research should develop and promote crop varieties that contain high nutrition values so that the crop varieties with high nutrition values could be utilised by people living with HIV/AIDS in Nchelenge district.

#### **6.8.6.5.8** Extension services support

Provision of agricultural extension services demands frequent travel and frequent interactions with the agricultural communities in Nchelenge IDP to motivate them into adopting recommended cultural practices. Frequent travel and frequent interactions with the agricultural communities to motivate them into adopting recommended cultural practices by agricultural extension officers predisposes the officers' desires that may lead to unprotected sexual relations with partners that may not be their spouses. Unprotected sexual relations with partners that may not be their spouses could expose the officers and the communities among which they work to STIs. Extension services support must be embedded with hazards associated with sexual interactions and how to mitigate them such as the use of condoms while having sex and the use of PREP for those that have been exposed to STIs like HIV/AIDS.

#### **6.8.6.5.9** Early warning and surveillance systems

Similar to undertaking research and development in agriculture, implementing early warning and surveillance may involve traveling and lodging away from one's station to collect data and to assess the likely impact of any looming hazard. If a hazard is detected and in the event that the hazard is likely be devastating, evacuation activities could require camping within the affected

communities by the early warning and surveillance systems service providers. Camping within the affected communities by the early warning and surveillance systems service providers could elicit unprotected sexual relationships that could trigger transmission of STIs such as HIV/AIDS. Early warning sensitization of host communities and to their service on the need to engage in protective sexual relationships, seeking early treatment and on other preventive measures such as abstinence could assist to control the spread of STIs among the service providers of early warning and surveillance and of their host communities in Nchelenge IDP.

#### **6.8.6.5.10** Farm block and resettlement schemes

Establishment of either a farm block or a resettlement scheme is a long and tedious process involving land demarcation into several farm plots, construction of roads in the block or scheme, construction of crossing points, allocation of farm plots to successful developers or settlers. The activities that accompany the establishment of farm blocks and / or resettlement schemes elicit for the implementers of those activities to be based at the sites of the activities away from their spouses for long periods of time. Camping at the activity sites to undertake farm block and / or resettlement scheme establishment activities could predispose the implementers and their host communities to sexual interactions that may be unsafe to their health. Sensitisations on behavioural change towards sexual activities may help to control the looming spread of STIs in farm block and / or resettlement scheme sites of Nchelenge district. Frequent visits to those sites by the health providers to promote health living could also greatly improve the control of STIs in the camping sites of Nchelenge IDP.

### **6.8.7** Issue Statements And Assessment Of External Factors Contributing To The Issue

#### **6.8.7.1** Infrastructure development

Dilapidated and lack of infrastructure such as housing for extension workers, roads, bridges, storage shed and markets are issues that need to be attended to achieve increased crop production and its productivity. Lack of funding is the major external factor that impedes infrastructural development in Nchelenge district.

#### **6.8.7.2     Agricultural Mechanization**

Use of agricultural machinery is still in its embryonic stage in Nchelenge district. Lack of promotion of agricultural machinery is the major external factor that impedes utilization of agricultural machinery to expedite and to increase agricultural machinery. Where agricultural machinery is promoted, the community lacks the funding with which to procure such machinery.

#### **6.8.7.3     Farmer Input Support**

Fewer farmers in the district are accessing recommended agricultural inputs and, therefore there is very low agricultural production and productivity. Lack of suppliers of recommended agricultural inputs is the major impediment that impedes the availability of recommended farming inputs to the agricultural community in Nchelenge IDP.

#### **6.8.7.4     Agribusiness development**

Lack of diversified formal agricultural commodity markets is the major issue affecting the production of other crop varieties than maize and soybean in Nchelenge district. Only maize has an established and reliable official marketing structure and, therefore, it crowds out the production of other more valuable crops. The Food Reserve Agency (FRA) is the major external factor that influences the production of maize because it buys the maize grain in every marketing season. Lack of industries that do not demand for other crop varieties also demotivates the farmer to produce other crops than maize.

#### **6.8.7.5     Agroforestry and tree crops development**

Lack of agroforestry and tree crop woodlots are in the farms, schools and health facilities of Nchelenge IDP are a concern because hazards could thrive in such environments causing damage to property and threatening livelihoods. Lack of programs to promote the establishment of agroforestry and tree crops is the biggest factor that impedes adoption of agroforestry and tree crops in Nchelenge district.

#### **6.8.7.6**      Irrigation development

Small size of land under irrigation and high rate of seasonal agricultural activities in Nchelenge IDP are the major issues of the irrigation program. Lack of bigger capacity water harvesting facilities such as weirs and dams are the major factors that hinder irrigated land from expanding in size.

#### **6.8.7.7**      Research and development

Lack of research and development facilities and its associated staff have led to lack of homegrown agricultural technologies that suit the environment of Nchelenge IDP. Lack of funding is the major hindrance to the establishment of facilities that promote research and development.

#### **6.8.7.8**      Extension services support

Low adoption of recommended practices by the agricultural community in Nchelenge district. Little interaction between the farmer and their extension officers. High farmer to officer ratio is the major reason to the little interaction between the farmer and their officer. Little to lack of mobility media such as motorcycles contribute to the little interaction between the farmer and their extension officer.

#### **6.8.7.9**      Early warning and surveillance systems

There are high levels of losses to agricultural property and to livelihoods due to environmental hazards in Nchelenge district. Little to lack of hazard monitoring facilities to trigger early warning are the major contributors to losses experience as a result of actions of environmental hazards.

#### **6.8.7.10 Farm block and resettlement schemes**

Crop fields are disappearing due to an increase in the population of Nchelenge district and most of the land is taken up for the construction of duelling homes. Crop commodities are not found in one location and buyers make losses due to searching for the commodities. Lack of land set aside specifically for farming is the major factor that leads to the replacement of crop lands by the duelling homes and the lack of one stop centres for stocking, buying and selling of agricultural commodities.

#### **6.8.9 SUMMARY**

There will be increased mobility of agricultural goods and services due to improved infrastructure. Increased efficiency of production and therefore increased productivity due to the use of agricultural machinery in the production and processing of agricultural commodities. An increase in the volumes and the yield of crops produced will be obtained as a result of increased distributing and the increased utilisation of recommended farming inputs by the agricultural community in Nchelenge district. Improved agribusiness development will trigger an increased level of employment and increased level of agricultural community incomes as a result of increased number of established crop product value chains and their respective absorption industries will lead to lowering of the levels of unemployment. Agroforestry and tree crops development will result into richer bio-diversities in the agricultural communities of Nchelenge district, a reduction in the impact of environmental hazards, an improvement in the nutrition of the host communities, an increase in the level of incomes earned by the host communities, an increase in the level of incomes earned by the attendants and a greener Nchelenge district. Expansion in the irrigated land will promote perennial crop production, increased food security, increased demand for irrigation equipment services, increased levels of incomes in Nchelenge district and improved livelihoods of the citizens of Nchelenge district. Establishment of

research and development will promote research and development activities in Nchelenge IDP that will result in the development of Nchelenge home grown agricultural technologies and, therefore, quick adoption by the agricultural stakeholders of the district. Improved agricultural extension services support will promote increased interaction between farmers and their agricultural extension officers, therefore, early adoption of recommended practices to increase agricultural crop yields of famers in Nchelenge. Installation of early warning and surveillance systems (EWSS), and recruitment of EWSS will enable Nchelenge district to detect environmental hazards early, prepare the preventive measures such as evacuation early and save property, lives and livelihoods before the detected hazard makes its landfall. Establishment of farm blocks or resettlement schemes will secure land for agricultural use and it will facilitate one location media for selling and buying of agricultural commodities, thereby, promoting confidence in the buyers and sellers of agricultural crop commodities.

Negative environmental impacts are also expected but they are also expected to be annulled by the activities of agroforestry and tree crops developments, research and development, and early warning and surveillance systems.

## 6.9 Tourism and Hospitality Industry

Nchelenge District in particular, stands out in offering immense investment prospects in the tourism and hospitality industry, as it has several water bodies, plush green vegetation in open and protected forests and a number of Islands, endowment with diverse and beautiful scenery, wilderness, gorgeous landscapes, idyllic beaches on the shores of Lake Mweru, wide range of migratory and non-migratory birds, as well as, cultural and historical sites. The district has not recorded much in tourism activities despite having some tourism features like Kilwa curves, Isokwe Island, Kundabwika falls, Lake Mweru sand beaches. Lake Mweru is a national attraction located about 400m from the Central Business District. The site is a tourist attraction but lacks certain amenities that would make it the best tourist destination in Luapula province. Investment in a variety of social amenities at the place can make it more viable for tourists. The

lake has a beautiful scenery and has the capacity to facilitate a number of activities. The district has no traditional ceremony hence people have no event which is supposed to be used for information sharing on Lunda traditional food and cultural issues affecting girl children such as early marriages in the chieftdom and blessing of the new crop harvest of the land. The district has no cultural centre which can be utilized by the locals for exhibitions crafts and souvenirs. The hospitality industry is important to support the tourism sector. With the abundant tourism potential in the district, investments in facilities such as lodges and campsites would make the place ideal for visits by tourists, both local and foreign. However, the district has one standard lodge (Relaxin Lodge) with local standard and over 20 lodges. Parks are a defining feature of every developing town to enhance the quality of life and shaping a healthy, vibrant and liveable community. The town of Nchelenge has no noticeable park of any type. The town is still developing with no consideration of any parkland or green space especially in the town centre. The only public recreation space in the shores of Lake Mweru. The shores of the lake is meant to also be youth recreation centres promoting skills development and sports. Despite soccer being a predominant sport in Nchelenge, there exists only one stadium in Kashikishi with some clubs, government schools housing football grounds. Apart from this, there are no facilities to promote other sports like Tennis, Swimming, etc.

#### 6.9.1 Key Government Priorities to Be Implemented at A Local Level

Promotion of tourism through upgrade of infrastructure and leasing tourism sites to the private investors.

##### 6.9.1.1 Key Priorities of the 8th National Development Plan and how they are to be implements at a Local Level

The Government highlights a strategy to promote tourism in the country since it has a high potential for job creation.

##### 6.9.1.2 Key Priorities of Sector Specific National Plans/Strategies and how they are to be implements at a Local Level

There different national policies and legislature on tourism such as the Tourism and Hospitality Act of 2015. This act lead to the establishment if the tourism development fund to supplement



funding of Government funding for tourism product development. However, Nchelenge District is yet to benefit from the funding to improve its tourism sector.

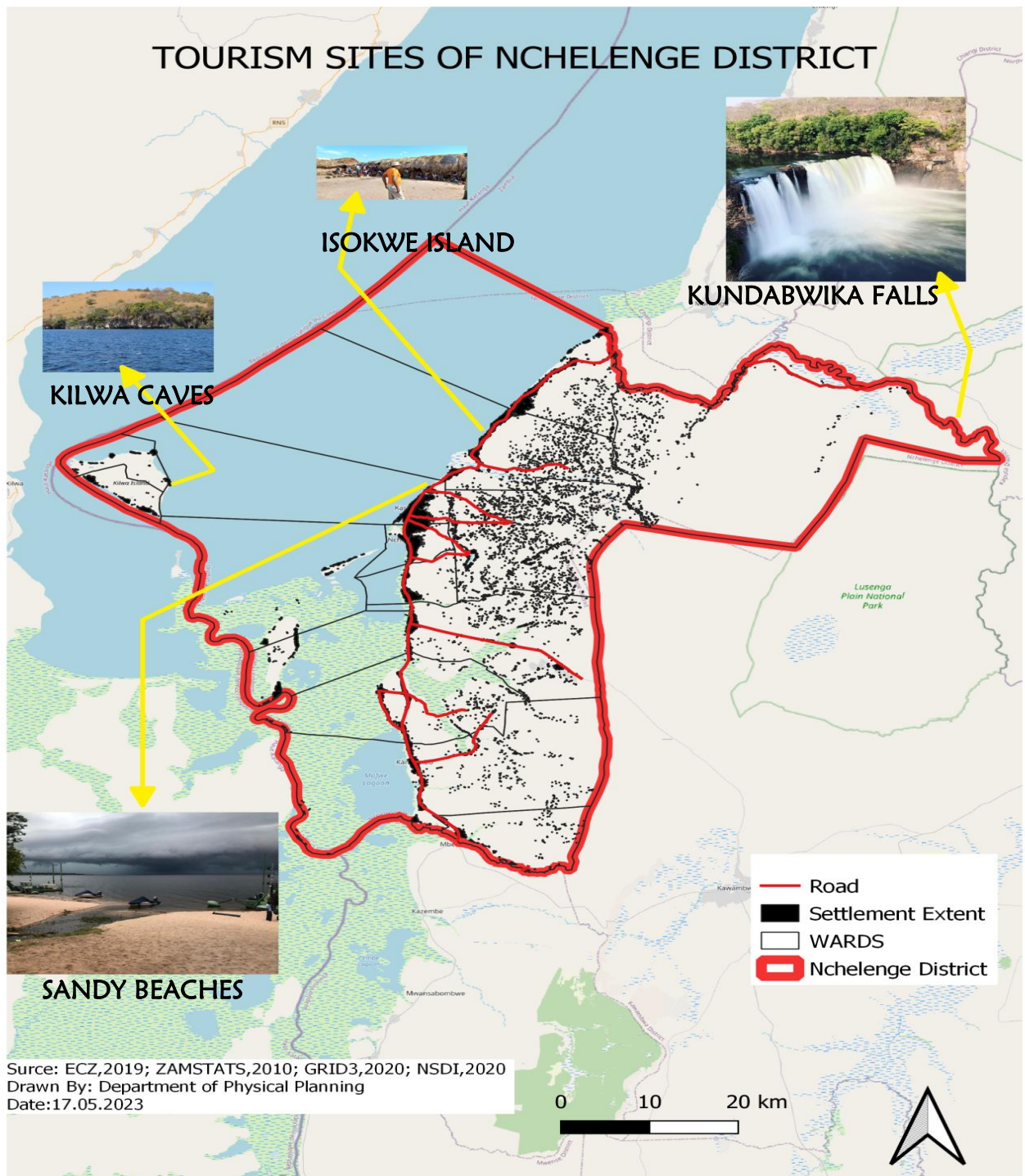
#### 6.9.1.3 Status of Implementation of Existing Plans and Strategies in the District

Nchelenge District offers immense investment prospects in the tourism and hospitality industry. There are a number of potential key areas such as Lake Mweru which has a total area of 4,580 square km of which 52% is in Zambia and 48% is in DR Congo. On the shores of the lake lies very beautiful beaches ideal for setting up hotels, lodges, Camping site and other water sporting activities. Currently, there are 30 lodges in the district of which three are located at the shore of Lake Mweru. The district also has a number of bars and night clubs for other social outing.

Another area is the Kundabwika falls located in Munkombwe Ward. This water falls is on the Kalungwishi River and is about 80 kilometers north of the District Administration. The place is also ideal for setting up of hotel and lodges, sight-seeing, game viewing. Other water related sites are mofwe lagoon, kenani lagoon and Lake Chimbofuma. However, the locations mentioned are not easily accessible due to poor road network and lack of hospitality infrastructure nearby.

The district also has Kilwa Island Arab Slave Caves on the western boarder of Nchelenge with DR Congo on Lake Mweru. This site can be explored in order to admire the curves at the island. The historical heritage needs to be preserved and promoted.

Map 17: Tourism Sites in Nchelenge District



Source: ECZ, 2019, GRID 3, 2020, Ministry of Tourism 2021

## 6.9.2 Assessment of the Existing State of Development

The district stands out in offering immense investment prospects in the tourism and hospitality industry, as it has several water bodies. The district has no traditional ceremony hence people have no event which is supposed to be used for information sharing on Lunda traditional food and cultural issues affecting girl children such as early marriages in the chieftdom and blessing of the new crop harvest of the land. With the abundant tourism potential in the district, the district has no hotel to support tourists both local and foreign.

## 6.9.2 Assessment of the Overall Performance of the District

Over the years, Nchelenge district has not done much to improve and promote the tourism sector. In 2017, the district hosted a tourism expo which attracted a good number of people. However, there has not been any other significant investment in the tourism sector since that time.

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

The district only has one officer to provide services to the community without any transport attached, hence lacking the promotion of tourism in the district to woo private investors for upgrade and construction of infrastructures. The tourism industry in the district remains unexplored with limited supporting infrastructure.

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

If tourism is embraced, it can enhance the local economic development of the district, thereby creating a lot of employment opportunities for the locals. Currently the district has no committee which assembles all the players under hospitality hence the tourism in the district is not improving. The district only has one officer with no transport and is expected to promote tourism in the district. Tourism in the district is seen as an alternative to fisheries as it is a tool for economic and rural development as it has a potential to generate income, creates jobs and improves standards of living.

### 6.9.2.3 Assessment of the Existing State of Development Based on Issues Arising from Community and Stakeholder Consultations

The communities explained that they are in developing of artifacts and cultural performances but they have no financial support to expand their businesses. They also highlighted that they lack capacity to market their products.

#### 6.9.3 Issues from Public Participation Process Relating to the Overall Performance of the Sector.

The tourism sites in the district are not adequately advertised and a lot of people are not even aware of the sites and their benefits to the community. The roads leading to the site are in deplorable state which hinders people to visit and appreciate the tourism and heritage site. The sites have not been developed as seen in other districts.

#### 6.9.4 Assessment of the Impact of Changes Anticipated Over the Next Ten Years

The current population for Nchelenge district is 233,696, and in the next ten years the population is expected to increase. With the increase in population, it is expected that the tourism sector will be impacted both positively and negatively in that there is possibility of job creation, cultural and recreation activities, traffic congestion on roads leading to recreation areas. Additionally, effects of the environment may result from the population growth and tourism growth.

##### 6.9.4.2 Assessment of the Likely Impact of Ongoing and Committed Investment and Development Programmed On Land Use and Population Distribution Patterns

There is need for more investment in the tourism sector. The government, cooperating partners and other private sector should consider investing in the Tourism sector.

#### 6.9.5 Analysis of Impact of Environment and Climate Change

The natural environment provides a setting for tourist destination. It determines the quality of natural resources, food, and water facilities for tourists and the work efficiency of human resources performing their services for the tourism industry. Tourism causes the same forms of pollution as any other industry; air emissions, noise, solid waste and littering, releases of sewage, oil and chemicals.

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

The district population is expected to increase over the years and so this will result in expansion of the district. The expansion of an area has a number of environmental risks if not planned for properly. These main environmental impacts of tourism are depletion of natural resources such as water resources and land degradation. Additionally, tourism can cause some form of pollution such as solid waste and littering, air pollution and aesthetic pollution. Other possibilities are deforestation as a result of unsustainable use of land during construction of tourism infrastructure. The disturbance of this land can cause erosion and bring about stress for animals and other inhabitants.

#### 6.9.5.2 The Impact of Environmental and Climate Change Issues on the Sector

Although the tourism sector contributes to environmental problems such as climate change and natural disasters, can have an impact on the tourism in the district and entire nation.

#### 6.9.6 Issues Arising Relating to Gender Groups and Vulnerable Groups

If tourism is embraced, it can enhance the local economic development of the district, thereby creating a lot of employment opportunities for the locals. Particularly, the women can benefit from this sector through employment in the hospitality industry and through the production of the artefacts for sale.

##### 6.9.6.1 Women and girls

The women and girls are at risk of moral degradation should the sector be improved due to the different social activities that will be happening. There will be an influx of tourist in the district all with different cultural back grounds. Women and girl are easily exploited since they are vulnerable in nature.

### 6.10 FORESTRY

### 6.10.1 Key Government Priorities to be implemented at A Local Level (Review of Policies and Plans)

The following are the main government priority areas that the forestry industry has continued to implement:

- Bee keeping Development
- Nursery Management
- Forestry Extension
- Forestry Protection

#### 6.10.1.1 Key Priorities of the 8<sup>TH</sup> National Development Plan / Sector Specific National Plans/ Strategies and how they are to be implemented at a Local Level

The Government key priority plan is to promote protection, conservation and restoration and rehabilitation of the environment, ecosystems and Natural resources through integrated community based natural resources Management systems. Additionally, the Government seeks to promote the adaptation and mitigation actions that will enhance resilience to climate change, for both human and biophysical system.

The key priorities are categorized as follows;

##### 6.10.1.1.1 Sustainable forest management:

This priority area seeks to reduce annual deforestation rate and emission from the forest. The annual reduction rate for deforestation has being targeted at 120,000 (30%) at National level while at provincial level is 774.6 (30%) and at District level is targeted at 110.25 (31.5%). With regards to emission from the forest, the National target is 25mtco2eg while the target for the province is 24845 (50%) and for the District the target is 15238(40%)

##### 6.10.1.1.2 Natural Resource Valuation and accounting

The area aims at conducting forest resource accounting and valuation. The target at the National level is 1, at the provincial level is 1 and at District level is 1.

#### 6.10.1.1.4 Sustainable Land and Forest Management

The area aims at ensuring that land and the Forests are managed in a sustainable manner. In order to actualize this, a number of intervention have been identified among them is; formulation of Community Forestry Management Areas. The target for the areas to be designated as CFM area at National level is 3,000,000 ha while at the Province is 20,000ha and at the District the target is 3,500ha. The other intervention is conducting of afforestation and reforestation, the target for this intervention at National level is 10,000ha while at the Provincial level is 250ha and 120ha at District level. Last but not the least intervention is Forest patrols and non- tax revenue collection. The target for Forest patrols at Provincial levels is 55 while at the District is 102. Non-tax revenue target at Provincial level is k18, 500,000 while at the District level is k450, 000.

In order to actualize the above priorities, the Forestry Department in Nchelenge intends on working with different stakeholders in the Management of the existing forest stands such as; Group Focused Consultation, CIFOR, TRALARD, local Authority, the Churches and the local communities among others. The Department will facilitate in the formulation of Community Forestry Management Areas in the District in order to instill sense of responsibility and ownership in the local community with regards to Forest management, engage the local communities in the management of the regenerations, conducting sensitizations and training in Beekeeping, conducting sensitization on climate change, establishment and expansion of plantations ( local supply plantation and Rubber plantation )in order to supply timber and meet local demand as well as improve the economy of the District, conducting reforestation and enrichment planting activities that supports environmental protection.

Additionally, the Department being a Government institution which raises revenue for the Governing, will work extra hard to collect non-taxable revenue through issuance of Forest permits. The department will intensify on Forest patrols in order to prevent illegal cutting of tress.

#### 6.10.1.2 Status of implementation of the existing plans and strategies in the District

In order to actualize the existing plans and strategies, the sector has been working on achieving specific set objectives. However, it has not been easy for the sector because the sector only have four trained officers when the establishment is supposed to be eight trained Forestry officers. Furthermore, the sector doesn't have a reliable mode of transport that could help in the facilitation of officer to communities where their services are needed. Despite the sited hindrances, the sector collaborates with institutions that advocates for Environmental Management in the District

### 6.10.2 ASSESSMENT OF THE EXISTING STATE OF DEVELOPMENT

#### 6.10.2.1 Assessment of the Overall Performance of the District

##### 6.10.2.1.1 State Forests

Nchelenge District has three protected forest areas managed by the Department of Forestry. These forest areas are: Mbereshi National Forest – P 265 (31,500 ha), Mantapala National Forest – P 246 (9, 884 ha), and Nchelenge Local Forest – P 252 (210 ha). The total area for these forest estates is about 41,594 hectares (415.94 km<sup>2</sup>). This is approximately 8.67% of total district area. These forests are dominated by Miombo Woodland and Itigi thickest type of vegetation, which are characterized by high regeneration levels. These Forests supports wood based livelihood (timber production, fire wood, pole production and charcoal production) and non-wood Forest based livelihood and services (bee products mainly honey and bees wax, wild fruits,



thatching grass and chikanda), protects the water catchment areas, prevents soil erosion especially in areas around the Escarpment, balances the ecosystem and biodiversity in the District.

Nchelenge District has four (4) Beekeeping groups; Kasheta youth group in Tonto Ward supported under TRALARD project, Tubombeshe community group in Lunde Ward supported under TRALARD project, Refugee Beekeeping group and Host Community Beekeeping groups in Mulwe Ward supported by UNHCR.

#### 6.10.2.1.2 Beekeeping

Beekeeping being a nature based solution has been playing a bigger role in the conservation of the forests in the District, while at the same time improving the economy of the District, especially in Mantapala area in Mulwe Ward. In 2022 the Host Beekeeping group and Refugee Beekeeping group recorded the first ever production of 13,367.9kg and 3, 782.6kg raw honey which is equivalent to k187, 150.6 and k52, 956 respectively upon commercially selling it to Tree Top Honey, a top notch honey consumption company. Departmental monthly report .This means beekeeping is positively contributing to improvement of the economy of the District. According to Zambia Forest Policy of 2014 Non-wood Forest Products like Beekeeping contributes to the National economy primarily through employment creation which is estimated at 1.1 million Zambians and provision of about US\$ 421 million annual revenue. Additionally, It contributes to the conservation of the environment, or protection of wildlife.

#### 6.10.2.1.3 Community Forests Management (CFM)

The District has one (1) Community Forestry Management Area under Kanyembo chiefdom, which sits on 1,040 ha of land. There is already an existing structure called Kanyembo Community Forestry Management group. The group has already developed a proposal which has two livelihood activities; mushroom production and Beekeeping. These livelihoods will pose a positive

impact on the environment, as they create mechanism that will help reduce deforestation and forest degradation thereby conserving the forests leading to increased sustainable carbon stocks, which can be quantified and traded across the National and reduce impact on climate change, improves the economy of the District through the sale of Bee products such as honey, beeswax and royal jelly and mushroom. Additionally, the formulation of this group has created the sense of ownership and responsibility in the management of the forest. This approach is supported by pieces of legislation such as SI No 11 of 2018, Forest Policy of 2014 and Forest Act No 4 of 2015.

#### 6.10.2.1.4 Natural Forest Regeneration

The District have 21ha of land which is managed under NFR in Sub- Chief Mutampuka's chiefdom. This hectarage is in separate locality within Mutampuka chiefdom. The other land which is managed under NFR is in Kepipa village in Mantapala area. The plot was established under a project called governing multi –functional landscapes which was implemented by Center for International Forestry Research (CIFOR). This approach speeds up the recovery potential of the lost native forest stands. Hence playing a role in the protection of the environmental components and improvement of the living stands of people by creating enabling environment to trade in wood forest products and non- wood forest products.

#### 6.10.2.1.5 Rubber plantation- National Project

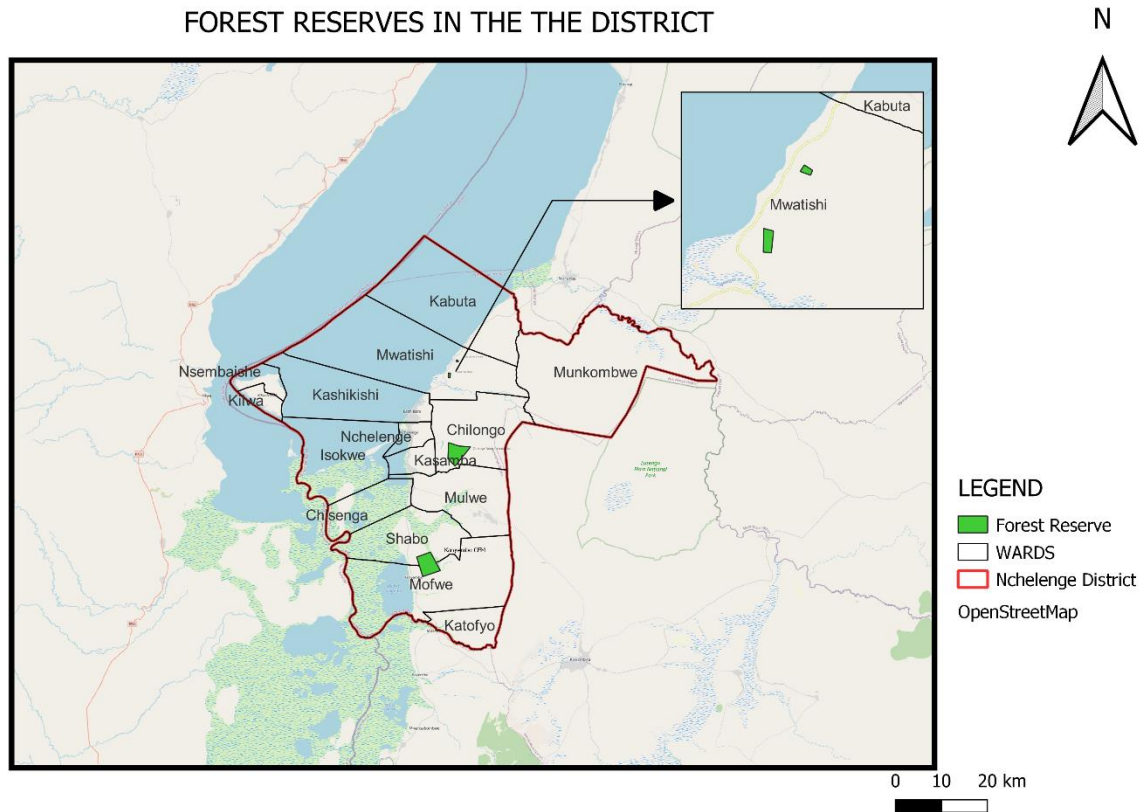
Rubber project is a National Project and one of the unique plantation in Nchelenge District. The idea for its established started way back in 1983, when the major consumers of it, discovered that they were spending more money in importing than they could spend if they were to establish their own plantation in the country. With this realization, the main Rubber plantation was established in Nchelenge District in 1990 starting with 2ha.

The expansion of it continued and by July, 2019 a total hectarage of 140 was stocked with Rubber plants. Unfortunately, on Tuesday 27th of August 2019,

there was a fire outbreak which affected much of the hectarage covered with rubber plants negatively. The fire scotched much of the rubber plant and only left 15ha which is being managed by the Department. From this incidence, there has never being any expansion of it.

The project offers both direct and in direct benefits. On the direct benefit, rubber produces latex which can be used in the manufacturing of condom, rubber band, mending of shoes and tires, can be utilized for timber among others. The indirect benefit plays a role in improving the economy of the District, through empowering of the local communities as it allows job creation (the local community is engaged in pot filling, transplanting, and maintenance of fire breaks, land clearing and weeding). Additionally, Rubber plants like any other plants plays a role in carbon sequestration and formation of rain cycle.

Map 18: forest reserves in the district



Drawn by: Nchelenge Town Council

#### 6.10.2.1.6 Local supply Plantation

The District has a local supply plantation which is within the Nchelenge local Forest. The plantation sits on 1ha of land and it is stocked with pine and Gmelina Arborea tree species. This plantation supplies timber to the local communities. Furthermore, it creates employment to the locals as they are engaged during fire break maintenance, planting and weeding. The plantation provides an atmosphere that has less carbon for human life in the District.

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

The sector provide services to the local communities through trainings on matters relating to effects of climate change and conducts trainings in Beekeeping and natural forest regeneration, with regard to Beekeeping the sector has so far trained four Beekeeping groups and established the apiaries with the beekeepers, concerning natural forest regeneration the sector as secured 21ha of land that is managed under NFR in Sub- Chief Mutampuka, also 25m by 30m plot in Kepipa Mantapala area is being managed as Assisted Natural Regeneration in which the sector facilitated in the enrichment planting of 668 assorted indigenous plants and sensitizations on CFM. The sector also provides guidance on how the local communities can acquire forest permits and Licences in the case of concession Licences, so as to trade in wood forest products legally. However, these services are mainly offered to the communities on the land. The sector is unable to offer it's serves to the communities on the Island because of the resource involved, which is not made available to the sector.

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

The quality of services the sector is currently offering is not 100% qualitable, this is so because the sector is not fully funded for it to meet the planned targets. Inadequate funding has being the major challenge the sector is faced with. The sector is very much under staffed, the establishment is eight but only four (4) trained Forestry officers are available in the District. Furthermore, lack of unreliable mode of transport has contributed to moderate quality of services offered by the sector.

### 6.10.3 ASSESSMENT OF THE EXISTING STATE OF DEVELOPMENT BASED ON ISSUES ARISING FROM COMMUNITY AND STAKEHOLDER CONSULTATIONS

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

The Forest department has an open door policy that makes it to work with other government, non-governmental organizations and the general public Vis a viv the local communities. We endeavor to engage the public through serializations, education, partnerships with community on a number of community projects. However, the overall performance has not been so well due to lack cooperation with some community leaders, lack of enthusiasm among the community participators, and lack of adequate resources to reach out to the grassroots catchments. However, we are making some progress through continuous engagement.

#### 6.10.3.2 Issues from Public Participation Process Relating to the Availability of Services in the Sector

The services to the community are readily available, however, there are some limitations in our operations such as ignorance of the law, noncompliance (illegal charcoal burning), lack of cooperation from some community leaders, to name only a few.

#### 6.10.3.3 Issues from Public Participation Process Relating to the to the Quality of Services

Generally speaking the services are tailor made to suit the standard of the people at all levels. This entails following the standard set by the government at district level.

#### 6.10.4 Assessment of the Impact of Changes Anticipated over the Next Ten Years

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

The Population in Nchelenge District is the second highest in Luapula Province and has a population of 233,696 as depicted in the 2022, Census summary report. Nchelenge district has the highest population density with 5.3 persons living per square kilometre. The population has been increasing and there has been 52.7% percentage increase in population from 2010 to 2022.

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

The Mantapala, Munkombwe, and Kanyembo communities, respectively.

##### 6.10.4.3 Assessment of the likely Impact of Ongoing and Committed Investment and Development Programmes on Land Use and Population Distribution Patterns

Most of the anticipated and/or ongoing programmes border on conservation as in the case of CFMs. Therefore the result is expected to be good. On the other hand when it comes to timber production we engage ZEMA at some stage to do the environment assessment and advise accordingly. We also require the contractors to do reforestation so that there is balance in the cutting and planting. All this is aimed at conservation. With such development, there is usually exertion on the environment and population both in the positive and negative.

#### 6.10.5 Analysis of Impact of environment and Climate change

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

Due to encroachments, uncontrolled wildfires, habitat transformation, illegal charcoal production, illegal land use, among others have caused in a way a contribution to the climate change phenomena. However, we are tirelessly working to minimize the impact by engaging the stakeholders, the communities through sensitizations, law enforcements, to name only a few.

##### 6.10.5.2 The Impact of Environmental and Climate Change Issues on the Sector

On the positive side, it has led to the awareness of some resilience measures needed such as nature based solutions, climate change mainstreaming, sustainable land and forest management strengthening, communities being engaged in environmentally friendly alternative livelihoods and climate smart agriculture solutions. Conversely, there has been a toll generally on the natural environment to something unconventionally, so to speak.

#### 6.10.6 Issues Arising Relating to Gender Groups and Vulnerable Groups

##### 6.10.6.1 Women and girls

Adversely affected as most vulnerable group relying on natural resources, i.e. the forest. Other problems include early marriages, teenage pregnancies, etc. They are the main consumers of the forest products and as such most issues affect them directly in their quest to provide food for the family. However empowerment in sustainable ways such as beekeeping, mushroom come in handy.

##### 6.10.6.2 Men and boys

This group is affected too as they also heavily rely on forest resources for sustenance. Most men and boys are charcoal burners in the district. Once their



self-employment endeavor is affected by way of being arrested by the law enforcers, they resort to alcohol abuse and other harmful vices.

#### 6.10.6.3 Youths

One of the major problem affecting this group is unemployment. This group is very vulnerable because it is in transition and some are still being looked after by their parents. Some need to pursue tertiary education, so, without resources they are stuck.

#### 6.10.6.4 Disabled

Sometimes marginalized due to their state and sometimes lack of opportunity

#### 6.10.6.5 HIV/AIDS

This pandemic continue to ravage people across the gender divide young and old. However, with sensitizations and behavioral change and right medicines there has been adequate awareness generally speaking.

#### 6.10.6.7 Issue Statements and Assessment of external Factors Contributing to the Issue

Illegal charcoal burning, encroachments, habitat transformation, teenage pregnancies, uncontrolled wildfires, violence against women, early marriages, deforestation, lack of cooperation from some community leaders, illiteracy, among many others are many of the core issues found.

External factors include lack of adequate funding to the department to enable it execute some programs regularly so as to adequately sensitize and educate the community thereby averting some of the issues arising.

### **6.11 SUMMARY OF CORE ISSUES**

#### ➤ Poor Road Infrastructure, Water Canals and Communication Coverage

The district is linked to Mansa (the provincial capital) by a paved road as far as St. Paul Hospital. All other roads within the district (township and feeder roads) are unpaved, which renders them impassable during the rainy season. Roads such as Mulwe –Mantapala road and Kapako road are in a very bad

state. The district has one airport for light aircraft situated just 6 kilometers from the district central location which is in a bad state and encroached by the local people. The aerodrome is located just 600m east of St. Paul's General Hospital.

Lake Mweru links Zambia with the Democratic Republic of Congo, and also with four islands: Kilwa, Chisenga, Isokwe and Kanakashi. Large locally made vessels (ichombos) and smaller boats are used to transport traders and consumer goods on the lake as well as along the Luapula River. More modern boats to improve water transport in this area are needed. The cost of fuel is the largest expense, which limits the economic practicality of this type of transportation. Water canals to Chisenga Island from both Kampampi and Shabo harbours mostly get dry and engulfed by weeds during dry season.

The district is connected by phone and internet facilities. Postal services are also available and a local radio station, Radio Luapula. The communication system in the district is fairly good with reliable television and radio reception.

➤ Low Agriculture Production and Productivity.

The district has not done well in agriculture as most of the farmers are small scale and very few medium scale. The farmers in the district largely depend on simple tools such as holes and axes. The most practiced type of farming is called chitemene system. Cassava is the main food crop grown with maize, tea, millet, groundnuts, sweet potatoes, rice and bananas being the other crops.

➤ Lack of Investment and Exploration in the Tourism Sector.

The district has great tourism potential which has not been effectively utilised. The stretch from Mubamba to St Pauls Mission Hospital along Lake Mweru has a great area of white natural sandy soil favourable for beach development. Kilwa curves, the source of Munsa River, crafts and small water falls are among the untapped areas which can boost tourism in the area.

➤ Limited Access and Availability of Electricity and other Sustainable Sources of Energy.

The district depends on hydro power as the main source of energy. The district is connected to the national grid up to Mukwakwa and only 10 percent of the households have access to electrical power for lighting and cooking purposes. The local people have resorted to use domestic solar panels while others depend on charcoal and firewood as their alternative source of energy.

➤ Uncontrolled Spatial Development in the District

The district has a number of uncontrolled spatial development. There are a number of unplanned settlements in the districts especially due high population increase concentrated within the central business area such as Kafimbwa, Kaseka and Mubamba settlement areas.

➤ High Poverty Levels at 77%

The district has the highest percentage of population living in poverty, which stands at over 70 per cent. Because of lack of role models to inspire young people, especially boys and girls to value education, most teenage girls are falling pregnant at a tender age. Fishing and farming, which are the main economic activities of the area, are driving young people to enter into marriage whilst they are still young.

➤ Limited Access to Quality Health Care Services

The district has only one functional St Pauls Mission Hospital with a number of clinics and health posts which are not enough to cater for the population of the district. The completion of the state of the art district will however boost the provision of health services in the district. The district has only one passenger and an ambulance boat were added to provide water transport and accessibility of health services for the island's population. The cost of fuel is the largest expense, which limits the economic practicality of this type of transportation and provision health services at the Islands.

➤ Inadequate Access to Clean and Safe Water

Despite the district having Lake Mweru, Luapula River, streams and lagoons, the district has a challenge of access to clean and safe water. The district does not have a reliable water plant to supply clean water to almost 1% of the district population

➤ Low Literacy Levels in the District at 32%

The literacy level is low, with only thirty-two percent of the population completing primary education, forty percent attaining the ninth grade, and only ten percent completing the twelfth grade. The remaining eighteen percent of the population does not attend school at all. Seventy percent of all students are male, and female students who drop out generally marry young, while male drop-outs tend to pursue careers in the fishing industry. These factors have had a negative impact on the developmental and economic advancements of the district.

## **7.0 DEVELOPMENT FRAMEWORK**

The development framework was developed as a result of an in-depth analysis of core issues from the Planning Surveys and Issues Report presented in the previous chapter. This Development Framework therefore guides the development of the district for the period 2022 to 2031.

## 7.1 VISION FOR THE LONG-TERM DEVELOPMENT OF THE DISTRICT

*“A developed district with sustainable service delivery and social economic development towards an equal society by 2030”*

### **Key aspects of the Vision**

In achieving the vision, as stated above, the following key aspects set out the developmental agenda of the District.

**Equitable society:** Nchelenge will endeavor to be an equitable city. This means ensuring equality and equitable allocation of resources and development programmes. There must be due care for vulnerable members of Nchelenge’s communities and a well-thought-out approach and strategy for balancing rural and urban development segments of the future city.

**Sustainable Services:** Climate change is real and is already wreaking havoc on the familiar ‘normal order’ of society. The future of Nchelenge must be sustainable. This requires an IDP that incorporates both sustainable use of natural resources in-readiness for the future climate shock, and plays its role in mitigating against a worsening climate change future. This calls for shifts in the way Nchelenge district is organized in the Environment, energy, transport, economic and social sectors.

**Social economic:** For Nchelenge to thrive and meet the aspirations of the residents, industries will have to be created where commerce and production, working and living are physically and functionally integrated. This demands Nchelenge investing in the industrious developments with a clear focus on manufacturing, processing, building industrial zones and promoting forward and backward linkages in all the strategic sectors of the economy.

## 8.0 Planning Values for the Nchelenge IDP

The following have been the core values adopted and reflected in the IDP:

- **Inclusiveness:** The future of Nchelenge must be one that includes all stakeholders and interest groups. This requires ensuring equitable allocation of resources to all sectors of the economy and to all socio-demographic groups of the districts. The IDP will be anchored by both equality and equity principles to ensure all stakeholders have an opportunity to shape the plan and to benefit from the outcome of the IDP planning and implementation processes.
- **Realistic:** IDP provides a true reflection of the socioeconomic vulnerabilities, ecological risks and opportunities and the political economic dynamics of the district. This was deliberately done to produce a plan that is grounded in realities of the district to ensure that the IDP can actually get implemented. Accordingly, all planning will be anchored on critical analysis, values and the ambition to implement the IDP and improve the living conditions of the people. The values of environment sustainability, social justice, efficiency and productivity rank high among the stakeholders.
- **Collaboration and Coordination:** The IDP promotes a culture of collaboration. To effectively implement the IDP, the process will be anchored on genuine collaboration, effective communication and coordination. This would reduce resource wastage, conflicts and hasten implementation to transform the district.

### **8.1 Policies to Direct Development**

- To Increase Agriculture Production And Productivity In The District
- Enhance improved road infrastructure, canals and increased communication coverage in all wards in the district
- Enhance improved road infrastructure, canals and increased communication coverage in all wards in the district
- Improve access and ensure availability of electricity and other sources of energy

- To Have A Healthy And Productive Community In The District
- Access To Quality Education And Literacy Levels Increased In The District
- To Reduce Poverty And Vulnerability In The District From 77% To 30%

## 9.0 CROSS SECTORAL GOALS AND OBJECTIVES TO ADDRESS THE CORE ISSUES

### 9.1 PROGRAMS TO ACHIEVE IDENTIFIED GOALS AND OBJECTIVES

**Table 35: INPLEMENTATION PLAN-EDUCATION**

**Programs to ensure Access to Quality Education and Literacy Levels Increased in the District**

| <b>INPLEMENTATION PLAN-EDUCATION</b>                                                        |                                      |                        |                      |                                 |                                 |                                 |                                 |                                 |                                     |
|---------------------------------------------------------------------------------------------|--------------------------------------|------------------------|----------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|-------------------------------------|
| <b>GOAL: ACCESS TO QUALITY EDUCATION AND LITERACY LEVELS INCREASED IN THE DISTRICT</b>      |                                      |                        |                      |                                 |                                 |                                 |                                 |                                 |                                     |
| <b>Objective To reduce the distance covered by pupils to access schools to 5 km by 2033</b> |                                      |                        |                      |                                 |                                 |                                 |                                 |                                 |                                     |
| <b>Strategy</b>                                                                             | <b>Program</b>                       | <b>Activitie<br/>s</b> | <b>Locatio<br/>n</b> | <b>Target<br/>year<br/>2024</b> | <b>Target<br/>year<br/>2025</b> | <b>Target<br/>year<br/>2026</b> | <b>Target<br/>year<br/>2027</b> | <b>Target<br/>year<br/>2028</b> | <b>Responsible<br/>agency /dept</b> |
| <b>Objective: To reduce the classroom pupil ratio from 78:1 to 60:1 by 2033</b>             |                                      |                        |                      |                                 |                                 |                                 |                                 |                                 |                                     |
| The local authority and ministry of education should ensure that classroom                  | Education infrastructure development | Costruct 45 CRBs       | All wards            | 3 by 1x3                        | 3 by 1x3                        | 3 by 1x3                        | 3 by 1x3                        | 3 by 1x3                        | MoE, LA                             |



|                                                                                |                                      |                                 |           |                |                |                |                |                |         |
|--------------------------------------------------------------------------------|--------------------------------------|---------------------------------|-----------|----------------|----------------|----------------|----------------|----------------|---------|
| blocks are constructed annually                                                |                                      |                                 |           |                |                |                |                |                |         |
| <b>Objective: To improve the living standards of Teaching staff</b>            |                                      |                                 |           |                |                |                |                |                |         |
| Improve Infrastructure Development for Teachers                                | Education infrastructure development | Construction of 20 staff houses | All wards | 4 staff houses | 4 staff houses | 4 staff houses | 4 staff houses | 4 staff houses | LA/MoE  |
| Introduce boarding facilities for at least 1 secondary school in each ward     | Education infrastructure development | Construction of 10 Dormitories  | All wards | 2 dormitories  | 2 dormitories  | 2 dormitories  | 2 dormitories  | 2 dormitories  | LA, MoE |
| <b>Objective : To reduce the pupil teacher ratio from 67:1 to 42:1 by 2033</b> |                                      |                                 |           |                |                |                |                |                |         |
| To increase the number of teachers deployed in primary and secondary schools   | Human Resource Development           | Deploy 2000 teachers            | All wards | 400 Teachers   | 400 Teachers   | 400 Teachers   | 400 Teachers   | 400 Teachers   | MoE, LA |
| Objective: Improve ICT in all the schools from 5.8% to 35%                     |                                      |                                 |           |                |                |                |                |                |         |

|                                                                                                                                                                       |                                       |                                    |           |            |            |            |            |            |                       |
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| Enhance access to ICT education in ECE, primary and Secondary schools                                                                                                 | ICT promotion                         | Establishment of 15 ICT centers    | All wards | 3 schools  | 3 schools  | 3 schools  | 3 schools  | 3 schools  | MoE, LA               |
| <b>Objective: To increase enrollment of early childhood and primary schools from 4,499 to 10,000 by 2033 and 44,870 to 55,000 respectively.</b>                       |                                       |                                    |           |            |            |            |            |            |                       |
| The local authority to engage the community and traditional leaders on ensuring school going children are enrolled in school by promoting School Health and Nutrition | Early childhood and primary education | Conduct 20 Community Sensitization | All wards | 4 Meetings | 4 Meetings | 4 Meetings | 4 Meetings | 4 Meetings | LA, ComDev, MoE, FBOs |

|                                                                                            |                                               |                                                  |                                                                 |                          |                          |                          |                          |                          |                    |
|--------------------------------------------------------------------------------------------|-----------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------|
| Objective: To Promote school Health and Nutrition in schools                               |                                               |                                                  |                                                                 |                          |                          |                          |                          |                          |                    |
| School Health and Nutrition( SHN)                                                          | Home Grown School Meals Program               | Provide school feeding commodities to 63 schools | All wards                                                       | 63 schools               | 63 schools               | 63 schools               | 63 schools               | 63 schools               | MoE, LA            |
| Objective: increase enrolment of girls in schools from 31,960...to...65,000. by 2033       |                                               |                                                  |                                                                 |                          |                          |                          |                          |                          |                    |
| District stakeholders to engage community on enrolment of girl children and gender quality | Girl child Education                          | conduct KGS community verification               | All wards                                                       | 4 Sensitization meetings | 4 Sensitization meetings | 4 Sensitization meetings | 4 Sensitization meetings | 4 Sensitization meetings | LA,MoE,ComDev,     |
|                                                                                            | Keeping Girls in school program               |                                                  | All wards                                                       | 1000 Girls Supported     | 1000 Girls Supported     | 1000 Girls Supported     | 1000 Girls Supported     |                          | LA, MoE, ComDev,Sw |
|                                                                                            | Menstrual hygiene promotion                   |                                                  | All wards                                                       | 2000 girls               | 2000 girls               | 2000 girls               | 2000 girls               | 2000 girls               | MoE, LA            |
| Objective: rehabilitation and construction of selected bridges leading to schools by 2033  |                                               |                                                  |                                                                 |                          |                          |                          |                          |                          |                    |
| Ensure the rehabilitation and construction of all bridges affecting accessibility of       | Climate Smart Road Infrastructure development | Costruct 10 Bridges to easy access to schools    | construc tion of all bridges affecting accessibility of schools | 2 Bridges                | 2 Bridges                | 2 Bridges                | 2 Bridges                | 2 Bridges                | LA, RDA            |

|                                                                                                                       |                              |                                  |           |           |           |           |           |           |         |
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| schools in the district                                                                                               |                              |                                  |           |           |           |           |           |           |         |
| <b>Objective: Increase access to quality and equitable education for Learners with special education needs (LSEN)</b> |                              |                                  |           |           |           |           |           |           |         |
| To construct special unit centers in the district                                                                     | Inclusive education(LSEN)    | Costruct 10 Special Unit Centers | All wards | 2 centers | 2 centers | 2 centers | 2 centers | 2 centers | MoE, LA |
| <b>Objective: to reduce the desk ratio from 5:1 to 2:1 for double sitters by 2025</b>                                 |                              |                                  |           |           |           |           |           |           |         |
| The local authority and ministry of education should ensure procurement of desks every quarter through CDF            | School furniture procurement | Procure 6200 Desks               | All wards | 4,200     | 500       | 500       | 500       | 500       | MoE, LA |

|                                                                                                                                          |                                                    |                           |             |             |             |             |             |             |         |
|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|---------------------------|-------------|-------------|-------------|-------------|-------------|-------------|---------|
| The ministry of education with LA to ensure woodwork workshops in schools are equipped with the required materials to rehabilitate desks | Provision of education equipment for woodworks hop | Procure Lab equipment     | Kashikis hi | 1 School    | 1 School    | 1 School    | 1 School    | 1 School    | MoE, LA |
| Objective: to reduce the pupil to book ratio from 70:1 by 2033                                                                           |                                                    |                           |             |             |             |             |             |             |         |
| The LA and ministry of education to ensure procurement of learning materials                                                             | Provision of education materials                   | Procure 125000 Text books | All wards   | 25000 Books | 25000 Books | 25000 Books | 25000 books | 25000 Books | MoE.    |
| <b>Objective: Reduced dilapidated school infrastructure due to unfriendly weather by 2033</b>                                            |                                                    |                           |             |             |             |             |             |             |         |

|                                                                                                                     |                                         |                         |           |            |            |            |            |            |         |
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| Ensure that trees are planted in all schools to reduce shock from strong winds                                      | Tree planting in schools                | Plant 600 trees         | All wards | 120 Trees  | 120 Trees  | 120 Trees  | 120 Trees  | 120 Trees  | MoE.    |
| The local authority and ministry of education should ensure that all dilapidated classroom blocks are rehabilitated | Education infrastructure rehabilitation | Rehabilitate 50 schools | All wards | 10 Schools | 10 Schools | 10 Schools | 10 Schools | 10 Schools | LA, MoE |
| <b>Objective: increase access to electricity for 26 schools by 2033</b>                                             |                                         |                         |           |            |            |            |            |            |         |

|                                                                                                      |                                        |                      |                |                         |                         |                         |                         |                         |                     |
|------------------------------------------------------------------------------------------------------|----------------------------------------|----------------------|----------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|---------------------|
| The local authority in coordination with REA and ZESCO should electrify schools                      | School electrification                 | Electrify 26 schools | Mainland wards | 4 Schools               | 6 Schools               | 6 Schools               | 6 Schools               | 4 Schools               | LA, MoE, ZESCO, REA |
| <b>Objective: increase number of well-equipped school laboratories and equipment in the district</b> |                                        |                      |                |                         |                         |                         |                         |                         |                     |
| Increased number of school laboratories in the district                                              | Education infrastructure development   |                      | Nsembai she    | 3 laboratories          | 3 laboratories          | 3 laboratories          | 3 laboratories          | 3 laboratories          | LA, MoE             |
|                                                                                                      |                                        |                      | Kilwa          |                         |                         |                         |                         |                         |                     |
|                                                                                                      |                                        |                      | Chisenga       |                         |                         |                         |                         |                         |                     |
|                                                                                                      |                                        |                      | Nchelenge      |                         |                         |                         |                         |                         |                     |
|                                                                                                      |                                        |                      | Kashikishi     |                         |                         |                         |                         |                         |                     |
|                                                                                                      |                                        |                      | Kabuta         |                         |                         |                         |                         |                         |                     |
|                                                                                                      |                                        |                      | Mofwe          |                         |                         |                         |                         |                         |                     |
|                                                                                                      |                                        |                      | Mulwe          |                         |                         |                         |                         |                         |                     |
|                                                                                                      | Provision of equipment in laboratories |                      | Nsembai she    | 3 laboratories equipped | 3 laboratories equipped | 3 laboratories equipped | 3 laboratories equipped | 3 laboratories equipped | LA, MoE             |
|                                                                                                      |                                        |                      | Kilwa          |                         |                         |                         |                         |                         |                     |
|                                                                                                      |                                        |                      | Chisenga       |                         |                         |                         |                         |                         |                     |
|                                                                                                      |                                        |                      | Nchelenge      |                         |                         |                         |                         |                         |                     |
|                                                                                                      |                                        |                      | Kashikishi     |                         |                         |                         |                         |                         |                     |

|                                                                                                          |                                     |                                  |             |                      |                      |                      |                      |                      |         |
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|                                                                                                          |                                     |                                  | hi          |                      |                      |                      |                      |                      |         |
|                                                                                                          |                                     |                                  | Kabuta      |                      |                      |                      |                      |                      |         |
|                                                                                                          |                                     |                                  | Mofwe       |                      |                      |                      |                      |                      |         |
|                                                                                                          |                                     |                                  | Mulwe       |                      |                      |                      |                      |                      |         |
| <b>Objectives: water and sanitation in schools improved by 20% by 2033</b>                               |                                     |                                  |             |                      |                      |                      |                      |                      |         |
|                                                                                                          |                                     |                                  |             |                      |                      |                      |                      |                      |         |
| The LA and MoE with support from other partners to ensure that all schools have solar piped water system | Water supply development in schools | Construct 15 piped water systems | All wards   | 3 piped water system | 3 piped water system | 3 piped water system | 3 piped water system | 3 piped water system | LA, MoE |
| Ensure construction of ablution blocks in all schools                                                    | Sanitation development in schools   | Construct 30 Ablution blocks     | All schools | 6 ablution blocks    | 6 ablution blocks    | 6 ablution blocks    | 6 ablution blocks    | 6 ablution blocks    | LA, MoE |



Table 36: IMPLEMENTATION PLAN –WATER & SANITATION

| <b>GOAL: Access to clean and safe water increased by 2030</b><br><b>Objective : To increase urban area clean and safe piped water supply coverage from 11.8% to 50% b 2030</b> |                                  |                                                                                           |                                                                                          |                   |      |                  |      |      |                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------|------|------------------|------|------|--------------------------|
| STRATEGY                                                                                                                                                                       | Program                          | Activities                                                                                | Location                                                                                 | 2024              | 2025 | 2026             | 2027 | 2028 | Responsible agency /dept |
| The LA and CU to ensure that all new areas for development are supplied with water before constructions are done                                                               | Servicing new plots              | Extension of water service pipes in two areas                                             | <ul style="list-style-type: none"> <li>Kariba Extension</li> <li>Mubamba area</li> </ul> | -1 area serviced  |      | -1 area serviced |      | -    | LA, LpWSc                |
| The CU to collaborate with the LA and other partners to construct a                                                                                                            | Water infrastructure development | <ul style="list-style-type: none"> <li>Conduct construction of water treatment</li> </ul> | Nchelenge and Kashikishi ward                                                            | 1 treatment plant | -    | -                | -    | -    | LA, LpWSC                |

|                                                                                             |                                  |                                                                                                                                                    |                  |              |                  |                  |                  |                  |                                                            |
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| treatment plant                                                                             |                                  | <ul style="list-style-type: none"> <li>nt plant block Construction of water tanks in mutono (58cubic meters) and Boma(290 cubic meters)</li> </ul> |                  |              |                  |                  |                  |                  |                                                            |
| The LA to facilitate construction of solar piped water schemes for areas not serviced by CU | Water infrastructure development | Conduct construction of 3 solar piped water schemes in urban areas                                                                                 | Nchelenge ward   | 1scheme s    | -1 schemes       | -1scheme         | -                | 1scheme          | LA,Ministry of Water and Sanitation,collaborating partners |
| Strengthen water quality monitoring of water points and water company                       | water quality monitoring         | Conduct water quality monitoring of water points                                                                                                   | All wards        | 565          | 565 water points | 565 water points | 565 water points | 565 water points | LA,MoH                                                     |
| <b>Objective :To increase rural water supply coverage from 75% to 100% by 2030</b>          |                                  |                                                                                                                                                    |                  |              |                  |                  |                  |                  |                                                            |
| Ensure that every 50 households are provided with at least 1 borehole                       | Rural water supply development   | Construction of 50 manual boreholes                                                                                                                | <b>All wards</b> | 10 boreholes | 10 boreholes     | 10 boreholes     | 10 boreholes     | 10 boreholes     | LA, Ministry of Water and Sanitation                       |

|                                                                                                     |                                        |                                                |                                                                                                                                                                                                                                |                  |                  |                  |                  |                  |                                      |
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| The LA and cooperating partners to promote construction of solar piped water schemes in rural areas | Rural water supply development         | Construction of 50 solar powered water schemes | <b>-Nchelenge Ward:</b> Sanga Menso Kaseka Lushiba-<br><b>Kashikishi Ward:</b> Mutono Kabulo Katuna Yenga Eliabu Chandwe Katofyo Kabuta Mwatishi Chilongo Mofwe Shabo Kasamba Munkombwe Mulwe Nsembaishe Isokwe Kilwa Chisenga | 10 water schemes | 10 water schemes | 10 water schemes | 10 water schemes | 10 water schemes | LA, Ministry of Water and Sanitation |
| Facilitate manual drilling of boreholes in hard to reach areas                                      | Manual borehole drilling               | Conduct trainings on manual drilling           | Nsembaishe Isokwe Kilwa Chisenga                                                                                                                                                                                               | 4 wards          | 4 wards          | 4 wards          | 4 wards          | 4 wards          | LA, Ministry of Water and Sanitation |
| <b>Objective :To reduce the percentage of non-functional boreholes from 25% to 0% by 2030</b>       |                                        |                                                |                                                                                                                                                                                                                                |                  |                  |                  |                  |                  |                                      |
| To reduce the downtime period to 1 day                                                              | capacity building of APMs and plumbers | Conduct 20 trainings of APMs                   | All wards                                                                                                                                                                                                                      | 4 trainings      | 4 trainings      | 4 trainings      | 4 trainings      | 4 trainings      | LA,DWASHE                            |

|                                                                                                      |                                                     |                                                                                                                                                              |                           |                   |                  |                   |                   |                   |          |
|------------------------------------------------------------------------------------------------------|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-------------------|------------------|-------------------|-------------------|-------------------|----------|
|                                                                                                      | in each ward                                        |                                                                                                                                                              |                           |                   |                  |                   |                   |                   |          |
|                                                                                                      | water infrastructure rehabilitation and maintenance | Conduct rehabilitation of water points                                                                                                                       | All wards                 | All wards         | All wards        | All wards         | All wards         | All wards         | LA,LpWSC |
| The LA to ensure availability of required spares in SOMAP shop                                       | Restocking of spare parts                           | Procurement of materials for 1 SOMAP shop                                                                                                                    | SOMAP shop-Nchelenge Ward | 1 shop stocked    | 1 shop stocked   | 1 shop stocked    | 1 shop stocked    | 1 shop stocked    | LA       |
| <b>Objective :To ensure reduced contamination of water points in the district from to 5% by 2033</b> |                                                     |                                                                                                                                                              |                           |                   |                  |                   |                   |                   |          |
| Promote adoption of hand wash facilities in every household from 30% to 100% by 2026                 | Sanitation and hygiene Promotion at household level | <ul style="list-style-type: none"> <li>• Conduct sensitisation meetings</li> <li>• Conduct radio programmes</li> <li>• Conduct health inspections</li> </ul> | All Wards                 | 40,000 households | 45000 households | 50,000 households | 50,000 households | 55,000 households | LA,MoH   |
| The LA to ensure that all community water points are well protected and disinfected                  | Hygiene promotion                                   | <ul style="list-style-type: none"> <li>• Conduct sensitisation meetings</li> <li>• Conduct disinfection</li> </ul>                                           | All Wards                 | All Wards         | All Wards        | All Wards         | All Wards         | All Wards         | LA,MoH   |

|                                                                                                     |                                       |                                                                                                                   |                                                                                            |                       |                       |                       |                       |                       |                                           |
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| by MoH                                                                                              |                                       | tion of water points                                                                                              |                                                                                            |                       |                       |                       |                       |                       |                                           |
| The LA to promote the use of VIP and waterborne toilets                                             | Sanitation and hygiene Promotion      | -construction of demo VIP latrines                                                                                | All Wards                                                                                  | 15 trainings          | 15 trainings          | 15 trainings          | 15 trainings          | 15 trainings          | LA,MoH                                    |
| The LA to promote the use of VIP and waterborne toilets                                             | Sanitation infrastructure development | Construct 8 ablution blocks in markets                                                                            | Kabuta Market<br>Kanyembo Market<br>Kafutuma Market<br>Kambwali Market<br>Chinsamba Market | -                     | 2 ablution blocks     | 2 ablution blocks     | 2 ablution blocks     | 2 ablution blocks     | LA,Ministry of Water and Sanitation       |
| Ensure that Latrines and septic tanks are constructed at least 30m away from water source           | Sanitation and hygiene Promotion      | Conduct health inspections                                                                                        | All Wards                                                                                  | Quarterly inspections | Quarterly inspections | Quarterly inspections | Quarterly inspections | Quarterly inspections | LA,MoH                                    |
| The district to enforce the ODF strategy and increase the villages certified as ODF free to 100% by | Sanitation and hygiene Promotion      | <ul style="list-style-type: none"> <li>Conduct 20 inspections on ODF</li> <li>Conduct ODF verification</li> </ul> | All Wards                                                                                  | 4 inspections         | 4 inspections         | 4 inspections         | 4 inspections         | 4 inspections         | LA, MoH, Ministry of Water and Sanitation |

|                                                                                                         |                                           |                                                                                                                                    |               |                           |                           |                           |                           |                           |                                                 |
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| 2030                                                                                                    |                                           |                                                                                                                                    |               |                           |                           |                           |                           |                           |                                                 |
| The LA to promote CLTS and SLTS in all schools                                                          | Community and school led total sanitation | <ul style="list-style-type: none"> <li>Radio programs</li> <li>Training of SHIN coordinators</li> </ul>                            | All Wards     | 15 sensitisation meetings | 15 sensitisation meetings | 15 sensitisation meetings | 15 sensitisation meetings | 15 sensitisation meetings | LA, MoH, Ministry of Water and Sanitation, MoGE |
| <b>Objective :To increase the adequate sanitation coverage in the district from 73% to 100% by 2030</b> |                                           |                                                                                                                                    |               |                           |                           |                           |                           |                           |                                                 |
| The LA to revamp the V-WASH committees                                                                  | Sanitation and hygiene Promotion          | <ul style="list-style-type: none"> <li>Conduct training of VWASH E committees</li> <li>Monitoring of VWASH E committees</li> </ul> | All Wards     | 4 trainings               | 4 trainings               | 4 trainings               | 4 trainings               | 4 trainings               | LA, MoH, Ministry of Water and Sanitation, MoGE |
| Enhance the investment in desludging Management .                                                       | Investment promotion                      | Conduct 20 trainings of VWASHE in desludging Management                                                                            | All Wards     | 4 sensitisations          | 4 sensitisations          | 4 sensitisations          | 4 sensitisations          | 4 sensitisations          | LA, MoH, Ministry of Water and Sanitation       |
| Strengthen enforcement of onsite sanitation for each household                                          | Sanitation and hygiene Promotion          | Conduct 300 Household inspection of on onsite sanitation                                                                           | All Wards     | 60 inspections            | 60 inspections            | 60 inspections            | 60 inspections            | 60 inspections            | LA, MoH, Ministry of Water and Sanitation       |
| Identify and reserve land for sewerage                                                                  | Sanitation and hygiene                    | Conduct identification of land for                                                                                                 | Chilongo ward | -                         |                           | -20 hectares of land      | -                         |                           | LA, MoH, Ministry of Water and Sanitation       |

|                                                                                                           |                                                         |                                                                                                                                                                   |                                                   |             |             |             |             |             |                                            |
|-----------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------------|-------------|-------------|-------------|-------------|--------------------------------------------|
| ponds by 2026                                                                                             | Promotion                                               | sewerage ponds                                                                                                                                                    |                                                   |             |             | identified  |             |             |                                            |
| <b>Objective :To increase households with Climate resilient Sanitation Infrastructure to 50% by 2030</b>  |                                                         |                                                                                                                                                                   |                                                   |             |             |             |             |             |                                            |
| To provide capacity building to masons in new technologies of Climate resilient Sanitation Infrastructure | Climate resilient sanitation infrastructure development | Conduct training of 40 masons in smart latrines                                                                                                                   | Kilwa Nsembaishe Chisenga Isokwe Kashikishi Shabo | 8 trainings | 8 trainings | 8 trainings | 8 trainings | 8 trainings | LA, MoH, Ministry of Water and Sanitation, |
| <b>Objective :to increase the solid waste managed in growth from 30 % to 50% by 2033</b>                  |                                                         |                                                                                                                                                                   |                                                   |             |             |             |             |             |                                            |
| The LA to ensure procurement of required equipment for garbage disposal and collection in the district.   | Solid waste management                                  | <ul style="list-style-type: none"> <li>Procurement of garbage truck</li> <li>Procurement of refuse bins and tools</li> <li>Construction of refuse bays</li> </ul> | Kashikishi Kabuta Nchelenge Mwatishi Mofwe        | 5 wards     | 5 wards     | 5 wards     | 5 wards     | 5 wards     | LA, MoH, Ministry of Water and Sanitation, |
| The LA to ensure frequent collection of garbage in growth centres and                                     | Garbage collection                                      | <ul style="list-style-type: none"> <li>conduct cleaning of markets</li> <li>conduct</li> </ul>                                                                    | Kashikishi Kabuta Nchelenge Mwatishi Mofwe        | 5 wards     | 5 wards     | 5 wards     | 5 wards     | 5 wards     | LA, MoH, Ministry of Water and Sanitation, |

|                                                                                    |                                  |                                                                                                                                                 |                             |                |                |                |                |                |                                                                |
|------------------------------------------------------------------------------------|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|----------------|----------------|----------------|----------------|----------------|----------------------------------------------------------------|
| institutions                                                                       |                                  | t<br>collecti<br>on of<br>garbage                                                                                                               |                             |                |                |                |                |                |                                                                |
| The district to enforce behavioral change of the community on solid waste disposal | Sanitation and hygiene promotion | Conduct 240 inspections in markets, trading areas and households                                                                                | All wards                   | 48 inspections | 48 inspections | 48 inspections | 48 inspections | 48 inspections | LA, MoH, Ministry of Water and Sanitation,                     |
| The LA to promote PPP investment in solid waste management                         | Investment promotion             | <ul style="list-style-type: none"> <li>• Conduct radio adverts</li> <li>• Conduct community sensitisations</li> </ul>                           | Kashikishi Nchelenge Kabuta | 3 wards        | 3 wards        | 3 wards        | 3 wards        | 3 wards        | LA, District Administration, Ministry of Water and Sanitation, |
| The LA to ensure the district has a well-protected and maintained dumpsite         | Solid waste management           | <ul style="list-style-type: none"> <li>• Conduct engagement meetings with traditional leaders</li> <li>• Construction of 2 dumpsites</li> </ul> | Kashikishi Mofwe            | 1 dumpsite     |                | 1 dumpsite     | -              | -              | LA                                                             |
| The LA to ensure the                                                               | Development of                   | Development and maintenance of                                                                                                                  | Nchelenge Mofwe             |                | 1 cemetery     |                | 1 cemetery     | -              | LA                                                             |



|                                                                                                  |            |           |  |  |  |  |  |  |  |
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| district has a well-protected and maintained cemetery through enegement with traditional leaders | cemeteries | cemetries |  |  |  |  |  |  |  |
|--------------------------------------------------------------------------------------------------|------------|-----------|--|--|--|--|--|--|--|

**Table 37: TRANSPORT AND COMMUNICATION IMPLEMENTATION PLAN**

Programs to enhance improved road infrastructure, canals and increased communication coverage in all wards in the district

| Strategy                         | Program                          | Location      | Target year 2024 | Target year 2025 | Target year 2026 | target 5 2027 | Target year 2028 | Responsible agency /dept |
|----------------------------------|----------------------------------|---------------|------------------|------------------|------------------|---------------|------------------|--------------------------|
| Enhance periodic maintenance and | Road development and maintenance | All the wards | 20km             | 30km             | 40 km            | 50km          | NIL              | RDA and Council          |

|                                                                                                 |                                                                           |                 |                                                                                                     |                                                                                           |                                                                                          |                                                                                        |     |                     |
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| rehabilitation of all roads                                                                     |                                                                           |                 |                                                                                                     |                                                                                           |                                                                                          |                                                                                        |     |                     |
| Ensure all constructed roads are equipped with climate resilient standard drainages and bridges | Improve the standard and quality of drainages and bridges in the district | All the wards   | <ul style="list-style-type: none"> <li>• 2km (drainages)</li> <li>• 3(continuedrainages)</li> </ul> | <ul style="list-style-type: none"> <li>• 2km (drainages)</li> <li>• 2(bridges)</li> </ul> | <ul style="list-style-type: none"> <li>• 2km(drainages)</li> <li>• 2(bridges)</li> </ul> | <ul style="list-style-type: none"> <li>• 2km(drainages)</li> <li>2(bridges)</li> </ul> | NIL | RDA and Council     |
| Ensure the local authority has the required equipment for road                                  | Road development and maintenance                                          | Local authority | 4                                                                                                   | 3                                                                                         | 2                                                                                        | 1                                                                                      | NIL | RDA\Local authority |

|                                                                                                                                              |                                  |                 |           |           |           |           |           |                     |
|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------|-----------|-----------|-----------|-----------|-----------|---------------------|
| construction and maintenance                                                                                                                 |                                  |                 |           |           |           |           |           |                     |
| Increase budget allocation towards road maintenance                                                                                          | Road development and maintenance | Local authority | Yearly    | Yearly    | Yearly    | Yearly    | Yearly    | RDA\Local authority |
| Ensure coordination of the local authority and RDA for timely response to maintenance works                                                  | Road development and maintenance | Local authority | Quarterly | Quarterly | Quarterly | Quarterly | Quarterly | RDA\Local authority |
| Coordination of the local authority and traditional leaders to ensure that sand mining and farming activities are prohibited along the roads | Road development and maintenance | Local authority | Quarterly | Quarterly | Quarterly | Quarterly | quarterly | RDA\Local authority |

| PROGRAMS FOR CANALS                                                                             |                                                            |                                            |      |       |      |      |      |                 |
|-------------------------------------------------------------------------------------------------|------------------------------------------------------------|--------------------------------------------|------|-------|------|------|------|-----------------|
| Goal:                                                                                           | Enhance improved road infrastructure, canals and increased |                                            |      |       |      |      |      |                 |
| Objectives                                                                                      | Ensure Accessibility Of Water Canals Throughout The Year   |                                            |      |       |      |      |      |                 |
| Strategy                                                                                        | Program                                                    | Location                                   | 2024 | 2025  | 2026 | 2027 | 2028 | Responsible     |
| Enhance periodic maintenance of canals                                                          | Inland water transport development and maintenance         | Isokwe Shabo Chisenga Mofwe Kasamba(wards) | 27km | 27 km | 27km | 27km | 27km | Local authority |
| Ensure the local authority has the required equipment and skilled personnel for clearing canals | Maintain ace of equipment                                  | Local authority                            | Nil  | 3     | 3    | 3    | 3    | Local authority |
|                                                                                                 | Deployment of skilled labor                                | Local authority                            | Nil  | 5     | 5    | 5    | 5    | Local authority |
| Increase budget allocation towards canal maintenance                                            | Budgeting maintenance of canal                             | Local authority                            | 1    | 1     | 1    | 1    | 1    | Local authority |
|                                                                                                 |                                                            |                                            |      |       |      |      |      |                 |

| GOAL : To Have A Controlled And Coordinated Spatial Development In The District                                      |                                    |                                                                                |                        |                        |                        |                        |                  |                              |
|----------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------------------------------------------------------------------------|------------------------|------------------------|------------------------|------------------------|------------------|------------------------------|
| objective : The local Authority to increase land use planning in customary areas to 50% by 2033                      |                                    |                                                                                |                        |                        |                        |                        |                  |                              |
| Strategy                                                                                                             | Program                            | Location                                                                       | Target<br>year<br>2024 | Target<br>year<br>2025 | Target<br>year<br>2026 | Target<br>year<br>2027 | target 5<br>2028 | Responsible<br>agency /dept  |
| The LA to promote planning in customary areas through development of planning agreements with traditional leadership | Land management and administration | Kambwali Chiefdon<br>Kanyembo Chiefdom<br>Mununga Chiefdom<br>Nshimba Chiefdom | 4 meetings             | 4 meetings             | 4 Meetings             | 4 meetings             |                  | LA, district Administration, |
|                                                                                                                      | Development of planning            | Mubamba<br>Kanyembo                                                            | -                      | -                      | 1                      | 1                      | 1                | LA, district Administration, |

|  |            |        |  |  |  |  |  |  |
|--|------------|--------|--|--|--|--|--|--|
|  | agreements | Kabuta |  |  |  |  |  |  |
|--|------------|--------|--|--|--|--|--|--|

**Table 38: ENERGY IMPLEMENTATION PLAN**

|                                                                         |                            |                                                                                                                   |                 |                      |                      |                      |                      |                      |                                         |
|-------------------------------------------------------------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------|-----------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------------------------|
| <b>GOAL:</b>                                                            |                            | <b>Improve access and ensure availability of electricity and other sources of energy</b>                          |                 |                      |                      |                      |                      |                      |                                         |
| <b>Objective</b>                                                        |                            | <b>Increase capacity to provide electricity in remote and island wards in the district from 0% to 20% by 2028</b> |                 |                      |                      |                      |                      |                      |                                         |
| <b>Strategy</b>                                                         | <b>Program</b>             | <b>Activities</b>                                                                                                 | <b>Location</b> | <b>Year<br/>2024</b> | <b>Year<br/>2025</b> | <b>Year<br/>2026</b> | <b>Year<br/>2027</b> | <b>Year<br/>2028</b> | <b>Responsible<br/>agency<br/>/dept</b> |
| limited capacity by utility company to reach remote and island wards in | Renewable energy promotion | Supply of solar energy to island ward                                                                             | Kilwa           | -                    | -                    | 1 ward               | -                    | -                    | ZESCO                                   |

|                                                                                                                                                    |                             |                            |                                                                                                                                                                                                      |                           |                           |                           |                           |                           |                |
|----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------------|
| the district                                                                                                                                       |                             |                            |                                                                                                                                                                                                      |                           |                           |                           |                           |                           |                |
| The Local authority to Facilitate investment in solar energy                                                                                       | Renewable energy investment | Construction of Solar Farm | Nchelenge                                                                                                                                                                                            | -                         | -                         | -                         | 1 solar farm              | -                         | ZESCO          |
| <b>Objective :To increase electricity connections to the national grid from 15% to 30% by 2030</b>                                                 |                             |                            |                                                                                                                                                                                                      |                           |                           |                           |                           |                           |                |
| The local authority in partnership with REA and ZESCO should identify and electrify areas and public facilities that have not yet been electrified | Rural electrification       |                            | Mulambi, Yenga, Mutono, Kabulo, Daison, Shapi, Mukwawa, Shabo, Mofwe Chile, Kapela, Katofyo Mutabwa, Shimpundu, Chiba, Mulonda, Muselu, Chipakila, Kampampi, China, Kambwali, Mukumbwa, Shabo, Mofwe | 1000 households connected | 1000 households connected | 1000 households connected | 1000 households connected | 1000 households connected | ZESCO / REA/LA |
| Enhance investment                                                                                                                                 | Electricity generation      | Construction of mini       | Mukombwe                                                                                                                                                                                             | -                         | 1 mini hydro              | -                         | -                         | -                         | ZESCO          |

|                                                 |                             |                   |                                              |                          |                          |                          |                          |                          |       |
|-------------------------------------------------|-----------------------------|-------------------|----------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------|
| t in Mini hydro power plant at Kundabwika falls |                             | hydro power plant |                                              |                          | power plant              |                          |                          |                          |       |
| Enhance energy efficiency promotion             | Energy efficiency promotion |                   | Kashikishi Nchelenge Kasamba Kabuta Mwatishi | 2 sensitization meetings | 2 sensitization meetings | 2 sensitization meetings | 2 sensitization meetings | 2 sensitization meetings | ZESCO |

**Table 39: HEALTH IMPLEMENTATION PLAN**

| <b>GOAL :To Have A Healthy And Productive Community In The District</b>  |           |          |             |             |             |             |             |                          |
|--------------------------------------------------------------------------|-----------|----------|-------------|-------------|-------------|-------------|-------------|--------------------------|
| <b>Objective : To Reduce Waterborne Diseases From 60% To 30% By 2033</b> |           |          |             |             |             |             |             |                          |
| Strategy                                                                 | Programme | Location | Target Year | Target Year | Target Year | Target Year | Target Year | Responsible Institutions |
|                                                                          |           |          | 2024        | 2025        | 2026        | 2027        | 2028        |                          |



|                                                                                              |                                |           |                   |                   |                   |                   |                   |        |
|----------------------------------------------------------------------------------------------|--------------------------------|-----------|-------------------|-------------------|-------------------|-------------------|-------------------|--------|
| households to sensitized on water treatment in collaboration with community based volunteers | Disease prevention and control | All wards | 58,000 households | 58,000 households | 58,000 households | 58,000 households | 58,000 households | LA,MoH |
| The MoH to ensure technical siting of water points and latrines in the district              | Disease prevention and control | All wards | 57999 Households  | 58000 Households  | 58001 Households  | 58002 Households  | 58003 Households  | LA,MoH |
| strengthening the ODF activities                                                             | Disease prevention and control | All wards | 120 Villages      | 120 Villages      | 120 Villages      | 120 Villages      | 120 Villages      | LA,MoH |
| sensitization of good hygiene practices at household level                                   | Disease prevention and control | All wards | 57999 Households  | 57999 Households  | 57999 Households  | 57999 Households  | 57999 Households  | LA,MoH |
| <b>Objective :To increase the essential drug stock status from 70% to 95% by 2033</b>        |                                |           |                   |                   |                   |                   |                   |        |

|                                                                                       |                                               |                                    |                          |                          |                          |                          |                          |     |
|---------------------------------------------------------------------------------------|-----------------------------------------------|------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-----|
| strengthening of procurement system of drugs                                          | Medicines and medical supply chain management | All health facilities in all wards | 22 health facilities     | 22 health facilities     | 22 health facilities     | 22 health facilities     | 22 health facilities     | MOH |
| -strengthening the ordering ELMIS system at all levels                                | Medicines and medical supply chain management | All health facilities in all wards | 22 health facilities     | 22 health facilities     | 22 health facilities     | 22 health facilities     | 22 health facilities     | MOH |
| provide capacity building to pharmacy personnel and health center pharmacy in charges | Medicines and medical supply chain management | All wards                          | 24 Health personnel      | 24 Health personnel      | 24 Health personnel      | 24 Health personnel      | 24 Health personnel      | MOH |
| -strengthening the supply chain system                                                | Medicines and medical supply chain management | DHO                                | 1 District health office | 1 District health office | 1 District health office | 1 District health office | 1 District health office | MOH |

|                                                                                                                  |                                               |                                                           |                    |                    |                    |                    |                    |     |
|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------------------------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-----|
| -Ensure monthly drug auditing is done for each facility                                                          | Medicines and medical supply chain management | All health facilities                                     | 276 Monthly audits | 276 Monthly audits | 276 Monthly audits | 276 Monthly audits | 276 Monthly audits | MOH |
| conduct quarterly pharmacovigilance in all health facilities                                                     | Medicines and medical supply chain management | All health facilities                                     | 92 Meetings        | 92 Meetings        | 92 Meetings        | 92 Meetings        | 92 Meetings        | MOH |
| <b>Objective: To increase the nurse patient ratio from the current 1000 to 500 by end of 2033</b>                |                                               |                                                           |                    |                    |                    |                    |                    |     |
| Recruitment of nurses and midwives                                                                               | Human resource provision                      | All health facilities                                     | 77 Nurses          | 77 Nurses          | 77 Nurses          | 77 Nurses          | 77 Nurses          | MOH |
| <b>Objective: To increase the doctor patient ratio from the current 700 to 350 by 2033</b>                       |                                               |                                                           |                    |                    |                    |                    |                    |     |
| recruitment of doctors and medical licentiates                                                                   | Human resource provision                      | St Pauls mission hospital and Nchelenge District Hospital | 3 doctors          | 3 doctors          | 3 doctors          | 3 doctors          | 3 doctors          | MOH |
| <b>Objective: To increase the number of patients being referred from the current 60 per month to 150 by 2033</b> |                                               |                                                           |                    |                    |                    |                    |                    |     |

|                                                                                                            |                                         |                    |                 |                 |                 |                 |                 |        |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------|
| procurement of 2 ambulances                                                                                | Transport procureme nt and maintena nce | Kabuta ward        | -               | 1               |                 | 1               | -               | LA,MoH |
|                                                                                                            |                                         | Nchelen ge Ward    |                 | ambulance       |                 | ambulance       |                 |        |
| -procurement of 1 boat for referral cases from the Island wards                                            | Transport procureme nt and maintena nce | Kilwa Ward         | -               | -               | 1               | -               | -               | LA,MoH |
|                                                                                                            |                                         |                    |                 |                 | boat            |                 |                 |        |
| Objective: To increase the number of midwives trained in obstetric emergencies from the 30% to 60% by 2033 |                                         |                    |                 |                 |                 |                 |                 |        |
| conduct onsite orientations in all the health centers                                                      | Human resource developme nt             | All health centers | 46 orientations | 46 orientations | 46 orientations | 46 orientations | 46 orientations | MOH    |
| attachment of staff in other districts                                                                     | Human resource developme nt             | Kabuta ward        | 4 Midwives      | 4 Midwives      | 4 Midwives      | 4 Midwives      | 4 Midwives      | MOH    |
|                                                                                                            |                                         | Kashikis hi        |                 |                 |                 |                 |                 |        |
|                                                                                                            |                                         | Nchelen ge         |                 |                 |                 |                 |                 |        |
|                                                                                                            |                                         | Mofwe              |                 |                 |                 |                 |                 |        |

|                                                                                                 |                            |                       |                        |                        |                        |                        |                        |     |
|-------------------------------------------------------------------------------------------------|----------------------------|-----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-----|
| short trainings to be provided to the health personnels                                         | Human resource development | All health facilities | 4 trainings            | 4 trainings            | 4 trainings            | 4 trainings            | 4 trainings            | MOH |
| zonal mentorships provided to staff                                                             | Human resource development | Kabuta zone           | 16 zonal mentorships   | 16 zonal mentorships   | 16 zonal mentorships   | 16 zonal mentorships   | 16 zonal mentorships   | MOH |
|                                                                                                 |                            | Islands zone          |                        |                        |                        |                        |                        |     |
|                                                                                                 |                            | Nchelenge Zone        |                        |                        |                        |                        |                        |     |
|                                                                                                 |                            | Kanyembo zone         |                        |                        |                        |                        |                        |     |
| Objective : To increase the health promotion activities from current 50% to 85% by 2033         |                            |                       |                        |                        |                        |                        |                        |     |
| train health promotion focal point persons in all the wards                                     | Human resource development | All wards             | 23 focal point persons | 23 focal point persons | 23 focal point persons | 23 focal point persons | 23 focal point persons | MOH |
| awareness increased on Social Behavioral change(SBC)                                            | Health education promotion | All wards             | 276 sensitizations     | 276 sensitizations     | 276 sensitizations     | 276 sensitizations     | 276 sensitizations     | MOH |
| Objective :Increase awareness on non -communicable diseases from the current 25% to 50% by 2033 |                            |                       |                        |                        |                        |                        |                        |     |
| introduce outreach activities on non-communicable diseases                                      | Mobile health services     | All wards             | 275 Mobile screenings  | 275 Mobile screenings  | 275 Mobile screenings  | 275 Mobile screenings  | 275 Mobile screenings  | MOH |

**Table 41: TOURISM IMPLEMENTATION PLAN**

| STRATEGY                                                                                                                        | PROGRAM                         | ACTIVITIES                           | LOCATION BY PRIORITY              | 2024 | 2025 | 2026 | 2027 | 2028 | RESPONSIBLE AGENCY                         |
|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------|--------------------------------------|-----------------------------------|------|------|------|------|------|--------------------------------------------|
| - The local authority to coordinate community groups engaged in development of artifacts and connect them to financial services | Tourism product development     | District Tourism exhibition festival | Nchelenge district at Mweru Beach | 1    | 1    | 1    | 1    | 1    | LA/Ministry of tourism, business community |
| - The local authority to increase funding                                                                                       | Tourism promotion and marketing | Touring Kilwa Curves                 | Kilwa Ward at Kilwa Is land       | 1    | 1    | 1    | 1    | 1    | LA/Ministry of tourism, business community |
|                                                                                                                                 |                                 | Munsa                                | Kabuta                            | 1    | 1    | 1    | 1    | 1    | LA/Ministry of                             |

|                                                                                             |                            |                                     |                           |    |    |    |    |    |                                            |
|---------------------------------------------------------------------------------------------|----------------------------|-------------------------------------|---------------------------|----|----|----|----|----|--------------------------------------------|
| towards tourism                                                                             |                            | Warter Source Spring                | Ward                      |    |    |    |    |    | tourism, business community                |
|                                                                                             |                            | Nchelenge lake Mweru Beach Area     | Nchelenge Ward            | 4  | 4  | 4  | 4  | 4  | LA/Ministry of tourism, business community |
|                                                                                             |                            | Touring Isokwe Island               | Isokwe Ward               | 2  | 2  | 2  | 2  | 2  | LA/Ministry of tourism, business community |
| - Improve staffing levels in the sector                                                     | Staff recruitment          | Recruit / deployment of one officer | Nchelenge district Office | 01 | 01 | 00 | 00 | 00 | Ministry of tourism                        |
| - Provision of adequate transport to ensure the local authority works with the community to | infrastructure development | Rehabilitation of the office        | Nchelenge Ward            | 01 | -  | -  | -  | 1  | Ministry of tourism                        |
|                                                                                             |                            | Purchasing of operation vehicle     | Nchelenge district        | -  | 01 | -  | -  |    | Ministry of tourism                        |
|                                                                                             |                            | Purchasing of tourism boat          | Nchelenge District        | -  | -  | 01 | -  | -  | Ministry of tourism                        |

|                                                                                                              |                                 |                                                 |                    |   |   |   |   |   |                        |
|--------------------------------------------------------------------------------------------------------------|---------------------------------|-------------------------------------------------|--------------------|---|---|---|---|---|------------------------|
| physically capture tourism sites                                                                             |                                 |                                                 |                    |   |   |   |   |   |                        |
| Improve road infrastructure to tourism sites                                                                 | infrastructure development      | Build Nchelenge – Kashikishi Beach Road         | Nchelenge Ward     | 1 | 1 | 1 | 1 | 1 | LA/Ministry of tourism |
| Ensure that land is allocated for the construction of an airport in consultation with traditional leadership | infrastructure development      | Build a Tourism Centre at the lake Mweru beach. | Nchelenge Ward     | 1 | - | - | - | - | LA/Ministry of tourism |
|                                                                                                              |                                 | Land allocation for airport                     | Nchelenge Ward     | 1 | 1 | 1 | 1 | 1 | LA/Ministry of tourism |
|                                                                                                              |                                 | Developing a beach side at Isokwe Island        | Nchelenge Ward     |   |   |   |   |   | LA/Ministry of tourism |
| -ensure zoning and planning of customary land in coordination with traditional authorities                   | Tourism promotion and marketing | Zoning of tourism land                          | Nchelenge district | 1 | 1 | 1 | 1 | 1 | LA/Ministry of tourism |



|                                                                                |                                 |                                 |                    |   |   |   |   |   |                                            |
|--------------------------------------------------------------------------------|---------------------------------|---------------------------------|--------------------|---|---|---|---|---|--------------------------------------------|
| provide communities with knowledge on the benefits of preserving tourism sites | Tourism promotion and marketing | Stakeholders engagement meeting | Nchelenge district | 1 | 1 | 1 | 1 | 1 | LA/Ministry of tourism, Business community |
|                                                                                |                                 | Community engagement            | Nchelenge district | 1 | 1 | 1 | 1 | 1 | LA/Ministry of tourism, business community |
|                                                                                |                                 |                                 |                    |   |   |   |   |   |                                            |

**Table 43: POVERTY IMPLEMENTATION PLAN**

**GOAL: To Reduce Poverty And Vulnerability In The District From 77% To 30%**

**Objective : To improve entrepreneurship and skills development by 2033**

| Strategy                                            | Program                                                            | Activity             | Location       | Target year 2024 | Target year 2025 | Target year 2026 | Target year 2027 | target 5 2028 | Responsible agency /dept               |
|-----------------------------------------------------|--------------------------------------------------------------------|----------------------|----------------|------------------|------------------|------------------|------------------|---------------|----------------------------------------|
| ensure provision of skills to low income households | TEVET skills development                                           | Training             | All wards      | 200 youths       | 300 youths       | 400 youths       | 550 youths       | 600 youths    | Community development /local authority |
|                                                     | Women , community and persons with disabilities skills development | Tailoring and design | All wards      | 40               | 68               | 100              | 175              | 250           | Community development /local authority |
|                                                     | Community skills centre rehabilitation                             | cookery              | Nchelenge ward |                  | 1 centre         | 1 centre         | -                | -             | Community development /local authority |
|                                                     | Adult literacy                                                     | crafts               | All wards      | 300 Learners     | 400 learners     | 500 learners     | 600 Learners     | 700 learners  | Community development /local authority |

| <b>Objective : To increase access to finances and improve food security of viable but vulnerable households from 10% to 40% by 2033</b> |                                                   |                                                  |                      |                           |                           |                            |                            |                            |                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|--------------------------------------------------|----------------------|---------------------------|---------------------------|----------------------------|----------------------------|----------------------------|----------------------------------------|
| Strategy                                                                                                                                | Program                                           | Activities                                       | Location by Priority | Target year 2024          | Target year 2025          | Target year 2026           | Target year 2027           | target 5 2028              | Responsible agency /Dept               |
| Formation of Village Banking groups in 15 wards of Nchelenge District                                                                   | Rural finance                                     | Entrepreneurship And Supporting women livelihood | All 15 Wards         | 40 village banking groups | 65 village banking groups | 150 village banking groups | 200 village banking groups | 275 village banking groups | Community development /local authority |
| Increase access of vulnerable but viable households to farming inputs                                                                   | Food security Support                             | Training & Distribution of Farming inputs        | All the 15           | 500 Households            | 700 households            | 700 households             | 700 households             | 700 households             | Community development /local authority |
| Promote financial inclusion                                                                                                             | Financial education                               | Life and business skills training                | All the 15 Wards     | 12 trainings              | 12 trainings              | 12 trainings               | 12 trainings               | 12 trainings               | LA,MCDSS                               |
| <b>Objective : To reduce child marriages in the district by 50% By 2033</b>                                                             |                                                   |                                                  |                      |                           |                           |                            |                            |                            |                                        |
| The district stakeholders and traditional leaders to intensify community                                                                | Early marriages and teenage pregnancies education | Community engagement and sensitization           | All the 15 Wards     | 12 sensitizations         | 12 sensitizations         | 12 sensitizations          | 12 sensitizations          | 12 sensitizations          | LA,MCDSS, ZANIS                        |

|                                                                                                                             |                                                                  |                          |                  |                       |                       |                       |                       |                       |                 |
|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|--------------------------|------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------|
| sensitizations on early marriages and teenage pregnancies                                                                   |                                                                  |                          |                  |                       |                       |                       |                       |                       |                 |
| Creation of youth friendly corners in all the wards                                                                         | Adolescent reproductive education                                |                          | All the 15 Wards | 2 Corners established | 2 Corners established | 2 Corners established | 2 Corners established | 2 Corners established | LA,MCDSS        |
| The local authority to engage adolescents and youths in sports and Arts programs                                            | Sports, culture and arts development                             | Field Activities         | All the 15 Wards | 4 meetings            | 4 meetings            | 4 meetings            | 4 meetings            | 4 meetings            | LA,MCDSS        |
| <b>OBJECTIVE: To increase access to diversified livelihood activities for low-income households from 10% to 40% by 2033</b> |                                                                  |                          |                  |                       |                       |                       |                       |                       |                 |
| support vulnerable households with diversified livelihood activities and empowerment programs                               | Youth, women community and persons with disabilities empowerment | Training and empowerment | All the 15 Wards | 2500 Beneficiaries    | 3500 beneficiaries    | 4500 beneficiaries    | 5500 beneficiaries    | 6000 beneficiaries    | LA,MCDSS        |
| Promote enterprise development                                                                                              | Small and medium scale                                           | Training and empowerment | All the 15 Wards | 12 Trainings          | 12 trainings          | 12 trainings          | 12 trainings          | 12 trainings          | LA,MCDSS, MoSME |

|                                                                                     |                                   |                                                                   |                  |                      |                      |                     |                     |                     |                                                   |
|-------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------------------------|------------------|----------------------|----------------------|---------------------|---------------------|---------------------|---------------------------------------------------|
|                                                                                     | enterprise development            |                                                                   |                  |                      |                      |                     |                     |                     |                                                   |
|                                                                                     | Cooperatives development          | Training and empowerment                                          | All the 15 Wards | 20 Cooperatives      | 20 cooperatives      | 20 cooperatives     | 20 cooperatives     | 20 cooperatives     | LA,MCDSS, MoSME                                   |
|                                                                                     | Enterprise development initiative | Skills development                                                | All the 15 Wards |                      |                      |                     |                     |                     | LA,MCDSS, MoSME                                   |
| <b>OBJECTIVE :To reduce extreme poverty in the most affected households by 2033</b> |                                   |                                                                   |                  |                      |                      |                     |                     |                     |                                                   |
| To enhance the welfare of vulnerable households in all wards                        | Social Cash Transfer              | Enumeration, validating and disbursement of cash to beneficiaries | All wards        | 11,309 beneficiaries | 12,329 beneficiaries | 13000 beneficiaries | 14000 beneficiaries | 15000 beneficiaries | MCDSS                                             |
|                                                                                     | Self-help initiatives promotion   | Sensitization                                                     | All the Wards    | 3                    | 3                    | 3                   | 3                   | 3                   | LA,MCDSS                                          |
|                                                                                     | Public Welfare Assistance Scheme  | Community engagement                                              | All the Wards    | 3                    | 3                    | 3                   | 3                   | 4                   | LA,MCDSS                                          |
|                                                                                     | Disability Services               | Community engagement                                              | All the Wards    | 15                   | 15                   | 15                  | 15                  | 15                  | LA,MCDSS                                          |
|                                                                                     | GBV elimination                   | sensitisations                                                    | All the Wards    | 15                   | 15                   | 15                  | 15                  | 15                  | LA, MCDSS, District Administration, Zambia Police |
| Reduce Vulnerability associated with                                                | HIV testing and treatment         | Sensitisation and service delivery                                | All the Wards    | 3                    | 3                    | 3                   | 3                   | 3                   | LA,MoH                                            |

|                                                                                     |                                     |               |               |                   |                   |                   |                   |                   |                             |
|-------------------------------------------------------------------------------------|-------------------------------------|---------------|---------------|-------------------|-------------------|-------------------|-------------------|-------------------|-----------------------------|
| HIV/AIDS                                                                            |                                     |               |               |                   |                   |                   |                   |                   |                             |
|                                                                                     | Stigma and discrimination reduction | sensitisation | All the Wards | 12 sensitizations | 12 sensitizations | 12 sensitizations | 12 sensitizations | 12 sensitizations | LA,MoH                      |
|                                                                                     | HIV/AIDS financing                  | sensitisation | All the Wards |                   |                   |                   |                   |                   | LA,MoH                      |
|                                                                                     |                                     |               |               |                   |                   |                   |                   |                   |                             |
| <b>Objective : To have diversified economic activities for job creation by 2033</b> |                                     |               |               |                   |                   |                   |                   |                   |                             |
| To create an enabling environment for diversified economic investment               | Investment promotion                | District expo | All the wards | 1                 | 1                 | 1                 | 1                 | 1                 | LA, District Administration |

## Forestry sector

**TABLE 44: FORESTRY SECTOR IMPLEMENTATION PLAN**

|                                                                                                                                                                                    |                                                                 |                                                       |                                                                   |          |          |          |          |          |                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------------------|----------|----------|----------|----------|----------|---------------------------------------|
|                                                                                                                                                                                    |                                                                 |                                                       |                                                                   |          |          |          |          |          |                                       |
| <b>Goal:</b>                                                                                                                                                                       | <b>To have Improved Sustainable Use of Forest Resources</b>     |                                                       |                                                                   |          |          |          |          |          |                                       |
| <b>Objective 1:</b>                                                                                                                                                                | <b>To increase annual Afforestation from 20% to 40% by 2033</b> |                                                       |                                                                   |          |          |          |          |          |                                       |
| Strategy                                                                                                                                                                           | Program                                                         | Activity                                              | Location                                                          | Year2024 | Year2025 | Year2026 | Year2027 | Year2028 | Responsible Agency                    |
| The District will promote agro forestry livelihood activities by partnering with the local community and other organization and also scale up nursery and plantation establishment | Agro-forestry training                                          | To conduct community sensitizations                   | Mofwe, Munkombwe, ,Katofyo, Mulwe                                 | 3        | 3        | 3        | 3        | 3        | MOA, MOGEE , DFA, L.A,WFP AAH Tralard |
|                                                                                                                                                                                    |                                                                 | Training of the community members and empowering them | Mofwe, Munkombwe, ,Katofyo and Mulwe                              | 1        | 1        | 1        | 1        | 1        |                                       |
|                                                                                                                                                                                    | Bee Keeping training                                            | Training of Lead farmers                              | Mofwe, Mulwe, Katofyo, Mwatishi, Chilongo, Munkombwe              | 1        | 1        | 1        | 1        | 1        |                                       |
|                                                                                                                                                                                    |                                                                 | Lead farmers train follower farmers                   | Mulwe,Mofwe Chilongo Mantapala                                    | 1        | 2        | 2        | 2        | 2        |                                       |
|                                                                                                                                                                                    | Nursery Establishment and Management                            |                                                       | Mantapala Forest Reserve Nchelenge Local Forest Rubber Plantation | 1        | 1        | 1        | 1        | 1        |                                       |
|                                                                                                                                                                                    |                                                                 | M & E                                                 |                                                                   | 3        | 3        | 3        | 3        | 3        |                                       |
| Eviction of squatters from Forest reserves                                                                                                                                         | Sustainable Forest Management                                   | Sensitization meetings in the communities             | Nchelenge Local Forest Mantapala Forest                           | 12       | 12       | 12       | 12       | 12       | MOGEE                                 |

|                                                                                                              |                                         |                                                                        |                                                                                           |    |    |    |    |    |                                                              |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|----|----|----|----|----|--------------------------------------------------------------|
| ( Forest Protection and management)                                                                          |                                         | ,                                                                      | Reserve Mbereshi Forest Reserve Rubber Plantation                                         |    |    |    |    |    |                                                              |
|                                                                                                              |                                         | Forest Patrols,                                                        | Nchelenge District                                                                        | 25 | 25 | 25 | 25 | 25 | MOGEE , DFA, L.A POLICE                                      |
|                                                                                                              |                                         | Eviction notices and evictions from forest reserves                    | Nchelenge Local forest Mantapala Forest Reserve Mbereshi Forest Reserve Rubber Plantation | 1  | 1  | 1  | 1  | 1  | MOA, LA, MOCTA, Department of Forestry, Livestock and POLICE |
| Promote use of appropriate technology (machines) in timber, Bee keeping and rubber harvesting and processing |                                         | Market linkages from farmer to agro dealer                             | Munkombwe Concession Area Mantapala Forest Reserve Kenani Rubber Plantation               | 4  | 4  | 4  | 4  | 4  | MOGEE                                                        |
| Mechanize Forestry Plantation operations                                                                     | Establishment Management and plantation | Procurement of two tractors and implements for tree planting exercises | Nchelenge Local Forest Mantapala Forest Reserve Mbereshi Forest Reserve                   |    | 1  | 1  |    |    | MOGEE                                                        |







#### **TABLE 45 LOCAL REVENUE IMPLEMENTATION PLAN**

It outlines the programs and startegies the local authority will carryout to improve revenue collection.

|              |                                                                                      |
|--------------|--------------------------------------------------------------------------------------|
| <b>GOAL:</b> | <b>Improve locally generated revenue in order provide effective service delivery</b> |
|--------------|--------------------------------------------------------------------------------------|

| Objective                                                                                       |                                 | To increase local revenue efficiency from 56% to 90% by 2033                                                                                 |                                            |                 |                 |                 |                 |                 |                          |
|-------------------------------------------------------------------------------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|--------------------------|
| Strategy                                                                                        | Program                         | Activities                                                                                                                                   | Location                                   | Year 2024       | Year 2025       | Year 2026       | Year 2027       | Year 2028       | Responsible agency /dept |
| The local authority to engage in commercial ventures and explore alternative sources of revenue | Completion of Council lodge     | Construction of Council Lodge                                                                                                                | Kashikishi                                 | 1 lodge         | -               | -               | -               | -               | LA                       |
|                                                                                                 | Library services                | <ul style="list-style-type: none"> <li>Rehabilitation of building</li> <li>Procurement of furniture</li> <li>Procurement of books</li> </ul> | Nchelenge                                  |                 |                 | 1               | -               | -               | LA/Cooperating partners  |
|                                                                                                 | Sports investment               | Construction of sports stadium                                                                                                               | Nchelenge                                  | -               | -               | -               | -               | 1 stadium       | LA/cooperating partners  |
| Intensify monitoring and supervision of revenue collectors                                      | Human Resource Management       | Conduct training of revenue collectors                                                                                                       | Nchelenge<br>Kabuta<br>Kashikishi<br>Kilwa | 1 training      | 1 training      | 1 training      | 1 training      | 1 training      | LA                       |
|                                                                                                 | Vehicle servicing               | Conduct vehicle servicing                                                                                                                    | Nchelenge                                  | 6 vehicles      | 6 vehicles      | 6 vehicles      | 6 vehicles      | 6 vehicles      | LA                       |
|                                                                                                 | Revenue Barriers rehabilitation | Conduct rehabilitation of barriers                                                                                                           | Yenga<br>Mupundu                           |                 | 1 barrier       | 1 barrier       |                 |                 | LA                       |
| The local authority to work                                                                     | Establishment of revenue        | Conduct Field surveys                                                                                                                        | All wards                                  | 4 field surveys | 4 field surveys | 4 field surveys | 4 field surveys | 4 field surveys | LA                       |

|                                                                                                           |                                    |                                          |                                                                                                         |                      |                      |                      |                      |                      |                         |
|-----------------------------------------------------------------------------------------------------------|------------------------------------|------------------------------------------|---------------------------------------------------------------------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-------------------------|
| with all departments to establish and update revenue database                                             | database                           | Development of revenue database          | All wards                                                                                               | 1 database           | 1 database           | 1 database           | 1 database           | 1 database           | LA                      |
| The local authority to maintain good public relations with the communities and provide frequent feedbacks | Public consultation and engagement | Conduct radio programs                   | All wards                                                                                               | 4 radio programs     | 4 radio programs     | 4 radio programs     | 4 radio programs     | 4 radio programs     | LA                      |
|                                                                                                           |                                    | Conduct community sensitization meetings | All wards                                                                                               | 4 community meetings | 4 community meetings | 4 community meetings | 4 community meetings | 4 community meetings | LA                      |
|                                                                                                           | WDC office construction            | Construction of WDC offices              | Kashikishi<br>Nchelenge<br>Kabuta<br>Mwatishi<br>Kasamba<br>Mofwe<br>Mulwe<br>Katofyo<br>Shabo<br>Kilwa | 2 offices            | 2 offices            | 2 offices            | 2 offices            | 2 offices            | LA/Cooperating Partners |
| The LA to form debt collection team to frequently                                                         | Debts Collection                   | Formation of debt collection team        | Nchelenge                                                                                               | 1 team               | 1 team               | 1 team               | 1 team               | 1 team               | LA                      |

|                       |  |  |  |  |  |  |  |  |  |
|-----------------------|--|--|--|--|--|--|--|--|--|
| follow up<br>on debts |  |  |  |  |  |  |  |  |  |
|-----------------------|--|--|--|--|--|--|--|--|--|

## 10.0 SPATIAL DEVELOPMENT FRAMEWORK

**10.1** Identification of Alternative Spatial Development Scenarios That Might Be Able to Address the Identified Issues and achieve goals and objectives.

This section outlines the proposed future spatial form for development of Nchelenge district. The Description of the scenario including rationale, that is, relevance, (2) advantages and disadvantages of each scenario (3) and the justification of adoption of each scenario.

10.1.1           Description of the scenario including rationale

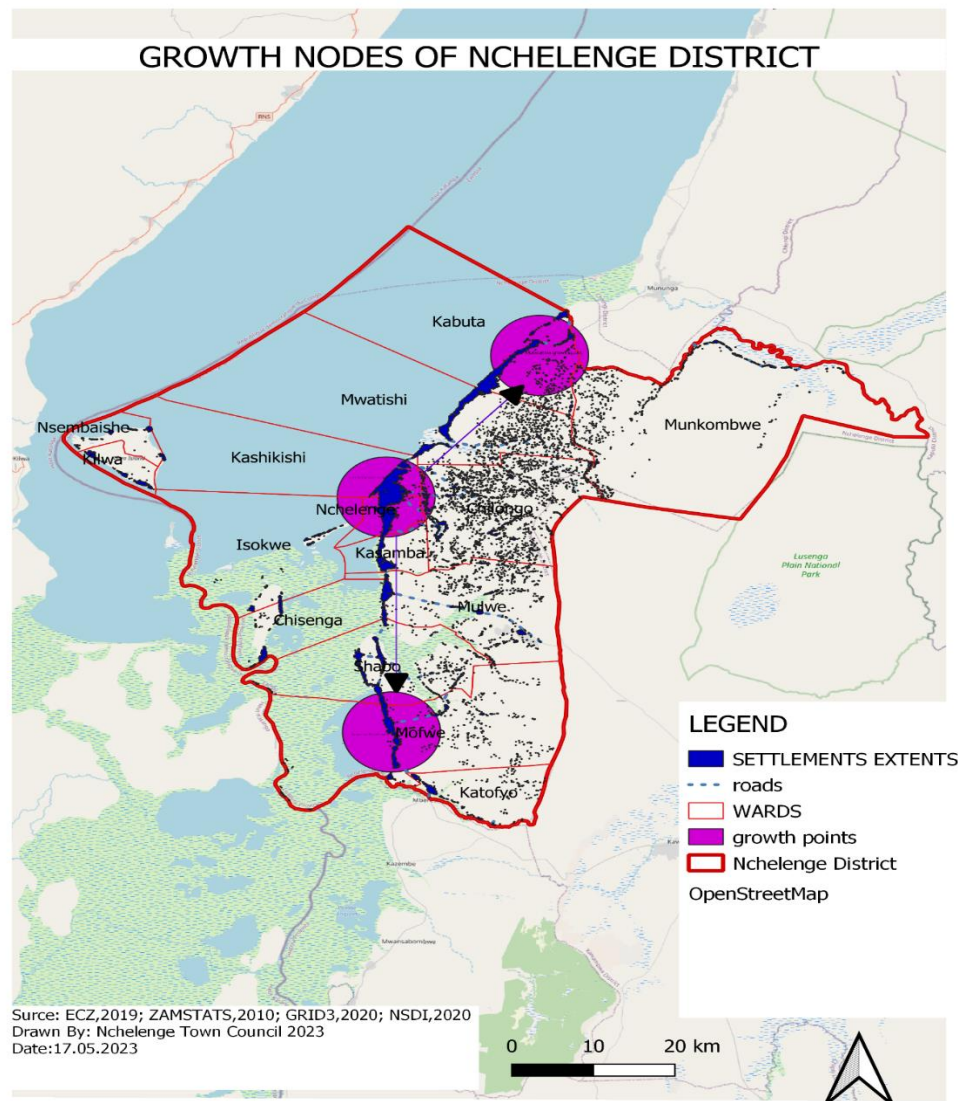
Scenario One- Formation of Satellite Towns (Growth Nodes) Identification of growth centers and nodes

Identification of growth centers and nodes

The concept of a satellite town is used in modern planning to represent essential urban infrastructure, such as the roads linking the satellite to the township's central business district. In accordance with planning guidelines, satellite towns are developed with the goal of relieving pressure on a districts or province's main city or town. Considering the challenges associated with managing the land within the Nchelenge Township boundary because there were already settlers there before the township was founded

The establishment of the two proposed satellite towns would represent an alternative development scenario. One satellite town would be in the Mununga Chiefdom's Mukwakwa area, and the other one would be in the Kambwali Chiefdom's Kanyembos area. In addition to serving as growth hubs for the district, these two will be the satellite points. This will allow development in the district to grow from three growth point being t in Nchelenge ward, Kabuta east area, Mukwakwa satellite and Kanyembo Satellite,

The map 19 below shows growth points through economical diversification in the IDP area.





### Consideration of advantages of scenario

Helps reduce strain on the parent town: in the case of Nchelenge district, the satellite town will help reduce the strain on the demand of land which the current township cannot supply. The satellite towns will provide different land uses and accommodate residential, industrial and business development

Decongestion: Satellite points in the district alleviate the population pressure on Nchelenge Township, reducing overcrowding and strain on infrastructure.

Economic Growth: With their own local industries and businesses, satellite nodes in Nchelenge will contribute significantly to the economy of the district.

Disadvantages of Creation of Satellite Towns (Growth Nodes) Identification of growth canters and nodes

## SCENARIO TWO

### Promote Sustainable Human Settlements

Through increased access to Basic Services like Education, Health, Environmental Services, and Social Protection while protecting the environment, this development scenario seeks to improve the economic, social, and environmental quality of human settlements. The idea is to strengthen service delivery through equitable distribution of social services to ensure that population travel distances are significantly reduced while promoting green energy and green building. Growth nodes are areas of economic, social, and environmentally friendly infrastructure.

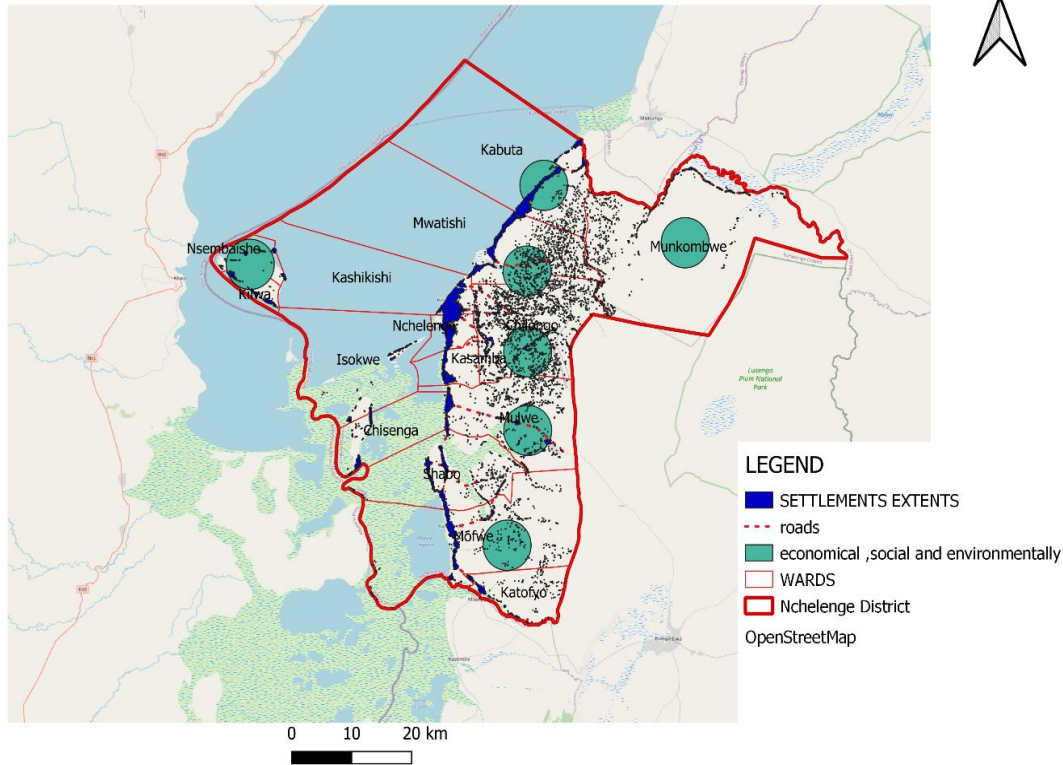
#### Consideration of advantages of scenario

This scenario will promote buffer zones of water bodies to protect water quality, agricultural blocks to improve food production, and forest reserves to reduce deforestation. Resource conservation between counties is also encouraged to protect the natural resources shared between Nchelenge and neighbouring districts.

#### Consideration of disadvantages of scenario

Map 20 Promote Sustainable Settlements

## Promote Sustainable Human Settlement



*Source : Nchelenge Town Council 2023*

## SCENARIO THREE GREEN BELT LAND-USE PLANNING CONCEPT

Green belt is a land-use planning concept. A green belt is a designated area of undeveloped land which encircles a district town. Building on it is forbidden or severely restricted. Greenbelt land isn't necessarily wild

or natural; lots of it is given over to things like agriculture fields and natural. There are also so-called 'greenways' and 'green wedges', which are identical to greenbelt in purpose but not in shape.

Their purpose is to give the district easy access to large natural spaces, protect the environment and prevent urban sprawl (basically stop areas from overcrowding).

In the case of Nchelenge District According to the CSO 2010 projections, it is anticipated that Nchelenge district will have a population of 301,256 by 2031 so when we adopt the green belt land-use planning concept in order to prevent Population growth will inevitably result in higher demand for services like new housing and competing land use priorities, which will result in encroachments on the nature, forest cover and greenbelt. Therefore, the local authority in coordination with the Provincial Planning Authority will prepare land use plans, they will be need to incorporate greenbelt land use concept to preserve the green belt for future land use

These are all worthwhile aims that, if achieved, A spatial strategy which incorporates green belt must be backed up by development control policies and strategies

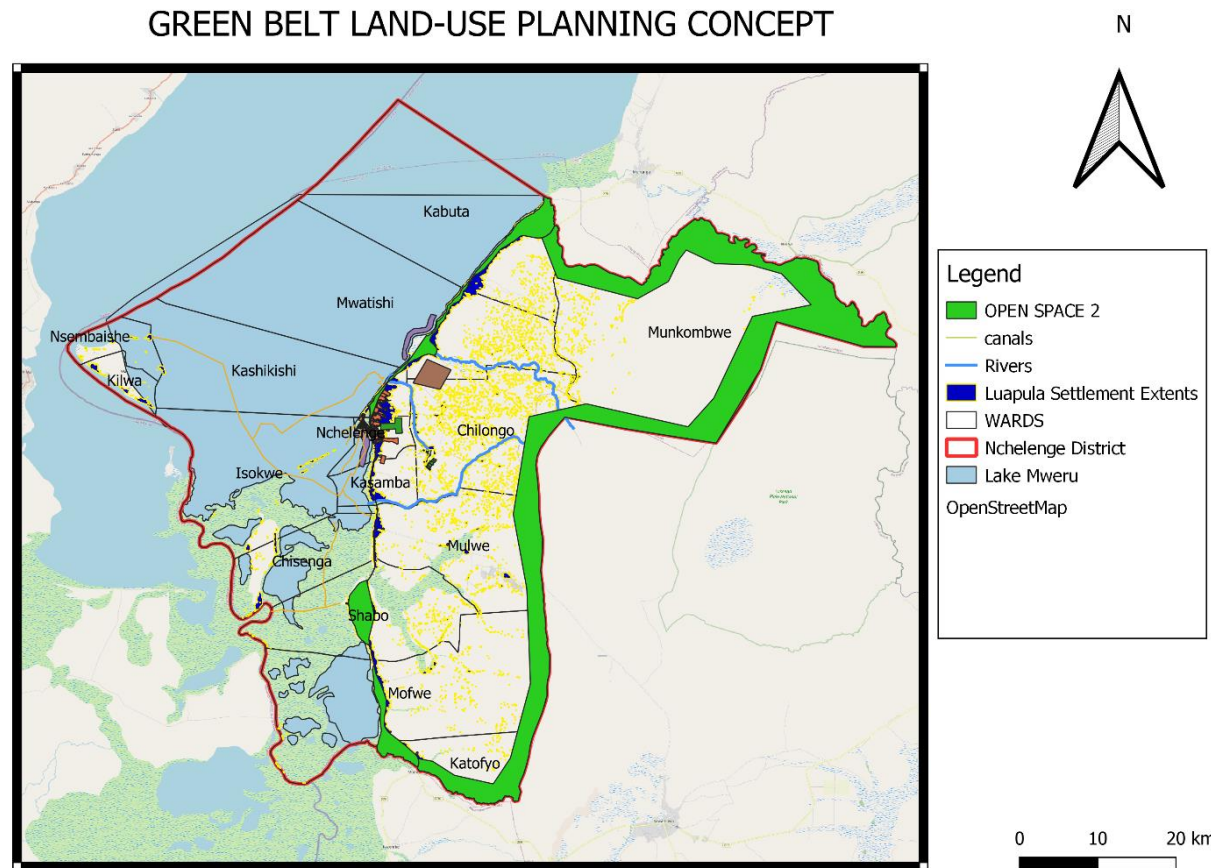
Consideration of advantages for greenbelt land-use concept

- Providing recreational areas close to the rural-urban areas and towns
- Improving air and water quality in Nchelenge District
- Reducing flood risk and enhancing drought resilience in Nchelenge District
- Encouraging better land use within the district

### Disadvantages of considering green belt land-use planning concept

- Greenbelt land is not always accessible to the public as the land is often privately owned.
- Housing will be expensive in Nchelenge district considering that most land will be taken up by the green field
- According to the CSO 2010 projections, it is anticipated that Nchelenge district will have a population of 301,256 by 2031 which shows that the population for Nchelenge District will grow which means that it will be difficult to constrain the growth of an urban area with a growing population

The map 21 below shows the Greenbelt development scenarios



*Drawn By Nchelenge Town Council 2023*

## 10.2 Chosen Spatial Development Scenario

The growth node concept will help drive growth in nodes in the vicinity and will also promote the existence of a livable and resilient hub orderly and sustainable development. A key feature of this strategy is identifying

new growth nodes in certain areas of our county. The identified nodal points require growth so that they stimulate growth in the peripheral regions. Furthermore, this strategy will help ensure that Nchelenge County provides sufficient land for various land uses, such as residential commercial agriculture and other purposes.

#### Justification for Adopting Growth Centre Strategy

According to the CSO 2010 projections, it is anticipated that Nchelenge district will have a population of 301,256 by 2031. The demands of a population that is growing so quickly frequently include issues related to development, such as clogged infrastructure (roads, schools, utilities, public goods and services, etc.) crowding, informal housing or slums, and increased health vulnerability to epidemics. The development also changes how buildings and land are used, which could lead to environmental degradation.

Due to the above Some Nchelenge residents may decide to relocate outside of the district in an effort to avoid the unfavorable effects of urbanization. Building in undeveloped areas might be considered by some people, which would promote the development of satellite towns. Nchelenge will be able to meet the demands of the growing town by using satellite towns. The District can expand using satellite towns, ensuring the long-term viability of the rural-urban areas. As a result, the community will be able to create social, political, and economic structures that can adapt to changing environmental conditions and take into account changing demographics.

#### 10.2.2 Identification of Activities Required for Implementation of the SDF to include supporting infrastructure development

### 10.3 Land Use Planning Objectives and Strategies

Focusing specifically on the Nchelenge Township, any subdivisions or alterations in land use will be handled according to the guidelines set by the spatial planning legislation, as outlined in the Urban and Regional Planning Act 3 of 2015. The district's spatial development should align with social and economic activities. All development must adhere to the applicable rules and standards. Environment conservation should be a priority, and where necessary, measures to mitigate potential negative impacts will be implemented. There should be promotion of infill development on unused land to enhance the population density in development corridors and existing growth centers. The development along main public transport routes should be encouraged to increase density in current areas.

#### 10.3.1 Land Use Planning Objectives and Strategies for Improving, Maintaining or Protecting the Environmental Aspects of Development

For the residents of Nchelenge District, land is a valuable resource that is essential to economic growth. The district's high levels of poverty, rising unemployment rates and low levels of education have made it difficult to make progress in this area. Despite being in a prime location, the Nchelenge District is still underdeveloped. Both in the rural and peri-urban areas of the district, there is a critical need to strike a balance between economic development and environmental protection. Natural resources are abundant in Nchelenge, and if they are used effectively, they can generate employment through value addition while averting potential environmental conflicts in the future. Economic policies will encourage the growth of the local economy and of the labor force. Industrial growth will be focused in all proposed growth nodes both in the, peri-urban and rural parts of the district. Will indeed be concentrated in all of the district's proposed growth nodes, both in the peri-urban and rural areas. To preserve the quality of the environment, these developments must be



consistent, ensure proper planning, and be sustainable. The subsequent land use guidelines shall be followed. :

1. Identify sites with various potentials in agriculture and tourism among others. Once these are identified they must be incorporated during the preparation of the Local Area plans (LAPs) For Nchelenge.
2. Reduce urban sprawl through densification and setting of urban development standards for building footprints and heights per square kilometer;
3. Strengthen the existing major bus routes and commuter routes by enhancing the viability of public transport systems through corridor development and provision of last mile public facilities; 4. Integrate Greenfield development into existing road transport systems; and
5. Increase environmental protection by paying attention to more environmental considerations rather than cadastral boundaries in the provision of public infrastructure.
6. Lobby for investors to provide essential modern facilities that the district is lacking in the proposed growth nodes such as villas, condominiums and their accompanying infrastructure, consumption spaces such as shopping malls, office space, and private hospitals, schools as well as recreational spaces.
7. All proposed capital projects that will be implemented are to perform either an Environmental Project Brief (EPB) or an Environmental impact assessment (EIA) depending on the levels of impact to the environment.

#### 10.3.1.1 Identification of the Areas to Be Improved. Maintained Or Protected

The IDP region is rich in natural resources, including good soils, forests, underground water, and water. The area is productive for growing crops and raising livestock due to the favorable climatic conditions and rich soils. Specific areas that need to be protected, maintained, and improved have been identified by the IDP.;

- One (1) Community Forestry Management Area under Kanyembo chiefdom, which sits on 1,040 ha of land
- have 21ha of land which is managed under Natural Forest Regeneration (NFR) in Sub- Chief Mutampuka's chiefdom
- Rubber plantation
- Local forest
- Mbereshi National Forest
- Miba Farm blocks
- Lake Mweru
- Land in Kanyembo chiefdom
- 

#### 10.3.1.2 Statement as To the Type of Development to Be Permitted Within the Identified Area

For Miba farm blocks there is need to take services closer to the people this includes the construction of a school, clinic and a market

#### 10.3.1.3 Identification of Activities Required for Implementation

Under creation of Community Forestry Management Areas in the District one of the activities will be to instill a sense of ownership and responsibility in the local community with regard to forest management, involve the local communities in the management of the regenerations, conduct beekeeping training and sensitization programs, conduct climate change awareness programs, and establish and expand plantations (local supply plantations and rubber plantations) to supply timber and other resources.

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

#### 10.3.5.1 Identification of the Informal Settlements to be upgraded

- The district has 3 informal settlements which are currently been upgraded by Nchelenge Town Council by preparing Local Area Plans and providing the much-needed social services. The informal settlements are characterized by mostly residential land use having narrow road, with some not having any motorable access. Services such as schools, police posts or health posts were accommodated in the settlements and the exercise was not very easy. It is worth noting that the district is expected to expand in the newly opened up area of Mubamba, an area under a memorandum of understanding with the Kambwali Royal Establishment. The district also has 1 “planned” neighbourhoods, with existing local area plans providing for residential and other supporting land uses and sufficient road reserves. However, the planned neighbourhood bordering with customary land have suffered distortion as traditional leaders allocate land without taking in consideration the local area plan of the area, making land administration and development control challenge.

#### 10.3.5.2 General description of Improvement Inputs or Other Management Responses Required

Only through local people's control of the creation of their own living environment is it possible to produce built environments better adapted to the economic capacity, cultural background and particular needs of low-income populations of the district.

#### 10.3.5.3 General Statement about the Appropriate Building and Land Use Controls to be Applied in Those Areas.

Planners and architects should adopt an ethnographic approach to their work. Start with the granular elements of an informal settlement before attempting its overall redesign. It is crucial for the district to document the residents' daily usage of both public and private physical spaces. One should also learn place and space names in the local vernacular, and translate these terms to understand the values, needs, and practices associated with public and private spaces in Nchelenge district.

#### 10.3.5.4 Identification of Activities Required for Implementation

The district should do the following among others as requirements for formal settlement from informal settlement.

- (1) Provide a variety of housing options in regards to tenure and payment, such as short-term rental, long-term lease, cohousing, and financed purchase;
- (2) Invest in education, healthcare, and social services or people, not just in infrastructure and buildings.
- (3) Involve the community in planning and ongoing decisions on formal settlement.
- (4) Provide a stronger government presence in informal settlements;
- (5) Continue improving and integrating previous government-sponsored projects and fringe neighbourhoods;
- (6) Prevent rogue developers and landlords from conducting fraudulent property sales and housing rental practices.
- (7) Secure land and housing in anticipation of future migration and population growth and
- (8) Secure land from traditional leaders and foster expansion and increased density according to the long-term needs of the district and the best interests of the residents.

## **CAPITAL INVESTMENT PROGRAMMES**

This section presents the tables tabulating the capital investment programmes of Nchelenge District intergrated development Plan

Capital Investment Programmes are constituted of a number of related projects being managed in a manner that is intended to realize benefits and controls that could not be achieved by delivering projects individually. They are alternative means of structuring capital investments with a focus on delivering wider strategic outcomes rather than a focus on the efficient and timely delivery of specific outputs associated with standard capital investment projects. The programmatic approach to delivering public capital investments and achieving policy objectives is receiving increased attention in many countries including our country , Zambia, have issued capital investment programmes specific guidance.

Capital investment programmes have the potential to help sponsoring agencies to deliver some of the public capital investments outlined in our 8<sup>th</sup> National Development Plan. Capital investments have been delivered

as projects. However, there appears to be a growing trend of grouping capital investment projects together into programmes. These capital investment programmes can offer numerous benefits including the ability to provide a management framework to plan and deliver multiple related projects in a coordinated manner and provide the opportunity to realise strategic outcomes that could not be achieved through a single project or intervention.

Government led capital investments are critical to the successful functioning of a modern economy. Capital investments generally refer to the funding of fixed tangible assets such as transport infrastructure, buildings and vehicles but can also be applied in the case of intangible assets such as intellectual property and software. These public capital investments contribute to the growth of the country's capital stock which is generally acknowledged to have a positive effect on the productive potential of the economy. Public capital investments can generate economic benefits such as lowering direct and indirect costs for the government, improving efficiency and productivity and providing capacity to meet future demand. Further, public capital investment is also critical for maintaining the safe operational condition of existing infrastructure which in turn mitigates against significant asset depreciation and the incurrence of expensive replacement costs. Beyond economic benefits, well planned and executed public capital investments can generate positive social impacts through the improved well-being of the associated user groups.

#### **EDUCATION CAPITAL INVESTMENT PLAN**

| <b>Program</b> | <b>Project</b> | <b>Cost<br/>(ZM<br/>W)</b> | <b>TARGET YEAR</b> | <b>Source<br/>of<br/>Fundi</b> | <b>Source of<br/>Information</b> |
|----------------|----------------|----------------------------|--------------------|--------------------------------|----------------------------------|
|----------------|----------------|----------------------------|--------------------|--------------------------------|----------------------------------|

|                                                                                                      |                                            |            |            |            |            |            |            | ng |            |
|------------------------------------------------------------------------------------------------------|--------------------------------------------|------------|------------|------------|------------|------------|------------|----|------------|
|                                                                                                      |                                            |            | 2024       | 2025       | 2026       | 2027       | 2028       |    |            |
| <b>Objective: To reduce the classroom pupil ratio from 78:1 to 60:1 by 2033</b>                      |                                            |            |            |            |            |            |            |    |            |
| Education infrastructure development                                                                 | Constructio<br>n of<br>classroom<br>blocks | 48,597,000 | 9,719,400  | 9,719,400  | 9,719,400  | 9,719,400  | 9,719,400  | LA | LA/M<br>oE |
| <b>Objective: To improve the living standards of Teaching staff</b>                                  |                                            |            |            |            |            |            |            |    |            |
| <b>Improve Infrastructure Development for Teachers</b>                                               | Staff house construction                   | 5,000,000  | 1,000,000  | 1,000,000  | 1,000,000  | 1,000,000  | 1,000,000  | LA | LA/M<br>oE |
| Education infrastructure development                                                                 | Rehabilitati<br>on of<br>schools           | 38,720,000 | 7,744,000  | 7,744,000  | 7,744,000  | 7,744,000  | 7,744,000  | LA | LA/M<br>oE |
| <b>Objective: increase number of well-equipped school laboratories and equipment in the district</b> |                                            |            |            |            |            |            |            |    |            |
| Education infrastructure development                                                                 | Constructio<br>n of<br>Laboratories        | 52,992,000 | 10,598,400 | 10,598,400 | 10,598,400 | 10,598,400 | 10,598,400 |    | LA/M<br>oE |
| Provision of equipment in laboratories                                                               | Lab<br>equipment                           | 1,500,0    | 300,       | 300,       | 300,       | 300,       | 300,       |    | LA/M<br>oE |



|                                                                                                  |                                                |            |           |           |           |           |           |    |        |
|--------------------------------------------------------------------------------------------------|------------------------------------------------|------------|-----------|-----------|-----------|-----------|-----------|----|--------|
|                                                                                                  |                                                | 00         | 000       | 000       | 000       | 000       | 000       |    |        |
| <b>Objective: increase access to electricity for 26 schools by 2033</b>                          |                                                |            |           |           |           |           |           |    |        |
| School electrification                                                                           | Electify 26 schools in the District            | 1,500,000  | 300,000   | 300,000   | 300,000   | 300,000   | 300,000   | LA | LA/MoE |
| Provision of education equipment                                                                 | Equip woodworkshops with equipment             | 1,250,000  | 250,000   | 250,000   | 250,000   | 250,000   | 250,000   | LA | LA/MoE |
| Education infrastructure development                                                             | Construction of Dormitories                    | 12,277,000 | 2455400   | 2455400   | 2455400   | 2455400   | 2455400   | LA | LA/MoE |
| <b>Objective To reduce the distance covered by pupils to access schools to 5 km by 2033</b>      |                                                |            |           |           |           |           |           |    |        |
| Early childhood and primary education                                                            | Community Awareness                            | 87,500     | 17500     | 17500     | 17500     | 17500     | 17500     | LA | LA/MoE |
| <b>Objective: rehabilitation and construction of selected bridges leading to schools by 2033</b> |                                                |            |           |           |           |           |           |    |        |
| Climate Smart Road Infrastructure development                                                    | Provide climate smart Roads leading to schools | 8,000,000  | 1,600,000 | 1,600,000 | 1,600,000 | 1,600,000 | 1,600,000 | LA | LA/MoE |
| <b>Objective: Promote school Health and Nutrition in schools</b>                                 |                                                |            |           |           |           |           |           |    |        |
| Home Grown School Meals Program                                                                  | school feeding                                 | 62,500     | 12,500    | 12,500    | 12,500    | 12,500    | 12,500    | LA | LA/MoE |

|                                                                                               |                                            |            |           |           |           |           |           |    |         |
|-----------------------------------------------------------------------------------------------|--------------------------------------------|------------|-----------|-----------|-----------|-----------|-----------|----|---------|
| Menstrual hygiene promotion                                                                   | Hygien promotion                           | 562,500    | 112,500   | 112,500   | 112,500   | 112,500   | 112,500   | LA | LA/M oE |
| <b>Objective: increase enrolment of girls in schools from 31,960...to...65,000. by 2033</b>   |                                            |            |           |           |           |           |           |    |         |
| Keeping Girls in school program                                                               | Girl child Education                       | 100,000    | 20000     | 20000     | 20000     | 20000     | 20000     | LA | LA/M oE |
|                                                                                               | sponsorship                                | 5,000,000  | 1000000   | 1000000   | 1000000   | 1000000   | 1000000   | LA | LA/M oE |
| <b>Objective: to reduce Pupil desk ratio from 5:1 to 2:1 for double sitters by 2026</b>       |                                            |            |           |           |           |           |           |    |         |
| School furniture procurement                                                                  | Desks provision                            | 10,740,000 | 7,140,000 | 900,000   | 900,000   | 900,000   | 900,000   | LA | LA/M oE |
| Provision of education materials                                                              | Learners Text Books ECE,PRIMARY,SECONDARY  | 8,750,000  | 1,750,000 | 1,750,000 | 1,750,000 | 1,750,000 | 1,750,000 | LA | LA/M oE |
| <b>Objective: Improve ICT in all the schools from 5.8% to 35%</b>                             |                                            |            |           |           |           |           |           |    |         |
| ICT promotion                                                                                 | Establishment of ICT facilities in schools | 6,000,000  | 1,200,000 | 1,200,000 | 1,200,000 | 1,200,000 | 1,200,000 | LA | LA/M oE |
| <b>Objective: Reduced dilapidated school infrastructure due to unfriendly weather by 2033</b> |                                            |            |           |           |           |           |           |    |         |
| Tree planting in schools                                                                      | Create wind breakers                       | 6000       | 1200      | 1200      | 1200      | 1200      | 1200      | LA | LA/M oE |
| <b>Objectives: water and sanitation in</b>                                                    |                                            |            |           |           |           |           |           |    |         |

|                                               |                                                                  |                    |                   |                   |                   |                   |                   |    |        |
|-----------------------------------------------|------------------------------------------------------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|----|--------|
| <b><i>schools improved by 20% by 2033</i></b> |                                                                  |                    |                   |                   |                   |                   |                   |    |        |
| Water supply development in schools           | Increase access to clean and safe drinking water in schools      | 5,655,870          | 1,131,174         | 1,131,174         | 1,131,174         | 1,131,174         | 1,131,174         | LA | LA/MoE |
| Sanitation development in schools             | Improve sanitation in schools by constructing water bone toilets | 21,000,000         | 4,200,000         | 4,200,000         | 4,200,000         | 4,200,000         | 4,200,000         | LA | LA/MoE |
| <b>TOTALS</b>                                 |                                                                  | <b>227,800,370</b> | <b>50,552,074</b> | <b>44,312,074</b> | <b>44,312,074</b> | <b>44,312,074</b> | <b>44,312,074</b> |    |        |

**TABLE 43:WATER AND SANITATION CAPITAL INVESTMENT PLAN**

|                                                                                                         |         |      |          |          |          |          |          |        |    |        |             |
|---------------------------------------------------------------------------------------------------------|---------|------|----------|----------|----------|----------|----------|--------|----|--------|-------------|
| Objective : To increase urban area clean and safe piped water supply coverage from 11.8% to 50% by 2030 |         |      |          |          |          |          |          |        |    |        |             |
| Strategy                                                                                                | Program | Cost | 2024(K'0 | 2025(K'0 | 2026(K'0 | 2027(K'0 | 2028(K'0 | Source | of | Source | Responsible |

|                                                                                             |                                  | (K'000) | 00)    | 00)    | 00)   | 00)   | 00)   | funding                                   | of information                              | agency /dept                           |
|---------------------------------------------------------------------------------------------|----------------------------------|---------|--------|--------|-------|-------|-------|-------------------------------------------|---------------------------------------------|----------------------------------------|
| The CU to collaborate with the LA and other partners to construct a treatment plant         | Water infrastructure development | 58,850  | 18,240 | 13,390 | 9,440 | 8,890 | 8,890 | Ministry of water and sanitation,LpWSC,LA | Ministry of water and sanitation, LpWSC, LA | Ministry of water and sanitation,LpWSC |
| <b>Objective :To increase rural water supply coverage from 75% to 100% by 2030</b>          |                                  |         |        |        |       |       |       |                                           |                                             |                                        |
| The LA to facilitate construction of solar piped water schemes for areas not serviced by CU | Water infrastructure development | 5,000   | 1,000  | 1,000  | 1,000 | 1,000 | 1,000 | LA, Ministry of water and sanitation      | LA, Ministry of water and sanitation        | LA, Ministry of water and sanitation   |
| The LA and cooperating partners to promote construction of solar piped water schemes and    | Rural water supply development   | 29,500  | 4,500  | 5,500  | 6,000 | 6,500 | 7,000 | LA, Ministry of water and sanitation      | LA, Ministry of water and sanitation        | LA,                                    |

|                                                                                                                          |                                                         |       |       |       |       |       |       |                                      |                                      |                                      |
|--------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-------|-------|-------|-------|-------|-------|--------------------------------------|--------------------------------------|--------------------------------------|
| boreholes in rural areas                                                                                                 |                                                         |       |       |       |       |       |       |                                      |                                      |                                      |
| <b>Objective :To reduce the percentage of non-functional boreholes by 25% by 2030</b>                                    |                                                         |       |       |       |       |       |       |                                      |                                      |                                      |
| To reduce the downtime period to 1 day                                                                                   | Water infrastructure rehabilitation and maintenance day | 2,500 | 500   | 500   | 500   | 500   | 500   | LA, Ministry of Water and sanitation | LA, Ministry of Water and sanitation | LA, Ministry of Water and sanitation |
| <b>Objective :To reduce the percentage of non-functional boreholes by 25% by 2030</b>                                    |                                                         |       |       |       |       |       |       |                                      |                                      |                                      |
| The LA to promote the use of VIP and waterborne toilets                                                                  | Sanitation infrastructure development                   | 7,020 | -     | 1,700 | 1,740 | 1,780 | 1,800 | LA, Ministry of Water and Sanitation | LA, Ministry of Water and Sanitation | LA, Ministry of Water and Sanitation |
| <b>Objective :to increase the management of solid waste managed in growth centers from 30% to 50% by 2033</b>            |                                                         |       |       |       |       |       |       |                                      |                                      |                                      |
| The LA to ensure procurement and construction of required equipment for garbage disposal and collection in the district. | Solid waste management                                  | 5,050 | 1,500 | 100   | 3,200 | 120   | 130   | LA,                                  | LA,                                  | LA,                                  |

|                                                                            |                           |       |  |       |  |       |  |     |     |    |
|----------------------------------------------------------------------------|---------------------------|-------|--|-------|--|-------|--|-----|-----|----|
| The LA to ensure the district has a well-protected and maintained cemetery | Development of cemeteries | 2,000 |  | 1,000 |  | 1,000 |  | LA, | LA, | LA |
|----------------------------------------------------------------------------|---------------------------|-------|--|-------|--|-------|--|-----|-----|----|

**Table 44: TRANSPORT AND COMMUNICATION INVESTMENT PLAN**

| Strate gy | PROJECT AND ACTIVITIES | Cost   | 2024  | 2025 | 2026  | 2027 | 2028   | Source of funding | Source of information |
|-----------|------------------------|--------|-------|------|-------|------|--------|-------------------|-----------------------|
|           | Construction and       | 116633 | 1,670 | 9509 | 97,09 | 1001 | 100504 | L/A               | L/A                   |

|                                                                           |                                                       |             |            |            |            |            |         |                    |     |
|---------------------------------------------------------------------------|-------------------------------------------------------|-------------|------------|------------|------------|------------|---------|--------------------|-----|
| Improve the standard and quality of drainages and bridges in the District | maintenance of munkombwe road                         | 7000        | ,000       | 1000       | 7,500      | 04000      | 000     | Central government |     |
|                                                                           | Construction of Kabuta East road                      | 94227500    | 55,074,000 | 60,089,500 | 65094500   | 172000000  | 8033000 | L/A                | L/A |
|                                                                           |                                                       |             |            |            |            |            |         | Central government |     |
|                                                                           | Construction and maintenance of Kalweo kapilimungomba | 854,000,000 | 55,000,000 | 60,000,000 | 65,000,000 | 70,000,000 | Nil     | L/A                | L/A |
|                                                                           |                                                       |             |            |            |            |            |         | Central government |     |

|  |                                                                  |                   |                     |                     |                     |                     |     |                       |     |
|--|------------------------------------------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|-----|-----------------------|-----|
|  | Construction and<br>mentainance of Mutono-<br>Kalilanshindo road |                   |                     |                     |                     |                     | Nil | L/A                   | L/A |
|  |                                                                  | 2,825,0<br>00,000 | 60,00<br>0,000      | 65,00<br>0,000      | 700,0<br>00,00<br>0 | 80,00<br>0,000      |     | Central<br>government |     |
|  |                                                                  |                   |                     |                     |                     |                     |     |                       |     |
|  | Rehabilitation of Township<br>roads to bituminous<br>standard    |                   |                     |                     |                     |                     | Nil | L/A                   | L/A |
|  |                                                                  | 8,800,0<br>00,000 | 500,0<br>00,00<br>0 | 600,0<br>00,00<br>0 | 700,0<br>00,00<br>0 | 800,0<br>00,00<br>0 |     | Central<br>government |     |
|  |                                                                  |                   |                     |                     |                     |                     |     |                       |     |
|  | Construction of sawmill                                          |                   |                     |                     |                     |                     | NIL | L/A                   | L/A |
|  |                                                                  | 710,000<br>,000   | 45,00<br>0,000      | 50,00<br>0,000      | 55,00<br>0,000      | 60,00<br>0,000      |     | Central<br>government |     |
|  |                                                                  |                   |                     |                     |                     |                     |     |                       |     |
|  | Construction of Mantapala<br>road                                |                   |                     |                     |                     |                     | NIL | L/A                   |     |
|  |                                                                  | 850,000<br>,000   | 55,00<br>0,000      | 60,00<br>0,000      | 65,00<br>0,000      | 70,00<br>0,000      |     | Central<br>government |     |
|  |                                                                  |                   |                     |                     |                     |                     |     |                       |     |



|  |                                                         |                   |                |                |                |                |     |                       |     |
|--|---------------------------------------------------------|-------------------|----------------|----------------|----------------|----------------|-----|-----------------------|-----|
|  | Construction and<br>mentainance of Kasumpa<br>kabalenge |                   |                |                |                |                | NIL | L/A                   | L/A |
|  |                                                         | 790,000<br>,000   | 50,00<br>0,000 | 55,00<br>0,000 | 60,00<br>0,000 | 65,00<br>0,000 |     | Central<br>government |     |
|  |                                                         |                   |                |                |                |                |     |                       |     |
|  | Construction and<br>mentainance Lunde road              |                   |                |                |                |                | NIL | L/A                   | L/A |
|  |                                                         | 1,750,0<br>00,000 | 55,00<br>0,000 | 60,00<br>0,000 | 65,00<br>0,000 | 70,00<br>0,000 |     | Central<br>government |     |
|  |                                                         |                   |                |                |                |                |     |                       |     |
|  | Construction of Chabilikila<br>Nachondwa                |                   | 55,00<br>0,000 | 60,00<br>0,000 | 65,00<br>0,000 | 70,00<br>0,000 | NIL | L/A                   | L/A |
|  |                                                         | 850,000<br>,000   |                |                |                |                |     | Central<br>government |     |

|                                                                          |                                                                                                                                            |  |             |             |             |            |     |                    |     |  |
|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--|-------------|-------------|-------------|------------|-----|--------------------|-----|--|
| Improve the standard and quality of drainage and bridges in the District | Construction of bridges(Nachondwa,kapako ,mwansamita,kefulwa,kabuta east,Mantapala,kalweo-kabukwa,shikapande,Kalimbwa,Kasumpa,chungu,sela) |  |             |             |             | 136,000,00 |     |                    |     |  |
|                                                                          |                                                                                                                                            |  | 120,000,000 | 133,000,000 | 485,000,000 |            | NIL | L/A                | L/A |  |
|                                                                          |                                                                                                                                            |  |             |             |             |            |     | Central government |     |  |
|                                                                          |                                                                                                                                            |  |             |             |             |            |     |                    |     |  |

|                                                     |                                                                                                             |                 |            |            |            |            |     |                    |     |
|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-----------------|------------|------------|------------|------------|-----|--------------------|-----|
|                                                     | Construction of drainages(Nchelenge and kashikishi Boma drainages, Market to Police and D76-Lushiba primary | 570,000,000     | 35,000,000 | 40,000,000 | 45,000,000 | 50,000,000 | NIL | L/A                | L/A |
|                                                     |                                                                                                             |                 |            |            |            |            |     | Central government |     |
| Increase budget allocation towards road maintenance | Road development and maintenance                                                                            | 1,050,000       | 210,000    | 210,000    | 210,000    | 210,000    | NIL | L/A                | L/A |
|                                                     |                                                                                                             |                 |            |            |            |            |     | Central government |     |
| Total                                               |                                                                                                             | K12,822,728,500 |            |            |            |            |     |                    |     |

| <b>Goal :Increase capacity to provide electricity in remote and island wards in the district from 0% to 20% by 2028</b>      |                                                                                                    |                         |                             |                      |                             |                             |                             |                                  |                                  |
|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-------------------------|-----------------------------|----------------------|-----------------------------|-----------------------------|-----------------------------|----------------------------------|----------------------------------|
| <b>Objective :Increase capacity to provide electricity in remote and island wards in the district from 0% to 20% by 2028</b> |                                                                                                    |                         |                             |                      |                             |                             |                             |                                  |                                  |
| <b>Strategy</b>                                                                                                              | <b>Program</b>                                                                                     | <b>COST<br/>(K'000)</b> | <b>Year<br/>2024(K'000)</b> | <b>Year<br/>2025</b> | <b>Year<br/>2026(K'000)</b> | <b>Year<br/>2027(K'000)</b> | <b>Year<br/>2028(K'000)</b> | <b>Source<br/>of<br/>funding</b> | <b>Source of<br/>information</b> |
| The Local authority to Facilitate investment in solar energy                                                                 | Renewable energy investment                                                                        | 7000                    | -                           | -                    |                             | 7000                        | -                           | ZESCO                            | LA                               |
|                                                                                                                              | <b>Objective :To increase electricity connections to the national grid from 15% to 30% by 2033</b> |                         |                             |                      |                             |                             |                             |                                  |                                  |
| The local authority in partnership with REA and ZESCO should                                                                 | Rural electrification                                                                              | 8000                    | 2000                        | -                    | 2000                        | 2000                        | 2000                        | ZESCO /<br>REA/LA                | ZESCO /<br>REA/LA                |

|                                                                                       |                                      |              |       |       |       |       |       |       |       |
|---------------------------------------------------------------------------------------|--------------------------------------|--------------|-------|-------|-------|-------|-------|-------|-------|
| identify and electrify areas and public facilities that have not yet been electrified |                                      |              |       |       |       |       |       |       |       |
| Enhance investment in Mini hydro power plant at Kundabwika falls                      | Kundabwika Falls Hydro Power Project | 19,000       | 4,750 | 4,750 | 4,750 | 4,750 | 4,750 | ZESCO | ZESCO |
| SUBTOTAL                                                                              |                                      | <b>34000</b> | 6750  | 4,750 | 6,750 | 6,750 | 6,750 |       |       |

**Table 46: HEALTH INVERSTIMENT PLAN**

| Objective : To Reduce Waterborne Diseases From 60% To 30% By 2033 |         |          |      |      |      |      |      |      |                    |                        |
|-------------------------------------------------------------------|---------|----------|------|------|------|------|------|------|--------------------|------------------------|
| Program                                                           | Project | location | Cost | 2022 | 2023 | 2024 | 2025 | 2026 | Source of fundi ng | Source of Informati on |

|                                                                                |                                                          |                       |           |         |         |         |         |         |    |     |
|--------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------|-----------|---------|---------|---------|---------|---------|----|-----|
| Disease prevention and control                                                 | Disease prevention and control                           | All wards             | 589,000   | 76,000  | 89,000  | 108,000 | 146,000 | 170,000 |    |     |
| Objective :To increase the essential drug stock status from 70% to 95% by 2033 |                                                          |                       |           |         |         |         |         |         | LA | MoH |
| Medicines and medical supply chain management                                  | Procurement of essential medicines and medical supplies  | All health facilities | 3,720,000 | 600,000 | 600,000 | 720,000 | 840,000 | 960,000 |    |     |
| Medicines and medical supply chain management                                  | Availability of medical supplies and essential medicines | All health facilities | 49,400    | 8,800   | 8,800   | 9,600   | 10,200  | 12,000  |    |     |
| Medicines and medical supply chain management                                  | Training                                                 | All health centres    | 49,400    | 8,800   | 8,800   | 9,600   | 10,200  | 12,000  |    |     |
| Medicines and medical supply chain management                                  | Procurement of essential medicines and medical           | All health centres    | 174,300   | 26,400  | 26,400  | 39,600  | 39,900  | 42,000  | LA | MoH |

|                                                                                                    |                                                          |                       |         |        |        |         |        |        |    |     |
|----------------------------------------------------------------------------------------------------|----------------------------------------------------------|-----------------------|---------|--------|--------|---------|--------|--------|----|-----|
| nt                                                                                                 | supplies                                                 |                       |         |        |        |         |        |        |    |     |
| Medicines and medical supply chain management                                                      | Availability of medical supplies and essential medicines | All health facilities | 110,800 | 19,200 | 19,200 | 23,000  | 23,000 | 26,400 |    |     |
| Medicines and medical supply chain management                                                      | Trainings                                                | All health centres    | 110,800 | 19,200 | 19,200 | 23,000  | 23,000 | 26,400 |    |     |
| Objective: To increase medical personnel patient ratio from the current 1000 to 500 by end of 2033 |                                                          |                       |         |        |        |         |        |        |    |     |
| Human resource provision                                                                           | Recruitment                                              | All health workers.   | -       | -      | -      | -       | -      | -      |    |     |
| Human resource development                                                                         | Human resource development                               | All health facilities | 760,000 | -      | 80,000 | 600,000 | -      | 80,000 |    |     |
| Human resource development                                                                         | Human resource development                               | Kabuta ward           | 119,000 | 26,600 | 13,300 | 53,200  | 26,600 | 53,200 | LA | MoH |
|                                                                                                    |                                                          | Kashikishi            |         |        |        |         |        |        |    |     |
|                                                                                                    |                                                          | Nchelenge             |         |        |        |         |        |        |    |     |
|                                                                                                    |                                                          | Mofwe                 |         |        |        |         |        |        | LA | MoH |

|                                                                                                 |                            |                       |           |        |        |           |         |           |    |     |
|-------------------------------------------------------------------------------------------------|----------------------------|-----------------------|-----------|--------|--------|-----------|---------|-----------|----|-----|
| Human resource development                                                                      | Human resource development | All health facilities | 357,000   | 43,000 | 52,000 | 78,000    | 88,000  | 96,000    |    |     |
| Human resource development                                                                      | Human resource development | Kabuta zone           | 589,000   | 76,000 | 89,000 | 108,000   | 146,000 | 170,000   |    |     |
|                                                                                                 |                            | Islands zone          |           |        |        |           |         |           |    |     |
|                                                                                                 |                            | Nchelenge Zone        |           |        |        |           |         |           |    |     |
| Transport procurement and maintenance                                                           | Ambulance services         | Kabuta ward           | 6,000,000 |        |        | 3,000,000 |         | 3,000,000 | LA | MoH |
|                                                                                                 |                            | Nchelenge Ward        |           |        |        |           |         |           |    |     |
| Transport procurement and maintenance                                                           | Ambulance services         | Kilwa Ward            | 1,500,000 |        |        | 1,500,000 |         |           |    |     |
| Objective : To increase the health promotion activities from current 50% to 85% by 2033         |                            |                       |           |        |        |           |         |           |    |     |
| Human resource development                                                                      | Human resource development | All wards             | 122,400   |        |        | 122,400   |         |           |    |     |
| Health education promotion                                                                      | Health education promotion | All wards             | 589,000   | 76,000 | 89,000 | 108,000   | 146,000 | 170,000   | LA | MoH |
| Objective :Increase awareness on non -communicable diseases from the current 25% to 50% by 2033 |                            |                       |           |        |        |           |         |           |    |     |
|                                                                                                 |                            |                       |           |        |        |           |         |           | LA | MoH |



|                                                                        |                                   |                       |         |        |        |         |         |         |    |     |
|------------------------------------------------------------------------|-----------------------------------|-----------------------|---------|--------|--------|---------|---------|---------|----|-----|
| Health education promotion                                             | Mobile health services            | All health facilities | 437,600 | -      | -      | 140,000 | 140,000 | 156,000 |    |     |
| Health education promotion                                             | Mobile health services            | District level        | 72,100  | 3,000  | 5,000  | 20,000  | 21,500  | 22,600  |    |     |
| Objective : Reduction of communicable diseases from 70% to 20% by 2033 |                                   |                       |         |        |        |         |         |         |    |     |
| Health security and surveillance                                       | Health security and surveillance  | All health facilities | 401,910 | 50,000 | 62,000 | 88,600  | 92,670  | 108,640 |    |     |
| Epidemic preparedness and control                                      | Epidemic preparedness and control | All wards             | 62,000  | -      | -      | 62,000  |         |         | LA | MoH |
| Disease prevention and control                                         | Disease prevention and control    | All health facilities | 109,990 | 9,000  | 13,400 | 26,700  | 28,340  | 32,550  |    |     |
| Malaria prevention and control                                         | Malaria prevention and control    | All health facilities | 72,100  | 3,000  | 5,000  | 20,000  | 21,500  | 22,600  |    |     |
| Malaria prevention and control                                         | Malaria prevention and control    | All ward              | 401,910 | 50,000 | 62,000 | 88,600  | 92,670  | 108,640 |    |     |
| Malaria prevention and control                                         | Malaria prevention and control    | Kilwa                 | 390,000 | -      | -      | 108,000 | 122,000 | 160,000 | LA | MoH |
|                                                                        |                                   | Chisenga              |         |        |        |         |         |         | LA | MoH |

|                                                                                                          |                            |                     |           |         |         |         |         |         |    |     |
|----------------------------------------------------------------------------------------------------------|----------------------------|---------------------|-----------|---------|---------|---------|---------|---------|----|-----|
| control                                                                                                  | control                    |                     |           |         |         |         |         |         |    |     |
| HIV testing and treatment                                                                                | HIV testing and treatment  | All Facilities      | 280,600   | 47,200  | 47,200  | 56,800  | 60,500  | 68,900  |    |     |
| Male circumcision                                                                                        | Male circumcision          | All health facility | 372,500   | 58,000  | 62,500  | 72,000  | 88,000  | 92,000  | LA | MoH |
| Objective: Reduction of distance walked by patients to access health facilities from 17km to 5km by 2033 |                            |                     |           |         |         |         |         |         |    |     |
| Infrastructure development                                                                               | Infrastructure development | Isokwe              | 2,500,000 | 500,000 | 500,000 | 500,000 | 500,000 | 500,000 | LA | MoH |
|                                                                                                          |                            | Shikapande          |           |         |         |         |         |         |    |     |
|                                                                                                          |                            | Chinsamba           |           |         |         |         |         |         |    |     |
|                                                                                                          |                            | Chisenga            |           |         |         |         |         |         |    |     |
|                                                                                                          |                            | Kalilanshindo       |           |         |         |         |         |         |    |     |
|                                                                                                          |                            | Mulanga             |           |         |         |         |         |         |    |     |
|                                                                                                          |                            | Mukwakwa            |           |         |         |         |         |         | LA | MoH |
|                                                                                                          |                            | Chiba               |           |         |         |         |         |         |    |     |
|                                                                                                          |                            | Lunde               |           |         |         |         |         |         |    |     |
| Infrastructure                                                                                           | Infrastructure             | Kapema              | 1,250,000 | 250,000 | 250,000 | 250,000 | 250,000 | 250,000 | LA | MoH |

|                                                                                         |                                    |                                              |               |             |             |             |             |             |    |     |
|-----------------------------------------------------------------------------------------|------------------------------------|----------------------------------------------|---------------|-------------|-------------|-------------|-------------|-------------|----|-----|
| ure developme<br>nt                                                                     | ure developme<br>nt                | Shimpund<br>u                                | 00            | 00          | 00          | 0           | 00          | 0           | LA | MoH |
|                                                                                         |                                    | Ntoto                                        |               |             |             |             |             |             |    |     |
|                                                                                         |                                    | Shikapand<br>e                               |               |             |             |             |             |             |    |     |
|                                                                                         |                                    | Lunde                                        |               |             |             |             |             |             |    |     |
| Equipment procureme<br>nt                                                               | Infrastruct<br>ure developme<br>nt | All health<br>facilities                     | 2,000,0<br>00 | 200,0<br>00 | 250,0<br>00 | 500,00<br>0 | 500,0<br>00 | 500,00<br>0 | LA | MoH |
| Human<br>resource<br>developme<br>nt                                                    | Trainings                          | All<br>facilities                            | 102,00<br>0   | -           | 50,00<br>0  |             | 52,00<br>0  | -           |    |     |
| Objective : Access to electricity for health centers increased from 74% to 100% by 2033 |                                    |                                              |               |             |             |             |             |             |    |     |
| Infrastruct<br>ure developme<br>nt                                                      | Infrastruct<br>ure developme<br>nt | Ntoto                                        | 38,000        | -           | -           | 38,000      | -           | -           |    |     |
|                                                                                         |                                    | Kasumpa                                      |               |             |             |             |             |             |    |     |
| Infrastruct<br>ure developme<br>nt                                                      | Infrastruct<br>ure developme<br>nt | Kilwa                                        | 230,00<br>0   | -           | -           | 110,00<br>0 | -           | 120,00<br>0 | LA | MoH |
|                                                                                         |                                    | Chisenga                                     |               |             |             |             |             |             |    |     |
|                                                                                         |                                    | Chilongo                                     |               |             |             |             |             |             |    |     |
|                                                                                         |                                    | Mantampa<br>la RHC                           |               |             |             |             |             |             |    |     |
|                                                                                         |                                    | Mantampa<br>la RHP                           |               |             |             |             |             |             |    |     |
| Infrastruct<br>ure developme<br>nt                                                      | Infrastruct<br>ure developme<br>nt | Kapakobri<br>dge<br>Munkomb<br>we-<br>Kapema | 1,300,0<br>00 | -           | 280,0<br>00 | 320,00<br>0 | 320,0<br>00 | 380,00<br>0 | LA | MoH |

|  |  |                       |  |  |  |  |  |  |  |  |
|--|--|-----------------------|--|--|--|--|--|--|--|--|
|  |  | bridge                |  |  |  |  |  |  |  |  |
|  |  | Mantampa<br>la bridge |  |  |  |  |  |  |  |  |

**Table 47: AGRICULTURE INVERSTMENT PLAN**

| Goal                       | Increased production and productivity                                                                                              |           |           |           |           |           |           |                   |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-------------------|
| Objective                  | To increase production and productivity in peri urban and rural wards from 50 % to 70% by 2023                                     |           |           |           |           |           |           |                   |
| Program                    | Strategies                                                                                                                         | Cost      | 2024      | 2025      | 2026      | 2027      | 2028      | Source Of Funding |
|                            |                                                                                                                                    | (ZMK),000 | (ZMK),000 | (ZMK),000 | (ZMK),000 | (ZMK),000 | (ZMK),000 |                   |
| Infrastructure development | Rehabilitation of camp houses                                                                                                      | 980       |           | 80        | 450       | 450       |           | MOA. MFL, CDF     |
|                            | Construction of slaughter houses/ infrastructure and establishment of hygiene systems, internal controls and regulatory structures | 980       |           | 80        | 450       | 450       |           | MFL, CDF          |
|                            | Installation of HACCP infrastructure, water                                                                                        | 1000      |           | 500       | 300       | 200       |           | MFL, CDF          |

|                    |                                                                               |      |       |       |       |     |  |               |
|--------------------|-------------------------------------------------------------------------------|------|-------|-------|-------|-----|--|---------------|
|                    | sources and reticulation systems                                              |      |       |       |       |     |  |               |
|                    | construction of market value chain infrastructures                            | 980  | 80    | 450   | 450   |     |  | MOA, CDE      |
|                    | Rehabilitation of Farmers Training Centers                                    | 2000 |       |       | 2000  |     |  | MOA, MFL      |
|                    | Construction of camp houses                                                   | 1750 | 250   | 750   | 750   |     |  | MOA, MFL, CDF |
| <b>Goal</b>        | <b>TO increase Production and Productivity</b>                                |      |       |       |       |     |  |               |
| <b>Objective</b>   | <b>To increase the number of agricultural farm Machinery by the year 2033</b> |      |       |       |       |     |  |               |
| Farm Mechanization | Procurement of 03 tractors and distribution                                   | 3585 | 1,195 | 1,195 | 1,195 |     |  | MOA, CDF      |
|                    | Procurement and distribution of 15 herds cattle (4 steers; 1 bull; 4 heifers) | 1800 | 450   | 450   | 450   | 450 |  | MOA, CDF      |
|                    | Training the steers                                                           | 2400 | 600   | 600   | 600   | 600 |  | MOA           |
|                    | Aquaculture/Livestock Production                                              | 1800 | 450   | 450   | 450   | 450 |  | MFL, CDF      |

|                          |                                                              |        |        |        |        |        |      |          |
|--------------------------|--------------------------------------------------------------|--------|--------|--------|--------|--------|------|----------|
|                          | mechanization                                                |        |        |        |        |        |      |          |
| <b>Goal</b>              | <b>To increase Agricultural Production and Productivity</b>  |        |        |        |        |        |      |          |
| <b>Objective</b>         | <b>To increase farmer Input and Support by the year 2033</b> |        |        |        |        |        |      |          |
| Farmer Input Support     | Lobby for support to increase the allocation of FISP         | 174000 | 42,000 | 43,000 | 44,000 | 45,000 |      | MOA      |
|                          | Aquaculture/Livestock input support program                  | 174000 | 42,000 | 43,000 | 44,000 | 45,000 |      | MFL, CDF |
| <b>Goal</b>              | <b>To Increase Agricultural Production and Productivity</b>  |        |        |        |        |        |      |          |
| <b>Objective</b>         | <b>To have a developed system of Agribusiness by 2033</b>    |        |        |        |        |        |      |          |
| Agribusiness Development | Establish value addition demonstrations;                     | 2100   | 600    | 700    | 800    | 900    | 1000 | MOA      |

|                                         |                                                                                                                         |       |     |      |      |      |  |                  |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------|-----|------|------|------|--|------------------|
| <b>Goal</b>                             | <b>To Increase Agricultural Production and Productivity</b>                                                             |       |     |      |      |      |  |                  |
| <b>Objective</b>                        | <b>To have intensify on the promotion of Agroforestry and tree crops development by 2033</b>                            |       |     |      |      |      |  |                  |
| Agroforestry and tree crops development | Establish agroforestry and tree crops demonstration plots;                                                              | 315   | 105 | 105  | 105  |      |  | MOA.FORESTRY DPT |
| <b>Goal</b>                             | <b>To Increase Agricultural Production and Productivity</b>                                                             |       |     |      |      |      |  |                  |
| <b>Objective</b>                        | <b>To have a more comprehensive Irrigation development by coming up with weirs and canals for the community by 2028</b> |       |     |      |      |      |  |                  |
| Irrigation development                  | Setting up, construction and rehabilitation of weirs and dams                                                           | 10500 | 500 | 4000 | 4000 | 2000 |  | MOA, CDF         |
| <b>Goal</b>                             | <b>To Increase Agricultural Production and Productivity</b>                                                             |       |     |      |      |      |  |                  |
| <b>Objective</b>                        | <b>To have a research and development facility for easier access by the local community in the district by the y</b>    |       |     |      |      |      |  |                  |
| Research and development                | Setting up a research facility                                                                                          | 800   | 200 | 200  | 200  | 200  |  | MOA              |

|                            |                                                                                          |      |    |       |       |       |  |          |
|----------------------------|------------------------------------------------------------------------------------------|------|----|-------|-------|-------|--|----------|
| <b>Goal</b>                | <b>To Increase Agricultural Production and Productivity</b>                              |      |    |       |       |       |  |          |
| <b>Objective</b>           | <b>To intensify on extension service support by the year 2033</b>                        |      |    |       |       |       |  |          |
| Extension Services Support | Create 15 additional camps;                                                              | 90   |    | 30    | 30    | 30    |  | MOA      |
|                            | employ 15 additional extension staff;                                                    | 6160 |    | 2,000 | 2,080 | 2,080 |  | MOA      |
|                            | procure and provide 30 motorcycles to existing staff and to the additional staff;        | 3970 | 70 | 1,300 | 1,300 | 1,300 |  | MOA, CDF |
|                            | Procurement OF extension kits                                                            | 75   | 75 |       |       |       |  | MOA, CDF |
| <b>Goal</b>                | <b>To Increase Agricultural Production and Productivity</b>                              |      |    |       |       |       |  |          |
| <b>Objective</b>           | <b>To develop a comprehensive Early warning and surveillance system by the year 2033</b> |      |    |       |       |       |  |          |



|                                           |                                                                                                                |       |     |       |     |     |  |          |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------|-------|-----|-------|-----|-----|--|----------|
| Early warning and surveillance            | Erection of 04 weather and hydrological monitoring facilities                                                  | 15000 |     | 15000 |     |     |  | MOA, CDF |
| <b>Goal</b>                               | <b>To Increase Agricultural Production and Productivity</b>                                                    |       |     |       |     |     |  |          |
| <b>Objective</b>                          | <b>To establish Farm development and resettlement schemes by the year 2033</b>                                 |       |     |       |     |     |  |          |
| Farm development and resettlement schemes | Create at least 800 - 10 ha smallholder farm plots and 02 – 1000 large scale farm plots for farming activities | 700   | 200 | 200   | 200 | 100 |  | MOA, CDF |

## TOURISM INVESTMENT PLAN

Table 48

| GOAL: ENHANCE INVESTMENT AND EXPLORATION IN THE TOURISM SECTOR IN THE DISTRICT                                                  |                                 |            |                |      |         |         |         |                        |                                            |
|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------|------------|----------------|------|---------|---------|---------|------------------------|--------------------------------------------|
| OBJECTIVE: TO ENSURE MARKETING AND PROMOTION OF TOURISM OPPORTUNITIES IN THE DISTRICT                                           |                                 |            |                |      |         |         |         |                        |                                            |
| Strategy                                                                                                                        | Program                         | Total Cost | Costs Per Year |      |         |         |         | Source of Funding      | Source of Information                      |
|                                                                                                                                 |                                 |            | 2024           | 2025 | 2026    | 2027    | 2028    |                        |                                            |
| - The local authority to coordinate community groups engaged in development of artifacts and connect them to financial services | Tourism product development     | 110, 000   | 00             | 00   | 30, 000 | 30, 000 | 50, 000 | LA/Ministry of tourism | LA/Ministry of tourism, business community |
| - The local authority to increase funding towards tourism                                                                       | Tourism promotion and marketing | 24, 000    | 00             | 00   | 6,000   | 8, 000  | 10, 000 | LA/Ministry of tourism | LA/Ministry of tourism, business community |
|                                                                                                                                 |                                 | 3, 900     | 00             | 000  | 1, 100  | 1, 300  | 1, 500  | LA/Ministry of tourism | LA/Ministry of tourism,                    |

|                                                                                                                                                                         |                                       |          |             |    |                       |        |       |                               |                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|----------|-------------|----|-----------------------|--------|-------|-------------------------------|-------------------------------------------------------------|
|                                                                                                                                                                         |                                       |          |             |    |                       |        |       |                               | business<br>communit<br>y                                   |
|                                                                                                                                                                         |                                       | 1, 900   | 00          | 00 | 600                   | 600    | 700   | LA/Minis<br>try of<br>tourism | LA/Ministr<br>y of<br>tourism,<br>business<br>communit<br>y |
|                                                                                                                                                                         |                                       | 11, 000  | 00          | 00 | 2,5<br>00             | 3, 500 | 5,000 | LA/Minis<br>try of<br>tourism | LA/Ministr<br>y of<br>tourism,<br>business<br>communit<br>y |
| - Provision<br>of<br>adequate<br>transport<br>to ensure<br>the local<br>authority<br>works with<br>the<br>communit<br>y to<br>physically<br>capture<br>tourism<br>sites | infrastruct<br>ure<br>developmen<br>t | 100, 000 | 100,<br>000 | 00 | 100<br>,00<br>0       | 00     | 00    | LA/Minis<br>try of<br>tourism | Ministry of<br>tourism                                      |
|                                                                                                                                                                         |                                       | 800, 000 | 00          | 00 | 800<br>,<br>000       | 00     | 00    | LA/Minis<br>try of<br>tourism | Ministry of<br>tourism                                      |
|                                                                                                                                                                         |                                       | 1, 200   | 00          | 00 | 1,<br>200<br>,<br>000 | 00     | 00    | LA/Minis<br>try of<br>tourism | Ministry of<br>tourism                                      |

| Objective: To ensure investment in tourism infrastructure                                                    |                                 |            |         |    |    |           |           |           |                                            |                                            |
|--------------------------------------------------------------------------------------------------------------|---------------------------------|------------|---------|----|----|-----------|-----------|-----------|--------------------------------------------|--------------------------------------------|
| Improve road infrastructure to tourism sites                                                                 | infrastructure development      | 4, 000,000 |         | 00 | 00 | 2,000,000 | 2,000,000 | 00        | LA/Ministry of tourism                     | LA/Ministry of tourism                     |
| Ensure that land is allocated for the construction of an airport in consultation with traditional leadership | Infrastructure development.     | 3, 000,000 |         | 00 | 00 | 2,000,000 | 00        | 1,000,000 | LA/Ministry of tourism                     | LA/Ministry of tourism                     |
|                                                                                                              |                                 | 200, 000   |         | 00 | 00 | 200,000   | 00        | 000       | LA/Ministry of tourism                     | LA/Ministry of tourism                     |
|                                                                                                              |                                 |            | 400,000 | 00 | 00 | 00        | 400,000   | 00        | LA/Ministry of tourism                     | LA/Ministry of tourism                     |
| Objective: To ensure availability of planned land for tourism investment                                     |                                 |            |         |    |    |           |           |           |                                            |                                            |
| -ensure zoning and planning of customary land in coordination with traditional authorities                   | Tourism promotion and marketing | 60, 000    |         | 00 | 00 | 50,000    | 10, 000   | 00        | LA/Ministry of tourism                     | LA/Ministry of tourism                     |
| Provide communities with knowledge on the benefits of preserving tourism sites.                              | Tourism promotion and marketing | 40, 000    |         | 00 | 00 | 10,000    | 15,000    | 15,000    | LA/Ministry of tourism, Business community | LA/Ministry of tourism, Business community |

**Objective :** To improve entrepreneurship and skills development by 2033

|  |  |             |    |    |       |         |        |                                            |                                            |
|--|--|-------------|----|----|-------|---------|--------|--------------------------------------------|--------------------------------------------|
|  |  | 28, 000     | 00 | 00 | 8,000 | 10, 000 | 10,000 | LA/Ministry of tourism, business community | LA/Ministry of tourism, business community |
|  |  | 8, 780, 000 |    |    |       |         |        |                                            |                                            |

| Strategies                                                         | programme                                | Total Cost | Costs Per Year |         |           |           |           | Source of Funding                      | Source of Information                  |
|--------------------------------------------------------------------|------------------------------------------|------------|----------------|---------|-----------|-----------|-----------|----------------------------------------|----------------------------------------|
|                                                                    |                                          |            | 2024           | 2025    | 2026      | 2027      | 2028      |                                        |                                        |
| TEVET skills development                                           | Skills development                       | 3,440,000  | 800,000        | 900,000 | 1,200,000 | 1,200,000 | 1,500,000 | Community development /local authority | Community development /local authority |
| Women , community and persons with disabilities skills development | Skills Training                          | 150, 000   | 00             | 00      | 50, 000   | 50, 000   | 50, 000   | LA/MCDSS                               | LA/MCDSS                               |
|                                                                    |                                          | 90, 000    | 00             | 00      | 30, 000   | 30, 000   | 30,000    | LA/MCDSS                               | LA/MCDSS                               |
|                                                                    |                                          | 60, 000    | 00             | 00      | 20, 000   | 20, 000   | 20, 000   | LA/MCDSS                               | LA/MCDSS                               |
| Community skills centre rehabilitation                             | Infrastructu re development              | 400, 000   | 00             | 00      | 400, 000  | 00        | 00        | LA/MCDSS                               | LA/MCDSS                               |
|                                                                    | Skills Training                          | 155, 000   | 00             | 00      | 75, 000   | 50, 000   | 30, 000   | LA/MCDSS                               | LA/MCDSS                               |
|                                                                    |                                          | 70, 000    | 00             | 00      | 30, 000   | 20, 000   | 20, 000   | LA/MCDSS                               | LA/MCDSS                               |
| Adult literacy                                                     | Financial Literacy & Arithmetic Literacy | 30, 000    | 00             | 00      | 20,000    | 5,000     | 5,000     | LA/MCDSS                               | LA/MCDSS                               |
|                                                                    |                                          | 15, 000    | 00             | 00      | 5,000     | 5, 000    | 5,000     | LA/MCDSS                               | LA/MCDSS                               |
|                                                                    |                                          | 5, 000     | 00             | 00      | 3, 000    | 1,000     | 1, 000    | LA/MCDSS                               | LA/MCDSS                               |

|                                                   |                               | 50, 000     | 00       | 00       | 30, 000  | 10, 000  | 10, 000   | LA/MCDSS          | LA/MCDSS              |
|---------------------------------------------------|-------------------------------|-------------|----------|----------|----------|----------|-----------|-------------------|-----------------------|
|                                                   |                               |             |          |          |          |          |           |                   |                       |
| Program                                           | project                       | TOTAL COST  | 2024     | 2025     | 2026     | 2027     | 2028      | Source of funding | Source of information |
| Rural finance                                     | Village Banking               | 238, 000    | 5, 000   | 8, 000   | 75, 000  | 75,000   | 75, 000   | MCDSS             | MCDSS                 |
|                                                   |                               | 250, 000    | 10, 000  | 15, 000  | 75, 000  | 75, 000  | 75, 000   | MCDSS             | MCDSS                 |
| Food security Support                             | Rain Fed                      | 1, 200, 000 | 250, 000 | 300, 000 | 300, 000 | 350, 000 | 400, 0000 | MCDSS             | MCDSS                 |
|                                                   | Wet Land                      | 1, 200, 000 | 250, 000 | 300, 000 | 300, 000 | 350, 000 | 400, 0000 | MCDSS             | MCDSS                 |
|                                                   | Alternative Livelihood        | 1, 200, 000 | 250, 000 | 300, 000 | 300, 000 | 350, 000 | 400, 0000 | MCDSS             | MCDSS                 |
| Financial education                               | Life & Business Skills        | 340, 000    | 15, 000  | 75, 000  | 75, 000  | 75, 000  | 100, 000  | MCDSS             | MCDSS                 |
|                                                   | Servings & Financial Literacy | 340, 000    | 15, 000  | 75, 000  | 75, 000  | 75, 000  | 100, 000  | MCDSS             | MCDSS                 |
| Early marriages and teenage pregnancies education | Sensitization                 | 375, 000    | 00       | 75, 000  | 100, 000 | 100, 000 | 100,000   | MCDSS             | MCDSS                 |

|                                               |                                             |           |         |         |            |               |           |          |          |
|-----------------------------------------------|---------------------------------------------|-----------|---------|---------|------------|---------------|-----------|----------|----------|
| Adolescent reproductive education             | Sensitization                               | 375, 000  | 00      | 75, 000 | 100, 000   | 100, 000      | 100,000   | MCDSS    | MCDSS    |
| Sports, culture and arts development          | Sports Development                          | 390,000   | 00      | 00      | 120, 000   | 120, 000      | 150, 000  | MCDSS    | MCDSS    |
|                                               |                                             | 180, 000  | 00      | 00      | 60, 000    | 60, 000       | 60, 000   | MCDSS    | MCDSS    |
| Small and medium scale enterprise development | Capacity building and empowerment           | 340, 000  | 00      | 00      | 100, 000   | 120, 000      | 120,000   | MCDS     | MCDS     |
|                                               |                                             | 3,600,000 | 00      | 00      | 1,200, 000 | 1,200,000,000 | 1,200,000 | LA/MSME  | LA/MSME  |
| Cooperatives development                      | Community engagement                        | 90,000    | 00      | 00      | 30, 000    | 30, 000       | 30, 000   | LA/MCDSS | LA/MCDSS |
|                                               |                                             | 90,000    | 00      | 00      | 30, 000    | 30, 000       | 30, 000   | LA/MCDSS | LA/MCDSS |
| Enterprise development initiative             | Enterprise development                      | 340, 000  | 00      | 00      | 100, 000   | 120, 000      | 120,000   | MCDS     | MCDS     |
|                                               |                                             | 3,600,000 | 00      | 00      | 1,200, 000 | 1,200,000,000 | 1,200,000 | LA/MSME  | LA/MSME  |
| Social Cash Transfer                          | Reduce extreme poverty in target households | 2,800,000 | 400,000 | 500,000 | 700,000    | 700,000       | 900,000   | MCDSS    | MCDSS    |
|                                               |                                             | 1,600,000 | 300,00  | 300,000 | 300,000    | 500,000       | 500,000   | MCDSS    | MCDSS    |



|                                  |                                       |            |         |           |           |               |            |          |          |
|----------------------------------|---------------------------------------|------------|---------|-----------|-----------|---------------|------------|----------|----------|
|                                  |                                       | 3,600,000  | 600,000 | 800,000   | 900,000   | 900,000       | 1, 000,000 | MCDSS    | MCDSS    |
|                                  |                                       | 1,600,000  | 300,00  | 300,000   | 300,000   | 500,000       | 500,000    | MCDSS    | MCDSS    |
|                                  |                                       | 1,850,000  | 250,000 | 300,000   | 300,000   | 500,000       | 500,000    | MCDSS    | MCDSS    |
|                                  |                                       | 12,000,000 | 00      | 3,000,000 | 3,000,000 | 3,000,000     | 3,000,000  | LA/MCDSS | LA/MCDSS |
| Self-help initiatives promotion  |                                       | 3,600,000  | 00      | 00        | 1,200,000 | 1,200,000,000 | 1,200,000  | LA/MSME  | LA/MSME  |
| Public Welfare Assistance Scheme |                                       | 3,600,000  | 00      | 00        | 1,200,000 | 1,200,000,000 | 1,200,000  | LA/MSME  | LA/MSME  |
| Disability Services              | Certification of disabled individuals | 1,600,000  | 00      | 400,000   | 400,000   | 400,000       | 400, 000   | LA/MCDSS | LA/MCDSS |
| GBV elimination                  |                                       | 72,000     | 00      | 00        | 24,000    | 24, 000       | 24, 000    | LA/MCDSS | LA/MCDSS |

| HIV testing and treatment                                                     | sensitization        | 240,000    | 30,000         | 30,000  | 60,000     | 60,000         | 60,000    | LA/MCDSS                               | LA/MCDSS                               |
|-------------------------------------------------------------------------------|----------------------|------------|----------------|---------|------------|----------------|-----------|----------------------------------------|----------------------------------------|
|                                                                               | Treatment            | 135,000    | 15, 000        | 30, 000 | 30, 000    | 30, 000        | 30, 000   | LA/MCDSS                               | LA/MCDSS                               |
| Stigma and discrimination reduction                                           | Awareness            | 72,000     | 00             | 00      | 24, 000    | 24, 000        | 24, 000   | LA/MCDSS                               | LA/MCDSS                               |
| Investment promotion                                                          | Community investment | 3,600,000  | 00             | 00      | 1,200, 000 | 1,200,0 00,000 | 1,200,000 | LA/MSME                                | LA/MSME                                |
| Total                                                                         |                      | 53,345,600 |                |         |            |                |           |                                        |                                        |
| <b>Objective :</b> To improve entrepreneurship and skills development by 2033 |                      |            |                |         |            |                |           |                                        |                                        |
| Strategies                                                                    | programme            | Total Cost | Costs Per Year |         |            |                |           | Source of Funding                      | Source of Information                  |
|                                                                               |                      |            | 2024           | 2025    | 2026       | 2027           | 2028      |                                        |                                        |
| TEVET skills development                                                      | Skills development   | 3,440,000  | 800,000        | 900,000 | 1,200, 000 | 1,200,0 00     | 1,500,000 | Community development /local authority | Community development /local authority |
| Women , community and persons with disabilities skills developme              | Skills Training      | 150, 000   | 00             | 00      | 50, 000    | 50, 000        | 50, 000   | LA/MCDSS                               | LA/MCDSS                               |
|                                                                               |                      | 90, 000    | 00             | 00      | 30, 000    | 30, 000        | 30,000    | LA/MCDSS                               | LA/MCDSS                               |
|                                                                               |                      | 60, 000    | 00             | 00      | 20, 000    | 20, 000        | 20, 000   | LA/MCDSS                               | LA/MCDSS                               |

|                                        |                                          |             |          |          |          |          |           |                   |                       |
|----------------------------------------|------------------------------------------|-------------|----------|----------|----------|----------|-----------|-------------------|-----------------------|
| nt                                     |                                          |             |          |          |          |          |           |                   |                       |
| Community skills centre rehabilitation | Infrastructure development               | 400, 000    | 00       | 00       | 400, 000 | 00       | 00        | LA/MCDSS          | LA/MCDSS              |
|                                        | Skills Training                          | 155, 000    | 00       | 00       | 75, 000  | 50, 000  | 30, 000   | LA/MCDSS          | LA/MCDSS              |
|                                        |                                          | 70, 000     | 00       | 00       | 30, 000  | 20, 000  | 20, 000   | LA/MCDSS          | LA/MCDSS              |
| Adult literacy                         | Financial Literacy & Arithmetic Literacy | 30, 000     | 00       | 00       | 20,000   | 5,000    | 5,000     | LA/MCDSS          | LA/MCDSS              |
|                                        |                                          | 15, 000     | 00       | 00       | 5,000    | 5, 000   | 5,000     | LA/MCDSS          | LA/MCDSS              |
|                                        |                                          | 5, 000      | 00       | 00       | 3, 000   | 1,000    | 1, 000    | LA/MCDSS          | LA/MCDSS              |
|                                        |                                          | 50, 000     | 00       | 00       | 30, 000  | 10, 000  | 10, 000   | LA/MCDSS          | LA/MCDSS              |
|                                        |                                          |             |          |          |          |          |           |                   |                       |
| Program                                | project                                  | TOTAL COST  | 2024     | 2025     | 2026     | 2027     | 2028      | Source of funding | Source of information |
| Rural finance                          | Village Banking                          | 238, 000    | 5, 000   | 8, 000   | 75, 000  | 75,000   | 75, 000   | MCDSS             | MCDSS                 |
|                                        |                                          | 250, 000    | 10, 000  | 15, 000  | 75, 000  | 75, 000  | 75, 000   | MCDSS             | MCDSS                 |
| Food security Support                  | Rain Fed                                 | 1, 200, 000 | 250, 000 | 300, 000 | 300, 000 | 350, 000 | 400, 0000 | MCDSS             | MCDSS                 |
|                                        | Wet Land                                 | 1, 200, 000 | 250, 000 | 300, 000 | 300, 000 | 350, 000 | 400, 0000 | MCDSS             | MCDSS                 |

|                                                   |                               |             |          |          |          |          |           |       |       |
|---------------------------------------------------|-------------------------------|-------------|----------|----------|----------|----------|-----------|-------|-------|
|                                                   | Alternative Livelihood        | 1, 200, 000 | 250, 000 | 300, 000 | 300, 000 | 350, 000 | 400, 0000 | MCDSS | MCDSS |
| Financial education                               | Life & Business Skills        | 340, 000    | 15, 000  | 75, 000  | 75, 000  | 75, 000  | 100, 000  | MCDSS | MCDSS |
|                                                   | Servings & Financial Literacy | 340, 000    | 15, 000  | 75, 000  | 75, 000  | 75, 000  | 100, 000  | MCDSS | MCDSS |
| Early marriages and teenage pregnancies education | Sensitization                 | 375, 000    | 00       | 75, 000  | 100, 000 | 100, 000 | 100,000   | MCDSS | MCDSS |
| Adolescent reproductive education                 | Sensitization                 | 375, 000    | 00       | 75, 000  | 100, 000 | 100, 000 | 100,000   | MCDSS | MCDSS |
| Sports, culture and arts development              | Sports Development            | 390,000     | 00       | 00       | 120, 000 | 120, 000 | 150, 000  | MCDSS | MCDSS |
|                                                   |                               | 180, 000    | 00       | 00       | 60, 000  | 60, 000  | 60, 000   | MCDSS | MCDSS |
| Small and medium                                  | Capacity building             | 340, 000    | 00       | 00       | 100, 000 | 120, 000 | 120,000   | MCDS  | MCDS  |

|                                   |                                             |           |         |         |           |               |           |          |          |
|-----------------------------------|---------------------------------------------|-----------|---------|---------|-----------|---------------|-----------|----------|----------|
| scale enterprise development      | and empowerment                             | 3,600,000 | 00      | 00      | 1,200,000 | 1,200,000,000 | 1,200,000 | LA/MSME  | LA/MSME  |
| Cooperatives development          | Community engagement                        | 90,000    | 00      | 00      | 30,000    | 30,000        | 30,000    | LA/MCDSS | LA/MCDSS |
|                                   |                                             | 90,000    | 00      | 00      | 30,000    | 30,000        | 30,000    | LA/MCDSS | LA/MCDSS |
| Enterprise development initiative | Enterprise development                      | 340,000   | 00      | 00      | 100,000   | 120,000       | 120,000   | MCDS     | MCDS     |
|                                   |                                             | 3,600,000 | 00      | 00      | 1,200,000 | 1,200,000,000 | 1,200,000 | LA/MSME  | LA/MSME  |
| Social Cash Transfer              | Reduce extreme poverty in target households | 2,800,000 | 400,000 | 500,000 | 700,000   | 700,000       | 900,000   | MCDSS    | MCDSS    |
|                                   |                                             | 1,600,000 | 300,000 | 300,000 | 300,000   | 500,000       | 500,000   | MCDSS    | MCDSS    |
|                                   |                                             | 3,600,000 | 600,000 | 800,000 | 900,000   | 900,000       | 1,000,000 | MCDSS    | MCDSS    |
|                                   |                                             | 1,600,000 | 300,000 | 300,000 | 300,000   | 500,000       | 500,000   | MCDSS    | MCDSS    |
|                                   |                                             | 1,850,000 | 250,000 | 300,000 | 300,000   | 500,000       | 500,000   | MCDSS    | MCDSS    |

|                                     |                                       |            |        |           |           |               |           |          |          |
|-------------------------------------|---------------------------------------|------------|--------|-----------|-----------|---------------|-----------|----------|----------|
|                                     |                                       | 12,000,000 | 00     | 3,000,000 | 3,000,000 | 3,000,000     | 3,000,000 | LA/MCDSS | LA/MCDSS |
| Self-help initiatives promotion     |                                       | 3,600,000  | 00     | 00        | 1,200,000 | 1,200,000,000 | 1,200,000 | LA/MSME  | LA/MSME  |
| Public Welfare Assistance Scheme    |                                       | 3,600,000  | 00     | 00        | 1,200,000 | 1,200,000,000 | 1,200,000 | LA/MSME  | LA/MSME  |
| Disability Services                 | Certification of disabled individuals | 1,600,000  | 00     | 400,000   | 400,000   | 400,000       | 400,000   | LA/MCDSS | LA/MCDSS |
| GBV elimination                     |                                       | 72,000     | 00     | 00        | 24,000    | 24,000        | 24,000    | LA/MCDSS | LA/MCDSS |
| HIV testing and treatment           | sensitization                         | 240,000    | 30,000 | 30,000    | 60,000    | 60,000        | 60,000    | LA/MCDSS | LA/MCDSS |
|                                     | Treatment                             | 135,000    | 15,000 | 30,000    | 30,000    | 30,000        | 30,000    | LA/MCDSS | LA/MCDSS |
| Stigma and discrimination reduction | Awareness                             | 72,000     | 00     | 00        | 24,000    | 24,000        | 24,000    | LA/MCDSS | LA/MCDSS |
| Investment promotion                | Community investment                  | 3,600,000  | 00     | 00        | 1,200,000 | 1,200,000,000 | 1,200,000 | LA/MSME  | LA/MSME  |

|       |  |            |  |  |  |  |  |  |  |
|-------|--|------------|--|--|--|--|--|--|--|
| Total |  | 53,345,600 |  |  |  |  |  |  |  |
|-------|--|------------|--|--|--|--|--|--|--|

**Introduction of Monitoring and Evaluation**

Monitoring and evaluation (M&E) is an integral component of the IDP; the M&E Plan ensures that the IDP brings about the change anticipated and that resources are effectively utilised. The Key Performance Indicators (KPIs) in the M&E Plan have been developed using the following 5 principles as provided for in volume four (4) of the IDP guidelines on the preparation of the implementation program:

- **Precise/ well-defined:** The indicator is not ambiguous so as to ensure everyone interprets them the same and thus achieve the same results;
- **Reliable:** the indicator yields the same results on repeated trials attempts;
- **Validity:** the indicator measures what it intends to measure;
- **Measurable:** the indicator is measurable; if it cannot be measured, it is not a good indicator and;

**Practicable:** The indicator is not be impractical to measure from a resource or cost perspective.

It is imperative for the Council to assign an M&E Team with clear roles and responsibilities, for the purpose of: Collecting data; Analysing data; Reporting performance on indicators and tracking progress; and Coordinating with Government Departments to avoid duplication data collection and reporting. The following table highlights the key players in the monitoring and evaluation of projects and programmes planned. The M&E Team shall be composed of the following individuals indicated in the table below



## MONITORING & EVALUATION PLAN-EDUCATUION

Table 49

|                                                                     | Objective: To reduce the classroom pupil ratio from 78:1 to 60:1 by 2033 |                                                               |                      |                          |                          |                          |                          |                          |                                                |                                                 |                           |  |
|---------------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------|----------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|------------------------------------------------|-------------------------------------------------|---------------------------|--|
| Strategy                                                            | Program                                                                  | Acti<br>vity                                                  | T/<br>Ta<br>rg<br>et | TARGET YEAR              |                          |                          |                          |                          | Indic<br>ators                                 | Sou<br>rce<br>of<br>Inf<br>or<br>ma<br>tio<br>n | FR<br>EQ<br>UE<br>NC<br>Y |  |
|                                                                     |                                                                          |                                                               |                      | 202<br>4                 | 202<br>5                 | 202<br>6                 | 202<br>7                 | 202<br>8                 |                                                |                                                 |                           |  |
| Increase the number of schools to reduce distance covered by pupils | Education infrastructure development                                     | Con<br>stru<br>ction<br>of<br>class<br>roo<br>m<br>bloc<br>ks |                      | 3X<br>1X3<br>CR<br>B     | 3X<br>1X3<br>CR<br>B     | 3X<br>1X3<br>CR<br>B     | 3X<br>1X3<br>CR<br>B     | 3X<br>1X3<br>CR<br>B     | # of<br>CRBs<br>constr<br>ucted                | LA/<br>Mo<br>E                                  | Ann<br>uall<br>y          |  |
| Improve Infrastructure Development for Teachers                     | Improve Infrastructure Development for Teachers                          | Con<br>stru<br>ction<br>of<br>Staff<br>hous<br>es             | 20                   | 4<br>staff<br>hou<br>ses | 4<br>staff<br>hou<br>ses | 4<br>staff<br>hou<br>ses | 4<br>staff<br>hou<br>ses | 4<br>staff<br>hou<br>ses | # of<br>staff<br>house<br>s<br>constr<br>ucted |                                                 | Ann<br>uall<br>y          |  |

|                                                                                                                     |                                                                                               |                                             |    |                |                 |                 |                 |                 |                               |        |          |
|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------|----|----------------|-----------------|-----------------|-----------------|-----------------|-------------------------------|--------|----------|
| The local authority and ministry of education should ensure that all dilapidated classroom blocks are rehabilitated | Education infrastructure development                                                          | Rehabilitation of existing classroom blocks | 50 | 10 CRBs        | 10 CRBs         | 10 CRBs         | 10 CRBs         | 10 CRBs         | # of CRBs rehabilitated       | LA/MoE | Annually |
|                                                                                                                     | Objective: increase number of well-equipped school laboratories and equipment in the district |                                             |    |                |                 |                 |                 |                 |                               |        |          |
| Increased number of school laboratories in the district                                                             | Education infrastructure development                                                          | Construction of Laboratories                | 15 | 3 laboratories | 3 laboratories  | 3 laboratories  | 3 laboratories  | 3 laboratories  | # of Laboratories constructed | LA/MoE | Annually |
|                                                                                                                     | Provision of equipment in laboratories                                                        | Procure Lab equipment in newly constructed  | 15 |                | 3 lab equipment | 3 lab equipment | 3 lab equipment | 3 lab equipment | # of Lab equipment procured   | LA/MoE | Annually |

|                                                                                                                                                                        |                                                                                               |                                                                  |    |                  |                        |                        |                        |                  |                                        |                |                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------|----|------------------|------------------------|------------------------|------------------------|------------------|----------------------------------------|----------------|------------------|
|                                                                                                                                                                        |                                                                                               | Labo<br>rator<br>ies                                             |    |                  |                        |                        |                        |                  |                                        |                |                  |
| Objective:<br>increase access<br>to electricity for<br>26 schools by<br>2033                                                                                           |                                                                                               |                                                                  |    |                  |                        |                        |                        |                  |                                        |                |                  |
| The local<br>authority in<br>coordination<br>with REA and<br>ZESCO should<br>electrify<br>schools                                                                      | School electrification                                                                        | Elect<br>rifica<br>tion<br>of<br>scho<br>ols                     | 26 | 4<br>Sch<br>ools | 6<br>Sch<br>ools       | 6                      | 6<br>Sch<br>ools       | 4<br>Sch<br>ools | # of<br>school<br>s<br>electri<br>fied | LA/<br>Mo<br>E | Ann<br>uall<br>y |
| The ministry of<br>education with<br>LA to ensure<br>woodwork<br>workshops in<br>schools are<br>equipped with<br>the required<br>materials to<br>rehabilitate<br>desks | Provision of education<br>equipment for woodworkshop                                          | Proc<br>ure<br>men<br>t<br>woo<br>d<br>work<br>equi<br>pme<br>nt | 3  |                  | 1<br>equi<br>pme<br>nt | 1<br>equi<br>pme<br>nt | 1<br>equi<br>pme<br>nt |                  | # of<br>equip<br>ment<br>procu<br>red  | LA/<br>Mo<br>E | ann<br>uall<br>y |
|                                                                                                                                                                        | Objective To reduce the<br>distance covered by pupils to<br>access schools to 5 km by<br>2033 |                                                                  |    |                  |                        |                        |                        |                  |                                        |                |                  |

|                                                                                                                              |                                                                                                                                          |                                          |    |                            |                            |                            |                            |                            |                                  |        |           |
|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------------|--------|-----------|
| Introduce boarding facilities for at least 1 secondary school in each ward                                                   | Education infrastructure development                                                                                                     | Construction of Dormitory houses         | 8  |                            | 2 dormitories              | 2 dormitories              | 2 dormitories              | 2 dormitories              | # of dormitories constructed     | LA/MoE | annually  |
|                                                                                                                              | Objective: To increase enrollment of early childhood and primary schools from 4,499 to 10,000 by 2033 and 44,870 to 55,000 respectively. |                                          |    |                            |                            |                            |                            |                            |                                  |        |           |
| The local authority to engage the community and traditional leaders on ensuring school going children are enrolled in school | Early childhood and primary education                                                                                                    | Conduct Community sensitization programs | 20 | 4 community sensitizations | 4 community sensitizations | 4 community sensitizations | 4 community sensitizations | 4 community sensitizations | # of sensitization Meetings Held | LA/MoE | quarterly |
|                                                                                                                              |                                                                                                                                          | Radio programs                           | 20 | 4 radio programs           | 4 radio programs           | 4 radio programs           | 4 radio programs           | 4 radio programs           | # radio programs aired           | LA/MoE | quarterly |
|                                                                                                                              | Objective: rehabilitation and construction of selected                                                                                   |                                          |    |                            |                            |                            |                            |                            |                                  |        |           |

|                                                                                                              |                                                           |                                                                |       |            |            |            |            |            |                         |                          |           |          |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------|-------|------------|------------|------------|------------|------------|-------------------------|--------------------------|-----------|----------|
|                                                                                                              | bridges leading to schools by 2033                        |                                                                |       |            |            |            |            |            |                         |                          |           |          |
| Ensure the rehabilitation and construction of all bridges affecting accessibility of schools in the district | Climate Smart Road Infrastructure development             | construction of all bridges affecting accessibility of schools | 10    | 2 Bridges  | 2 Bridges  | 2 Bridges  | 2 Bridges  | 2 Bridges  | 2 Bridges               | # of Bridges constructed | LA/MoE    | Annually |
|                                                                                                              | Objective: Promote school Health and Nutrition in schools |                                                                |       |            |            |            |            |            |                         |                          |           |          |
| School Health and Nutrition(SHN)                                                                             | Home Grown School Meals Program                           | Monitor the implementation of the HGSMP                        | 63    | 63 schools | 63 schools | 63 schools | 63 schools | 63 schools | 63 schools              | # of schools Monitored   | LA/MoE    | Termly   |
|                                                                                                              | Menstrual hygiene promotion                               | Conduct sensitization                                          | 6,000 |            |            | 2000 girls | 2000 girls | 2000 girls | # of girls reached with | LA/MoE                   | quarterly |          |

|                                                                                            |                                                                                      |                                                                  |       |                  |                  |                  |                  |                  |                               |        |        |
|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------|-------|------------------|------------------|------------------|------------------|------------------|-------------------------------|--------|--------|
|                                                                                            |                                                                                      | on Menstrual Hygiene                                             |       |                  |                  |                  |                  |                  | Menstrual Hygiene messages    |        |        |
|                                                                                            | Objective: increase enrolment of girls in schools from 31,960...to...65,000. by 2033 |                                                                  |       |                  |                  |                  |                  |                  |                               |        |        |
| District stakeholders to engage community on enrolment of girl children and gender quality | Keeping Girls in school program (KGS)                                                | Conduct Sensitizations on the importance of girl child education | 20    | 4 Sensitizations | 4 Sensitizations | 4 Sensitizations | 4 Sensitizations | 4 Sensitizations | # of sensitizations conducted | LA/MoE | Termly |
|                                                                                            | Sponsorship                                                                          | Sponsor Girls to secondary education                             | 4,000 |                  | 1000 girls       | 1000 girls       | 1000 girls       | 1000 girls       | # of Girls sponsored          | LA/MoE | Termly |

|                                                                                                            |                                                                                  |                                       |        |            |             |             |             |             |                                  |        |          |
|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|---------------------------------------|--------|------------|-------------|-------------|-------------|-------------|----------------------------------|--------|----------|
|                                                                                                            | Objective: to reduce Pupil desk ratio from 5:1 to 2:1 for double sitters by 2026 |                                       |        |            |             |             |             |             |                                  |        |          |
| The local authority and ministry of education should ensure procurement of desks every quarter through CDF | School furniture procurement                                                     | Procurement of Desks for the learners | 16,000 | 1600 desks | 2600 desks  | 4133 desks  | 3834 desks  | 3833 desks  | # of Desks Procured              | LA/MoE | Annually |
| The LA and ministry of education to ensure procurement of learning materials                               | Provision of education materials                                                 | Procure Text books for the learners   |        |            |             |             |             |             |                                  |        |          |
|                                                                                                            |                                                                                  | ECE                                   | 20,000 |            | 5000 books  | 5000 books  | 5000 books  | 5000 books  | # of ece text books procured     | LA/MoE | Annually |
|                                                                                                            |                                                                                  | PRI<br>MAR<br>Y                       | 40,000 |            | 10000 books | 10000 books | 10000 books | 10000 books | # of Primary text books procured | LA/MoE | Annually |

|                                                                              |                                                            |                                                                                           |                |                         |                         |                         |                         |                         |                                                                                      |                |                  |
|------------------------------------------------------------------------------|------------------------------------------------------------|-------------------------------------------------------------------------------------------|----------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------------------------------------------------------------------------------|----------------|------------------|
|                                                                              |                                                            | SEC<br>OND<br>ARY                                                                         | 40<br>,0<br>00 |                         | 100<br>00<br>boo<br>ks  | 100<br>00<br>boo<br>ks  | 100<br>00<br>boo<br>ks  | 100<br>00<br>boo<br>ks  | # of<br>Seco<br>ndary<br>Text<br>books<br>procu<br>red                               | LA/<br>Mo<br>E | Ann<br>uall<br>y |
| To increase the number of teachers deployed in primary and secondary schools | Teacher Deployment                                         | Scru<br>itniz<br>atio<br>n &<br>selec<br>tion<br>of<br>eligi<br>ble<br>appli<br>cant<br>s | 2,<br>00<br>0  | 400<br>taec<br>her<br>s | 400<br>taec<br>her<br>s | 400<br>taec<br>her<br>s | 400<br>taec<br>her<br>s | 400<br>taec<br>her<br>s | # of<br>teache<br>rs<br>deploy<br>ed at<br>prima<br>ry and<br>secon<br>dary<br>level | LA/<br>Mo<br>E | Ann<br>uall<br>y |
|                                                                              |                                                            | Sub<br>miss<br>ion<br>of<br>eligi<br>ble<br>appli<br>cant                                 |                | 400<br>taec<br>her<br>s | 400<br>taec<br>her<br>s | 400<br>taec<br>her<br>s | 400<br>taec<br>her<br>s | 400<br>taec<br>her<br>s | # of<br>teache<br>rs<br>sumitt<br>ed                                                 | LA/<br>Mo<br>E | Ann<br>uall<br>y |
|                                                                              | Objective: Improve ICT in all the schools from 5.8% to 35% |                                                                                           |                |                         |                         |                         |                         |                         |                                                                                      |                |                  |



|                                                                                                          |                                                                                        |                                           |     |                 |                 |                             |                             |                             |                                |        |          |
|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------------|-----|-----------------|-----------------|-----------------------------|-----------------------------|-----------------------------|--------------------------------|--------|----------|
| Enhance access to ICT education in ECE, primary and Secondary schools                                    | ICT promotion                                                                          | Establishment of computer Labs in schools | 9   |                 |                 | 3 computer labs Established | 3 computer labs Established | 3 computer labs Established | # of computer labs Established | LA/MoE | annually |
|                                                                                                          | Objective: Reduced dilapidated school infrastructure due to unfriendly weather by 2033 |                                           |     |                 |                 |                             |                             |                             |                                |        |          |
| Ensure that trees are planted in all schools to reduce shock from strong winds                           | Tree planting in schools                                                               | Plant Trees in schools                    | 480 |                 | 120 Trees       | 120 Trees                   | 120 Trees                   | 120 Trees                   | # of Trees Planted             | LA/MoE | annually |
|                                                                                                          | Objectives: water and sanitation in schools improved by 20% by 2033                    |                                           |     |                 |                 |                             |                             |                             |                                |        |          |
| The LA and MoE with support from other partners to ensure that all schools have solar piped water system | Water supply development in schools                                                    | Construct mechanised water                | 15  | 3 water systems | 3 water systems | 3 water systems             | 3 water systems             | 3 water systems             | # of water systems constructed | LA/MoE | Annually |

|                                                       |                                   |                                                                   |                     |  |                                     |                                     |                                     |                                     |                                                   |                |                  |
|-------------------------------------------------------|-----------------------------------|-------------------------------------------------------------------|---------------------|--|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---------------------------------------------------|----------------|------------------|
|                                                       |                                   | syst<br>em                                                        |                     |  |                                     |                                     |                                     |                                     |                                                   |                |                  |
| Ensure construction of ablution blocks in all schools | Sanitation development in schools | Con<br>stru<br>ct<br>ablu<br>tion<br>bloc<br>ks in<br>scho<br>ols | 24                  |  | 6<br>Abl<br>utio<br>n<br>Bloc<br>ks | 6<br>Abl<br>utio<br>n<br>Bloc<br>ks | 6<br>Abl<br>utio<br>n<br>Bloc<br>ks | 6<br>Abl<br>utio<br>n<br>Bloc<br>ks | # of<br>Abluti<br>on<br>blocks<br>Const<br>ructed | LA/<br>Mo<br>E | Ann<br>uall<br>y |
|                                                       | TOTALS                            |                                                                   | 12<br>8,<br>79<br>8 |  |                                     |                                     |                                     |                                     |                                                   |                |                  |

### Forestry Sector

|                   |                                                                                                           |                   |             |             |             |             |             |                  |                  |  |  |
|-------------------|-----------------------------------------------------------------------------------------------------------|-------------------|-------------|-------------|-------------|-------------|-------------|------------------|------------------|--|--|
| <b>Goal</b>       | <b>To protect and preserve ecological areas, balancing public recreation with environmental stability</b> |                   |             |             |             |             |             |                  |                  |  |  |
| <b>Objective</b>  | To increase annual Afforestation from 20% to 40% by 2033                                                  |                   |             |             |             |             |             |                  |                  |  |  |
| <b>Strategies</b> | <b>Program</b>                                                                                            | <b>Costs(ZMW)</b> | <b>2024</b> | <b>2025</b> | <b>2026</b> | <b>2027</b> | <b>2028</b> | <b>Source Of</b> | <b>Source Of</b> |  |  |

|                                                                                      |                                                                                                 |         |        |        |        |        |        | <b>Funding</b>                                      | <b>Information</b>                |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------|--------|--------|--------|--------|--------|-----------------------------------------------------|-----------------------------------|
| <b>Objective: To reduce the annual deforestation rate 31.5% by 2033</b>              |                                                                                                 |         |        |        |        |        |        |                                                     |                                   |
| Sustainable Forest Management facilities                                             | Promote use of appropriate technology (machines) in timber and rubber harvesting and processing | 39,000  | 5,000  | 7000   | 8,000  | 9000   | 10,000 | MOGEE, CDF, Tralard, WFP,AAH MOA, Community members | MOGEE, CDF MOA, Community members |
| Promote use of appropriate technology (machines) in timber harvesting and processing | Sustainable Forest Management                                                                   | 100,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | MOGEE, CDF                                          | MOGEE,, MOA,                      |
| Mechanize Forestry Plantation operations                                             | Establishment, Management and plantation                                                        | 39,000  | 5,000  | 7,000  | 8,000  | 9,000  | 10,000 | MOGEE, CDF                                          | MOGEE, Community members          |
| Forest Protection                                                                    | Forest Patrols                                                                                  | 150,000 | 25,000 | 28,000 | 30,000 | 32,000 | 35,000 | MOGEE                                               | MOGEE                             |

|                   |  |                |               |               |               |               |               |  |  |
|-------------------|--|----------------|---------------|---------------|---------------|---------------|---------------|--|--|
| and management    |  |                |               |               |               |               |               |  |  |
| <b>TOTAL COST</b> |  | <b>328,000</b> | <b>55,000</b> | <b>60,000</b> | <b>66,000</b> | <b>70,000</b> | <b>75,000</b> |  |  |

## LOCAL AUTHORITY

| <b>Goal : Improve locally generated revenue in order provide effective service delivery</b>     |                             |                     |                         |                  |                         |                         |                         |                          |                              |
|-------------------------------------------------------------------------------------------------|-----------------------------|---------------------|-------------------------|------------------|-------------------------|-------------------------|-------------------------|--------------------------|------------------------------|
| <b>Objective :</b> To increase local revenue efficiency from 56% to 90% by 2033                 |                             |                     |                         |                  |                         |                         |                         |                          |                              |
| <b>Strategy</b>                                                                                 | <b>Program</b>              | <b>COST (K'000)</b> | <b>Year 2024(K'000)</b> | <b>Year 2025</b> | <b>Year 2026(K'000)</b> | <b>Year 2027(K'000)</b> | <b>Year 2028(K'000)</b> | <b>Source of funding</b> | <b>Source of information</b> |
| The local authority to engage in commercial ventures and explore alternative sources of revenue | Completion of Council lodge | 2,000               | 2,000                   | -                | -                       | -                       | -                       | LA                       | LA                           |
|                                                                                                 | Library services            | 800                 | -                       | -                | 800                     | -                       | -                       | LA                       | LA                           |
|                                                                                                 | Sports investment           | 3,000               | -                       | -                | -                       | -                       | 3,000                   | LA                       | LA                           |

|                                                                                                           |                         |        |       |       |       |       |       |    |    |
|-----------------------------------------------------------------------------------------------------------|-------------------------|--------|-------|-------|-------|-------|-------|----|----|
| The local authority to maintain good public relations with the communities and provide frequent feedbacks | WDC office construction | 8,500  | 1,600 | 1,650 | 1,700 | 1,750 | 1,800 | LA | LA |
| <b>SUB TOTAL</b>                                                                                          |                         | 14,300 | 3,600 | 1,650 | 2,500 | 1,750 | 4,800 | LA | LA |

## WATER AND SANITATION M&E PLAN

Table 51

| Objective : To increase urban area clean and safe piped water supply coverage from 11.8% to 50% b 2030 |         |                |                     |                                |                        |                        |                        |            |                                 |           |
|--------------------------------------------------------------------------------------------------------|---------|----------------|---------------------|--------------------------------|------------------------|------------------------|------------------------|------------|---------------------------------|-----------|
| Strategy                                                                                               | Program | Activiti<br>es | Target year<br>2024 | Tar<br>get<br>year<br>202<br>5 | Target<br>year202<br>6 | Target<br>year<br>2027 | Target<br>year<br>2028 | Indicators | Source<br>of<br>inform<br>ation | frequency |

|                                                                                                                  |                                                           |                                                             |                            |                          |                          |                          |                          |                                                         |                                         |           |
|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------|----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---------------------------------------------------------|-----------------------------------------|-----------|
| The LA and CU to ensure that all new areas for development are supplied with water before constructions are done | Servicing new plots                                       | Servicing of new areas with piped water reticulation system | - 1 area serviced          | -                        | 1 area serviced          |                          | -                        | No. of newly identified areas serviced with piped water | LA,LpW SC                               | Annually  |
| The CU to collaborate with the LA and other partners to construct a treatment plant                              | Rehabilitation and expansion of water reticulation system | Conduct site survey                                         | 1 site survey              | -                        | -                        | -                        | -                        | No. of site surveys conducted                           | Ministry of water and sanitation,LpW SC | Annually  |
|                                                                                                                  |                                                           | Conduct rehabilitation of water reticulation system         | 2 facilities rehabilitated | 1 facility rehabilitated | 1 facility rehabilitated | 1 facility rehabilitated | 1 facility rehabilitated | No. of facilities rehabilitated                         | Ministry of water and sanitation,LpW SC | Quarterly |
|                                                                                                                  |                                                           | Formulation of EIA                                          | 1 EIA developed            | -                        | -                        | -                        | -                        | No of EIAs developed                                    | Ministry of water                       | Annually  |

|  |  |                                                                                                                         |                   |   |                                     |   |   |                                               |                                                             |          |
|--|--|-------------------------------------------------------------------------------------------------------------------------|-------------------|---|-------------------------------------|---|---|-----------------------------------------------|-------------------------------------------------------------|----------|
|  |  |                                                                                                                         |                   |   |                                     |   |   |                                               | and<br>sanitati<br>on,<br>LpWSC                             |          |
|  |  | Constru<br>tion of<br>office<br>block                                                                                   | 1 office<br>block | - | -                                   | - | - | No. of<br>office<br>blocks<br>constructe<br>d | Ministr<br>y of<br>water<br>and<br>sanitati<br>on,LpW<br>SC | Annually |
|  |  | Procure<br>ment of<br>utility<br>vehicle                                                                                | -                 | - | 1 vehicle<br>procured               | - | - | No. of<br>vehicles<br>procured                | Ministr<br>y of<br>water<br>and<br>sanitati<br>on,<br>LpWSC | Annually |
|  |  | Constru<br>tion of<br>water<br>tanks in<br>mutono<br>(58cubi<br>c<br>meters)<br>and<br>Boma(2<br>90<br>cubic<br>meters) | -                 | - | 2 water<br>tanks<br>construc<br>ted | - | - | No. of<br>water<br>tanks<br>constructe<br>d   | Ministr<br>y of<br>water<br>and<br>sanitati<br>on,LpW<br>SC | Annually |

|                          |                                              |                                                                    |                              |                             |                                |                             |                             |                                       |                                             |           |
|--------------------------|----------------------------------------------|--------------------------------------------------------------------|------------------------------|-----------------------------|--------------------------------|-----------------------------|-----------------------------|---------------------------------------|---------------------------------------------|-----------|
|                          |                                              | Construct expansion of treatment plant to 100 cubic meters per day | -                            | -                           | 2 treatment plants constructed | -                           | -                           | No. of treatment plants constructed - | LA, Ministry of water and sanitation, LpWSC | Annually  |
|                          | Development of water schemes in urban        | Conduct construction of solar piped water schemes in urban areas   | -1 water schemes constructed | 1 water schemes constructed | 1 water schemes constructed    | 1 water schemes constructed | 1 water schemes constructed | No. of water schemes constructed      | LA                                          | Annually  |
| water quality monitoring | water quality monitoring of all water points | Procurement of water testing kits                                  | 2 testing kits               | 2 testing kits              | 2 testing kits                 | 2 testing kits              | 2 testing kits              | No. of testing kits procured          | LA, MoH,                                    | Quarterly |
|                          |                                              | Conduct water testing                                              | 565 water points tested      | 575 water points tested     | 600 water points tested        | 600 water points tested     | 600 water points tested     | No. water points tested               | LA, MoH,                                    | Quarterly |



| <b>Objective :To increase rural water supply coverage from 75% to 100% by 2030</b>                  |                                             |                                             |                              |                              |                              |                              |                              |                                           |                                      |           |
|-----------------------------------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|-------------------------------------------|--------------------------------------|-----------|
| Ensure that every 50 households are provided with at least 1                                        | Drilling of hand pump boreholes             | Conduct construction of hand pump boreholes | 10 boreholes drilled         | 10 boreholes drilled         | 10 boreholes drilled         | 10 boreholes drilled         | 10 boreholes drilled         | No. of boreholes drilled                  | LA, Ministry of water and sanitation | Annually  |
| The LA and cooperating partners to promote construction of solar piped water schemes in rural areas | Construction of solar powered water schemes | Conduct construction of 50 water schemes    | 10 water schemes constructed | 10 water schemes constructed | 10 water schemes constructed | 10 water schemes constructed | 10 water schemes constructed | No. of water schemes constructed          | LA, Ministry of water and sanitation | Annually  |
| Facilitate manual drilling of boreholes in hard to reach areas                                      | Conduct trainings in manual drilling        | Conduct community sensitization meetings    | 4 community sensitizations   | 4 community sensitizations   | 4 community sensitizations   | 4 community sensitizations   | 4 community sensitizations   | No. of community sensitizations conducted | LA,                                  | Quarterly |

|                                                                                               |                                                                |                                                         |                               |                                                  |                                          |                                          |                                          |                                             |                                              |            |
|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------|---------------------------------------------------------|-------------------------------|--------------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|---------------------------------------------|----------------------------------------------|------------|
|                                                                                               |                                                                | Conduc<br>t<br>supervi<br>sion<br>and<br>monitor<br>ing | 48<br>monitoring<br>visits    | 48<br>mon<br>itori<br>ng<br>visit<br>s           | 48<br>monitori<br>ng visits              | 48<br>monitori<br>ng visits              | 48<br>monito<br>ring<br>visits           | No. of<br>monitoring<br>visits<br>conducted | LA<br>,Ministr<br>y of<br>Infrastr<br>ucture | Weekly     |
| <b>Objective :To reduce the percentage of non-functional boreholes from 25% to 0% by 2030</b> |                                                                |                                                         |                               |                                                  |                                          |                                          |                                          |                                             |                                              |            |
| capacity<br>building<br>of APMs<br>and<br>plumbers<br>in each<br>ward                         | APM<br>capacity<br>building                                    | Conduc<br>t<br>training<br>of 75<br>APMs                | 2<br>trainings                | 2<br>trai<br>ning<br>s                           | 2<br>trainings                           | 2<br>trainings                           | 2<br>trainin<br>gs                       | No. of<br>trainings<br>conducted            | LA                                           | Biannually |
|                                                                                               |                                                                | Conduc<br>t<br>Monitor<br>ing of<br>APMs                | 75 APMS                       | 75<br>APM<br>S                                   | 75 APMS                                  | 75 APMS                                  | 75<br>APMS                               | No. of<br>APMS<br>monitored                 | LA                                           | Quarterly  |
| 15                                                                                            | Rehabilit<br>ation of<br>borehole<br>s and<br>water<br>schemes | Conduc<br>t<br>rehabili<br>tation of<br>water<br>points | 30 boreholes<br>rehabilitated | 30<br>bore<br>hole<br>s<br>reha<br>bilit<br>ated | 30<br>borehole<br>s<br>rehabilit<br>ated | 30<br>borehole<br>s<br>rehabilit<br>ated | 30<br>borehol<br>es<br>rehabili<br>tated | No. of<br>boreholes<br>rehabilitate<br>d    | LA                                           | Monthly    |
| Investmen<br>t<br>promotion                                                                   | Stocking<br>of spare<br>parts in<br>SOMAP<br>shop              | Stockin<br>g of<br>spare<br>parts in<br>SOMAP<br>shop   | 1 SOMAP<br>Shop<br>stocked    | 1<br>SO<br>MAP<br>Sho<br>p<br>stoc               | 1<br>SOMAP<br>Shop<br>stocked            | 1<br>SOMAP<br>Shop<br>stocked            | 1<br>SOMAP<br>Shop<br>stocke<br>d        | Availability<br>of spare<br>parts           | LA                                           | Quarterly  |

|                                                                                                 |                                                     |                                |                          |                          |                          |                          |                          |                                         |                                |             |
|-------------------------------------------------------------------------------------------------|-----------------------------------------------------|--------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-----------------------------------------|--------------------------------|-------------|
|                                                                                                 |                                                     |                                |                          | ked                      |                          |                          |                          |                                         |                                |             |
| <b>Objective :To ensure reduced contamination of water points in the district to 5% by 2033</b> |                                                     |                                |                          |                          |                          |                          |                          |                                         |                                |             |
| Sanitation and hygiene Promotion at household level                                             | Sanitation and hygiene Promotion at household level | Conduct sensitization meetings | 4 sensitization meetings | 4 sensitization meetings | 4 sensitization meetings | 4 sensitization meetings | 4 sensitization meetings | No. of sensitization meetings conducted | LA ,MoH                        | quarterly   |
|                                                                                                 |                                                     | Conduct radio programs         | 12 radio programs        | 12 radio programs        | 12 radio programs        | 12 radio programs        | 12 radio programs        | No. of radio programs aired             | LA ,MoH                        | Monthly     |
|                                                                                                 |                                                     | Conduct health inspections     | 48 inspections           | 48 inspections           | 48 inspections           | 48 inspections           | 48 inspections           | No. of inspections conducted            | LA ,MoH                        | weekly      |
|                                                                                                 | Hygiene promotion                                   | Conduct sensitization meetings | 4 sensitization meetings | 4 sensitization meetings | 4 sensitization meetings | 4 sensitization meetings | 4 sensitization meetings | No. of sensitization meetings conducted | LA ,MoH                        | quarterly   |
|                                                                                                 |                                                     | Conduct demos                  | 2 demos                  | 2 demos                  | 2 demos                  | 2 demos                  | 2 demos                  | No. of demos conducted                  | LA, MoH, Ministry of Water and | Bi annually |

|                                           |                                                                           |                                                                 |                             |                                          |                                 |                                 |                                     |                                    |                                                                 |           |
|-------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------|------------------------------------------|---------------------------------|---------------------------------|-------------------------------------|------------------------------------|-----------------------------------------------------------------|-----------|
|                                           |                                                                           |                                                                 |                             |                                          |                                 |                                 |                                     |                                    | Sanitati<br>on                                                  |           |
|                                           |                                                                           | Conduc<br>t disinfe<br>ction of<br>water<br>points              | 40 boreholes                | 40 bore<br>hole<br>s                     | 40 borehole<br>s                | 40 borehole<br>s                | 40 borehol<br>es                    | No. of<br>boreholes<br>disinfected | MoH                                                             | Quarterly |
| Sanitation<br>and<br>hygiene<br>Promotion | Promotio<br>n of<br>construct<br>ing VIP<br>and<br>waterbor<br>ne toilets | Conduc<br>t commu<br>nity sensiti<br>zation                     | 4 sensitization<br>meetings | 4 sens<br>itiza<br>tion mee<br>ting<br>s | 4 sensitiza<br>tion<br>meetings | 4 sensitiza<br>tion<br>meetings | 4 sensitiz<br>ation<br>meetin<br>gs | No. of<br>demos<br>conducted       | LA,<br>MoH,Mi<br>nistry<br>of<br>Water<br>and<br>Sanitati<br>on | Quarterly |
|                                           |                                                                           | Conduc<br>t 4<br>demos<br>of VIP<br>latrine<br>constru<br>ction | -                           | 4 dem<br>os                              | 4 demos                         | 4 demos                         | 4 demos                             | No. of<br>demos<br>conducted       | LA,<br>MoH,Mi<br>nistry<br>of<br>Water<br>and<br>Sanitati<br>on | Quarterly |
|                                           |                                                                           | Trainin<br>g of<br>Masons                                       | 45 masons                   | 45 mas<br>ons                            | 45<br>masons                    | 45<br>masons                    | 45 mason<br>s                       | No. of<br>Masons<br>trained        | LA,<br>MoH,Mi<br>nistry<br>of<br>Water<br>and<br>Sanitati<br>on | Bi annual |

|                                  |                             |                                                              |                           |                               |                               |                               |                               |                                    |                                                 |          |
|----------------------------------|-----------------------------|--------------------------------------------------------------|---------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|------------------------------------|-------------------------------------------------|----------|
|                                  |                             | Construct ablution blocks in markets and public institutions | -                         | 2 ablution blocks constructed | 2 ablution blocks constructed | 2 ablution blocks constructed | 2 ablution blocks constructed | No. of ablution blocks constructed | LA, MoH, Ministry of Water and Sanitation       | Annually |
| Sanitation and hygiene Promotion | Public health inspections   | Conduct inspections                                          | 48 inspections            | 48 inspections                | 48 inspections                | 48 inspections                | 48 inspections                | No. of inspections conducted       | LA, MoH                                         | weekly   |
|                                  |                             | Conduct radio programs                                       | 12 radio programs         | 12 radio programs             | 12 radio programs             | 12 radio programs             | 12 radio programs             | No of radio programs               | LA, MoH                                         | monthly  |
| Sanitation and hygiene Promotion | Implementation ODF strategy | Conduct community sensitizations                             | 32 communities sensitized | 54 communities sensitized     | 77 communities sensitized     | 82 communities sensitized     | 85 communities sensitized     | No. of communities sensitized      | LA, MoH, Ministry of Water and Sanitation, NGOs | Weekly   |
|                                  |                             | Formation of                                                 | 1 committee formed        | -                             | -                             | -                             | -                             | No. of committees                  | LA, MoH,                                        | annually |

|                                                           |               |                                |                      |                      |                      |                      |                      |                               |                                                     |           |
|-----------------------------------------------------------|---------------|--------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-------------------------------|-----------------------------------------------------|-----------|
|                                                           |               | district enforcement committee |                      |                      |                      |                      |                      | formed                        | Ministry of Water and Sanitation, NGOs, DA,         |           |
|                                                           |               | Monitoring of communities      | 30 monitoring visits | 22 monitoring visits | 34 monitoring visits | 40 monitoring visits | 42 monitoring visits | No. of monitoring visits      | LA, MoH, Ministry of Water and Sanitation, NGOs, DA | weekly    |
|                                                           |               | Conduct ODF verification       | 40 Villages verified | 40 Villages verified | 45 Villages verified | 45 Villages verified | 45 Villages verified | No. of villages certified ODF | LA, MoH, Ministry of Water                          | Annually  |
| Community and school led total sanitation (CLTS and SLTS) | CLTS and SLTS | Radio programs                 | 4                    | 4                    | 4                    | 4                    | 4                    | No. of radio programs aired   | LA, MoH, Ministry of                                | Quarterly |
|                                                           |               | Training of SHIN coordinators  | 9                    | 9                    | 9                    | 9                    | 9                    | No. of trainings              | MoGE, LA                                            | annually  |
|                                                           |               | Conduct                        | 40 Schools           | 42 Sch               | 45 Schools           | 46 Schools           | 50 School            | No. of schools                | MoGE, LA, MoH,                                      | Annually  |

|                                                                                                         |                                        |                                           |                   |                   |                   |                   |                   |                                 |                                           |            |
|---------------------------------------------------------------------------------------------------------|----------------------------------------|-------------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---------------------------------|-------------------------------------------|------------|
|                                                                                                         |                                        | commemoration of SHIN month               |                   | ools              |                   |                   | s                 | commemorating SHIN month        | Ministry of Water and Sanitation, MoGE    |            |
|                                                                                                         |                                        | Sensitizations in communities and schools | 19 sensitisations | 22 sensitisations | 27 sensitisations | 32 sensitisations | 39 sensitisations | No. of sensitisation meetings   | Water and Sanitation, MoGE                | Annually   |
| <b>Objective :To increase the adequate sanitation coverage in the district from 73% to 100% by 2030</b> |                                        |                                           |                   |                   |                   |                   |                   |                                 |                                           |            |
| The LA to revamp the V-WASH committees                                                                  | Capacity building of VWASHE committees | Conduct training of VWASH E committees    | 2 trainings       | 2 trainings       | 2 trainings       | 2 trainings       | 2 trainings       | No. of trainings conducted      | LA, MoH, Ministry of                      | Biannually |
| Enhance the investment in desludging Management.                                                        |                                        | Conduct sensitizations                    | 4 sensitizations  | 4 sensitizations  | 4 sensitizations  | 4 sensitizations  | 4 sensitizations  | No. of sensitizations conducted | LA, MoH, Ministry of Water and Sanitation | Quarterly  |
| Strengthen                                                                                              | Household                              | 12                                        | 12                | 12                | 12                | 12                | 12                | No. of                          | LA,                                       | Monthly    |

|                                                                                                           |                                        |                                                          |             |                   |             |             |             |                            |                                           |             |
|-----------------------------------------------------------------------------------------------------------|----------------------------------------|----------------------------------------------------------|-------------|-------------------|-------------|-------------|-------------|----------------------------|-------------------------------------------|-------------|
| n enforcement of onsite sanitation for each household                                                     | d inspection of onsite sanitation      | inspections                                              | inspections | inspections       | inspections | inspections | inspections | inspections conducted      | MoH, Ministry of Water and Sanitation     |             |
| Identify and reserve land for sewerage ponds by 2026                                                      | Land for sewerage ponds identified     | -                                                        | -           | 1 site identified | -           | -           | -           | - site identified          | LA, MoH, Ministry of Water and Sanitation | Annually    |
| <b>Objective :To increase households with Climate resilient Sanitation Infrastructure to 50% by 2030</b>  |                                        |                                                          |             |                   |             |             |             |                            |                                           |             |
| To provide capacity building to masons in new technologies of Climate resilient Sanitation Infrastructure | Construction of Climate smart latrines | Conduct training of masons in climate smart technologies | 2 trainings | 2 trainings       | 2 trainings | 2 trainings | 2 trainings | No. of trainings conducted | LA, MoH, Ministry of Water and Sanitation | Bi annually |
|                                                                                                           |                                        | Conduct demos                                            | -2 demos    | 2 demos           | 2 demos     | 2 demos     | 2 demos     | No. of demos conducted     | LA, MoH, Ministry of Water and Sanitation | Bi annually |



|                                                                                                         |                        |                                      |                        |                        |                        |                        |                        |                                    |                                      |             |
|---------------------------------------------------------------------------------------------------------|------------------------|--------------------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------------------|--------------------------------------|-------------|
|                                                                                                         |                        |                                      |                        |                        |                        |                        |                        |                                    | on                                   |             |
| <b>Objective : to increase the solid waste managed in growth from 30 % to 50% by 2033</b>               |                        |                                      |                        |                        |                        |                        |                        |                                    |                                      |             |
| The LA to ensure procurement of required equipment for garbage disposal and collection in the district. | Solid waste management | Procurement of garbage truck         | -                      | -                      | -                      | -                      | -                      | No. of garbage trucks procured     | LA, Ministry of Water and Sanitation | Annually    |
|                                                                                                         |                        | Procurement of refuse bins and tools | -10 refuse bins        | 10 refuse bins         | 30 Refuse bins         | 50 Refuse bins         | 70 Refuse bins         | No. of refuse bins constructed     | LA,                                  | Quarterly   |
|                                                                                                         |                        | Construction of refuse bays          | 2 refuse bays          | 2 refuse bays          | 2 refuse bays          | -                      | -                      | No. of refuse bays constructed     | LA,                                  | Bi annually |
|                                                                                                         |                        |                                      |                        |                        |                        |                        |                        |                                    |                                      |             |
| The LA to ensure frequent collection of garbage in growth centres and institutions                      | Garbage collection     | conduct cleaning of markets          | 3 markets cleaned      | 4 markets cleaned      | 5 markets cleaned      | 6 markets cleaned      | 6 markets cleaned      | No. of markets cleaned             | LA,                                  | Daily       |
|                                                                                                         |                        | conduct collection of garbage        | 4500 tonnes of garbage | 5280 tonnes of garbage | 7200 tonnes of garbage | 8000 tonnes of garbage | 8000 tonnes of garbage | No. of tonnes of garbage collected | LA,                                  | Bi weekly   |

|                                                                                     |                    |                                                              |                |                |                   |                   |                   |                                 |                                                                |           |
|-------------------------------------------------------------------------------------|--------------------|--------------------------------------------------------------|----------------|----------------|-------------------|-------------------|-------------------|---------------------------------|----------------------------------------------------------------|-----------|
|                                                                                     |                    |                                                              |                | age            |                   |                   |                   |                                 |                                                                |           |
| The district to enforce behavioural change of the community on solid waste disposal | Health inspections | Conduct inspections in markets, trading areas and households | 48 inspections | 48 inspections | 48 inspections    | 48 inspections    | 48 inspections    | No. inspections conducted       | LA, MoH, Ministry of Water and Sanitation,                     | Monthly   |
| The LA to promote PPP investment in solid waste management                          | PPP investment     | Conduct sensitization                                        | -              | -              | 4 sensitizations  | 4 sensitizations  | 4 sensitizations  | No. of sensitizations conducted | LA, District Administration, Ministry of Water and Sanitation, | Quarterly |
|                                                                                     |                    | Conduct radio adverts                                        | -              | -              | 4 radio programme | 4 radio programme | 4 radio programme | No. of radio programs aired     | LA, District Administration, Ministry of Water                 | Quarterly |

|                                                                            |                          |                                                      |            |                      |            |                      |            |                                          |                |           |
|----------------------------------------------------------------------------|--------------------------|------------------------------------------------------|------------|----------------------|------------|----------------------|------------|------------------------------------------|----------------|-----------|
|                                                                            |                          |                                                      |            |                      |            |                      |            |                                          | and Sanitation |           |
| The LA to ensure the district has a well-protected and maintained dumpsite | Development of dumpsites | Conduct engagement meetings with traditional leaders | 4 meetings | 4 meetings           | 4 meetings | 4 meetings           | 4 meetings | No. of meetings conducted                | LA             | Quarterly |
|                                                                            |                          | Construction of 2 dumpsites                          |            | 1 dumpsite           |            | 1 dumpsite           |            | No. of dumpsites developed               | LA             | Annually  |
| The LA to ensure the district has a well-protected and maintained cemetery | Development of cemetery  | Identification and development of 2 cemeteries       | -          | 1 cemetery developed |            | 1 cemetery developed |            | No. of cemeteries of dumpsites developed | LA             | Annually  |

## TRANSPORT AND COMMUNICATION M&E PLAN

**Table 52**

| Goal: Enhance improved road infrastructure, canals and increased communication coverage in all wards in the district |                                              |                           |                  |                  |                  |                  |                  |                                               |                       |           |
|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------------------|------------------|------------------|------------------|------------------|------------------|-----------------------------------------------|-----------------------|-----------|
| Objective: Ensure reduced erosion on road infrastructure by 2028                                                     |                                              |                           |                  |                  |                  |                  |                  |                                               |                       |           |
| Strategy                                                                                                             | Program                                      | Activity                  | Target year 2024 | Target year 2025 | Target year 2026 | Target year 2027 | Target year 2028 | Indicator                                     | Source of information | frequency |
| Enhance periodic maintenance and rehabilitation of roads                                                             | Construction and maintenance of mombasa road | feasibility survey        | 1                | 1                | 1                | 1                | 1                | Number of surveys conducted                   | Local Authority       | 1         |
|                                                                                                                      |                                              | Construction of the road  | 1                | 1                | 1                | 1                | 1                | Number of roads constructed                   | Local Authority       | 1         |
|                                                                                                                      |                                              | Monitoring and evaluation | 4                | 4                | 4                | 4                | 4                | Number of monitoring and evaluation conducted | District/provincial   | quarterly |
|                                                                                                                      | Construction of Kabuta East road             | Feasibility survey        | 1                | 1                | 1                | 1                | 1                | Number of surveys conducted                   | Local authority       | 1         |
|                                                                                                                      |                                              | Construction of the road  | 1                | 1                | 1                | 1                | 1                | Number of roads constructed                   | Local authority       | 1         |
|                                                                                                                      |                                              | Monitoring and evaluation | 4                | 4                | 4                | 4                | 4                | Number of monitoring and evaluation conducted | District              | quarterly |
|                                                                                                                      | Construction and maintenance                 | Feasibility survey        | 1                | 1                | 1                | 1                | 1                | Number of surveys conducted                   | Local Authority       | 1         |
|                                                                                                                      |                                              | Construction of           | 1                | 1                | 1                | 1                | 1                | Number of roads                               | Local Auth            | 1         |

|  |                                                                                                    |                                                                                                  |   |   |   |   |   |                                                        |                        |               |
|--|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|---|---|---|---|---|--------------------------------------------------------|------------------------|---------------|
|  | e of<br>Kalwe<br>o<br>kapili<br>mung<br>omba                                                       | the road                                                                                         |   |   |   |   |   | constructed                                            | ority                  |               |
|  |                                                                                                    | Monitori<br>ng and<br>evaluatio<br>n                                                             | 4 | 4 | 4 | 4 | 4 | Number of<br>monitoring and<br>evaluation              | Distr<br>ict           | quart<br>erly |
|  | Const<br>ructio<br>n and<br>menta<br>inanc<br>e of<br>Muton<br>o-<br>Kalila<br>nshin<br>do<br>road | Feasibilit<br>y survey                                                                           | 1 | 1 | 1 | 1 | 1 | Number of<br>surveys<br>conducted                      | local<br>Auth<br>ority | 1             |
|  |                                                                                                    | Construc<br>tion of<br>the road                                                                  | 1 | 1 | 1 | 1 | 1 | Number of<br>roads<br>constructed                      | local<br>Auth<br>ority | 1             |
|  |                                                                                                    | Monitori<br>ng and<br>evaluatio<br>n                                                             | 4 | 4 | 4 | 4 | 4 | Number of<br>monitoring and<br>evaluation<br>conducted | Distri<br>ct           | quart<br>erly |
|  | Rehab<br>ilitatio<br>n of<br>Townsh<br>ip<br>roads<br>to<br>bitumi<br>nous<br>stand<br>ard         | Feasibilit<br>y survey                                                                           | 1 | 1 | 1 | 1 | 1 | Number of<br>surveys<br>conducted                      | local<br>Auth<br>ority | 1             |
|  |                                                                                                    | Construc<br>tion and<br>maintaina<br>nce of<br>township<br>road to<br>bitumino<br>us<br>standard | 5 | 5 | 5 | 5 | 5 | Number of<br>roads<br>constructed                      | local<br>Auth<br>ority | 5             |
|  |                                                                                                    | Monitori<br>ng and                                                                               | 4 | 4 | 4 | 4 | 4 | Number of<br>monitoring and                            | Distri<br>ct           | quart<br>erly |

|  |                                 |                                      |   |   |   |   |   |                                               |                 |           |
|--|---------------------------------|--------------------------------------|---|---|---|---|---|-----------------------------------------------|-----------------|-----------|
|  |                                 | evaluation                           |   |   |   |   |   | evaluation conducted                          |                 |           |
|  | Construction of sawmill         | Feasibility survey                   | 1 | 1 | 1 | 1 | 1 | Number of surveys conducted                   | local Authority | 1         |
|  |                                 | Construction and maintenance of road | 1 | 1 | 1 | 1 | 1 | Number of roads constructed                   | local Authority | yearly    |
|  |                                 | Monitoring and evaluation            | 4 | 4 | 4 | 4 | 4 | Number of monitoring and evaluation conducted | District        | quarterly |
|  | Construction of Manta pala road | Feasibility survey                   | 1 | 1 | 1 | 1 | 1 | Number of surveys conducted                   | local Authority | yearly    |
|  |                                 | Construction and maintenance of road | 1 | 1 | 1 | 1 | 1 | Number of roads constructed                   | local Authority | yearly    |
|  |                                 | Monitoring and evaluation            | 4 | 4 | 4 | 4 | 4 | Number of monitoring and evaluation conducted | District        | quarterly |
|  | Construction and maintenance of | Feasibility survey                   | 1 | 1 |   | 1 | 1 | Number of surveys conducted                   | Local authority | yearly    |
|  |                                 | Construction and                     | 1 | 1 | 1 | 1 | 1 | Number of roads                               | Local           | yearly    |

|  |                                            |                                       |   |   |   |   |   |                                               |                   |            |
|--|--------------------------------------------|---------------------------------------|---|---|---|---|---|-----------------------------------------------|-------------------|------------|
|  | Kasumpa kabale nge                         | mentainance of road                   |   |   |   |   |   | constructed                                   | Auth ority        |            |
|  |                                            | Monitori ng and evaluatio n           | 4 | 4 | 4 | 4 | 4 | Number of monitoring and evaluation conducted | Distr ict         | quarte rly |
|  | Const ruction and menta inanc e Lunde road | Feasibilit y survey                   | 1 | 1 | 1 | 1 | 1 | Number of surveys conducted                   | Loca l Auth ority | yearly     |
|  |                                            | Construc tion and mentainance of road | 1 | 1 | 1 | 1 | 1 | Number of roads constructed                   | Loca l Auth ority | yearly     |
|  |                                            | Monitori ng and evaluatio n           | 4 | 4 | 4 | 4 | 4 | Number of monitoring and evaluation conducted | Distr ict         | quarte rly |
|  | Const ruction of Chabil ikila Nacho ndwa   | Feasibilit y survey                   | 1 | 1 | 1 | 1 | 1 | Number of surveys conducted                   | Loca l auth ority | yearly     |
|  |                                            | Construc tion and mentainance of road | 1 | 1 | 1 | 1 | 1 | Number of roads constructed                   | Loca l auth ority | yearly     |
|  |                                            | Monitori ng and evaluatio             | 4 | 4 | 4 | 4 | 4 | Number of monitoring and evaluation           | Distr ict         | quarte rly |
|  |                                            |                                       |   |   |   |   |   |                                               |                   |            |
|  |                                            |                                       |   |   |   |   |   |                                               |                   |            |

|                                                                                                |                                                                                                                                                          |                                     |                                                                                     |    |    |    |    |                                               |                 |           |
|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------------------------------------------------------|----|----|----|----|-----------------------------------------------|-----------------|-----------|
|                                                                                                |                                                                                                                                                          | n                                   |                                                                                     |    |    |    |    | conducted                                     |                 |           |
| Ensure all constructed roads are equipped with climate resilient standard drainages and bridge | Construction of bridges (Nac'hondwa, kapako, mwan'samita, kefulwa, kabuta east, Manta pala, kalweo-kabukwa, shikapande, Kalimbwa, Kasumpa, chungu, sela) | Feasibility survey                  |                                                                                     | 1  | 1  | 1  | 1  | Number of surveys conducted                   | Local Authority | yearly    |
|                                                                                                |                                                                                                                                                          | Construction and maintenance bridge | Shabo, Munkombwe, kabuta, mulwe, mwatishi, shikapande, chilongo, kalimbwa, katofyo) | 13 | 13 | 13 | 13 | Number of bridge constructed                  | Local authority | yearly    |
|                                                                                                |                                                                                                                                                          | Monitoring and evaluation           | Shabo, Munkombwe, kabuta, mulwe, mwatishi, shikapande, chilong                      | 4  | 4  | 4  | 4  | Number of monitoring and evaluation conducted | District        | quarterly |



|  |                                                                                                                                                                                                     |                                                              |                                             |    |    |    |    |                                                        |                            |               |
|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------|----|----|----|----|--------------------------------------------------------|----------------------------|---------------|
|  |                                                                                                                                                                                                     |                                                              | o,kali<br>mbwa<br>,katof<br>yo,)            |    |    |    |    |                                                        |                            |               |
|  | Const<br>ructio<br>n of<br>draina<br>ges(Nc<br>heleng<br>e and<br>kashi<br>kishi<br>Boma<br>draina<br>ges,<br>Marke<br>t to<br>Police<br>in<br>Kabut<br>a and<br>D76-<br>Lushi<br>ba<br>prima<br>ry | Feasibilit<br>y survey                                       | Nchel<br>enge,k<br>ashiki<br>shi,ka<br>buta | 1  | 1  | 1  | 1  | Number<br>surveys<br>conducted                         | Loca<br>l<br>Auth<br>ority | yearly        |
|  |                                                                                                                                                                                                     | Construc<br>tion and<br>maintaina<br>nce of<br>drainage<br>s | Nchel<br>enge,k<br>ashiki<br>shi,ka<br>buta | 10 | 10 | 10 | 10 | Number<br>drainages<br>constructed                     | Loca<br>l<br>Auth<br>ority | yearly        |
|  |                                                                                                                                                                                                     | Monitori<br>ng and<br>evaluatio<br>n                         | Nchel<br>enge,k<br>ashiki<br>shi,ka<br>buta | 4  | 4  | 4  | 4  | Number<br>monitoring<br>and<br>evaluation<br>conducted | Distr<br>ict               | quarte<br>rly |

|                                                                                                    |                                                                    |     |     |     |     |     |                                        |                     |                     |
|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|-----|-----|-----|-----|-----|----------------------------------------|---------------------|---------------------|
| Ensure that all local authority has the required equipment's for road construction and mentainance | Procu remen t equip ment' s for the Distri ct                      | 2   | 2   | 2   | 2   | 2   | Number of tender conducte d            | Local Authority     | yearly              |
|                                                                                                    | Menta inanc e of Earth movin g equip ment and dredg ers for canals | 7   | 7   | 7   | 7   | 7   | Number of machiner y maintaine d       | Local authority     | Vehicles maintained |
| Increase budget allocation towards road maintenance                                                | Road develo pment and maint enanc e                                | 15% | 15% | 15% | 15% | !5% | % increase in budget allocation        | Local authority     | %                   |
| Coordination with Local Authority and RDA for timely                                               | Frequen t supervi sion of road                                     | 4   | 4   | 4   | 4   | 4   | Number of timely to mentaina nce works | Local authority/RDA | quarterly           |

|                                                                                                                                              |                                                                     |   |   |   |   |   |                              |                                      |           |
|----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---|---|---|---|---|------------------------------|--------------------------------------|-----------|
| response to maintenance works                                                                                                                | networks and provision of funds for maintenance                     |   |   |   |   |   |                              |                                      |           |
| Coordination of the local authority and traditional leaders to ensure that sand mining and farming activities are prohibited along the roads | Having meetings with traditional leaders and sensitization meetings | 4 | 4 | 4 | 4 | 4 | Number of meetings conducted | Local Authority/ Traditional leaders | quarterly |

## ENERGY M&E PLAN

Table 53

|                  |                |                   |                                                                                                                   |                  |                  |                  |                  |                  |                              |                  |
|------------------|----------------|-------------------|-------------------------------------------------------------------------------------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------------------|------------------|
| <b>GOAL:</b>     |                |                   | <b>Improve access and ensure availability of electricity and other sources of energy</b>                          |                  |                  |                  |                  |                  |                              |                  |
| <b>Objective</b> |                |                   | <b>Increase capacity to provide electricity in remote and island wards in the district from 0% to 20% by 2028</b> |                  |                  |                  |                  |                  |                              |                  |
| <b>Strategy</b>  | <b>Program</b> | <b>Activities</b> | <b>Year 2024</b>                                                                                                  | <b>Year 2025</b> | <b>Year 2026</b> | <b>Year 2027</b> | <b>Year 2028</b> | <b>Indicator</b> | <b>Source of Information</b> | <b>FREQUENCY</b> |

|                                                                                                                           |                             |                                                    |                           |                           |                           |                    |                           |                                             |             |         |
|---------------------------------------------------------------------------------------------------------------------------|-----------------------------|----------------------------------------------------|---------------------------|---------------------------|---------------------------|--------------------|---------------------------|---------------------------------------------|-------------|---------|
|                                                                                                                           |                             |                                                    |                           |                           | <b>2026</b>               |                    |                           |                                             |             |         |
| limited capacity by utility company to reach remote and island wards in the district                                      | Renewable energy promotion  | Supply of solar energy to one island ward          | Kilwa                     | -                         | -                         | 1 ward electrified | -                         | No of wards supplied with solar energy      | - ZESCO     | Annual  |
| The Local authority to Facilitate investment in solar energy                                                              | Renewable energy investment | Construction of one Solar Farm                     | Nchelenge                 | -                         | -                         | -                  | 1 solar farm constructed  | No of Solar farm constructed                | - ZESCO     | Annualy |
| <b>Objective :To increase electricity connections to the national grid from 15% to 30% by 2030</b>                        |                             |                                                    |                           |                           |                           |                    |                           |                                             |             |         |
| The local authority in partnership with REA and ZESCO should identify and electrify areas and public facilities that have | Rural electrification       | Connection of 4000 households to the national grid | 1000 households connected | 1000 households connected | 1000 households connected | -                  | 1000 households connected | No of households connected to national grid | ZESCO / REA | Annualy |

|                                                                                         |                                        |                                                                          |                                  |                                    |                                      |                                      |                                      |                                                 |           |             |
|-----------------------------------------------------------------------------------------|----------------------------------------|--------------------------------------------------------------------------|----------------------------------|------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|-------------------------------------------------|-----------|-------------|
| not yet<br>been<br>electrified                                                          |                                        |                                                                          |                                  |                                    |                                      |                                      |                                      |                                                 |           |             |
| Enhance<br>investme<br>nt in Mini<br>hydro<br>power<br>plant at<br>Kundabwi<br>ka falls | Electricit<br>y generati<br>on         | Constru<br>ction of<br>mini<br>hydro<br>power<br>plant                   | -                                | -1 mini<br>hydro<br>power<br>plant | -                                    | -                                    | -                                    | - no of mini hydro<br>power plan<br>constructed | - ZESCO / | Annually    |
| Enhance<br>energy<br>efficiency<br>promotio<br>n                                        | Energy<br>efficienc<br>y promotio<br>n | Conduct<br>sensitisa<br>tion meetin<br>gs on<br>energy<br>efficienc<br>y | 2 sensitiza<br>tion meetin<br>gs | 2 sensiti<br>zation meetin<br>gs   | 2 sensi<br>tizati<br>on meeti<br>ngs | 2 sensit<br>izatio<br>n meeti<br>ngs | 2 sensit<br>izatio<br>n meeti<br>ngs | No of<br>sensitization<br>meetings              | ZESCO     | Bi-annually |

## HEALTH M&E PLAN

**Table 54**

| MONITORING AND EVALUATION PLAN |                                                         | INDICATO<br>R | SOURCE<br>OF<br>INFORMA<br>TION | FREQU<br>ENCE |
|--------------------------------|---------------------------------------------------------|---------------|---------------------------------|---------------|
| OBJEC<br>TIVE                  | : To Reduce Waterborne Diseases From 60% To 30% By 2033 |               |                                 |               |

| PROGR<br>AM                              | ACTIVITY                                                          | TAR<br>GET | TARGE<br>T YEAR<br>1 | TARGE<br>T YEAR<br>2 | TARGE<br>T YEAR<br>3 | TARGE<br>T YEAR<br>4 | TARGE<br>T YEAR<br>5 |                         |       |           |
|------------------------------------------|-------------------------------------------------------------------|------------|----------------------|----------------------|----------------------|----------------------|----------------------|-------------------------|-------|-----------|
| Disease<br>prevent<br>ion and<br>control | - Household sensitizations on safe water practices                | 290,000    | 58,000 households    | 58,000 households    | 58,000 households    | 58,000 households    | 58,000 households    | % OF H/H visited        | DHIS2 | YEARLY    |
|                                          | - Community sensitizations on siting of water points and latrines | 290,000    | 58,000               | 58,000               | 58,000               | 58,000               | 58,000               | % OF H/H visited        | DHIS2 | YEARLY    |
|                                          |                                                                   |            | Households           | households           | household            | household            | household            |                         |       |           |
|                                          | - Community triggering on open defecation free                    | 600        | 120                  | 120                  | 120                  | 120                  | 120                  | % of villages triggered | DHIS2 | QUARTERLY |
|                                          |                                                                   |            | Villages             | villages             | villages             | villages             | villages             |                         |       |           |
|                                          |                                                                   |            |                      |                      |                      |                      |                      |                         |       |           |

|                                                                                |                                                              |         |                   |                   |                   |                   |                   |                                                                  |               |          |
|--------------------------------------------------------------------------------|--------------------------------------------------------------|---------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------------------------------------------------------|---------------|----------|
|                                                                                | - sensitization of good hygiene practices at household level | 290,000 | 58,000            | 58,000            | 58,000            | 58,000            | 58,000            | % OF H/H visited                                                 | DHIS2         | MONT HLY |
|                                                                                |                                                              |         | Households        | households        | households        | households        | households        |                                                                  |               |          |
| Objective :To increase the essential drug stock status from 70% to 95% by 2033 |                                                              |         |                   |                   |                   |                   |                   |                                                                  |               |          |
| Medicines and medical supply chain management                                  | - Procurement of supplementary drugs                         | 115     | 23                | 23                | 23                | 23                | 23                | Number of facilities with full complement of supplementary drugs | DHIS2         | YEARLY   |
|                                                                                |                                                              |         | health facilities | health facilities | health facilities | health facilities | health facilities |                                                                  |               |          |
|                                                                                | - Orientation of new staff in electronic management of drugs | 115     | 23                | 23                | 23                | 23                | 23                | Number of facilities with trained staff in ELMIS                 | ELMIS REPORTS | YEARLY   |
|                                                                                |                                                              |         | health facilities | health facilities | health facilities | health facilities | health facilities |                                                                  |               |          |

|  |                                                               |       |                        |                        |                        |                        |                        |                                                  |               |           |
|--|---------------------------------------------------------------|-------|------------------------|------------------------|------------------------|------------------------|------------------------|--------------------------------------------------|---------------|-----------|
|  | -Train pharmacy personnel' s in ELMIS                         | 120   | 24                     | 24                     | 24                     | 24                     | 24                     | Number of facilities with trained staff in ELMIS | IHRIS         | YEARLY    |
|  |                                                               |       | Health personnel       | Health personnel       | Health personnel       | Health personnel       | Health personnel       |                                                  |               |           |
|  | - Procurement of internet bundles for electronic supply chain | 5     | 1                      | 1                      | 1                      | 1                      | 1                      | Number of facilities with access to internet     | ELMIS         | YEARLY    |
|  |                                                               |       | District health office | District health office | District health office | District health office | District health office |                                                  |               |           |
|  | -Conduct quarterly drug audits to all the health facilities   | 1,380 | 276                    | 276                    | 276                    | 276                    | 276                    | Number of facilities audited monthly             | ELMIS REPORTS | QUARTERLY |
|  |                                                               |       | Monthly audits         | Monthly audits         | Monthly audits         | Monthly audits         | Monthly audits         |                                                  |               |           |
|  | -Train facility staff in pharmacovigilance.                   | 460   | 92                     | 92                     | 92                     | 92                     | 92                     | Number of staff trained in pharmacovigilance     | ELMIS REPORTS | QUARTERLY |



|                                                                                                    |                                                                                                           |     |                    |                    |                    |                    |                    |                                                           |       |              |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----|--------------------|--------------------|--------------------|--------------------|--------------------|-----------------------------------------------------------|-------|--------------|
|                                                                                                    |                                                                                                           |     | Meetin<br>gs       | meetin<br>gs       | meetin<br>gs       | meetin<br>gs       | meetin<br>gs       |                                                           |       |              |
| Objective: To increase medical personnel patient ratio from the current 1000 to 500 by end of 2033 |                                                                                                           |     |                    |                    |                    |                    |                    |                                                           |       |              |
| Human<br>resourc<br>e<br>develop<br>ment                                                           | -Recruit<br>health<br>workers in<br>all the<br>health<br>facilities                                       | 385 | 77                 | 77                 | 77                 | 77                 | 77                 | Number of<br>nurses<br>recruited                          | IHRIS | YEARL<br>Y   |
|                                                                                                    |                                                                                                           |     | Nurses             | Nurses             | nurses             | nurses             | nurses             |                                                           |       |              |
|                                                                                                    | -conduct<br>onsite<br>orientation<br>s in all the<br>health<br>centers in<br>the usage<br>of<br>equipment | 230 | 46                 | 46                 | 46                 | 46                 | 46                 | Number of<br>mentorshi<br>ps<br>conducted<br>.            | IHRIS | QUATE<br>RLY |
|                                                                                                    |                                                                                                           |     | orientat<br>ions   | orientat<br>ions   | orientat<br>ions   | orientat<br>ions   | orienta<br>tions   |                                                           |       |              |
|                                                                                                    | attachmen<br>t of staff in<br>other<br>districts                                                          | 20  | 4                  | 4                  | 4                  | 4                  | 4                  | Number of<br>midwives<br>attached                         | IHRIS | QUATE<br>RLY |
|                                                                                                    |                                                                                                           |     | Midwiv<br>es       | Midwiv<br>es       | Midwiv<br>es       | Midwiv<br>es       | Midwiv<br>es       |                                                           |       |              |
|                                                                                                    | short<br>trainings<br>to be<br>provided<br>to the<br>health<br>personnel'                                 | 20  | 4<br>trainin<br>gs | 4<br>trainin<br>gs | 4<br>trainin<br>gs | 4<br>trainin<br>gs | 4<br>trainin<br>gs | Number of<br>staff<br>provided<br>with short<br>trainings | IHRIS | QUATE<br>RLY |

|                                                                                         |                                                                  |     |                        |                        |                        |                        |                        |                                      |                   |           |
|-----------------------------------------------------------------------------------------|------------------------------------------------------------------|-----|------------------------|------------------------|------------------------|------------------------|------------------------|--------------------------------------|-------------------|-----------|
|                                                                                         | s                                                                |     |                        |                        |                        |                        |                        |                                      |                   |           |
|                                                                                         | zonal mentorships provided to staff                              | 80  | 16 zonal mentorships   | 16 zonal mentorships   | 16 zonal mentorships   | 16 zonal mentorships   | 16 zonal mentorships   | Number of zonal mentorships provided | IHRIS             | QUARTERLY |
|                                                                                         | procurement of 2 ambulances                                      | 2   | -                      | 1 ambulance            |                        | 1 ambulance            | -                      | Number of ambulances procured        | ASSETS REGISTER S | YEARLY    |
|                                                                                         | - procurement of 1 boat for referral cases from the Island wards | 1   | -                      | -                      | 1 boat                 | -                      | -                      | Number of boats procured             |                   | ONCE      |
| Objective : To increase the health promotion activities from current 50% to 85% by 2033 |                                                                  |     |                        |                        |                        |                        |                        |                                      |                   |           |
| Health education promotion                                                              | -Training of 23 health promotion focal point persons             | 115 | 23 focal point persons | 23 focal point persons | 23 focal point persons | 23 focal point persons | 23 focal point persons | Number of promoters trained          | ASSETS REGISTER S | YEARLY    |

|                        |                                                                                                 |       |                    |                    |                    |                    |                    |                                            |       |           |
|------------------------|-------------------------------------------------------------------------------------------------|-------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------------------------------|-------|-----------|
|                        | - Sensitization meetings on social behavioral change in all the wards.                          | 1,380 | 276 sensitizations | 276 sensitizations | 276 sensitizations | 276 sensitizations | 276 sensitizations | Number of sensitization meetings conducted | DHIS2 | QUARTERLY |
|                        | Objective :Increase awareness on non -communicable diseases from the current 25% to 50% by 2033 |       |                    |                    |                    |                    |                    |                                            |       |           |
| Mobile health services | -Conduct 4 outreach activities on non-communicable diseases in each catchment area              | 1,380 | 276                | 276                | 276                | 276                | 276                | Number of mobile services provided         | DHIS2 | QUARTERLY |
|                        |                                                                                                 |       | Mobile screenings  | Mobile screenings  | Mobile screenings  | Mobile screenings  | Mobile screenings  |                                            |       |           |
|                        | -Hold quarterly nutrition technical working group meetings                                      | 20    | 4 meetings         | 4 meetings         | 4 meetings         | 4 meetings         | 4 meetings         | Number of meetings held                    | DHIS2 | QUARTERLY |
|                        | Objective : Reduction of communicable diseases from 70% to 20% by 2033                          |       |                    |                    |                    |                    |                    |                                            |       |           |

|                                  |                                                                           |         |                   |                   |               |                   |               |                               |       |           |
|----------------------------------|---------------------------------------------------------------------------|---------|-------------------|-------------------|---------------|-------------------|---------------|-------------------------------|-------|-----------|
| Health security and surveillance | -conduct contact tracing to all index cases                               | 15      | 3 AFP cases       | 3 AFP cases       | 3 AFP cases   | 3 AFP cases       | 3 AFP cases   | Number of AFP cases detected  |       | QUATE RLY |
|                                  | -Training of community based volunteers in IDSR                           | 20      | 4 trainin gs      | 4 trainin gs      | 4 trainin gs  | 4 trainin gs      | 4 trainin gs  | Number of trainings conducted | IHRIS | QUATE RLY |
| Malaria prevent ion and control  | -Conduct DQA in all the health facilities                                 | 20      | 4 data audits     | 4 data audits     | 4 data audits | 4 data audits     | 4 audits      | Number of DQAs conducted      | DHIS2 | QUATE RLY |
|                                  | -Conduct monitoring and supervisio n to step D communit y health workers. | 1,380   | 276 meetin gs     | 276 meetin gs     | 276 meetin gs | 276 meetin gs     | 276 meetin gs | Number of meetings held       | DHIS2 | MONT HLY  |
|                                  | -Conduct mass and continuou s ITN distributio n to health facilities      | 290,000 | 58000 househ olds | 58000 househ olds | 58,000        | 58000 househ olds | 58,000        | % OF H/H visited              | DHIS2 | YEARL Y   |

|                                                                                                          |                                                             |                |                    |                    |                    |                    |                |                                    |                        |         |
|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|----------------|--------------------|--------------------|--------------------|--------------------|----------------|------------------------------------|------------------------|---------|
|                                                                                                          | - expansion of IRS program to the island wards              | 5 spray season | 1 spray season     | 1 spray season     | 1 spray season     | 1 spray season     | 1 spray season | Number of households sprayed       | IRS REGISTER S         | YEARLY  |
| HIV testing and treatment                                                                                | -Provision of courier services to all the health facilities | 24,000         | 4800 samples       | 4800 samples       | 4800 samples       | 4800 samples       | 4800           | Number of samples couriered        | DHIS2                  | MONTHLY |
|                                                                                                          | -Conduct voluntary medical male circumcision                | 36,720         | 7344 circumcisions | 7344 circumcisions | 7344 circumcisions | 7344 circumcisions | 7344           | Number of people circumcised       | DHIS2                  | YEARLY  |
| Objective: Reduction of distance walked by patients to access health facilities from 17km to 5km by 2033 |                                                             |                |                    |                    |                    |                    |                |                                    |                        |         |
| Infrastructure development                                                                               | - Construction of health posts                              | 9              | 1 HP               | 2HP                | 2HP                | 2HP                | 2HP            | Number of health posts constructed | INFRASTRUCTURE REPORTS | YEARLY  |
|                                                                                                          | - construction of staff houses                              | 9              | -                  | -                  | 3                  | 3                  | 3              | Number of staff houses constructed | INFRASTRUCTURE REPORTS | YEARLY  |
|                                                                                                          |                                                             |                |                    |                    | Staff houses       | Staff houses       | Staff houses   |                                    |                        |         |

|  |                                                                    |    |              |              |              |              |              |                                                            |                        |           |
|--|--------------------------------------------------------------------|----|--------------|--------------|--------------|--------------|--------------|------------------------------------------------------------|------------------------|-----------|
|  | - Procurement of medical equipment                                 | 25 | 5 facilities | 5 facilities | 5 facilities | 5 facilities | 5 facilities | Number of facilities provided with medical equipment       | ASSETS REGISTER        | YEARLY    |
|  | -onsite short trainings on the usage of equipment                  | 20 | 4 trainings  | 4 trainings  | 4 trainings  | 4 trainings  | 4 trainings  | Number of trainings conducted                              | IHRIS                  | QUARTERLY |
|  | - Connection of health facilities to ZESCO grid                    | 4  | 1            | 1            | -            | 1            | 1            | Number of facilities connected to ZESCO grid               | INFRASTRUCTURE REPORTS | YEARLY    |
|  | Procurement and installation of solar facilities at health centres | 4  | -            | -            | 2            | 1            | 1            | Number of health facilities installed with solar equipment | INFRASTRUCTURE REPORTS | YEARLY    |
|  | Upgrading of feeder roads leading to health facilities             | 4  | 1            | 2            | -            | 1            | -            | Number of feeder roads upgraded                            | INFRASTRUCTURE REPORTS | YEARLY    |

|  |  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|--|

**AGRICULTURE M&E PLAN**

**Table 54**

|                                |           |        |         |
|--------------------------------|-----------|--------|---------|
| Monitoring And Evaluation Plan | Indicator | Source | Frequen |
|--------------------------------|-----------|--------|---------|

|                                       |                                                                        |                                                    |                 |                       |                       |                              |                           |                       |                                                                                        |                                    |        |
|---------------------------------------|------------------------------------------------------------------------|----------------------------------------------------|-----------------|-----------------------|-----------------------|------------------------------|---------------------------|-----------------------|----------------------------------------------------------------------------------------|------------------------------------|--------|
|                                       |                                                                        |                                                    |                 |                       |                       |                              |                           |                       |                                                                                        | of<br>Inform<br>ation              | cy     |
| Objective                             | Increased production and productivity                                  |                                                    |                 |                       |                       |                              |                           |                       |                                                                                        |                                    |        |
| Program                               | Strategy                                                               | Activity                                           | Total<br>Target | Targ<br>et yr<br>2024 | Targe<br>t yr<br>2025 | Tar<br>get<br>yr<br>202<br>6 | Targ<br>et yr<br>202<br>7 | Targe<br>t yr<br>2028 |                                                                                        |                                    |        |
| Infrastru<br>cture<br>developm<br>ent | Contract;<br>Site<br>handover;<br>Monitorin<br>g;<br>Commissi<br>oning | Rehabilitation<br>of camp<br>houses                | 7               | 5                     | 2                     | 4                            | 1                         | 5                     | contractor<br>mobilization to<br>the site;<br>material<br>mobilization;<br>civil works | Site<br>visits;<br>IPC;<br>reports | Weekly |
|                                       | Phased<br>rehabilita<br>tion<br>works                                  | Rehabilitation<br>of Farmers<br>Training<br>Centre | 1               |                       | 1                     |                              |                           |                       | contractor<br>mobilization to<br>the site;<br>material<br>mobilization;<br>civil works | Site<br>visits;<br>IPC;<br>reports | Weekly |
|                                       | Weekly<br>Visits to<br>the<br>constructi<br>on sites                   | Construction<br>of camp<br>houses                  | 7               | 2                     | 3                     | 1                            | 1                         | 2                     | contractor<br>mobilization to<br>the site;<br>material<br>mobilization;<br>civil works | Site<br>visits;<br>IPC;<br>reports | Weekly |
|                                       | Weekly                                                                 | Construction                                       | 3               |                       | 1                     | 1                            | 1                         |                       | contractor                                                                             | Site                               | Weekly |



|  |                                         |                                                                                                                       |    |   |   |   |   |   |                                                                         |                           |        |
|--|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------|----|---|---|---|---|---|-------------------------------------------------------------------------|---------------------------|--------|
|  | Visits to the construction sites        | of slaughter houses/ infrastructure and establishment of hygiene systems, internal controls and regulatory structures |    |   |   |   |   |   | mobilization to the site; material mobilization; civil works            | visits; IPC; reports      |        |
|  | Weekly Visits to the construction sites | Installation of HACCP infrastructure , water sources and reticulation systems                                         | 5  |   | 1 | 1 | 1 | 2 | contractor mobilization to the site; material mobilization; civil works | Site visits; IPC; reports | Weekly |
|  | Weekly Visits to the construction sites | construction of market value chain infrastructures                                                                    | 15 | 1 | 5 | 5 | 4 |   | contractor mobilization to the site; material mobilization; civil works | Site visits; IPC; reports | Weekly |
|  | Weekly Visits to the                    | Rehabilitation of Farmers Training Centers                                                                            | 2  |   | 2 |   |   |   | contractor mobilization to the site; material mobilization; civil works | Site visits; IPC; reports | Weekly |

|                    |                                                                               |                                                                               |                   |    |    |    |  |  |                           |           |          |
|--------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------------|----|----|----|--|--|---------------------------|-----------|----------|
| Farm Mechanization | Issue advert; contract of supply; Receive tractors and implements; distribute | Procurement and distribution                                                  | 3                 | 1  | 1  | 1  |  |  | Contract of supply signed | Contract  | Annually |
|                    | Issue advert; contract of supply; Receive tractors and implements; distribute | Procurement and distribution of 15 herds cattle (4 steers; 1 bull; 4 heifers) | 135herds          | 50 | 50 | 13 |  |  | Number of herds supplied  | Contract  | Annually |
|                    | Camp demonstration                                                            | Training the steers                                                           | 15                |    |    |    |  |  | number of steers trained  | Reports   | Weekly   |
|                    |                                                                               | Aquaculture/ Livestock Production mechanization                               | 15                | 5  | 5  | 5  |  |  |                           |           |          |
| Farmer Input       | Issue advert; contract                                                        | Procurement and Supply of                                                     | Basal:68000; Top: |    |    |    |  |  | number of bags supplied   | Contract; | Annually |

|                          |                                                                               |                                                 |                 |   |   |   |   |  |                                                        |                   |          |
|--------------------------|-------------------------------------------------------------------------------|-------------------------------------------------|-----------------|---|---|---|---|--|--------------------------------------------------------|-------------------|----------|
| Support                  | of supply; Receive tractors and implements; distribute                        | fertilizer                                      | 68000×50Kg bags |   |   |   |   |  |                                                        | reports           |          |
|                          | Issue advert; contract of supply; Receive tractors and implements; distribute | Aquaculture/ Livestock Production mechanization |                 |   |   |   |   |  | Number of Mechanization /livestock production effected | Contract; reports | Annually |
| Agribusiness Development | Identify value chain of interest                                              | Establish value addition demonstrations;        |                 | 3 | 3 | 4 | 5 |  | Number of demonstrations                               | Reports           | Annually |
|                          | identify and invite off takers                                                | Facilitate training of producers by off takers; |                 | 3 | 3 | 4 | 5 |  | number of off takers identified and invited            | Reports           | Annually |
|                          | Identify and invite off takers                                                | Linking farmers to off takers                   |                 | 3 | 3 | 4 | 5 |  | number of off takers identified and invited            | Reports           | Annually |

|                                         |                                                                                |                                                                  |          |   |                 |   |  |  |                                                          |             |          |
|-----------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------|----------|---|-----------------|---|--|--|----------------------------------------------------------|-------------|----------|
| Agroforestry and tree crops development | Procurement of agroforestry seedlings and planting them in demonstration plots | Establish agroforestry and tree crops demonstration plots;       | 15 Camps |   | 1 plot per camp |   |  |  | Number of agro-forestry and tree crops demos established | Reports     | Annually |
| Irrigation development                  | Construct site handover, monitoring and commission                             | Setting up, construction and rehabilitation of weirs and dams    | 3 Camps  |   | 2               | 1 |  |  | Number of sites under rehab                              | Reports     | Annually |
|                                         | Camp demonstrations                                                            | training farmers in water harvesting for sustainable agriculture | 3 Camps  |   | 3               |   |  |  | Number of farmers trained                                | Reports     | Monthly  |
| Research and development                | Issue advert; contract of construction                                         | Setting up a research facility                                   | 1        | 1 |                 |   |  |  | Number of facilities setup                               | IPC; report | Monthly  |

|                            |                                                                      |                                                                                   |          |   |    |    |    |  |                                                |                                              |           |
|----------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------|---|----|----|----|--|------------------------------------------------|----------------------------------------------|-----------|
|                            | create research protocols                                            | Carrying out crop surveys                                                         | 5        | 2 | 1  | 1  | 1  |  | Number of surveys carried out                  | Reports                                      | Quarterly |
|                            | create research protocols                                            | Conduct research on aquaculture. Capture fisheries and livestock                  | 15       | 5 | 5  | 5  |    |  | Number of surveys carried out                  | Reports                                      | Quarterly |
| Extension Services Support | Pick coordinates and create electronic maps                          | Create additional camps;                                                          | 15 Camps |   | 5  | 5  | 5  |  | Number of camps created                        | Map reports                                  | annually  |
|                            | Request for establishment extension and treasury authority           | employ 15 additional extension staff;                                             | 15 staff |   | 5  | 5  | 5  |  | Number of addition staff employed              | Staff returns                                | Monthly   |
|                            | Issue advert; contract of supply; Receive motorcycles and distribute | procure and provide 30 motorcycles to existing staff and to the additional staff; | 30       |   | 10 | 10 | 10 |  | Number of motorcycles procured and distributed | Contract; Goods Received Notes; Goods Issued | annually  |

|                                           |                                                                                      |                                                                                                     |           |  |         |        |        |  |                                                   |                                                    |          |
|-------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------|--|---------|--------|--------|--|---------------------------------------------------|----------------------------------------------------|----------|
|                                           | to the camps                                                                         |                                                                                                     |           |  |         |        |        |  |                                                   | Notes                                              |          |
|                                           | Issue advert; contract of supply; Receive extension kits and distribute to the camps | Procurement extension kits                                                                          | 30        |  | 15      | 15     |        |  | Number of extension kits procured and distributed | Contract; Goods Received Notes; Goods Issued Notes | annually |
| Early warning and surveillance            | Issue advert; contract of construction; site handover and commission                 | Erection of weather and hydrological monitoring facilities                                          | 4         |  | 1       | 2      | 1      |  | Number of weather stations erected                | Site visits; IPCs; Contract                        | annually |
| Farm development and resettlement schemes | Field Surveys and location coordinate gathering                                      | Create at least 800 - 10 ha smallholder farm plots and 02 – 1000 large scale farm plots for farming | 10,000 Ha |  | 3000 Ha | 3000Ha | 4000Ha |  | Size of land surveyed                             | Map reports                                        | Monthly  |

|                                      |                                                                                      |                                                                                                                                       |           |   |          |   |   |  |                                  |                       |         |
|--------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------|---|----------|---|---|--|----------------------------------|-----------------------|---------|
|                                      |                                                                                      | activities                                                                                                                            |           |   |          |   |   |  |                                  |                       |         |
|                                      | Engaging the traditional leaders to negotiate for land alienation towards farm land  | Land acquisition                                                                                                                      | 10,000 Ha |   | 10,000Ha |   |   |  | Size of land offered             | Reports               | Monthly |
|                                      | Advertise and issue the parcels of land to needy farmers and investors               | Farm development                                                                                                                      | 802 plots |   |          |   |   |  | Number of farm plots issued      | Council Receipt Books | Weekly  |
| Fisheries management and development | Engaging the traditional leaders to aid in sensitizing the local communities towards | Create an operational structure that implements MCS effectively and efficiently in Lake Mweru-Luapula, with the objective of creating | 15        | 2 | 3        | 5 | 5 |  | Number of communities sensitized | Council Receipt Books | Monthly |

|  |                                                                               |                                                                                                                                            |    |   |   |   |   |  |                               |                       |         |
|--|-------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|----|---|---|---|---|--|-------------------------------|-----------------------|---------|
|  | the welfare of the lake and aquatic life                                      | sustainable fisheries in the Lake                                                                                                          |    |   |   |   |   |  |                               |                       |         |
|  | Engage the local communities and all stakeholders on the consultative meeting | Need for stakeholder consultative meetings to establish MCS system<br><br>Establish efficient and effective fishery value chain structures | 15 | 2 | 3 | 5 | 5 |  | Number of communities reached | Council Receipt Books | Monthly |

## TOURISM M&E PLAN

**Table 55**

| GOAL: ENHANCE INVESTMENT AND EXPLORATION IN THE TOURISM SECTOR IN THE DISTRICT        |         |          |                    |                    |                    |                    |                    |            |                       |           |
|---------------------------------------------------------------------------------------|---------|----------|--------------------|--------------------|--------------------|--------------------|--------------------|------------|-----------------------|-----------|
| OBJECTIVE: TO ENSURE MARKETING AND PROMOTION OF TOURISM OPPORTUNITIES IN THE DISTRICT |         |          |                    |                    |                    |                    |                    |            |                       |           |
| Strategy                                                                              | Program | activity | Target Year 1 2024 | Target Year 2 2025 | Target Year 3 2026 | Target Year 4 2027 | Target Year 5 2028 | Indicators | Source of information | Frequency |



|                                                                                                                                 |                                 |                                      |   |   |   |   |   |                      |    |           |
|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------|--------------------------------------|---|---|---|---|---|----------------------|----|-----------|
| - The local authority to coordinate community groups engaged in development of artifacts and connect them to financial services | Tourism product development     | District Tourism exhibition festival | 1 | 1 | 1 | 1 | 1 | Number of festivals  | LA | Annually  |
| - The local authority to increase funding towards tourism                                                                       | Tourism promotion and marketing | Touring Kilwa Curves                 | 1 | 1 | 1 | 1 | 1 | Number of tours      | LA | Annually  |
|                                                                                                                                 |                                 | Munsa Warter Source Spring           | 1 | 1 | 1 | 1 | 1 | Number of visitation | LA | Annually  |
|                                                                                                                                 |                                 | Nchelenge lake Mweru Beach Area      | 4 | 4 | 4 | 4 | 4 | Promotion events     | LA | Quarterly |
|                                                                                                                                 |                                 | Touring Isokwe Island                | 2 | 2 | 2 | 2 | 2 | Number of festivals  | LA | Bi-annual |

|                                                                                                                                |                               |                                           |   |   |   |   |   |   |                     |    |          |
|--------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------------------|---|---|---|---|---|---|---------------------|----|----------|
| - Improve staffing levels in the sector                                                                                        | Staff recruit ment            | Recruit / deployme nt of one officer      | 1 | 1 | 1 | 1 | 1 | 1 | Number of festivals | LA | Annually |
| - Provision of adequate transport to ensure the local authority works with the communi ty to physicall y capture tourism sites | infrast ructur e develo pment | Rehabilit ation of the office             | 1 | 1 | 1 | 1 | 1 | 1 | Number of festivals | LA | Annually |
|                                                                                                                                |                               | Purchasi ng of operation vehicle          | 1 | 1 | 1 | 1 | 1 | 1 | Number of festivals | LA | Annually |
|                                                                                                                                |                               | Purchasi ng of tourism boat               | 1 | 1 | 1 | 1 | 1 | 1 | Number of festivals | LA | Annually |
| Objective: To ensure investment in tourism infrastructure                                                                      |                               |                                           |   |   |   |   |   |   |                     |    |          |
| Improve road infrastructure to tourism sites                                                                                   | infrast ructur e develo pment | Build Ncheleng e – Kashikis hi Beach Road | 1 | 1 | 1 | 1 | 1 | 1 | Number of festivals | LA | Annually |

|                                                                                                              |                                             |                                                 |   |   |   |   |   |                     |    |          |
|--------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------------|---|---|---|---|---|---------------------|----|----------|
| Ensure that land is allocated for the construction of an airport in consultation with traditional leadership | infrast<br>ructur<br>e develo<br>pment      | Build a Tourism Centre at the lake Mweru beach. | 1 | 1 | 1 | 1 | 1 | Number of festivals | LA | Annually |
|                                                                                                              |                                             | Land allocation for airport                     | 1 | 1 | 1 | 1 | 1 | Number of festivals | LA | Annually |
|                                                                                                              |                                             | Developing a beach side at Isokwe Island        | 1 | 1 | 1 | 1 | 1 | Number of festivals | LA | Annually |
| Objective: To ensure availability of planned land for tourism investment                                     |                                             |                                                 |   |   |   |   |   |                     |    |          |
| -ensure zoning and planning of customary land in coordination with traditional authorities                   | Touris<br>m promot<br>ion and market<br>ing | Zoning of tourism land                          | 1 | 1 | 1 | 1 | 1 | Number of festivals | LA | Annually |
| provide communities with knowledge on the benefits of preserving tourism sites                               | Touris<br>m promot<br>ion and market<br>ing | Stakehol<br>ders engagem<br>ent meeting         | 1 | 1 | 1 | 1 | 1 | Number of festivals | LA | Annually |
|                                                                                                              |                                             | Commun<br>ity engagem                           | 1 | 1 | 1 | 1 | 1 | Number of festivals | LA | Annually |

|  |  |     |  |  |  |  |  |  |  |  |
|--|--|-----|--|--|--|--|--|--|--|--|
|  |  | ent |  |  |  |  |  |  |  |  |
|  |  |     |  |  |  |  |  |  |  |  |

## FORESTRY M AND E PLAN

| Forestry Monitoring And Evaluation Plan                                   |                                                      |                     |              |                |                |                |                |                |                                     |                           |           |
|---------------------------------------------------------------------------|------------------------------------------------------|---------------------|--------------|----------------|----------------|----------------|----------------|----------------|-------------------------------------|---------------------------|-----------|
| Objective                                                                 | To have Improved Sustainable Use of Forest Resources |                     |              |                |                |                |                |                | Indicator                           | Source of Information     | Frequency |
| Strategy                                                                  | Program                                              | Activity            | Total Target | Target yr 2024 | Target yr 2025 | Target yr 2026 | Target yr 2027 | Target yr 2028 |                                     |                           |           |
| Employ modern Climate Smart Agriculture practices<br>Strengthen emergency | Agro-forestry training                               | Prepare modules     | 7            | 5              | 2              | 4              | 1              | 5              | Number of trainings conducted       | Site visits; IPC; reports | Quarterly |
|                                                                           | Phased rehabilitation works                          | Train Camp Officers | 1            |                | 1              |                | 1              |                | Officers trained in Smart practices | Site visits; IPC; reports | Bi-annual |
|                                                                           | Community training on Bee                            | Train Lead farmers  | 7            | 2              | 3              | 1              | 1              | 2              | Lead farmers trained in Smart       | Site visits; IPC; reports | Quarterly |

|                                                                                                                                                                                  |                                                                              |                                                         |    |   |   |   |   |   |                                                                         |                           |           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|---------------------------------------------------------|----|---|---|---|---|---|-------------------------------------------------------------------------|---------------------------|-----------|
| preparedness through early warning systems and efficient crop forecasting and maintenance of strategic food reserves<br><br>Provision of small holdings and commercial farm land | Keeping                                                                      |                                                         |    |   |   |   |   |   | practices                                                               |                           |           |
|                                                                                                                                                                                  | Weekly Visits to the construction sites                                      | Lead farmers train local farmers                        | 4  | 1 | 1 | 1 | 1 |   | Lead farmers trained in Smart practices to their members                | Site visits; IPC; reports | Weekly    |
|                                                                                                                                                                                  | Weekly Visits to the construction sites                                      | M&E                                                     | 5  |   | 1 | 1 | 1 | 2 | Monitoring visits conducted                                             | Site visits; IPC; reports | Weekly    |
|                                                                                                                                                                                  | Reinforcement of early warning systems and increasing local storage capacity | Build storage sheds                                     | 15 | 1 | 5 | 5 | 4 |   | contractor mobilization to the site; material mobilization; civil works | Site visits; IPC; reports | Yearly    |
|                                                                                                                                                                                  | information from financial institutions about suitable products and credit   | Engaging with traditional leaders and lobbying for land | 20 | 4 | 4 | 4 | 4 | 4 | Local leaders visited                                                   | Site visits; IPC; reports | Quarterly |

|                                                                         |                                                                               |                            |          |    |    |    |   |   |                                |           |           |
|-------------------------------------------------------------------------|-------------------------------------------------------------------------------|----------------------------|----------|----|----|----|---|---|--------------------------------|-----------|-----------|
|                                                                         | facilities for farmers                                                        |                            |          |    |    |    |   |   |                                |           |           |
| Create an enabling environment for investors in the agricultural sector | Provision of small holdings and commercial farm land                          | Identify land              | 20       | 4  | 4  | 4  | 4 | 4 | Contract of supply signed      | Contract  | Annually  |
|                                                                         | Issue advert; contract of supply; Receive tractors and implements; distribute | Engage Traditional Leaders | 135herds | 50 | 50 | 13 |   |   | Implement s received           | Contracts | Annually  |
|                                                                         | Camp demonstration                                                            | Land Survey                | 15       |    |    |    |   |   | Land surveyed                  | Reports   | Quarterly |
|                                                                         |                                                                               | Stakeholder engagement     | 15       | 5  | 5  | 5  |   |   | Number of stakeholders engaged | Reports   | Quarterly |
|                                                                         | Empowerment of local cooperatives                                             | Participate in Expos       |          | 3  | 3  | 4  | 5 |   | Number of demonstrations       | Reports   | Annually  |

|  |                                |                                                                                                           |          |   |   |   |   |  |                                             |         |           |
|--|--------------------------------|-----------------------------------------------------------------------------------------------------------|----------|---|---|---|---|--|---------------------------------------------|---------|-----------|
|  | identify and invite off takers | Build market infrastructure                                                                               |          | 3 | 3 | 4 | 5 |  | number of off takers identified and invited | Reports | Annually  |
|  |                                | Acquire information from financial institutions about suitable products and credit facilities for farmers | 15 Camps | 3 | 3 | 3 |   |  | Number of financial institutions on board   | Reports | Quarterly |

#### LOCAL AUTHORITY REVENUE MOBILISATION PLAN

|                                                                                                 |                             |                                                                                                                                          |                     |           |           |                           |           |                          |
|-------------------------------------------------------------------------------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------|-----------|---------------------------|-----------|--------------------------|
| GOAL:                                                                                           |                             | Improve locally generated revenue in order provide effective service delivery                                                            |                     |           |           |                           |           |                          |
| Objective                                                                                       |                             | To increase local revenue efficiency from 56% to 90% by 2033                                                                             |                     |           |           |                           |           |                          |
| Strategy                                                                                        | Program                     | Activities                                                                                                                               | Year 2024           | Year 2025 | Year 2026 | Year 2027                 | Year 2028 | Indicator                |
| The local authority to engage in commercial ventures and explore alternative sources of revenue | Completion of Council lodge | Construction of Council Lodge                                                                                                            | 1 lodge constructed |           | -         | -                         | -         | - lodge constructed      |
|                                                                                                 | Library services            | <ul style="list-style-type: none"><li>Rehabilitation of building</li><li>Procurement of furniture</li><li>Procurement of books</li></ul> | -                   | -         | -         | 1 library operationalized | -         | -library operationalized |

|                                                                                                           |                                    |                                          |                     |                                |                                |                                |                                |                                     |
|-----------------------------------------------------------------------------------------------------------|------------------------------------|------------------------------------------|---------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------------|
|                                                                                                           | Sports investment                  | Construction of sports stadium           | -                   | -                              | -                              | -                              | -                              | 1 stadium                           |
| Intensify monitoring and supervision of revenue collectors                                                | Human Resource Management          | Conduct training of revenue collectors   | -                   | 1 training                     | 1 training                     | 1 training                     | 1 training                     | 1 training                          |
|                                                                                                           | Vehicle servicing                  | Conduct vehicle servicing                | 6 vehicles serviced | 6 vehicles serviced            | 6 vehicles serviced            | 6 vehicles serviced            | 6 vehicles serviced            | No. vehicles serviced               |
|                                                                                                           | Revenue Barriers rehabilitation    | Conduct rehabilitation of barriers       | -                   | -                              | 1 barrier rehabilitated        | 1 barrier rehabilitated        | -                              | -                                   |
| The local authority to work with all departments to establish and update revenue database                 | Establishment of revenue database  | Conduct Field surveys                    | -                   | 4 field surveys                | 4 field surveys                | 4 field surveys                | 4 field surveys                | No. field surveys undertaken        |
|                                                                                                           |                                    | Development of revenue database          |                     | 1 database developed           | 1 database developed           | 1 database developed           | 1 database developed           | database developed                  |
| The local authority to maintain good public relations with the communities and provide frequent feedbacks | Public consultation and engagement | Conduct radio programs                   |                     | 4 radio programs aired         | 4 radio programs aired         | 4 radio programs aired         | 4 radio programs aired         | No. of radio programs aired         |
|                                                                                                           |                                    | Conduct community sensitization meetings | -                   | 4 community meetings conducted | 4 community meetings conducted | 4 community meetings conducted | 4 community meetings conducted | No. of community meetings conducted |
|                                                                                                           | WDC office construction            | Construction of WDC offices              | -                   | 2 offices constructed          | 2 offices constructed          | 2 offices constructed          | 2 offices constructed          | No. offices constructed             |
| The LA to form debt collection team to                                                                    | Debt Collection                    | Formation of debt collection team        | 1 team formed       | 1 team formed                  | 1 team formed                  | 1 team formed                  | 1 team formed                  | team formed                         |



|                                     |  |  |  |  |  |  |  |  |
|-------------------------------------|--|--|--|--|--|--|--|--|
| frequently<br>follow up on<br>debts |  |  |  |  |  |  |  |  |
|-------------------------------------|--|--|--|--|--|--|--|--|

## **X.2 FINANCIAL PERFORMANCE OF LOCAL AUTHORITY**

Nchelenge Town council with no exception is mandated to collect revenue that is used for service provision following the local government act of 2016, and chapter 281 Of the laws of Zambia that have given local authorities multiple functions. For it to achieve its goes there are strategies that have been put in place to enhance revenue collection. And because of its mandate the following are the list of revenues that it collects as source of revenue to fund its operations.

### **List Of Local Revenue Sources**

- Rates
- Personal levy
- Licenses
- Rentals Application forms
- Market fees
- Bus stations fees
- Communication mast Levy
- levies
- Parking fees
- Business permit
- Higher of equipment
- Fire Certificates
- ZESCO way Leaves

- Service charges
- Health permits
- Application forms plots
- Conversion fees
- Bill boards and banners
- Registration of clubs and societies
- Higher of hall
- Extract of Minutes
- Marriages Solemnising
- Extension of business hours

#### **Potential Revenue From Government**

1. Local Government Equalisation Fund(LGEF)
2. Grant in lieu of rates
3. Community Development Funds(CDF)
- 4.

#### **Reasons For Low Collections In Local Sources**

- Revenue on rates- Resistance and slow payment by rate payers which has affected the council revenue base
- Low compliance levels by the communities
- Low revenue base for the local authority

## Budget Performance For The Years 2020, 2021, 2022

The table below shows what the actual performance in terms of local revenue collection under the years 2020, 2021 & 2022 by means of its approved budget and percentages with what was collected against the actual budget.

Table: Local Revenue Performance (2020, 2021, 2022)

|                  | 2020                |                        |              | 2021               |                       |              | 2022                |                       |
|------------------|---------------------|------------------------|--------------|--------------------|-----------------------|--------------|---------------------|-----------------------|
| Revenue Items    | Approved Budget (K) | Actual Collections (K) | Percentage % | Approved Budget(K) | Actual Collection (K) | Percentage % | Approved Budget (K) | Actual Collection (K) |
| Local Taxes      | 549,387             | 41,371                 | 8            | 560,562            | 35,555                | 6            | 585,042             | 87,000                |
| Fees And Charges | 3,400,898           | 1,181,202              | 35           | 4,481,500          | 902,216               | 20           | 2,490,740           | 1,181,202             |
| Licences         | 5,440               | 5,040                  | 93           | 5,390              | 11,255                | 209          | 8,000               | 9,000                 |
| Levies           | 551,528             | 551,950                | 100          | 560,068            | 453,334               | 81           | 536,560             | 470,000               |
| Permits          | 11,000              | 7,043                  | 64           | 38,500             | 34,715                | 90           | 45,800              | 37,000                |
| Other Income     | 1,233,930           | 242,737                | 20           | 55,119             | 30,077                | 55           | 55,119              | 33,000                |
| Total            | 5,752,183           | 2,029,343              | 26           | 5,701,139          | 1,467,152             | 35           | 3,721,261           | 1,928,000             |

Source: Nchelenge Town Council, Finance Department 2023

The table above shows that there was low collection under fees and charges, levies and local taxes for all the three years. The major reasons is because there was low compliance levels from the communities to pay local taxes. To add on, there was a boundary dispute with the neighboring district Chiengde which inhibited revenue collection from two wards.

## REVENUE PROJECTIONS FOR THE PERIOD 2024 TO 2028

| DETAILS        | 2024      | 2025      | 2026      | 2027      | 2028      |
|----------------|-----------|-----------|-----------|-----------|-----------|
| LOCAL TAXES    | 585,267   | 627,991   | 671,951   | 716,972   | 762,800   |
| FEES & CHARGES | 6,441,823 | 6,912,076 | 7,395,921 | 7,891,448 | 8,396,500 |

|                          |                   |                   |                   |                   |                |
|--------------------------|-------------------|-------------------|-------------------|-------------------|----------------|
| LICENCES                 | 7,700             | 8,262             | 8,840             | 9,433             | 10,0           |
| LEVIES                   | 227,233           | 243,821           | 260,888           | 278,368           | 296,1          |
| PERMITS                  | 58,080            | 62,320            | 66,682            | 71,150            | 75,7           |
| CHARGES                  | 208,000           | 223,184           | 238,807           | 254,807           | 271,1          |
| OTHER RECEIPTS           | 150,000           | 160,950           | 172,217           | 183,755           | 195,5          |
| LGEF                     | 12,062,422        | 12,942,979        | 13,848,987        | 14,776,870        | 15,722,5       |
| CDF                      | 30,635,642        | 32,872,044        | 35,173,087        | 37,529,684        | 39,931,5       |
| ZDSP                     | 3,700,000         | 3,970,100         | 4,248,007         | 4,532,623         | 4,822,7        |
| ROADS                    | 3,742,847         | 4,016,075         | 4,297,200         | 4,585,112         | 4,878,5        |
| HEALTH                   | 3,538,758         | 3,797,087         | 4,062,883         | 4,335,096         | 4,612,5        |
| TRANSPORT &<br>LOGISTICS | 301,399           | 323,401           | 346,039           | 369,224           | 392,8          |
| VETERINARY<br>SERVICES   | 46,804            | 50,220            | 53,736            | 57,336            | 61,0           |
| COMMUNITY SPORTS         | 258,621           | 277,500           | 296,925           | 316,819           | 337,0          |
| ARCHIVES                 | 19,241            | 20,646            | 22,091            | 23,571            | 25,0           |
| CULTURAL AFFAIRS         | 27,000            | 28,971            | 30,999            | 33,076            | 35,1           |
|                          |                   |                   |                   |                   |                |
| <b>GRAND TOTAL</b>       | <b>62,010,836</b> | <b>66,537,627</b> | <b>71,195,261</b> | <b>75,965,344</b> | <b>80,827,</b> |

## **PART FIVE- CONCLUSION OF THE IDP**

The District has formulated the integrated development plan with a view to have a well coordinated and development. The identified programs will be implemented through the available district structures in collaboration with other stakeholders both non state and state actors. Resources to finance the plan will be from government support, locally generated revenue and support from other cooperating partners. The vision of the district will be achieved with consented efforts from stakeholders which involves a multi disciplinary and integrated approach to ensure issues identified by the community are addressed with utmost efficiency.

The preparation process for the Nchelenge IDP commenced following the Council approval and the establishment of the IDP task team that prepared and advertised a planning programme, which set in motion the preparatory work for the IDP. The overall approach and methodology for preparation of Nchelenge IDP was highly participatory. The core development issues identified in this IDP document are mainly related to infrastructure amenities, social services, economic development, and the environment. The IDP through the goals that have been identified has set in motion that will see to it that the vision for the district is attained by sustainably delivering service and social economic development towards an equal society by 2030. The district has made a critical consideration of this inclusive economic growth that will reposition Nchelenge as an investment destination of choice, enhance our industrial potential, diversifying the local economy and strengthening social service delivery while improving the status of the most vulnerable in our

communities. Priority areas of interventions have been identified as increasing agricultural and fisheries, livestock productivity, promotion of water and sanitation services by having clean and safe water for domestic use, promoting multi-modal mobility and developing public transport infrastructure and services, availability of waste management services, ensuring sustainable access to natural resources through environmental protection and conservation.

## APPENDICES

### To Increase Agriculture Production And Productivity In The District

|                                                                                                      |                                                                               |                                                                                                                                                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CORE PROBLEM                                                                                         | Low agriculture production and productivity                                   |                                                                                                                                                                                                                                                                                         |
| GOAL                                                                                                 | TO INCREASE AGRICULTURE PRODUCTION AND PRODUCTIVITY IN THE DISTRICT           |                                                                                                                                                                                                                                                                                         |
| CAUSES                                                                                               | OBJECTIVES                                                                    | STRATEGIES                                                                                                                                                                                                                                                                              |
| few farmers are accessing agriculture inputs such as fertilizer, fingerlings, feed, seeds, chemicals | To increase the number of farmers accessing agriculture inputs to 70% by 2030 | - Promote cooperative development for access to finance for inputs                                                                                                                                                                                                                      |
| low adoption of climate smart agriculture by farmers                                                 | To increase climate smart agriculture adoption rate.to 100% by the year 2030  | -Intensify on trainings in Climate SMART agriculture                                                                                                                                                                                                                                    |
| low adoption of crop diversification by farmers                                                      | To increase the number of farmers practicing crop diversification to 100%     | -Intensify trainings on the benefits of crop, aquaculture and livestock diversification than sticking to the old traditional methods and also emphasize on the benefits<br><br>-the MoA to enhance availability of quality fingerlings and also a variety of seed crops in the district |
| -low disposable income by the farmers to afford payment of veterinary services and                   | To increase the number of farmers accessing various financial services        | - Encourage farmers to join savings groups<br><br>- Intensify on teaching farmers on financial                                                                                                                                                                                          |

|                                                                      |                                                                                            |                                                                                                                                                                                                    |
|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| buying agriculture inputs                                            | by 2030                                                                                    | management<br>- train farmers to store up some of their harvest for sell                                                                                                                           |
| some areas in the district have poor soils not ideal for agriculture | To improve fertility of soils in the district                                              | -The MoA to ensure frequent soil sampling and testing.<br>-enhance Improved agriculture practices<br>-promotion of organic fertilizer                                                              |
| inadequate water for farming and livestock in the dry season         | To increase availability of water all year round for agriculture activities to 70% by 2030 | -increase the area under cultivation through irrigation<br>- Provide water harvesting infrastructure<br>- provide farmers with skills and training in water harvesting for sustainable agriculture |
| lack of equipment for farm mechanization                             | To increase the number of equipment for farm mechanization by 2030                         | -The MoA to enhance farm power mechanization                                                                                                                                                       |
| diseases affect crops and livestock                                  | To reduce the incidence of pests and diseases                                              | - Intensify trainings to farmers in integrated pest management<br>- Enhancement of early warning and surveillance systems                                                                          |
| weak agriculture value chain                                         | To improve agriculture value chains in the district by 2030                                | - To enhance the district's marketing of agriculture products by creating sustainable markets<br>- Enhance promotion of value addition                                                             |



|                                                                                  |                                                                             |                                                                                                                                                                                                                                                                               |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                  |                                                                             | <p>and manufacturing of agriculture products</p> <ul style="list-style-type: none"> <li>- Promotion of diversified farming</li> <li>- The MoA to engage farmers frequently to ensure they are consistent with supply</li> </ul>                                               |
| -Few extension officers in comparison to the number of farmers                   | Increase the number of farmers accessing extension services to 100% by 2030 | <ul style="list-style-type: none"> <li>- Improve staffing levels in the agriculture sector</li> <li>- Ensure each agriculture camp has houses in good condition for extension officers</li> <li>- Ensure provision of transport for all extension staff</li> <li>-</li> </ul> |
| poor livestock management by the farmers                                         | To increase the number of farmers practicing good livestock management      | <p>-provide farmers with skills in livestock management and farming</p> <p>-Enhance promotion of diversified livestock production and aquaculture development</p>                                                                                                             |
| -no security of tenure as most agriculture activities are done in customary land | To ensure equitable access of the community to land for agriculture by 2030 | -MoA and LA to lobby land for farm block establishment, small holdings and farms                                                                                                                                                                                              |
|                                                                                  |                                                                             |                                                                                                                                                                                                                                                                               |

Enhance investment and exploration in the tourism sector in the district

|                                                        |                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CORE ISSUE                                             | Lack of investment and exploration in the tourism sector                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| GOAL                                                   | Enhance investment and exploration in the tourism sector in the district   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| CAUSES                                                 | OBJECTIVES                                                                 | STRATEGIES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Low marketing of tourism opportunities in the district | To ensure marketing and promotion of tourism opportunities in the district | <ul style="list-style-type: none"> <li>- The local authority to coordinate community groups engaged in development of artifacts and connect them to financial services</li> <li>- The local authority to increase funding towards tourism</li> <li>- Improve staffing levels in the sector</li> <li>- Provision of adequate transport to ensure the local authority works with the community to physically capture tourism sites</li> <li>- Enhance increased publicity of tourism sites and opportunities in the district</li> </ul> |
| poor road infrastructure leading to tourism sites      | To ensure investment in tourism infrastructure                             | <ul style="list-style-type: none"> <li>- Improve road infrastructure to tourism sites</li> <li>- Ensure that land is allocated for the construction of an airport in consultation with</li> </ul>                                                                                                                                                                                                                                                                                                                                     |

|                                                               |                                                               |                                                                                                                                                                                    |
|---------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                               |                                                               | traditional leadership                                                                                                                                                             |
| inertia by the community to offer land for tourism investment | To ensure availability of planned land for tourism investment | -ensure zoning and planning of customary land in coordination with traditional authorities<br><br>- provide communities with knowledge on the benefits of preserving tourism sites |

Enhance improved road infrastructure, canals and increased communication coverage in all wards in the district

|                                                                                                    |                                                                                                                |                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CORE ISSUE                                                                                         | Poor road infrastructure, water canals and communication coverage                                              |                                                                                                                                                                                                                                                                   |
| GOAL                                                                                               | Enhance improved road infrastructure, canals and increased communication coverage in all wards in the district |                                                                                                                                                                                                                                                                   |
| CAUSES                                                                                             | OBJECTIVES                                                                                                     | STRATEGIES                                                                                                                                                                                                                                                        |
| heavy rainfall and floods cause erosion of roads, formation of gullies and washing away of bridges | Ensure reduced erosion on the road infrastructure                                                              | <ul style="list-style-type: none"> <li>- Enhance periodic maintenance and rehabilitation of all roads</li> <li>- Ensure all constructed roads are equipped with standard drainages and bridges</li> <li>- Provide land use planning in customary areas</li> </ul> |

|                                                                           |                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                           |                                                          | <ul style="list-style-type: none"> <li>- Ensure the local authority has the required equipment for road construction and maintenance</li> <li>- Increase budget allocation towards road maintenance</li> <li>- Coordination of the local authority and traditional leaders to ensure that sand mining and farming activities are prohibited along the roads</li> <li>- Ensure coordination of the local authority and RDA for timely response to maintenance works</li> </ul> |
| movement of floating swamps which block canals                            | Ensure accessibility of water canals throughout the year | <ul style="list-style-type: none"> <li>- Enhance periodic maintenance of canals</li> <li>- Ensure the local authority has the required equipment and skilled personnel for clearing canals</li> <li>- Increase budget allocation towards canal maintenance</li> <li>-</li> </ul>                                                                                                                                                                                              |
| Inadequate provision of communication infrastructure by service providers | Improved communication in all wards in the district      | <ul style="list-style-type: none"> <li>- Enhance increased telecommunication coverage in the district</li> <li>- Enhance increased radio</li> </ul>                                                                                                                                                                                                                                                                                                                           |

|  |  |                                       |
|--|--|---------------------------------------|
|  |  | network coverage in the district<br>- |
|--|--|---------------------------------------|

Improve access and ensure availability of electricity and other sources of energy

|                                                                                      |                                                                                        |                                                                                                                                                                        |
|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CORE ISSUE                                                                           | Limited access and availability of electricity and other sustainable sources of energy |                                                                                                                                                                        |
| GOAL                                                                                 | Improve access and ensure availability of electricity and other sources of energy      |                                                                                                                                                                        |
| CAUSES                                                                               | OBJECTIVES                                                                             | STRATEGIES                                                                                                                                                             |
| limited capacity by utility company to reach remote and island wards in the district | Increase capacity to provide electricity in remote and island wards in the district    | <ul style="list-style-type: none"> <li>- Enhance investment in Mini hydro power plant at kundabwika falls</li> <li>- Enhance energy efficiency promotion</li> </ul>    |
| Few households connected to the national grid                                        | To increase electricity connections to the national grid from 15% to 30% by 2030       | <ul style="list-style-type: none"> <li>- The local authority in partnership with REA should identify and electrify areas that have not yet been electrified</li> </ul> |
| Inadequate filling stations                                                          | To increase availability of fossil fuels by 2030                                       | <ul style="list-style-type: none"> <li>- The LA to engage traditional leaders to allocate land for development of filling stations</li> </ul>                          |
| Lack of investment in renewable                                                      |                                                                                        | -                                                                                                                                                                      |

|                |  |  |
|----------------|--|--|
| energy sources |  |  |
|----------------|--|--|

### To Have A Controlled And Coordinated Spatial Development In The District

|                                                                                |                                                                                                     |                                                                                                                                                                                                            |
|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CORE ISSUE                                                                     | Uncontrolled Spatial Development in The District                                                    |                                                                                                                                                                                                            |
| GOAL                                                                           | To Have A Controlled And Coordinated Spatial Development In The District                            |                                                                                                                                                                                                            |
| CAUSES                                                                         | OBJECTIVES                                                                                          | STRATEGIES                                                                                                                                                                                                 |
| lack of land use planning in customary areas                                   | Increase land use planning in customary areas to 50% by 2025                                        | <ul style="list-style-type: none"> <li>-promote planning in customary areas through development of planning agreements</li> <li>-ensure preparation of local area plans for urbanizing villages</li> </ul> |
| inadequate enforcement of development control                                  | Increase enforcement of development control to 100% by 2025                                         | <ul style="list-style-type: none"> <li>-the local authority to ensure that all developers acquire planning permission</li> <li>-upgrading of land use development plan</li> </ul>                          |
| lack of knowledge by the community on process of acquiring planning permission | Increase awareness to the community on the process of acquiring planning permission by 100% by 2025 | <ul style="list-style-type: none"> <li>- enhance sensitization activities on process of acquiring planning permission</li> </ul>                                                                           |
| encroachment of state land by traditional leadership                           | The local authority to ensure 100% control of spatial development on state land by 2025             | <ul style="list-style-type: none"> <li>- upgrading of informal settlements</li> <li>- Ensure the local authority is declared a planning authority</li> </ul>                                               |

|                                                                |                                                                                                          |                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CORE ISSUE                                                     | High poverty levels at 77%                                                                               |                                                                                                                                                                                                                                                                                  |
| GOAL                                                           | To reduce poverty and vulnerability in the district from 77% to 30%                                      |                                                                                                                                                                                                                                                                                  |
| CAUSES                                                         | OBJECTIVES                                                                                               | STRATEGIES                                                                                                                                                                                                                                                                       |
| lack of survival skills                                        | To enhance and improve skills development by 2030                                                        | -ensure provision of skills to low income households                                                                                                                                                                                                                             |
| -limited access to FISP, FSP and financial services            | To increase access to finances and improve food security of viable but vulnerable households 30% by 2030 | -Formation of Village Banking groups in 15 wards of Nchelenge District<br><br>- increase access of vulnerable households to farming inputs                                                                                                                                       |
| High child marriages and teenage pregnancies                   | To reduce child marriages in the district by 50%                                                         | - The district stakeholders and traditional leaders to intensify community sensitizations on early marriages and teenage pregnancies<br><br>-Creation of youth friendly corners in all the wards<br><br>-The local authority to engage adolescents and youths in sports programs |
| Lack of diversified livelihoods and over dependency on fishing | To promote diversified livelihood activities for low income households                                   | -support vulnerable households with diversified livelihood activities and empowerment programs                                                                                                                                                                                   |

|                                                     |                                                                   |                                                                                                                                                                                                                                                |
|-----------------------------------------------------|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                     |                                                                   | -                                                                                                                                                                                                                                              |
| Low disposable income to meet household basic needs | To reduce extreme poverty in the most affected households by 2030 | <ul style="list-style-type: none"> <li>- To enhance the welfare of vulnerable households in all wards</li> <li>-To reduce vulnerability associated with HIV/AIDS</li> <li>- The district stakeholders to strengthen GBV elimination</li> </ul> |
| High unemployment                                   | To have diversified economic activities for job creation by 2030  | -To create an enabling environment for diversified economic investment                                                                                                                                                                         |

Table 30: To have a healthy and productive community in the district

|                                  |                                                            |                                                                                                                                                                                                                                                                                                |
|----------------------------------|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CORE ISSUE                       | Limited access to quality health care services             |                                                                                                                                                                                                                                                                                                |
| GOAL                             | To have a healthy and productive community in the district |                                                                                                                                                                                                                                                                                                |
| CAUSES                           | OBJECTIVES                                                 | STRATEGIES                                                                                                                                                                                                                                                                                     |
| Increase in water borne diseases | To reduce waterborne diseases from 60% to 30% by 2030      | <ul style="list-style-type: none"> <li>-households to sensitized on water treatment</li> <li>-ensure communal water points chlorination by MoH</li> <li>-The MoH to ensure technical siting of water points and latrines in the district</li> <li>-strengthening the ODF activities</li> </ul> |



|                                       |                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                       |                                                                                                 | -sensitization of good hygiene practices at household level                                                                                                                                                                                                                                                                                                                                                                                             |
| Inadequate essential drugs            | To increase the essential drug stock status from 70% to 95% by 2030                             | <ul style="list-style-type: none"> <li>-strengthening of procurement system of drugs</li> <li>-strengthening the ordering ELMIS system at all levels</li> <li>-provide capacity building to pharmacy personnel and health center pharmacy in charges</li> <li>-strengthening the supply chain system</li> <li>-Ensure monthly drug auditing is done for each facility</li> <li>-conduct quarterly pharmacovigilance in all health facilities</li> </ul> |
| Inadequate qualified health personnel | To increase the nurse patient ratio from the current 1000 to 500 by end of 2030                 | <ul style="list-style-type: none"> <li>-recruitment of nurses and midwives</li> <li>-</li> </ul>                                                                                                                                                                                                                                                                                                                                                        |
|                                       | To increase the doctor patient ratio from the current 700 to 350 by 2030                        | -recruitment of doctors and medical licentiates                                                                                                                                                                                                                                                                                                                                                                                                         |
| inadequate -ambulatory services       | To increase the number of patients being referred from the current 60 per month to 150 by 2030  | <ul style="list-style-type: none"> <li>-procurement of 2 ambulances</li> <li>-procurement of 1 boat for referral cases from the Island wards</li> </ul>                                                                                                                                                                                                                                                                                                 |
| inadequate skills of health personnel | To increase the number of midwives trained in obstetric emergencies from the 30% to 60% by 2030 | -conduct onsite orientations in all the health centers                                                                                                                                                                                                                                                                                                                                                                                                  |

|                                               |                                                                                 |                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                               |                                                                                 | <ul style="list-style-type: none"> <li>-attachment of staff in other districts</li> <li>- short trainings to be provided to the health personnels</li> <li>-zonal mentorships provided to staff</li> </ul>                                                                                                                                            |
| poor health seeking behavior by the community | To increase the health promotion activities from current 50% to 85% by 2030     | <ul style="list-style-type: none"> <li>-train health promotion focal point persons in all the wards</li> <li>-awareness increased on Social Behavioral change(SBC)</li> <li>-production and distribution of IEC materials on SBC</li> <li>-engagement of media on health promotion activities</li> <li>-formulation of key messages on SBC</li> </ul> |
| increase in non-communicable diseases         | Increase awareness on communicable diseases from the current 25% to 50% by 2030 | <ul style="list-style-type: none"> <li>-enhance stakeholder meeting</li> <li>- the LA to enhance community sensitization</li> <li>- district stakeholder to strengthen community nutrition activities</li> <li>-introduce outreach activities on communicable diseases</li> </ul>                                                                     |
| increase in communicable diseases             | Reduction of communicable diseases from 70% to 20% by 2030                      | <ul style="list-style-type: none"> <li>-strengthen the surveillance system</li> <li>- training of community volunteers in integrated disease surveillance and response management systems</li> </ul>                                                                                                                                                  |

|                                                                         |                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                         |                                                                                                        | <p>(IDSR)</p> <ul style="list-style-type: none"> <li>-strengthen contact tracing</li> <li>-strengthen data quality audit</li> <li>-strengthen step D program for malaria control at community level</li> <li>-Improve ITN distribution for malaria control program</li> <li>-expansion of IRS program to the island wards</li> <li>-strengthen the courier system for the viral load</li> <li>-scale up voluntary male medical circumcision (VMMC) activities in the district</li> </ul> |
| movement of long distances by the community to access health facilities | Reduction of distance walked by patients to access health facilities from 17km to 5km by 2030          | <ul style="list-style-type: none"> <li>- LA to ensure Construction of health posts</li> <li>- Strengthen outreach activities my MoH</li> </ul>                                                                                                                                                                                                                                                                                                                                           |
| Inadequate medical equipment                                            | Increase the number of patients accessing proper medical equipment from the current 40% to 70% by 2030 | <ul style="list-style-type: none"> <li>- Ensure procurement of medical equipment in health facilities</li> <li>- Health personnel provided with short trainings on the usage of equipment</li> <li>- Provide onsite mentorship to</li> </ul>                                                                                                                                                                                                                                             |

|                                                                       |                                                                                    |                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                       |                                                                                    | health personnel                                                                                                                                                                                                                                                                          |
| Inertia by women in the communities to deliver from health facilities | To increase institutional deliveries from 83% to 100% in all wards in the district | <ul style="list-style-type: none"> <li>- The LA in collaboration with MoH to ensure that all existing health facilities have maternity annexes</li> <li>- The LA and MoH to ensure that all health facilities to be constructed should include a well-equipped maternity annex</li> </ul> |

Access to quality education and literacy levels increased in the district

|                                                   |                                                                           |                                                                                                                                                                                                               |
|---------------------------------------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CORE ISSUE                                        | Low literacy levels in the district at 32%                                |                                                                                                                                                                                                               |
| GOAL                                              | Access to quality education and literacy levels increased in the district |                                                                                                                                                                                                               |
| CAUSES                                            | OBJECTIVE                                                                 | STRATEGIES                                                                                                                                                                                                    |
| long distances to schools of more than 5km        | To reduce the distance covered by pupils to access schools to 5km by 2030 | <ul style="list-style-type: none"> <li>- Increase the number of schools to reduce distance covered by pupils</li> <li>- Introduce boarding facilities for at least 1 secondary school in each ward</li> </ul> |
| high pupil to teacher ratio (inadequate teachers) | To reduce the pupil to teacher ration from 62 to 42:1 by 2030             | <ul style="list-style-type: none"> <li>- Increase number of teachers deployed in primary and secondary schools</li> <li>-</li> </ul>                                                                          |

|                                                                |                                                                                                             |                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| engagement of children in fishing activities at an early stage | To increase enrollment of early childhood from 4,499 to 10,000 and primary schools 44,870 to 55,000 by 2030 | <ul style="list-style-type: none"> <li>- The local authority to engage the community and traditional leaders on ensuring school going children are enrolled in school</li> </ul>                                                                                                                                 |
| Priority is given to boys to attend school compared to girls   | To increase enrolment of girls in schools in the district from 31,960 to 65,000 by 2030                     | <ul style="list-style-type: none"> <li>- district stakeholders to engage the community on enrollment of girl children and gender equality</li> <li>-</li> </ul>                                                                                                                                                  |
| Dilapidated bridges leading to schools                         | Rehabilitation and construction of climate resilient bridges infrastructure in the district                 | -ensure the rehabilitation and construction of all bridges affecting accessibility of schools                                                                                                                                                                                                                    |
| High pupil to classroom ratio at 78 :1                         | To reduce the Classroom to pupil ratio from 78:1 to 60:1 by 2030                                            | <ul style="list-style-type: none"> <li>- The local authority and ministry of education should ensure that classroom blocks are constructed annually</li> </ul>                                                                                                                                                   |
| High desk ratio                                                | To reduce the desk ratio from 5:1 to 2:1 of double seaters by 2025                                          | <ul style="list-style-type: none"> <li>- The local authority and ministry of education to ensure procurement of desks every quarter through CDF</li> <li>- The ministry of education with the local authority to ensure woodwork works are equipped with the required materials to rehabilitate desks</li> </ul> |

|                                                   |                                                          |                                                                                                                                                                                                                                                                                             |
|---------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inadequate learning materials                     | To reduce books to pupil ratio                           | <ul style="list-style-type: none"> <li>- The local authority and ministry of education to ensure procurement of learning materials every year through CDF</li> </ul>                                                                                                                        |
| Dilapidated school infrastructure                 | Reduced dilapidated school infrastructure by 2030        | <ul style="list-style-type: none"> <li>- Ensure that all schools plants trees in order to reduce dilapidated school infrastructure by strong winds</li> <li>- The local authority and ministry of education should ensure that all dilapidated structures are rehabilitated</li> </ul>      |
| lack of access to electricity in selected schools | Increased access to electricity for 26 schools           | <ul style="list-style-type: none"> <li>- The local authority in coordination with RIA AND ZESCO and ministry of education should ensure that all schools have access to power through CDF</li> <li>- The community members to apply through CDF in order to procure solar panels</li> </ul> |
| Inadequate school laboratories                    | Increased number of schools laboratories in the District | <ul style="list-style-type: none"> <li>- The local authority and ministry of education to ensure that each secondary school has a laboratory block and equipped with required materials</li> </ul>                                                                                          |

|                                      |                                                          |                                                                                                                                                                                                                                                                |
|--------------------------------------|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Poor water and sanitation in schools | Water and sanitation in schools improved by 20.% by 2030 | <ul style="list-style-type: none"> <li>- The local authority and ministry of education with support from other partners to ensure that all schools have a solar piped water system</li> <li>- Ensure construction of ablution blocks in all schools</li> </ul> |
|--------------------------------------|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                          |                                                                                            |                                                                                                                                                                                                                                                                                                                                                |
|------------------------------------------|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CORE ISSUE                               | Inadequate access to clean and safe water                                                  |                                                                                                                                                                                                                                                                                                                                                |
| GOAL                                     | Access to clean and safe water increased by 2030                                           |                                                                                                                                                                                                                                                                                                                                                |
| CAUSES                                   | OBJECTIVE                                                                                  | STRATEGIES                                                                                                                                                                                                                                                                                                                                     |
| Low coverage of piped water supply by CU | To increase urban area clean and safe piped water supply coverage from 11.8% to 50% b 2030 | <ul style="list-style-type: none"> <li>- The LA and CU to ensure that areas for development are supplied with water pipes for connection</li> <li>- The CU to collaborate with other partners to construct a treatment plant</li> <li>- The LA to facilitate construction of solar piped water schemes for areas not serviced by CU</li> </ul> |
| Inadequate boreholes                     | To increase rural water supply coverage from 75% to 100% by 2030                           | <ul style="list-style-type: none"> <li>- Ensure that every 50 households are provided with at least 1 borehole</li> </ul>                                                                                                                                                                                                                      |

|                                                           |                                                                  |                                                                                                                                                                                                                                                                                    |
|-----------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                           |                                                                  | <ul style="list-style-type: none"> <li>- The LA and cooperating partners to promote construction of solar piped water schemes in rural areas</li> </ul>                                                                                                                            |
| Dilapidated water infrastructure and functional boreholes | To increase reliability of water points from 30% to 100% by 2030 | <ul style="list-style-type: none"> <li>- The LA and cooperating partners to train APM and plumbers in each ward</li> <li>- To facilitate for an additional spare parts shop for boreholes</li> </ul>                                                                               |
| Inadequate learning materials                             | To reduce books to pupil ratio                                   | The local authority and ministry of education to ensure procurement of learning materials every year through CDF                                                                                                                                                                   |
| Dilapidated school infrastructure                         | Reduced dilapidated school infrastructure by 2030                | <ul style="list-style-type: none"> <li>- Ensure that all schools plants trees in order to reduce dilapidated school infrastructure by strong winds</li> </ul> <p>The local authority and ministry of education should ensure that all dilapidated structures are rehabilitated</p> |
| lack of access to electricity in selected schools         | Increased access to electricity for 26 schools                   | <ul style="list-style-type: none"> <li>- The local authority in coordination with RIA AND ZESCO and ministry of education should ensure that all schools have access to power through CDF</li> <li>- The community members to apply through CDF in order to</li> </ul>             |



|                                      |                                                          |                                                                                                                                                                                                                                                                |
|--------------------------------------|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                      |                                                          | procure solar panels                                                                                                                                                                                                                                           |
| Inadequate school laboratories       | Increased number of schools laboratories in the District | <ul style="list-style-type: none"> <li>- The local authority and ministry of education to ensure that each secondary school has a laboratory block and equipped with required materials</li> </ul>                                                             |
| Poor water and sanitation in schools | Water and sanitation in schools improved by 20.% by 2030 | <ul style="list-style-type: none"> <li>- The local authority and ministry of education with support from other partners to ensure that all schools have a solar piped water system</li> <li>- Ensure construction of ablution blocks in all schools</li> </ul> |

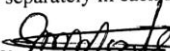
Statement of cash receipts and payments for the year ended 31<sup>st</sup> December 2019

NCHIELENGE TOWN COUNCIL  
FINANCIAL STATEMENTS FOR THE YEAR ENDED 31<sup>ST</sup> DECEMBER 2019

STATEMENT OF CASH RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31<sup>ST</sup>  
DECEMBER 2019

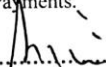
|                                    | Note | 2019<br>Kwacha     | 2018<br>Kwacha    |
|------------------------------------|------|--------------------|-------------------|
| <b>RECEIPTS</b>                    |      |                    |                   |
| Local taxes                        | 2    | 15,220             | 10,748            |
| Fees and Charges                   | 3    | 1,957,699          | 957,755           |
| Licences                           | 4    | 1,010              | -                 |
| Levies                             | 5    | 503,960            | 552,650           |
| Permits                            | 6    | 8,477              | -                 |
| Local Government Equalisation Fund | 7    | 7,754,439          | 8,241,497         |
| Constituency Development Fund      | 8    | -                  | 1,600,000         |
| Other Grants                       | 9    | 164,000            | 200,000           |
| Borrowings                         | 10   | -                  | -                 |
| Commercial Venture                 | 11   | (508)              | 20,377            |
| Other Receipts                     | 12   | -                  | -                 |
| <b>TOTAL RECEIPTS</b>              |      | <b>10,404,297</b>  | <b>11,583,027</b> |
| <b>PAYMENTS</b>                    |      |                    |                   |
| Personal Emoluments                | 13   | 6,274,184          | 5,454,562         |
| Use of goods and services          | 14   | 2,923,374          | 3,309,926         |
| Financial Charges                  | 15   | -                  | -                 |
| Social benefits                    | 16   | -                  | -                 |
| Non-financial assets acquisition   | 17   | 2,203,857          | 2,485,943         |
| Financial Assets                   | 18   | -                  | -                 |
| Loan Repayments                    | 19   | -                  | -                 |
| Other payments                     | 20   | 99,392             | 289,462           |
| <b>TOTAL PAYMENTS</b>              |      | <b>11,500,807</b>  | <b>11,539,893</b> |
| <b>Increase/(decrease) in Cash</b> |      | <b>(1,096,510)</b> | <b>43,134</b>     |
| <b>Foreign Exchange Losses</b>     | 21   | -                  | -                 |
| Cash at beginning of the year      | 22   | 2,082,624          | 2,039,490         |
| Cash at the end of the year        | 22   | 986,114            | 2,082,624         |

Incorporated in the payments recognized in this Statement are those for Local Government Equalization and Constituency Development Funds. However, the details of payments under each of these Funds are presented separately in each Fund's own Statement of Cash Receipts and Payments.

Signature: 

Position: Council Chairperson

Signature: 

Signature: 

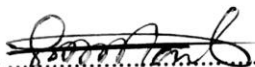
Position: Council Secretary

NCHELENCE TOWN COUNCIL  
FINANCIAL STATEMENTS FOR THE YEAR ENDED 31<sup>ST</sup> DECEMBER, 2020

**THE STATEMENT OF CASH RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31<sup>ST</sup> DECEMBER 2020.**

|                                    | Note | 2020<br>Kwacha    | 2019<br>Kwacha     |
|------------------------------------|------|-------------------|--------------------|
| <b>RECEIPTS</b>                    |      |                   |                    |
| Local taxes                        | 2    | 41,454            | 15,220             |
| Fees and Charges                   | 3    | 1,458,548         | 1,957,699          |
| Licences                           | 4    |                   | 1,010              |
| Levies                             | 5    | 569,911           | 503,960            |
| Permits                            | 6    |                   | 8,477              |
| Local Government Equalisation Fund | 7    | 9,725,223         | 7,754,439          |
| Constituency Development Fund      | 8    | 1,600,000         |                    |
| Other Grants                       | 9    | 50,000            | 164,000            |
| Borrowings                         | 10   | -                 | -                  |
| Commercial Venture                 | 11   | 23,976            | (508)              |
| Other Receipts                     | 12   | 21,860            | 12,388             |
| <b>TOTAL RECEIPTS</b>              |      | <b>13,490,972</b> | <b>10,416,685</b>  |
| <b>PAYMENTS</b>                    |      |                   |                    |
| Personnel Emoluments               | 13   | 6,335,009         | 6,274,184          |
| Use of goods and services          | 14   | 2,633,143         | 2,923,374          |
| Financial Charges                  | 15   | -                 | -                  |
| Social benefits                    | 16   | 9,660             | -                  |
| Non-financial assets acquisition   | 17   | 2,145,127         | 2,203,857          |
| Financial Assets                   | 18   | -                 | -                  |
| Loan Repayments                    | 19   | -                 | -                  |
| Other payments                     | 20   | 204,757           | 99,392             |
| <b>TOTAL PAYMENTS</b>              |      | <b>11,327,696</b> | <b>11,500,807</b>  |
| <b>Increase/(decrease) in Cash</b> |      | <b>2,163,276</b>  | <b>(1,084,122)</b> |
| <b>Foreign Exchange Losses</b>     | 21   | -                 | -                  |
| Cash at beginning of the year      | 22   | 998,502           | 2,082,624          |
| <b>Cash at the end of the year</b> | 22   | <b>3,161,778</b>  | <b>998,502</b>     |

Incorporated in the payments recognised in this Statement are those for Local Government Equalisation and Constituency Development Funds. However, the details of payments under each of these Funds are presented separately in each Fund's own Statement of Cash Receipts and Payments.

Signature: 

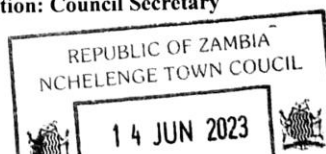
Position: Council Chairperson

Signature: 

Position: Council Treasurer

Signature: 

Position: Council Secretary



SCHENGE TOWN COUNCIL  
FINANCIAL STATEMENTS FOR THE YEAR ENDED 31<sup>ST</sup> DECEMBER, 2021

STATEMENT OF CASH RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31<sup>ST</sup> DECEMBER  
2021.

|                                    | Note      | 2021<br>Kwacha    | 2020<br>Kwacha    |
|------------------------------------|-----------|-------------------|-------------------|
| <b>RECEIPTS</b>                    |           |                   |                   |
| Local taxes                        | 2         | 32,730            | 41,454            |
| Fees and Charges                   | 3         | 929,662           | 1,458,548         |
| Licences                           | 4         | 11,255            |                   |
| Levies                             | 5         | 439,067           | 569,911           |
| Permits                            | 6         | 31,895            |                   |
| Local Government Equalisation Fund | 7         | 9,723,098         | 9,725,222         |
| Constituency Development Fund      | 8         | 1,600,000         | 1,600,000         |
| Other Grants                       | 9         | 100,000           | 50,000            |
| Borrowings                         | 10        |                   | -                 |
| Commercial Venture                 | 11        | 3,606             | 23,976            |
| Other Receipts                     | 12        |                   | 21,860            |
| <b>TOTAL RECEIPTS</b>              |           | <b>12,871,313</b> | <b>13,490,971</b> |
| <b>PAYMENTS</b>                    |           |                   |                   |
| Personnel Emoluments               | 13        | 7,186,567         | 6,335,009         |
| Use of goods and services          | 14        | 2,648,728         | 2,633,143         |
| Financial Charges                  | 15        |                   | -                 |
| Social benefits                    | 16        |                   | 9,660             |
| Non-financial assets acquisition   | 17        | 2,728,745         | 2,145,127         |
| Financial Assets                   | 18        |                   | -                 |
| Loan Repayments                    | 19        |                   | -                 |
| Other payments                     | 20        | 273,836           | 204,757           |
| <b>TOTAL PAYMENTS</b>              |           | <b>12,837,876</b> | <b>11,327,696</b> |
| <b>Increase/(decrease) in Cash</b> |           | <b>33,437</b>     | <b>2,163,275</b>  |
| Foreign Exchange Losses            | 21        | -                 | -                 |
| Cash at beginning of the year      | 22        | 3,161,777         | 998,502           |
| <b>Cash at the end of the year</b> | <b>22</b> | <b>3,195,214</b>  | <b>3,161,777</b>  |

Incorporated in the payments recognised in this Statement are those for Local Government Equalisation and Constituency Development Funds. However, the details of payments under each of these Funds are presented separately in each Fund's own Statement of Cash Receipts and Payments.

