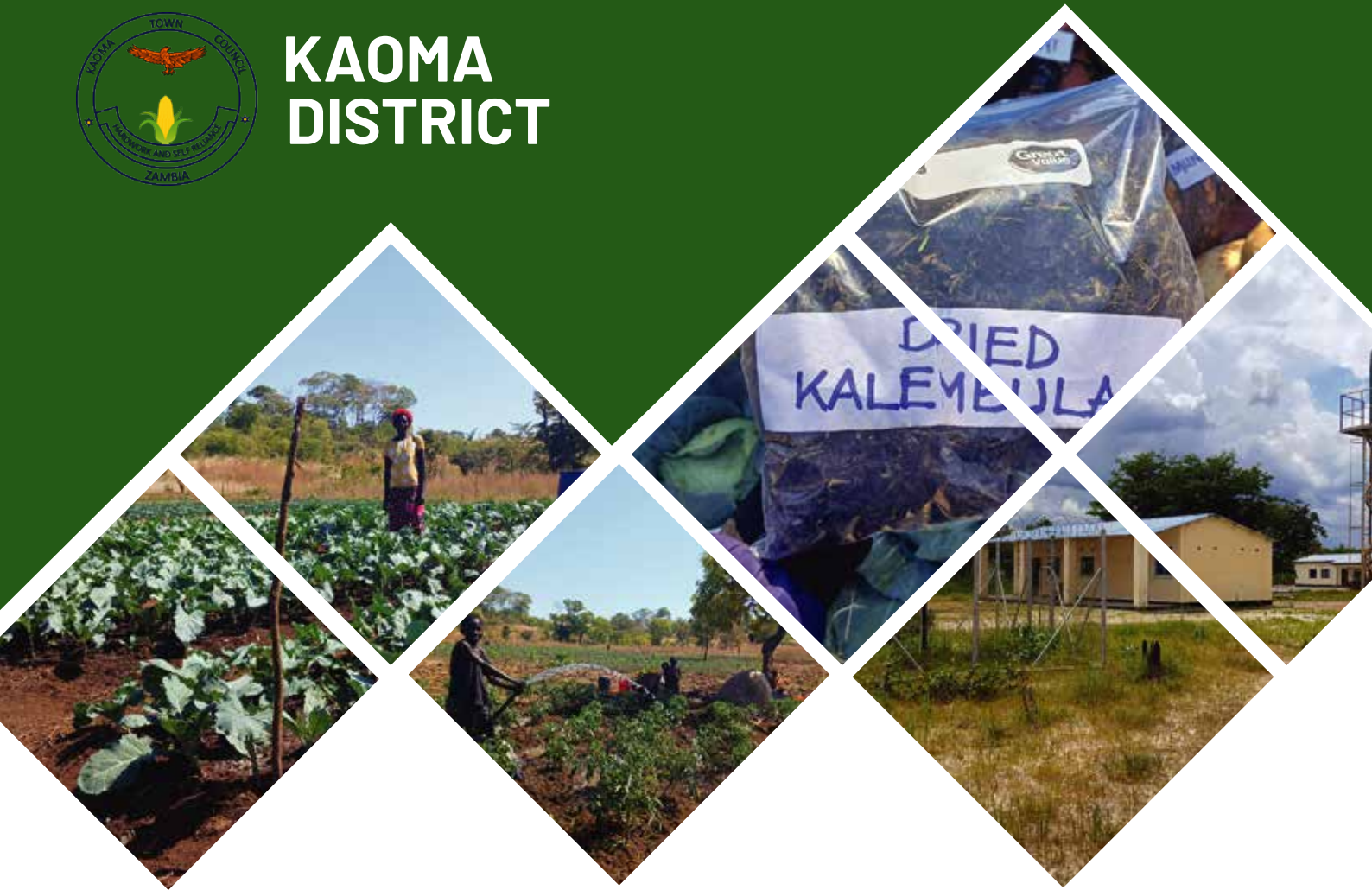




REPUBLIC OF ZAMBIA



**KAOMA  
DISTRICT**



# **WIDER MAYUKWAYUKWA LOCAL AREA PLAN (2025 - 2030)**

Kaoma Town Council,  
P.O Box 940010,  
Civic Centre  
Kaoma, Zambia



# **WIDER MAYUKWAYUKWA LOCAL AREA PLAN 2025 – 2030**

**“A Productive, Inclusive and Self-sufficient  
Settlement by 2030”**



Prepared in accordance with the approved Kaoma Integrated Development Plan in collaboration with the Kaoma Town Council, Department of Resettlement and Office of the Commissioner for Refugees  
Supported by JICA

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## FOREWORD FROM THE PERMANENT SECRETARY

The Wider Mayukwayukwa Local Area Plan represents the collective vision and aspirations of the people of Mayukwayukwa, encompassing the refugee-hosting community, traditional and civic leaders, and settlers in the resettlement schemes. This plan is a symbol of our commitment to collaboration and unity, embodying the belief that the era of working in silos is behind us. Embracing a unified government approach is now the way forward.

By working together at the local level, we add significant value to development efforts, ensuring they are more closely aligned with district and national priorities. As local actors, our primary role lies in the implementation of these initiatives, rather than in shaping policy or setting direction. It is through the diligent execution of these plans that real change and transformation can be realized.

There is no substitute for local actions, and the Wider Mayukwayukwa Plan is a testament to the collective desire of all people in and around Mayukwayukwa to collaborate for a shared future. This future is built on the actual implementation of agreed-upon priorities, a resource-sharing mechanism, and a commitment to shared responsibility, benefits, and burden-sharing.

We recognize that what affects one household inevitably affects all households. Therefore, in the spirit of equitable development, refugee protection and sustainable development, the local implementation strategies must focus on bringing all community members on board regardless of their social and economic status. The Government remains committed to a unified approach to local development, with the resettlement programme focusing on promoting production and productivity for all within the Wider Mayukwayukwa area. The status of refugee hosting communities is very important in creating sustainable communities. There is no lesser member of a community, all are equal when it comes to development.

This plan is not just a document; it is a promise of what we can achieve together. Therefore, let us move forward, united in purpose and determined to create a better future for all. This is who we are, One Zambia, One Nation and as we celebrate 60 years of independence, we seek a more unified Zambia at the local level.

**MAVIS NKOMESHYA**  
PERMANENT SECRETARY (SD) – RESETTLEMENT  
**OFFICE OF THE VICE PRESIDENT**

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## FOREWORD FROM THE COMMISSIONER FOR REFUGEES

The 2025 – 2030 Wider Mayukwayukwa Local Area Plan mark another momentous milestone in the Zambian government resolve to address and improve the welfare of refugees and former refugees in Zambia. It builds on the backdrop of the various pledges made at the 2024 Global Refugee Forum which emphasized the importance of building inclusive public service systems and ensuring equitable care for the People of Concern.

While the plight and condition of many refugee settlements and People of Concern in Zambia continue to be challenging, it is worth noting that critical strides are being made to change the status quo. The country had its first ever National Refugee Policy approved in September 2023 and the focus is to strengthen the protection of People of Concern, their rights and freedoms, improve their access to essential services and needs, improve livelihood and self – reliance, promote co-existence of People of Concern with host communities and strengthen access to durable solutions which includes local integration.

Government is also relentlessly working with other local and international partners through collaborative efforts to ensure these commitments are achieved. The Modernization of Refugee and Host Communities Settlement Approach (MORHCSA) is one of the strategies being used towards resource mobilization and stakeholder collaboration and to date positive results are being recorded in other refugee settlements which should equally be witnessed in Mayukwayukwa. Through such approaches, Meheba Refugee Camp for instance witnessed the first ever connection of electricity to the national power grid besides other infrastructure such as schools and health facilities.

Witnessing the development of the Wider Mayukwayukwa Local Area Plan is therefore a complimentary yet key milestone in strengthening collaboration and setting clearer milestones from other sectors and players on how the plight of People of Concern can be addressed collectively. The emphasis of the plan to achieve seamless integration of former refugees into host communities is another key government testament towards sustainable integration of People of Concern. It only remains the mandate of different players to come forward and make meaningful contribution towards this call.

The Wider Mayukwayukwa Local Area Plan comes at an even opportune time when the country marks its 60th Independence Anniversary. It remains our hope that the Plan will be used as a critical unifying tool to ensure stakeholders and players collaborate to enable PoC and host communities enjoy full social and economic freedom.

**PROSPER M. NGANDU, (PhD)**  
COMMISSIONER FOR REFUGEES  
**MINISTRY OF HOME AFFAIRS AND INTERNAL SECURITY**

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## FOREWORD FROM MORSHCA CHAIRPERSON

In our pursuit of sustainable solutions for supporting forcibly displaced persons, we must focus on more than just the number of individuals resettled in new areas. True local integration requires a comprehensive approach, where the quality of services accessible to both host communities and persons of concern is prioritized. This is why the Wider Mayukwayukwa Local Area Plan is very important.

Integration should not be treated as a series of projects with finite timelines but rather as a long-term commitment to improving the everyday living conditions of all involved. This encompasses access to quality healthcare, education, economic opportunities, and the preservation of vital resources such as air, land, and water. Our aim should be to create environments where the basic needs of all community members are met, fostering a sense of dignity and stability. How well people plan and implement together shows the level of respect they have for each other regardless of their status, host or guest, refugee or local person, traditional leader or elected.

Hosting persons of concern is undoubtedly a shared burden, but it is also a unique opportunity. By embracing this challenge, we can foster partnerships between host communities and displaced persons that drive common development goals. This shared responsibility has the potential to unlock new avenues for collaboration, innovation, and mutual growth.

The role of the interministerial committee extends beyond resource mobilization. It is also to ensure that every stakeholder—government agencies, civil society, private sector, and the community itself—contributes to creating an enabling environment where everyone can thrive. This includes promoting economic activities without unnecessary trade restrictions and advancing social development without discrimination. Only through such an inclusive approach can we achieve lasting integration and sustainable development for both persons of concern and their host communities.

**COOPER CHIBOMBA, FZIP**  
CHAIRPERSON

**MODERNISATION OF REFUGEE SETTLEMENTS AND HOST COMMUNITY APPROACH (MORSHCA)**

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## FOREWORD FROM THE COUNCIL SECRETARY

It is a privilege and great honor as a district to successfully oversee the development of the Wider Mayukwayukwa Local Area Plan (LAP) which comes as the first ever planning tool building on the Kaoma Integrated Development Plan (2024 – 2034). Kaoma is one of the spatially vast districts in Western Province hence overseeing development across the whole district effectively has been a mammoth undertaking. The development of the Wider Mayukwayukwa LAP has therefore eased the mandate of the Local Authority in ensuring development is taken to all parts of the district without leaving anyone behind and most importantly tapping into the economic potential of the area that would contribute to the overall development of the district.

Kapili and Mushwala Wards are strategic wards to the district in many facets. On one side, the two wards have a relatively higher agglomeration of people, more services and higher agricultural economic activities – hence, serve as satellite sub – district governance points in taking services close to the people in line with the decentralization agenda. These areas also have the potential to contribute to the economic fortunes of the district. On the other side, the two wards host the Mayukwayukwa Refugee Camp and Mayukwayukwa Resettlement Scheme – whose presence and influence in the development agenda of the area cannot be overlooked. The development of the Wider Mayukwayukwa LAP is therefore envisioned to build on this existing structural comparative advantage to ensure effective and coordinated development in the area and beyond.

The Vision to transform Mushwala and Kapili into a productive, inclusive and self – sufficient Settlement by 2030 based on the identified strategies is within reach but will require consented efforts from different players and stakeholders to pool resources and efforts in order to achieve the targets. Kaoma Town Council will therefore play its identified roles among them coordinating and providing a conducive environment for other stakeholders to interact and make meaningful contribution to the agenda. The Council will leverage on the wide stakeholder consultation which was undertaken to come up with this plan to deliver the development aspirations of the communities and ensure equitable district development.

We are cognizant of the fact that community needs are not static neither are resources unlimited, therefore, the LAP gives a more focused approach to addressing those needs with limited resources within a specified timeframe. With that understanding, Kaoma Town Council will work closely with the local elected Members of Parliament, Councilors, WDCs, Chiefs and both private and other key stakeholders to mobilize resources to achieve the set targets of making Wider Mayukwayukwa a Productive, Inclusive and self-sufficient area by 2030.

**PETER SATI**  
COUNCIL SECRETARY  
**KAOMA TOWN COUNCIL**

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## EXECUTIVE SUMMARY

The Wider Mayukwayukwa Local Area Plan is the second ever plan – the other being the One Meheba – in the series of the multi-sectoral local development plans targeting Refugee Settlements, Resettlement Schemes and surrounding (host) communities aimed at promoting productivity, integration and sustainable local economic development. The Wider Mayukwayukwa LAP is even more unique due to its spatial coverage focusing on a larger geographical space of Mushwala and Kapili Wards.

The LAP was developed under the Kaoma Integrated Development Plan (IDP) 2024 – 2034 in accordance with the Urban and Regional Planning Act No. 3 of 2015. It integrates the institutional mandates of the Local Authority, Department of Resettlement and Office of the Commissioner for Refugees to ensure the welfare of refugees, former refugees and communities in which they are found is taken care of. The plan envisages Wider Mayukwayukwa to be a “A Productive, Inclusive and Self-sufficient Settlement by 2030” in order to contribute to the strategic goal of addressing the lack of food self-sufficiency and high food prices due to low local production on the firm assumption that all identified players and those to come will build towards this goal.

The Wider Mayukwayukwa LAP was developed based on the strict principles of participatory planning approaches which involved community consultations with meetings held in each of the four zones within the Resettlement Scheme, Refugee Camp and surrounding communities in Kapili and Mushwala Wards. These were preceded by consultations with traditional authorities and District Stakeholder meetings through the DDCC. The consultation process revealed challenges and opportunities as well as resources and strategies to transforming the Wider Mayukwayukwa into a productive area. The overarching issues identified included lack of key infrastructure to support agriculture productivity exacerbating household food insecurity and vulnerability, lack of social services to sustain the livelihood and wellbeing of residents and poor stakeholder coordination and allocation of resources which have continuously been invested in the area but have not sustainably improved the livelihood of people in the area and surrounding communities.

To effectively address the identified challenges, the LAP has identified key strategies to be implemented over a 5 year period focusing on the modernization approach by providing basic social and economic infrastructure; promotion of agriculture productivity, and effectively enhancing collaboration among different players in Mayukwayukwa and surrounding areas through coordinated resource mobilization, prioritization of interventions and redistribution of benefits both for Persons of Concern and host communities. The Plan is estimated to cost around ZMW 474, 619, 500.00 over the five-year period. The success of this LAP squarely lies on its use by the stakeholders in all its facets from programming, resource mobilization, implementation and monitoring and evaluation of all activities.

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## ACKNOWLEDGEMENTS

The development of the Wider Mayukwayukwa Local Area Plan has been a success due to the unwavering government support through the Permanent Secretary (Special Duties) Ms. Mavis Nkomeshya in the Office of the Vice President for providing leadership and coordination of resources and stakeholders throughout the process. Special thanks also go to the Commissioner for Refugees under the Ministry of Home Affairs and Internal Security, Dr. Prosper Ngandu and the Director of Resettlement – Office of the Vice President, Mr. Cooper Chibomba for the technical guidance and ensuring that the process was in tandem with the national strategic objectives of MORHCSA and Resettlement Scheme Development Plans.

We take cognisance of the Kaoma district and local traditional authorities (Chiefs) for the audience, guidance and inputs made to this process through the Kuuta. We also acknowledge the Kaoma District Commissioner Mrs. Muyambango Kashina Sheba and the Kaoma Town Council Secretary Mr. Peter Sati for their leadership and dedicating enough and competent human resource who effectively managed and coordinated the LAP process at district level.

Further, special thanks go to the following who dedicated resources, time, expertise to this process:

Mr Kufuna Seke – Western Provincial Planning Authority Executive Secretary – Mongu

Mr. Robson Kalandanya – Principal Land Resettlement Officer – Mongu

Mr. Winfred Silomba Mayukwayukwa Resettlement Scheme Manager – Kaoma

Mr. Busiku Mwiinga – Resettlement Promotion Officer – Kaoma

Mr. Nathan Kachingwe – Resettlement Officer – Commission for Refugees – Kaoma

Mr. Jeff Bwalya, Block Officer – Ministry of Agriculture – Kaoma

Mr. George Nyirenda – Asst. Community Development Officer – Kaoma Town Council

Mr. Jacob Tembo Social Economic Planner – Kaoma Town Council

Mr. Mbita Munyima – District Administrative Officer – Kaoma

All DDCC Members – Kaoma

Jeremiah Daka and Godfridah Mulenga – GIS Specialists – Trending Group

Last but not the least, this process could not have been possible without the support from JICA who responded to our request for the elaboration of this LAP and the technical team led by Francis Mpiana for coordination and quality control of the process.

MR. RAPHAEL NKANDU  
DIRECTOR OF PLANNING  
**KAOMA TOWN COUNCIL**

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## List of Abbreviations

|         |                                                                         |
|---------|-------------------------------------------------------------------------|
| CDF     | Constituency Development Fund                                           |
| CEEC    | Citizen Economic Empowerment Commission                                 |
| CoR     | Office of the Commissioner for Refugees                                 |
| DMMU    | Disaster Management and Mitigation Unit                                 |
| DoR     | Department of Resettlement                                              |
| DRC     | Democratic Republic of Congo                                            |
| EHT     | Environmental Health Technologists                                      |
| FISP    | Farmer Input Support Programme                                          |
| FRA     | Food Reserve Agency                                                     |
| GRZ     | Government of the Republic of Zambia                                    |
| IDP     | Integrated Development Plan                                             |
| IDPs    | Internally Displaced Persons                                            |
| KTC     | Kaoma Town Council                                                      |
| LED     | Local Economic Development                                              |
| LIA     | Local Integration Area                                                  |
| MSMED   | Ministry of Small and Medium Enterprises Development                    |
| MoA     | Ministry of Agriculture                                                 |
| MoE     | Ministry of Education                                                   |
| MoH     | Ministry of Health                                                      |
| MORHCSA | Modernization of Refugee and Host Communities Settlement Approach       |
| NGO     | Non – Governmental Organizations                                        |
| NRM     | Natural Resource Management                                             |
| PHN     | Public Health Nurse                                                     |
| PoCs    | Persons of Concern (refugees, former refugees, and asylum seekers)      |
| PSIR    | Planning Survey and Issues Report                                       |
| RDA     | Road Development Agency                                                 |
| TEVETA  | Technical Education, Vocational and Entrepreneurship Training Authority |
| SDGs    | Sustainable Development Goals                                           |
| SRP     | Sustainable Resettlement Programme                                      |
| UDHR    | Universal Declaration of Human Rights                                   |
| UNHCR   | United Nations High Commission for Refugees                             |
| WDC     | Ward Development Committee                                              |

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Gardening along Luampa River as part of livelihood activities in Mayukwayukwa, 2024

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# 01

## SECTION ONE

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### GENERAL INFORMATION

#### 1 Introduction

A Local Area Plan (LAP) is a principal planning instrument that provides a detailed multi-sectoral proposal for the development of an area designated under an Integrated Development Plan of a District as per the Urban and Regional Planning Act. The Wider Mayukwayukwa Local Area Plan is one of the first of such plans to be developed under the Kaoma Integrated Development Plan (IDP) 2024–2033. The LAP which indicates the period for which it is valid, provides for poverty alleviation, local community democracy, public participation, accountable governance and other planning principles and provides for distinct land use standards and controls to be applied in different categories of areas.

#### 1.1 Overview of the LAP Process

Prior to the development of this Plan, Mayukwayukwa and all surrounding communities have generally been on the lower side of socioeconomic development with a number of indicators such as health, education, economic livelihood and overall spatial development being poor. This trend has negatively affected the overall livelihood conditions of majority of the residents in the area. Further, while a number of interventions and support have gone into Mayukwayukwa, most of such development interventions have been undertaken in a siloed manner. As a result, most of such interventions have not yielded sustainable commensurate social and economic impact on the general livelihoods of the people in the area.

The Wider Mayukwayukwa Local Area Plan was therefore developed covering Kapili and Mushwala Wards encompassing Mayukwayukwa Refugee Settlement, Mayukwayukwa Resettlement Scheme and all surrounding communities with a view to provide a common process and basis document for residents and other key stakeholders to plan and implement their interventions in the area systematically and efficiently.

The objectives of the Wider Mayukwayukwa Local Area Plan are holistic focusing on the following;

- I. To identify opportunities for socio-economic development of Kapili Ward and Mushwala Ward as the “Wider-Mayukwayukwa”, to develop into an agri-business hub while addressing food security of the local population.
- II. To propose a development framework and implementation plan, positioning Mayukwayukwa as the agri-business hub and basic services provision center which would benefit the entire population of Kapili Ward and Mushwala Ward
- III. To develop a joint, inclusive and comprehensive development plan covering both refugee settlements and resettlement schemes, and its surrounding host community, that would erode the existing siloes.

This LAP therefore presents outputs of the planning process which include public and stakeholder consultation, the Planning Survey Process, and the Development Framework which covers the strategic development direction for Mayukwayukwa and all surrounding communities in Kapili and Mushwala wards for the next five years.

This report is a product of wide stakeholder consultations and engagements which was conducted at various stages of the planning process. The first part of the Plan presents the Planning Survey and Issues Report which gives a detailed situation analysis for the Wider Mayukwayukwa and also discusses in detail various value chains in the area to profile the unexploited potential which the LAP can address. This is followed by the Development Framework which dissects issues to establish the problems in Kapili and Mushwala and presents strategies of how to address them. The Plan outlines the Implementation Strategies and Budget, concluding with the Monitoring and Evaluation mechanisms to ensure the LAP is successfully implemented.

## 1.2 Historical Background of Mayukwayukwa

Mayukwayukwa is one of the 3 and oldest Refugee Camps in Zambia<sup>1</sup> officially declared as Refugee Centre in 1967 under Statutory Instrument No. 133 of 1971<sup>2</sup>. At its peak, the area hosted more than 28, 000 refugees before voluntary repatriation and cessation of some refugees’ status. With the cessation of refugee status for majority of Angolans and Rwandan refugees, part of the refugee area was degazetted into a Resettlement Scheme for public land access by Zambians in accordance with the mandate of the Department of Resettlement (DoR) but also for purposes of Local Integration of the former refugees. The Resettlement Scheme was identified as an area where former refugees could relocate to, from the refugee settlements where they formerly lived, initiating their process of local integration in co-habitation with Zambians. With facilitated repatriations to Angola and Democratic Republic of Congo (DRC), the population of Mayukwayukwa has significantly reduced overtime with current new arrivals mainly being of DR Congo origin<sup>3</sup>.

1. Other Refugee Camps being Meheba and Mantapala.

2. See Statutory Instrument No. 133 of 1971 in Appendix 1

3. UNHCR, Mayukwayukwa Refugee Settlement Profile, 2018

### Figure 1: Location of Mayukwayuwa and the Study Area



## 1.4 Description of the Study Area

The Wider Mayukwayukwa LAP focuses on Mayukwayukwa (Refugee and Resettlement Scheme) and the surrounding areas of Mushwala and Kapili wards. The study area is located in Kaoma District of Western Province which is about 400km southwest of Lusaka and about 212km northeast of Mongu. Kaoma is one of the 16 districts in Western Province which lies on the Lusaka – Mongu (M9) road connecting Luampa on the South, Limulunga, Lukulu and Nkeyema on the west, north and east respectively. The district also shares part of its northern boundary with Mufumbwe district of Northwestern Province. Mayukwayukwa covers an approximate area of 156.91 square kilometres stretching from Luena River in the southern direction for approximately 22.76km adjacent to the Luampa river. About 124.78 square kilometres of Mayukwayukwa which constitutes 79.5 percent of the area falls within Kapili Ward while the rest of the area is in Mushwala.

## 1.5 Administrative Characteristics

Kaoma district has two (2) constituencies which include Kaoma Central and Mangango each with 9 wards. The Wider Mayukwayukwa covering Kapili and Mushwala Wards falls within Mangango Constituency, hence having a representation of 2 Ward Councilors and Ward Development Committees (WDCs). The two wards sit in the centre of Kaoma district both sharing their eastern boundaries with Mangango ward, and Luambuwa, Nalulembwe and Namafulo wards on the western side. Kapili sits on the northern part of Mushwala bordering with Kashamba and Dongwe wards of Lukulu district on the north while Mushwala borders with Nkenga and Mbanyutu wards of Luampa district on the south.

Administratively, the Wider Mayukwayukwa planning area is divided into three categories;

- I. Mayukwayukwa Refugee Settlement which is designated into 26 Sectors under the administrative jurisdiction of the Office of the Commissioner for Refugees under the Ministry of Home Affairs and Internal Security.
- II. Mayukwayukwa Resettlement Scheme designated into four zones which also hosts parcels for the local integration of former refugees under the auspices of the Department of Resettlement in the Office of the Vice President.
- III. Surrounding Host Communities which are generally villages and settlements falling adjacent but outside the Mayukwayukwa Refugee Settlement and Resettlement Scheme areas and predominantly under the local traditional authorities.

All institutions in each of the designated areas collaborate and coordinate on a number of issues that aim at improving the status and welfare of the area and people therein.

## **1.6 Land Tenure and Administration System**

Based on the land tenure system in Zambia, all land is vested in the President, and is held in perpetuity for and on behalf of the people of Zambia<sup>4</sup>. However, the administration of land is either under customary tenure falling in the auspices of traditional authorities or state (leasehold) which falls within the mandate of the Commissioner of Lands or administered through other statutory bodies like local councils, Departments of Agriculture and/or Resettlement.

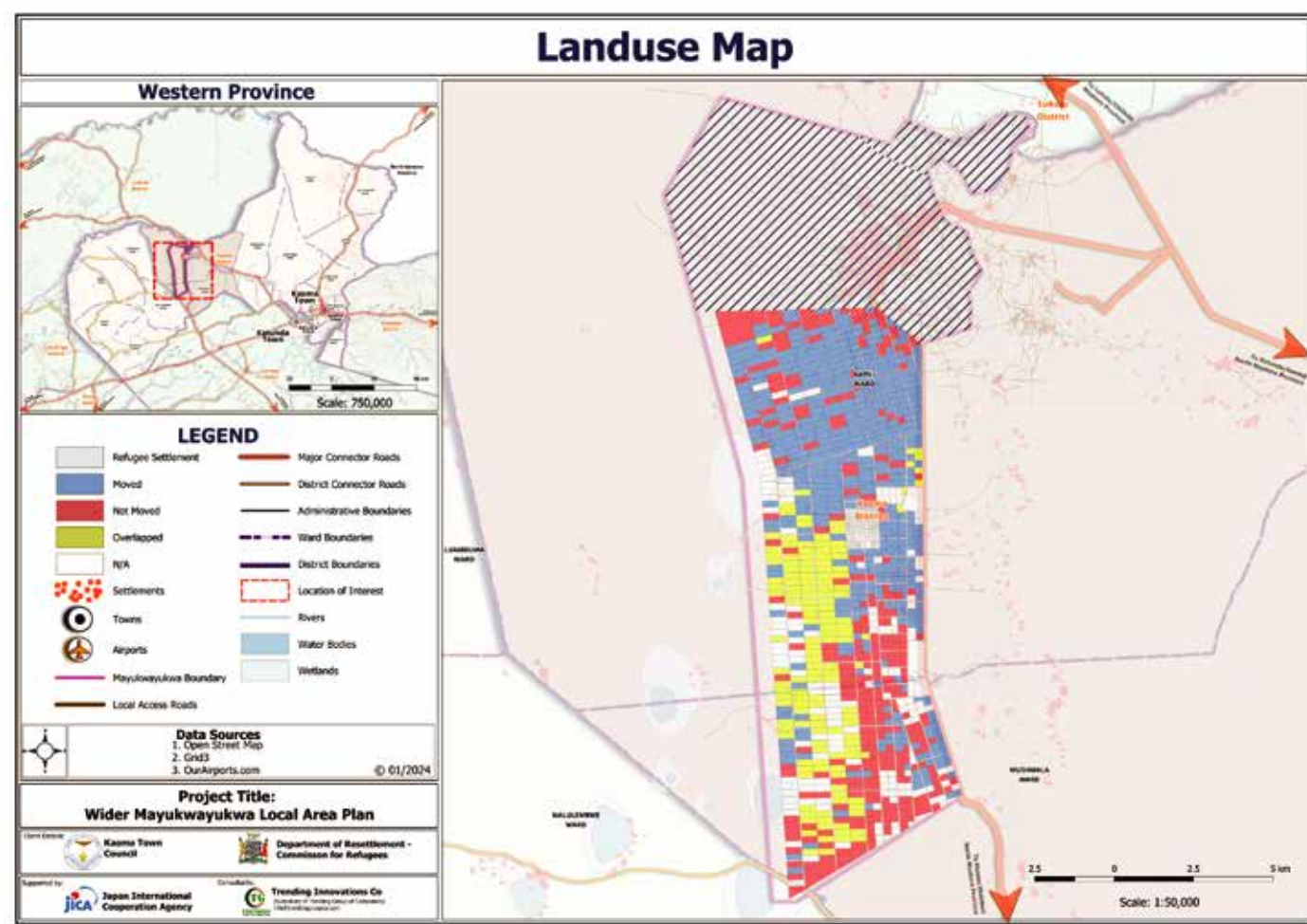
Land in Mayukwayukwa falls under state land tenure and is administered by the Commissioner of Lands through the Department of Resettlement while land in the refugee area is also administered by the Commissioner of Lands but administratively falls under the Commissioner for Refugees. Land under the Resettlement Scheme is planned by the Provincial Planning Authority in collaboration with the Department of Resettlement and is administered to the public by the Commissioner of Lands through the DoR in line with the Resettlement Policy of 2015.

Notably, land falling within the refugee area has a long-standing internal administration pattern defined only by roads and Sectors which provides a systematic approach in attending to a range of administrative processes and procedures around refugee management. Generally, refugee areas have no defined land use plans which provide for systematic zoning and guidance on Highest and Best Use of land for the available land (See Figure 1.2: Land Use Map). Buttressing calls to modernise and improve standards of the refugee settlements in Zambia, CoR noted that there has been a general misconception that refugee settlements are temporary arrangements – as a result, settlements are poorly designed and planned without taking into consideration inherent long-term needs, aspirations, culture and backgrounds of the forcibly displaced people<sup>5</sup>.

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4. See Part II, Section 3 of the Lands Act CAP 184 of the Laws of Zambia  
5. (CoR, Modernization of Refugee and Settlement Approach, 2022)

Figure 1.2: Land Use Characteristics in Mayukwayukwa



## 1.7 Physical Characteristics of the Planning Area

Mayukwayukwa has unique physical characteristics such as the natural terrain, soil characteristics, hydrological profile, climate, and vegetation which gives the area a range of natural competitive advantages that can transform the fortunes of the area in many aspects, particularly through agriculture.

### 1.7.1 Topographic Characteristics

Mayukwayukwa sits on a plateau to the east of the Barotse Flood Plains at a slightly higher altitude of around 1,100 metres above the sea-level. The area is generally flat with a gentle southward slope with higher gradients towards the Luena and Luampa river courses. This flat terrain provides lower production related costs for small scale farmers. For instance, it is easier and cheaper to use different types of equipment such as animal draught powered ploughs or tractors for land clearing, land preparation, planting and harvesting. Irrigation in even terrains is also much easier to manage. The exception is parts of the resettlement scheme of Mayukwayukwa that is slightly elevated.

### 1.7.2 Climate

The climatic conditions for Mayukwayukwa falls within the Agro-ecological Zone II covering Kaoma which is typical of a semi-arid weather pattern characteristic of low annual rainfall ranging from 800 to 1,000 mm with shorter high rainfall period of between December and February being peak. As a result, the average growing season is usually between 100 – 140 days. The area experiences longer and random dry spells which affects crop yields exacerbated by poor soil properties which is mainly sandy with low water and nutrient retention capacity. Average mean temperatures in the area range between 23 – 26°C and reach peak temperatures of up to 37 °C in the hottest months of September and October to between 17-25°C in the coldest months of June and July.

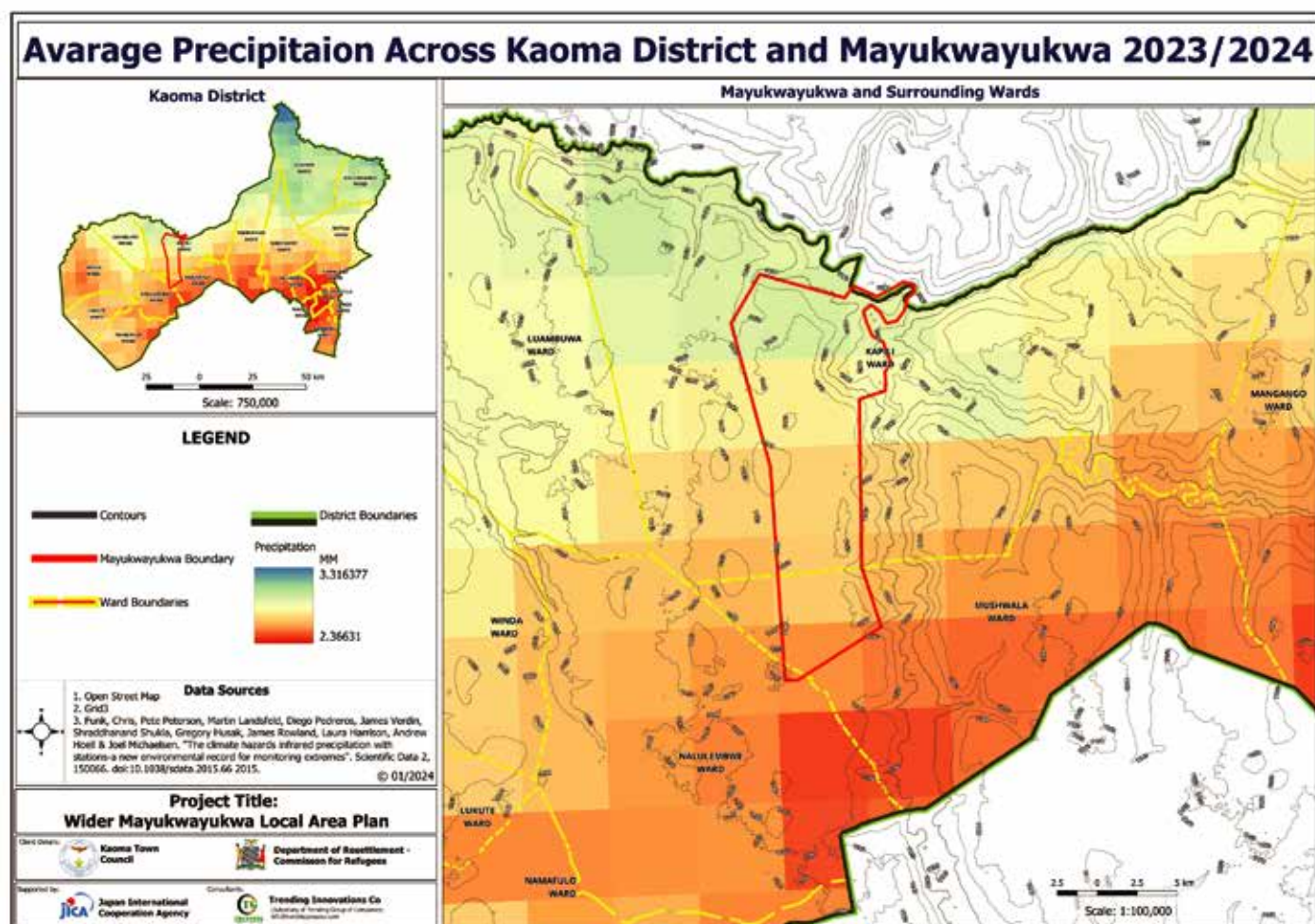
**Table 1.1:Kaoma Climate Data**

| Month                 | Jan  | Feb  | March | April | May  | June | July | Aug  | Sept | Oct  | Nov  | Dec  |
|-----------------------|------|------|-------|-------|------|------|------|------|------|------|------|------|
| Mean Temp °C          | 21.5 | 21.5 | 21.8  | 21.0  | 18.2 | 15.5 | 15.8 | 18.7 | 22.8 | 24.5 | 22.6 | 21.7 |
| Mean Max Temp °C      | 27.9 | 27.8 | 28.1  | 28.8  | 27.3 | 25.4 | 25.7 | 28.4 | 31.8 | 33.2 | 29.7 | 28.1 |
| Absolute Max Temp °C  | 33.9 | 32.8 | 33.9  | 32.8  | 33.3 | 30.6 | 32.8 | 34.4 | 36.1 | 37.2 | 36.1 | 34.4 |
| Mean Min. Temp °C     | 17.6 | 17.7 | 16.7  | 13.8  | 9.6  | 5.7  | 5.6  | 8.0  | 12.5 | 16.0 | 17.3 | 17.7 |
| Absolute Min. Temp °C | 11.7 | 12.8 | 8.9   | 4.4   | 1.7  | -1.6 | 0.5  | 0.0  | 5.6  | 11.1 | 11.7 | 13.3 |
| Rainfall Total mm     | 219  | 204  | 121   | 26    | 3    | 0    | 0    | 0    | 1    | 28   | 116  | 220  |

**Source:** Zambia Agriculture Research Institute, 2016

Kaoma district has generally been recording low rainfall although the 2023/24 rainfall season recorded even lower rainfall averaging below 2.8mm.

Figure 1.3: Average Precipitation in Kaoma



As shown in Figure 1.3, the southern part of the district which covers Mushwala ward has been the most affected compared to the northern region though the absolute difference was very minimal and impact of the drought has been the same across the whole region

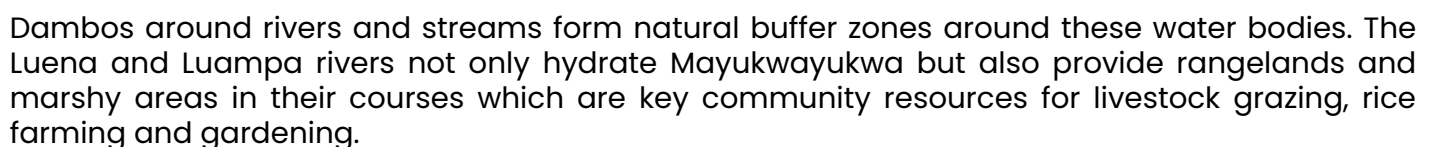
### 1.7.3 Soil Characteristics

Soils in the Wider Mayukwayukwa follow a similar pattern of soils found in Agro – ecological Zone II. Soils are characteristic of strong acidity, low nutrient reserve and retention and low water holding capacity with a dominance of coarse textured top soils, low organic matter and nitrogen content. They are also generally prone to rapid deterioration and erosion though with deep rooting depth, which results in high seedling germination. These chemical and physical characteristics of soils have a huge effect on the overall agricultural dynamics and potential in the area.

### 1.7.4 Hydrology

Mayukwayukwa and most of the surrounding areas have very few water bodies except for Luampa and Luena rivers; the largest water bodies which traverse through Mushwala from the southern end and joins Luena River which also forms part of a natural administrative boundary between Kapili and Mushwala wards from the eastern side. Other smaller tributaries like Kanando, Mbale in the south and Nabowa on the northern part of Kapili feed into Luampa and Luena Rivers which are now vulnerable due to increased human activity and reduced rainfall.

6. See Soil Survey and Evaluation Report for Mayukwayukwa, Mashuta et.al, 2016



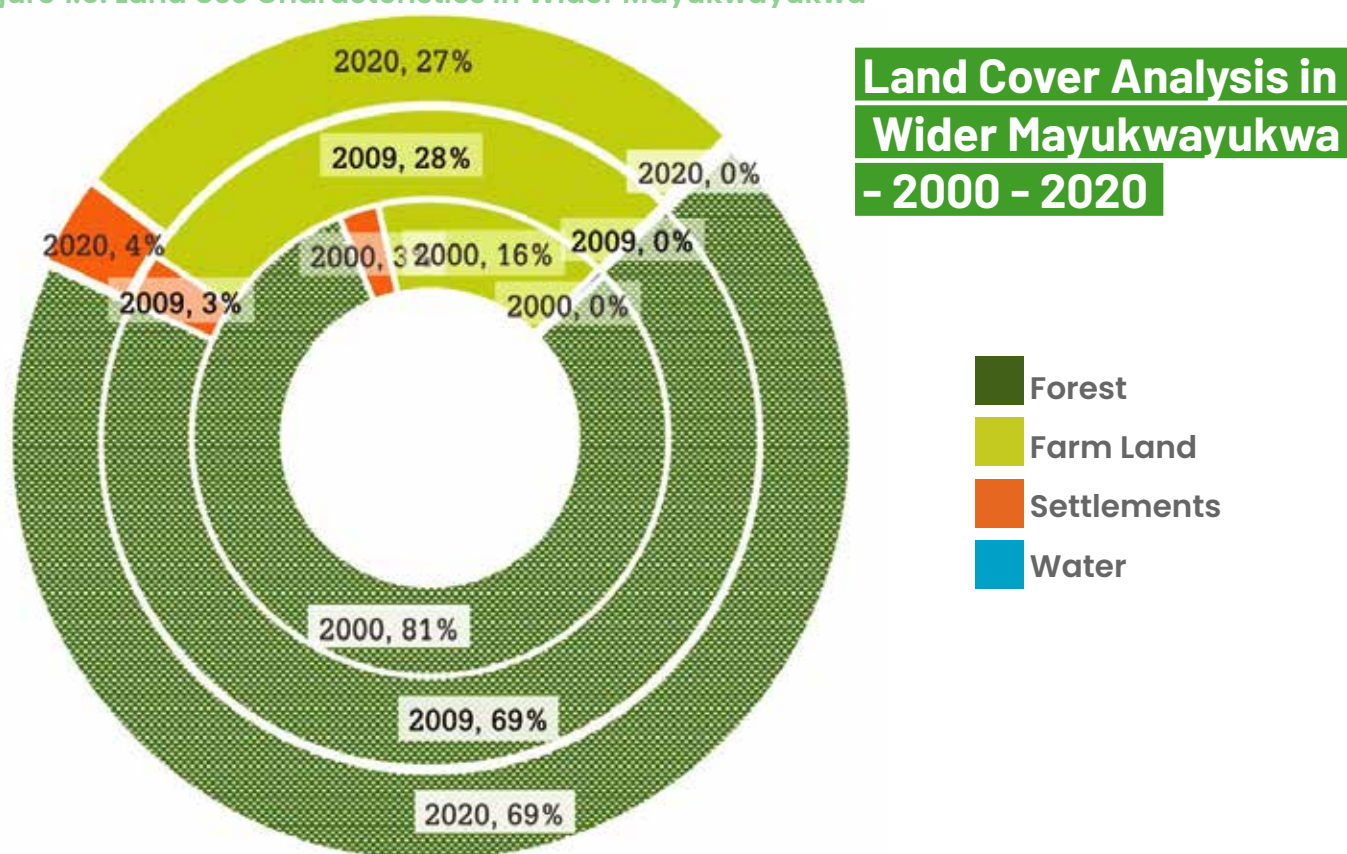
### 1.7.5 Storm Water Drainage

Most parts of Mayukwayukwa have an even terrain with a gentle slope of around 0.2% draining in the northwestern direction toward rivers and streams. Surface run – off is between medium to high compounded by weak soil structure (sandy) and poor vegetation cover. Even in periods of high precipitation, most of the areas are not susceptible to flooding lying above altitudes of around 1,140m above lowest points which are around altitudes of between 1,080m to 1,120m. The soil and drainage characteristics of the area increases the cost of construction, wear and tear and maintenance of infrastructure such as roads and bridges which usually give in to erosion (washaway) during rainy season. It also limits options for surface water harvesting among communities due to the poor soil structure.

### 1.7.6 Vegetation Characteristics

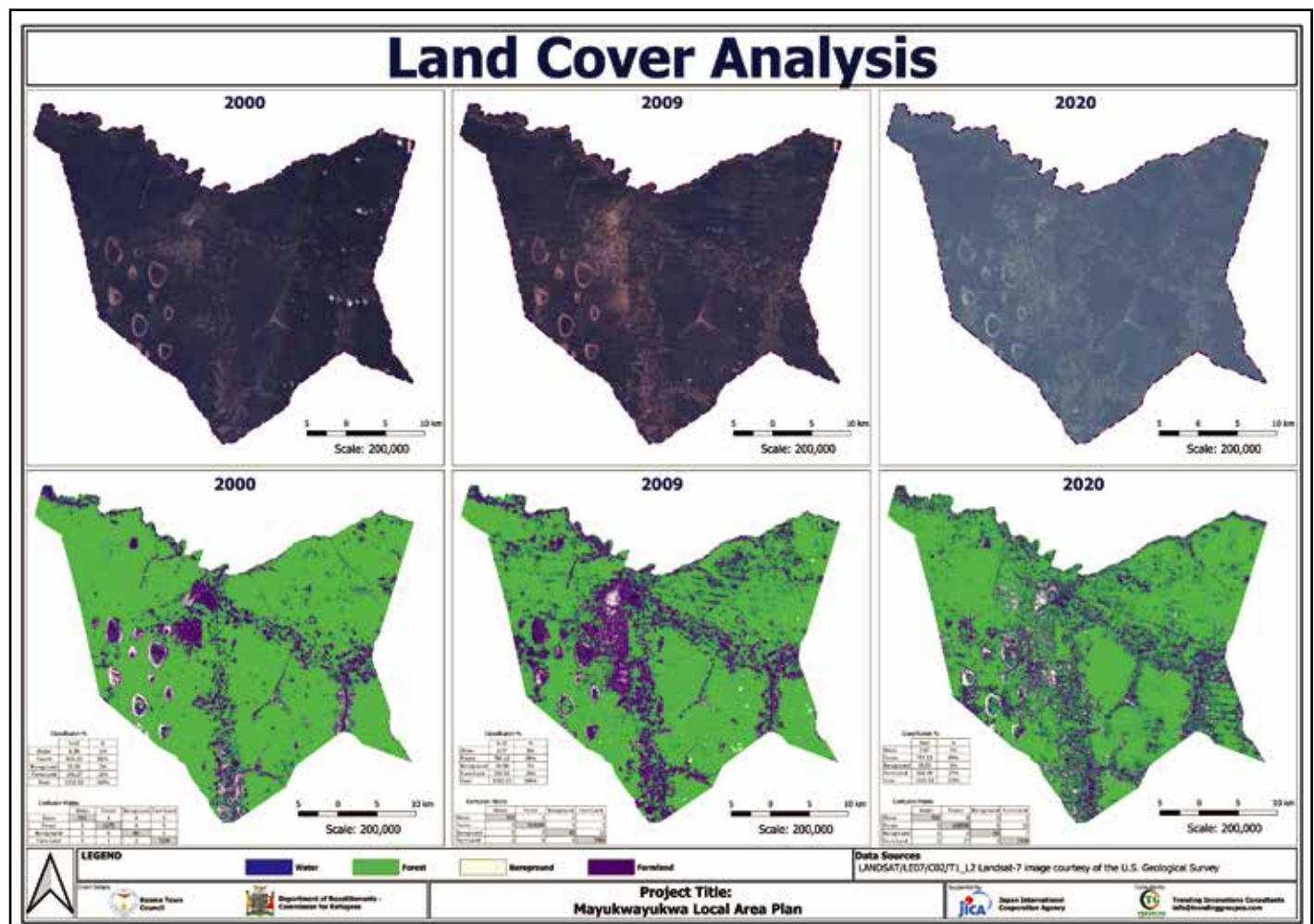
As at 2020, 797.13km<sup>2</sup> (about 69 percent) of the total land in Mushwala and Kapili wards constituted forests, 313.39km<sup>2</sup> (27 percent) was under farmlands and 39.53km<sup>2</sup> (4 percent) was under human settlements. Less than 1 percent (2.07km<sup>2</sup>) of the total land was classified under water. A land cover analysis spanning a period of 30 years revealed a fluctuation in the land use pattern showing increased human activity reducing forest cover. Between 2000 and 2020 forests reduced by 14.3 percent in excess of 133.17km<sup>2</sup> of land largely to farming activities and a bit to settlements. (See Figure 1.5).

Figure 1.5: Land Use Characteristics in Wider Mayukwayukwa



Inversely, the same period recorded increase in both land under farming activities and human settlement by 69.97 and 26.72 percent respectively demonstrating the impact of population growth and agricultural activities, on forests and environmental management vis-à-vis household food security. As can be seen in the Figure 1.6 below, the depletion of forest cover resulting from increased human activity is rampant in Mayukwayukwa and getting more wide spread in recent times (See Frame 2020) than it previously was – usually concentrating around water bodies such as Luena and Luampa rivers (See Frame 2009) as well as along the main roads.

Figure 1.6: Land cover Analysis – Kapili and Mushwala Ward



Vegetation in the planning area is predominantly covered in Miombo Woodlands around upper lands with *Julbernardia paniculata*, and *Isoberlinia angolensis* being the dominant species. The evergreen Mukwe forests characterised by canopy dominance of the ever-green Mukwe (*Cryptosepalu exfoliatum* and subspecies *pseudotaxus*) are also found in the area which is common in the Kalahari sands dominant in Kaoma and surrounding areas. The Mukwe evergreen forests and woodland are widespread on the water divides of Luena and Luampa rivers extending further into the northern direction. Plains and dambos are covered in grasses and scattered shrubs.

Forests are of significant importance to the area, as they have a number of ecological functions including providing habitat, soil protection, and overall, as a source for food, fuel, medicines, fruits, seed, and honey for the local people. Despite increased human farming activity heightening deforestation, some areas are still covered with natural forests which can still be utilised for environmentally friendly income generating activities such as bee keeping and regulated timber harvesting among others.

## 1.8 Localization of Policies in the Wider Mayukwayukwa LAP

### 1.8.1 National Resettlement Policy (2015)

The Land Resettlement Programme implemented since 1988, has been allocating land to voluntary resettlers who have applied for a plot of land, and to involuntary settlers which consists of people that were internally displaced due to natural and human induced disasters, land disputes, development projects, among other reasons.

In 2015, government launched its first National Resettlement Policy whose main objective was to establish Resettlement Schemes that are economically productive, socially secure and environmentally sustainable for persons settled voluntarily or involuntarily. The implementation of the policy is guided by a number of guiding principles which include the following

- I. All persons, groups and the communities have the right to suitable resettlement which includes the right to alternative land, which is safe, secure, accessible, affordable and habitable
- II. Two (2) types of settlement patterns shall be promoted by the Government. The first is the dispersed type of settlement pattern where each settler has his own dwelling house and family on his farm. The second type is the concentrated settlement pattern where settlers' dwelling houses are clustered next to each other in communal /village setup
- III. There is need to provide basic public services in resettlement schemes if settlers are to be attracted and encouraged to settle there
- IV. The Government will, as much as practicable, encourage the use of the already existing ministries/institutions to carry out activities relevant to their respective mandates in the resettlement schemes. This also includes forging partnerships with all interested stakeholders including Cooperating Partners, the private sector and NGOs
- V. Involuntary resettlement should be in line with the international human rights and humanitarian law as set out in the 1998 United Nations Guiding Principles on Internal Displacement, which are recognised as an important international framework for the protection of internally displaced persons
- VI. Humanitarian and development aid to Internally Displaced Persons (IDPs) and other vulnerable populations should not place them in greater danger or empower those responsible for the violence, exploitation or abuse suffered by IDPs.
- VII. External aid should not produce inequalities or dependencies, nor should it exacerbate local tensions

While the Policy does not discretely identify "former refugees" among the resettlement programme's beneficiaries, in practice, former refugees are fully covered within the vulnerable group and have been included by the Department of Resettlement (DoR) since 2014 when the land was de-gazetted. The Department of Resettlement has also been implementing joint programmes and projects for the local integration of former refugees such as the Sustainable Resettlement Programme (2017-2023) with UN agencies, and the Project for Promoting Local Integration of Former Refugees in Mayukwayukwa and Meheba (2020-2025) with JICA.

In line with the above-mentioned commitments by the GRZ and the resettlement programme, as at July, 2024, a total of 1, 085 farm plots averaging 5 hectares each and 251 residential and service

plots have so far been demarcated by DoR in collaboration with the Ministry of Lands (MoL), Department of Physical Planning and Office of the Commissioner for Refugees (CoR) out of which about 47.6 percent (517) former Angolan refugee households have been allocated (settled) farm plots within the scheme as part of the local integration programme while the rest of the plots have been allocated to Zambians and the process is still ongoing.

### **1.8.2 Modernization of Refugee and Host Communities Settlements Approach**

The Government of the Republic of Zambia adopted the Comprehensive Refugee Response Framework (CRRF) and Global Compact for Refugees (GCR) in 2017 and 2018 respectively and made several pledges at the first Global Refugee Forum in 2019 pursuing a holistic refugee response comprising both refugees/former refugees and the host communities. To operationalize these protocols, the government has been progressively incorporating refugees, asylum seekers and former refugees in educational and health systems, social services, and agricultural support.

In 2022, the GRZ presented the concept for the Modernization of Refugee and Host Communities Settlements Approach (MORHCSA) as a paradigm shift in the protection and management of refugees, asylum seekers and former refugees (referred to also as persons of concern or PoC). The approach envisages not merely the development of what has been seen as “temporary settlements”, but the modernization of the area that has been the space for refugee settlement and its hosting communities including the LIAs. The modernization of the area and enhanced participation of its residents to this process – both PoCs and Zambians would socio-economically benefit not only those living within it but also its surroundings, by boosting up innovative markets, trading systems and community established livelihood schemes. The following are some specific objectives of MORHCSA:

- I. Digitalize operations and management of refugees and other persons of concern aimed at enhancing security of refugees and the Country
- II. Advocate for harmonisation of laws pertaining to management of PoCs such as Immigration and Deportation Act, Labour Laws, Refugees Act
- III. Safeguard the human rights and freedom of refugees and other persons of concern as guaranteed by international conventions and protocols
- IV. Enhance access to modern public infrastructure and socio-welfare amenities within and outside the settlement areas
- V. Transform refugee settlements into self-reliant and sustaining communities with increased economic activities
- VI. Encourage both current and former refugees and other persons of concern to fully utilize their skills to effectively participate in various economic activities in settlement and outside the settlement areas within Zambia

In order to achieve the objectives of MORHCSA, the government has adopted a joint stakeholder approach to coordinate and engage with a wide range of actors, reflected by the establishment of a National Steering Committee currently chaired by DoR under the office of the Vice President, with the Office of the Commissioner for Refugees as the Committee’s Secretariat.

### 1.8.3 National Refugee Policy (2023)

Zambia is party to the main international conventions and protocols regarding Persons of Concern and has maintained an open-door policy to forcibly displaced persons, hosting refugees, former refugees and asylum seekers over the years. Zambia's first Refugee Policy, approved in September 2023, will guide the harmonisation of relevant pieces of legislation that are currently inconsistent, and will aim to address a number of persistent challenges in order to improve the PoC's protection and enjoyment of rights and freedoms.

In line with the above-mentioned direction of the MORHCSA, the Policy aims to achieve the following:

- i. Strengthen the protection of PoC, their rights and freedoms
- ii. Improve access to essential social needs
- iii. Improve livelihood and self-reliance for PoC
- iv. Promote co-existence of PoC and host communities
- v. Strengthen access to durable solutions (including local integration)
- vi. Strengthen coordination and inclusion of refugees in national development processes.

The Wider Mayukwayukwa LAP reflect the direction of this Policy's objectives and will ensure the actualization of the Policy's objectives to enable the full exercise of rights by PoC which constitute a significant part of the Wider Mayukwayukwa population. Only through the full enjoyment of rights and freedoms, it will become possible for this population to unlock their capacities and potentials as contributors to the socio-economic development of Kaoma district and beyond.

### 1.8.4 National Decentralization Policy (2023)

The National Decentralization Policy was last reviewed in 2013 and revised and launched in March 2023 on the premise of a "citizen-driven local governance system within a unitary State for sustainable development". The policy envisions that citizen and community participation in local governance is a key pillar for the country's socio-economic transformation agenda. The Policy prioritizes community engagement, citizen-driven local development and inclusiveness in the implementation of programmes. The policy empowers citizens to hold their representatives accountable for service delivery and local development. It also prioritizes the strengthening of sub-national institutions and improving relationships at all levels of governance.

Among a number of strides made towards achieving the policy objectives has been the enactment of the Urban and Regional Planning Act No 3 of 2015 and the National Planning and Budgeting Act No. 1 of 2020, which recognizes the role of citizen participation in local economic development through district integrated development planning. Through this approach, communities chart their development aspirations based on their local resources and capacities and the government plays a complementary role to coordinate and redistribute resources where needed. To reinforce this role, significant progress has also been achieved in enhancing citizen participation in decision-making through the enactment of the Local Government Act of 2019, which established the Ward Development Committees (WDCs) and led to the operationalization of 1,858 WDCs countrywide in 2022 – structures which are key in facilitating community-led development.

In view of the above, the Wider Mayukwayukwa Local Area Plan is one of the key instruments which will operationalize governments vision through the Decentralization Policy as it resonates with the policy objectives of taking development to the local people through participatory approaches and without leaving anyone behind. The LAP builds on the Kaoma IDP envisioning an inclusive and integrated approach to developing Mayukwayukwa and surrounding areas as well as mobilising resources effectively.

## **1.9 Summary of Issues from the General Information**

### **i. Location Factors**

Currently, the geographic location of Mayukwayukwa poses more of a challenge than an opportunity to its overall development. While the area is centrally located between Lukulu, Kaoma, and Mongu towns, its accessibility from the regional trunk roads coupled with poor road condition increase its competitive disadvantage. Under these circumstances, substantial investments in road infrastructure would be one of the key interventions to enhance the competitiveness of the area and plugging it to the surrounding markets.

### **ii. Goodwill from Traditional Authorities and Local Stakeholders**

It was clear from the sentiments and feedback from the local traditional authorities and other stakeholders that Mayukwayukwa has been embraced as part of the wider communities. Meetings with WDCs and Chiefs bemoaned the overall underdevelopment of Mayukwayukwa and how this negatively affects even surrounding communities. Any form of intervention in and around Mayukwayukwa would receive support based on the local goodwill which is a critical ingredient in local economic development. It has also been observed that several residents of the refugee and resettlement schemes utilize (rent) parcels of land closer to water streams, under the traditional chieftdom, mainly for agricultural purposes.

### **iii. Cohesive Integration of Former Refugees**

The almost seamless integration of former refugees into the hosting communities particularly in the Resettlement Scheme presents one of the key highlights and strength towards a more coordinated approach to development. Despite the lack of official documentation for many of the former refugees, there is seamless interaction, access to services, doing business and shared challenges among communities across all nationalities within Mayukwayukwa and beyond. This demonstrates that, any form of development in the area is likely to benefit everyone.

### **iv. Coordinated Land Management System**

Mayukwayukwa has an organized spatial land management system managed by the Department of Resettlement – in case of the resettlement scheme; Commission for Refugees in the Refugee area and traditional authorities in the wider areas of Mayukwayukwa – for easier strategic investments and service provision both in the medium to long term with the potential to transform the area into an economic hub and agri-business centre. The designation of areas into Zones, Sectors and villages already have a systematic spatial trend which can be enhanced to have far reaching positive impact on the surrounding communities especially that areas in the host communities equally remain underdeveloped lacking a number of basic services.

**v. Climatic Factors**

The current unfavourable climatic conditions in Kaoma which are being heightened by the effects of climate change puts the objective of transforming Mayukwayukwa into an agri – business hub and turning the area into a high agricultural productive area on a balance unless approached with alternative and innovative strategies. High temperatures and erratic rainfall patterns will demand investing in climate resilient crops able to withstand harsh weather conditions.

**vi. Soil Characteristics**

Similarly, the soil characteristics which are generally poor compared to other regions will demand cultural and policy transformation among most farmers as well as government policy with regards to the types of crops grown and interventions. They should begin prioritising and diversifying to more resilient and adaptive crops away from the current overdependence on maize which may not be favourable in such areas.

**vii. Hydrological factors**

On a brighter side, the presence of Luena and Luampa rivers puts Wider Mayukwayukwa on an advantage with regards to alternative water sources for agriculture even during dry spells though this is currently underutilised. Exploiting irrigation would be a game changer in ensuring the area reduces its dependence on unpredictable rainfed agriculture. This can lead to improved household food security and incomes among the majority households.

Predominance of natural forests in the area is also an opportunity for some local farmers to explore sustainable alternative livelihoods and income generating avenues such as bee keeping on a larger scale to supplement incomes and reduce over dependence on seasonal crops only.



Community members in Mushwala Ward during the Problem Identification, 2024

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# 02

## SECTION TWO

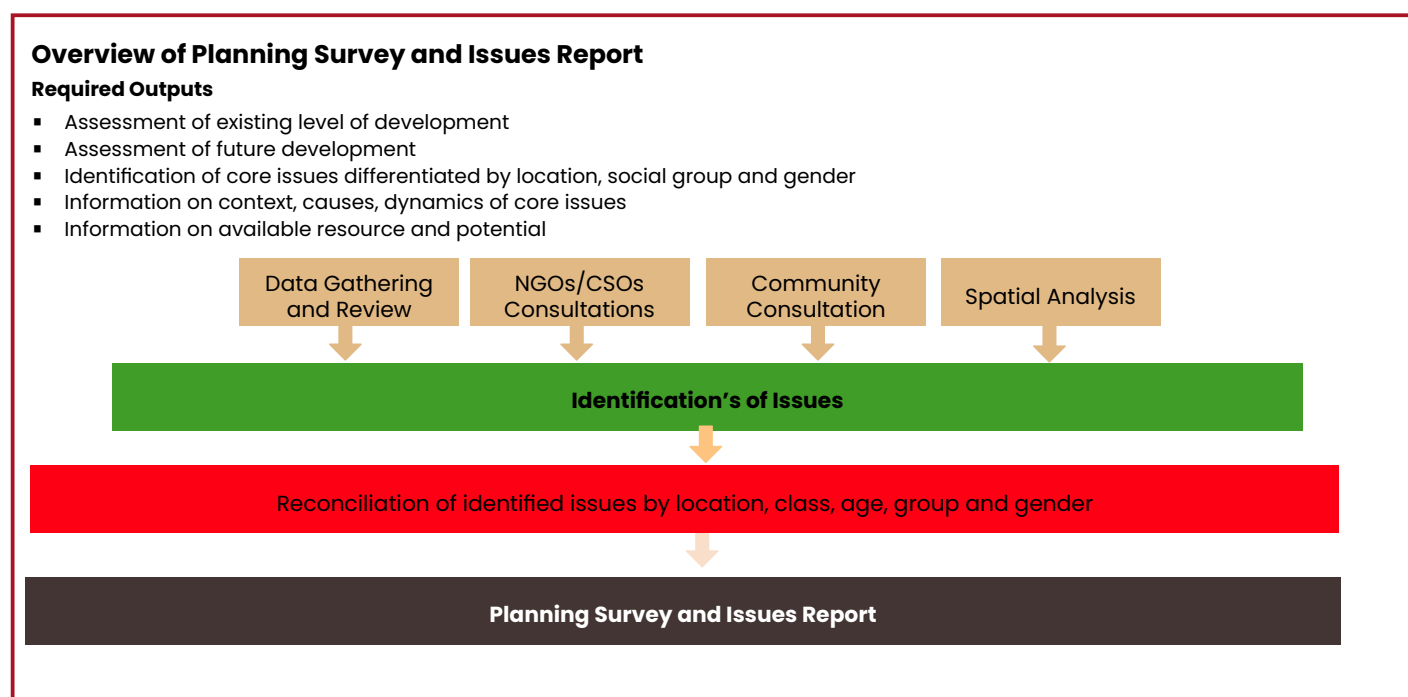
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# THE PLANNING SURVEY AND ISSUES PROCESS

## 2 Introduction

The Planning Survey and Issues Report (PSIR) is both a statutory requirement of the Local Area Planning process prescribed under Part III, Section 22(a) of the Urban and Regional Planning Act, No. 3 of 2015 which provides a detail description of existing services, issues and conditions in a planning area but also a best practise in participatory planning. This Section documents social, economic, environmental and cultural issues, it gives a general overview of the level of development of a planning area, opportunities and resources and where lies the gaps which needs to be addressed or harness. The Section is a composite of information from the review of existing data in form of reports, policies and legislation, physical data collection and consultations of different players and stakeholders from the community, governance structures, Non-Governmental Organizations (NGOs), and other cooperating partners both within and outside the planning area (See Figure 2.1).

Figure 2.1: Overview of the Planning Survey and Issues Report

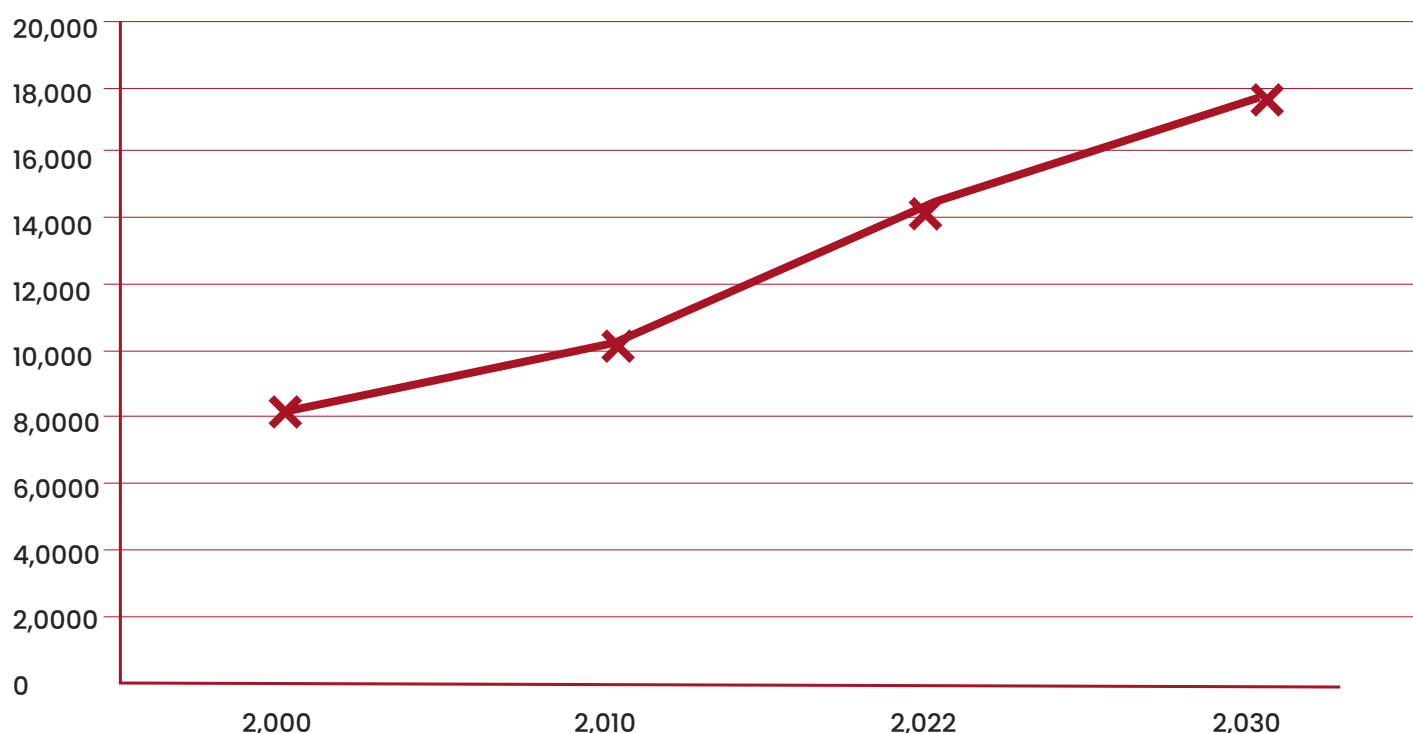


The Wider Mayukwayukwa PSIR was developed based on the consultations done with various stakeholders including; government agencies and line ministries, traditional structures and communities in and around Mushwala and Kapili wards. The report also presents facts and figures based on the review process of various data sources which provides the general situation analysis for Wider Mayukwayukwa. The section covers demographic characteristics; availability, state and condition of infrastructure such as roads and crossing points; water and sanitation; health; education; security; transport; energy; employment; governance; commerce and trade; agriculture value chains.

## 2.1 Kaoma Population Dynamics

According to the 2022 official statistics, Kaoma District had a population of 146, 690 people which was the second highest among all districts in the province constituting about 10.8 percent of the total provincial population and only below Mongu District which had 197, 816 people (Zamstat, 2022). The district population has steadily been growing and the trend is anticipated to continue due to natural factors (new births) and projected increase in economic activities mainly from agriculture besides other ventures (See Figure 2.2).

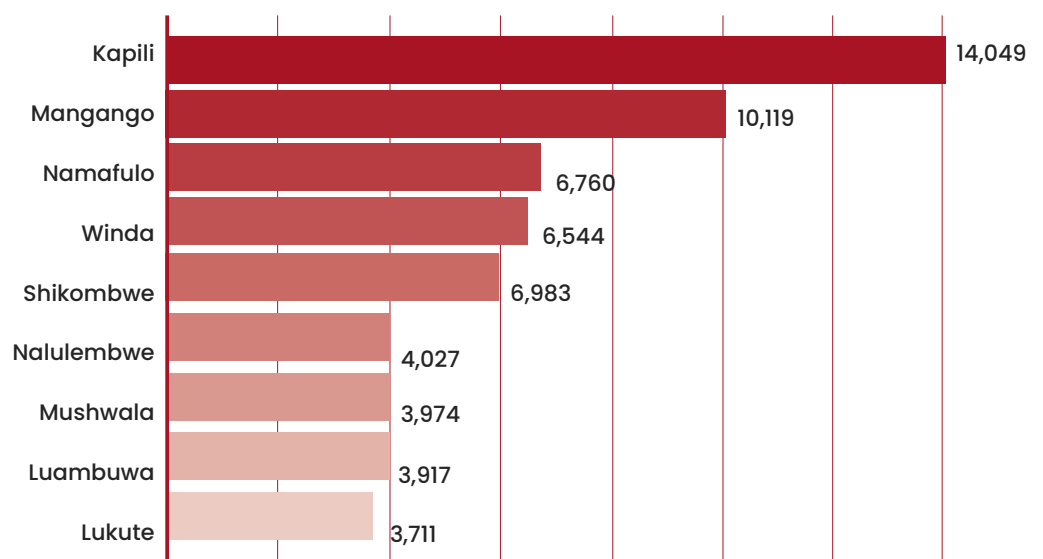
Figure 2.2: Trends in Population Growth in Kaoma



**Source:** Zamstat 2022

Changes in population is likely to increase demand for services such as housing, water and sanitation, health, education, security and other social amenities as well as creating business opportunities for local goods and services. Such anticipated changes require strategic planning and adequate prior interventions – some of which can be harnessed in Mayukwayukwa and surrounding areas.

At sub – district level, Kapili has the highest population of around 14, 049 people constituting 23.8 percent of the constituency total population followed by Mangango with 10, 119 (See Figure 2.3). On the other hand, Mushwala is the third least populated ward with 3, 974 people representing 6.7 percent of the constituency population bringing the combined total for the Wider Mayukwayukwa to 18, 023. In terms of gender distribution, about 51.5 percent of the population is female constituting about 9,282 and the remaining 8,741 representing 48.5 percent being males (Zamstats, 2022).

**Figure 2.3: Kaoma District Population Distribution by Ward**

Source: CSO, 2012; Zamstat, 2022"

## 2.2 Mayukwayukwa Population Dynamics

The 2024 Refugee Status Report for Mayukwayukwa shows that the population for refugees, asylum seekers and former refugees of various nationalities in Mayukwayukwa alone stood at 27,798 people (See Table 2.1 below).

**Table 2.1: Population of Refugees and Other PoC in Mayukwayukwa – 2024**

| Nationality  | Refugees <sup>7</sup> |              | Former Refugees |              | Asylum Seekers |           | Total         |
|--------------|-----------------------|--------------|-----------------|--------------|----------------|-----------|---------------|
|              | M                     | F            | M               | F            | M              | F         |               |
| DR Congo     | 9,361                 | 7,129        | -               | -            | -              | -         | 16,490        |
| Angola       | -                     | -            | 3,321           | 3,633        | -              | -         | 6,954         |
| Burundi      | 2,232                 | 1,737        | -               | -            | -              | -         | 3,969         |
| Rwanda       | 106                   | 86           | 21              | 59           | -              | -         | 272           |
| Somalia      | -                     | -            | -               | -            | -              | -         | -             |
| Others       | 9                     | 6            | -               | -            | 60             | 38        | 113           |
| <b>Total</b> | <b>11,708</b>         | <b>8,958</b> | <b>3,342</b>    | <b>3,692</b> | <b>60</b>      | <b>38</b> | <b>27,798</b> |

Source: (CoR, Zambia Country Statistics Report, 2023)

Of this total, 74.3 percent were refugees while 25.3 percent were former refugees and a paltry 0.4 percent were asylum seekers<sup>8</sup>. Despite this being the official recorded refugee statistics, some of the refugees are not predominantly domiciled in Mayukwayukwa – some settled in Kaoma, Lusaka or other towns within Zambia in pursuit of economic livelihood opportunities. Similarly, results from the 2023 land audit by the Department of Resettlement revealed that out

7. Refugee population is dynamic which changes on a daily basis depending on registrations of new entrants/births

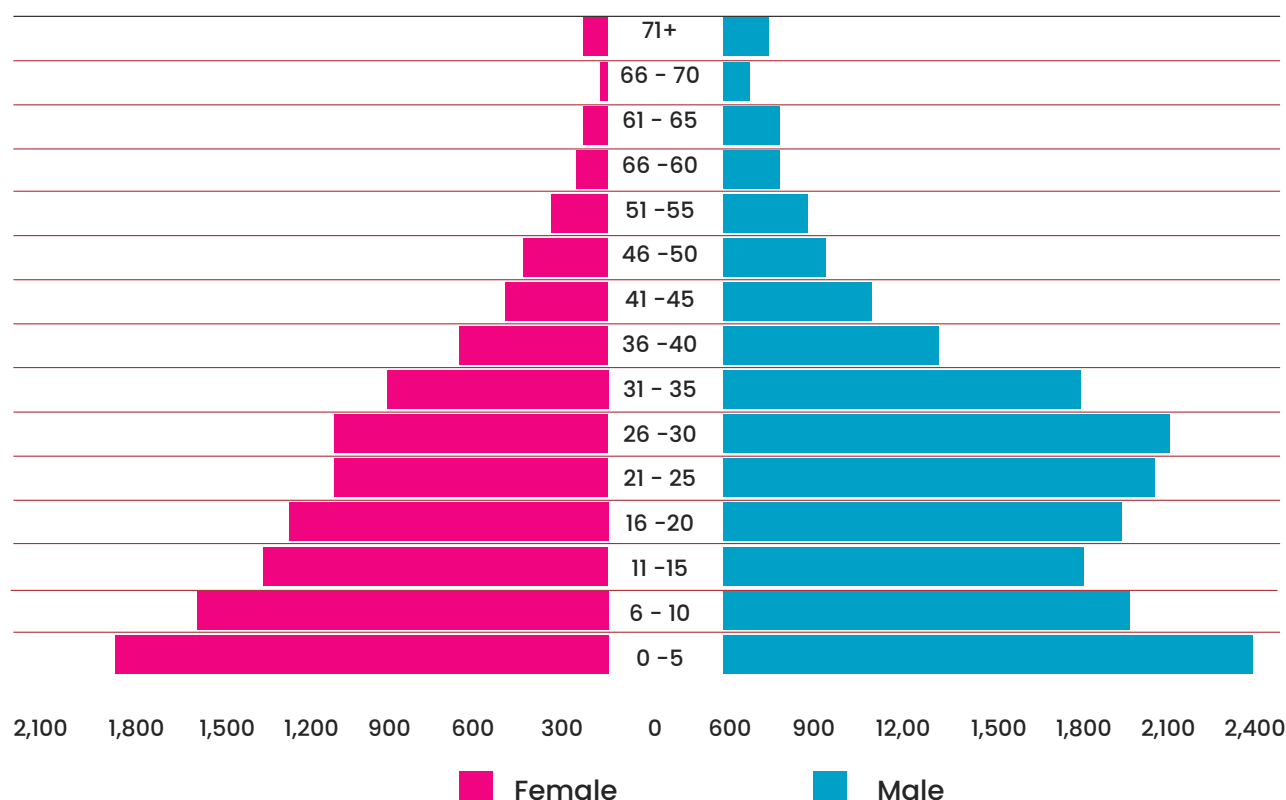
8. (CoR, Zambia Country Statistics Report, 2023)

of the total 7, 034 former refugees in Mayukwayukwa, 3, 102 (44.1 percent) are settled within the scheme leaving the other 3, 932 (55.9 percent) either still in the refugee area or staying outside the scheme and refugee area. It should be noted that in the resettlement scheme there is only 368 available plots left, which would not be sufficient to accommodate about 655 households for the remaining 3,932 former refugees, in case all of them opt to relocate to the scheme, unless the plot sizes are changed.

Recent trends show that the inflow of new refugees has drastically reduced as a result of the increased political and security stability in countries where majority of the refugees were initially coming from. Nonetheless, refugee and former refugee population will continue to grow albeit at a relatively lower rate likely to be influenced by newly born population than new entrants – especially that the majority of the population falls within the high reproductive age group. Population growth is also likely to be influenced by intermarriages between host communities and former refugees, the trend which is prevalent and likely to increase with the ongoing integration of former refugees.

According to the 2024 figures, Mayukwayukwa had a total of 25, 935 registered refugees although not all of them were physically domiciled in Mayukwayukwa but were in Zambia. The figures further revealed that 36.4 percent (9, 435) of the total registered refugee population was aged below 15 years – implying that majority of them were born in Zambia despite bearing the refugee status.

**Figure 2.4: Population of Registered Refugees in Mayukwayukwa – 2024**



Another 11, 431 refugees representing 44.1 percent of the registered refugee population were aged between 16 and 40 – which is a productive age group with high potential to exponentially increase the refugee population – particularly among the population in the refugee camp where social services such as health, education and recreation could be limited. For instance, the inadequate secondary schools in the area may affect the progression of learners leading to early marriages, teenage pregnancies and other negative social vices.

While some of the registered population may not be in Mayukwayukwa only, these population factors may have future implications on the demand for services, livelihood opportunities, cultural exchange and social integration which require critical planning.

## **2.3 Ethnicity**

Mayukwayukwa has a diverse population with the main nationalities being Zambians, former Angolan and Rwandan refugees. Predominant ethnic groups among the former Angolan refugees being the Mbunda, Umbund and Kwamashi, Chokwe and Mbukutu kwangali being relatively less prominent. Majority of the refugee population is from the Democratic Republic of Congo dominated by the Nyamulenge and Kasai and the Fulelo and Lunda bashi being less predominant. Burundi's, Somalians and those of Ethiopian origin are in smaller numbers. The predominant Zambian ethnic groups found in the planning area include the Nkoya, Mbunda and Silozi.

The integration of former Angolan and Rwandan refugees led by the Government of the Republic of Zambia in collaboration with other donor agencies through the allocation of land to former refugees into host communities has also enhanced ethnic diversity in the area. Through this programme, a total of 3,102 former refugees have since been allocated land – with a minimum requirement of alien cards<sup>9</sup> for the Letter of Occupancy to be issued by DoR – to settle and do farming within the Local Integration Area or Resettlement Scheme.

Integration of former refugees into host communities brings cultural and social diversity, instil positive mindset change as communities interact and present economic opportunities for Mayukwayukwa and beyond. Some refugees and former refugees also possess different skills, and other unique cultural and livelihood traits which would benefit local communities and vice – versa and can influence relationships and interactions at community level. Tapping and harnessing the already identified local human resources, opportunities and social capital is more realistic, cheaper and within reach towards achieving the development goal.

## **2.4 Settlement Pattern**

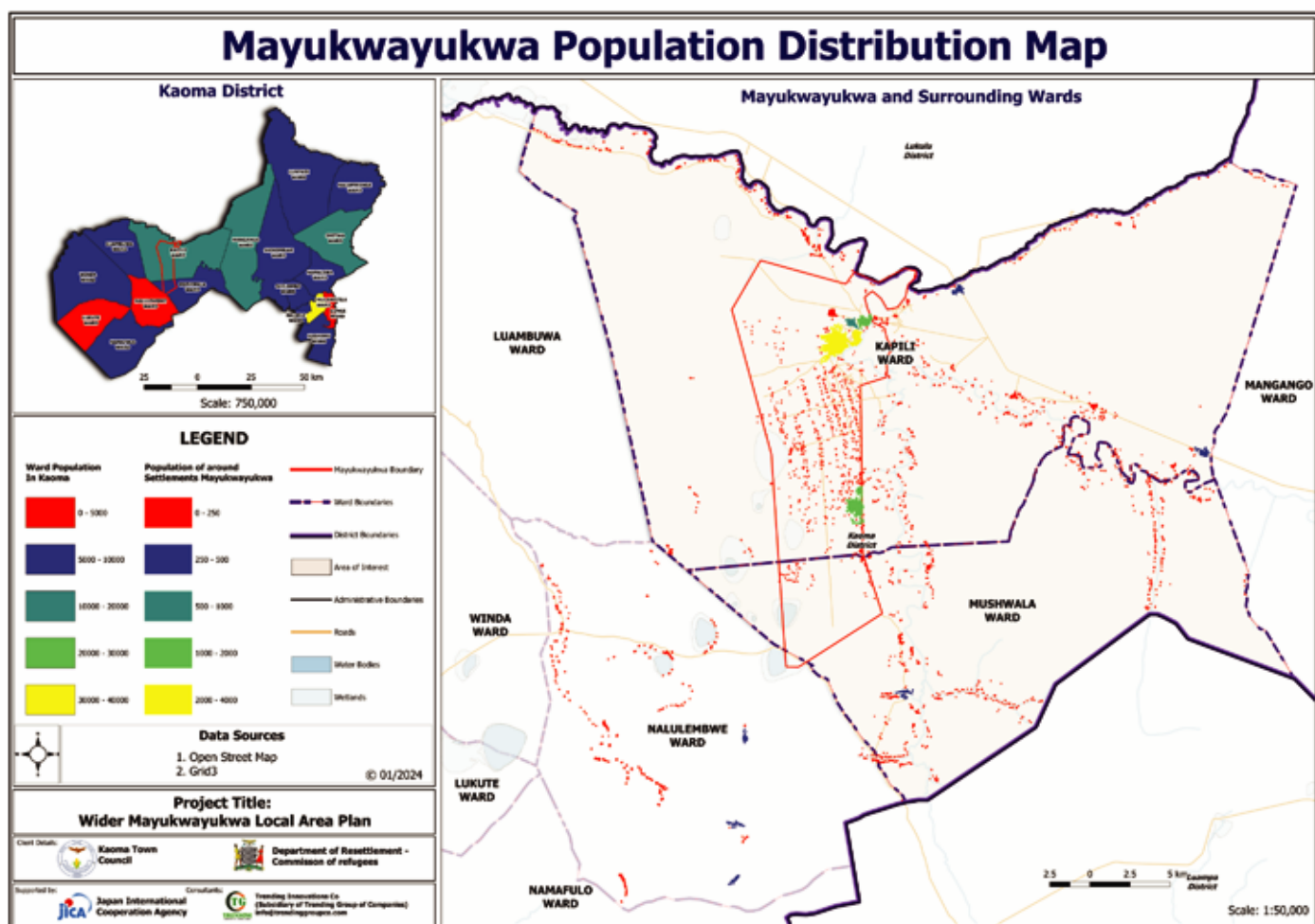
A settlement distribution analysis based on GRID3 data shows that Mushawala and Kapili wards had an estimated population of 22, 675 and about 46.5 percent (10, 539) of that population was in Mayukwayukwa only. The distribution demonstrates how the availability of basic services influences human settlement. Similarly, there was a higher population concentration in the refugee camp of Mayukwayukwa and areas around Shibanga – which have a number of facilities such as secondary and primary schools, health facilities, water, reliable network coverage, electricity – albeit intermittent, thriving market and other social amenities compared to surrounding areas. The rest of the human settlements follow a linear pattern stretching in between the Lukulu –

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9. Access to land in Zambia remains as provided in the statutes governing land administration, meaning National Registration Cards required for the acquisition of title deeds.

Kaoma road and the Luena River or along the Luampa River further underscoring the influence of livelihood factors on determining human settlements. The settlement pattern is similar in Mushwala ward where most of the population is only around Mushwala Primary School and adjacent to the Namapombwe road and around Kanando Stream while the rest of the areas are sparsely populated.

Figure 2.5: Population Distribution by Settlement in Wider Mayukwayukwa



An analysis in trends of human settlement<sup>10</sup> show that built up areas have steadily grown from 31.2km<sup>2</sup> in 2000 to around 39.53km<sup>2</sup> in 2020 mainly increasing agricultural activities in the area albeit at the expense of the forests.

10. See Section 1.7.6 on Vegetation Characteristics and Land Cover Analysis

## 2.5 Economic Characteristics

Mayukwayukwa is predominantly an agrarian community with crop agriculture being the major livelihood source to most residents. The main crops grown include cassava, maize, groundnuts and soyabeans besides rice, vegetables, and millet. Most of the crops are grown primarily for household consumption while others such as cassava, maize, soyabeans and vegetables are also grown in excess as cash crops sold locally or in Mongu and Kaoma.

Agriculture in the area is done at subsistence scale among majority households despite the area having huge potential to sustain agriculture at a commercial or large-scale level<sup>11</sup>. Land utilization among farmers is generally low and yields for most crops are below the economically viable expected yields. For instance, the average land utilization among the registered farmers for the period 2019 to 2022 was between 0.5 and 1.5 hectares from the average land size of 10 hectares while yields for the most grown crops (Cassava and Maize) averaged below 1 metric tonne per hectare against an average of above 2 metric tonnes per hectare<sup>12</sup>.

A number of households also keep livestock such as goats, pigs, chickens and cattle and all these are kept at subsistence scale mainly for household consumption or only sold to cushion/supplement household income.

Besides agriculture or trade in agricultural related commodities, other sources of income include beekeeping, trading activities, beer brewing, charcoal burning, casual labour activities, community service and hand-outs. Very few are formally employed working in government institutions or NGOs within the area.

Like the case is with other refugees and former refugees in Zambia, lack of stability due to prolonged uncertainty of their legal status has compounded dependency on handouts and petty trading activities for survival and limits their opportunities to invest in sustainable livelihood ventures. This ambiguity also deprives refugees/former refugees to get into tertiary education with government support, formal or decent employment or freely engage in other economic activities outside the refugee area. Some refugees or former refugees reportedly manage to pursue other ventures such as trading in Kaoma, Mumbwa Lusaka and other towns although in most cases illegally with cases of facing legal identity challenges once caught.

Low agriculture productivity in the area coupled with lack of alternative sources of livelihood, expose households, especially the youth and those from amongst the refugee population, to socio – economic vulnerability. Results from the 2022 Social Survey on Former Refugees and Zambians in Mayukwayukwa revealed that despite more than 90 percent of the population in Mayukwayukwa being engaged in fulltime agriculture as the only source of livelihood, 72.6 percent of the respondents reported experiencing food shortages in the 12 months prior to the study<sup>13</sup> insinuating that the scale at which they were conducting their agricultural activities was not economically sustainable to guarantee food security<sup>14</sup>.

11. See Section 2.1

12. Ministry of Agriculture

13. (Chama-Chiliba, Funjika, Bwalya, & Chibwili, 2022)

14. About 91.7 percent of the 1,654 respondents

## 2.6 Markets and Trading Facilities

Mayukwayukwa has two market shelters, the minor one located in Shibanga of Zone 2 and the main market located within the refugee area. The shelter in Zone 2 which was funded by the UNDP in conjunction with DoR in the Vice President, has a capacity of 72 stands and 2 standard VIP toilets. However, the shelter is highly underutilised – remaining empty most of the times but sporadically record trading activities by local traders who sale vegetables and other crop merchandise especially during the harvesting period.



Mayukwayukwa Main Market, 2024



There are no other shopping facilities (shops) around or near the shelter. Residents depend on roadside shops (temba) for groceries and small supplies within the neighbourhood. The other relatively bigger commercial area is located in the Refugee area which includes a market shelter, grocery stores, restaurants, bars, hair salons, hammer mills besides other trading services. The main market is the main business hub for the area although the trading shelter is small, has no stalls and dilapidated and not adequately serviced with water (1 borehole) and sanitation (1 by 2 VIP toilets), poor solid waste management and security.

## **2.7 Banking and Financial Services**

Mayukwayukwa has no commercial banking facilities to support huge commerce and trade activities, the nearest being in Kaoma which is about 85km. The sporadic mobile telecommunication network in the area contributes to the poor financial services such as mobile banking services and other platforms which rely on mobile telecommunication connectivity. Nonetheless, Airtel, Zamtel, MTN mobile money services as well as Zanaco (Xapit) agency provide alternatives for banking and other fund transfer and financial services.

Unfortunately, mobile money services are limited in supporting bulk banking services, and

sometimes susceptible to fraud. Services are also usually not guaranteed as they depend on the availability of mobile network connectivity. As a result, transactions in areas away from the administrative centre where network is stronger are usually restricted to cash which increases both the risk and cost of doing business and reduces the formality of business transactions.

## 2.8 Road Infrastructure and Transport Services

The quest to transform Mayukwayukwa into a modern and habitable human settlement as well as a viable agri – business hub largely depends on the availability and quality of public services and infrastructure with road being one of the key ingredients



Condition of the Road Infrastructure in parts of Mayukwayukwa 2024

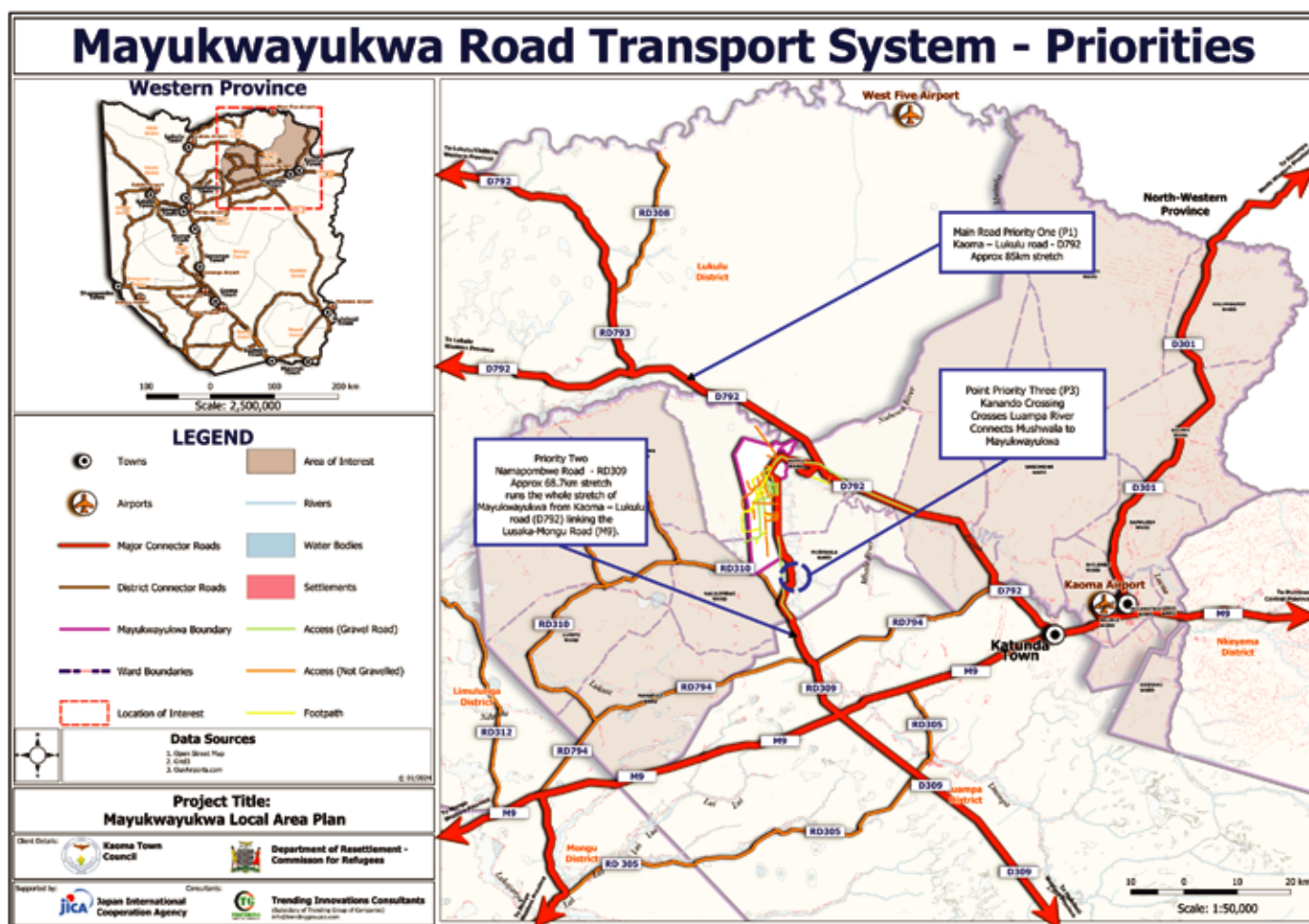
### 2.8.1 Road Transport and Connectivity

The Wider Mayukwayukwa has a network of main arterial, motorable and non – motorable roads which traverse the area in almost all the Zones connecting with other surrounding areas within Kapili, Mushwala and beyond. The main feeder road (RD309) also known as Namapombwe which branches off the Lukulu – Kaoma district road (D792) covers 7km adjacent to Luena river and after crossing the river, runs parallel to the Luampa river for a distance of about 34km southwards until Mushwala Primary School junction. The road covers a further 21.4km before joining the main (M9) road enroute to Mongu. This road is one of the strategic and shorter routes from Mayukwayukwa to the Mongu market and beyond. However, only about 16km of the total 61km road length is in a fair condition (gravelled) while the rest of the stretch is in deplorable state. The other motorable route include the feeder road (RD310) from Mushwala Ward connecting Luambuwa, Winda and Lukute Wards via Nalulembwe Ward which also feeds into RD794 from Namafulo Ward before joining M9; few kilometres into Mongu town. This road covers a stretch of about 77km from Mayukwayukwa to Mongu which is also critical to the connectivity of Wider Mayukwayukwa despite equally being in a poor condition.

Most of the roads in Mayukwayukwa are small and unpaved/not gravelled, some either been bush cleared but not paved while others have remained as footpaths and only earmarked for

opening. Notably, through government and other donor support, strategic roads linking all Zones from the Refugee area were paved improving the connectivity and accessibility of the scheme – though accessibility to and from outside the scheme continues to be a challenge. For instance, most of the areas in Mushwala and the eastern part of Kapili wards are not effectively linked to Mayukwayukwa and populations are cutoff from accessing services due to lack of crossing points and poor condition of roads. The situation is similarly dire in the refugee area where most of the roads are equally in poor condition.

Figure 2.7: Kaoma Regional Road Transport Network



The overall state of roads plays a critical role in the agriculture value chain, productivity, access to services and poverty reduction. Hence, strategies on improving both the road network and quality in the area will be one of the key ingredients towards modernising and transforming Mayukwayukwa and the surrounding communities into a viable and productive agri – business hub. This will also enhance productivity as it will improve access to markets among most farmers (both Zambians and former refugees) and other services.

Based on the stakeholder consultations, the Kaoma – Lukulu and Namapombwe Roads were identified as key strategic routes critical in transforming Wider Mayukwayukwa into an agri –

business hub as well as enhancing access to services both within and outside Mayukwayukwa and ensure the refugee and scheme areas are modernised and effectively integrated into the surrounding communities. The following is a summary of the identified routes:

### **Main Road Priority One (P1)**

The first priority road identified was the Kaoma – Lukulu road (D792). Although this road falls outside the scope of the Wider Mayukwayukwa LAP, it was justifiably prioritised as being the key to unlocking a number of opportunities and potentials in the Wider Mayukwayukwa if worked on. Currently, it takes an average of 2 to 3 hours (or 3 to 4 hours in rainy season) to cover an 85km stretch which should be covered within an hour – other things being equal and only ideal for 4x4 offroad vehicles. This has a huge negative implication on the ease of doing business in the area as well as linkages to the surrounding markets.

### **Namapombwe Road Priority Two (P2)**

The Namapombwe Feeder Road (RD309) which is about 68.7km runs the whole stretch of Mayukwayukwa from Kaoma – Lukulu road (D792) linking the Lusaka-Mongu Road (M9). This road is not only important to Mayukwayukwa but also provides a shorter route between Lukulu and Luampa, Mongu and Mulobezi positioning Mayukwayukwa as a strategic transit point which can provide all requisite services besides agriculture diversifying the economic activities of the area. Improving the state of this road would be a game changer in the transformation of Mayukwayukwa as an economic hub as well as improving the market of the local agriculture produce.

### **Kanando Crossing Point Priority Three (P3)**

The crossing point on the Luampa River is a strategic route which connects a number of communities in Mushwala to Mayukwayukwa joining from Zone 2, the nearest centre where a number of services such as primary school, clinic and market are found. This crossing point is critical particularly to learners who have to cross the Luampa river to access the school at Shibanga since there is no school on the eastern side of Luampa. Similarly, the nearest health services for communities around Kanando are on the western side of Luampa river and accessing these services becomes even more challenging during the rainy season as the area is sometimes cut off.

Many other local roads were identified though the above were some of the critical quick fixes in revamping the economic and social profile of Mayukwayukwa within the strategic planning period of the IDP and Wider Mayukwayukwa LAP.

### **Luena River Bridge – Priority Four (P4)**

The Luena River Bridge on the main 7km road from Kaoma – Lukulu Road is one of the strategic roads for ease of transportation of agricultural products and inputs to and from Mayukwayukwa. However, currently the bridge has a limited carrying capacity (load) of 6tons. This poses a challenge and increase transportation costs to farmers to ferry their products from inside Mayukwayukwa to the road.

## 2.9 Local Transport System

Motorised transportation is slowly evolving in Mayukwayukwa compared to few years ago. Small Sedan vehicles belonging to local owners are a common mode of transport between Mayukwayukwa and Kaoma – usually starting off from Mayukwayukwa in the morning and returning the same day in the evening. On average, about 3 cars ferry people to and from Kaoma every day. The next nearest organised station is located in Mangango which is about 37km from Mayukwayukwa. With this, travellers move from Mayukwayukwa to Mangango or using vans, sedan vehicles and sometimes buses which seldomly traverse along the Lukulu – Mongu road. Weekly bus services between Kaoma and Lusaka are also available on Saturday (arrival) and Monday (departure).

Motorbikes, bicycles and animal drawn carts are also available providing transport locally but used mostly at individual/household level than commercial and mainly during crop harvesting. The average cost of transport to and from Mayukwayukwa is higher compared to the cost in places of similar distances. For instance, it costs about ZMW2.4 per kilometer (ZMW170 and ZMW190) from Mayukwayukwa to Kaoma on a single trip compared to ZMW1.2 per kilometer (ZMW230 and ZMW250) from Kaoma to Mongu

## 2.10 Health Services in Mayukwayukwa

Assessment of health services in the Wider Mayukwayukwa was measured against the global and National Health Standards in Zambia under the Ministry of Health (MoH). Indicators used aimed at measuring access, quality and efficiency in the provision of health care services in Zambia and these were used as a standard to compare service levels in the sector. The Table below outlines some of the key parameters used as guided by the MoH;

**Table 2.2: Parameters of Health Standards in Zambia**

| Service Parameters    | Standard                           | Indicator(s)                                                | Status in Mayukwayukwa |
|-----------------------|------------------------------------|-------------------------------------------------------------|------------------------|
| Coverage              | 5km Radius                         | Distance                                                    | Fair                   |
| Level of facility     | Health Post                        | 500 HH/3, 500 People                                        | Fair                   |
|                       | Rural Health Centre                | 10, 000 People                                              | Fair                   |
| Personnel at Facility | Health Post                        | Midwives, Nurses, EHT, PHN, CHA                             | Poor                   |
|                       | Rural Health Centre                | Clinical Officer, Midwife, Nurse, EHT, PHN                  | Poor                   |
|                       | Urban Health Centre                | Medical Doctor, Pharmacy, Lab, EHT, Midwife, Nurse, PHN etc | Not applicable         |
| Quality of Service    | Service Provider:<br>Patient Ratio | 1 Doctor: 5, 000<br>1 Nurse: 700                            | Bad<br>Poor            |

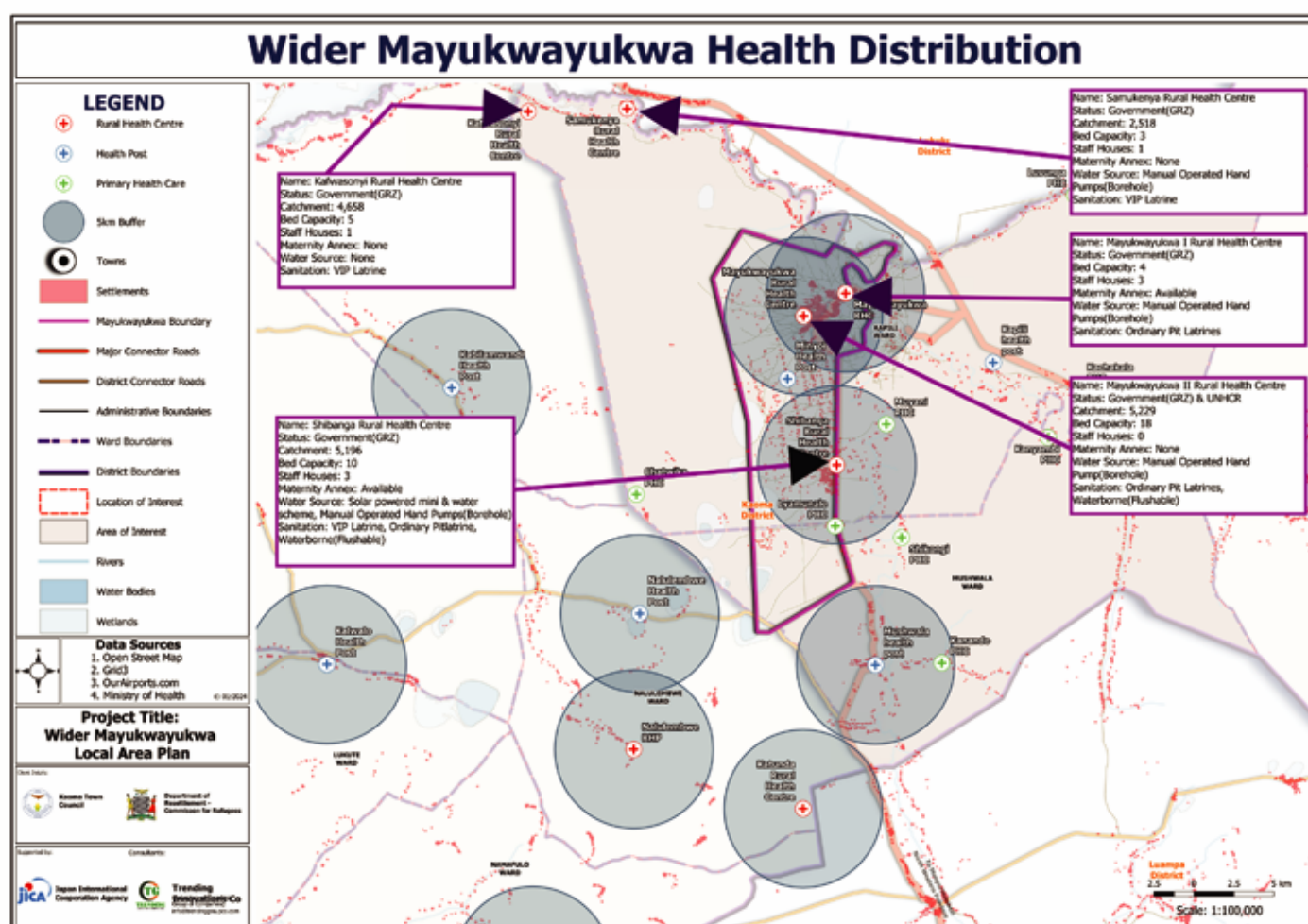
**Source:** MoH, National Health Strategic Plan – 2022 – 2026, 2022

There are 9 health facilities spread across the whole of Kapili and Mushwala wards of which 4 are located in Mayukwayukwa. All health facilities are government run under the Ministry of Health though Mayukwayukwa II is supplemented by UNHCR in terms of supply of drugs and other supplies. These facilities have the following key characteristics:

### 2.10.1 Spatial Coverage of Health Facilities

The distribution and coverage of health facilities in the area follow the settlement pattern concentrating along areas with higher population of people. Most of the population is covered within the 5km radius with a smaller population falling within the 10km coverage radius except for areas around Kanando and Shikongi on the eastern side of the Luampa river, Kanyambi and Muyani on the southern side of Luena river and Kasheke and Mushilu area on the extreme north of Kapili ward along the Nabowa river and around Namishakasha on the western side of Kapili ward. Also, a number of settlements along the Mbale river in Mushwala ward fall outside the coverage of health facilities.

Figure 2.8: Distribution of Health Facilities in Wider Mayukwayukwa



Notably, access to these facilities is a challenge among populations settled on the opposite sides of water bodies such as Luampa, Luena and Kanando due to lack of crossing points which gets compounded during rainy season as well as poor road networks.

## 2.10.2 Facility Classification and Personnel

Based on the Ministry of Health standards, Mayukwayukwa has 6 Rural Health Centres (RHC), 3 Health Posts (HP) and 10 Primary Health Care Centres (PHC) spread across Mayukwayukwa and surrounding areas. With these classifications, health Centres should have a minimum of one Clinical Officer (CO) supported by a qualified Midwife, Environmental Health Technologists (EHT), Pharmacists and Public Health Nurse (PHN) besides other support staff (See Table 4 for Parameters of Classification).

**Table 2.3: Distribution of Health Facilities and Personnel in Kapili and Mushwala**

| No. | Facility        | Level | Clinical Officer | Mid wife | Nurses   | EHT/<br>PHO | CHA      | Others | Total Staff |
|-----|-----------------|-------|------------------|----------|----------|-------------|----------|--------|-------------|
| 1   | Shibanga        | RHC   | 1                | 0        | 1        | 1           | 1        | -      | 4           |
| 2   | Mayukwayukwa I  | RHC   | 1                | 0        | 1        | 1           | 0        | -      | 3           |
| 3   | Mayukwayukwa II | RHC   | 1                | 1        | 1        | 1           | 0        | -      | 4           |
| 4   | Samukena        | RHC   | 0                | 0        | 0        | 0           | 1        | -      | 1           |
| 5   | Kafwansoyi      | RHC   | 1                | 0        | 0        | 0           | 1        | -      | 2           |
| 6   | Winda           | RHC   |                  |          |          |             |          |        |             |
| 7   | Minyoi          | HP    | 0                | 0        | 2        | 0           | 0        | -      | 2           |
| 8   | Mushwala        | HP    | 0                | 0        | 1        | 0           | 1        | -      | 2           |
| 9   | Kapili          | HP    | 0                | 0        | 1        | 0           | 0        | -      | 1           |
|     | <b>Total</b>    |       | <b>4</b>         | <b>1</b> | <b>7</b> | <b>3</b>    | <b>4</b> |        | <b>19</b>   |

Source: Kapili and Mushwala Health Survey, 2024

**Table 2.4: List of Primary Health Centres**

| No | Name of Centre | Category |
|----|----------------|----------|
| 1  | Lyamunale      | PHC      |
| 2  | Chatwika       | PHC      |
| 3  | Kanando        | PHC      |
| 4  | Shikongi       | PHC      |
| 5  | Muyani         | PHC      |
| 6  | Luvunga        | PHC      |
| 7  | Kachakala      | PHC      |
| 8  | Kanyambi       | PHC      |
| 9  | Shinandemene   | PHC      |
| 10 | Kafubu         | PHC      |

Notably, in terms of personnel, most of the health facilities in both Kapili and Mushwala – with the exception of Samukena – have at least a Clinical Officer, a nurse and an EHT. Samukena and Kafwasonyi are the least staffed with only a CO and Community Health Assistant. The overall major gap lies in the number of qualified Midwives with only one at Mayukwayukwa II health facility. The nurse-to-patient ratio averaging 1 to 3, 003 is also beyond the minimum national threshold of 1 to 700<sup>15</sup>. Lack of personnel in community public health for instance compounds the spread of common but preventable diseases such as malaria and diarrhoea which can be managed at household and community level. As a result, the quality of health services is further compromised as the few available staff are overwhelmed treating preventable cases which are usually reported to the facilities.

### 2.10.3 Health Services Provided

Despite all the facilities providing promotive and preventive services as well as limited diagnostic, curative and maternal services, none of the Clinics have a dedicated Maternity Annex which is adequately equipped. Maternal services are usually provided by the medical personnel in charge of the facility while cases requiring specialised attention are referred to Mangango or Kaoma General Hospital. None of the clinics also provide mortuary services, the nearest being Mangango Mission Hospital which is about 25km from Mayukwayukwa. Lack of standard maternal services with inadequate qualified staff in all facilities in Kapili and Mushwala is one of the biggest gaps in the governments quest to reduce maternal mortality by 170 percent by 2026<sup>16</sup>.



15. (MoH, National Health Strategic Plan – 2022 – 2026, 2022)

16. (MoH, National Health Strategic Plan – 2022 – 2026, 2022) The national target is to reduce maternal deaths from 278 in 2022 to less than 100/100, 000 live births



#### **2.10.4 Ambulance Services**

Facilities in both Wards are serviced by one Ambulance stationed on standby at Mayukwayukwa II Clinic in the Refugee area which provides emergency response services to any of the surrounding health facilities in Mayukwayukwa and beyond as and when called upon.

#### **2.10.5 Energy Sources**

All facilities have no reliable power sources for consistent lighting and powering of appliances and other medical equipment. Some clinics use solar powered energy though the capacity is not adequate and the cost of maintenance is relatively high. This poses a challenge in the quest to provide quality health services to majority of the population in the far-flung areas especially during the night.

#### **2.10.6 Water and Sanitation**

Mushwala, Shibanga, and Minyoi Clinics have solar powered mini – water schemes (boreholes through elevated water tanks). The rest of the facilities depend on boreholes with manually operated handpumps. Similarly, facilities with water schemes also use waterborne sanitation facilities and onsite sewer treatment (septic tanks), while the rest of the facilities use Ventilated Improved Pit Latrines (VIPs). Government and other cooperating partners have put in efforts to

improve the water and sanitation situation in these public institutions although there is still need to ensure all health facilities are equipped with waterborne sanitation facilities and improved water supply systems. Lack of drinking water or availability of safe sanitation facilities in hospitals and clinics compromise delivery of quality health services – discouraging women from giving birth in facilities and contribute to delays in seeking care and contribute to staff absenteeism<sup>17</sup>.



Solar Powered Water Facility at Minyoi Clinic, 2024

### 2.10.7 Staff Accommodation

Based on the data collected, there are currently 12 staff houses against 19 health personnel in all government facilities in both wards leaving a deficit of 7. Lack of staff accommodation is dire in institutions such as Mayukwayukwa II Clinic where there are no staff houses but have more personnel. Although the immediate need for staff accommodation is 8, the overall long-term deficit in housing accommodation is 29 if the Wider Mayukwayukwa is to meet the minimum health standards and be able to provide quality health services to the people now and in the planning period. The demand for health services is likely to increase with increase in population demanding for deployment of more qualified personnel in the health facilities.

17. (MoH, 2018)

**Table 2.5: Availability of Staff Accommodation in Health Facilities**

| No. | Facility        | Minimum Staff Housing Required <sup>17</sup> | Available Staff Houses | Surplus/ Deficit (Required – Available) | Available Staff | Deficit/ Surplus (Available – Occupied) |
|-----|-----------------|----------------------------------------------|------------------------|-----------------------------------------|-----------------|-----------------------------------------|
| 1   | Minyoi          | 5                                            | 1                      | 5                                       | 2               | -1                                      |
| 2   | Mayukwayukwa I  | 5                                            | 3                      | 2                                       | 3               | 0                                       |
| 3   | Mayukwayukwa II | 5                                            | 0                      | 5                                       | 4               | -4                                      |
| 4   | Shibanga        | 5                                            | 3                      | 2                                       | 3               | 0                                       |
| 5   | Mushwala        | 5                                            | 2                      | 3                                       | 3               | -1                                      |
| 6   | Kapili          | 5                                            | 1                      | 4                                       | 1               | 0                                       |
| 7   | Kafwansoyi      | 5                                            | 1                      | 4                                       | 2               | -1                                      |
| 8   | Samukena        | 5                                            | 1                      | 4                                       | 1               | 0                                       |
| 9   | Winda           |                                              |                        |                                         |                 |                                         |
|     | <b>Total</b>    | <b>40</b>                                    | <b>12</b>              | <b>28</b>                               | <b>19</b>       | <b>-7</b>                               |

Source: Kaoma District Health Office, 2023

## 2.10.8 Disease Prevalence

According to the survey conducted, malaria is the common disease in Mayukwayukwa and surrounding areas followed by non-bloody diarrhoea and then other respiratory infections. The high malaria prevalence is largely attributed to the physical and hydrological characteristics of the area having a number of water bodies and marshy areas which provide good breeding areas for mosquitoes. At household level, managing and controlling the spread of malaria becomes a challenge due to the type of housing infrastructure most of which is temporal – and a number of structures are poorly ventilated with no windows or properly secured doors or ceilings to keep away mosquitoes while most families do not sleep under treated mosquito nets. This coupled with poor household hygiene practices such as cleaning of surroundings compound the spread of malaria. As a result, medical facilities are overwhelmed as the focus is more on treatment than prevention of the disease.

Non – bloody diarrhoea was reported as the second common disease in Kapili and Mushwala equally influenced by poor sanitation and hygiene practices especially at household level. Despite a number of households accessing water from boreholes drilled in the area, the overall hygiene practices contribute to the scourge. Sanitation facilities are equally generally poor – characterised by unsecured shallow pit latrines, most of them constructed near homesteads which increases chances of contamination of water and food. Poor personal hand wash hygiene and general cleanliness makes the management of diarrhoea diseases complex. Notably, the prevalence of these diseases is also attributed to the gaps in the health personnel in all facilities such as Public Health Nurses and EHTs who should directly work with communities in providing preventive health care services.

During public consultation, communities identified health services as a priority with needs being around access to facilities justified by the poor quality of roads, inadequacy of qualified health personnel, and limited services each facility is able to provide. For instance, despite ambulance services being available in all facilities, the time it takes responding to an emergency is usually

18. If all RHC have all critical positions filled according to the MoH standards

delayed by the poor road condition and mobile connectivity. The condition of the patient may deteriorate due to the rough terrain of most roads. Concerns around inadequate qualified personnel was also justified considering that only one facility has a trained Midwife and no facility had a fully-fledged establishment of personnel as provided by the national health standards. Lack of drugs, requisite tools and equipment compounded by lack of electricity also affects the overall quality of healthcare services. Supply of alternative energy is equally not adequate to consistently sustain energy demands in health facilities.

Based on the findings, gaps in the provision of quality health services in Kapili and Mushwala is dependent on the following identified issues as complementary services which are not directly within the mandate of the sector but plays a major role in the ultimate provision of the services;

- I. Road Infrastructure
- II. Staff accommodation
- III. Water and Sanitation
- IV. Electricity
- V. Crossing Points

## 2.11 Education Services

The Wider Mayukwayukwa has 27 education facilities, 11 of which are government facilities and the rest still classified as community establishments. Seven out of the total facilities are located in Mayukwayukwa refugee area and resettlement scheme. The 27 facilities constitute 2 Secondary, 4 Basic and 21 Primary schools (See Table below). Five of the 6 community schools are located outside Mayukwayukwa demonstrating the demand for education services in the wider Mayukwayukwa. There are currently no tertiary institutions in the whole area.

**Table 2.6: Distribution of Education Facilities in Wider Mayukwayukwa**

| Level     | Total | GRZ | NGO/Private | Community |
|-----------|-------|-----|-------------|-----------|
| ECE       | 2*    | 9   | 2           | 0         |
| Primary   | 25    | 8   | 0           | 17        |
| Secondary | 2     | 2   | 0           | 0         |
| Tertiary  | 0     | 0   | 0           | 0         |
| Total     | 27    | 11  | 2           | 17        |

Source: Field Data Capture, 2024

### 2.11.1 Secondary School Spatial Distribution

The Wider Mayukwayukwa has two Secondary Schools (1 Boarding and 1 Day) located in the Refugee Settlement servicing the whole population in Mayukwayukwa and surrounding areas. The inadequacy of secondary education facilities in the area was high showing that more than 65 percent of the total population live outside the 10km of the school coverage radius to access the only Day Secondary school. These either have to walk/cycle covering an average of 20km to access secondary school education or get into weekly boarding arrangements.

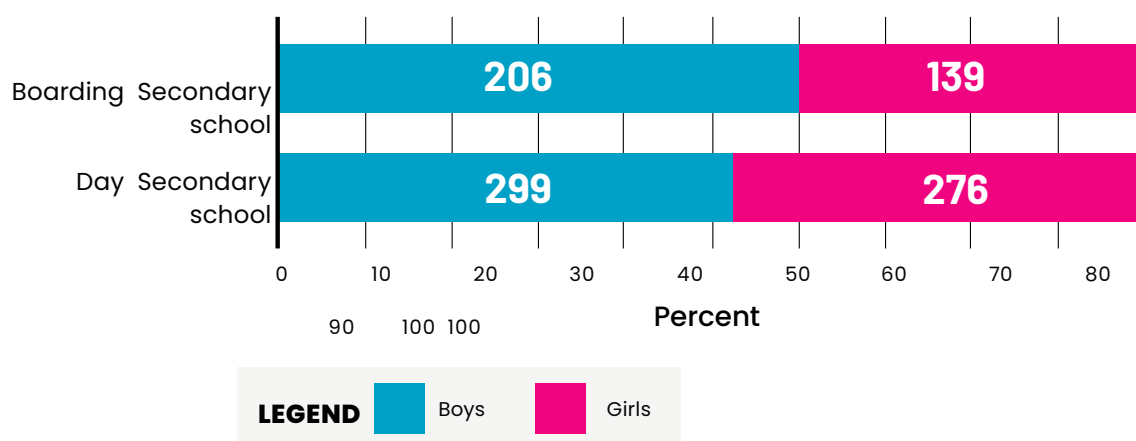
Despite the free education policy and mandatory requirement that all learners in boarding schools should be in boarding, some learners drop out completely as some of the parents fail to provide for their basic supplies due to lack of stable sources of income. There are also reports that some parents discourage children from getting into boarding school as they are expected to supplement household labour (chores), income generation and preparing them for marriages. This has negatively affected the progression rates among learners in Mayukwayukwa and surrounding areas especially the girl child. Some of the learners in private boarding facilities (weekly boarding) are equally vulnerable as they are exposed to negative vices such as drug abuse and sexual activities leading to early and unwanted pregnancies among the girl children.

### 2.11.2 Learner Enrollment

As at 2024 academic year, Mayukwayukwa Day Secondary School had a pupil enrolment of about 575 learners with gender parity having slightly more boys (52 percent) than girls (48 percent) while Mayukwayukwa Boarding Secondary School had a total of 345 learners out of which 59.7 percent were male and 40.3 percent were girls. By implication, the 2 schools had a total of 920 girls and boys out of the secondary school eligible population attending secondary school education. Overall, the ratio between female and male learners was higher in Day Secondary School than Boarding justifying some of the assertions made in the previous Section about factors hindering female learners to access high level school education. It also showed that female learners were more likely to attend Day Secondary Schools than boarding.

According to the available data, only 8 learners (i.e. 1 female and 7 males) passed the grade 9 progression examination to grade 10 at the Day school and 21 learners (9 females and 12 males) at the Boarding school. Poor performance was attributed to a number of factors among them being inadequate teaching facilities, staffing and social factors.

**Figure 2.9: Secondary School Enrolment in Mayukwayukwa**



### 2.11.3 Adequacy of Facilities

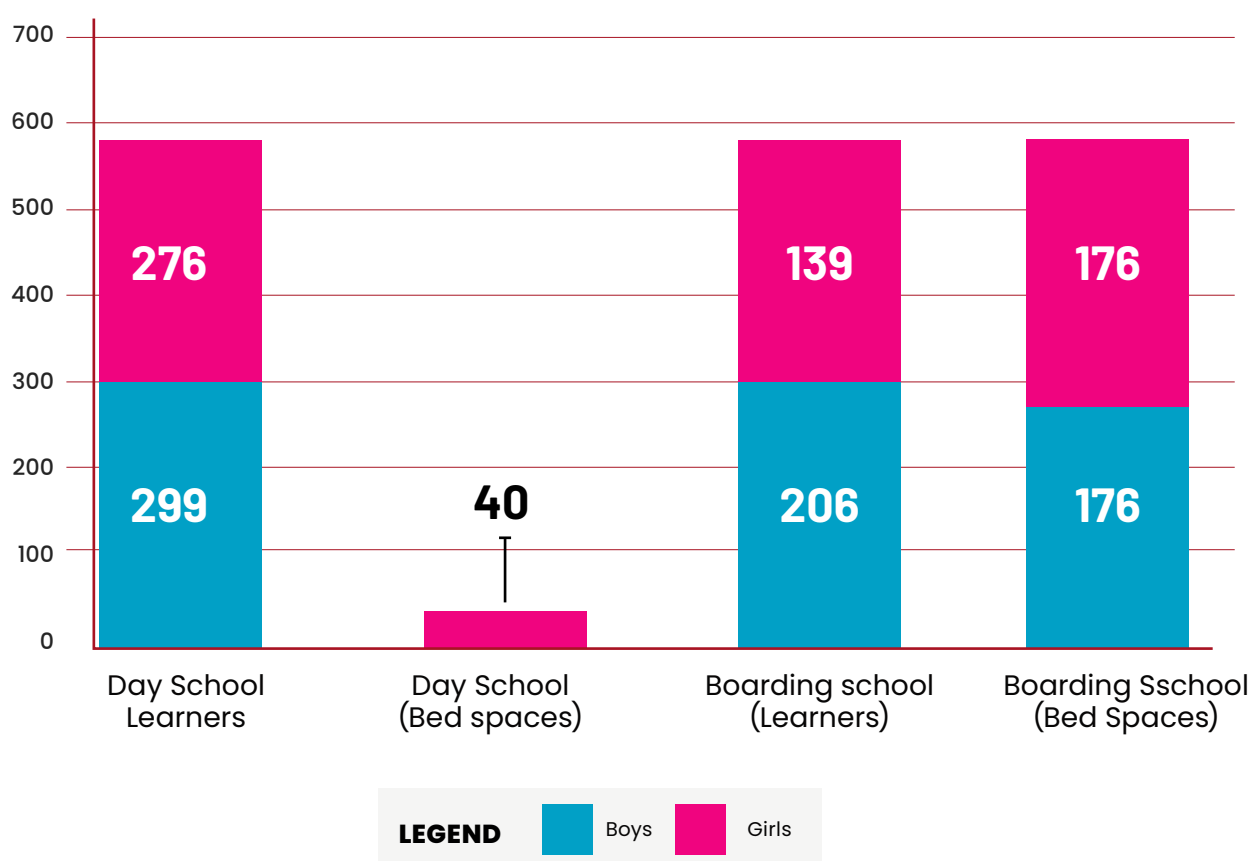
There are lot of inadequacies of facilities at the secondary school which ultimately affect the quality of education. The school falls below the minimum standards<sup>19</sup> in terms of classrooms, furniture and housing. For instance, based on the current learner population, Mayukwayukwa Secondary School needs about 12 more classrooms (4 by 1x3CRB), 7 staff houses, and a science laboratory in order to meet the minimum education service standards.

19. (MoGE, 2020)

### 2.11.4 Boarding Facilities

Both Mayukwayukwa Day and Boarding Secondary Schools provide accommodation facilities for learners though at the day school such facilities are currently only catering for girls with the bed capacity of 40 spaces which is not even adequate to meet the current learner demand. On the other hand, Mayukwayukwa Boarding Secondary has a bed capacity of 352 against a learner population of 345 with a surplus of 7 bed spaces. However, the distribution of bed spaces at each school shows that a boy child is more disadvantaged than a girl child when they are both vulnerable during this adolescent to teenage development stages. For instance, while lodging facilities are provided at the day School which cater for girls only, boys fend for themselves and sometimes start getting exposure to social vices at an early stage. The trend is similar at the Boarding Secondary School where female learners are well catered for (139 learners/176 bedspaces) compared to boys (206 learners/176 bedspaces) whose boarding facilities are in deficit.

Figure 2.10: Learners and Bed Spaces per School



Overall, the lack of adequate and even distribution of secondary schools in Mayukwayukwa puts pressure on the existing facilities and also affect the progression of most learners due to challenges in access to quality education services.

### 2.11.5 Availability of Classrooms

The status on the number of classrooms shows that the service gap was more at the Day school which had an average of 96 learners per class compared to Mayukwayukwa Boarding School which was around 43 learners per class – only slightly above the service standard. However, the actual learner distribution per class varied across grades.

**Table 2.7: Number of Classroom Blocks per School**

| School                     | Total Learners | No. of Classrooms                        |           |                         | Current Use |
|----------------------------|----------------|------------------------------------------|-----------|-------------------------|-------------|
|                            |                | Service Standard<br>(35 learners/ Class) | Available | Service Gap<br>(Needed) |             |
| Mayukwayukwa Day Secondary | 575            | 16                                       | 6         | 10                      | 96          |
| Mayukwayukwa Boarding Sec. | 345            | 9                                        | 8         | 1                       | 43          |
|                            |                |                                          |           |                         |             |
| Total                      | 920            | 25                                       | 14        | 11                      | 66          |

### 2.11.6 Availability of Desks

Similarly, in terms of desks, the gap was higher at Mayukwayukwa Day Secondary which only had 60 desks against the learner population of around 575 – with the estimated use of around 9 learners against each desk. On the other hand, Mayukwayukwa Boarding had a total of 148 desks against a learner population of 345 with an average of 2.3 users per desk. By implication, Mayukwayukwa Boarding Secondary was fair while the situation at the day school was dire, as learners depended on few available desks and risked others sitting on the floor which is against the government policy directive to ensure no learner was sitting on the floor by the end of 2023.

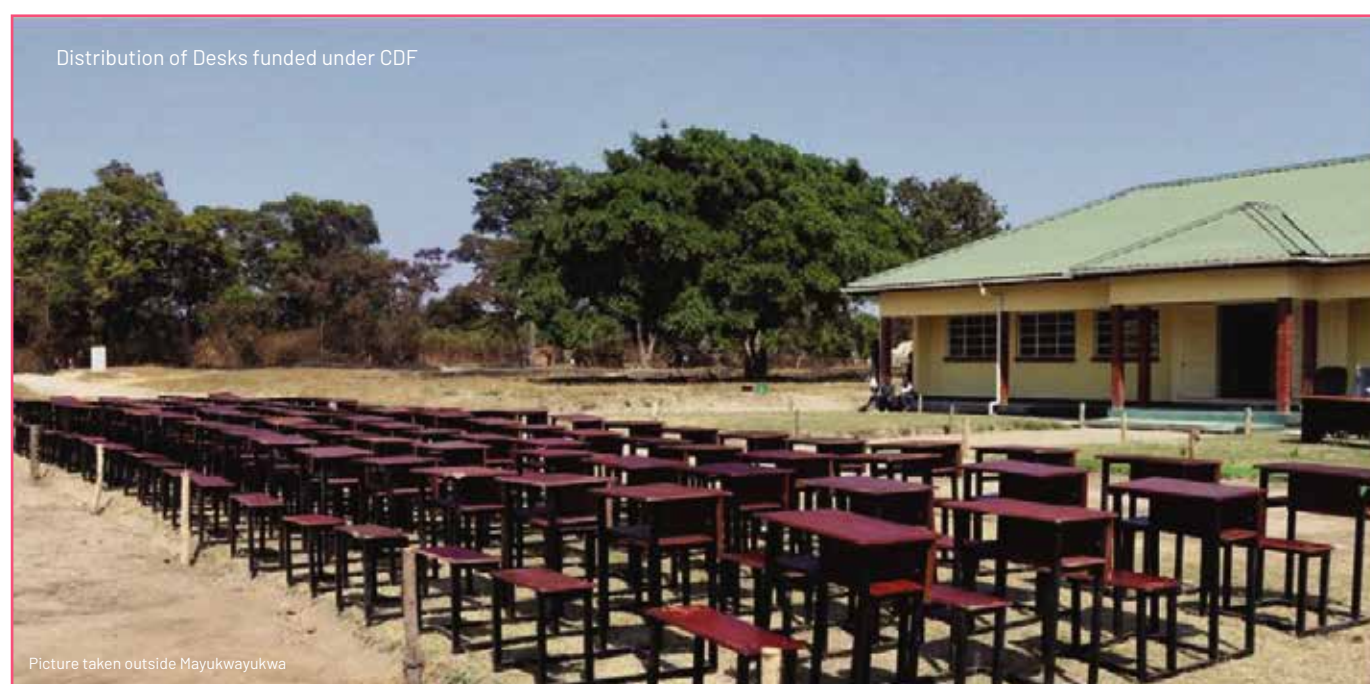


Table 2.8: Number of Desks per Secondary School

| School Description         | Total Learners | No. of Desks                           |           |                         | Current Use |
|----------------------------|----------------|----------------------------------------|-----------|-------------------------|-------------|
|                            |                | Service Standard<br>(2 learners /Desk) | Available | Service Gap<br>(Needed) |             |
| Mayukwayukwa Day Secondary | 575            | 287                                    | 60        | 227                     | 9           |
| Mayukwayukwa Boarding Sec. | 345            | 172                                    | 148       | 24                      | 2.3         |
|                            |                |                                        |           |                         |             |
| Total                      | 920            | 459                                    | 208       | 251                     | 5.7         |

### 2.11.7 Availability of Water and Sanitation Facilities

Water and Sanitation facilities at both schools are fairly adequate with the construction of water and sanitation facilities by World Vision and UNICEF. Mayukwayukwa Boarding School has a Water Scheme powered by a diesel-powered generator while there are boreholes at the day school. However, despite the sanitation intervention from partners, the overall sanitation standards at the Day school are still below the prescribed school WASH service standards of 25 boys or 20 girls per latrine which now stands at an average of 48 users per facility. In its current state, this poses a health risk to learners as it would compromise on their health and hygiene, increase possibility of contamination of water and easy transmission of diseases



One of the Sanitation Facilities at Jacob Mphepo School, 2024

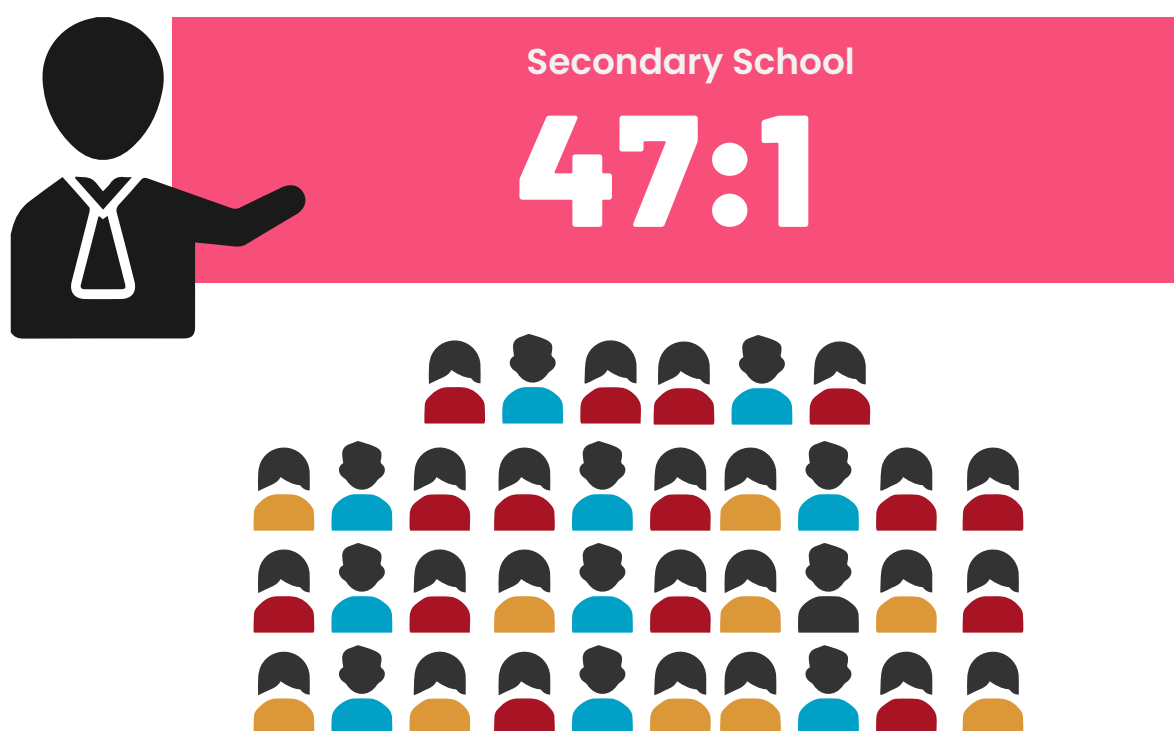
**Table 2.9: Availability of Sanitation Facilities in Schools in Wider Mayukwayukwa**

| Description of School | Total Learners | No. of VIP Latrines                |           |                         | Ablution Blocks |                         |             |
|-----------------------|----------------|------------------------------------|-----------|-------------------------|-----------------|-------------------------|-------------|
|                       |                | Standard<br>(1:25 Boys 1:20 Girls) | Available | Service Gap<br>(Needed) | Available       | Service Gap<br>(Needed) | Current Use |
| Mayukwayukwa Day      | 575            | 11 – Boys<br>13 – Girls            | 12        | 13                      | 2               | 4                       | 71          |
| Mayukwayukwa Boarding | 345            | 6 – Boys<br>8 – Girls              | 24        | 0                       | 6               | 1                       | 43          |
|                       |                |                                    |           |                         |                 |                         |             |
| <b>Total</b>          | <b>920</b>     |                                    | <b>36</b> | <b>13</b>               | <b>8</b>        | <b>5</b>                | <b>57</b>   |

Based on the existing service gap, there is need to invest in more sustainable water and sanitation options which address both the current and future water and sanitation needs in the school besides Pit Latrines which may not be the ideal sustainable solution to this service demand as it would create attendant negative repercussions such as underground water contamination.

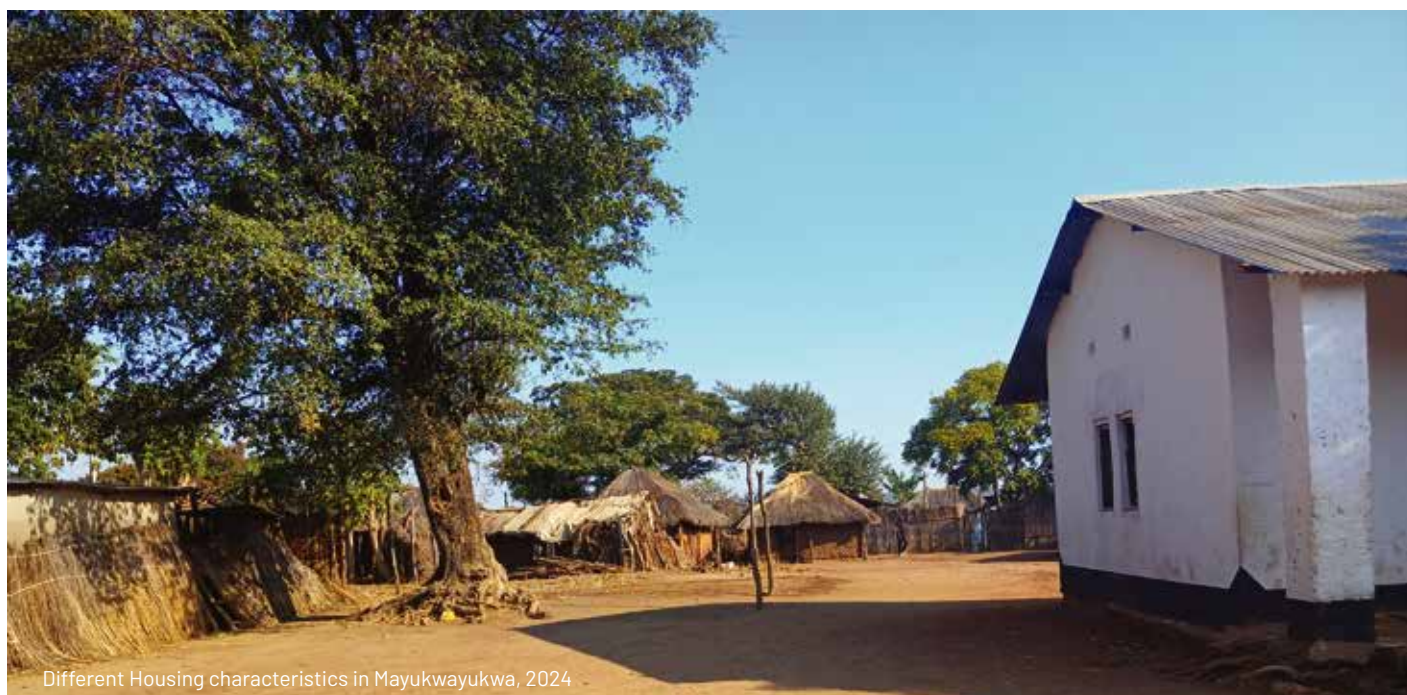
### 2.11.8 Pupil Teacher Ratio

The distribution of teachers revealed that Mayukwayukwa Day Secondary School had a minimal deficit of personnel with about 12 teachers against a learner population of 575 averaging 47 learners per teacher while Mayukwayukwa Boarding Secondary School even had a surplus averaging 14 learners per teacher. However, the deficit was reported considering that the distribution of teachers was uneven lacking in certain commercial and special education related subjects compared to other subjects. Poor teacher distribution and pupil – teacher ratio has an overall negative effect on the learning experience of learners especially that the population in the area is diverse with learners of different social and cultural backgrounds.



### 2.11.9 Availability of Staff Houses

Mayukwayukwa Day Secondary School has a huge staff accommodation gap requiring 10 staff houses to cater for the current staff house demand while the deficit for Mayukwayukwa Boarding School stands at 4.



Different Housing characteristics in Mayukwayukwa, 2024

**Table 2.10: Number of Staff Houses per School**

| Description of School      | Total Teachers | No. of Staff Houses    |           |                      |
|----------------------------|----------------|------------------------|-----------|----------------------|
|                            |                | Service Standard (1:1) | Available | Service Gap (Needed) |
| Mayukwayukwa Day Secondary | 12             | 12                     | 2         | 10                   |
| Mayukwayukwa Boarding Sec. | 24             | 24                     | 20        | 04                   |
|                            |                |                        |           |                      |
| <b>Total</b>               | <b>36</b>      | <b>36</b>              | <b>22</b> | <b>14</b>            |

While housing allowances are provided for employees not accommodated, finding decent housing for rent within Mayukwayukwa is a challenge since the area has historically been managed as a refugee transit area with no permanent plans or land reservations for modern/standard residential development. As a result, some of the teachers settle in poor condition houses which are not electrified and lack conducive basic water and sanitation facilities.

### **2.11.10 Primary and Early Childhood Education**

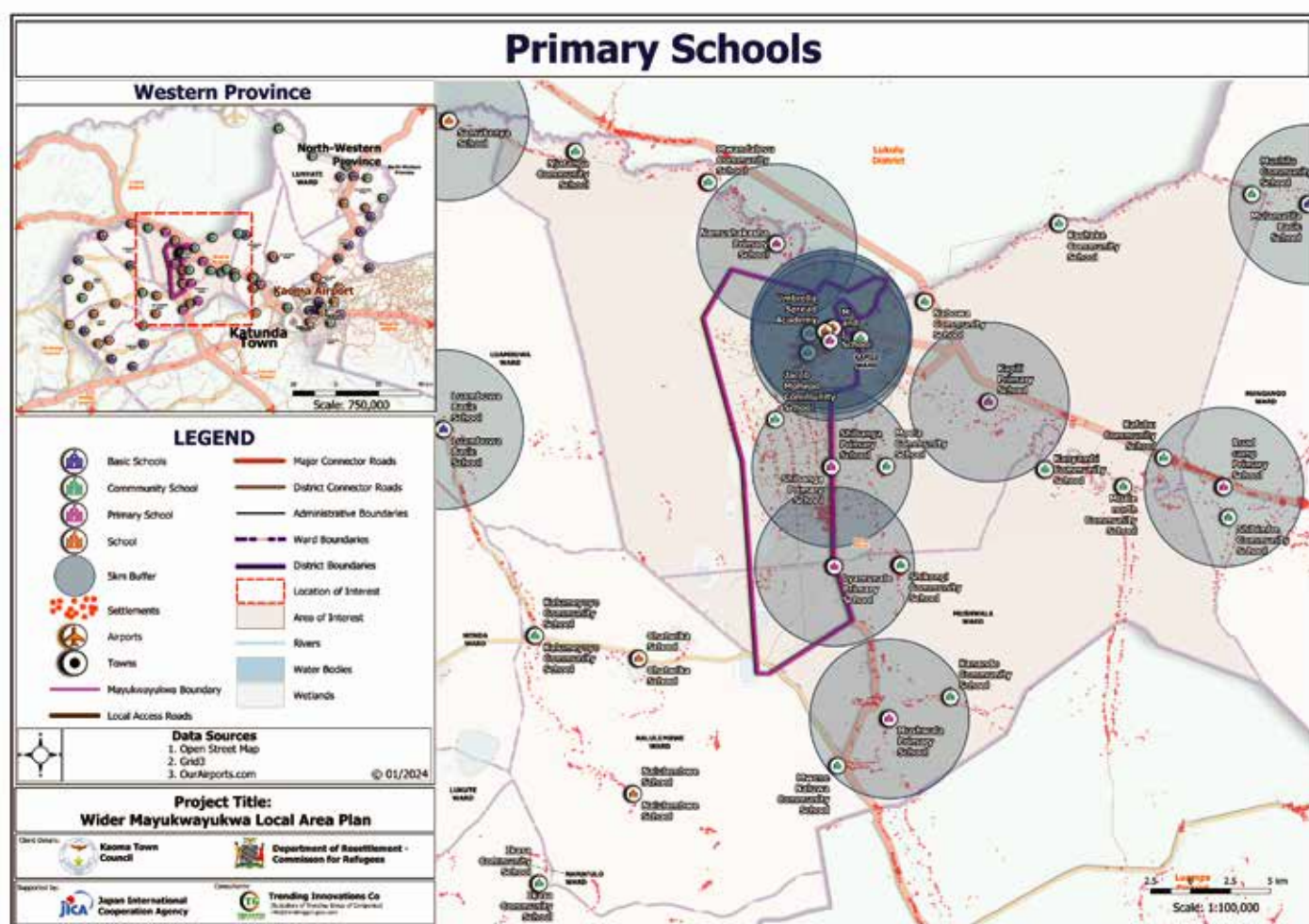


Early Childhood Education Services available in Mayukwayukwa, 2024.

### **2.11.11 Spatial Distribution**

The Wider Mayukwayukwa has 25 basic and primary education facilities – majority of which are community schools with only 8 gazetted government schools. Four out of the 8 government schools are located in Mayukwayukwa while the remaining 4 are outside the refugee and resettlement scheme. Early Childhood Education is equally a challenge both within and outside Mayukwayukwa due to limited schools and facilities to meet the service standards. The distribution of primary schools in Mayukwayukwa follows the human settlement pattern concentrating around densely populated areas particularly on the eastern side of Kapili and Mushwala wards with higher human settlements.

Figure 2.11: Distribution of Education Facilities in Wider Mayukwayukwa

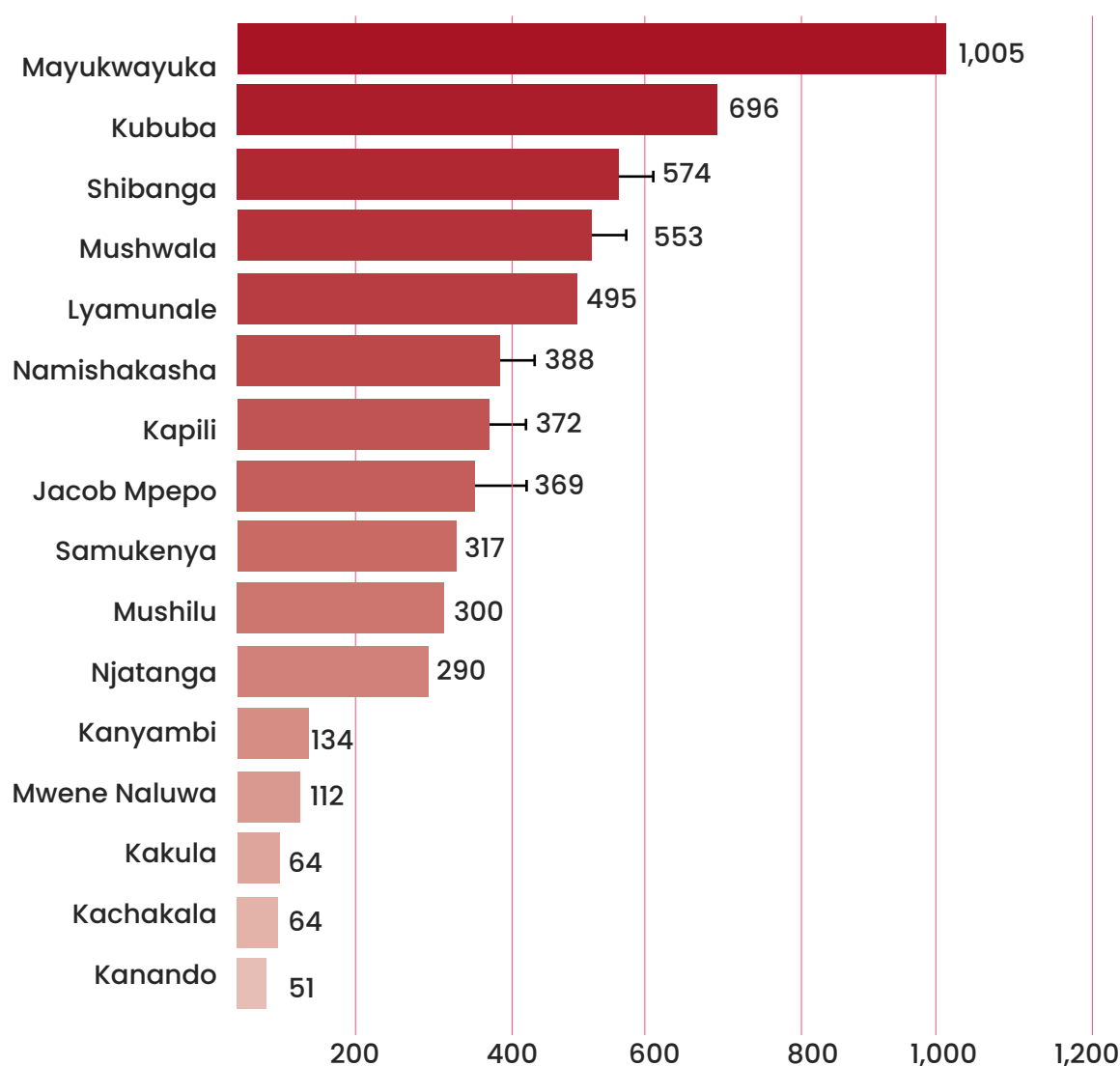


As a result, majority of the population falls within 5km radius of each school although most of them being community schools. Few areas not covered include settlements between Masheke and Mushili and Namishakasha and Njatanga on the northeastern and western sides of Kapili ward respectively. Settlements around Mbale area (stream) is also not fully catered for falling outside the 5km radius for both government and community schools. Poor road infrastructure and lack of crossing points in strategic locations such as Kanando, Kayambi and Kafubu East also limit the possibility of populations accessing education services on the other side of the water bodies especially during rainy season and vice versa exacerbating the challenge of learners' access to education services within the wider Mayukwayukwa.

### 2.11.12 Learner Enrolment

According to data from the 16 primary schools (including community schools), there were 4, 808 learners with Mayukwayukwa Primary School having the highest pupil enrolment of 1, 005 learners followed by Kububa Community School with 696 learners. Shibanga (574) and Lyamunale (495) schools had the next highest number of learners followed by Namishakasha; the only school out of the top 5 falling outside Mayukwayukwa which had 388 learners.

Figure 2.12: Learners Enrollment at Primary/Basic School



Female learners constituted about 54.1 percent of the overall learners in primary school compared to 45.9 percent recorded at secondary school level. The share of learner population demonstrates that there are as many females enrolled at lower grades who usually do not progress to higher level education due to some of the social, economic and cultural challenges earlier highlighted<sup>20</sup> – although elements in the learner population at primary level is not the same as that in secondary for progressive comparisons.

The distribution of learners in schools was also synonymous with the population density per Zone. Schools located in the refugee area, Shibanga and Lyamunale with predominantly higher population had an overall higher learner population than schools such as Kanando, Kakula and Kachakala among others whose population density was lower.

The number of learners also corresponded with the demographic characteristics of Mayukwayukwa and surrounding areas which showed that majority of the population was young – most of whom were born in Mayukwayukwa. This population characteristics augment the observation that the population for Mayukwayukwa is constantly growing and the demand for services is not influenced by the legal status of the population – hence the need for a holistic approach to addressing this development paradox.

20. Note that this is a crude comparison since elements in the learner population at primary level is not the same as those in secondary level though the pattern is the same

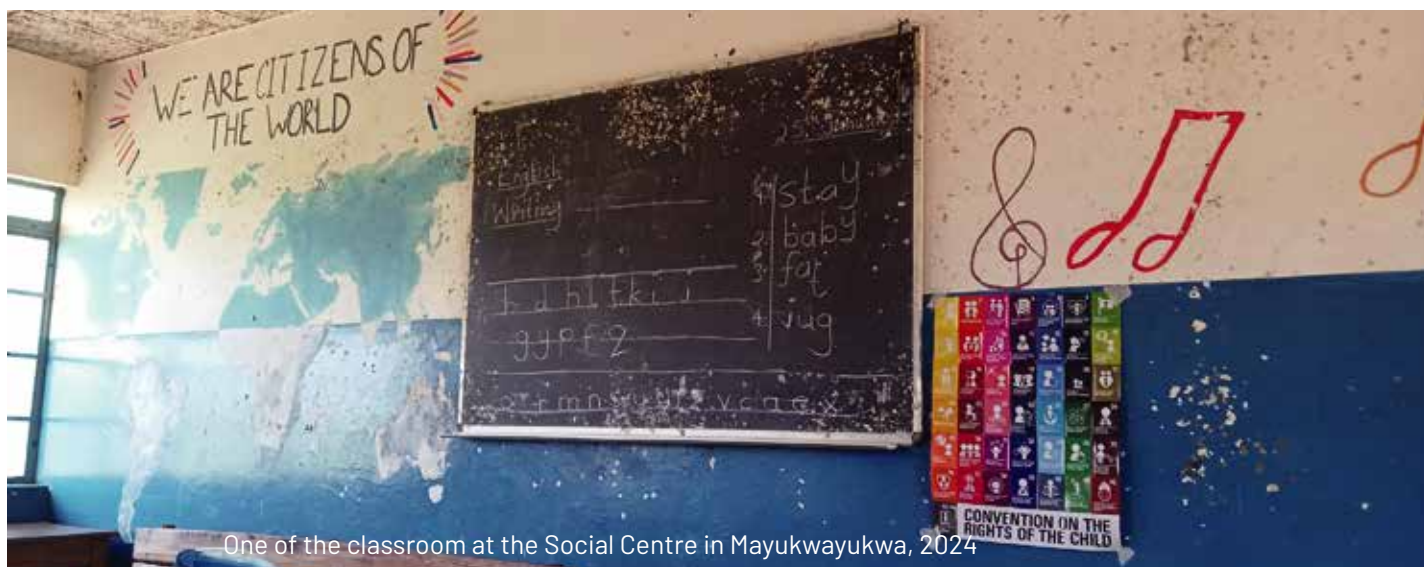
## Adequacy of Facilities

Primary schools in the whole of Wider Mayukwayukwa lack a number of basic but critical facilities which are a prerequisite for providing quality education for all and making the area attractive for settlement and investment. An assessment of classrooms per school, availability of desks, water and sanitation facilities and teachers among others revealed gaps which require short-, medium- and long-term interventions.

## Availability of Classrooms

Service gaps in the overall availability of classrooms at primary school level averaged 58 learners per class against the service standard of 40 learners per class. Schools within Mayukwayukwa were the most affected due to higher enrolments compared to surrounding schools – outside the scheme and refugee camp. The need for adequate learning spaces is key in the quality of education services.





One of the classroom at the Social Centre in Mayukwayukwa, 2024

**Table 2 .11: Distribution of Primary School Classrooms**

| Name of Facility     | Total Learners | Service Standard (1:40) | Classrooms Available | Deficit     |
|----------------------|----------------|-------------------------|----------------------|-------------|
| Mayukwayukwa         | 1,005          | 13                      | 4                    | - 9         |
| Kububa               | 696            | 9                       | 3                    | - 6         |
| Mushilu (Mwandalevu) | 300            | 4                       | 0                    | - 4         |
| Jacob Mpepo          | 369            | 5                       | 2                    | - 3         |
| Lyamunale            | 495            | 6                       | 4                    | - 2         |
| Samukenya            | 317            | 4                       | 2                    | - 2         |
| Njatanga             | 290            | 4                       | 2                    | - 2         |
| Mushwala             | 553            | 7                       | 5                    | - 2         |
| Kanando              | 51             | 1                       | 0                    | - 1         |
| Shibanga             | 574            | 7                       | 6                    | - 1         |
| Kapili               | 372            | 5                       | 4                    | - 1         |
| Mwene Naluwa         | 112            | 1                       | 1                    | - 0         |
| Kanyambi             | 134            | 2                       | 2                    |             |
| Namishakasha         | 388            | 5                       | 5                    |             |
| Kachakala            | 64             | 1                       | 2                    |             |
| Kakula               | 64             | 1                       | 2                    |             |
| <b>Total</b>         | <b>5,784</b>   | <b>75</b>               | <b>44</b>            | <b>- 33</b> |

## Availability of Desks

Most of the schools had a challenge with adequacy of desks. Like is the case with other services, schools in densely populated areas such as the refugee area were more affected as well as community schools. The overall deficit for desks was around 488 spread across schools as

shown in Table below.

**Table 2.12: Primary School Distribution of Desks**

| Name of Facility     | Total Learners | Standard     | AvailableDesks | Deficit      |
|----------------------|----------------|--------------|----------------|--------------|
| Mushwala             | 553            | 138          | 19             | - 119        |
| Kububa               | 696            | 174          | 98             | - 76         |
| Jacob Mpepo          | 369            | 92           | 23             | - 69         |
| Mushilu (Mwandalevu) | 300            | 75           | 15             | - 60         |
| Samukenya            | 317            | 79           | 41             | - 38         |
| Mayukwayukwa         | 1,005          | 251          | 220            | - 31         |
| Kapili               | 372            | 93           | 65             | - 28         |
| Namishakasha         | 388            | 97           | 70             | - 27         |
| Kanando              | 51             | 13           | 0              | - 13         |
| Njatanga             | 290            | 73           | 60             | - 13         |
| Kanyambi             | 134            | 34           | 23             | - 11         |
| Shibanga             | 574            | 144          | 140            | - 4          |
| Lyamunale            | 495            | 124          | 125            | -            |
| Mwene Naluwa         | 112            | 28           | 45             | -            |
| Kachakala            | 64             | 16           | 50             | -            |
| Kakula               | 64             | 16           | 21             | -            |
| <b>Total</b>         | <b>5,784</b>   | <b>1,446</b> | <b>1,015</b>   | <b>- 488</b> |

## Availability of Water and Sanitation Facilities

The water and sanitation situation in primary schools was relatively poor with most of the schools lacking adequate sanitation facilities. The service level gap in sanitation facilities followed the learner enrolment capacity per school – bigger gap for schools with higher learner population. The overall deficit of sanitation facilities is estimated around 32 VIP Latrines that would be constructed if the gap has to be reduced. It was however recommended that modern waterborne facilities should be constructed to improve hygiene.

## Pupil Teacher Ratio

Teacher distribution in the Wider Mayukwayukwa also followed a similar pattern like most other services with more teachers in schools having higher learner population concentrated in the refugee area, Shibanga and Lyamunale besides Kapili. The general teacher – pupil distribution showed no serious gaps based on the assumption that each teacher managed at least a class. However, the actual inadequacy of teachers was higher considering that schools had different grades (between 1 – 7) which should otherwise run separate concurrent sessions. As a result, schools with limited teachers and classrooms combine grades into single classes to compensate for the deficit in teachers – and this compromise the quality of teaching, delivery methods, contact time for learners and content of materials which manifests in poor results for

the learners.

**Table 2.13: Primary School Teachers by School**

| Name of Facility     | Total Learners | Standard  | Total Teachers | Teachers Vol-unteers | Deficit  |
|----------------------|----------------|-----------|----------------|----------------------|----------|
| Mayukwayukwa         | 1,005          | 13        | 14             | 5                    | -1       |
| Kububa               | 696            | 9         | 8              | 4                    | 1        |
| Shibanga             | 574            | 7         | 7              | 0                    | 0        |
| Mushwala             | 553            | 7         | 9              | 5                    | -2       |
| Lyamunale            | 495            | 6         | 7              | 0                    | -1       |
| Namishakasha         | 388            | 5         | 4              | 0                    | 1        |
| Kapili               | 372            | 5         | 8              | 0                    | -3       |
| Jacob Mpepo          | 369            | 5         | 6              | 2                    | -1       |
| Samukenya            | 317            | 4         | 4              | 0                    | 0        |
| Mushilu (Mwandalevu) | 300            | 4         | 4              | 4                    | 0        |
| Njatanga             | 290            | 4         | 5              | 1                    | -1       |
| Kanyambi             | 134            | 2         | 3              | 3                    | -1       |
| Mwene Naluwa         | 112            | 1         | 4              | 4                    | -3       |
| Mayukwayukwa (ECE)   | 65             | 1         | 2              | 1                    | -1       |
| Kachakala            | 64             | 1         | 2              | 2                    | -1       |
| Kakula               | 64             | 1         | 2              | 2                    | -1       |
| <b>Kanando</b>       | <b>51</b>      | <b>1</b>  | <b>1</b>       | <b>1</b>             | <b>0</b> |
| <b>Total</b>         | <b>5,849</b>   | <b>73</b> | <b>90</b>      | <b>34</b>            |          |

Further, while 5, 849 learners shows that they are in school, about 37 percent of those are in community schools where majority of the teachers are volunteers and not professionally trained. This also exacerbate the poor distribution of teachers which equally compromise the overall quality of education and learners.

### Availability of Staff Houses

The availability and state of teachers' accommodation in primary schools is equally poor. Most of the teachers are not accommodated, resorting to renting houses from within surrounding communities or use of other community infrastructure as alternatives. The overall service gap for primary school teachers housing deficit stood at 47 with the majority being at Mayukwayukwa

and Kububa in the refugee area and Kapili School in Kapili ward.

**Table 2.14: Primary School Staff Houses by School**

| Name of Facility     | Teachers  | Standard  | Available Housing | Deficit    |
|----------------------|-----------|-----------|-------------------|------------|
| Kububa               | 8         | 8         | 0                 | -8         |
| Kapili               | 8         | 8         | 1                 | -7         |
| Mwene Naluwa         | 4         | 4         | 0                 | -4         |
| Mushilu (Mwandalevu) | 4         | 4         | 0                 | -4         |
| Shibanga             | 7         | 7         | 4                 | -3         |
| Mayukwayukwa         | 14        | 14        | 11                | -3         |
| Kanyambi             | 3         | 3         | 0                 | -3         |
| Samukenya            | 4         | 4         | 1                 | -3         |
| Namishakasha         | 4         | 4         | 1                 | -3         |
| Kachakala            | 2         | 2         | 0                 | -2         |
| Mayukwayukwa Pre-Sch | 2         | 2         | 0                 | -2         |
| Kakula               | 2         | 2         | 0                 | -2         |
| Lyamunale            | 7         | 7         | 6                 | -1         |
| Kanando              | 1         | 1         | 0                 | -1         |
| Njatanga             | 5         | 5         | 4                 | -1         |
| Jacob Mpempo         |           |           |                   |            |
| <b>Total</b>         | <b>75</b> | <b>75</b> | <b>28</b>         | <b>-47</b> |

The service gaps identified only depict the current shortfalls which will keep widening if no immediate interventions are put in place as population is bound to continue growing due to new births and immigration as the area begins to record social economic development creating opportunities.

Increase in learner population especially at primary school level has also been attributed to the Free Education Policy which put pressure on the overall demand for a range of education services. On the other hand, government has also put in deliberate measures to ensure that most of these challenges are addressed at local level. For instance, during various stakeholder consultations, both the WDC Chairpersons and Officers from the Council confirmed that CDF resources have been channelled to various institutions towards construction of school infrastructure, procurement of furniture such as desks and support to vulnerable learners in form of educational grants. However, some of the observed challenges remain unattended to due to information asymmetries which sometimes does not trickle to the communities – especially in Mayukwayukwa which has predominantly been perceived to be receiving enough donor support; coupled with policy limitations in the integration process, coordination and administrative gaps among stakeholders, and weak governance linkages between Parliamentarians, Councillors, WDCs and communities.

## 2.12 Water and Sanitation

Access to clean and safe drinking water is one of the strategic development goals on the global development agenda<sup>21</sup>. It entails a proportion of the population having access and using improved water sources within a reasonable distance<sup>22</sup>. Poor access to clean and safe drinking water exacerbates inequalities, underdevelopment and poverty. Lack of access to safe and clean drinking water is also known to be one of the causes of death among children especially those under the age of 5, as they face higher risk of preventable diseases. In Zambia, statistics show that, 3 in every 10 people do not have access to safe drinking water<sup>23</sup> and the situation is worse in rural areas (58%) compared to urban areas (91.8%)<sup>24</sup> (GRZ, 2022).



Luapa River is one of the main water sources in Mayukwayukwa, 2024.

21. SDG Goal Number 6

22. Maximum coverage should be within 500m radius

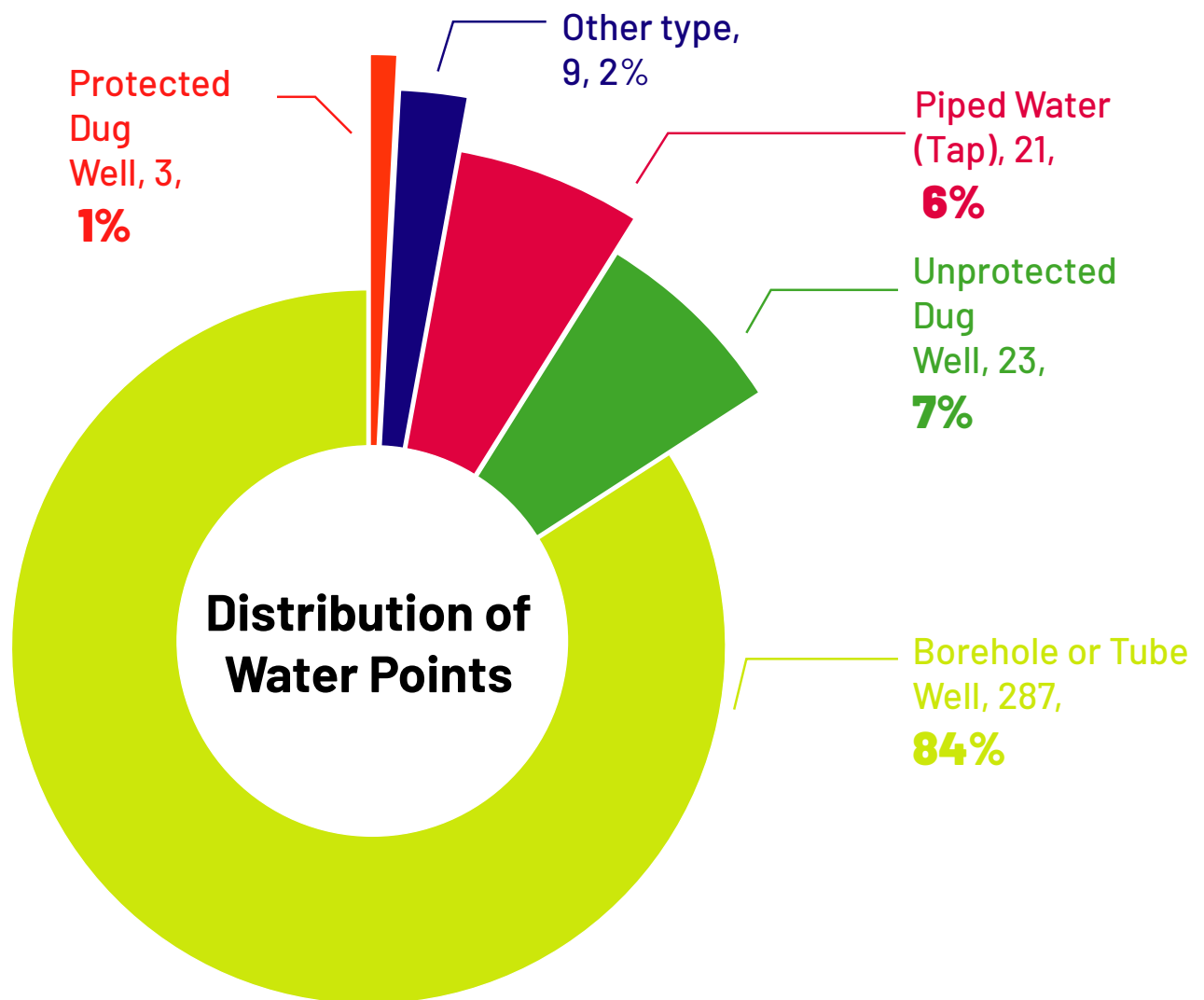
23. See <https://www.wateraid.org/where-we-work/zambia>

24. See also <https://www.wvi.org/zambia/water-sanitation-and-hygiene-0>



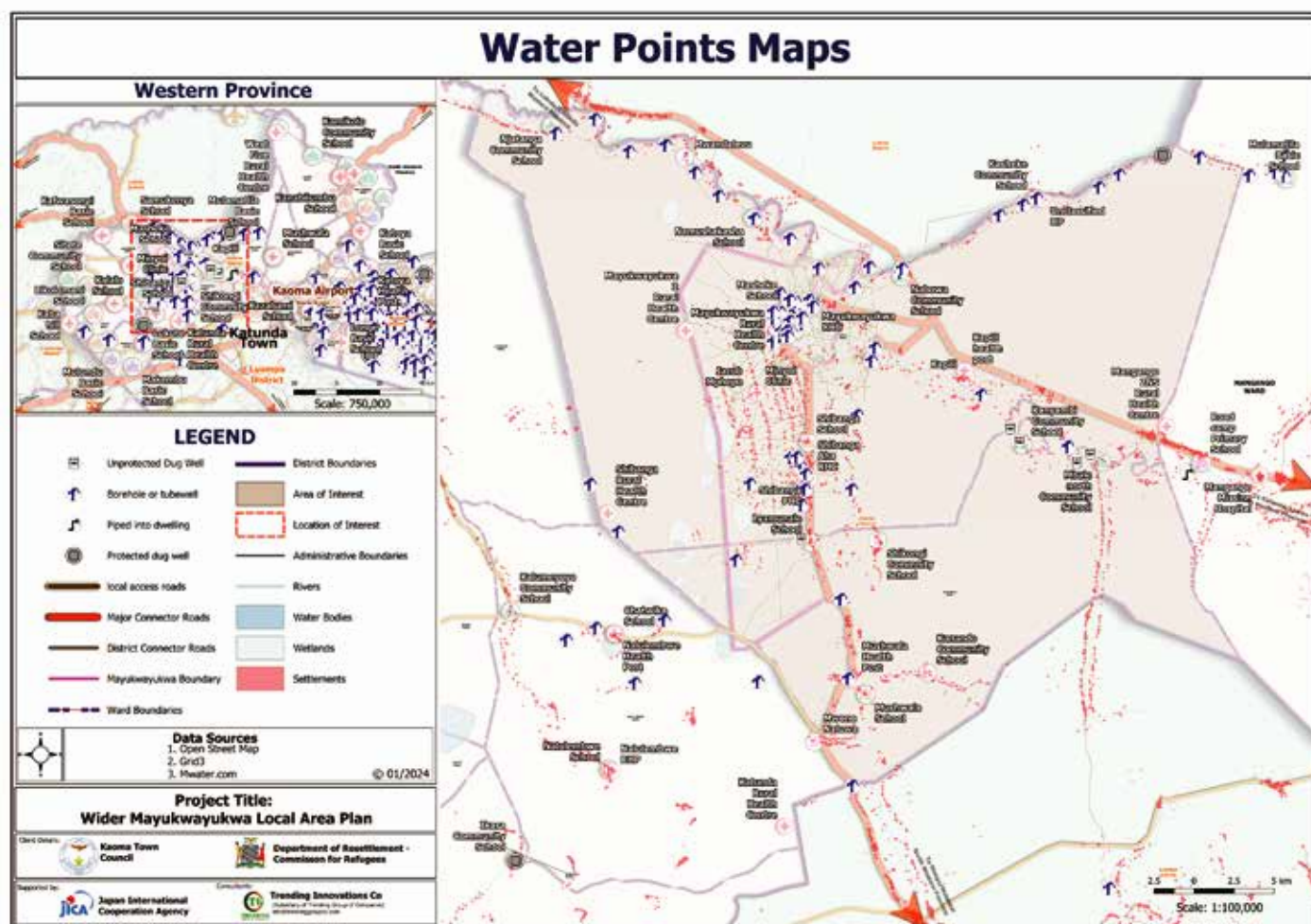
One of the boreholes at Mayukwayukwa Main Market, 2024.

Figure 2.13: Distribution of water points in Wider Mayukwayukwa



A general overview of the Water and Sanitation situation in Mayukwayukwa and surrounding areas shows a relatively fair reflection. From the 343 water points which were randomly surveyed, 83.7 percent (287) were boreholes (Tube wells), 6 percent (21) were piped water points connected to solar powered schemes and only 9 percent were either from unprotected (shallow) dug wells or river sources.

Figure 2.14: Distribution of Waters Points in Wider Mayukwayukwa



A spatial distribution revealed that a number of water points are clustered around densely populated human settlements while other areas hardly had functional water points. Thirty – eight percent (130) of the water points are located in the Resettlement Scheme while another 17 percent (60) are in the refugee settlement. The remaining 45 percent (153) are outside Mayukwayukwa – most of them falling in Kapili Ward than Mushwala. Despite this distribution, a number of households in areas around Shikongi, Mbale and Kanando have no access to clean water sources while some of the areas within the Resettlement scheme also have distant water points. As a result, they resort to alternative and unsafe water sources such as hand dug wells while those near streams and dambos draw water from shallow ponds. This has contributed to increase in diarrhoea and other waterborne diseases<sup>25</sup>.

Water from most of the seemingly safe water sources – boreholes, is reportedly shunned due to high iron content making the use of water difficult for drinking or household use/ consumption as it changes colour and develops a bad smell. Hence, even communities with functional boreholes cited water among their priority needs recommending for rehabilitation and use of stainless-steel pipes in combination with iron filters to improve the water quality.

Centralised water schemes are also available mainly in public institutions such as health and education facilities as well as at the service centre within the resettlement scheme and in the refugee settlement area.

25. See Section 2.10 on Health Services in Mayukwayukwa

The Mayukwayukwa and all surrounding areas have no conventional sewerage network. Households and most of the public institutions such as schools and health facilities depend on onsite pit latrines for disposal of sewer with the exception of few institutions that have improved sanitation services. Unconventional disposal of sewer such as use of shallow and unprotected latrines is also common which increases the risk of diseases especially that some households source water from shallow wells. Further, considering the soil structure of Mayukwayukwa which is sandy with poor water retention capacity, the predominant use of pit latrines and open disposal of human excreta may contaminate both surface and underground water resources thus compromising the health of residents in the area.

Management of solid waste in Mayukwayukwa is also a challenge particularly in public places since the area is not serviced by the local authority for solid waste collection and disposal. Waste generated from the markets is usually dumped in designated refuse bays and burnt onsite while household waste is either burnt or buried onsite.

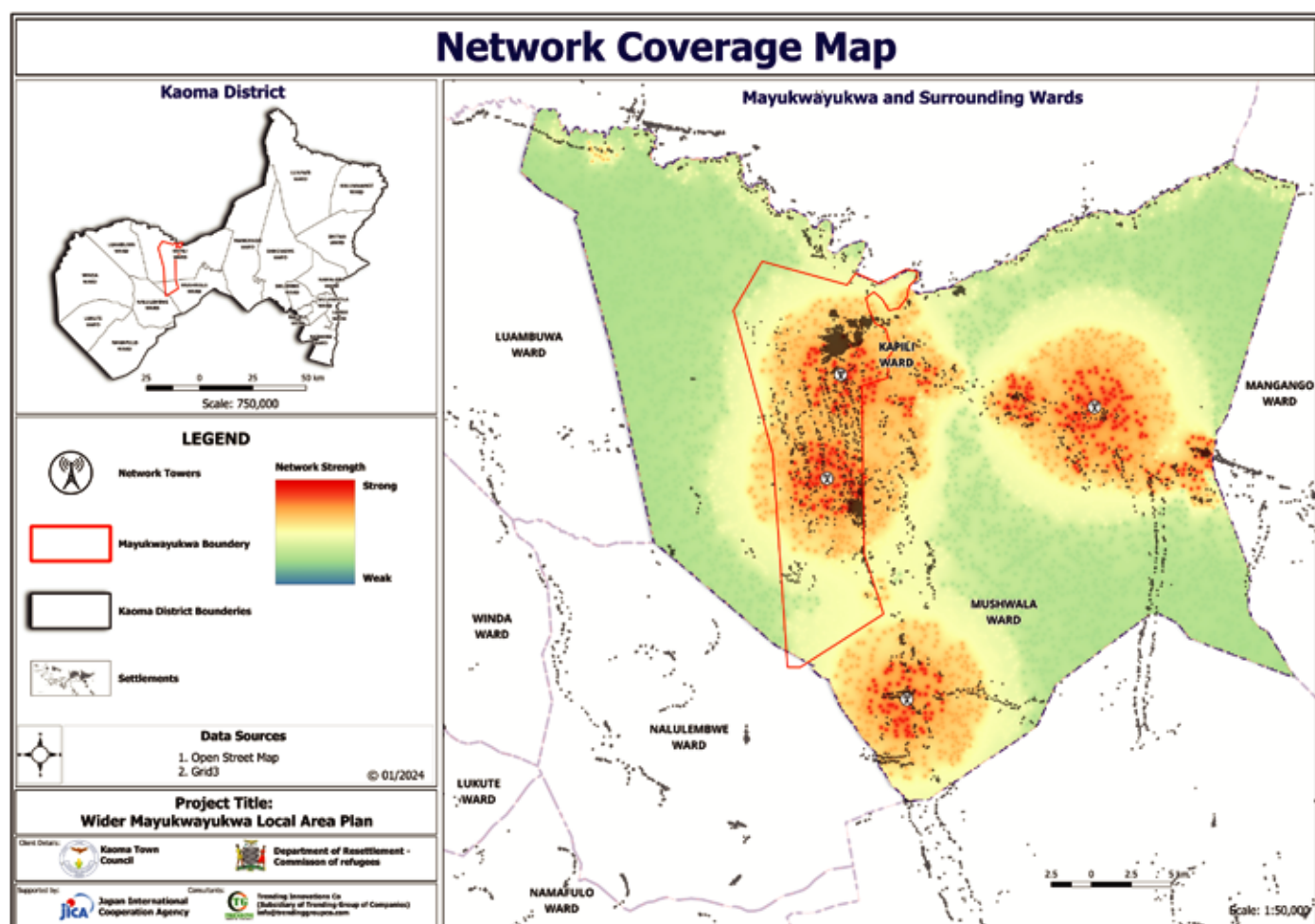
## **2.13 Information and Communication**

Mobile telecommunication coverage is generally poor in most parts of both Kapili and Mushwala wards and Mayukwayukwa inclusive. Available mobile telecommunication networks include Airtel, MTN and Zamtel whose network signal strength is strongest in the refugee area and part of Zone 1 and Zone 2 and gets weaker southwards – away from the masts located in the refugee area. Zamtel also has a telecommunication mast located on the eastern part of Kapili and in Mushwala although the network strength is 2G and mainly operates during the day since it runs on solar. As a result, most of the areas in Mushwala and other surrounding areas have very weak and sporadic signal while other areas hardly receive any signal. Internet is also limited to areas with mobile networks with a far lesser coverage.



Communication Facilities in Mayukwayukwa, 2024

Figure 2.15: Network Coverage in Wider Mayukwayukwa



Network connectivity influences peoples' lifestyle and way of life, health, quality of service, viability of farming activities, businesses and other service providers. From the health perspective for instance, emergency response largely depends on effective communication since the area has limited ambulance services. Similarly, lack or poor communication exacerbate the cost of farming and doing business as a whole since farmers or businesses can only deal in cash transactions or are forced to travel where there is connectivity for any transaction which could otherwise be done via mobile.

Further, Mayukwayukwa does not have any radio or television signal coverage. This concern was augmented by the Local Traditional Council (Kuuta) who bemoaned lack of a radio station in the area and recommended that a private radio station should be considered in the area. While information is now more readily available through social media and other platforms, the authenticity of some information is sometimes compromised or sensationalised depriving communities of specific and accurate information about government programmes and other social and civic issues affecting their development and welfare.

## 2.14 Energy Characteristics



Charcoal is one of the major energy sources and livelihood in Mayukwayukwa, 2024

According to UNDP studies, expanding infrastructure and upgrading technology to provide clean and more efficient energy in all countries will encourage growth and help the environment. It is also believed that investing in solar, wind and thermal power, improving energy productivity, and ensuring energy for all is vital for achieving Goal 7 of the SDGs by 2030<sup>26</sup>.

Sustainable green energy is particularly important to the transforming of Mayukwayukwa into an agri-business hub and would improve the economic environment of the area. Energy characteristics determines better livelihood, quality of services such as health and education, innovation and productivity that spur employment and job creation, value addition, and environmental sustainability.

Mayukwayukwa and all surrounding areas are currently not connected to the national power grid although the area is within 25km from the nearest possible connecting grid at Mangango ZNS. The common sources of energy used in the area include charcoal and firewood for cooking and heating while few households use solar for lighting. High dependence on charcoal and firewood puts pressure on forests and natural biodiversity of the area leading to indiscriminate cutting of trees.

Other alternative energy sources include solar used by most public facilities such as health centres and selected primary schools mainly used to power few key installations such as water pumps, lighting and computers. Lack of adequate and reliable energy sources in public institutions compromise the quality of services provided. For instance, schools are unable to offer computer lessons to learners while health facilities without refrigeration are unable to keep certain essential drugs or work during the night.

The area also has a community diesel-powered generator located in the Refugee area which supplies power to the clinic, offices and few staff houses on scheduled intervals. Commercial installations such as mills depend on generators or have inbuilt diesel-powered engines. There is no formal fuel service station in the area except for informal selling points. Hence, motorists buy fuel from Kaoma either in bulk or limit their movements until they have the next supply.

26. See Goal 7 of the SDGs; <https://www.undp.org/sustainable-development-goals>

## 2.15 Housing Infrastructure



Housing Infrastructure in Mayukwayukwa, 2024

Housing is generally poor across the whole planning area influenced by varying factors and circumstances. In the refugee area, most of the individual housing infrastructure is mainly semi to non-permanent, sitting on unplanned areas due to the non – permanent state of refugees who under normal circumstances are expected to be repatriated once conditions in their countries of origin are conducive. However, some of the refugees have lived in Mayukwayukwa in temporal structures for more than 30 years – others born and bred in the area are now adults.

In the resettlement scheme area, most housing infrastructure is equally poor despite sitting on planned and permanent settlements. A number of farmers in the area cite the lack of resources to put up decent and permanent housing infrastructure. Further, the resettlement scheme was established into an agricultural scheme around 2014 with most of the services such as roads, public social infrastructure and services only coming to the area in recent subsequent years. As a result, the area is not fully settled despite 717 (66 percent) out of 1, 085 farm plots already allocated – a number of farms manned by caretakers.

**Table 2.15: Households in Mayukwayukwa Resettlement Scheme by Sex and Nationality**

| No.          | Country of Origin | Male       | Female     | Total Households | Total Individuals |
|--------------|-------------------|------------|------------|------------------|-------------------|
| 1            | Zambia            | 113        | 87         | 200              | 1200              |
| 2            | Angola            | 291        | 226        | 517              | 3102              |
|              |                   |            |            |                  |                   |
| <b>Total</b> |                   | <b>404</b> | <b>313</b> | <b>717</b>       | <b>4302</b>       |

The setup is slightly different in the Wider areas of Mayukwayukwa of Kapili and Mushwala where most housing infrastructure is permanent and more decent. However, common features across all housing infrastructure are the use of local materials such as ordinary bricks and sometimes wooden poles and mud for walls and thatch grass for roofing. Use of weak materials and lack of basic housing and municipal services in all areas remain one of the biggest gaps in the quality of infrastructure.

The state of housing infrastructure is slightly better across institutions that own staff housing units. Houses in schools and health facilities are usually of better condition – most of them funded through CDF, support from cooperating partners and government. Unfortunately, the available institutional housing units are also not adequate to cater for all personnel operating in the area. As a result, service providers (staff) shun these areas due to poor conditions or find alternative accommodation facilities of substandard condition.

Lack of proper housing infrastructure in the area, especially at institutional level negatively affect the quality of service across all sectors due to high staff attrition or lack of motivation and compromised living standards. On a positive note, a number of players such as the Office of the Vice – President, UNDP, and the government of Japan through Sustainable Resettlement Programme (SRP), Kaoma Town Council – CDF, among others have in the recent past been facilitating the building of more decent housing units to enhance service delivery as one of the requisites to local economic development.

## 2.16 Summary of Issues under Infrastructure and Social Services

### i. Lack of Support Infrastructure

The state of the roads particularly the Kaoma – Lukulu road and the Namapombwe road which passes through Mayukwayukwa connecting the Lukulu – Kaoma road to Lusaka – Mongu road are in a poor condition which will make the objective of transforming the Wider Mayukwayukwa into an agri – business hub a big challenge. Further, lack of proper crossing points connecting Mayukwayukwa to the surrounding areas in Kapili and Mushwala wards are equally in deplorable state which in their current state cannot influence development. Other social infrastructure and

support services such as health services, education facilities and clean and safe water and sanitation services equally need to be attended to ensure balance in supporting a healthy and educated population capable to engage in productive agriculture and other economic ventures.

These factors coupled with other physical characteristics are critical and currently impeding the growth potential of Meayukwayukwa and the opportunities to ignite and sustain development in the area.

## **ii. Lack of Electricity**

Lack of adequate and clean energy (electricity) in the area contributes to stagnation and meaningful private sector investment in productive and processing industries, modern storage facilities and other power dependent industries. With lack of electricity, innovation and job creation among SMEs and skills development is also limited. Lack of electricity also compromises on the quality of services in sectors such as education, health and ultimately makes the area unattractive to live and invest in productive ventures. This is also having a negative environmental impact on local forests as local people are venturing into charcoal burning both to supply the only alternative source of energy to the growing population and also as the only source of livelihood other than agriculture due to limited livelihood options in the area.

## **2.17 Agriculture Characteristics in Mayukwayukwa**

The Wider Mayukwayukwa Local Area Plan focuses on identifying opportunities for socio – economic development of Kapili and Mushwala Wards to develop the area into an agri – business hub from agricultural and other lines of production, to value-addition of the products and as a growth centre with basic services that will spur development for surrounding areas and Kaoma at large.

This entails not only understanding the inherent competitive and comparative advantages of the Wider Mayukwayukwa but also delving into a more focused study of the factors that would facilitate achieving that feat. The LAP also aims at identifying strategies to derive full economic benefit from agriculture by ensuring farmers not just end at producing but adding value and fully participating in the various stages of the agriculture value chains of the products they produce. The first stage of the analysis process involved understanding the agriculture characteristics of Wider Mayukwayukwa.



Display of Agriculture Products from the Camps during the 2024 Agriculture Show, 2024

### 2.17.1 Characteristics of Farmers

As at January, 2024, the Wider Mayukwayukwa had a total of 35 registered cooperatives spread across Kapili and Mushwala Wards with an estimated membership of about 2, 914 farmers (total farmers were 3, 305–some do not belong to any cooperative). Out of these cooperatives, 24 were located in the refugee area or resettlement scheme within Mayukwayukwa while the remaining 11 were in the Wider Kapili and Mushwala areas<sup>27</sup>. The membership among Cooperatives in the resettlement scheme was higher than those outside justifying the importance of agriculture as the main livelihood activity among most of the households in the area compared to those outside who may have alternative livelihood activities. These figures also suggest better organisation among farmers in the scheme – a strength which can be leveraged to enhance interventions, knowledge transfer and sharing.

Unlike in the Wider areas of Kapili and Mushwala where there are predominantly Zambians, the majority of the settled farmers in the resettlement scheme of Mayukwayukwa are former Angolan refugees representing about 72.1 percent, the other 27.9 percent being Zambians and refugees of other nationalities below 1 percent. However, the overall representation of former refugees stands at 22.2 percent of the total farmer population (including surrounding areas).

The farmer population characteristics have an effect on the productive capacity of Mayukwayukwa influenced by uncertainties and inconsistencies in government policy on the status of former refugees in Zambia. For instance, during the stakeholder consultation process, it was revealed that former refugees were excluded from the Farmer Input Support Programme (FISP) for the 2023/24 farming season due to issues around their documentation despite being registered members of various cooperatives and benefiting from the same programme in previous farming seasons. By implication, most of the households from among the registered farmers in Mayukwayukwa who largely depend on government input support either downscaled their cultivated land or never participated at all due to lack of agriculture inputs. Further, the restricted mobility of refugees and former refugees outside Mayukwayukwa hinder some of the farmers direct access to a range of activities in the agriculture value chains. Access to outside markets such as Mongu, Lusaka or Kasumbalesa may be restricted depending on the availability of legal documentation hence affecting their full participation in the value chains.

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27. Kaoma CFS, 2022

## 2.17.2 Crops Cultivated in Wider Mayukwayukwa

Different types of crops are grown in the Wider Mayukwayukwa for varying reasons. Major crops grown in order of popularity include the following;

**Table 2.16: Common Crops Grown in Mayukwayukwa by Zone and Sector**

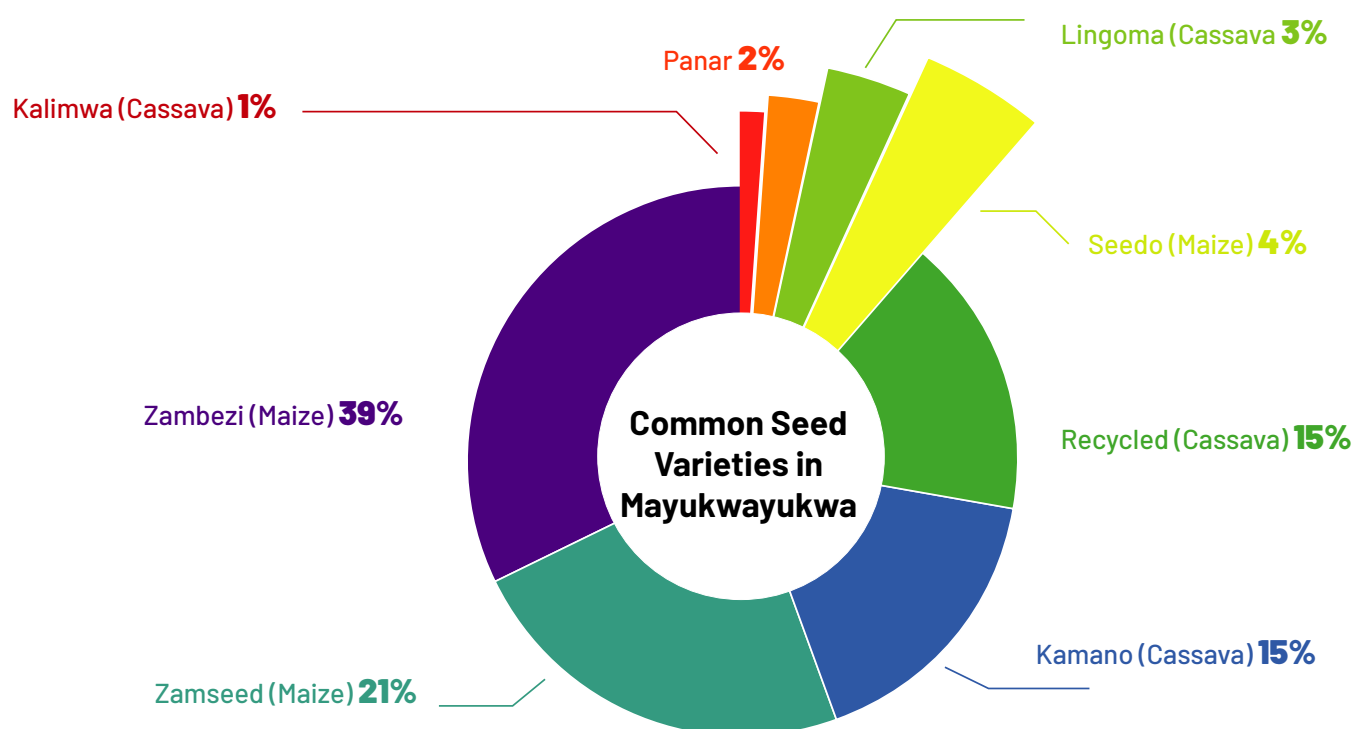
| Crops Grown    | Zone |   |   |   | Camp   | Wards  |          | Overall Ranking |
|----------------|------|---|---|---|--------|--------|----------|-----------------|
|                | 1    | 2 | 3 | 4 | Sector | Kapili | Mushwala |                 |
| Maize          | 1    | 3 | 1 | 1 | 1      | 1      | 2        | 1               |
| Cassava        | 2    | 1 | 2 | 2 | 2      | 2      | 1        | 2               |
| Groundnuts     | -    | 2 | - | 3 | 5      | 4      | 3        | 3               |
| Soya Beans     | 3    | 5 | 3 | 4 | 3      | 3      | -        | 4               |
| Cowpeas        | -    | - | 4 | - | -      | -      | 4        | 5               |
| Rice           | -    | - | 5 | - | 4      | -      | -        | 6               |
| Mixed Beans    | -    | 4 | - | - | 6      | -      | -        | 7               |
| Bambara Nuts   | -    | - | - | - | -      | -      | 5        | 8               |
| Millet         | -    | - | - | - | -      | -      | 6        | 9               |
| Sweet Potatoes | -    | - | - | - | -      | -      | -        | -               |
| Vegetables     | -    | - | - | - | -      | -      | -        | -               |

Source: Public Consultation, 2024/Crop Forecast Survey/Kaoma Agriculture Profile, 2024

Results from the stakeholder consultations, focus group Value Chain interviews as well as the CFS revealed that Maize is the most grown crop among all farmers in Mayukwayukwa – mainly for household food security and some for sale. Seventy-five (75) out of the 77 farmers interviewed indicated maize as one of their main 3 crops grown – 51 picking it as a first priority and 24 indicating it as second. However, despite the popularity of the crop among farmers, yields in the area are not commensurate with the input. Current farming practices ranging from the use of traditional labour-intensive tools, use of recycled seeds and other external factors such as soil and climatic characteristics negatively affect yields of the crop.

For instance, hybrid seeds enhance productivity but most breeds are usually input intensive (demand fertilisers), while others are more vulnerable to pests and sensitive to climate variabilities; factors which are dependent on the financial and technical (knowhow) capacity of the farmer or on external support to acquire inputs and manage crops hence dictating the size of land to be cultivated and expected quality and quantity of the yield.

Figure 2.16: Common Seed Varieties in Mayukwayukwa



Any disruption in the input supply chain (seeds and fertiliser) affects the production capacity of farmers in that given farming season. Similarly, crop yields are affected by the physical characteristics of the area (Soils) coupled with climate factors which are causing variabilities in weather patterns such as prolonged droughts and higher temperatures. These factors expose households to food insecurity – hence the need to begin identifying alternative coping mechanisms to reduce vulnerability of farmers especially with increasing climate change factors.

Cassava is the second most grown crop after Maize – popular in all areas of Kapili and Mushwala wards as well as the resettlement scheme area. The crop is mainly grown on subsistence scale for household consumption as staple food and a near alternative of starch to maize. However, with the emergency of private players using cassava for industrial purposes, some farmers grow enough for commercial purposes. Cassava has a number of comparative advantages which makes it a popular crop in this area. Besides its multiple household food supply from its tubers and leaves for vegetables improving household food security, the crop is also easier to manage among smallholder farmers compared to other crops. Firstly, it is drought resistant with potential to withstand longer dry periods – making it adaptive to the hot and dry climatic conditions characteristic of Mayukwayukwa and surrounding areas (See Weather Section). The crop also demands less inputs such as fertilisers and pesticides and adapts well to the sandy – loamy soils making the overall crop management easier and affordable. Despite the noted advantages and importance of cassava, the crop is grown as complementary to maize and not the main crop – presumably due to the attention and support given towards maize in terms of inputs, market and pricing.

Other crops grown in the area include Groundnuts, Cowpeas, Soybeans and Sweet Potatoes. Vegetables, rice and Bambara nuts are equally grown but at a very negligible scale compared to other crops.

**Table 2 .17: Seasonal Production and Income Calendar**

| Activity          | Jan            | Feb            | Mar            | Apr          | May          | Jun          | Jul                   | Aug                   | Sep                   | Oct          | Nov                    | Dec                            |
|-------------------|----------------|----------------|----------------|--------------|--------------|--------------|-----------------------|-----------------------|-----------------------|--------------|------------------------|--------------------------------|
| Weather           | Rainy/<br>Cold | Rainy/<br>Cold | Rainy/<br>Cold | Dry/<br>Cold | Dry/<br>Cold | Dry/<br>Cold | Dry/<br>Warm          | Dry/<br>Warm          | Dry/<br>Hot           | Dry/<br>Hot  | Rainy/<br>Warm         | Rainy/<br>Warm                 |
| Crop Prod         | Weed-<br>ing   | Weed-<br>ing   |                | Har-<br>vest | Har-<br>vest | Har-<br>vest | Stor-<br>age/<br>Sale | Stor-<br>age/<br>Sale | Stor-<br>age/<br>Sale | Land<br>Prep | Land<br>Prep/<br>Plant | Land<br>Prep/<br>Plant-<br>ing |
| Income<br>Streams | Very<br>Low    | Very<br>Low    | Very<br>Low    | Low          | Low          | Medi-<br>um  | Medi-<br>um           | High                  | High                  | Medi-<br>um  | Medium                 | Low                            |

On the other hand, cassava recorded a positive output trend since the production of the crop is not as much labour and cost intensive compared to other crops like maize and demands less of agriculture inputs such as seed, fertiliser and other chemicals and it is relatively more resilient to variabilities in weather patterns – capacity to withstand dry spells. Hence, cassava was a better alternative to maize as a source of starch for the majority of the households.

The overall production trends confirm the underutilised agriculture potential in Mayukwayukwa which can be enhanced through targeted approaches to ensure productivity is enhanced and inversely improves on the livelihoods of residents in the area and surrounding communities.

## 2.18 Mayukwayukwa Value Chain Analysis

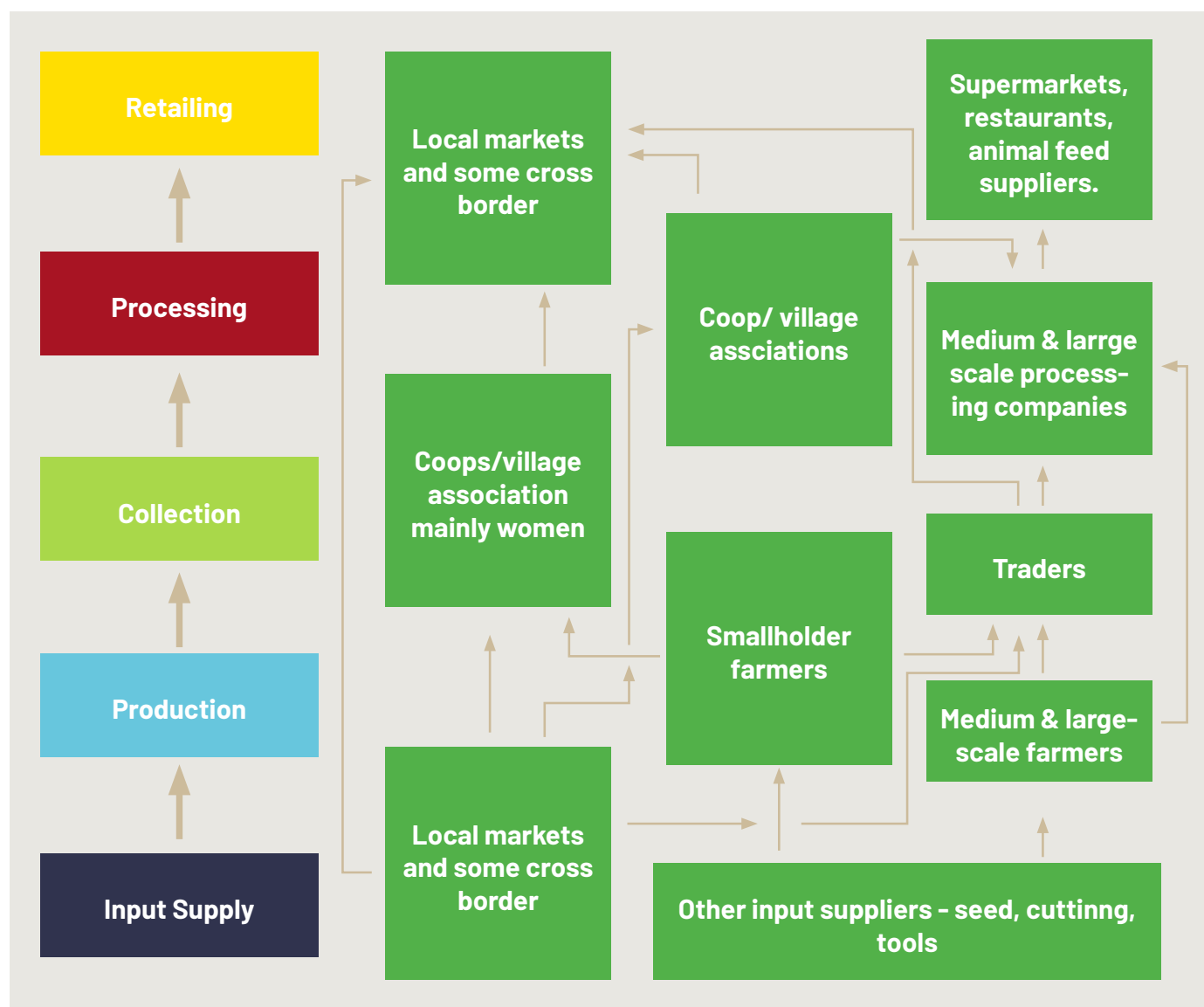
The Wider Mayukwayukwa value chain analysis was conducted based on the general agricultural activities by exploring and mapping their value chains, identifying major agricultural characteristics, players in the value chain and types of value addition of selected crops and other products which have the potential to transform the economic fortunes of Mayukwayukwa and surrounding areas of Kapili and Mushwala Wards. The Value Chain Analysis gives a general overview on selected crops from production, processing and marketing side (primary activities), focusing mainly on the farmers and products and also from the support services side focusing on pricing, logistics, customer services, and product specifications among others. The analysis was also conducted in the context of the already identified factors in the previous sections ranging from demographic, social, economic, cultural, environmental, physical and other service characteristics in the area which constitute the environment under which the Values Chains operate.

### 2.18.1 Defining Agriculture Value Chains

Agriculture Value Chain has been a long-standing concept in agriculture economics and development which looks at the interaction of people, various goods and services necessary for an agriculture product to move from the producer to the final consumer. The process looks at the role of different players in the chain, processes, products and services and how much value is added to – or subtracted from – the product and further redistributed to different players participating at different stages of the chain.

These factors have both Vertical impacts which are more internal to the chain as well as Horizontal impacts which usually have external influences. Understanding and enhancing the linkages among these various factors in the value chain is critical for poverty reduction, household food security, profitability and job creation as it incorporates an inclusive and pro-poor approach by linking farms and firms in remote regions to growing and emerging market opportunities<sup>28</sup>.

Figure 2.17: Agriculture Value Chain Model



The Wider Mayukwayukwa Value Chain Analysis explored the different stages, actors and the environment under which various value chains specific to this area operate (See Summary below).

28. (Riisagaard, 2010)

| Stage of the VC | Key Actors                                                                                                                          | Products and Activities                                                                       | Environmental factors/ determinants                                                                                                                                    |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Input Supply    | Agro dealers/ suppliers<br>Government<br>Donor Agencies/ NGOs<br>Research institutions<br>Lending Institutions                      | Sell of inputs (Seeds/ fertiliser)<br>Input distribution<br>Livelihood programmes<br>Research | Cost of inputs<br>Seed varieties<br>Government policy<br>Citizenship<br>Finance                                                                                        |
| Production      | Farmers<br>Cooperatives<br>Outgrower schemes<br>Lending Institutions<br>Government<br>Donor Agencies/ NGOs<br>Research institutions | Land preparation<br>Planting<br>Crop management                                               | Soil characteristics<br>Seed varieties<br>Weather pattern (Climate change)<br>Technology (farming methods, tools, Irrigation systems)<br>Extension services<br>Finance |
| Collection      | Farmers<br>Traders<br>Government<br>Donor Agencies/ NGOs                                                                            | Harvesting<br>(Post harvest handling)<br>Storage<br>Sell of unprocessed products              | Weather<br>Technology<br>Infrastructure (Warehousing, Bulking Centres)                                                                                                 |
| Processing      | Farmers<br>Consumers<br>Traders<br>Private Companies (Millers, ...)<br>Off Takers<br>Exporters<br>Lending Institutions              | Quality control<br>Packaging<br>Storage<br>Sell of unfinished products                        | Regulatory bodies (Standards)<br>Technology<br>Yields<br>Infrastructure/ Services (Electricity)<br>Finance                                                             |
| Distribution    | Farmers<br>Transporters<br>Traders<br>Statutory bodies (Fees & Charges)<br>Council                                                  | Transportation<br>Storage<br>Bulking<br>Sale                                                  | Infrastructure (Warehousing, sheds, roads, Markets)<br>Fuel<br>Government Policy<br>Location<br>Telecommunication                                                      |
| Retailing       | Shops/ Supermarkets<br>Traders<br>Government (FRA)<br>Private Companies<br>Offtakers<br>Exporters<br>Financial service providers    | Sell of finished products<br>Exporting                                                        | Government policy (Floor price)<br>Volume<br>Quality control<br>Infrastructure (Markets, Bulking centres)<br>Telecommunication<br>Market linkages                      |
| Consumption     | Household Consumers<br>Private Companies                                                                                            | Consumption of finished products<br>Use of products - raw materials<br>Export market          | Government policy (Floor price)<br>Volume<br>Population<br>Climate Change<br>Quality<br>Price<br>Culture and social factors (Trends influence customer behaviour)      |



Value Addition of Vegetables using Solar drier in Mayukwayukwa, 2024

A crude analysis of players and factors were profiled and explored to appreciate their roles, opportunities and challenges and establish the dynamics of their value chains and their potential in transforming Mayukwayukwa into an Agri – business hub. The value chain analysis linked issues from the public consultation process, data review and inputs and reports from various district stakeholders and players in Kaoma and Mayukwayukwa. Although there are a number of crops grown in the Wider Mayukwayukwa, the analysis reviewed maize and cassava as the two predominant crops. Value Chain characteristics for the rest of the crops in the area were generally similar to that of maize and/or cassava and less complex.

## 2.18.2 Mayukwayukwa Maize Value Chain



Different Maize Variety grown in Mayukwayukwa on display during 2024 Agriculture Show, 2024

Maize farming is a critical component of Zambia's agricultural sector as much as it is to Mayukwayukwa, playing a pivotal role in the country's economy and food security. Maize is a staple food crop forming a substantial part of the local diet. It serves as a key source of carbohydrates, essential for energy and sustenance, and contributes significantly to the nutritional needs of the population. The major products processed from maize include maize meal, flour, animal feed and also used for brewing of beer.

## Input Supply

Input supply is the initial stage of the Maize Value Chain which explored preliminary dynamics around access to inputs, costs and other factors prior to the production of the crop. The Maize Input in Mayukwayukwa and surrounding areas has a number of players and is influenced by various factors. The main players identified in the input supply and their role included the following;

**i. Government (GRZ) FISP** – The Farmer Input Support Programme (FISP) spearheaded by the Government of the Republic of Zambia through the Ministry of Agriculture constitutes the major supplier of seed and fertiliser to almost all farmers in Mayukwayukwa and surrounding areas. Inputs from the FISP which are highly subsidised are accessible to registered and paid-up members of the cooperatives. Under this programme, each farmer pays an upfront deposit of ZMW 400.00 (approx. US\$14) after which they are entitled to one (1) bag of 10kg Maize Seed and 6 bags of 50kg fertiliser (i.e. 3 Basal and 3 Top dressing) to cover a field of around 0.5ha. This programme is strictly limited to registered Zambian farmers. As a result, former refugees and refugees belonging to cooperatives within the Scheme who were initially benefiting from the programme were excluded in the 2023/24 farming season due to administrative bottlenecks which needed higher level government interventions. According to the FISP Guidelines, refugees are categorically excluded from this programme (See Eligibility criteria below).

### Figure 2.18: Eligibility Criteria of Farmers into FISP

#### Selection Criteria of Individual Farmer Beneficiaries

An individual beneficiary need to be a member of a registered farmer organization. The farmer is selected and approved by the Camp Agricultural Committee on recommendation of the farmer organization he/she belongs to, as guided by the following criteria.

- I. Be a registered small-scale farmer and actively involved in farming within the camp coverage area:
- II. Cultivating not more than 5 ha of land:
- III. Have the capacity to pay the prescribed farmer contribution towards the total cost of an input pack:
- IV. Not employed by the Government of the Republic of Zambia (Civil servant), public institutions (such a statutory bodies and parastatals), formal employment or on a regular allowance from the Government:
- V. Should be a Zambian and possess a green National Registration Card (NRC):
- VI. Have a active phone number; and
- VII. Not benefiting from the Food Security Pack Programme.
- VIII. Only one pack must be given per household (**HH here is defined ass people living in one house, cultivating on the same field and feeding from one pot**)

Punitive measures will be instituted against farmer groups that do not adhere to this criteria above.

Members of the cooperatives access their inputs from registered Agro – farmers under the programme. For the 2022/23 farming season, farmers from Mayukwayukwa were collecting inputs from Kaoma registered Agro – dealers through their respective cooperatives using hired transport. Transportation costs were shared among members of the cooperative.

The quantity of inputs supplied to farmers through FISP puts a capping on the scale of production on farmers. However, this does not restrict farmers willing to expand and grow more than the maximum threshold of 0.5ha and have the capacity to find alternative means to source extra inputs.

**ii. NGOs and Donor Agencies** – NGOs and Donor Agencies play a critical role in the input supply chain in Mayukwayukwa through various agricultural livelihood programmes. NGOs run programmes which include capacity building in conservation farming, crop diversification and other income generating initiatives and some of these packages come with input support. These programmes are mainly focused on inclusion of vulnerable groups hence; besides Zambians, they target as many refugees and former refugees as possible. However, the scale of input support under these programmes is also limited in scope, beneficiary characteristics and is usually time bound to the life of the project.

**iii. Agro – dealers and suppliers:** These are mainly private businesses and suppliers of agriculture inputs such as seeds, fertilisers, herbicides and pesticides. These are purely commercial entities supplying their products at commercial market rates hence open and accessible to anyone ready to buy. Despite their accessibility, affordability of these inputs from Agro – Dealers among most farmers remains a key challenge. For instance, during the 2022/23 farming season, it was costing a farmer an average of ZMW 8, 800.00 on inputs only (excluding labour, transport and crop management costs) to grow 1 hectare of Maize field<sup>29</sup>. This initial investment cost was reportedly higher among majority smallholder farmers in the area – hence their dependence on FISP and other support.

Transportation costs further inflate the cost of inputs since most of the Agro – dealers are based in Kaoma town which is about 85km on a bad gravel road.

**iv. Research Institutions** – Research institutions which usually work hand in hand with Agro Dealers play a key role in the input supply chain to investigate and recommend varieties ideal for different areas depending on the physical and climatic factors. Maize cultivation for instance depends on the right choice of varieties so that the length of growing period of the crop matches the length of the growing season and the purpose for which the crop is to be grown. With increasing climate variabilities, investigations into drought resistant varieties which are also adaptive to soil characteristics in places like Mayukwayukwa become even more critical.

Although research institutions do not directly interact with farmers, their influence on the purchase behaviour of inputs by farmers is evident. In Mayukwayukwa, Zambezi seed is the common variety for Maize cited for its early maturing properties, quality of crop and capacity to be recycled. However, from among the farmers talked to during the focus discussion, most of them opted for this variety because it was the only available option.

29. 20kg Seed at ZMW500/10kg, 4x50kg Basal Dressing Fertiliser and 4x50kg Top Dressing Fertiliser at 975 each

## **Maize Production**

Maize production in Mayukwayukwa is dominated by smallholder farmers cultivating an average of 1.5 hectares of land primarily for household consumption and for commercial purposes as secondary. Farming in the area is predominantly subsistence with the use of labour-intensive tools and dependent on family labour for land preparation, planting, weeding and harvesting. Use of animal draught power is very common among most farmers though a number of them bemoaned the high cost of hiring labour. During focus discussions, 86.8 percent (66) of the 76 farmers interviewed indicated that they used animal draught power to carry out most farming activities while 23.7 percent (18) used hoes only and only 1 farmer used a tractor. As a result, land utilisation is low averaging around 1.5 hectares per farmer. These farming practices limit the potential of smallholder farmers to scale and grow volumes that would make them competitive, hence leaving the majority of them in the lower ebb of the value chains.

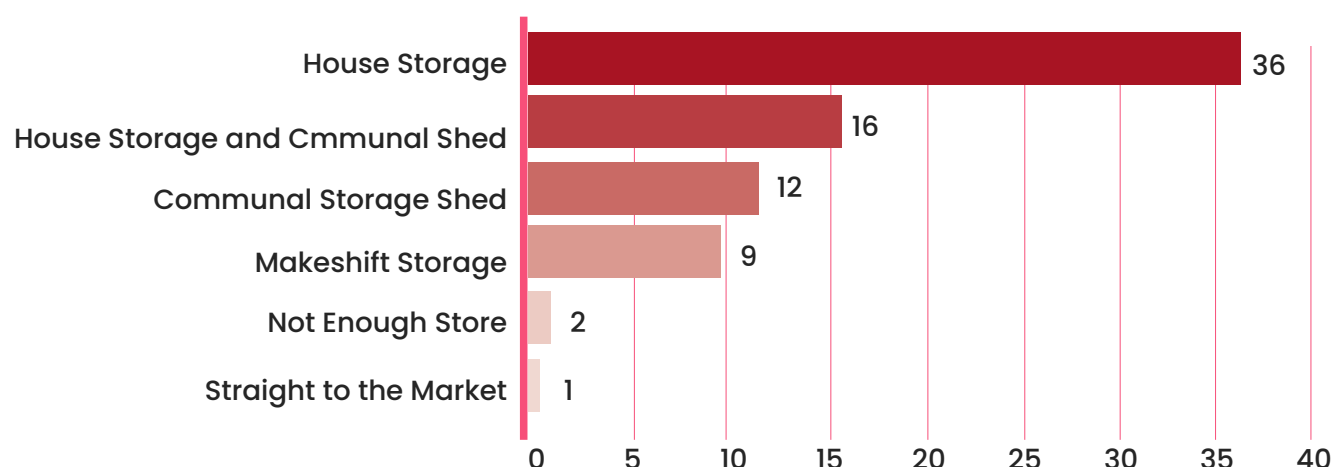
Farming in Mayukwayukwa and all surrounding areas is also purely rainfed despite being surrounded by two big water bodies in Luena and Luampa rivers – irrigation only practised by few individuals for vegetable gardening during dry season. With such practices, farmers are highly vulnerable to climate risks as they are directly affected by any changes in seasonal patterns which affects yields and eventually food security. On the other hand, high dependency on a single – seasonal – farming cycle in a year limits their sources of income especially that majority of the population in the area are involved in agriculture. These worsen their economic and livelihood vulnerability due to limited sustainable alternative sources of income during the year. Livelihood intervention programmes such as Beekeeping, Livestock and Poultry, are an alternative but this is also practised among very few households leaving the majority solely dependent on seasonal rainfed agriculture.

## **Collection and Storage**

Harvesting of maize starts in May through July/August depending on the variety (early – medium – late maturing) and rainfall pattern in that particular season – prolonged rains delay the harvesting period. Harvesting in Mayukwayukwa is done manually either by family members or by hired local labourers (Piecework) who are either paid cash or in exchange for the produce.

Majority of the harvested crops is stored at home only while others keep part of it home and only part of it is taken to communal sheds. From the sampled farmers, about 59.2 percent keep their produce at home either in homes or in makeshift food barns augmenting facts that the volumes of their yields are low and most of the crops grown are primarily for household consumption (food security).

Notably, less than 3 percent of the farmers interviewed reported not having enough crop to store, indicating that most of the farmers grew at least enough for household consumption to cover a period before the next farming season. However, these trends are based on the previous farming seasons – which may drastically vary due to effects of climate change and access to inputs during the season leading to areas experiencing severe droughts with anticipated low yields.

**Figure 2.19: Common Storage Facilities among Farmers**

Mayukwayukwa has 1 storage shed (FRA) located in Shibanga where farmers take their produce although the communal shed is primarily used as a selling point rather than storage of agricultural products from farmers. There is also one bulking centre equally located in Shibanga which is managed by Cooperatives and used as strategic points for pooling of agricultural products. The centre is also used for storage of agriculture products other than maize.

### Processing

Processing involves value addition or the process of improving agricultural products from their raw state into higher value products before sale or consumption. Value addition may include but not limited to the following;

- I. Drying/Freezing for improved shelf life
- II. Processing – e.g milling
- III. Packaging for storage
- IV. Branding – for presentation, quality control or differentiation
- V. Sorting – for consumption or alternative use

There is very minimal value addition to the crops harvested in Mayukwayukwa. The notable processing of maize involves drying, sorting and milling into maize meal for consumption. Drying of maize is done using natural methods by leaving the crop in the field to dry before it is harvested and ferried to another location for shelling. Shelling is usually done manually while others with bigger volumes of maize also use simple technologies such as maize shellers – which are either owned or hired. Shelled maize is mainly packed in 50kg bags. Some of the maize is either;

- I. Milled into maize flour by small diesel-powered Hammer Mills mainly for household consumption
- II. Treated with preservatives and kept for future consumption or;
- III. Sold directly to traders, taken to FRA marketing points or other markets outside Mayukwayukwa

There are about 8 privately-owned diesel-powered Hammer Mills spread across all Zones and sectors within the Scheme and Refuge area used for processing of dry corn into flower (Mealie meal) for household consumption. The cost for processing a Meda (a tin weighing about 4.2kg)

averages around ZMW4 – which serves as a cheaper alternative to the already processed maize flour which averages ZMW400.00 per 25kg bag. Lack of industries to process most of the products in the area is attributed to the absence of support infrastructure such as electricity and good roads as well as low local demand to consume processed products.

### **Distribution**

Distribution of crops and other inputs in the maize value chain involves transportation and delivery systems of all goods and services to not only make the value chain efficient but also ensure the benefits trickle down to the farmers. Distribution is solely dependent on transport systems in Mayukwayukwa which is also one of the biggest challenges to the competitiveness of agriculture services and productivity in the area. The state of poor road infrastructure negatively affects the distribution of inputs to strategic points within the area and also the transportation of crops outside Mayukwayukwa. This makes the cost of hiring transport high and significantly increases the price of commodities from Mayukwayukwa compared to other farming areas within the district. Lack of crossing points in some areas and poor road surface in others increases the wear and tear, time and cost of the distribution systems in the maize value chains depriving farmers of the benefits that they would otherwise enjoy if distribution systems were more efficient.

Distribution systems are also affected by the overall policy and prevailing business environment. The cost of transportation for instance is responsive to increase in fuel prices and other statutory charges such as Council levies which increases the cost of production and distribution of crops against fixed returns on products (See Sales/marketing). As a result, most of the farmers opt to sell their products locally albeit at a lower price to avoid incurring more overhead costs and complexities associated with the distribution.

### **Retailing and Consumption**

Retailing and consumption involves the sale of agricultural products to consumers. At this stage, farmers, traders and consumers interact to exchange goods and services. The marketing structure and trade flows for maize in Zambia are significantly more complex than those of any other staple commodity due to the high consumption rate not only in Mayukwayukwa but nationwide as well as in the neighbouring countries such as DR Congo, Malawi and Zimbabwe. As a result, Maize markets are quite sensitive and have a lot of government meddling which makes the marketing system even more difficult.

The major maize marketing period in Mayukwayukwa is between May and November though the greatest volume of market exchanges takes place in July and August when supplies are at peak. Majority of maize is sold to the Food Reserve Agency (FRA), millers and brewers and other private entities who also resale or export the crop.

Over the past 5 years, the official government price of Maize has spiralled from K110 in 2019 to K330.00 in 2024 although farmers also sell their products to private buyers at competitive market prices. However, due to the general poor condition of roads in the area, transporters either shun to provide a service in the area or charge farmers high rates to compensate for the wear and tear. Marketing of Maize in Mayukwayukwa is therefore limited to FRA, local markets or sometimes sold to local institutions such as schools. Transportation of maize from Mayukwayukwa at individual level is expensive which in many cases does not commensurate with the volumes. To mitigate the cost of transportation, some cooperatives pool their crops at one collection point (bulking) and hire transport sharing the costs among members. Private buyers also set up strategic buying points within the area where local farmers take their maize

for sale. The average cost of Maize and other maize products varies with distance and other market factors such as demand and supply.

**Table 2.18: Average Price of Maize and Maize Products – 2024 (April/May 2024)**

| Description    | Unit | MYK Open Market (ZMW) | FRA (ZMW) | Kaoma Market | Mongu Market (ZMW) |
|----------------|------|-----------------------|-----------|--------------|--------------------|
| White Maize    | 50kg | 450                   | 330       | 430          | 500                |
| Breakfast Meal | 25kg | 380                   | -         | 350          | 330                |
| Roller Meal    | 25kg | 350                   | -         | 310          | 300                |
| Chicken Feed   | 50kg | None                  | -         | 650          | 650                |

The 2023/2024 drought is signalling a potential low agricultural yield which will affect the cost of products reaching Mayukwayukwa and surrounding areas and further impact on the food security of households in the area.

Addressing bottlenecks around input supply, technical services to enhance farm-based productivity, post-harvest crop management, transportation and value addition may transform Mayukwayukwa and surrounding communities into an agribusiness hub to ensure the area is productive and self-sustainable. However, even under this context, attention must be given to environmental dynamics to devise climate smart and adaptive strategies which will address issues of droughts and extreme weather temperatures among others to ensure communities are adaptive and resilient to effects of climate change.

### 2.18.3 The Mayukwayukwa Cassava Value Chain



Cassava is the second highest popular crop in Zambia after maize – mainly grown in 5 of the 10 provinces – particularly in Northern, Luapula and Muchinga in the northern block and in Western and Northwestern provinces in the western block. Cassava production has steadily been gaining popularity in the western regions too, increasing from an estimated 25 percent to around 27.5 percent of the total national crop production between 2012 and 2022 respectively although this is still way below the predominant production output from the northern region which despite dropping by 1.7 percentage points remains at 68.7 percent from 70.4 percent during the same period.

Cassava production is a key sector to the economic development of Western province and Kaoma in particular due to its proven production capacity. Estimates from the 2022/23 Crop Forecast Survey pitched Kaoma as the sixth highest producer of Cassava in the Country and the highest in the province contributing about 30.8 percent of the total provincial production output (MoA, 2024). Notably, most of this production is dominated by smallholder farmers whose average land coverage is between 2 and 5ha with potential to scale and improve outputs if right incentives and other factors are in place. Understanding the dynamics around the participation of smallholder farmers in the Cassava value chain and particularly for Mayukwayukwa and surrounding areas would be a game changer in the local economic development and improvement of livelihoods in the area.

The following are the main identified stages and players in the Mayukwayukwa cassava value chain and how they interact and relate to the overall district value chain.

### **Input Supply**

Issues around input supply in the Cassava value chain is one of the components observed to be holding back the full production capacity of cassava both at national, regional and local level of Mayukwayukwa. The continued use of local varieties among a number of smallholder farmers which yields between 5–9mt/ha – almost 3 times less than the expected yields of around 20–30mt/ha for improved yields – presents one of the biggest inhibiting factors to increased production output. According to the study in Mayukwayukwa, 65.8 percent of the farmers interviewed grew cassava as their main crop and 36 percent of those used local variety or recycled seed stating that it was readily available and more resistant to diseases than other seed varieties. Farmers use cassava cuttings from their fields or share local seeds among themselves. As a result, they continue to grow crops which have lesser yields per hectare and usually the tubers are of low starch content.

Key players in the input supply chain include the government through the Ministry of Agriculture who sometimes supply smallholder farmers with improved varieties of cassava cuttings. Farmers receive bundles of Cassava cuttings as seed though this is not consistently done like maize and other cereal seed.

The Private Sector is also a strategic player in the cassava Input Supply Chain. Companies with direct interest in cassava as feedstock in their production processes dictate the quality, quantity and frequency of cassava crop harvest required hence, through programmes such as Outgrower Schemes, companies guide/provide the type of inputs to farmers. Companies such as Premiercon Starch have dedicated 200 farmers in Mayukwayukwa linked to the Outgrower Scheme programme who are supplied with improved cassava seed besides other extension services.

Research institutions continue to influence the Cassava Input supply chain by investigating and recommending varieties ideal for different areas depending on the physical and climatic factors as well as production potential. Research institutions have been introducing improved varieties such as Mweru and Bangweulu which are some of the popular varieties among a number of the cassava farmers in Mayukwayukwa. However, farmers growing cassava in Mayukwayukwa confirmed that they were aware of the improved cassava varieties but some indicated that these were not readily available hence opting for the available local option.

| Variety     | Type                  | Released | Yield (tons.ha) | Taste  |
|-------------|-----------------------|----------|-----------------|--------|
| Bangweulu   | Cleaned local variety | 1993     | 31              | Bitter |
| Kapumba     | Cleaned local variety | 1993     | 22              | Sweet  |
| Nalumino    | Cleaned local variety | 1993     | 29              | Bitter |
| Mwero       | Bred by RTIP          | 2000     | 41              | Sweet  |
| Chila       | Bred by RTIP          | 2000     | 35              | Bitter |
| Tanganyika  | Bred by RTIP          | 2000     | 36              | Sweet  |
| Kapolombo   | Bred by RTIP          | 2000     | 39              | Sweet  |
| Traditional | Local variety         | 2000     | 7               | Bitter |

\* All yields refer to research station observation using no purchased inputs but following recommended agronomic practice. Yields were measured 16 months after planting.

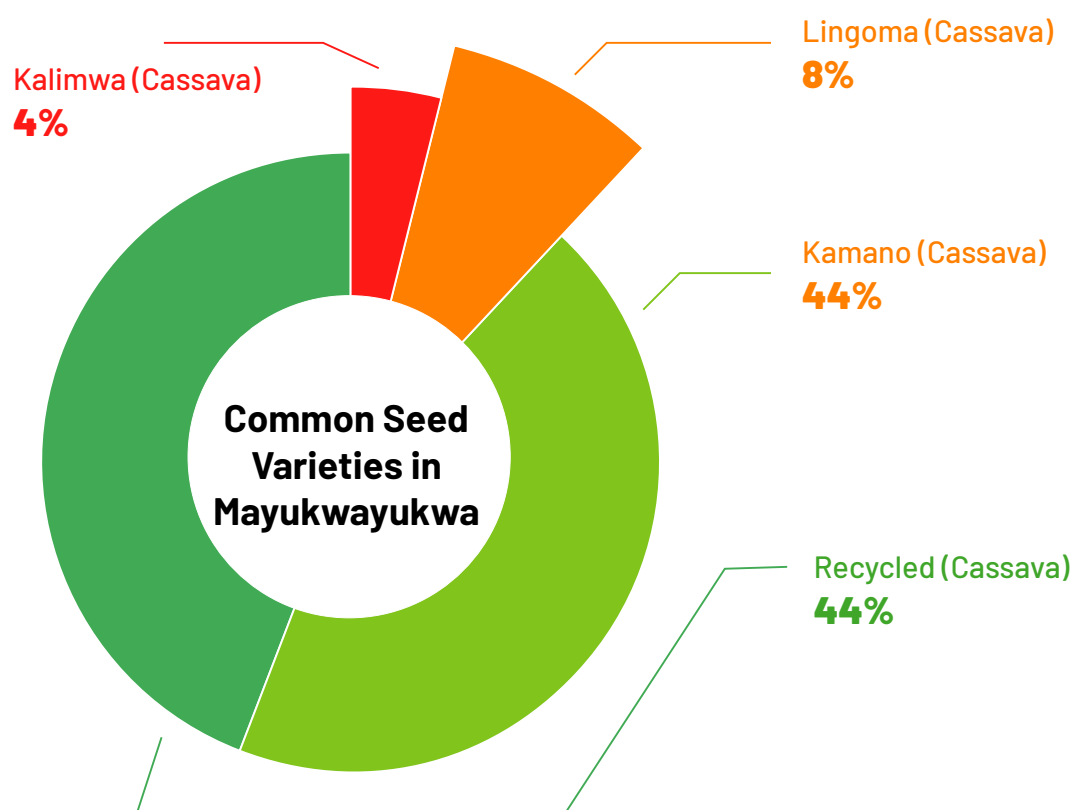
**Source:** Chitundu and Soenarjo (1997) and Simwambana et al. (2004)

## Cassava Production

Cassava production in the Wider Mayukwayukwa is dominated by smallholder farmers cultivating on less than 1.5 hectares of land which also includes other crops. Planting of cassava in Mayukwayukwa starts around July when the soil is still moist. In a typical planting profile, households stagger maturities, with freshly planted, one-year-old and two-year-old stands planted at any one time. Because cassava yields peak between 18 months and 3 years after planting, depending on the variety (Chitundu and Solanaro, 1997; Barratt et al., 2006), this staggered planting calendar enables households to harvest their mature stands each season over a three-year cycle. Improved early maturing seeds reduce the production cycle improving both income and household food security. Based on the results from the study, Mweru and Bangweulu were reportedly the common varieties just as much as local or recycled seed. Others use Lingoma and Litale though only to a lesser extent.

30. Cassava yield was estimated at 40 tons per hectare

Figure 2.20: Common Cassava Varieties in Mayukwayukwa



**Source:** Field Survey Data (77 Farmers Interviewed), 2024

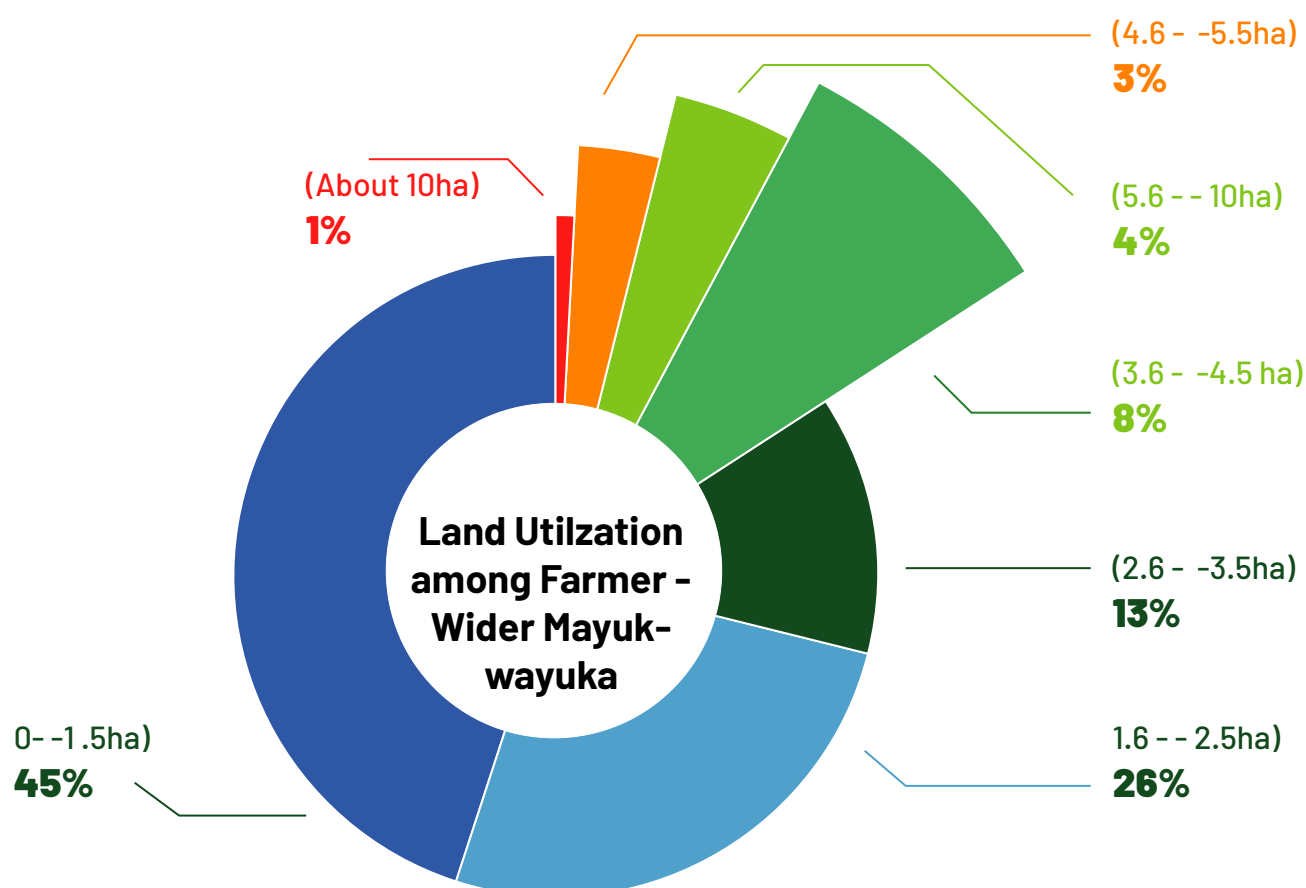
According to the 2021 Crop Forecast Survey, there were about 4,007 farmers in cassava production in Mayukwayukwa only out of whom 3,960 representing 98.8 percent were small scale farmers using an estimated land coverage of 567 hectares equivalent to 0.144 hectares per farmer. Only 47 medium scale farmers representing 1.2 percent utilised an average of a hectare on cassava production. Production was estimated at 24,520 tons averaging 40 tons per hectare. A 2024 focused study on farmers in Mayukwayukwa revealed that more than 71 percent of the farmers used less than 2 hectares of land for overall crop production – with less than a third of that land dedicated to cassava production. However, the actual crop yield per farmer was reported to be way lesser than the estimated yield which averaged 20 tons per hectare<sup>30</sup>. Notably, almost all the farmers interviewed who cultivated on more than 4 hectares of land grew maize as their first-choice crop except 4 that grew cassava as their first priority.

From the statistics, it is clear that cassava production in the area is predominantly for household consumption than it is for commercial or income generating purposes. Nonetheless, prospects for increased production remain high only if correct economic incentives to sustain it are in place. For instance, evidence shows that cassava production in the area is widespread but the scaling up is hindered by lack of a guaranteed market and other support services such as inputs and technical services. Unlike maize whose market is always competitive with a lot of government and private sector interest, farmers noted that cassava production is not lucrative for commercial production.

The creation of demand from the private entities such as Premiercon Starch of Solwezi and Biogas Companies of Lusaka are slowly changing the perception among farmers to diversify

into cassava production as a cash crop. While prospective new sources of demand – from food processing industries, livestock feeds or industrial starch users – could provide growing markets for these increased cassava supplies, without them the production boom could falter to domestic consumption. Rapid productivity gains in cassava production hold the promise of significantly lowering production costs and falling cassava prices. Lower costs, in turn, will make new commercial opportunities increasingly viable.

**Figure 2.21: Land Utilization among Farmers in Wider Mayukwayukwa**



**Source:** Field Survey Data (77 Farmers Interviewed), 2024

Like the case is with other crops, cassava farming in the area is predominantly subsistence with the use of labour-intensive tools and dependent on family labour for land preparation, planting, weeding and harvesting. Use of animal draught power is also common among farmers with slightly bigger fields.

Farming in Mayukwayukwa and all surrounding areas is also purely rainfed hence highly susceptible to climate risks as farmers are directly affected by any changes in seasonal weather patterns. This increases their economic and livelihood vulnerability due to limited sustainable alternative sources of income during the year. Commercialisation of cassava production in Mayukwayukwa remains low because of limited local market opportunities and the high transport and transaction costs of commercialising cassava in the major consuming regions of the Copperbelt and Lusaka (agro-industrial processing).

### **Collection and Storage**

Harvesting of cassava starts in May through July/August depending on the variety and this is done manually by family members or using hired local labourers (piecework) who are paid cash or in exchange for the produce. Most of the harvested crop is dried and stored at home for consumption. Cassava grown for commercial purposes are directly sold or first processed before storage in order to prolong its shelf life. Farmers also take their crops to the bulking Centre located in Shibanga for direct linkages to the buyers. Aggregation of cassava is also done through cooperatives mainly targeting private buyers.

### **Processing and Distribution**

Processing of cassava for household consumption involves peeling, and directly sun drying or first soaking and fermenting before sun drying to later process into cassava powder. Cassava meant for commercial purposes is usually sun dried and cut into smaller cassava chips and packaged in 50kg bags. Packaged cassava is taken to the aggregation centre where off-takers collect it for transportation to Lusaka and/Solwezi for further processing into powder or other industrial use.

Distribution of inputs in the Cassava value chain also involves transportation and delivery systems that not only make the value chain efficient but also ensure the benefits trickle down to the farmers. Distribution is dependent on transport systems in Mayukwayukwa which is also one of the biggest challenges to the competitiveness of agriculture services and productivity in the area. The state of poor road infrastructure negatively affects the transportation of crops outside Mayukwayukwa. This makes the cost of hiring transport high and significantly increases the price of commodities from Mayukwayukwa compared to other farming areas within the district. Lack of crossing points in some areas and poor road surface in others compound the wear and tear, time and cost of the distribution systems in the Cassava value chains. As a result, most of the farmers opt to sell their products locally to avoid incurring more overhead costs and complexities associated with the distribution.

### **Retailing and Consumption**

Retailing and Consumption of Cassava involves household consumption or for other industrial use. The following are the main four identified market channels for Cassava;

- I. Farm households selling surplus into local markets for human consumption to traders.
- II. Farmers and intermediaries process into flour for products for human consumption
- III. Processed cassava for livestock feed.
- IV. Utilization of cassava for starch for glue, paper, wood, plus ethanol or for export.

However, cassava consumption has predominantly been more at farm level/household level than it has been for commercial purposes. Poole (2010) noted that production of cassava for household consumption was estimated to account for 85 – 90 percent of all fresh cassava utilisation and that food security was the primary purpose and benefit of cassava consumption.

According to Nyembe, (2007)<sup>31</sup> households in the heaviest cassava-producing zones like Kaoma sell only about 7% of their cassava production, on average, three-quarters of it in dried form and the remainder in the local fresh market. Cassava belt farmers market 15% to 20% of their maize crop, more than double the proportion marketed by smallholders in the maize belt. The foregoing paints a clear picture of the cassava retail and consumption landscape in Mayukwayukwa where most of the cassava is consumed at household level and only part is sold locally or to other consumers.

At commercial scale, an average of 80 – 90 tons of cassava is sold annually to private buyers while an estimated 200 tons is transported outside the area<sup>32</sup>. Premiercon Starch Company Limited uses Cassava as feedstock for production of starch which is supplied to FQM's Kalumbila mine as a copper processing input. However, this is only a percentage of the total production output in the area leaving household consumption the bigger share. Pricing of cassava averages between K650 and K700 per ton for fresh and dry cassava respectively.

With the demonstrated production capacity in Mayukwayukwa, it is suggested that co-locating production and processing initiatives has potential to create cassava clusters which enjoy logistics and coordination efficiencies, with potential for more sophisticated supply chain management that exists within traditional marketing systems (Pole, 2010). This would mean ensuring the following:

- I. Investing in national public infrastructure
- II. National public and NGO development interventions and
- III. Private sector investments and initiatives directed to areas with natural and human comparative advantage for cassava production, processing and consumption

Investing in strengthening the Cassava value chains has multiple internal and external benefits ranging from household income and food security, job creation through on – farm and off – farm forward and backward linkages, enhancing smallholder resilience to climate effects, and contributing to eco-friendly investments focusing on food, product and gas industrial processes.

#### **2.18.4 Characteristics of the Crop Value Chains in Mayukwayukwa**

The crop value chain in Mayukwayukwa is generally non – complex with very limited value to the producer while a number of opportunities are yet to be exploited. The following table summarises the overall value chain characteristics in Mayukwayukwa;

31. Misheck Nyembe (20027); Commercial Dynamics in Zambia's Cassava Value Chain

32. MACO, 2024

Table 2.19: Characteristics of Value Chain in Mayukwayukwa

| Stage               | Key Indicators                    | Prevailing Characteristics                                                          | Alternative                                                               |
|---------------------|-----------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| Inputs and services | Financial services/MFI            | No presence of banks or MFI                                                         | Mobile Money Services though erratic and poor                             |
|                     | Domestic seed producers/suppliers | None                                                                                | Kaoma, Mongu, Lusaka                                                      |
|                     | Foreign seed and input dealers    | None                                                                                |                                                                           |
|                     | Fertiliser and seed               | Farmers depend on government FISP and NGOs                                          | Recycled seeds<br>Agro - dealers in Kaoma and Mongu                       |
|                     | Government extension services     | Insufficient extension services (Transport and manpower)                            | Local conventional knowledge                                              |
| Production          | Land preparation                  | Family labour using a hoe                                                           | Animal draught power                                                      |
|                     | Weeding                           | Family Labour                                                                       | Weed killer                                                               |
|                     | Irrigation                        | Mainly Rainfed                                                                      | Utilisation of dambos for gardening                                       |
| Primary aggregation | Aggregators/ traders              | Few and adhoc<br>Demand driven                                                      |                                                                           |
|                     | Importers                         | None                                                                                |                                                                           |
| Processing          | Food processing                   | Traditional methods - sun drying.<br>Mills used for processing for home consumption | Sale semi/unprocessed farm products                                       |
|                     | Animal feed processing            | None                                                                                | Buy finished products                                                     |
| Marketing           | Retailers                         | Products sold at the local market within the Camp                                   | Products transported to Kaoma and Mongu                                   |
|                     |                                   | Sold to FRA (Maize)                                                                 | Sold to private buyers for instant cash and competitive price             |
|                     |                                   | Products taken to the bulking centre - though not very common                       | External buyers set up ad hoc bulking points to buy products from farmers |
|                     |                                   | Private companies buy in bulk - e.g. Premiercon                                     |                                                                           |
|                     | Consumption                       | Consumed fresh - small quantities                                                   | Processed                                                                 |
|                     |                                   | Consumed dry - powder                                                               |                                                                           |

### 2.18.5 Constraints around Agriculture Productivity in Mayukwayukwa

The Wider Mayukwayukwa LAP focuses on understanding the competitive and comparative advantages of the area and identifying bottlenecks hindering the achievement of its development potential for the benefit of the local, surrounding communities and the district as a whole. Based on the foregoing, agriculture presents the realistic approach to developing Mayukwayukwa although the sector faces a number of constraints and challenges, some of which have been summarised below with possible recommendations;

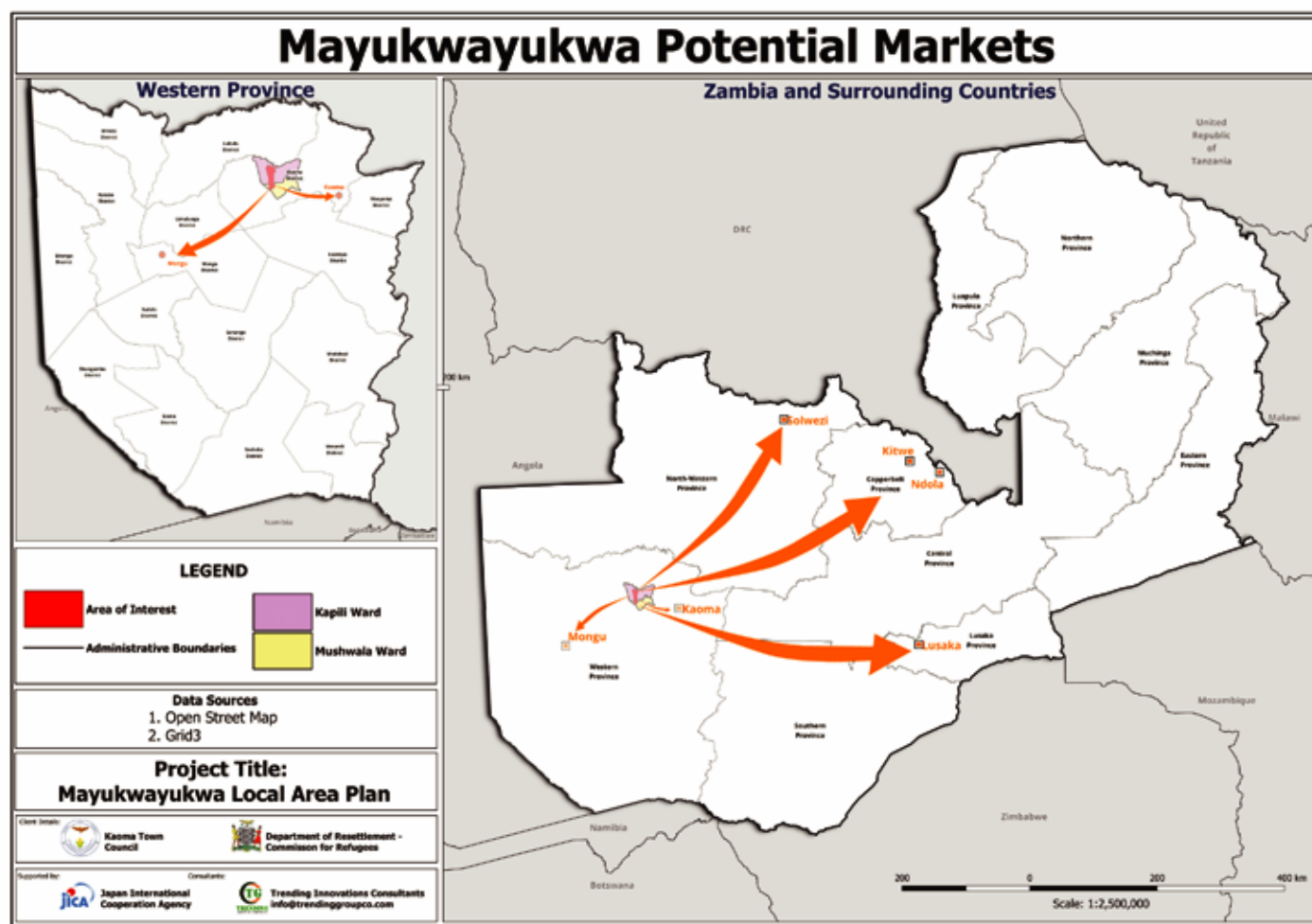
**Table 2.20: Agriculture Challenges and Recommendations**

| Key Constraint                                                                         | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Use of traditional methods for land preparation                                        | <ul style="list-style-type: none"> <li>Cooperatives acquire more mechanised equipment such as tractors, hand ploughs and other equipment to reduce cost</li> <li>Government (CDF) and other cooperating partners to assist with financing the purchase of tractors</li> <li>Livelihood programmes should provide financial support towards purchase of equipment</li> </ul>                                                                                                           |
| Low land utilisation                                                                   | <ul style="list-style-type: none"> <li>Invest in mechanical/technology to increase capacity to farm larger areas</li> <li>Intensify crop diversification</li> <li>Improve on - farm extension services</li> <li>Government and other players guarantee markets to farmers for crops to stimulate production</li> </ul>                                                                                                                                                                |
| Access to farming inputs                                                               | <ul style="list-style-type: none"> <li>Promote use of hybrid and climate resilient varieties</li> <li>Strengthen out grower schemes through partnering with agro-processors such as Premiercon Starch Ltd</li> </ul>                                                                                                                                                                                                                                                                  |
| Low quality control, lack of consistency in quantity and unstable commitment to supply | <ul style="list-style-type: none"> <li>MoA and other buyers to enhance extension services to ensure farmers follow required standards in their crop production</li> <li>Promote capacity building programmes among farmers on crop production and agri – business</li> <li>MoA and other stakeholders to encourage farmers diversify production beyond rainy season</li> </ul>                                                                                                        |
| Poor pest control, crop management and post-harvest handling                           | <ul style="list-style-type: none"> <li>MoA and other buyers to enhance extension services to ensure farmers follow required standards in their crop production</li> <li>Promote capacity building programmes among farmers on crop production, management and general agri – business</li> <li>Promote outgrower schemes for dedicated crop management</li> </ul>                                                                                                                     |
| Low organisational capacity of Cooperatives                                            | <ul style="list-style-type: none"> <li>Ministry of Small and Medium Enterprises and MoA to intensify training cooperatives in business development</li> <li>NGOs and cooperating partners promote sustainable programmes that enhance profitability in agriculture</li> </ul>                                                                                                                                                                                                         |
| Dependency mentality of some farmers                                                   | <ul style="list-style-type: none"> <li>NGOs and cooperating partners reduce on interventions that encourage dependency and promote self-reliance</li> <li>Allow farmers to invest in their own assets and tools e.g., purchase of agriculture inputs</li> <li>Identify local successful farmers as champions to promote self-reliance</li> </ul>                                                                                                                                      |
| Availability of ready market for the harvested crops / Aggregation                     | <ul style="list-style-type: none"> <li>District Business Associations (DBA) should work closely with local cooperatives to assist advocating and sourcing of better market price</li> <li>Established agro- processors to setup collection points through cooperatives</li> <li>Promote the use of Bulking and Aggregation Centres for farm products to guarantee large quantities</li> </ul>                                                                                         |
| Presence of Storage facilities                                                         | <ul style="list-style-type: none"> <li>Create crop Banks where farmers can deposit their crops for later withdraws</li> <li>Create awareness on cheaper and safer means of preserving stock</li> </ul>                                                                                                                                                                                                                                                                                |
| Access to finance                                                                      | <ul style="list-style-type: none"> <li>Financial assistance to be provided to cooperatives not in monetary form but as equipment or inputs</li> <li>Enhance sensitization on how cooperatives can access finance (Agricultural loans/grants) for equipment/inputs from CDF</li> <li>Enhance sensitization on how to access finance from the Citizen Economic Empowerment Fund (CEEC)</li> <li>Encourage farmers to set up saving groups for recapitalization in investment</li> </ul> |

## 2.19 Market Opportunities and Potentials

An overview on the support activities around the Mayukwayukwa Agriculture Value Chains aimed at understanding dynamics of the markets, what available opportunities and gaps exist and how they can be harnessed. By geographic location, Mayukwayukwa is strategically located surrounded by potential markets from the local, regional, and national markets

Figure 2.22: Potential Agriculture Markets in Kaoma



### 2.19.1 Local Markets

By virtue of its location, Mayukwayukwa has an opportunity to satisfy the local demand for a range of agriculture products such as maize, cassava, groundnuts, sweet potatoes, rice, and livestock products such as chickens, goats and fish. Other local formal markets include learning institutions such as the boarding school, health facilities public institutions within and outside Mayukwayukwa.

Other dynamics around local markets revealed that most of the farmers were exploiting more of informal markets trading directly with buyers or trading at the market for immediate cash transactions.

## **2.19.2 Regional, National and International Markets**

It has been observed that prospects to exploit regional and international markets are very high and lucrative but not fully exploited especially that the local demand still remains under met. For instance, the country experienced drought during the 2022/23 farming season prompting the President to declare it a national disaster with calls for international and local humanitarian support towards food supply. Mealie meal prices have also been escalating creating demand for corn. These effects are not localised but have regional effects – hence, creating unprecedented demand for agricultural demand. This creates an opportunity for farmers to fill this gap with increased production – albeit using alternative and climate resilient strategies.

Therefore, for Mayukwayukwa to be transformed into an Agri – business hub, farmers need transition from the predominant small scale into medium and large scale farmers with capacity to participate in the agriculture value chains and exploit both the local market and beyond in order to derive maximum agriculture benefits at every echelon of the process.

## **2.20 Overview of Issues under the Agriculture Value Chains**

### **i. Market for Products**

It is clear that there is market especially at local and regional level for agricultural products produced in Mayukwayukwa which are not being fully taken advantage of. Markets range from household level, government, private institutions and companies are providing the market which can be exploited. Therefore, with coordinated systems, the economic and social fortunes of Mayukwayukwa can be transformed once farmers plug into these markets.

### **ii. Availability of Local Farmers**

As of 2024, Mayukwayukwa had a total of 35 registered cooperatives and about 3,305 farmers albeit majority of them being small scale – demonstration a cadre of a population already engaged in agriculture activities. Enhancing this farmer population with improved extension services, investment in technology and mechanization, and other improved farming methods is likely to spur ripple effects in terms of out growers' programmes and peer learning at a broader scale to remain competitive in the agriculture value chain.

### **iii. Emergency of the Private Sector**

The emergency of the private sector in demanding for agriculture products in Kaoma is creating an opportunity for farmers to tap into the market. The penetration of Premiercon Starch Ltd into Mayukwayukwa demonstrates potential private sector interests in the area which needs to be sustained.

### **iii. Farmer Dependence on Livelihood and FISP Support**

For agriculture to be profitable (as a business) and farmers derive full benefits in the value chain, it demands volumes and consistency in the supply chain. However, most of the farmers are solely dependent on government and livelihood support with land utilization capacity averaging below a hectare. Such low production levels may not consistently meet the demand from the private sector and later on penetrate into the crop value chains. Farmer coordination is equally weak making aggregation and bulking of farm products a challenge. During the survey, it was reported that despite the availability of the Bulking Centre, farmers still opt to aggregate their

crops randomly and sale directly to buyers or transport their products to Mongu and Kaoma. This creates product information asymmetries, price fluctuation/inconsistencies and weakens market linkages. As a result, farmers continue their fragmented subsistence agriculture which yields low returns on investment.

#### iv. Lack of critical support infrastructure

Besides other social infrastructure, Mayukwayukwa lacks key infrastructure in roads and crossing points which makes the area economically unattractive and costly for doing business. While the area is strategically located, the need for good roads and crossing points may change the competitiveness of the area and make it economically viable. Lack of a reliable and sustainable energy supply is also currently a hinderance to the economic viability of the area with regards to setting up processing plants and other industries which would enhance value addition to agricultural products.

A summary of the overall findings in the Wider Mayukwayukwa is presented in Table below. These findings provide a guide on the strategic focus for transforming Mayukwayukwa into an Agri – business hub and centre for service provision that will improve the economic and social wellbeing of the area and surrounding communities. The following is a summary of issues per Zone<sup>33</sup>:

**Table 2.21: Priority Issues per Zone or Sector in Wider Mayukwayukwa**

| No.                           | Area of Concern/<br>Priority identified | Sector                     | Comment                                               | Scheme (Zone) |          |          |          |          | Wider    |          |   |
|-------------------------------|-----------------------------------------|----------------------------|-------------------------------------------------------|---------------|----------|----------|----------|----------|----------|----------|---|
|                               |                                         |                            |                                                       | 1             | 2        | 3        | 4        | RA       | MUS      | KA       |   |
| 1                             | School Upgrade                          | Education (Services)       | More CRB, nearer schools, Staff houses                | 1             | 1        | 1        | 1        | 1        | 1        | 1        | 7 |
| 2                             | Upgrade Main Road                       | Infrastructure (Transport) | Namapombwe from Kaoma – Lukulu to Mongu – Lusaka Road | 1             | 1        | 1        | 1        | 1        | 1        | -        | 6 |
| 3                             | Water                                   | Water and Sanitation       | Boreholes (Rehab/ Maintenance)                        | 1             | 1        | 1        | 1        | -        | 1        | 1        | 6 |
| 4                             | Mobile Network                          | Communication              | Coverage/ Strength                                    |               | 1        | 1        |          |          |          |          | 2 |
| 5                             | Electricity                             | Energy                     | Connecting the whole area to national hydropower grid |               |          |          |          | 1        |          |          | 1 |
| 6                             | Secondary School                        | Education (Infrastructure) | Upgrade Lyamunale/ Shibanga                           |               | 1        | 1        | 1        |          | 1        |          | 4 |
| 7                             | Crossing Points                         | Road (Infrastructure)      | Connect MYK to surrounding areas                      |               | 1        | 1        | 1        |          | 1        | 1        | 5 |
| 8                             | Clinic Upgrade                          | Health (Infrastructure)    | Establish/ equip referral facility                    | 1             | 1        | 1        | 1        | 1        | 1        | 1        | 7 |
| 9                             | Market                                  | Economic                   | Construct market shelter between Z1 and Z2            | 1             |          |          |          |          |          |          | 1 |
| 10                            | Local Roads                             | Infrastructure (Transport) | Open and gravel farm plot roads                       | 1             |          |          |          |          |          |          | 1 |
| 11                            | Skills Training                         | Vocational                 | Establish skills training                             |               |          |          | 1        | 1        | -        |          | 2 |
| <b>Total Block Priorities</b> |                                         |                            |                                                       | <b>7</b>      | <b>7</b> | <b>7</b> | <b>7</b> | <b>5</b> | <b>6</b> | <b>4</b> |   |

33. See Detailed Stakeholder Consultation Report in Appendix 1



Ladies from Mayukwayukwa Refugee Area carrying agriculture produce from the fields, 2024

# 03

## SECTION THREE

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### DEVELOPMENT FRAMEWORK

#### 3 Introduction

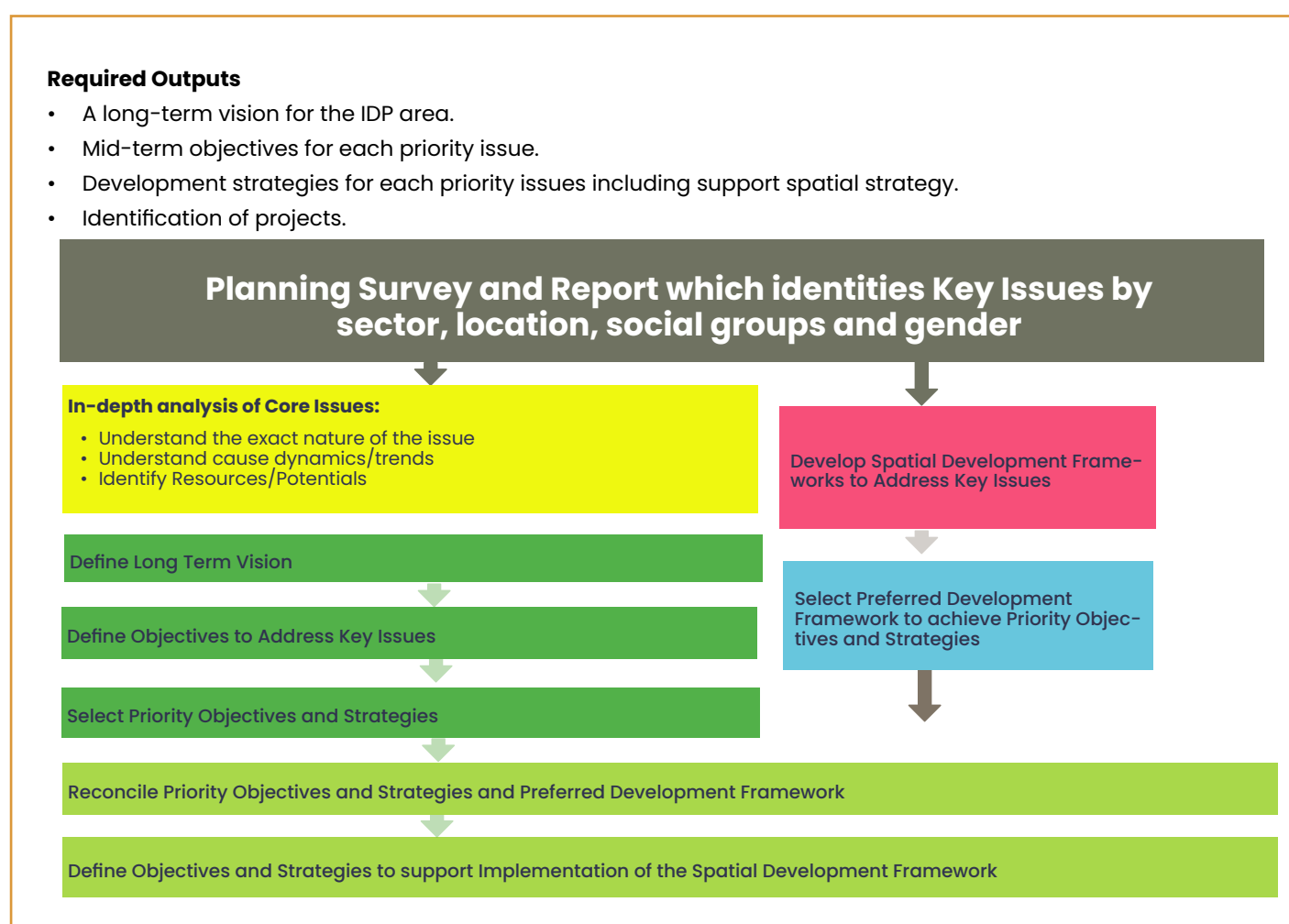
The Wider Mayukwayukwa Development Framework is based on the findings of the community engagements and stakeholder consultations as well as data review of various global, national and sector specific strategic development objectives. The framework translates the identified issues, challenges and opportunities into realistic and achievable strategies towards sustainable socio – economic development. The framework presents the development aspirations of all the lead sector institutions such as Kaoma Town Council, Commission for Refugees and the Department of Resettlement together with all line ministries and private players and partners through an integrated development approach to ensure focused action towards improving the state and welfare of people in Mayukwayukwa and the surrounding communities.

The Development Framework was a consultative process which got inputs and reviews from various stakeholders to ensure results were not only representative of the key players and stakeholders involved but also practicably possible to implement. The Framework provides theoretical but pragmatic strategies demonstrated on different spatial development scenarios which were informed based on the identified competitive advantages and opportunities in Mayukwayukwa and the surrounding communities of Kapili and Mushwala wards. The recommended strategies are not a panacea to all the challenges in the Wider Mayukwayukwa but provide a collaborative and systematic approach in addressing the overarching development challenges around inclusive human development, environmental sustainability and poverty reduction.

### 3.1 Understanding the Development Framework

Development Framework is a structured and comprehensive approach used to guide the growth and development of a specific area. It outlines the vision, goals, and objectives for the future development of an area as well as a system for decision-making and ensure that development in the area aligns with the broader goals and policies. The core objective of the framework is ensuring a cohesive and sustainable development approach that considers various development aspects

Figure 3.1 Structure of the Development Framework



The Wider Mayukwayukwa Development Framework aligns sector specific development objectives with the national strategic objectives enshrined in the Eighth National Development Plan (8NDP) and the national long-term plan (Vision 2030) and global development agenda (SDGs). The framework ensures that higher-level objectives and strategies are consistent with the local and other available resources, respond to the needs of the people, it is feasible as well as sustainable.

## 3.2 Problem Analysis

The Sustainable Development Goals are driven on a mission of shared blueprint for peace and prosperity for people and the planet, now and into the future. They provide a holistic perspective to country specific challenges varying in relevance and scale from country to country. According to the 2023 SDG Status Report, the performance of countries – including Zambia – has generally been poor in a number of indicators (UN, 2023), some which have been attested at country level.



Sanitation Facility at the Main Market in Mayukwayukwa, 2024

The Wider Mayukwayukwa LAP therefore addresses issues from the lowest development stages which provides a systematic approach for directly inputting into the country's strides towards achieving the 2030 targets of the SDGs. A number of development needs and issues identified in Wider Mayukwayukwa Planning Survey process correspond to the overarching development gaps which need to be addressed in the SDGs. These have been summarised in the table below demonstrating their linkages to the overall development framework.

**Table 3.1: SDGs and Planning Issues in Wider Mayukwayukwa**

| SDG No. | Strategic Goal                                                                                                                                                                                                                                                                                                                | Gaps in the Area                                                                                                                                                                                                                                                                                                                     |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | Ending poverty in all forms and dimensions by 2030 involves targeting the most vulnerable, increasing basic resources and services, and supporting communities affected by conflict and climate-related disasters                                                                                                             | The levels of poverty and vulnerability remains one of the biggest challenges among households not only in Mayukwayukwa but even surrounding communities of Kapili and Mushwala                                                                                                                                                      |
| 2       | End all forms of Hunger and malnutrition by 2030, making sure all people—especially children—have sufficient and nutritious food all year. This involves promoting sustainable agricultural, supporting small-scale farmers and equal access to land, technology and markets.                                                 | Food insecurity – particularly with heightened effects of climate change, is one of the biggest threat to most of the households who already faced adequate food supply challenges. Agriculture productivity has already been low in Mayukwayukwa exposing households to food insecurity                                             |
| 3       | Ensure healthy lives and promote well-being for all at all ages. Universal health coverage will be integral to achieving this goal, as well as employing multisectoral, rights-based and gender-sensitive approaches to address inequalities and build good health for all.                                                   | Access to quality health care services is one of the priority issues observed in the Wider Mayukwayukwa exacerbated by poor road infrastructure, lack of adequate facilities to attend to most medical conditions, inadequate personnel and transport challenges (ambulance services) and distances between health facilities        |
| 4       | Inclusive and quality education for all ensures that all girls and boys complete free primary and secondary schooling by 2030. It also aims to provide equal access to affordable vocational training, eliminate gender and wealth disparities, and achieve universal access to a quality higher education                    | The Wider Mayukwayukwa has evident gaps in both access and quality of education due to inadequate facilities and personnel. The whole area has 1 secondary schools, no tertiary and a number of institutions being community schools deprives a larger population access to quality education service                                |
| 6       | Clean Water and Sanitation targets providing safe and affordable drinking water for all by 2030 requiring investing in adequate infrastructure, providing sanitation facilities, encouraging hygiene and protecting and restoring water-related ecosystems                                                                    | A number of households particularly in the Wider Mayukwayukwa lack access to safe drinking water depending on dug shallow and unprotected wells or from the surrounding water bodies while sanitation services are also relatively poor                                                                                              |
| 7       | Affordable and clean energy for all by 2030 will require investing in solar, wind and thermal power, improving energy productivity, and by expanding infrastructure and upgrading technology to provide clean and more efficient energy as this will encourage growth and help the environment                                | Mayukwayukwa and all surrounding communities depend on fossil fuel, charcoal and firewood for lighting, cooking and powering of commercial equipment which is unsustainable and affects the environment negatively but also limits production and processing for value addition                                                      |
| 8       | Decent work and Economic growth is achieving full and productive employment, and decent work, for all women and men by 2030 by encouraging entrepreneurship and job creation and key to this are measures to eradicate forced labour, slavery and human trafficking                                                           | In its current state, Mayukwayukwa offers limited to none employment opportunities for majority of the population who depend on subsistence agriculture, trading, and charcoal burning as main sources of economic livelihood. These have low-income returns perpetuating vulnerability                                              |
| 9       | Industry, Innovation and Infrastructure aims at promoting innovative sustainable technologies and ensure equal and universal access to information and financial markets to bring prosperity, create jobs and build stable and prosperous societies                                                                           | Lack of capacity among farmers to invest in technologies to increase productivity, poor/lack of key infrastructure and energy to value to their products limits their capacity to participate in the agriculture value chains despite available opportunities                                                                        |
| 11      | Sustainable Cities and Communities aims at creating career and business opportunities, safe and affordable housing, and building resilient societies and economies through investment in public transport, creating green public spaces, and improving urban planning and management in participatory and inclusive ways.     | Mayukwayukwa refugee camp was previously perceived as a transit area for refugees lacking most basic services and amenities that would make the area liveable and attract social capital. The area lacks a strategic spatial development plan to guide investments and growth which is a threat to sustainable community development |
| 13      | Climate Action aims at integrating disaster risk measures, sustainable natural resource management, and human security into national development strategies to limit the increase in global mean temperatures. This requires urgent and collective strong political will, increased investment, and using existing technology | Climate change is a global phenomenon affecting all communities at various scale including Mayukwayukwa. Effects are also being felt directly by already vulnerable communities exacerbating their social, economic and overall household vulnerability                                                                              |
| 16      | Peace, Justice and Strong Institutions aim to significantly reduce all forms of violence, and work with governments and communities to end conflict and insecurity by promoting the rule of law, human rights, and strengthening the participation of developing countries in the institutions of global governance           | At the core of developing the Wider Mayukwayukwa is to ensure both former refugees, host and surrounding communities enjoy freedom and human rights and development is promoted in a non – discriminatory policy and legal environment.                                                                                              |

**Source:** Formulated by Author<sup>34</sup> – Other Data Sources (UNDP, 2023)

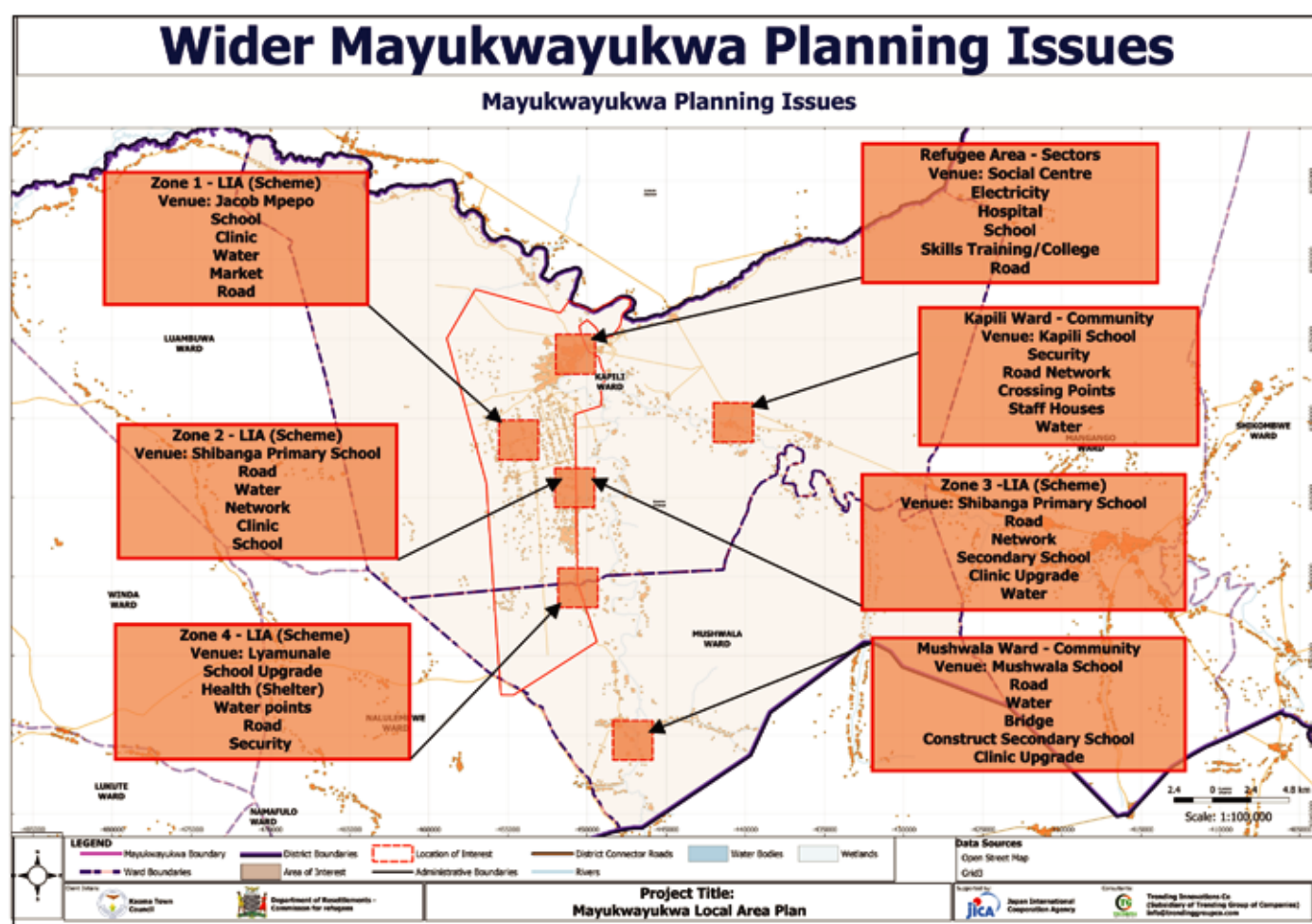
34. (UN, 2023) (UNDP, 2023)

### 3.3 Identification of Issues in Mayukwayukwa

Planning Issues in Mayukwayukwa and surrounding communities are multi – sectoral and multi – dimensional; some entrenched in the social and cultural constructs within the community and also bordering on policy and governance making a holistic approach to problem analysis even more complex. Problem Analysis was based on the interactive stakeholder engagements and consultations, review of existing data resources and collection of field data to validate and triangulate issues and facts affecting Mayukwayukwa.

Inputs from the stakeholders at various stages constituted one of the significant sources of data into establishing the core problems in Mayukwayukwa and surrounding communities as it represented the actual needs of the people who are the eventual beneficiaries of any development intervention being championed. The figure below gives a presentation of issues identified in each Zone and area within Mayukwayukwa as well as the wider Kapili and Mushwala areas. A number of issues identified were generic and corresponding to the service gaps identified with an exception of a few which were unique to some Zones.<sup>35</sup>

Figure 3.3: Distribution of Planning Issues per Zone



35. See Public Consultation Report for detailed results

A consolidated summary of results from the consultation process revealed that all issues were falling in any of the following thematic areas being; Education, Health, infrastructure, Water and Sanitation and other crosscutting issues – with issues of environment and climate change being key among them. Policy and Governance related issues were equally raised by external stakeholder from the local governance structures (WDCs), traditional authorities and political leaders<sup>36</sup>.

**Table 3.2: Summary of Issues from Community Consultation**

| Sector/Pillar               | Key Issues                                                                                                                                                                                     | Critical Factors                                                                                                                                                                                                                                                                      |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Education                   | <ul style="list-style-type: none"> <li>Inadequate secondary and primary schools</li> <li>Inadequate CRBs</li> <li>Inadequate staff houses</li> <li>Inadequate Sanitation facilities</li> </ul> | <ul style="list-style-type: none"> <li>Long distances</li> <li>Poor quality of service</li> <li>Low progression rates</li> <li>Inadequate staffing</li> <li>Poor hygiene</li> <li>Low literacy levels</li> <li>Early Marriages and Pregnancies</li> <li>Drug/Alcohol Abuse</li> </ul> |
| Infrastructure              | <ul style="list-style-type: none"> <li>Poor road condition</li> <li>No crossing points</li> <li>Poor network coverage</li> <li>Lack of Hydro-electricity</li> </ul>                            | <ul style="list-style-type: none"> <li>High cost of doing business</li> <li>Limited integration</li> <li>Poor access to available services</li> <li>Limited access to information</li> <li>Limited industrial activity (no production/ value addition)</li> </ul>                     |
| Health                      | <ul style="list-style-type: none"> <li>Inadequate health facilities</li> <li>Poor maternal services</li> <li>Inadequate staff/houses</li> </ul>                                                | <ul style="list-style-type: none"> <li>Long distances to access health services</li> <li>Poor quality of service</li> <li>High disease burden</li> <li>Inadequate staff</li> </ul>                                                                                                    |
| Water and Sanitation        | <ul style="list-style-type: none"> <li>Inadequate safe water sources</li> <li>Poor sanitation facilities</li> </ul>                                                                            | <ul style="list-style-type: none"> <li>High disease burden</li> <li>Long distances</li> </ul>                                                                                                                                                                                         |
| Livelihood                  | <ul style="list-style-type: none"> <li>Limited livelihood options</li> <li>Low agriculture productivity</li> <li>Limited market linkages</li> <li>Limited skills</li> </ul>                    | <ul style="list-style-type: none"> <li>High dependence on SSF</li> <li>Low household income</li> <li>Weak market linkages</li> </ul>                                                                                                                                                  |
| Environment/ Climate Change | <ul style="list-style-type: none"> <li>Drought</li> <li>Deforestation</li> </ul>                                                                                                               | <ul style="list-style-type: none"> <li>Low agriculture outputs</li> <li>Food insecurity</li> <li>Scarce water sources</li> <li>Increase disease burden</li> <li>Loss of biodiversity</li> </ul>                                                                                       |
| Policy/ Governance          | <ul style="list-style-type: none"> <li>Low representation of PoC</li> <li>Low local participation</li> <li>Policy integration bottlenecks</li> </ul>                                           | <ul style="list-style-type: none"> <li>Poor coordination of stakeholders/ players</li> <li>Duplication of activities/ interventions</li> <li>Unsustainable projects (lack of ownership)</li> <li>High dependence syndrome</li> </ul>                                                  |

36. (CoR, 2022)

## 3.4 Core Issues, Causes and Effects

### 3.4.1 Underdevelopment of Wider Mayukwayukwa

Mayukwayukwa and all surrounding communities has over time lacked a number of key infrastructures, facilities and services which perpetuate its underdevelopment. The unavailability and quality of these services undermine the degree to which refugees, former refugees and host communities can effectively participate in the development of Kaoma and enjoy socially and economically viable lives. Overall underdevelopment of Mayukwayukwa and surrounding communities was therefore identified as one of the core problems masking a number of planning issues discussed below;

**Table 3.3: Analysis of the Under Development of Mayukwayukwa**

| Core Issue(s)                    | Possible Causes                                                                                                                 | Possible Effects (Linked to the PSIR)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Outcome                                                                                                                                                                       |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Underdevelopment of Mayukwayukwa | Lack of investment in permanent social and economic infrastructure                                                              | <ul style="list-style-type: none"> <li>- Poor or lack of permanent and modern infrastructure</li> <li>- Poor quality of services such as health, education, water and sanitation etc</li> <li>- High emigration and technical staff attrition</li> <li>- Uncompetitive business environment for investments and industrialization – high investment costs</li> <li>- Lack of economic activities to create job opportunities</li> </ul>                                                                                                               | Former refugees, refugees and host communities deprived of their needs and limiting their opportunities towards self – reliance and their capacity to enjoy full human rights |
|                                  | Poor/lack of long-term development plan for Mayukwayukwa                                                                        | <ul style="list-style-type: none"> <li>- Lack of investment in permanent social and economic infrastructure</li> <li>- Mayukwayukwa perceived as a temporal area for refugees and other people of concern (which is now no longer the case)</li> <li>- Poor distribution of services</li> </ul>                                                                                                                                                                                                                                                       |                                                                                                                                                                               |
|                                  | increase in population for both refugees, former refugees and Zambians living in Mayukwayukwa and host communities              | <ul style="list-style-type: none"> <li>- Increased pressure on the limited existing infrastructure</li> <li>- Increase in disease burden such as malaria and diarrhoea</li> <li>- Environmental degradation due to indiscriminate exploitation of natural resources</li> </ul>                                                                                                                                                                                                                                                                        |                                                                                                                                                                               |
|                                  | Poor maintenance of existing infrastructure                                                                                     | <ul style="list-style-type: none"> <li>- Deterioration of existing infrastructure</li> <li>- Increased cost of maintenance and service delivery</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                               |
|                                  | Perception of Mayukwayukwa as separate area from surrounding communities and not being part of the overall district development | <ul style="list-style-type: none"> <li>- High emigration and technical staff attrition</li> <li>- Imbalance in access to social and life serving services among population</li> </ul>                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                               |
|                                  | Poor distribution of existing infrastructure                                                                                    | <ul style="list-style-type: none"> <li>- Limited equitable access to services</li> <li>- Low literacy levels limiting self-reliance opportunities</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                               |
|                                  | Climate Change causing variability in weather patterns such as drought                                                          | <ul style="list-style-type: none"> <li>- High cost of putting up infrastructure</li> <li>- Disruption of human activities due to flooding, washing away of crossing points</li> <li>- High rate of deterioration of infrastructure increasing cost of maintenance</li> <li>- Exacerbate challenges of access to services – services become even more inaccessible e.g. schools cut off, health facilities and ambulance services are limited</li> <li>- Increase risk of water contamination – sanitation services mainly are pit latrines</li> </ul> |                                                                                                                                                                               |

### 3.4.2 Low Agriculture Productivity

The competitive advantage of Mayukwayukwa and surrounding communities lies in its agriculture potential for determining household food security, nourishment and enhancing the economic wellbeing of the majority residents in the area. The overall performance of this sector is therefore critical in determining the outcome of any development interventions aimed at positively transforming Mayukwayukwa, surrounding communities and Kaoma district as a whole. Low agriculture productivity was identified as one of the core issues affecting the overall development contributing to heightened poverty levels in area. The following is a summary of issues drawn from various stakeholders demonstrating how low agriculture productivity currently affects the overall development of Mayukwayukwa;



Road side trading activities in Mayukwayukwa, 2024

Table 3.4: Analysis of Low Agriculture Productivity

| Core Issue(s)                | Possible Causes                                                                                                                                                                                                   | Possible Effects outlined in the PSIR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Outcome                                                                                                                                                                                                                                                 |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Low Agriculture Productivity | <ul style="list-style-type: none"> <li>Traditional farming methods due to limited access to technology and equipment</li> </ul>                                                                                   | <ul style="list-style-type: none"> <li>Low land utilization and yield per farmer</li> <li>Labour -intensive and less efficient</li> <li>Low quality crops</li> <li>Low volumes to meet market demands</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | With low agriculture production, refugees, former refugees and host communities are unproductive with limited livelihood options, become food insecure and unable to be self-reliant and contribute to district food security and national productivity |
|                              | <ul style="list-style-type: none"> <li>Lack and poor state of infrastructure such as electricity, roads and crossing points, irrigation systems, storage facilities, network and internet connectivity</li> </ul> | <ul style="list-style-type: none"> <li>High cost of doing agriculture as a business</li> <li>Limited access to markets</li> <li>Low occupancy rate of farmers with land in the Resettlement Scheme</li> <li>Uncompetitive for medium scale investors (Achor farms)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                         |
|                              | <ul style="list-style-type: none"> <li>Lack of value addition to agricultural products</li> </ul>                                                                                                                 | <ul style="list-style-type: none"> <li>Weak value chains</li> <li>Low quality crops and volumes unable to meet market demand</li> <li>Low household income</li> <li>Limited alternative livelihood options</li> <li>High dependency on inputs</li> <li>Insufficient access to nutritious food causing health problems and healthcare costs</li> </ul>                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                         |
|                              | <ul style="list-style-type: none"> <li>Limited access to finance among farmers to procure inputs and equipment limit farmers to invest and scale up</li> </ul>                                                    | <ul style="list-style-type: none"> <li>High cost of doing agriculture as a business</li> <li>Low farmer participation in high value crops</li> <li>Limited access to markets and weak value chains</li> <li>Low quality crops and volumes unable to meet market standards</li> <li>High dependency syndrome</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                         |
|                              | <ul style="list-style-type: none"> <li>Unsustainable farming practices (e.g. Monocropping)</li> </ul>                                                                                                             | <ul style="list-style-type: none"> <li>Low quality crops and volumes unable to meet market standards</li> <li>Food insecurity leading to food shortages and malnutrition</li> <li>Low household income</li> <li>Environmental degradation</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                         |
|                              | <ul style="list-style-type: none"> <li>Limited extension services</li> </ul>                                                                                                                                      | <ul style="list-style-type: none"> <li>Increase in cost of engaging in agriculture as a business</li> <li>Low farmer participation in high value crops</li> <li>Limited access to markets and weak value chains</li> <li>Low quality crops</li> <li>Low crop volumes to meet market demands</li> <li>Environmental degradation</li> <li>Poor farming practices</li> <li>Inadequate technical information packages to farmer (Soils suitability, crops)</li> </ul>                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                         |
|                              | <ul style="list-style-type: none"> <li>Climate variability causing unpredictable weather patterns such as droughts and increased temperatures</li> </ul>                                                          | <ul style="list-style-type: none"> <li>High crop failure increasing cost of doing agriculture as a business</li> <li>High investment costs around crop management; disease management, crop varieties increase cost of agriculture</li> <li>Low farmer participation in high value crops</li> <li>Low quality crops to meet market standards</li> <li>Food insecurity leading to food shortages and malnutrition</li> <li>Reduce household income limiting livelihood options</li> <li>High rate of emigration of residents to seek economic opportunities in other areas</li> <li>Reduced alternative livelihood options</li> <li>Insufficient access to nutritious food causing health problems and healthcare costs</li> </ul> |                                                                                                                                                                                                                                                         |
|                              | <ul style="list-style-type: none"> <li>Price volatility discouraging investing in higher-yielding crops</li> </ul>                                                                                                | <ul style="list-style-type: none"> <li>High cost of doing agriculture as a business</li> <li>Low farmer participation in high value crops</li> <li>Limited access to markets and weak value chains</li> <li>Low crop volumes to meet market standards</li> <li>Low household income limiting livelihood options</li> <li>High dependency on imports</li> </ul>                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                         |
|                              | <ul style="list-style-type: none"> <li>Poor coordination among farmers</li> </ul>                                                                                                                                 | <ul style="list-style-type: none"> <li>Limited access to markets</li> <li>Weak value chains</li> <li>High cost of doing agriculture as a business</li> <li>Low farmer participation in high value crops</li> <li>Limited access to markets</li> <li>Low crop volumes to meet market demands</li> <li>High dependence syndrome</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                         |
|                              | <ul style="list-style-type: none"> <li>Unsustainable livelihood interventions (Handouts)</li> </ul>                                                                                                               | <ul style="list-style-type: none"> <li>Low farmer participation in high value crops</li> <li>Weak value chains</li> <li>Food insecurity leading to food shortages and malnutrition</li> <li>Low household income limiting livelihood options</li> <li>High dependence syndrome</li> <li>Insufficient access to nutritious food causing health problems and healthcare costs</li> </ul>                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                         |
|                              | <ul style="list-style-type: none"> <li>Lack of medium/large-scale farms due to Policy limitations</li> </ul>                                                                                                      | <ul style="list-style-type: none"> <li>Farming dominated by small holder farmers with limited scale up capacity</li> <li>Limited market linkages to off takers and other value chains</li> <li>Lack of out grower opportunities for small holder farmers</li> <li>Limited knowledge sharing, peer learning or mentorship</li> <li>Low crop volumes to meet market demands</li> </ul>                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                         |

### 3.4.3 Ineffective Coordination and Administrative Integration

Over the years, Mayukwayukwa has and continues to receive a lot of support from international and local partners and development cooperation through humanitarian support in various forms. Despite the level of good will, livelihood conditions for majority of the people in Mayukwayukwa has remained the same – and worsened in some instances. Taking stock of the various interventions and their long-term impact on the livelihood of people in Mayukwayukwa and beyond has also been a challenge resulting in multiple parallel researches by different partners which end up fatiguing communities. Lack of effective administrative integration and stakeholder coordination at various levels of governance was one of the issues identified by stakeholders which contributes to the duplicity of interventions with unsustainable long-term impacts on the welfare of the people and status of the area. Notably, possible causes for a number of issues raised around poor stakeholder coordination and ineffective integration are biased towards policy and governance. A summary of factors and their possible outcomes has been provided on the next page;



Technical Team composed of Trending Group Consultants, Director from Kaoma Town Council, Scheme Manager from DOR, Provincial Chiefs Affairs, DOR and Registration Officer from COR after the Chiefdom visit during the Mayukwayukwa Consultative meetings, 2024

**Table 3.5 Analysis of Ineffective Coordination and Administrative Integration**

| Core Issue(s)                                                       | Possible Causes                                                                                                        | Possible Effects outlined in the PSIR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Outcome                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ineffective administrative Integration and stakeholder coordination | - Initial government and international humanitarian approach to refugee response which was biased to People of Concern | - Limited buy – ins from local stakeholders – politicians, traditional authorities and some government institutions to mobilise resources/support interventions<br>- No direct benefit of Mayukwayukwa to host communities                                                                                                                                                                                                                                                                                                                                                                                                                                         | Mechanisms for coordination and collaboration are not enhanced allowing partners and stakeholders to continue working in silos leading to spread of resources, other stakeholders not involved in the process and the impact of livelihoods interventions is not felt by people in Mayukwayukwa and surrounding communities |
|                                                                     | - Lack of clarity in the policy provisions around the status of former refugees in Zambia                              | - Limited opportunities for former refugees to become self-reliant outside Mayukwayukwa e.g. some cannot freely conduct businesses<br>- Limiting former refugees access to livelihood programmes e.g. access to FISP, employment                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                             |
|                                                                     | - Lack of single approach for coordination and programming of interventions in Mayukwayukwa                            | - Poor coordination of development interventions<br>- Duplicity of interventions among stakeholders/players targeting same beneficiaries<br>- Unsustainability of some interventions due to spreading of resources (Wastage of resources in the long term)<br>- Limited buy – ins from local stakeholders – politicians, traditional authorities and some government institutions to mobilise resources/support interventions<br>- Lack of systematic tracking systems (no M&E) to monitor overall progress – each player has their reporting system<br>- Lack of common baseline data – multiple points of reference providing multiple perspectives to the needs |                                                                                                                                                                                                                                                                                                                             |
|                                                                     | - Inadequate information sharing and sensitization about Mayukwayukwa Resettlement Scheme and Refugee Camp             | - Limited involvement/support from local stakeholders due to perception of Mayukwayukwa as a more privileged community among the host communities<br>- Public perception of Mayukwayukwa as a Refugee area only and not an agriculture scheme<br>- Indifference in perceptions from external stakeholders about the feasibility of the integration process<br>- Limited opportunities for former refugees to become self-reliant outside Mayukwayukwa<br>- Poor coordination of development interventions<br>- Duplicity of interventions among stakeholders/players targeting same beneficiaries                                                                  |                                                                                                                                                                                                                                                                                                                             |
|                                                                     | - Too many investments towards Mayukwayukwa compared to surrounding (host) communities                                 | - Poor coordination of development interventions<br>- Duplicity of interventions among stakeholders/players targeting same beneficiaries<br>- Unsustainability of some interventions due to thinly spreading of resources                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                             |
|                                                                     | - Lack of involvement of subdistrict governance structures in the programming and implementation of activities         | - Slow government procedures<br>- Lack of representation in district development structures<br>- Lack of adequate representation in district resource mobilization and allocation e.g. CDF<br>- Inadequate information trickling to communities                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                             |

### 3.5 Vision, Goals and Objectives

The Vision for the Wider Mayukwayukwa development agenda is based on the Kaoma district development aspiration drawn from the 2024 – 2034 Integrated Development Plan (IDP), the Modernization of Refugee and Host Communities Approach (MORHCA) under the Office of the Commission for Refugees and Vision from the Department of Resettlement under the Office of the Vice – President. These were augmented by inputs on the development aspiration of local stakeholders and institutions.

According to the long-term district development strategy, Kaoma is poised to be a vibrant district fostering socio-economic growth and sustainable natural resource utilisation by 2034.

The IDP will focus on the following as key drivers to achieving the above vision;

1. Improving transportation networks (roads, bridges), telecommunications, and utilities (water, electricity) to facilitate economic activities and enhance connectivity within the district
  2. Implementing sustainable practices for agriculture, forestry, and water management to preserve natural resources while supporting economic growth
  3. Developing strategies to mitigate risks associated with climate change, such as droughts and flash floods, through resilient infrastructure and agricultural practices
- (Extracted from the Kaoma Integrated Development Plan, 2024 – 2034).

Therefore, development of Mayukwayukwa and surrounding areas directly operationalises the overall district long term development thrust albeit at a localised scale.

The characteristics of Mushwala and Kapili wards which hosts Mayukwayukwa Refugee Camp housing refugees and former refugees makes the development plan for the area a little more peculiar than other areas in the district. Government through the office of the Commission for Refugees has taken a paradigm shift in the protection and management of Refugees and all people of concern by promoting self-sustainability among Refugees and hosting community to be fostered through the refugee settlement development using the Modernization of Refugee and Host Community Settlements Approach (MORHCSA) through various interventions including the digitalisation of platforms, harmonisation of laws, provision of socio-economic amenities and opportunities in the refugee settlements and surrounding communities<sup>37</sup>. This approach is equally consistent with the overall district development focus aimed at an integrated and inclusive development approach.

The Wider Mayukwayukwa approach also responds to the vision of the Resettlement Programme which seeks to promote sustainable settlements that are highly productive. This is to be achieved through the provision of land, value chain infrastructure and support settlers to engage in productive livelihoods that contribute to national food and nutritional security and contribute to economic transformation and job creation<sup>38</sup>.

Lastly but not the least, the Wider Mayukwayukwa development strategy falls within the national development agenda of the 8<sup>th</sup> National Development Plan focusing on Socio – economic transformation for improved livelihood which is also in line with the Vision 2030 and SDGs. The vision for the Wider Mayukwayukwa was thus informed by the foregoing multi – sectoral strategic focus to ensure a coordinated approach to achieving the overall development goals of Mayukwayukwa and surrounding communities.

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37. (OVP, 2022)

38. Base year being 2024 – Exchange Rate at US\$ 1: ZMW 26

## Vision Statement

A Productive, Inclusive and self-sufficient Settlement by 2029

### Goals

The vision of the Wider Mayukwayukwa will be guided by the following strategic Goals;

- **Goal 1:** To position Mayukwayukwa as a basic services hub that would support agri – business activities and benefit the population of Kapili and Mushwala Wards by 2029
- **Goal 2:** To transform Mushwala and Kapili wards into an agri-business hub that will address food security at local level and contribute to district agriculture production by 2034
- **Goal 3:** To develop a joint, inclusive and comprehensive framework (covering both refugee settlements and resettlement schemes, and surrounding host community), for coordinated multi – sectoral interventions by 2029

## 3.6 Long Term Development Objectives

The following Development Objectives will operationalise the goals of the Wider Mayukwayukwa towards the desired vision within the planning period.

**Table 3.6:** Development Objective 1

| Strategic Goal 1: To position Mayukwayukwa as a basic services hub that would support agri – business activities and benefit the population of Kapili and Mushwala Wards. |                                                                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                           | Development Objectives                                                                                                                                                  |
| 1.1                                                                                                                                                                       | Improve mobility and access to services within Mayukwayukwa and with surrounding communities by rehabilitating/constructing transport corridors and key crossing points |
| 1.2                                                                                                                                                                       | Improve access and quality of health care, education and water and sanitation services at strategic locations that have wider coverage/catchment scope                  |
| 1.3                                                                                                                                                                       | Increase proportion of population with access to clean and safe drinking water                                                                                          |
| 1.4                                                                                                                                                                       | Improve access to information and communication to all population in Mushwala and Kapili by increasing and improving mobile network coverage                            |
| 1.5                                                                                                                                                                       | Promote strategic, equitable and climate resilient infrastructure investment and distribution of services                                                               |

**Table 3.7:** Development Objective 2

| Strategic Goal 2: To transform Mushwala and Kapili wards into an agri-business hub that will address food security at local level and contribute to district agriculture production. |                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                      | Development Objectives                                                                                                                                                  |
| 2.1                                                                                                                                                                                  | Improve productivity (crop yield and land utilization rate) per farmer by 60% for at least 80% of the registered small-scale farmers                                    |
| 2.2                                                                                                                                                                                  | Increase population engaged in farming through promotion of earlier inclusion of youth, allocation of farm plots, and introduction of “anchor farmers”                  |
| 2.3                                                                                                                                                                                  | Achieve at least 30% of the registered farmers with access to financing                                                                                                 |
| 2.4                                                                                                                                                                                  | Build and strengthen local and regional market linkages                                                                                                                 |
| 2.5                                                                                                                                                                                  | Develop capacities of 50% of the registered cooperatives to invest in diversified agro-activities to enhance industries/enterprise development for local value addition |
| 2.6                                                                                                                                                                                  | Promote climate smart agriculture practises to enhance resilience among farmers                                                                                         |

**Table 3.8: Development Objective 3**

| <b>Strategic Goal 3: To develop a joint, inclusive and comprehensive framework (covering both refugee settlements and resettlement schemes, and surrounding host community), for coordinated multi – sectoral interventions by 2029.</b> |                                                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                          | Development Objectives                                                                                                                                                       |
| 3.1                                                                                                                                                                                                                                      | Improve coordination of all activities in and around Mayukwayukwa by establishing coordination mechanism with several tools                                                  |
| 3.2                                                                                                                                                                                                                                      | Implement joint advocacy and external-communication strategies for the transformation and development of Mayukwayukwa Resettlement, Refugee Camp and surrounding communities |
| 3.3                                                                                                                                                                                                                                      | Strengthen coordination and participation/representation of residents (including former Refugees) in sub-district/district governance processes                              |
| 3.4                                                                                                                                                                                                                                      | Improve coordination among stakeholders and players within Mayukwayukwa                                                                                                      |

The above identified objectives are envisaged to systematically guide the process in the achievement of the long-term development vision for Mayukwayukwa and surrounding communities. To actualise these objectives, programmes and activities have been identified to be implemented in the next five (5) years depending on the availability of resources and fulfilling of other requisite preconditions. Subsequent sections outline an implementation Framework of activities, estimated costs and anticipated key players.

### 3.7 Budget and Implementation Framework

Programmes under the Wider Mayukwayukwa LAP are envisaged to be implemented within 5 years and later reviewed for another 5 years in line with the Kaoma IDP. The identified strategies will be implemented through multi – sectoral coordination and collaboration among different players and pooling of resources from various sectors and interest groups.

A summary of the implementation strategy – activities and proposed targets, coordination and potential resources have been outlined in the Tables on the next page;

**Strategic Goal 1:** To position Mayukwayukwa as a basic services hub that would support agri – business activities and benefit the population of Kapili and Mushwala Wards.

**Table 3.9: Implementation Framework for Goal 1**

| Activities per Development Objectives<br>(Based on gaps in the PSIR)                                                                                                                                      | Y1 | Y2 | Y3 | Y4 | Y5 | Baseline                 | Target                          | Lead/<br>Implementing<br>Institution | Coordination<br>with | Estimated<br>(ZMW)                  | Possible Source<br>of Resources |                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|----|----|----|--------------------------|---------------------------------|--------------------------------------|----------------------|-------------------------------------|---------------------------------|--------------------------------------|
| <b>Development Objective 1.1: Improve mobility and access to services within Mayukwayukwa and with surrounding communities by rehabilitating/constructing transport corridors and key crossing points</b> |    |    |    |    |    |                          |                                 |                                      |                      |                                     |                                 |                                      |
| 1.1.1 Rehabilitate 60 km Namapombwe road from D792 (Kaoma – Lukulu) to M9 (Lusaka – Mongu)                                                                                                                |    |    |    |    |    | 7 km                     | 67 km                           | KTC                                  | RDA, ZNS, KTC, COR   | Budget<br>120,400,000 <sup>39</sup> | Stakeholders/<br>Partners       | Location/ Reference on Map<br>RD 309 |
| 1.1.2 Rehabilitate 103 km internal roads in Mayukwayukwa connecting farms and surrounding communities                                                                                                     |    |    |    |    |    | 47 km                    | 150 km                          | DOR                                  | KTC, COR             | 103, 000,000                        | Stakeholders/<br>Partners       | Mayukwa yukwa Scheme                 |
| 1.1.3 Construct crossing points (culverts/bridges) at Luampa river connecting Mayukwayukwa to Kanando, Kayambi and Mbale communities                                                                      |    |    |    |    |    | 0                        | 3 Crossing points               | KTC                                  | KTC, RDA, DOR, COR   | 12,000,000                          | Stakeholders/<br>Partners       | Luampa River                         |
| 1.1.4 Construction of main bridge across Luena River                                                                                                                                                      |    |    |    |    |    | 1(6 ton capacity) bridge | At least 20-ton bridge capacity | DOR                                  | RDA, KTC, COR        | 3, 500,000.00                       | Partners                        | Luena river                          |

39. Rates for road works are estimated at ZMW2,000,000/km market rate – With support from stakeholders such as use of equipment from the Council or ZNS, the rate drops to an average ZMW 1000,000/km

| Development Objective 1.2: Improve access and quality of health care, education and water and sanitation services at strategic locations that have wider coverage/catchment scope |  |  |  |  |  |                                                                                         |                                                                                                            |     |                     |                |                  |                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-----|---------------------|----------------|------------------|-----------------------------------------------------------------------------------------------------|
| 1.2.1 Upgrade Mayukwayukwa II Clinic to mini-hospital achieving 80% of national health standards                                                                                  |  |  |  |  |  | 1 RHC                                                                                   | 2 Admission wards, 1 Laboratory, 1 administration, 10 Staff houses, 2 maternity annex, mortuary            | MoH | COR                 | 100,000,000.00 | MoH Stakeholders | Mayukwa-yukwa Camp                                                                                  |
| 1.2.2 Connect Mayukwayukwa (public facilities) to national hydropower grid                                                                                                        |  |  |  |  |  | 0                                                                                       | 12km                                                                                                       | REA | MoH                 | 15,000,000.00  | Partners         | All GRZ facilities                                                                                  |
| 1.2.3 Addition of maternity annexes with equipment in 3 health facilities                                                                                                         |  |  |  |  |  | 0                                                                                       | 4                                                                                                          | MoH | COR, DOR            | 20,000,000.00  | Partners         | Mushwala, Shibanga, Minyoi and Clinic I - MYK I (Upgrade of MYK II to come with requisite services) |
| 1.2.4 Upgrade Primary to secondary school to reduce distance to within 10km for 40% of learners in Mayukwayukwa and Mushwala ward                                                 |  |  |  |  |  | 0                                                                                       | 1 Secondary School (4 classrooms, 1 science laboratory, 4 Ablution blocks, 6 staff houses, 1 Water Scheme) | MoE | MoE, COR            | 2,500,000.00   | GRZ, Partners    | Lyamunale/ Shibanga (Zone 3/ Zone 4)                                                                |
| 1.2.5 Construct 10 additional classroom blocks (1x3) in existing primary and secondary schools                                                                                    |  |  |  |  |  | Mayukwa-yukwa Day, Jacob Mpempe (1x3), Kasheke Community (1x2), Mushwala Pri.; 2x 1x3), | 10 - 1x3 CRBs, 10 Staff Houses, 4 Ablution Blocks                                                          | MoE | MoE, DOR, COR       | 14,280,000.00  | Partners         | Mayukwayukwa Day, Jacob Mpempe, Mushwala, Kasheke                                                   |
| 1.2.6 Construct Boarding facilities at Mayukwayukwa Boarding and Day to accommodate learners from distant places                                                                  |  |  |  |  |  | 40 Bed Capacity                                                                         | 300 Bed capacity                                                                                           | MOE | COR/DOR             | 800,000.00     | KTC/ Partners    | Mayukwa yukwa Boarding and Day Secondary Schools                                                    |
| 1.2.7 Procure desks for secondary and primary schools in schools                                                                                                                  |  |  |  |  |  | 7.6 learners per desk (1,075)                                                           | 2 learners per desk (1, 724 desks)                                                                         | MoE | KTC                 | 2,989, 500.00  | KTC and Partners | All schools                                                                                         |
| 1.2.8 Construct water scheme and waterborne facility in 1 health facility                                                                                                         |  |  |  |  |  | 3 water schemes                                                                         | 4 water schemes                                                                                            | MoH | Dept. Water Affairs | 2,000,000.00   | Partners         | Kapili                                                                                              |
| 1.2.9 Construct waterborne facilities in 1 secondary school                                                                                                                       |  |  |  |  |  | 1 Secondary School                                                                      | 2 Secondary Schools                                                                                        | MoE | Dept. Water Affairs | 1,000,000.00   | Stakeholders     | Mayukwa yukwa Secondary                                                                             |
| 1.2.10 Construct 5 improved/simple technology based waterborne latrines in primary schools                                                                                        |  |  |  |  |  | 64 VIP Latrines                                                                         | 94 VIP Latrines                                                                                            | MoE | DOR, COR, KTC       | 1, 500,000.00  | Stakeholders     | Kapili, Shikongi, Moela                                                                             |

|                                                                                                                                                                                                  |  |  |  |  |  |                                                    |                                                               |              |               |                        |                        |                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|----------------------------------------------------|---------------------------------------------------------------|--------------|---------------|------------------------|------------------------|--------------------------------------|
| 1.2.11 Upgrade of Mayukwayukwa Police Post to Grade C Station                                                                                                                                    |  |  |  |  |  | 1 Office Block, 6 Staff, 0 Staff houses/ cells etc | 4 Staff houses, Standard Holding Cells, Offices, Water scheme | Home Affairs | COR, KTC      | 2,650,000.00           | Partners               | Refugee Camp                         |
| <b>Development Objective 1.3: Increase proportion of population with access to clean and safe drinking water by 80%</b>                                                                          |  |  |  |  |  |                                                    |                                                               |              |               |                        |                        |                                      |
| 1.3.1 Construct communal water schemes in densely populated Zones                                                                                                                                |  |  |  |  |  | 0                                                  | 3                                                             | DOR          | COR, KTC      | 5,000,000.00           | Stakeholders           | Refugee Camp, Zone 2, Zone 3, Zone 4 |
| 1.3.2 Rehabilitate (change materials) for existing boreholes in surrounding communities                                                                                                          |  |  |  |  |  | -                                                  | 10                                                            | KTC          | COR, DOR      | 200,000.00             | KTC, DOR, COR Partners | Kapili, Mushwala Wards               |
| <b>Development Objective 1.4: Improve access to information and communication among majority of population in Mayukwayukwa and surrounding communities by increasing mobile network coverage</b> |  |  |  |  |  |                                                    |                                                               |              |               |                        |                        |                                      |
| 1.4.1 Construct/expand mobile communication towers/coverage in Mayukwayukwa and surrounding communities                                                                                          |  |  |  |  |  | 30%                                                | 100%                                                          | ZICTA        | KTC, DOR, COR | -                      | ZICTA                  | Zone 2, Zone 3, Mushwala             |
| <b>Development Objective 1.5: Promote strategic, equitable and climate change resilient basic infrastructure investment and distribution of services</b>                                         |  |  |  |  |  |                                                    |                                                               |              |               |                        |                        |                                      |
| 1.5.1 Develop a Comprehensive Land Use Plan for Mayukwayukwa with different land use categories for future development                                                                           |  |  |  |  |  | 0                                                  | 1                                                             | DOR          | KTC, DOR, COR | 500,000.00             | KTC, DOR, COR Partners | Mayukwa yukwa                        |
| 1.5.2 Develop DRM Standard Operating Procedures and disseminate for climate resilient infrastructure and service provision                                                                       |  |  |  |  |  | 0 SOPs                                             | 5 SOPs                                                        | DMMU         | KTC           | 500,000.00             | DMMU Stakeholders      | Kapili, Mushwala (Mayukwa-yukwa)     |
| <b>SUBTOTAL</b>                                                                                                                                                                                  |  |  |  |  |  |                                                    |                                                               |              |               | <b>408, 069,500.00</b> |                        |                                      |

**Strategic Goal 2:** To transform Mushwala and Kapili wards into an agri-business hub that will address food security at local level and contribute to district agriculture production.

**Table 3.10: Implementation Framework for Goal 2**

| Activities per Development Objectives<br>(Based on gaps in the PSIR)                                                                                                  | Y1 | Y2 | Y3 | Y4 | Y5 | Baseline                      | Target                  | Lead/Implementing Institution | Coordination with | Estimated Budget (ZMW) | Possible Source of Resources          | Location/ Reference on Map    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|----|----|----|-------------------------------|-------------------------|-------------------------------|-------------------|------------------------|---------------------------------------|-------------------------------|
| <b>Development Objective 2.1 Improve productivity (crop yield and land utilization rate) per farmer by 60% for at least 80% of the registered small-scale farmers</b> |    |    |    |    |    |                               |                         |                               |                   |                        |                                       |                               |
| 2.1.1 Facilitate training of farmers through cooperatives in agriculture production, crop diversification (to high value crops), and crop management                  |    |    |    |    |    | 10 cooperatives               | 35 cooperatives trained | MOA                           | DOR               | 1,250,000.00           | MOA/ MSMED <sup>40</sup> and Partners | All Wards (Kapiri & Mushwala) |
| 2.1.2 Provision of motorbikes for Agriculture Extension Services to provide trainings and follow-up                                                                   |    |    |    |    |    | 4 motorbikes for 10 EO (JICA) | 10 Motorbikes for 10 EO | MOA                           | DOR               | 500,000.00             | MOA Partners                          | All Blocks                    |
| 2.1.3 Construction of staff houses for Agriculture Extension Officers                                                                                                 |    |    |    |    |    | -                             | 2                       | DOR                           | MoA               | 800,000.00             | Partners                              | Mushwala, Kapili              |
| 2.1.4 Delimitation of Mushwala and Kapili Agriculture Zones to improve Ext. Officer to Farmer ratio                                                                   |    |    |    |    |    | 11 Zones                      | 8 Zones                 | MOA                           | DOR               |                        | MOA                                   | Mushwala, Kapili              |

40. Rural Enterprise Development Programme

|                                                                                                                                                                                          |  |  |  |  |  |                                                                        |                                                                         |                                  |                                       |               |                                    |                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------|---------------------------------------|---------------|------------------------------------|--------------------------------------------------------------------------|
| 2.1.5 Construction of irrigation infrastructure (dam) to promote irrigation                                                                                                              |  |  |  |  |  | 0                                                                      | 1 dams                                                                  | DOR                              | Water Affairs                         | 2,000,000.00  | DOR Partners                       | TBC after Survey (Farm Block along Luampa river)                         |
| <b>Development Objective 2.2: Increase population engaged in farming through promotion of earlier inclusion of youth, allocation of farm plots, and introduction of “anchor farmers”</b> |  |  |  |  |  |                                                                        |                                                                         |                                  |                                       |               |                                    |                                                                          |
| 2.2.1 Equip production units at schools to promote agriculture skills and knowledge transfer to the youth                                                                                |  |  |  |  |  | 1 school equipped with production unit agriculture equipment and tools | 6 schools equipped with production unit agriculture equipment and tools | MOE                              | MOA                                   | 500,000.00    | MOE Partners/ Stakeholders         | Mayukwa yukwa Boarding, Day, Shibanga, Lyamunale, Mushwala, Jacob Mpempo |
| 2.2.2 Establish a Farmers Training Center with demo plots (20 ha)                                                                                                                        |  |  |  |  |  | 0 Farmer Training Centre                                               | 1 Farmer Training Centre                                                | DOR (land, coordination)         | MOA                                   | 1, 000,000.00 | MOA Partners/ Stakeholders         | Service Centre                                                           |
| 2.2.3 Demarcate and allocate farm plots in the LIA                                                                                                                                       |  |  |  |  |  | 1, 085 farm plots demarcated and allocated                             | 2, 000 farm plots demarcated and allocated                              | DOR, PPH, MOA                    | DOR                                   | 1,000,000.00  | DOR                                | Resettlement Scheme                                                      |
| 2.2.4 Reclaim and allocate 20 - 30 ha plots to “anchor farmers” with capacity of medium scale production and venture into out-grower schemes                                             |  |  |  |  |  | 0 Ha for anchor farmers                                                | 500 Ha for anchor famers                                                | MoA                              | DOR                                   | 300,000.00    | DOR, COR, Private Sector           | Mushwala Farms (Luampa River)                                            |
| <b>Development Objective 2.3: Achieve at least 30% of the registered farmers with access to financing</b>                                                                                |  |  |  |  |  |                                                                        |                                                                         |                                  |                                       |               |                                    |                                                                          |
| 2.3.1 Conduct trainings to farmers or cooperatives on book keeping, village banking, saving groups etc                                                                                   |  |  |  |  |  | No baseline data                                                       | 40% of registered farmers trained                                       | MoA (World Vision Caritas Czech) | DOR, MOA, COR, MSMED                  | 500,000.00    | World Vision, Vision Fund, Caritas | Mushwala, Kapili                                                         |
| 2.3.2 Recommend trained and well performing farmers to financial institutions for agriculture inputs and equipment                                                                       |  |  |  |  |  | 0 farmers accessed loans                                               | 100 farmers                                                             | MOA DOR                          | DOR, Caritas, World Vision, JICA-SHEP | 48,000,000.00 | Partners                           | Mushwala, Kapili                                                         |

| Development Objective 2.4: To build and strengthen local and regional market linkages                                                                                                             |  |  |  |  |  |                                           |                                        |                         |                      |               |                                                       |                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|-------------------------------------------|----------------------------------------|-------------------------|----------------------|---------------|-------------------------------------------------------|---------------------------------------|
| 2.4.1 Establish 2 strategic buying points (Depot) easily accessible                                                                                                                               |  |  |  |  |  | 1 FRA Shed                                | 4 depots                               | MOA                     | FRA                  | 300,000.00    | MoA (FRA)                                             | Mushwala, Jacob Mpempo                |
| 2.4.2 Operationalise Bulking Centre and set up more commodity aggregation centres                                                                                                                 |  |  |  |  |  | 2 (Zone II) and Veg. Centre (Refuge area) | 7                                      | Caritas; MOA            | DOR, Premiercon      | 2,000,000.00  | Caritas Czech (1 center), DoR (1 centre) Stakeholders | Mushwala Zone 1, 2; MYK Zone, 1, 2, 3 |
| 2.4.3 Identify potential famers and cooperatives and link with off-takers/ private sector                                                                                                         |  |  |  |  |  | 1 Cassava linkages (Premiercon)           | 5 linkages (Variety of agric products) | Caritas Czech, MOA, DOR | Premiercon, I, Mines | -             | MSMED, Partners/ Cooperatives                         | All farmers                           |
| Development Objective 2.5: To develop capacities of 50% of registered cooperatives to invest in diversified agro-activities to enhance industries/enterprise development for local value addition |  |  |  |  |  |                                           |                                        |                         |                      |               |                                                       |                                       |
| 2.5.1 Provide skills/ vocational training, entrepreneurship and financial literacy (including resource mobilization, e.g., CDF loans) for youths                                                  |  |  |  |  |  | 0 Youths                                  | 25 Youths                              | KTC, DOR                | KTC<br>DOR<br>COR    | 500,000.00    | MSMED, TEVET, CEEC, CDF, MFI, Partners                | Mushwala, Kapili                      |
| 2.5.2 Construct and equip a skills/ vocation training Center                                                                                                                                      |  |  |  |  |  | 1 (Tailor)                                | 2 Skills training Centre               | COR                     | COR, DOR, KTC        | 1,000,000.00  | MSMED, TEVET, CDF, Partners                           | Refugee Area                          |
| 2.5.3 Allocate land in LIA for industrial activities                                                                                                                                              |  |  |  |  |  | 0                                         | 500                                    | DOR                     | MOA, KTC             | 300,000.00    | MOA                                                   | Scheme, Mushwala                      |
| Development Objective 2.6: Promote climate smart agriculture practises to enhance resilience among farmers                                                                                        |  |  |  |  |  |                                           |                                        |                         |                      |               |                                                       |                                       |
| 2.6.1 Training of farmers in promotion of climate resilient agricultural practices and technologies such as irrigation at small scale                                                             |  |  |  |  |  | -                                         | 700 farmers                            | MOA                     | DOR/Partners         | 1, 500,000.00 | DOR, MOA, Caritas Czech, WV, JICA, Partners           | Mushwala, Kapili                      |
| 2.6.2 Train Extension Officers and Cooperatives on use of Early Warning Systems in agriculture                                                                                                    |  |  |  |  |  | -                                         | 1,000                                  | MOA                     | DOR, Partners        | 2,000,000.00  | DOR, Partners                                         | Kapili, Mushwala Wards                |
| SUBTOTAL                                                                                                                                                                                          |  |  |  |  |  |                                           |                                        |                         |                      | 63,450,000.00 |                                                       |                                       |

**Strategic Goal 3:** To develop a joint, inclusive and comprehensive framework (covering both refugee settlements and resettlement schemes, and surrounding host community), for coordinated multi – sectoral interventions by 2029.

**Table 3.11: Implementation Framework for Goal 3**

| Activities per Development Objectives<br>(Based on gaps in the PSIR)                                                                                                                                   | Y1 | Y2 | Y3 | Y4 | Y5 | Baseline                              | Target                                                  | Lead/ Implementing Institution | Coordination with                     | Estimated Budget (ZMW) | Possible Source of Resources | Location/ Reference on Map |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|----|----|----|---------------------------------------|---------------------------------------------------------|--------------------------------|---------------------------------------|------------------------|------------------------------|----------------------------|
| Development Objective 3.1 Improve coordination of all activities in and around Mayukwayukwa by establishing coordination mechanism with several tools                                                  |    |    |    |    |    |                                       |                                                         |                                |                                       |                        |                              |                            |
| 3.1.1 Expand mandate of the multi-sectoral coordinating (inter-agency) committee spearheaded by COR to include LAP activities                                                                          |    |    |    |    |    | 0 Work Plan with LAP activities       | 5 Annual Work Plans with LAP activities                 | KTC                            | DOR, COR                              | -                      | -                            | Mayukwa yukwa              |
| 3.1.2 Develop an information depository system to profile stakeholders, scope of intervention and beneficiaries                                                                                        |    |    |    |    |    | 0 System/ Database                    | 1 System/ Database                                      | DOR                            | COR KTC                               | 500,000.00             | COR DOR Partners             | Mushwala, Kapili           |
| 3.1.3 Provide quarterly Reports to DDCC, PDCC and Council on the LAP                                                                                                                                   |    |    |    |    |    | 0 Report                              | 20 Progress Reports prepared for DDCC, PDCC and Council | KTC                            | COR, DOR                              | -                      | -                            | -                          |
| Development Objective 3.2 Implement joint advocacy and external-communication strategies for the transformation and development of Mayukwayukwa Resettlement, Refugee Camp and surrounding communities |    |    |    |    |    |                                       |                                                         |                                |                                       |                        |                              |                            |
| 3.2.1 Conduct awareness (e.g. public media and schools) on the image of Mayukwayukwa as part of Kaoma, about PoC and local integration among host communities                                          |    |    |    |    |    | 1 per year (Global Refugee Day event) | 5 awareness campaigns per year                          | COR, DOR                       | Schools, Other partners (Refugee Day) | 500,000.00             | Partners                     | Kaoma                      |

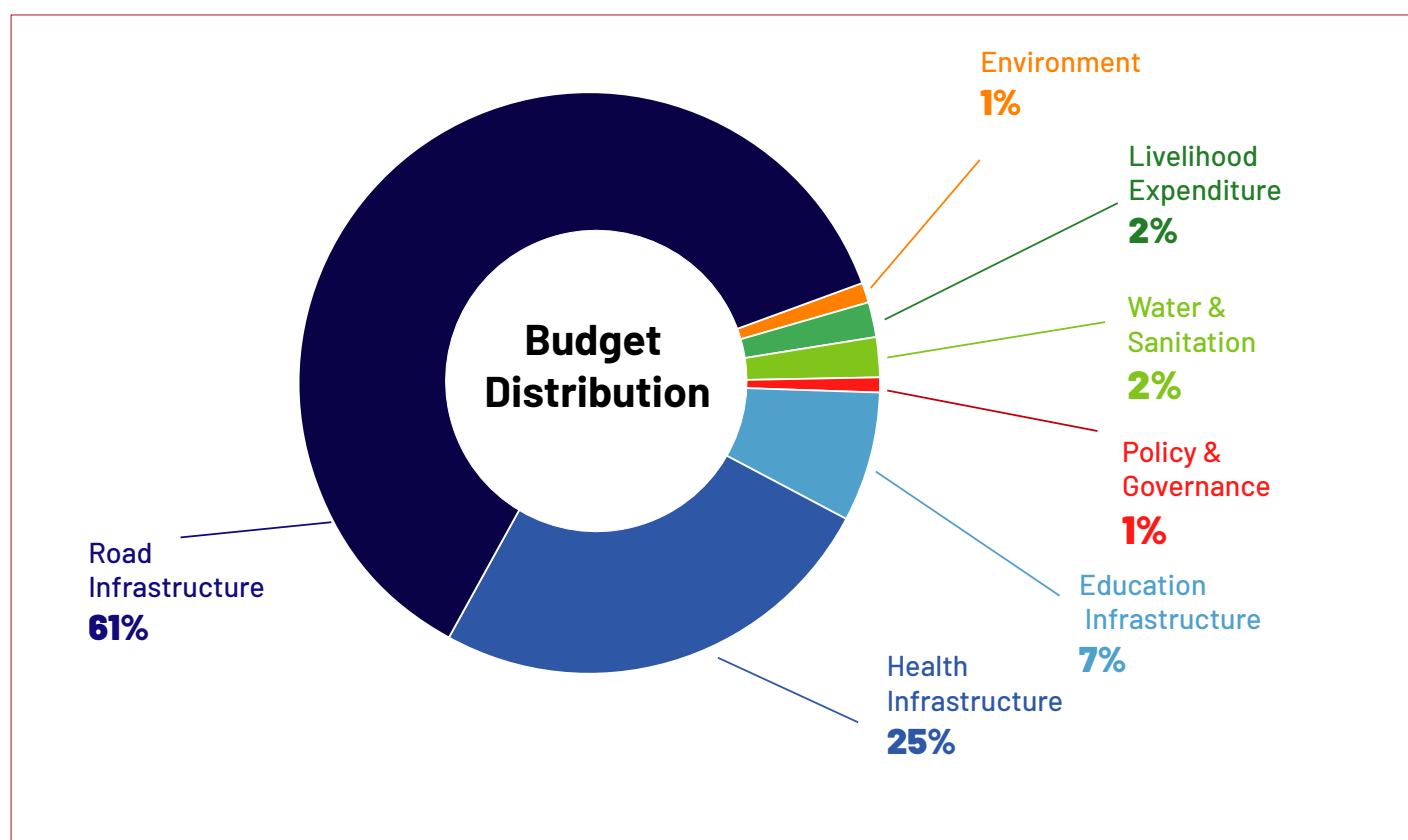
|                                                                                                                                                                                                               |  |  |  |  |  |                                                                                  |                                                                                   |                 |                                             |                 |                         |                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------|---------------------------------------------|-----------------|-------------------------|-----------------------------------|
| 3.2.2 Elaborate projects that enhance the incorporation/ integration of Mayukwayukwa to its surroundings (e.g., crossing points, facilities close but outside Mayukwayukwa) benefiting more residents outside |  |  |  |  |  | Caritas/ WV projects covering Mushwala – outside host community. WATSAN – UNICEF | 5 new projects for Wider- Mayukwayukwa; Beneficiaries from host communities too   | COR, DOR        | All Partners                                | Programme based | Partners                | Mushwala, Kapili                  |
| 3.2.3 Conduct campaigns to promote private investments to Mayukwayukwa e.g., Provincial Expos                                                                                                                 |  |  |  |  |  | 0 investors (0 Campaigns)                                                        | 0 investors (10 Campaigns in 5 years)                                             | DOR (plots) COR | KTC, COR, Chamber of Commerce, Cooperatives | 500, 000.00     | DOR Partners            | Mushwala, Kapili                  |
| 3.2.4 Provide youth with potential with startup capital (loans) to setup businesses in and around Mayukwayukwa                                                                                                |  |  |  |  |  | 0 youths                                                                         | 50 youths                                                                         | COR DOR         | KTC KCCI Partners                           | 1,000,000.00    | CEEC KTC (CDF) Partners | Mayukwa yukwa (surrounding areas) |
| 3.2.5 Conduct formal advocacy activities for Refugee Policy implementation to enable freedom and rights of POCs to fully contribute economically                                                              |  |  |  |  |  | 0 formal activities                                                              | 5 formal activities in 5 years (meetings, seminars, trainings, publicity, others) | COR DOR         | All partners                                | 500,000.00      | Partners                | Countrywide                       |
| Development Objective 3.3: Strengthen coordination and participation/representation of residents (including former Refugees) in district and sub-district governance                                          |  |  |  |  |  |                                                                                  |                                                                                   |                 |                                             |                 |                         |                                   |
| 3.3.1 Increase Zonal representatives for Mayukwayukwa                                                                                                                                                         |  |  |  |  |  | 2 Zonal Reps                                                                     | 8 Zonal Reps                                                                      | KTC             | ECZ COR DOR                                 |                 | KTC                     | Mayukwa yukwa                     |
| 3.3.2 Ensure PoC representation/ inclusion in local governance through WDCs                                                                                                                                   |  |  |  |  |  | 0 Reps                                                                           | At least 1 PoC participate in each WDC                                            | KTC             | COR                                         | -               | -                       | Kapili, Mushwala Wards            |
| Development Objective 3.4 Improve coordination among stakeholders and players within Mayukwayukwa                                                                                                             |  |  |  |  |  |                                                                                  |                                                                                   |                 |                                             |                 |                         |                                   |
| 3.4.1 Develop guidelines to Integrate roles and responsibilities of WDCs; Refugee Sector Laders Representatives (CoR) and Farmers Coordinating Committees (DoR)                                               |  |  |  |  |  | 0 Guidelines                                                                     | 1 Guideline                                                                       | KTC             | DOR, COR, WDC                               | 100,000.00      | KTC Partners            | All Blocks                        |
| SUBTOTAL                                                                                                                                                                                                      |  |  |  |  |  |                                                                                  |                                                                                   |                 |                                             | 3,100,000.00    |                         |                                   |
| GRAND TOTAL                                                                                                                                                                                                   |  |  |  |  |  |                                                                                  |                                                                                   |                 |                                             | 474,369,500.00  |                         |                                   |

### 3.8 Budget Distribution of LAP Activities (2025 – 2030)

The total estimated budget for the Wider Mayukwayukwa Local Area Plan is estimated to cost around ZMW 474, 619, 500.00 to successfully implement all activities between 2025 and 2030. This budget is based on the market estimated rates<sup>39</sup> which does not factor in non – monetary support from other partners and stakeholders particularly towards road infrastructure. For instance, at the time of preparing this LAP, the cost of constructing a standard all weather feeder road in Mayukwayukwa with all requisite road infrastructure was estimated at ZMW2, 000, 000 per kilometre. However, the cost may vary in cases where other partners/players provide non – monetary contributions such as equipment, technical expertise, fuels and lubricants which is likely to reduce the overall cost of implementing the LAP.

In terms of distribution, 82.5 percent of the total budget will go towards financing activities under Strategic Goal 1 which aims at transforming the Wider Mayukwayukwa into a service hub and self – reliant community with basic social and economic infrastructure and services. Goal 1 covers most of the capital projects which include roads and bridges consuming the largest budgetary allocation inflated by the rehabilitation of the 85km Kaoma – Mayukwayukwa road and construction of a 20ton bridge over the Luena river. Other notable costs are health-related infrastructure exacerbated by the upgrading of Mayukwayukwa II Clinic and maternity annexes in other health facilities. The remaining 17.54 percent of the budget will go towards financing activities mainly for enhancing livelihoods under Goals 2 and 3 focusing on promoting agriculture productivity and industrialization and Integration and Coordination respectively.

Figure 3.4: Budget Distribution of LAP Activities by Sector



39. Base year being 2024 – Exchange Rate at US\$ 1: ZMW 26

The budget estimate for the Wider Mayukwayukwa LAP was derived largely from identified infrastructure and capital investment gaps which does not provide a detailed programming and specific budgeting of various interventions such as livelihood programmes and general administration cost. These activities are usually informed by respective project scope, implementation period and financing modalities – hence such have been generalised with the possibility of being adjusted by responsible partners or project implementers. Nonetheless, the LAP endeavoured to highlight the importance and role of non – infrastructure related programmes to the overall development of Mayukwayukwa and surrounding areas by identifying key strategies to address the overarching challenges in the area.

Financing the Wider Mayukwayukwa LAP will be based on multi – sectoral but integrated approach to ensure planned programmes are executed/implemented within the proposed timelines. While the LAP aims at pooling resources and ensuring coordination, funding of activities and programmes will be managed within the respective existing institutional structures and financial management systems – each institution maintaining its budgeting and resource administration but directly funding any of the identified programmes in the LAP. Therefore, the LAP will provide a general framework towards a focused development approach to track and monitor development and its impact.

## **3.9 Implementation and Coordination Mechanism**

### **3.9.1 Coordination and Reporting**

Coordination of the LAP will fall within the existing administrative structures as defined under the National Planning and Budgeting Act No. 1 of 2020 which establishes the District Development Coordinating Committee (DDCC) and the National Planning Development Framework read together with the Urban and Regional Planning Act No. 3 of 2015 which prescribes the formulation and implementation of District Integrated Development Plans (IDPs) and the Local Government Act No. 2 of 2019 which establishes the Council. In line with the prescribed statutes, stakeholders will continue undertaking their institutional mandates as provided in their guiding principles and policies on task and responsibilities in the LAP which falls within their jurisdiction.

For purposes of reporting, each of the stakeholders will have a dual reporting system; reporting to their respective pillars of the DDCC as well as the local authority under the devolved system of governance. Both DDCC and Council reports will input into the existing Provincial (PDCC), Ministerial or National Steering Committee for MORHCSA and other existing structures.

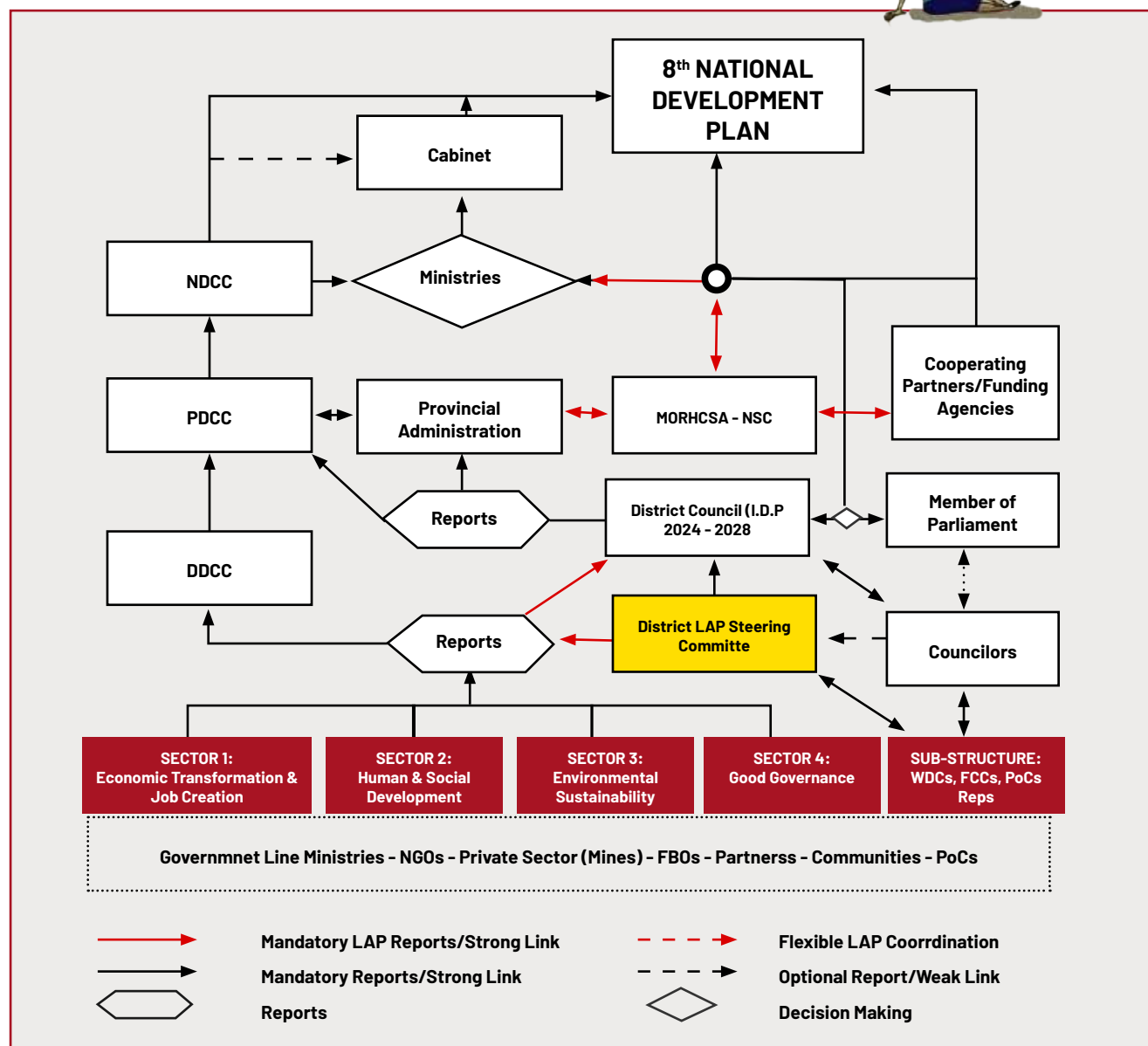
### **3.9.2 LAP Steering Committee Structure**

However, for a more structured and dedicated approach to the implementation of LAP activities, a LAP Steering Committee is recommended whose membership shall be based on the lead and coordinating institutions outlined in the LAP Implementation Plan. This committee will be formed specifically to spearhead the effective implementation of the Wider Mayukwayukwa LAP. The committee shall be co-chaired by the Scheme Manager from Department of Resettlement and Refugee Officer from the Office of the Commission for Refugees on an annual rotational basis<sup>40</sup> while the Office of the Director of Planning from Kaoma Town Council shall be the permanent Secretariat. Secretariat will have a Vice Secretary elected/nominated from the local existing formal structure within Mayukwayukwa who will support Secretariat on local administrative activities.

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40. When one of the Office is chair in that particular calendar year, the other office is the Vice – chair

Figure 3.5: Stakeholder Coordination of LAP Activities



Roles of the Steering Committee shall include but not limited to the following;

1. Registration of all stakeholders or players operating in Mayukwayukwa. This will be one of the primary roles of the Committee for effective record management and coordination
2. Formulate work plans and calendar of meetings and calling for meetings
3. Hold quarterly meetings and prepare reports to be submitted to the Council, DDCC and provincial or national steering structures or partners
4. Develop project proposals for resource mobilization
5. Identification of stakeholders for partnership or players to collaborate with
6. Coordinate the monitoring and evaluation of LAP activities.

The system of reporting activities in the Wider Mayukwayukwa LAP should be aligned to the district Council Calendar of meetings and DDCC meeting to ensure its inputs, activities and feedback form part and parcel of the district coordination systems.

### **3.10 Institutions and Stakeholders**

The LAP under the IDP is governments' special purpose vehicle designed to operationalise government development agenda – hence its programmes and activities shall directly be linked to respective sector programmes, guidelines and budgets. The following will be the roles and responsibilities of other stakeholders in the LAP;

1. Provide technical guidance, standards and procedures to ensure each of the activities are implemented within the approved expert standards and codes
2. Provide technical guidance/advise in terms of costs, timeframe and implementation schedules
3. Collaborate with project beneficiaries in resource mobilization
4. Collaborate with the project/activity beneficiaries in monitoring and evaluation
5. Provide technical expertise/resources to execute projects/activities
6. Budget for activities within their institutions in line with the proposed LAP activities

Partners and investors will constitute a large portion of players who will be implementing programmes, or financing activities in and around Mayukwayukwa. These will include but not limited to the following;

- Local and international funding and humanitarian agencies e.g., UNHCR, UNDP, World Bank, WFP.
- NGOs and International Agencies e.g., JICA, USAID, GIZ, Caritas Czech, World Vision, Action Aid, among others.
- Private business entities and organizations e.g., Private Companies (such as Premiercon), Chamber of Commerce and Industry, Financial institutions, Seed Companies.
- Private Investors.
- Research and Training Institutions e.g., ZARI, IITA, UNZA, CBU.
- Local institutions and structures.

### **3.11 Spatial Development Strategy**

The Wider Mayukwayukwa Local Area Plan envisages changes in the physical, social and economic dynamics during the planning period and beyond to be influenced by a number of factors – some of which are discussed below;

#### **3.11.1 Demographic Characteristics**

Demographic characteristics of Wider Mayukwayukwa revealed a dynamic population which is youthful, economically agrarian, multi – cultural and diverse ethnic composition. These factors are likely to be exacerbated as economic activity and development in the area increases. As a result, population growth will directly impact on the land use characteristics – growth in settlement areas, demand for economic land for investments and agriculture production, increase in consumption of agricultural products and other services. Trends in human settlements which is

currently linear following transport corridors, riverbanks or around services will therefore likely continue expanding with increased population and other demographic factors. Hence, the spatial development strategy for the Wider Mayukwayukwa will incorporate and project demographic factors which will influence the overall development for Mayukwayukwa and surrounding areas.

### 3.11.2 Demand and Distribution of Services

Access to social services plays a key role in the human settlement pattern in both Kapili and Mushwala Wards and Mayukwayukwa in particular. As demonstrated in the population distribution and settlement pattern, services have largely influenced human settlement pattern in the two wards with most of the population falling in Mayukwayukwa which has a relatively higher distribution of services. Services will therefore play an important role towards achieving the overall development objective of transforming Mayukwayukwa and the surrounding areas into an agri – business hub as well as making it a self-sufficient human settlement. Currently, the land occupancy rate is very low with majority of the farms – especially those allocated to Zambians, currently manned by caretakers. According to statistics, 66 percent out of 1, 085 farms have been allocated and 72 percent of those are occupied by former Angolan refugees and only 28 percent are Zambians. Notably, lack of adequate services such as access to schools, health facilities, water and sanitation, roads and network facilities which make settlements unattractive and increase cost of doing agriculture are among the attributing factors subsequently affecting the long-term development of the area.

Land use reservations and zoning will also be informed by the proximity of complementary resources, services or potential markets to the proposed development. For instance, warehousing, bulking or aggregation centres and storage facilities would be ideal if proposed nearer existing and good road network system than in a green field.

Similarly, the cost of providing most of the social services and their usability such as bulk/ communal water and sanitation, education and health, trading among others vary proportionately with distance and population density. These factors will therefore be critical in determining the cost of implementing the proposed development options to ensure efficiency, cost effectiveness, feasibility and sustainability.

### 3.11.3 Long Term Development Strategy

The Spatial development strategy is also informed by the underlying guiding principle of the plan. The Wider Mayukwayukwa which is focused on agriculture development, agro – industrialization as well as enhancing social integration of refugees, former refugees, and hosting communities – these principles will be embedded and demonstrated in the long-term spatial development plan. The adopted spatial development strategy incorporates mechanisms to enhance agriculture productivity, create an environment for economic investments, and ensure it provides enough benefits to surrounding communities while addressing local demand.

The Plan also takes cognisance of both the current gaps and strategies of addressing emerging future demand for services to be influenced by internal population growth and immigration emanating from the socio – economic transformation of the area which is anticipated due to envisaged developments.

### 3.11.4 Mayukwayukwa Spatial Development Strategy

According to the approved Kaoma IDP, Mayukwayukwa is one of the strategic growth points in the district besides Mangango, Kalumangwe, Chilombo and Shitwa. At a local scale, Mayukwayukwa will be developed under the hybrid of a Growth Pole Development Concept and the Theory of Densification. The Growth Pole concept refers to a specific location or area within a region that serves as a focal point for economic development and growth and acts as a catalyst, attracting economic activities and investment, and generating a multiplier effect that leads to the development of surrounding areas. The growth pole strategy aims to concentrate resources and development efforts in selected areas to stimulate overall economic expansion and balanced regional growth.

On the other hand, the Theory of Densification promotes the development of areas by increasing population density and building intensity within existing boundaries. Densification aims to make development of areas more sustainable, efficient, and vibrant by concentrating development in existing areas. The Theory of Densification has the following characteristics:

- Increasing the effective use of existing buildings by transforming their functions.
- Intensification of existing development by building up on free spaces.
- Transforming the spaces below and over the existing buildings.
- Replacement of existing buildings (demolition of existing and construction of new buildings)<sup>41</sup>.

In Mayukwayukwa, there is 1 existing (Refugee area) and 2 emerging (Zone 2 and Shibanga) local administrative centres with existing infrastructure and services such as schools, health facilities and market surrounded by a proliferation of human settlements. Guiding and concentrating development in the already existing settlements would concentrate economic activity, promote growth and development of nodes with spillover effects on the surrounding areas.

The Densification approach will also ensure development has direct impact on the people as it will encourage concentrated and coordinated investment within these areas by improving on existing infrastructure and construction of new and modern infrastructure to complement the existing development.

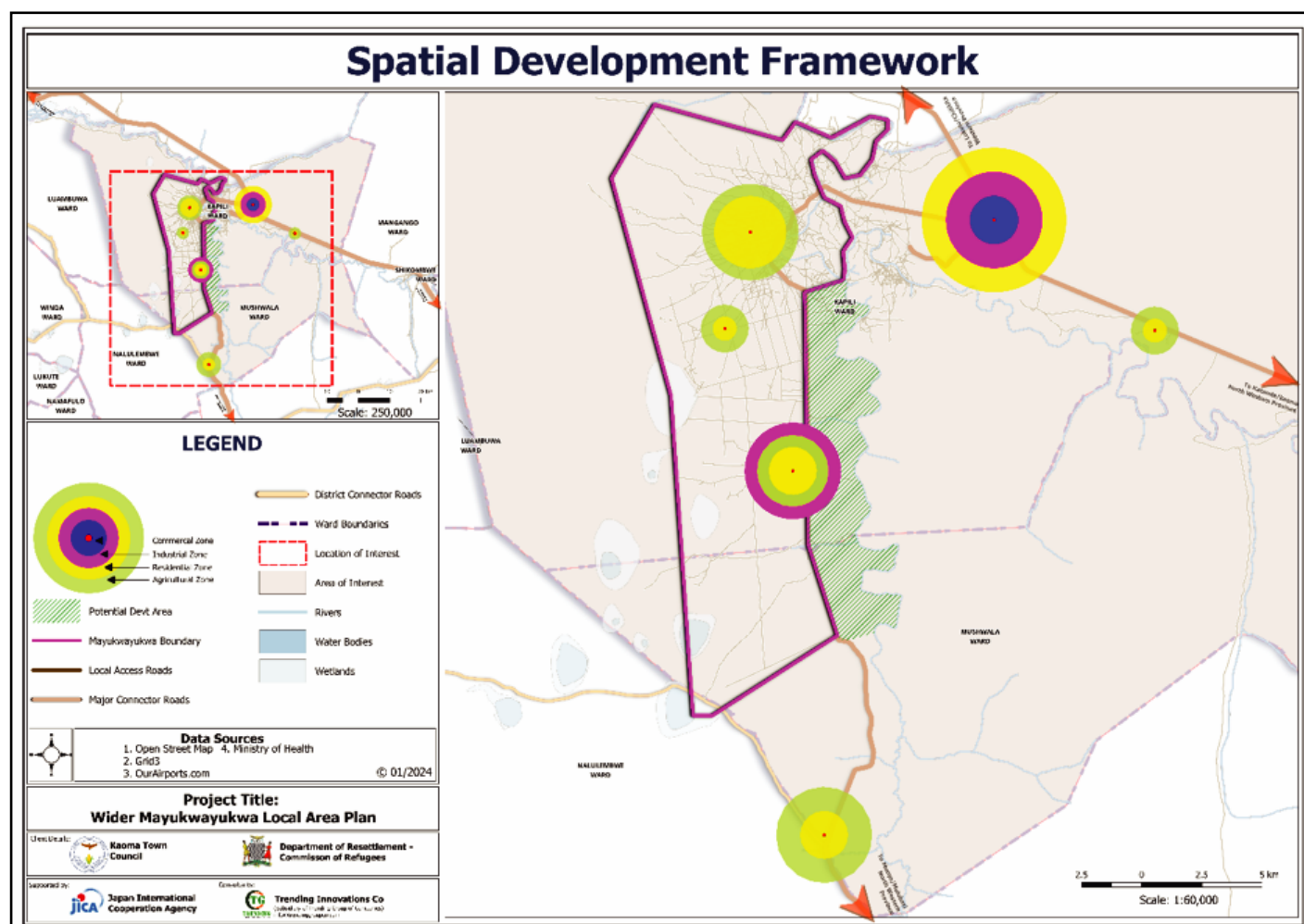
### Land Use Zones

In order to ensure optimal utilization of land while considering the foregoing factors, dedicating areas for concentrated human settles and service hubs will be one of the economical and feasible alternatives. The focusing should be on developing Service Centres, which should have residential developments supported by complementary services such as education, health, security, commercial and recreation among others. These would cover an approximate radius of 2km – actual area size varying with envisaged population size and development trends.

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41. (Pelczynski & Tomkowicz, 2023)

Figure 3.6: Wider Mayukwayukwa Development Framework



The next immediate land use spanning within a kilometre should be zoned for mixed use accommodating business activities ranging from poultry, small industries besides other activities. Light industrial zones are proposed in the commercial area of Shibanga where there is an existing bulking centre and storage for warehousing and possible processing especially that the area will fall within the RD309 Main road connecting to Mongu – Lusaka. The other industrial zone is recommended at along the Kaoma – Lukulu road which will be a potential economic zone servicing both Mayukwayukwa as well as transit business activities along the main D792 road.

The outer Zone will be predominantly agricultural to be used for farming and all agricultural related activities. While these land uses may not be strictly enforced, having an overall spatial development strategy will dictate which types of services will be required in which areas in line with the broader development strategy. For instance, locating a warehouse in a residential zone may not be as ideal as it would be in an industrial zone where raw materials can easily be transported from farms into storage and processing at less cost. Considering these factors in the spatial development strategy also contributes to liveable, safe and sustainable communities.

Table 3.12 Zoning of Land Uses under the Growth Pole and Densification Concept

| Category                  | Classification | Provision/ Reserve | Possible Uses                                                                                                                 |
|---------------------------|----------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Zone A                    | Residential    | 2km Radius         | <ul style="list-style-type: none"> <li>- Residential</li> <li>- Services</li> <li>- Business</li> <li>- Recreation</li> </ul> |
| Zone B                    | Mixed Use      | 1km Radius         | <ul style="list-style-type: none"> <li>- Business</li> <li>- Processing</li> <li>- Flats/Lodges</li> </ul>                    |
| Zone C                    | Agriculture    | Open Land          | <ul style="list-style-type: none"> <li>- Small/ Medium farms</li> </ul>                                                       |
|                           |                |                    | <ul style="list-style-type: none"> <li>- On farm Industries</li> </ul>                                                        |
| Transport Corridor        | Road A         | 100m (100 Reserve) | <ul style="list-style-type: none"> <li>- Multiple use</li> </ul>                                                              |
| <b>Transport Corridor</b> | <b>Road B</b>  | <b>100m</b>        | <ul style="list-style-type: none"> <li>- <b>Road Reserve</b></li> </ul>                                                       |

### Transport Corridors

Transport corridors are coordinated transport networks that enable access between markets and production lines and facilitate faster, smoother and more efficient transit and enhance connectivity. Transport corridors have a big role in the long-term development strategy for Mayukwayukwa and surrounding areas and in the Growth Pole development approach for area as they will determine the efficient movement of goods, people, and services from one centre to another as well as actualise the integration of Mayukwayukwa with the surrounding communities, creating a symbiotic relationship. With the envisaged strategic objective of developing Mayukwayukwa into a service and agri – business hub, efficient transport corridors will ensure that these activities benefit the entire area and surrounding communities.

In a fully-fledged system, transport corridors can include roads, railways, highways, ports, airports, as well as digital communication infrastructure like fibre-optic cables. However, in the case of the Wider Mayukwayukwa, the predominant and feasible mode of transport for the next five years will be roads to which a road reservation has been limited to 200m wide.

Overall, agriculture activities in Mayukwayukwa are poised to be stimulated around existing agricultural areas promoting economic activity in each Zone such as development of warehousing, aggregation centres, processing points, schools and health, security, and roads

connecting Mayukwayukwa and surrounding areas.

#### Advantages of the Proposed Mayukwayukwa Spatial Development Strategy

1. Efficiency in the provision of bulk services such as housing and water and sanitation among others. Water schemes will be more efficient
2. Access to services will be improved since all services will be within the 4km development zone
3. Efficiency in the use of land – all land will be zoned and used for its purpose
4. Increase in value of land – land will increase in value once planned and zoned
5. Integration and cohesion will be enhanced as communities live a common neighbourhood
6. Cost of providing services will be reduced
7. Promotion of diversification of livelihood activities
8. Concentration of local markets – concentrated population in a given locality will enhance trade
9. Coordinated distribution of services

It has been observed that, for Zambia and Kaoma in particular to maintain and accelerate its growth performance, it needs to develop its areas of key comparative advantages in its competitive industries such as agriculture by improving productivity and connections to and among markets and reaping the benefits of regional integration. Key ingredients to this success are governance and infrastructure, and the deployment of a combined strategy of spatial and economic development such as the Growth Pole theory<sup>42</sup>.

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42. See World Bank Report on Growth Poles: Raising Competitiveness and Deepening Regional Integration – (Speakman & Koivisto, 2013)



The Mayukwayukwa Resettlement Scheme Manager was one of the Facilitators during Stakeholder Consultative Meetings, 2024

# 04

## SECTION FOUR

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### MONITORING, EVALUATION AND LEARNING

#### 4 Introduction

Monitoring the implementation of activities in the Wider Mayukwayukwa LAP will be conducted at two-levels:

1. Routine and/or Sector Based Monitoring of specific Activities led by the Implementing/ Responsible entity of each Activity, and
2. Joint Sector-based General Monitoring and Learning of the progress and challenges of the Implementation Plan as a whole, to be led by the chairing institution of the LAP Steering Committee<sup>43</sup> with all relevant stakeholders.

Monitoring of activities will be conducted in line with the proposed Monitoring Plan outlined in Section 4.5.

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43. See Section 3.1 LAP Steering Committee

## 4.1 Types of Monitoring

### 4.1.1 Routine Activity-based or Sector-based Monitoring

Sector or Routine based monitoring will be conducted by the implementing Agency or any of the partners in the course of implementation. The monitoring will be done from the project inception to ensure standard compliance at every stage of its implementation. Progress reports will be prepared from the monitoring activities to be shared with responsible stakeholders such as the Office of the Vice President – DOR, Ministry of Home Affairs and Internal Security, Local Government and Rural Development or financiers. Sectors will be responsible for preparing these sector monitoring reports. For instance, under Sector based monitoring, the construction of a health facility will be routinely monitored by personnel from the Ministry of Health, school project by staff from Education and NGO supported Livelihood project by the Implementing Agency.

### 4.1.2 Scheduled Joint Sector-based Monitoring

Scheduled monitoring will be conducted on scheduled dates (e.g., Quarterly) and this will involve other partners or stakeholders collaborating in the activity. The lead institution will collaborate with the coordinating institutions on the timelines and schedule of activities. Progress reports from the monitoring activities will inform DDCC, CDC, Council and other scheduled quarterly meetings at various levels. Secretariat will be responsible for instituting monitoring schedules and compiling monitoring reports from these monitoring activities. For instance, construction of a dam may include a joint team of personnel from the implementing Agency (Sector), funder and beneficiary institution such as OVP/COR and Kaoma Town Council.

## 4.2 Reporting of Monitoring Activities

Activities of the LAP falls within the existing IDP and district reporting structures and systems – hence the district Local Area Planning Steering Committee will recommend or adopt a standard reporting format in line with other district reporting formats for the Council or DDCC. However, these reporting templates will also be designed to capture data to be inputted into the LAP Database which will be used for cumulative tracking of activities and progress made over the 5-year period. The LAP Secretariat in close coordination with the Chairing Offices will manage the database and will be inputting/updating data into the database.

Funding of Monitoring and Reporting activities will be budgeted for by the Department or Institution Chairing the LAP Steering Committee in that particular calendar year. The institution will thus be required to prepare an annual work plan and budget within its respective operational activities and draw resources towards monitoring activities in the LAP but within its approved annual estimates of expenditure. Reports will constitute part of the means of verification to support such expenditure.

### 4.3 Annual Evaluation and Review

Members of the district Steering Committee will hold review meetings at district level to interrogate progress of planned activities and status. Another review meeting will be held at national level (National Steering Committee) to further review progress and identify successes and bottlenecks in the course of the LAP implementation.

While each activity will be evaluated specifically to the sector/partner outcomes, activities under the Wider Mayikwayukwa LAP will be evaluated based on a holistic approach to assess the extent to which the LAP will have achieved its Development Objectives under the three Strategic Goals.

The Annual Progress Evaluation/Annual Review will assess the following:

- i. Availability of resources/partners to fund identified projects/programmes
- ii. Challenges and factors that would influence ongoing and future programmes
- iii. Relevance of programmes and activities
- iv. Emerging opportunities and challenges
- v. Timeline/timeframe of the Plan

### 4.4 Final Evaluation of the LAP

A final Evaluation will be conducted at the end of the 5-year planned implementation period of the LAP (currently expected at the end of 2029). This evaluation will inform the process whether to extend activities, update or re-strategize. Notably, the LAP is implemented in line with the district IDP implementation period albeit in 5 year intervals – hence the evaluation will also inform the Kaoma IDP implementation process.

## 4.5 Wider Mayukwayukwa LAP Monitoring Plan

**Strategic Goal 1:** To position Mayukwayukwa as a basic services hub that would support agri – business activities and benefit the population of Kapili and Mushwala Wards.

**Table 4.1: Monitoring Plan for Goal 1**

| Outputs per Activities<br>(Based on the Implementation Plan)                                                                          | Indicator(s)                        | Baseline | Target            | Means of verification*<br>(MOV) | Frequency | Source of Information | Responsibility |
|---------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|----------|-------------------|---------------------------------|-----------|-----------------------|----------------|
| <b>Development Outcome 1.1:</b> Mobility and access to services within Meheba and with surrounding communities is improved            |                                     |          |                   |                                 |           |                       |                |
| 1.1.1 Rehabilitate 60km Namapombwe road from D792 (Kaoma – Lukulu) to M9 (Lusaka – Mongu)                                             | No. of km rehabilitated             | 7 km     | 67 km             | Progress Reports                | Quarterly | KTC                   | Secretariat    |
| 1.1.2 Rehabilitate 103 km internal roads in Mayukwayukwa connecting farms and surrounding communities                                 | No. of km rehabilitated             | 47 km    | 150 km            | Progress Reports                | Quarterly | 'DOR/KTC              | Secretariat    |
| 1.1.3 Construct crossing points (culverts/ bridges) at Luampa river connecting Mayukwayukwa to Kanando, Kayambi and Mbale communities | No of bridges/ culverts constructed | 0        | 3 crossing points | Progress Reports                | Quarterly | KTC                   | Secretariat    |
| 1.1.4 Construction of main bridge across Luena River                                                                                  | No. of bridges constructed          | 6ton     | 20ton             | Progress Reports                | Quarterly | 'DOR/KTC              | Secretariat    |

| Outputs per Activities<br>(Based on the Implementation Plan)                                                                                                                                       | Indicator(s)                                             | Baseline             | Target                      | Means of verification*<br>(MOV) | Frequency | Source of Information | Responsibility |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|----------------------|-----------------------------|---------------------------------|-----------|-----------------------|----------------|
| <b>Development Objective 1.2:</b> Improve access and quality of health care, education, security and water and sanitation services at strategic locations that have wider coverage/catchment scope |                                                          |                      |                             |                                 |           |                       |                |
| 1.2.1 Upgrade Mayukwayukwa II Clinic to mini-hospital achieving 80% of national health standards                                                                                                   | No. of clinics upgraded                                  | 1 RHC                | 1 Mini – hospital (Level 1) | Progress Reports                | Quarterly | KTC                   | Secretariat    |
| 1.2.2 Connect Mayukwayukwa (public facilities) to national hydropower grid                                                                                                                         | No. of facilities connected                              | 0                    | 5                           | Progress Reports                | Quarterly | DOR/COR               | Secretariat    |
| 1.2.3 Addition of maternity annexes with equipment in 4 health facilities                                                                                                                          | No. of health facilities equipped with Maternity annexes | 0                    | 4                           | Progress Reports                | Quarterly | MOH                   | Secretariat    |
| 1.2.4 Upgrade Primary to secondary school to reduce distance to within 10km for 40% of learners in Mayukwayukwa, Kapili and Mushwala ward                                                          | No. of schools upgraded                                  | 0                    | 1 School                    | Progress Reports                | Quarterly | MOE                   | Secretariat    |
| 1.2.5 Construct 10 additional classroom blocks (1x3) in existing primary and secondary schools                                                                                                     | No. of CRBs constructed                                  | 60                   | 103                         | Progress Reports                | Quarterly | MOE                   | Secretariat    |
| 1.2.6 Construct Boarding facilities at Mayukwa-yukwa Boarding and Day to accommodate learners from distant places                                                                                  | No. of Boarding facilities constructed                   | 9 (392 bed capacity) | 12 (524 bed capacity)       | Progress Reports                | Quarterly | MOE                   | Secretariat    |
| 1.2.7 Procure desks for secondary and primary schools in schools                                                                                                                                   | No. of desks procured                                    | 1, 075 desks         | 1, 790 desks                | School Inventory                | Quarterly | MoE                   | Secretariat    |
| 1.2.8 Construct water scheme and waterborne facility in 1 health facility                                                                                                                          | No. of water schemes                                     | 3                    | 4                           | Progress Reports                | Quarterly | MoH                   | Secretariat    |
| 1.2.9 Construct water waterborne facilities in 1 secondary school                                                                                                                                  | No. of water schemes                                     | 2                    | 4                           | Progress Reports                | Quarterly | Water Affairs         | Secretariat    |
| 1.2.10 Construct 5 improved/ simple technology based waterborne latrines in primary schools                                                                                                        | No. of VIP                                               | 64                   | 94                          | Progress Reports                | Quarterly | MOE                   | Secretariat    |
| 1.2.11 Upgrade of Mayukwayukwa Police Post to Grade C Station                                                                                                                                      | No. of Police Posts upgraded                             | 0                    | 1                           | Progress Reports                | Quarterly | MHAIS                 | Secretariat    |

| Outputs per Activities (Based on the Implementation Plan)                                                                                                                                        | Indicator(s)                                       | Baseline | Target | Means of verification* (MOV) | Frequency     | Source of Information | Responsibility |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|----------|--------|------------------------------|---------------|-----------------------|----------------|
| <b>Development Objective 1.3:</b> Increase proportion of population with access to clean and safe drinking water by 80%                                                                          |                                                    |          |        |                              |               |                       |                |
| 1.3.1 Construct communal water schemes in densely populated Zones                                                                                                                                | No. of water schemes                               | 0 km     | 3      | Progress Reports             | Quarterly     | Water Affairs         | Secretariat    |
| 1.3.2 Rehabilitate (change materials) for existing boreholes in surrounding communities                                                                                                          | No. of boreholes rehabilitated                     | 0        | 10     | Progress Reports             | Quarterly     | KTC                   | Secretariat    |
| <b>Development Objective 1.4:</b> Improve access to information and communication among majority of population in Mayukwayukwa and surrounding communities by increasing mobile network coverage |                                                    |          |        |                              |               |                       |                |
| 1.3.1 Construct communal water schemes in densely populated Zones                                                                                                                                | No. of water schemes                               | 0 km     | 3      | Progress Reports             | Quarterly     | Water Affairs         | Secretariat    |
| 1.3.2 Rehabilitate (change materials) for existing boreholes in surrounding communities                                                                                                          | No. of boreholes rehabilitated                     | 0        | 10     | Progress Reports             | Quarterly     | KTC                   | Secretariat    |
| <b>Development Objective 1.4:</b> Improve access to information and communication among majority of population in Mayukwayukwa and surrounding communities by increasing mobile network coverage |                                                    |          |        |                              |               |                       |                |
| 1.4.1 Construct/expand mobile communication towers/coverage in Mayukwayukwa and surrounding communities                                                                                          | Percentage coverage of areas with network coverage | 30       | 100    | Reports                      | Bi – annually | ZICTA, KTC            | Secretariat    |
| <b>Development Objective 1.5:</b> Promote strategic, equitable and climate change resilient basic infrastructure investment and distribution of services                                         |                                                    |          |        |                              |               |                       |                |
| 1.5.1 Develop a Comprehensive Land Use Plan for Mayukwayukwa with different land use categories for future development                                                                           | No of Land Use Plans                               | 0        | 1      | Land Use Plans               | Quarterly     | KTC                   | Secretariat    |

**Strategic Goal 2:** To transform Mushwala and Kapili wards into an agri-business hub that will address food security at local level and contribute to district agriculture production.

**Table 4.2: Monitoring Plan for Goal 2**

| Outputs per Activities<br>(Based on the<br>Implementation Plan)                                                                                                                          | Indicator (s)            | Baseline               | Target              | Means of<br>verification*<br>(MOV) | Frequency     | Source of<br>Information | Responsibility |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------|---------------------|------------------------------------|---------------|--------------------------|----------------|
| <b>Development Objective 2.1:</b> Improve productivity (crop yield and land utilization rate) per farmer by 60% for at least 80% of the registered small-scale farmers                   |                          |                        |                     |                                    |               |                          |                |
| 2.1.1 Facilitate training of farmers through cooperatives in agriculture production, crop diversification (to high value crops), and crop management                                     | No. of farmers trained   | 10 cooperatives        | 35 cooperatives     | Training Reports                   | Quarterly     | MOA, MSMED               | Secretariat    |
| 2.1.2 Provision of motorbikes for Agriculture Extension Services to provide trainings and follow-up                                                                                      | No. of Motor bikes       | 4                      | 10                  | Inventory                          | Bi – annually | MOA                      | Secretariat    |
| 2.1.3 Construction of staff houses for Agriculture Extension Officers                                                                                                                    | No. of Staff houses      | 0                      | 2                   | Progress reports                   | Quarterly     | MOA                      | Secretariat    |
| 2.1.4 Delimitation of Mushwala and Mayukwayukwa Agriculture Zones to improve Ext. Officer to Farmer ratio                                                                                | No. of Agriculture zones | 11 Zones/<br>Officer   | 8 Zones/<br>Officer | Delimitation map                   | Bi – annually | MOA                      | Secretariat    |
| 2.1.5 Construction of irrigation infrastructure (dam) to promote irrigation                                                                                                              | No. of dams              | 1                      | 2                   | Progress reports                   | Quarterly     | MOA                      | Secretariat    |
| <b>Development Objective 2.2:</b> Increase population engaged in farming through promotion of earlier inclusion of youth, allocation of farm plots, and introduction of “anchor farmers” |                          |                        |                     |                                    |               |                          |                |
| 2.2.1 Equip production units at schools to promote agriculture skills and knowledge transfer to the youth                                                                                | No. of schools equipped  | 1                      | 6                   | Inventory                          | Quarterly     | MOA/MOE                  | Secretariat    |
| 2.2.2 Establish a Farmers Training Center with demo plots (20 ha)                                                                                                                        | No. of FTC established   | 0                      | 1                   | Progress Report                    | Bi – annually | MOA                      | Secretariat    |
| 2.2.3 Demarcate and allocate farm plots (5ha each) in the LIA                                                                                                                            | No. of farms allocated   | 1, 085 (717 allocated) | 2, 000              | Progress Report/<br>Offer letters  | Quarterly     | DOR/MOA                  | Secretariat    |
| 2.2.4 Reclaim and allocate 20 - 30 ha plots to “anchor farmers” with capacity of medium scale production and venture into out-grower schemes                                             | Ha of land replanned     | 0ha                    | 500ha               | Progress Report/<br>Layout Plan    | Quarterly     | DOR/MOA/ Private Sector  | Secretariat    |

|                                                                                                                                                                                                          |                                                |            |                           |                  |               |                                      |             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|------------|---------------------------|------------------|---------------|--------------------------------------|-------------|
| <b>Development Objective 2.3:</b> Achieve at least 30% of the registered farmers with access to financing                                                                                                |                                                |            |                           |                  |               |                                      |             |
| 2.3.1 Conduct trainings to farmers or cooperatives on book keeping, village banking, saving groups etc                                                                                                   | Percentage of registered farmers               | -          | 40% of registered farmers | Training Reports | Quarterly     | MOA/Partners/MSMED                   | Secretariat |
| 2.3.2 Recommend trained and well performing farmers to financial institutions for agriculture inputs and equipment                                                                                       | No. of farmers accessing loans                 | -          | 100 farmers               | Recommendations  | Bi - annually | MOA/Partners                         | Secretariat |
| <b>Development Objective 2.4:</b> To build and strengthen local and regional market linkages                                                                                                             |                                                |            |                           |                  |               |                                      |             |
| 2.4.1 Establish 2 strategic buying points (Depot) easily accessible                                                                                                                                      | No. of depots                                  | 1 FRA Shed | 4                         | Progress Report  | Quarterly     | MOA/DOR/Partners                     | Secretariat |
| 2.4.2 Operationalize bulking centre (Zone 2) and set up 5 commodity aggregation centers                                                                                                                  | No. of aggregation centres                     | 2          | 7                         | Progress Report  | Quarterly     | MOA/DOR/Partners                     | Secretariat |
| 2.4.3 Identify potential famers and cooperatives and link with off-takers/ private sector                                                                                                                | No. of cooperatives with contracts             | 1          | 5                         | Progress Report  | Quarterly     | MOA/DOR/Partners/MSMED               | Secretariat |
| <b>Development Objective 2.5:</b> To develop capacities of 50% of registered cooperatives to invest in diversified agro-activities to enhance industries/enterprise development for local value addition |                                                |            |                           |                  |               |                                      |             |
| 2.5.1 Provide skills/vocational training, entrepreneurship and financial literacy (including resource mobilization, e.g., CDF loans) for youths                                                          | No. of Youths with skills/ vocational training | -          | 25                        | Progress Report  | Quarterly     | KTC//DOR/ COR Partners/MSMED/ TEVETA | Secretariat |
| 2.5.2 Construct and equip a skills/ vocation training Center                                                                                                                                             | No. of operational training centre             | 1          | 2                         | Progress Report  | Quarterly     | KTC/DOR/ COR/ Partners/MSMED/ TEVETA | Secretariat |
| 2.5.3 Allocate land in LIA for industrial activities                                                                                                                                                     | Ha of land allocated                           | 0          | 500                       | Progress Report  | Quarterly     | MOA/DOR                              | Secretariat |
| <b>Development Objective 2.6:</b> Promote climate smart agriculture practises to enhance resilience among farmers                                                                                        |                                                |            |                           |                  |               |                                      |             |
| 2.6.1 Training of farmers in promotion of climate resilient agricultural practices and technologies such as irrigation at small scale                                                                    | No. of farmers trained                         | -          | 700                       | Training reports | Quarterly     | MOA/ Partners                        | Secretariat |
| 2.6.2 Train Extension Officers and Cooperatives on use of Early Warning Systems in agriculture                                                                                                           | No. of farmers trained in EWS                  | -          | 1,000                     | Training reports | Quarterly     | MOA/Partners                         | Secretariat |

**Strategic Goal 3:** To develop a joint, inclusive and comprehensive framework (covering both refugee settlements and resettlement schemes, and surrounding host community), for coordinated multi – sectoral interventions by 2029.

**Table 4.3: Monitoring Plan for Goal 3**

| Outputs per Activities<br>(Based on the Implementation Plan)                                                                                                                                                   | Indicator(s)                             | Baseline | Target                           | Means of verification*<br>(MOV)    | Frequency | Source of Information | Responsibility |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------|----------------------------------|------------------------------------|-----------|-----------------------|----------------|
| <b>Development Objective 3.1:</b> Improve coordination of all activities in and around Mayukwayukwa by establishing coordination mechanism with several tools                                                  |                                          |          |                                  |                                    |           |                       |                |
| 3.1.1 Expand mandate of the multi-sectoral coordinating (inter-agency) committee spearheaded by COR to include LAP activities                                                                                  | No. of Committees established            | 0        | 1                                | Minutes                            | Quarterly | COR/DOR               | Secretariat    |
| 3.1.2 Develop an information depository system to profile stakeholders, scope of intervention and beneficiaries                                                                                                | No. of database established              | 0        | 1                                | Reports                            | Quarterly | COR/DOR               | Secretariat    |
| 3.1.3 Provide quarterly Reports to DDCC, PDCC and Council on the LAP                                                                                                                                           | No. of reports                           | -        | 20                               | Reports                            | Quarterly | COR/DOR/KTC           | Secretariat    |
| <b>Development Objective 3.2:</b> Implement joint advocacy and external-communication strategies for the transformation and development of Mayukwayukwa Resettlement, Refugee Camp and surrounding communities |                                          |          |                                  |                                    |           |                       |                |
| 3.2.1 Conduct awareness (e.g. public media and schools) on the image of Mayukwayukwa as part of Kaoma, about PoC and local integration among host communities                                                  | No. of awareness activities done         | 2        | 5                                | Reports/Calendar                   | Quarterly | COR/DOR               | Secretariat    |
| 3.2.2 Elaborate projects that enhance the incorporation/ integration of Mayukwayukwa to its surroundings (e.g., crossing points, facilities close but outside Mayukwayukwa) benefiting more residents outside  | No. of projects that enhance integration | 1        | 5 New projects and/or programmes | Activity Reports/ Progress Reports | Quarterly | Partners              | Secretariat    |

|                                                                                                                                                                             |                                           |                              |                                          |                                  |             |                     |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------|------------------------------------------|----------------------------------|-------------|---------------------|-------------|
| 3.2.3 Conduct campaigns to promote private investments to Mayukwayukwa e.g., Provincial Expos                                                                               | No. of investment campaigns               | 0                            | 10 Investors (10 Campaigns in years)     | Activity Reports, Adverts        | Quarterly   | DOR and Partners    | Secretariat |
| 3.2.4 Provide youth with potential with startup capital (loans) to setup businesses in and around Mayukwayukwa                                                              | No. of Youth beneficiaries                | 0 Youths                     | 50 youths                                | Contracts/ Loan agreements/ SMEs | Quarterly   | CEEC, KTC, Partners | Secretariat |
| 3.2.5 Conduct formal advocacy activities for Refugee Policy implementation to enable freedom and rights of POCs to fully contribute economically                            | No. of advocacy activities                | 0 Formal advocacy activities | 25 Formal advocacy activities in 5 years | Reports, Bulletins, Pictures     | Quarterly   | COR and Partners    | Secretariat |
| <b>Development Objective 3.3:</b> Strengthen coordination and participation/representation of residents (including former Refugees) in district and sub-district governance |                                           |                              |                                          |                                  |             |                     |             |
| 3.3.1 Increase Zonal representatives for Mayukwayukwa                                                                                                                       | No. of zonal representatives              | 2                            | 8                                        | Minutes                          | Quarterly   | KTC                 | Secretariat |
| 3.3.2 Ensure PoC representation/ inclusion in local governance through WDCs                                                                                                 | No. of PoCs in WDCs                       | 0 PoCs                       | 2 PoCs in 2 WDCs                         | Appointment Letters              | Bi – annual | KTC                 | Secretariat |
| <b>Development Objective 3.4:</b> Improve coordination among stakeholders and players within Mayukwayukwa                                                                   |                                           |                              |                                          |                                  |             |                     |             |
| 3.4.1 Develop guidelines to Integrate roles and responsibilities of WDCs; Refugee Sector leaders Representatives (CoR) and Farmers Coordinating Committees (DoR)            | No. of guidelines to integrate structures | 0 Guidelines                 | 1 approved guideline                     | Guideline Document               | Quarterly   | KTC, COR, DOR       | Secretariat |

## 4.6 Risks and Assumptions

The Mayukwayukwa LAP will be implemented based on a number of assumptions that certain condition and factors shall be in place. However, the plan faces a number of Risks that need to be mitigated for the successful implementation as outlined in the Table below;

### Risks, Assumptions and Mitigation Measures

| Potential Risk                  | Contributing Factors                                                                                                                                                            | Degree of Risk | Mitigation                                                                                                                                                                                                                                                                | Assumptions                                                                                                                                                                                               |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Financial constraint            | <ul style="list-style-type: none"> <li>Partners and funders not ready to support programmes in the LAP</li> <li>Priority of GRZ funding</li> <li>Costs exceed budget</li> </ul> | Very High      | <ul style="list-style-type: none"> <li>Prepare compelling funding proposals</li> <li>Prepare budgets and proposals before partners prepare their respective institutional budgets</li> <li>Pool resources in one envelope</li> <li>Focus on low hanging fruits</li> </ul> | <ul style="list-style-type: none"> <li>GRZ line ministries will budget for programmes in the LAP</li> <li>Partners will be willing to partner through various CSRs</li> </ul>                             |
| Legal and Regulatory Compliance | <ul style="list-style-type: none"> <li>Conflicting roles and mandates</li> </ul>                                                                                                | High           | <ul style="list-style-type: none"> <li>Conduct joint planning/ reviews</li> <li>Meet regularly</li> <li>Align programmes to government and institutional guidelines</li> </ul>                                                                                            | <ul style="list-style-type: none"> <li>All programmes will be in line with sector and partner policies and guidelines</li> </ul>                                                                          |
| Environmental Impact            | <ul style="list-style-type: none"> <li>Drought (Climate change)</li> <li>Increase human activity – destruction to human habitat</li> <li>Population increases</li> </ul>        | Very High      | <ul style="list-style-type: none"> <li>Mainstream climate resilience and adaptability in all programmes</li> <li>Adopt climate resilient practices</li> </ul>                                                                                                             | <ul style="list-style-type: none"> <li>Communities are responsive and adopt climate smart strategies</li> <li>Stakeholders will mainstream climate resilience and adaptation in all programmes</li> </ul> |
| Gentrification                  | <ul style="list-style-type: none"> <li>Increase in property values</li> <li>Increase in economic activities</li> <li>High incomes</li> </ul>                                    | Low            | <ul style="list-style-type: none"> <li>Create enough opportunities for all</li> </ul>                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>Local people in Mayukwayukwa and surrounding communities will be self-reliant and income secure</li> </ul>                                                         |
| Reduced quality of services     | <ul style="list-style-type: none"> <li>Population growth</li> <li>Limited capacity to expand existing services</li> </ul>                                                       | High           | <ul style="list-style-type: none"> <li>Outsource and/or engage other players for support</li> </ul>                                                                                                                                                                       | <ul style="list-style-type: none"> <li>Resources will be available to finance activities</li> </ul>                                                                                                       |
| Land Use Issues                 | <ul style="list-style-type: none"> <li>Boundary issues</li> <li>Compliance to standards</li> <li>Gender and social exclusion</li> </ul>                                         | Very High      | <ul style="list-style-type: none"> <li>Sensitize communities/ developers</li> <li>Plan and provide services in advance</li> <li>Conduct routine monitoring and development control</li> <li>Develop gender and inclusive land administration guidelines</li> </ul>        | <ul style="list-style-type: none"> <li>Resources will be available to provide services</li> <li>Developers will be compliant</li> </ul>                                                                   |

|                                             |                                                                                                                                                                                                                                                                   |           |                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Resistance from Stakeholders or communities | <ul style="list-style-type: none"> <li>▪ Lack of adequate engagement</li> <li>▪ Institutional programming from funders</li> <li>▪ Traditional or cultural beliefs</li> <li>▪ Resistance to change – happy with status quo</li> <li>▪ No direct benefit</li> </ul> | Very High | <ul style="list-style-type: none"> <li>- Identify all relevant stakeholders</li> <li>- Engage stakeholders at every stage</li> <li>- Work with local stakeholders (involve them)</li> </ul>                                                                                                                                                                  | <ul style="list-style-type: none"> <li>- Stakeholders will be willing to participate and cooperate</li> </ul>                                                                                                                  |
| Political and administrative bottlenecks    | <ul style="list-style-type: none"> <li>▪ Political leaders not supporting programmes</li> <li>▪ Administrative bureaucracies in getting decisions</li> <li>▪ Change in political governance systems</li> <li>▪ Lack of representation</li> </ul>                  | Very High | <ul style="list-style-type: none"> <li>▪ Hold meetings with political leaders in the whole process</li> <li>▪ Align programmes to institutional work plans</li> <li>▪ Conduct routine monitoring</li> <li>▪ Ensure all programmes are apolitical</li> <li>▪ Establish local representation</li> <li>▪ Share progress reports with all stakeholder</li> </ul> | <ul style="list-style-type: none"> <li>▪ Political leaders will buy – in</li> <li>▪ LAP programmes will be aligned with sector and partner work plans</li> <li>▪ Resources will be available for routine monitoring</li> </ul> |
| Community Disintegration                    | <ul style="list-style-type: none"> <li>▪ Development/ Resources concentrated in one area</li> <li>▪ Misinformation</li> </ul>                                                                                                                                     | Very High | <ul style="list-style-type: none"> <li>▪ Redistribute resources based on needs</li> <li>▪ Design programmes to address issues beyond Mayukwayukwa</li> <li>▪ Hold meetings – Engage communities for their understanding</li> <li>▪ Conduct awareness campaigns</li> </ul>                                                                                    | <ul style="list-style-type: none"> <li>▪ Programmes will address needs of both local and external stakeholder</li> <li>▪ Communities will buy – in</li> </ul>                                                                  |
| Lack of Monitoring                          | <ul style="list-style-type: none"> <li>▪ No one to take responsibility</li> <li>▪ LAP not among institutional priority activities</li> <li>▪ Poor coordination</li> </ul>                                                                                         | Very High | <ul style="list-style-type: none"> <li>▪ Align LAP activities with institutional activities</li> <li>▪ Set up dedicated structure to coordinate reporting of activities (Secretariat)</li> <li>▪ Incorporate LAP activities in sector workplans and M&amp;E Plans</li> </ul>                                                                                 | <ul style="list-style-type: none"> <li>▪ Institutions have work plans and M&amp;E Plans</li> <li>▪ Quarterly reports with LAP activities are reported</li> </ul>                                                               |

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**REPUBLIC OF ZAMBIA**

Zambia Agriculture Research Institution  
Ministry of Agriculture

SEMI-DETAILED  
SOIL SURVEY AND LAND EVALUATION REPORT FOR MAYUKAWAYUKWA  
REFUGEE CAMP IN KAOMA DISTRICT  
WESTERN PROVINCE



By

Mashuta kalebe, Stalin Sichinga, Vernoon Kamboyi, John Banda SK, Spear  
Tembo and Kelvin Mbewe



# KAOMA DISTRICT



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