



NG'ONGWE WARD – KASENENGWA DISTRICT

PARTICIPATORY LAND USE PLAN

(PLUP)



Prepared by: Land Alliance Consortium (TSP) in Collaboration with CHIPATA JOINT DMT.

Date: 31st March, 2022

Preface

This Participatory Land Use Plan (PLUP) for Ng’ongwe Ward is a document that has been developed with a view of managing and mitigating unsustainable natural resource use. The aim of this document is to help communities in making sound decisions pertaining to land uses. This PLUP process has been supported by the Zambia Integrated Forests and Landscape Project (ZIFLP), an initiative of the Government of the republic of Zambia with funding support from World Bank through the Bio-carbon Fund, Global Environmental Facility (GEF) and International Development Association (IDA).

PLUP activity falls under component one: This first component is meant to create conditions that will allow the livelihood investments of Component 2 to be successfully implemented and that will prepare the country for emission reduction purchases. This component includes support for two subcomponents under which PLUP falls, that is, (a) District and local level planning, which is supporting integrated district development and (b) local planning including land use and action planning through participatory processes.

The process for the creation of this PLUP was participatory in nature taking into account Social Biodiversity Assessment (SBIA), and various stakeholders were consulted and engaged such as their Royal Highnesses Chief Madzimawe and Nzamane, Chipata Joint District Multi-Sectoral Teams (Joint DMTs), Department of Physical Planning, Ng’ongwe Ward community Members and ZIFLP team were fully involved at every stage of the process. Thus, this PLUP will help guide Ng’ongwe Ward residents in implementing sustainable and participatory land use practices in their ward, and also help in addressing the key issues identified, which have so far led to the unsustainable resource usage. This PLUP will help residents find alternative livelihood sources which will make them refrain from unsustainable land use practices such as unsustainable agriculture expansion, unplanned human settlement, environmental degradation and deforestation. This will help in the realisation of ZIFLP Vision which is to improve rural livelihoods in Eastern Province by Reducing Deforestation and Forest Degradation using low emission pathways through local participation by 2030.

It is further hoped that the local people in the community will appreciate the benefits of having the Land Use Plan (LUP), bearing in mind that land is a scarce resource with competing uses which are mutually exclusive. Additionally, population growth, erosion, effects of climate change and

other factors have contributed to the increasing scarcity of fertile land in rural areas despite people deriving their livelihoods from there. Thus, this PLUP is a way of balancing up competing and, in some cases, conflicting land uses.

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HRH Chief Madzimawe

Madzimawe Chiefdom

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Mayor

Chipata City Council

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Council Secretary

Kasenengwa Town Council

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Council Secretary

Chipangali Town Council

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District Commissioner

Chipata District

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District Commissioner

Kasenengwa District

.....

District Commissioner

Chipangali District

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Acronyms and Abbreviations

CDF – Constituency Development Fund

CSA – Climate Smart Agriculture

DMT - District Multi-Sectoral Team

EP - Eastern Province

EMP - Environmental Management Plans

FPIC - Free Prior Informed Consent

GPS - Global Positioning System

ICT – Information and Communications Technology

IDP – Integrated Development Plan

JICA - Japanese International Corporation Agency

JIDP – Joint Integrated Development Plan

LAP - Local Area Plan

LULC - Land Use Land Cover

LUP - Land Use Planning

NDP - National Development Plan

NRM - Natural Resource Management

OCC - Objection, Correction and Confirmation

ODK - Open Data Kit

PAD - Project Appraisal Document

PLUP - Participatory Land Use Planning

URP - Urban and Regional Planning

COMACO - Community Markets for Conservation

WDC - Ward Development Committee

ZIFLP - Zambia Integrated Forest Landscape Project

1. INTRODUCTION

Participatory Land Use Planning (PLUP) is an interactive process in which local communities can discuss and determine how to manage the land and other natural resources in their locality. Land Use Planning (LUP) can be defined as a process in which land is allocated for different uses ranging from residential, commercial, agriculture, etc. (PLUP manual, 2019). PLUP is an important decision-making tool for natural resource management because it helps in defining suitable land uses which best balance ecological, economic and social objectives, thereby preventing land use and social conflicts. Thus, PLUP is of great importance if natural resources are to be effectively managed.

Currently, rural areas in Zambia are faced with challenges ranging from food insecurity, land conflicts, biodiversity protection while initiating economic growth, adapting to climate change as well as protecting people from natural disasters (JICA, 2011). Hence, PLUP is envisioned to be a great tool capable of mitigating the above challenges by focusing on conducting discussions with relevant stakeholders on future land and resource use as well as management by allocating specific areas for different human activities.

Thus land use allocation is important, owing to the fact that land is a scarce resource with a fixed supply despite demand increasing on a daily basis (thereby bringing about land related conflicts). Therefore, this PLUP aims at guiding and helping in tackling land-related conflicts as well as other natural resource issues in their early stages by facilitating consensual negotiations and eventual regulations on land uses by all interested parties.

The rationale and overall objective of conducting participatory land use planning on customary land is to consolidate information on the current status of land uses and land information within an area. The information gathered will subsequently inform land use options that are sustainable, environmentally compatible, socially desirable and economically sound. Further, the exercise helps in bringing out social and environmental issues affecting the communities in the project areas so as to design appropriate interventions to mitigate those effects.

1.1 Background

Zambia Integrated Forest Landscape Project (ZIFLP) embarked on supporting the implementation of Participatory Land Use Planning (PLUP) in districts of Eastern Province (EP), focusing on community land use mapping and planning. This was the basis for the identification of primary Sub-District level activities, including issues of identification, prioritisation and sub-project identification (PLUP Manual, 2019).

ZIFLP took into consideration and followed the present government direction on land use aimed at optimizing the use of land, helping with resolution of conflicts which arise between competing land uses and needs of various interest groups, choosing sustainable options that best meet identified needs, rehabilitating and conserving natural resources, supporting the general development process and raising awareness concerning environmental problems among the populations and authorities (ZIFLP- PAD).

Additionally, this PLUP consolidated information on the current status of land use and land information within a project area, which provided information on land use options that are sustainable, socially and environmentally compatible, and socially desirable and economically sound. The PLUP initiative is based on the current social, economic and environmental challenges and opportunities facing Zambia's customary areas.

Besides, Chiefs have a large amount of autonomy in terms of land management in their chiefdoms, while at the same time depend on government for a range of services such as schools, clinics, etc. The PLUP development process recognizes the fact that Zambia's rural landscape is vast and viable for various investments. Thus, rural landscapes have the potential to provide multiple revenue sources ranging from small-scale farming, wildlife management and game ranching, forest timber extraction, tourism, and mining. It is important to note that there are a number of land uses competing with each other hence the need for a land use plan to serve as a guide to the use and management of land.

1.3 Legal Context

The Ng'ongwe Ward PLUP has been developed in accordance with the provisions of the Urban and Regional Planning (URP) Act No. 3 of 2015 of the Laws of Zambia. The URP Act is the main

legislation that guides planning and related activities in the country. The Act not only provides for the preparation of Integrated Development Plans (IDPs) for the development of each district but also provides for the preparation of Local Area Plans (LAPs) which are actually Land Use Plans for sections of a settlement, sub-areas, sub-districts or wards within a Local Authority's area. Areas under Traditional Authorities are governed by Section 25 of the Urban and Regional Planning Act No. 3 of 2015 of the Laws of Zambia.

Further, it provides guidance on the development of areas within land falling under customary tenure with the provision of developing planning agreements between traditional authority and relevant government authorities. However, there are other laws and policies that govern Land Use Planning in Zambia which were adhered to during the preparation of Ng'ongwe Ward PLUP such as the Mines and Minerals Act No. 11 of 2015, Villages Act of 1972, Chiefs Act, Cap.287, Agriculture Act, National Decentralisation Policy (NDP) of 2013, Forest Act No. 4 of 2015 and Zambia Wildlife Act No. 14 of 2015

2. APPROACH AND METHODOLOGY

The participatory land use planning in Ng'ongwe Ward adopted the USAID land use planning approach; which is a combination of primary and secondary data collection. The secondary data method involved reviewing various documents on land use planning and land uses held by various government departments and other cooperating partners. The primary data was collected through village meetings and field activities, through the involvement of traditional leaders, community members and key informants across a range of government institutions and non-state actors. Facilitation of PLUP was done in local language in order to contextualise PLUP to their local settings. The whole process was participatory as it involved all stakeholders who were either affected or had interest in the landscape of the project site.

The participatory approach was used in the development of the Ng'ongwe Ward PLUP where various relevant stakeholders were fully involved in the process. Planning was done with the community stakeholders together with their leaders (indunas and headpersons) in consultation with Chief Madzimawe. PLUP sensitization meetings were held with the Indunas, Headpersons and community members in order to collect socio-economic and environmental data on livelihood

sources and security. These PLUP sensitization meetings were held in three clustered focus group village meetings namely; Mngwangwa, Monga Chunga and Chibamu. 69 villages were represented at the clustered village meetings. Community members in all the three clustered meetings took a leading role in developing sketch maps, problem analysis through pair wise ranking, identifying shared resources and validation of the maps.

The spatial and attribute data used was collected using mobile-based Open Data Kit (ODK) Collect forms, Android tablets and GLO Garmins while QGIS 3.8.1, Google Earth Engine and ArcGIS 10.5 were used for data analysis.

The data captured is uploaded to the cloud-based server using any wireless connectivity so that data can be uploaded anywhere without necessarily coming to the office, especially when the field teams are camping.

The tablets have stored MB tiles (orthophoto images) with base maps for each district and the Community Facilitators whilst in the field can map any village including all shared communal resources and using the ODK application they can gather data on number of attendees disaggregated as male and female of any village or ward. Any hand sketched land use maps by the communities are captured and uploaded to the cloud server so that the GIS team at the office can digitise the maps and produce land use maps. Each tablet in order to accurately pick the polygon points is connected to a handheld Garmin Glo Geographical Positioning System (GPS). Each community facilitator ensures that the polygon points are repeatedly captured/deleted until the point recorded is shown to be reasonably in the right location relative to the ortho-photo image.

Although there is capability to manually record the polygon points against the image, or to move captured GPS points, the GIS team may not do so until they meet the community facilitator who was in the field to clarify on any captured polygon points issues.

2.1 Stages of PLUP Activity

No.	Activity	Objective	Strategy	Output	Target	Indicator
1	Village Identification (Rapid village assessments)	Know the total number of villages in the ward by picking points of interest	Physical Data Collection in all villages	69 Villages were identified	All Villages within Ng'ongwe Ward boundary	Only villages falling within the ward boundaries were captured
2	Sensitization to Indunas and head persons	Sensitise Indunas and Head persons to fully accept PLUP	Indunas and head persons meeting	90 Indunas from Madzimawe chiefdom were sensitised	All the Indunas in the Ward	90 indunas in the chiefdom of Madzimawe were sensitised despite only working in 69 villages.
3	Community Sensitization	Sensitise communities on PLUP	Community meetings	One Community meeting in each of the 3 clustered villages	Community members in all the 3 clustered village meetings	A total of 213 community representatives were sensitised across the ward disaggregated as 102 men and 111 women
4	Shared Resource Mapping	Collect geographical locations of the resources present in the community	Physical Spatial data collection	16 Shared Resource Maps were produced	Ng'ongwe ward	Shared Resource Mapping exercise completed in Ng'ongwe ward
5	Ng'ongwe ward resource Map validation	Show the current shared resources, land uses and have	Community engagement meetings for validation purposes.	Objections Corrections and Confirmation (OCC) done for the	Objections Corrections and Confirmation (OCC)	Shared Resource Map validated by the Chief and community

		the communities confirm the boundaries		shared resource map in Ng'ongwe Ward.	done at the Palace and in all the 3 village clusters	representatives in the ward.
6	Future land use planning and Formulation of By-Laws	Develop maps of how communities envisage to sustainably use their natural resources.	Community meetings	Future Land use plan developed and By- Laws formulated	The whole Ng'ongwe Ward	Future land use plan and by-laws done
7	PLUP approval	Have the plan approved by all relevant authorities in order to be implemented	Submit PLUP copies to both traditional and local authorities	PLUP approved	Ng'ongwe ward PLUP	PLUP approved by the Chief and Local Authority

Table 1: Stages of PLUP Activity

3.2.1 Rainfall and Temperature Patterns

Ng’ongwe ward receives a total annual rainfall of about 791 mm. There is high rainfall recorded during the wet season from November to February with average rainfall between 60-240 mm. The variation in the precipitation between the driest and wettest months is 120 mm.

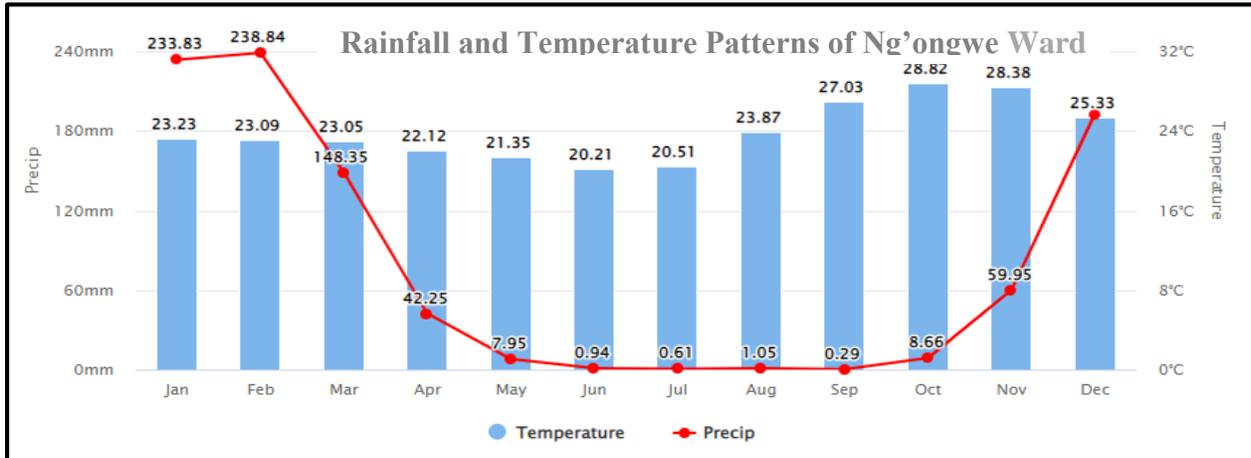


Figure 2: Annual Rainfall and Temperature Patterns for Ng’ongwe Ward

The temperatures are highest on average in October, at around 28.82 °C and lowest in June, with temperature recording of around 20.21 °C.

	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Ave. Temp (°C)	23.2	23.1	23.1	22.1	21.4	20.2	20.5	23.9	27.0	28.8	28.3	25.3
Min. Temp (°C)	19.9	19.6	19.2	17.9	16.4	14.6	13.9	15.5	18	20.7	21.6	20.5
Max. Temp (°C)	27	27.1	26.9	26.7	26.7	25.2	25	28	31.5	33.5	32.6	28.8

Table 2: Monthly Temperature Conditions for Ng’ongwe Ward

3.2.2 Ecological Zone

Zambia as a country is divided into three main Ecological Zones which are Zone I, II and III. Kasenengwa District is predominantly characterised by the IIa ecological zone with some portions falling under ecological zone I. Therefore, Ng’ongwe Ward in Kasenengwa District is our main area of focus. The ward falls under both I and IIa ecological zones characterised by annual rainfall between 800-1000 mm, and has a 120-160 days growing season, which supports growth of medium and long-term crop varieties such as maize, soya beans, groundnuts and other leguminous plants

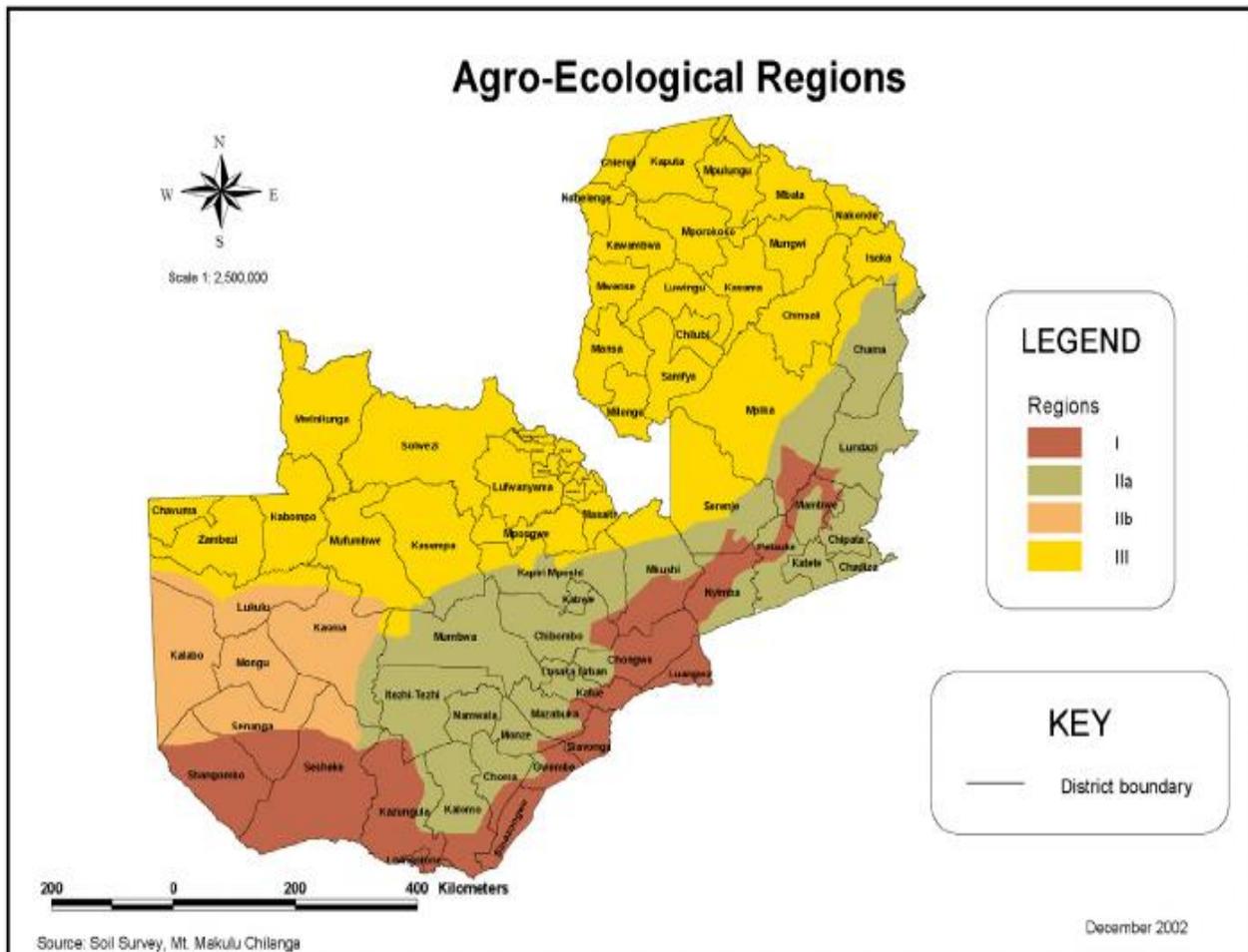


Figure 3: Agro-Ecological Zones

3.2.3 Soil Types

The ward is dominated by acrisols and lithosols soil zones. The Lithosols soil zones are characterised by rocky Sandy soils which are very shallow soils developed from various non-carbonated hard rocks and sandy soils which are well aerated but do not hold much water and they have poor nutrients, making them unfavourable for agricultural practices (Ersek, 2020). On the other hand, Acrisols soil zone is characterised by rich clay subsoil and is associated with humid tropic climate and often supports forested areas. Acrisols are characterised by low fertility and toxic amounts of aluminium, which make them unsuitable for agriculture (Peter Schad).

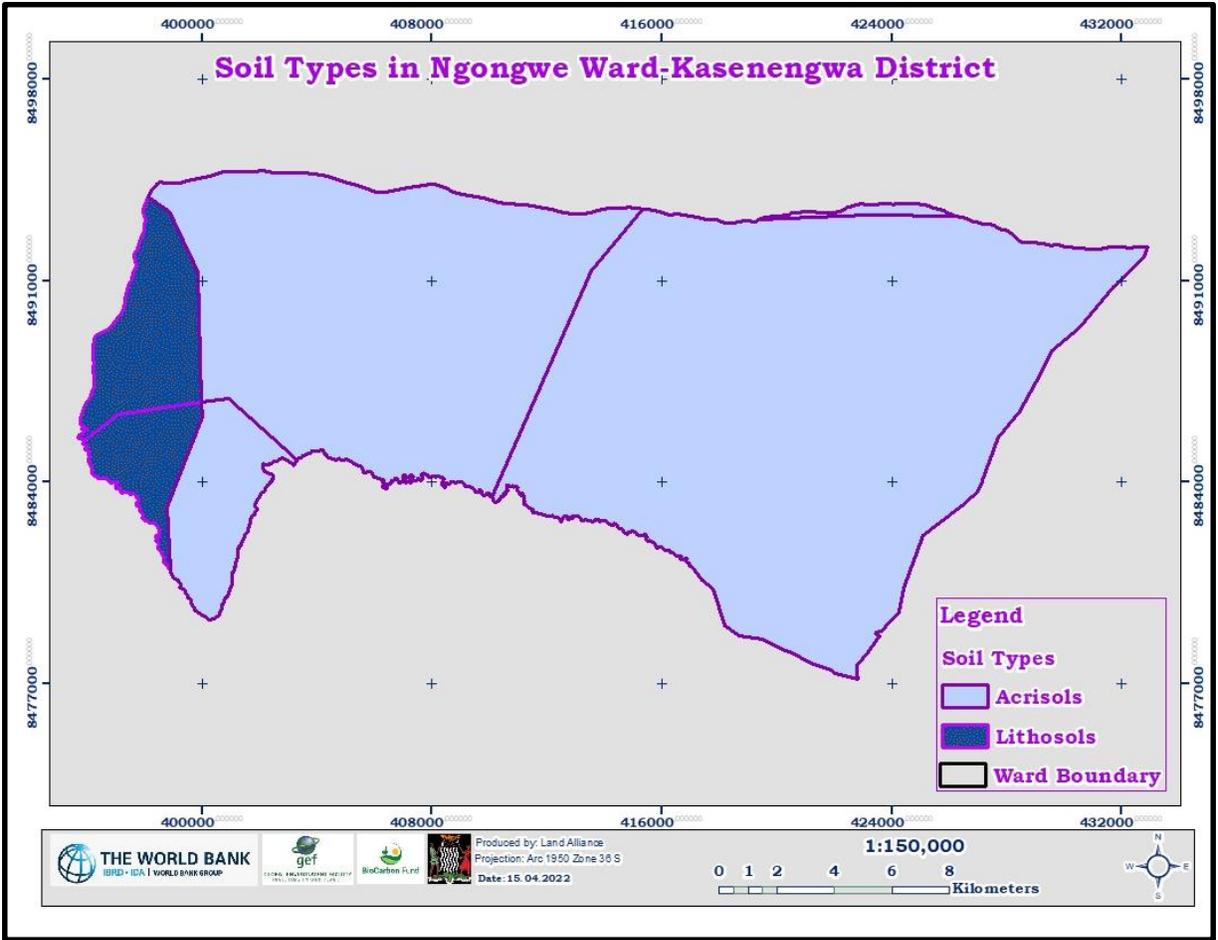


Figure 4: N’ongwe Soil Map

3.3 Socio-Economic Environment

Ng’ongwe ward covers a total area of 38,675.6 hectares. According to the JIDP for Chipata, Kasenengwa and Chipangali (2021), the poverty levels for Ng’ongwe Ward in Kasenengwa District stand at 85%. Settlements in the ward are dispersed with poor road networks, especially during the rainy season, as the areas become inaccessible because streams flood and there are no bridges/culverts (Chipata, Kasenengwa, Chipangali Joint IDP, 2021). The ward has a total of 69 villages and based on the 2017 Census of Population, Ng’ongwe Ward has an estimated total population of 15,425 (CSO, 2017) as shown in the table below:

Ward	Population		
	Male	Female	Total
Ng’ongwe	7,527	7,898	15,425

Source: Chipata, Kasenengwa, Chipangali JIDP, 2021

Table 3: Ng’ongwe Ward Population

3.3.1 Population Projection

For the purposes of projecting future services and land use needs, the population forecast was based on the national population projections (adjusted to reflect the population of Kasenengwa District at 2.8% growth rate as per 2017 Zambia Census projection.) On this basis, the population of Ngongwe Ward is projected to increase to 17,227 and 22,087 in 2021 and 2030 respectively (Chipata, Kasenengwa, Chipangali JIDP, 2021).

This projected increase in population will not only require land for development of infrastructure and other services but will also increase pressure on ecologically sensitive areas such as forests and hills that serve as catchment areas as well as water recharge areas. This entails that more land will be opened up for agricultural purposes which will potentially lead to forest degradation and loss of biodiversity consequently leading to severe climate change and its related effects. However, the impact of anticipated increase in agricultural activities on land can be managed through the promotion and adoption of Climate Smart Agriculture (CSA) practices, aimed at reducing agriculture land expansion while increasing crop yields.

3.3.2 Social Facilities

Ng'ongwe ward has a total of eleven (11) schools out of which ten (10) are primary schools with only one (1) secondary school (Chinunda Day Secondary School). The ward has four (4) health facilities. The map below shows the spatial distribution of social facilities in the Ng'ongwe Ward.

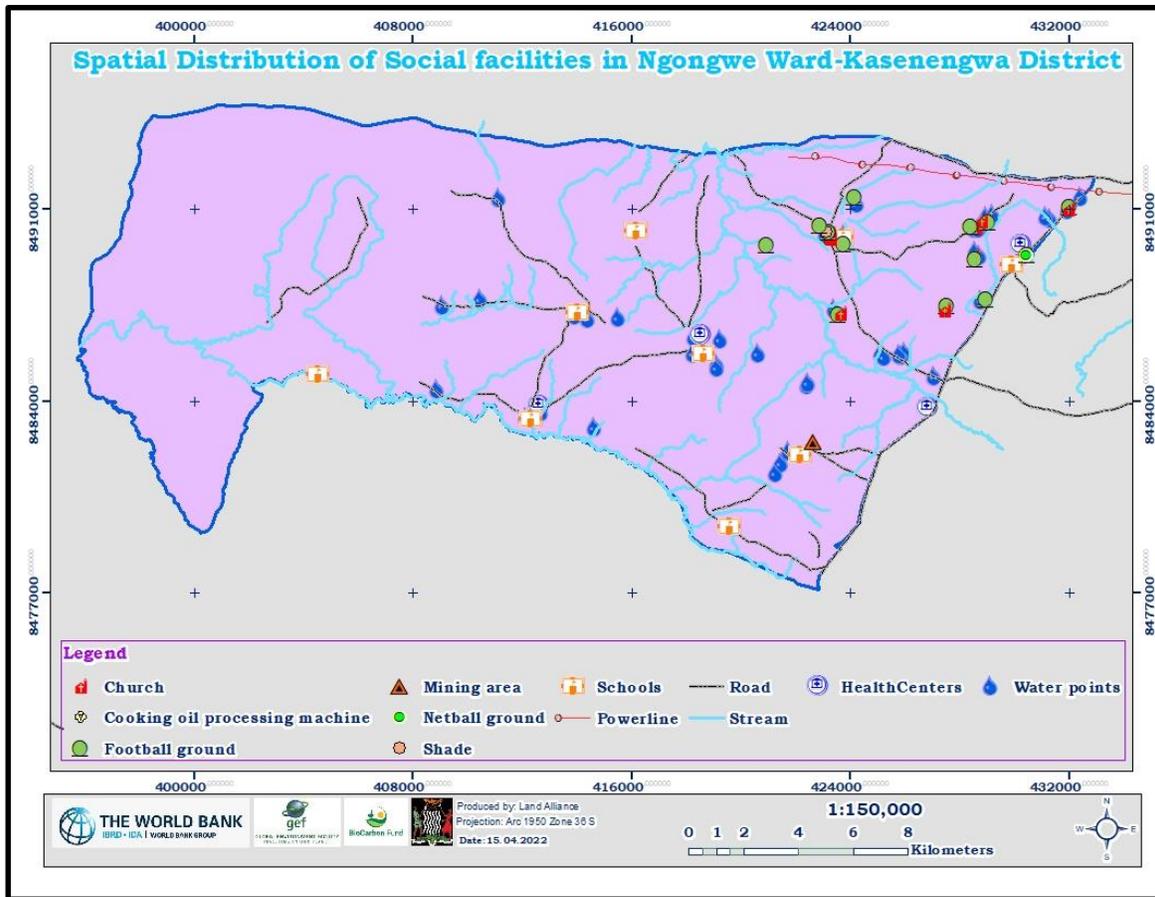


Figure 5: Spatial Distribution of Social Facilities in N’ongwe Ward

3.4 Source of Livelihood

Livestock keeping and subsistence farming are the predominant livelihood activities in Ng’ongwe Ward, with soya beans, maize, sweet potatoes, sun flower, tobacco, cotton and groundnuts being the crops grown. Animals reared by the local residents of Ng’ongwe include cattle, pigs, goats, sheep, chickens, and ducks. The products are either sold to the Food Reserve Agency (FRA) or in the urban centre of Chipata.

3.5 Livelihood Security

Livelihood security is the secure adequate access to resources as well as income generating activities to meet basic needs and it is shaped by the changing natural environment (Kassa, 2018). Securing the livelihoods of Ng’ongwe Ward residents is closely associated with the limited development of economic opportunities in the area because most, if not all, residents depend on undiversified livelihood which is based on rain-fed agriculture.

Livelihood security is often influenced by possibilities to diversify livelihood sources. If there are diversified livelihood sources, chances of attaining livelihood security are high. However, the over dependence on agriculture as a livelihood source has contributed to soil degradation as the only option available is to opening up of new fields by cutting down of trees leading to deforestation which has a negative effect on the climate. On the other hand, climate change affects rainfall patterns which further affect agricultural productivity thereby endangering the livelihoods of the local people of Ng'ongwe Ward.

3.6 Livelihood and Natural Resource Utilisation

Sustainable Livelihood refers to a livelihood that can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base (Ayantoye et al, 2017). The overdependence of Ng'ongwe Ward residents on agriculture for survival has led to increased pressure on the natural resources, especially land being the means to production for agricultural-based sources of livelihood. This unsustainable natural resource utilisation for survival, such as cutting down of trees for field expansion, leaves the farmlands bare, thereby resulting in soil degradation, which, in return, affects productivity.

On the other hand, farming practices adopted by the locals contribute to soil degradation, which forces them to abandon old fields and open new ones with a view of increasing yields. Thus, adopting conservation farming is encouraged so that one field can be used over and over without affecting the yields. This, in turn, will reduce the rate at which new agricultural fields are being opened up, thereby conserving trees.

Increase in population has equally contributed to unsustainable natural resource usage in that community members clear land for purposes of settlements and agriculture because their livelihood is entirely dependent upon farming. Thus, they either clear land for field expansions or opening up of new fields. Additionally, the majority households in Ng'ongwe Ward have no access to electricity hence local communities depend on wood fuel for their energy use. Thus, the high demand for firewood contributes to the indiscriminate cutting down of trees.

Trees (forest) serve as natural habitats for various wild animals, birds and insects which get affected when their habitat is cleared. These animals, birds, and bees have the capability to serve

as alternative livelihood sources through careful management. For example, the locals can venture into beekeeping as a business. However, the clearing of trees has led to the disappearance of biodiversity in the area.

3.7 Livelihood Constraints and Opportunities

Agriculture and livestock are the major livelihood activities in Ng’ongwe ward but due to climate change the area has been experiencing late onset of rains, occasional dry spells and floods which has affected yields, thereby affecting the livelihood of people. However, there are opportunities of improving the yields through practising climate smart agriculture which ZIFLP, through the Ministry of Agriculture, has been implementing in the ward. Additionally, communities can be encouraged to form cooperatives or groups which various stakeholders can support to venture into environmentally-friendly value addition projects to process raw products and sell them as finished products. In order to minimise the livelihood constraints in the ward, sustainable investment in agro-industries to enhance value addition and the establishment of market infrastructures are of great importance. These can, in turn, improve food security and aid in poverty reduction through exploration of alternative sources of livelihood. The table below summarises the constraints and opportunities in Ng’ongwe Ward.

Constraints	Opportunities
<ul style="list-style-type: none"> -Low agricultural yields due to poor farming practices -Lack of initial start-up capital -Lack of alternative livelihood sources -Poor road network to access some villages -Lack of electricity 	<ul style="list-style-type: none"> -Switching to climate smart agriculture -Venturing into value-addition activities -Establishment of market infrastructure -Construction of feeder roads -Investment in green energy e.g. solar

Table 4: Livelihood Constraints and Opportunities

3.8 Biodiversity Hotspots

The sustainable use and protection of biodiversity is an integral component of successful Land Use Planning. There is a need to identify the existing biodiversity together with the local population. Any conflicts of interest must be brought out and resolved leading to greater social acceptance. LUP is one of the tools utilised in biodiversity protection for it helps in identifying existing biodiversity and also creates a broad consensus on the sustainable use of natural resources leading

to the conservation of biodiversity. Ng'ongwe Ward has various biodiversity hotspots and the following hotspots were identified during the PLUP preparation process;

3.8.1 Streams and Dams

The streams in the ward are mostly seasonal and dry before the onset of rains. The drying is as a result of siltation as well as the late onset of rains. The dams have been silted due to soil erosion in the uphill caused by farming and cutting down of trees.

These water bodies can be revamped by the enforcement of bylaws which restrict bad farming methods and also encourage adherence to 50m buffer zone rule around water bodies as stipulated in the Environmental Management Act.

3.8.2 Forests

Ng'ongwe has forests in the hills and small woodlots coupled with open forests which are utilised for animal grazing and one local forest that is being managed by the community. The open forests are normally affected by bushfires either as a result of mouse hunting or clearing of fields. Restriction of burning fields to months between August and October of every year as well as by laws prohibiting bushfires can help in protecting forests in Ng'ongwe Ward.

Chief Madzimawe has put in place an initiative to forests in the hills and each village has a wood lot which they preserve. This initiative can only work effectively by introducing the formation of Community Forest Management Groups (CFMGs) across the whole chiefdom. CFMGs would help conserve and protect natural resources which are on the verge of extinction especially when complimented by scaling up of climate smart agriculture as agricultural expansion is one driver of deforestation.

The map below shows the biodiversity hotspots in Ng'ongwe Ward that were identified during the PLUP preparation process.

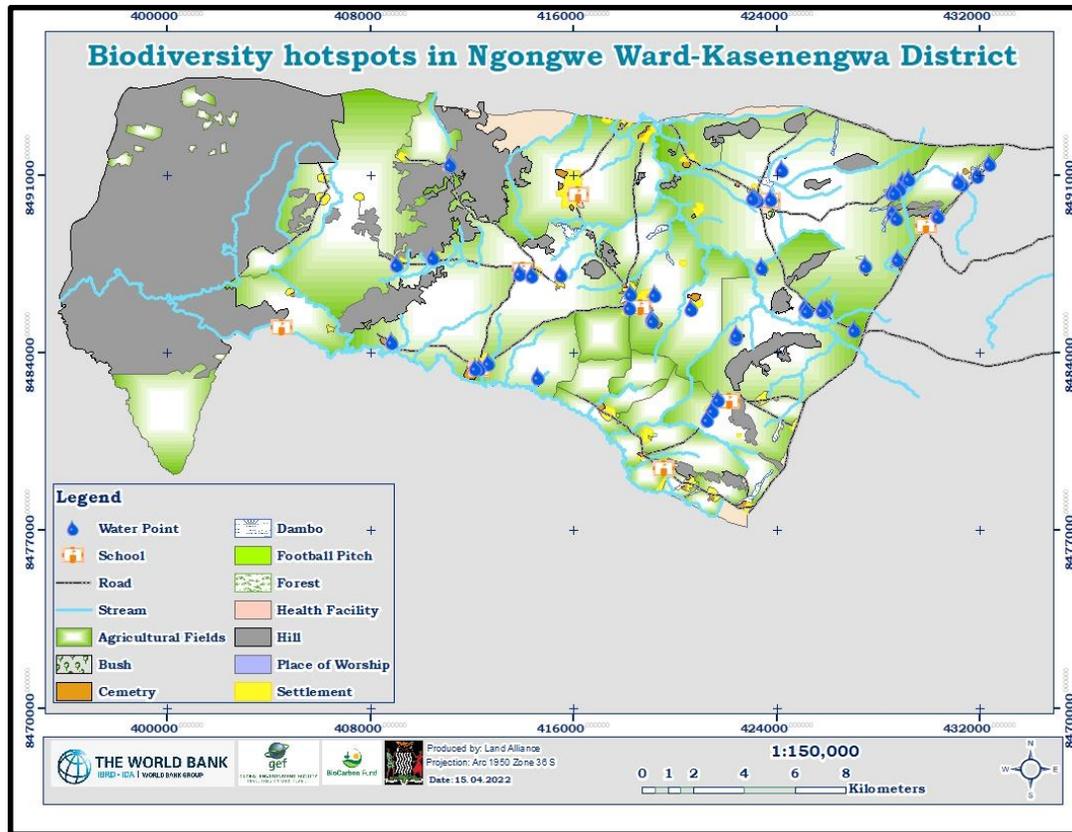


Figure 6: Biodiversity Hotspots

3.9 Ecosystem Function

Ecosystem function is the capacity of natural processes and components to provide goods and services that satisfy human needs, either directly or indirectly (de Groot et al 2002). Although unsustainable agricultural practices and charcoal production in the ward are the main factors transforming the natural resource base (which in turn affects the biodiversity due to habitat loss), unplanned settlements, forest reserve encroachment and soil degradation have also led to disturbance of the ecosystem. Further, poor livestock and grazing area management have continued to cause a decline in the ecosystem. However, it is hoped that this PLUP will be instrumental in influencing ecosystem restoration and aiding in the conservation of biodiversity.

4. CURRENT LAND USE PATTERNS

4.1 Overall Land Use

The ward is mainly hilly and the main land uses are as shown in table 4 below where agriculture is leading followed by forests that includes the existing CFM and proposed CFMs, settlements, then hills, and finally the bush for free range grazing of animals. However, it is worth noting that some shared resources overlap the ward boundaries meaning that communities share these resources. Shared resources need to be considered in relation to existing key stakeholders who live adjacent to them.

No.	Land Use	Hectares	% Coverage	Comment
1.	Total Ward Area (ha)	38,675.6		
2.	Agriculture	25,532.9	66.02%	This is land under cultivation.
3.	Forest	488.3	1.26%	All land mapped as forest, which includes Malambalala Community Forest.
4.	Settlements	1,304.3	3.37 %	These include: Villages and other built up areas such as; Schools, Health Facilities, Cemetery, Agricultural Camps, Markets etc.
5.	Hills	11, 180.8	28.91%	Hills not designated as forests but also not used for human settlements or agriculture
6.	Bush (Woodlot)	169.6	0.44%	Land classified as community woodlots.

Table 5: Land Use Reservation

4.2 Land Use Suitability Analysis

This is an evaluation that was done to identify the suitability of Ng'ongwe Ward for agriculture as a land use. The analysis focused on agriculture as a whole and not necessarily evaluating the individual crops grown in the Ward and it was based on the soil types.

4.2.1 Soil Types

There are quite a number of soil types across Kasenengwa District, but sandy clay and loamy soils are the most predominant types in Ng'ongwe ward. Sandy clay soils are more fertile than rocky soils because of the combination of two types of soils (sandy and clay). The clay particles in the

sandy clay soil improve moisture retention while the sand minimises compaction and improves drainage making the soil suitable for agriculture. From the map below (figure 7), it is clearly shown that the middle part and far right of the ward are covered by loamy soils while the far left end is composed of sand-clay soils. Much of the agricultural activities in Ng'ongwe Ward are done in the loamy soils

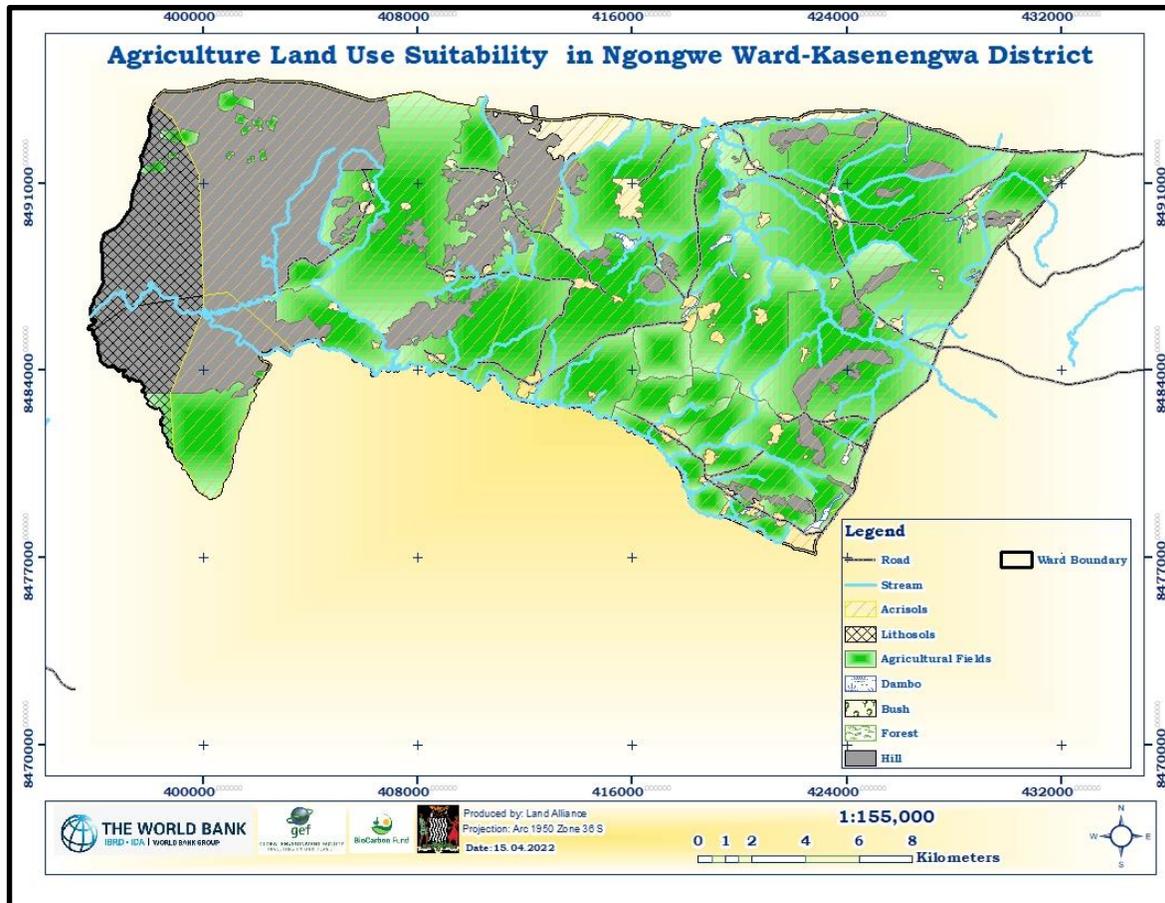


Figure 7: Ng’ongwe Ward Agricultural Suitability Analysis Map

4.3 Land Resource and Administrative Boundaries

The land resources captured during the PLUP process are under Madzimawe Chiefdom although some shared resources such as hills, agricultural fields and forests spill across ward boundaries and other chiefdoms such as Msoro. However, despite the overlapping of these shared resources between wards and chiefdoms, local people in these areas around Ng’ongwe acquire their services from Ng’ongwe Ward.

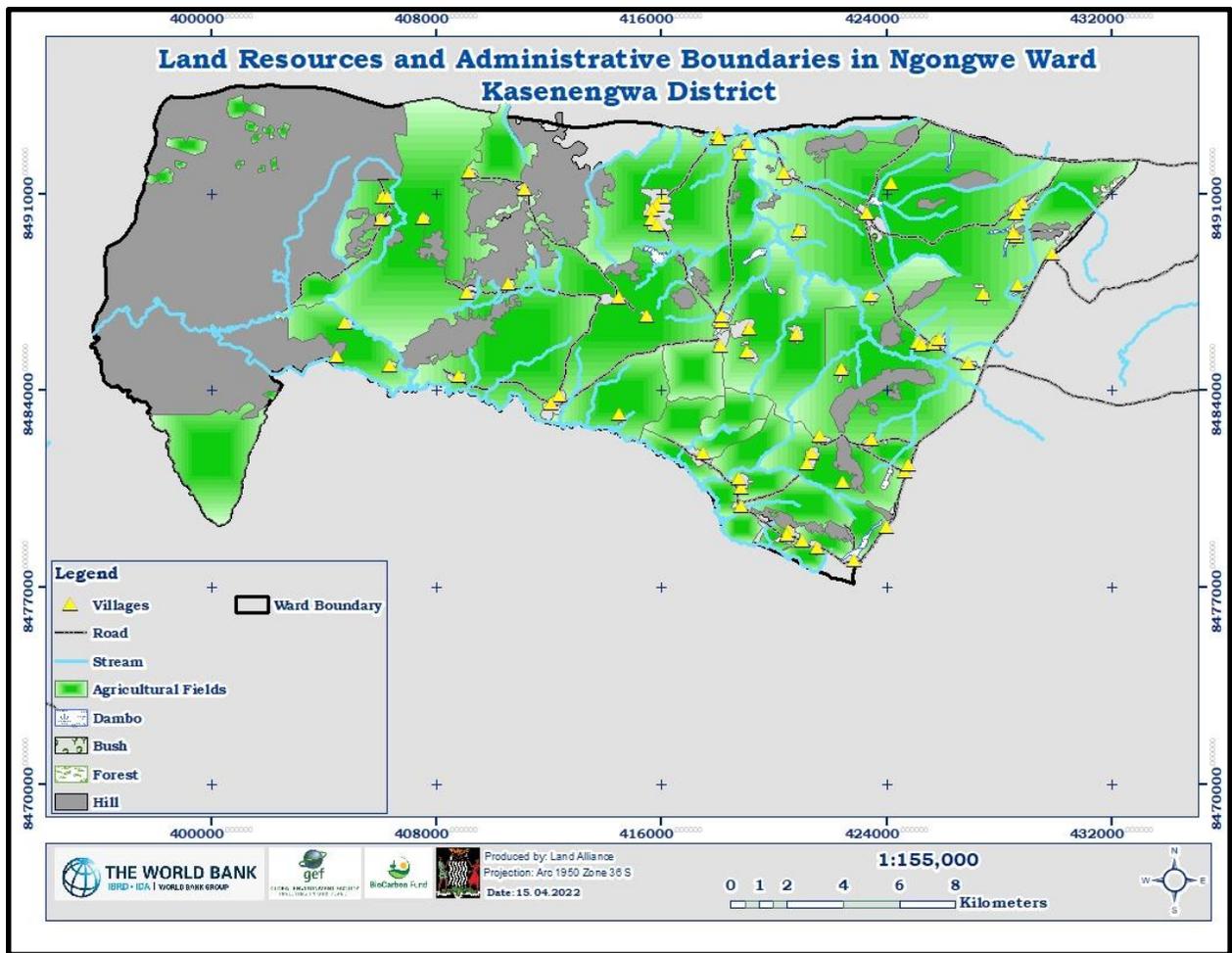


Figure 8: Land Resource and Administration Boundaries

4.4 Current Land Uses

In terms of land use activities, Ng’ongwe Ward is mainly covered with settlements (villages) and agricultural fields as well as areas for social services such as schools, clinics, places of worship and other communal services such as cemeteries, roads, streams and Good Nature Shed.

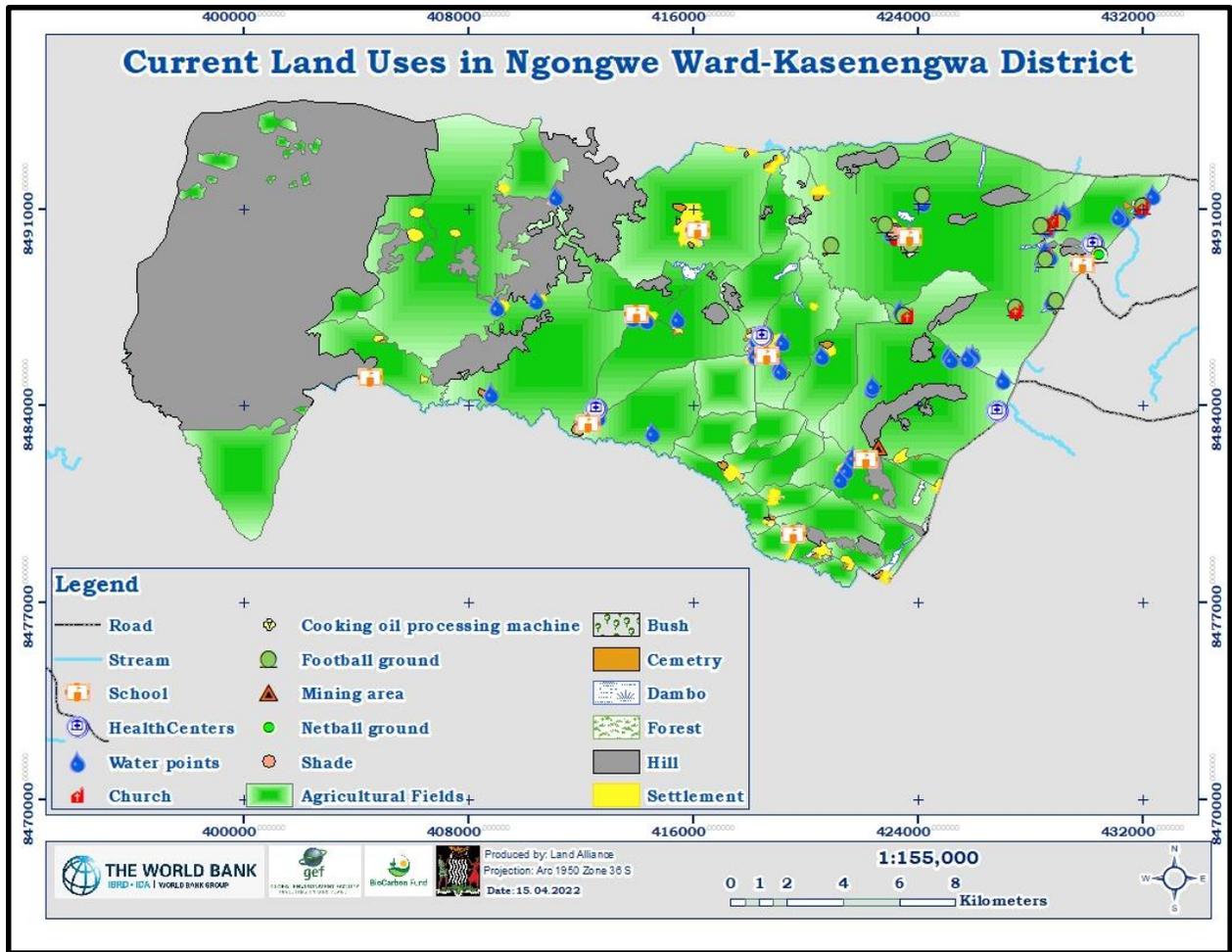


Figure 9: Current Land Use

4.5 Land Use and Agriculture

Agriculture land is the most utilised in Ng’ongwe Ward covering about 25,532.9 ha (i.e. 66.02% of the total land extent). Most of this land is under Climate Smart Agriculture supported by the Government, COMACO and Good Nature.

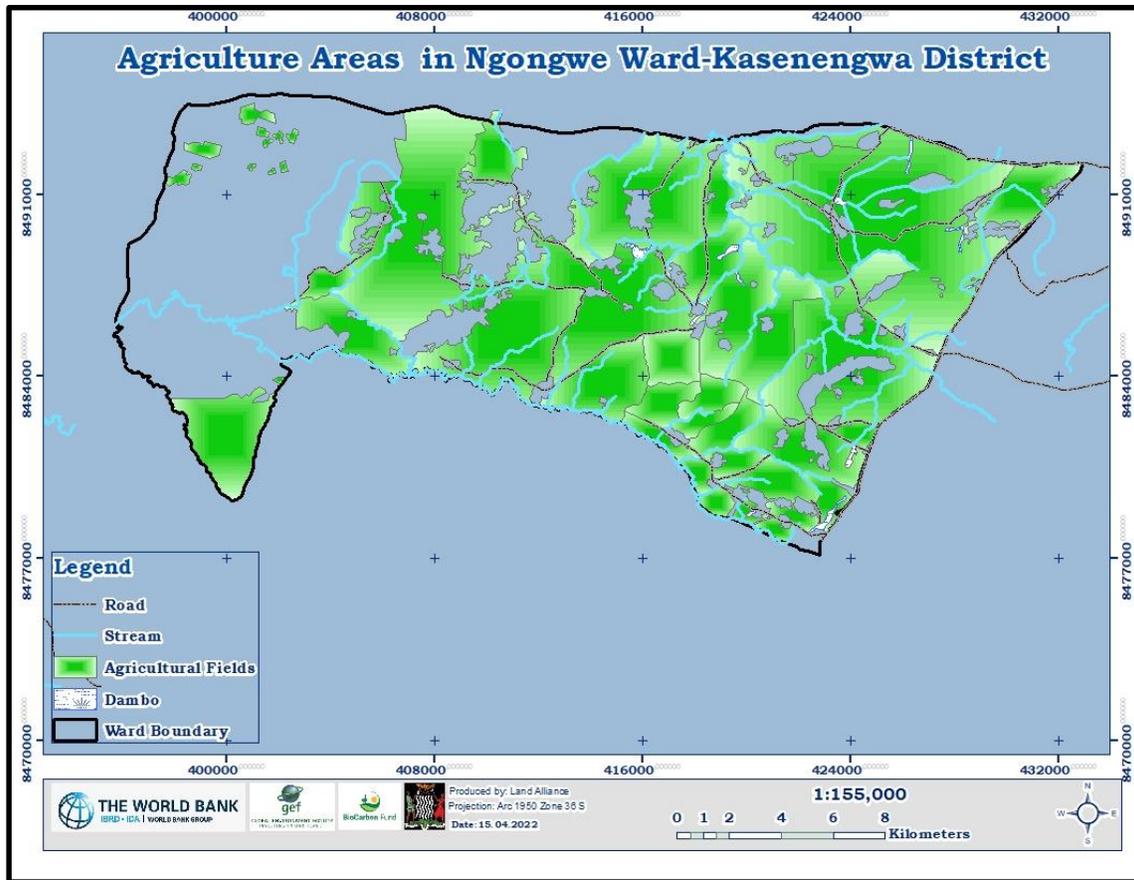


Figure 10: Land Use and Agriculture Map

4.6 Land Use and Forest

The purpose of protecting forests is to provide for conservation and development of forest with a view to securing supplies of timber and other forest produce, protection against floods, erosion and desiccation, withering and maintaining the flow of rivers. Currently, the sustainable utilisation of forest land in Ng’ongwe ward is the beekeeping that is being promoted by COMACO through their Producer Group Members or Farmer Groups. Secondly, there is an open forest being utilised for free range grazing and one community forest covering approximately 466 ha supported by ZIFLP through Community Forest Management. There are also unsustainable forest activities happening in Ng’ongwe ward such as late bushfires.

During the community engagement exercise in Ng’ongwe ward, the majority of community members proposed Kanyaiuzinde, Siwaluwa, Chamwavi and Ng’ongwe hills adding to the already existing 466 ha of land under Malambalala Community Forest Management. Further, there is a need to enhance the community awareness on the effects of rampant cutting down of trees along

the water bodies where there is Riverine vegetation. This will mitigate the current erosion situation (siltation) that will help the water bodies in the area to restore and hold water for a longer period.

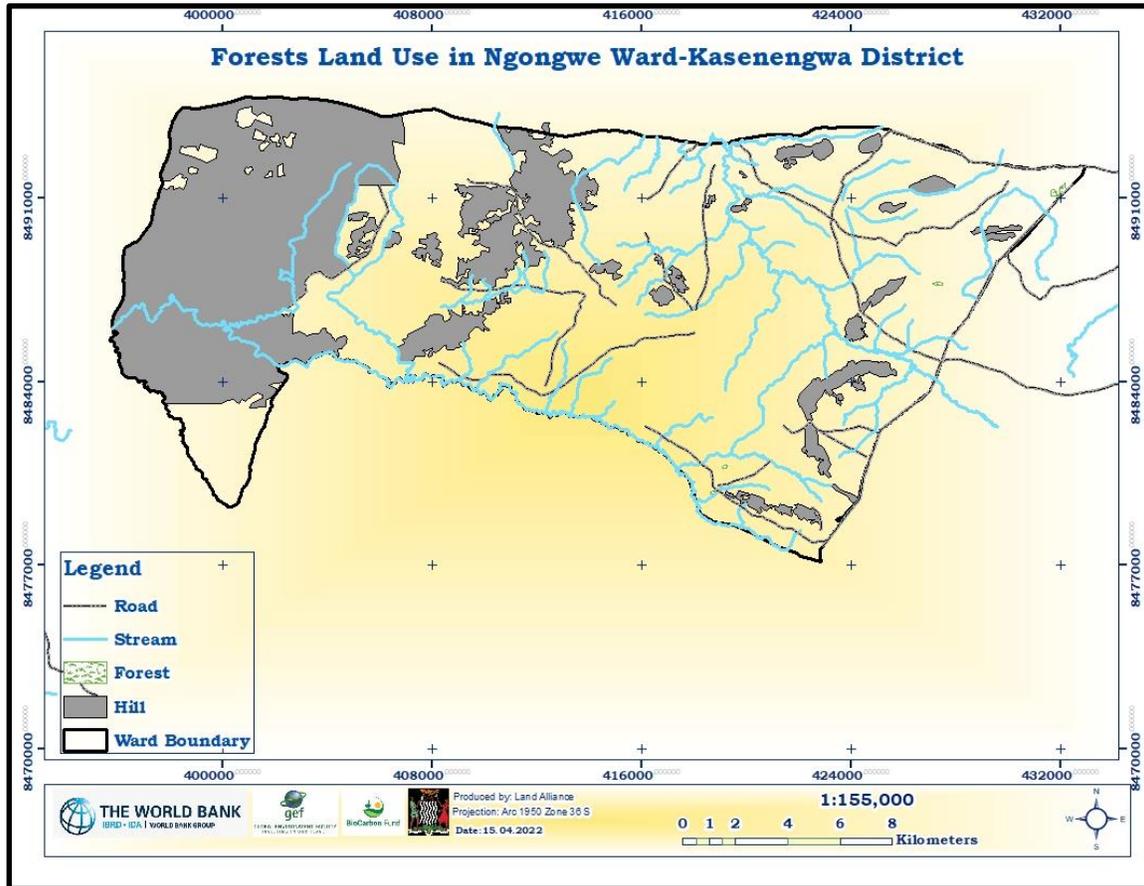


Figure 11: Land Use and Forest

4.7 Land Use and Wildlife

One of the objectives of PLUP in Ng’ongwe Ward is to create an enabling environment for conservation and development of wildlife with a view to increasing economic activities leading to improved livelihood in the area. Historically, there were a lot of animal sightings and presence of wildlife in Ng’ongwe Ward, this was attributed to an enabling vegetation cover, lower human population, smaller agricultural fields and respect for nature by the local people through traditional authority.

Currently, large mammals are rarely sighted in the area. However, the commonly sighted small game range from rabbit, guinea pigs and protected species (pangolin - which is believed to be used

for medicinal and ritual purposes). During the community engagement activity, it was suggested that one way to restore wildlife in the area is by enhancing forest conservation.

4.8 Land Use and Mining

Though there are no mining activities in Ngóngwe ward except for artisanal mining activities such as quarrying for building and road construction. There are also some mineral exploration activities taking place near a proposed Kasambandola dam construction site. However, the only known mining company dealing with small dimensional stones at a small scale in Kasenengwa is Kuma Investments.

4.9 Land Use and Tourism

Though tourism plays a critical role in the creation of employment and generation of forex, there are currently no tourist attraction sites or activities in Ng’ongwe Ward. The creation of an artefact centre can enhance business and employment opportunities for both the youths and the elderly, since Ng’ongwe ward lies in the transitory corridor for tourists visiting the South Luangwa National Park. However, artefact sites in the region are not protected from trespassers. The accessibility of sites is very important in realising their potential. Moreover, most of the rock paintings in the surrounding areas of Ng’ongwe are on hills, thereby limiting accessibility to more physically challenged groups.

4.10 Land Use and Physical Development

Ng’ongwe Ward is characterised by various physical developments that have taken place in the past years. It is important to note that some of these developments are both private and public. Some of the structures are old and in a dilapidated state. These physical developments range from schools, health facilities, churches, settlements, and markets. Changes in land use for creation of new settlements or expansion of existing ones is an area of concern in Ng’ongwe ward because land used for settlements usually becomes a permanent feature, never to revert to the original (environmentally friendly) land use. This has also been evidenced by the mushrooming of unplanned settlements in closer proximity to the protected forest areas.

Ng’ongwe has four (4) health facilities namely Kasenengwa main hospital, Kasenengwa clinic, Chinunda clinic and Kadama clinic. Ng’ongwe has eleven (11) schools out of which one is Chinunda

Secondary School and the remaining ten are primary schools namely Chambobo, Chibamu, Chambizi, Chinunda, Kamuna, Chamaseche, Kadama, Mkotamo, Kasenengwa Basic and Luona Primary Schools.

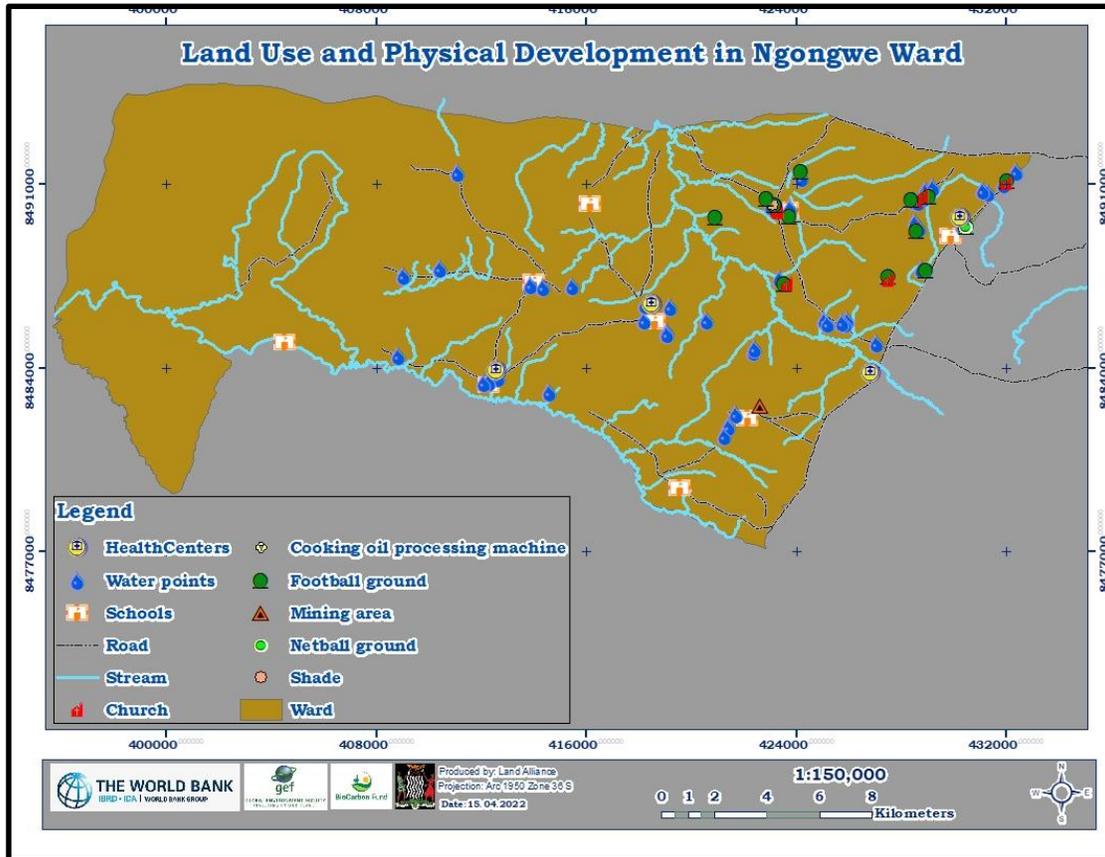


Figure 12: Land Use and Physical Development

5. COMMUNITY PARTICIPATION

5.1 Community Engagement Process

Before the commencement of community engagement meetings the Joint DMTs were oriented into Participatory Land Use Planning with a lens of SBIA. The PLUP training workshop was conducted for five days, facilitated by officers from Physical Planning Unit, Provincial Administration and officers from Land Alliance, a technical support partner engaged to facilitate participatory land use planning in Eastern province. Joint DMT staff from the three districts (Kasenengwa, Chipata and Chipangali) were trained in facilitation of PLUP. At the end of the training the Joint DMT was guided to prepare an action plan and budget to be used for facilitating PLUP activities in Kasenengwa District.

In the initial stages of PLUP activities in Kasenengwa, three Ngoni Chiefs were identified to be custodians of land in Ng'ongwe ward. These were, Chief Nzamane, Chief Madzimawe and Chief Mishoro. On separate days the team went to the three chiefs to explain and solicit support for implementation of PLUP in their Chiefdoms falling in the ward. It was clarified by their Royal highnesses that the whole Ng'ongwe ward falls in Madzimawe Chiefdom hence we proceeded in seeking consent from Chief Madzimawe, who expressed happiness and promised to offer support during the whole process of PLUP. He provided responsible indunas to work with.

Community engagement and participation is cardinal to the success of every community project, as it inculcates project ownership and sustainability. PLUP in Ng'ongwe Ward was embarked on through a series of community engagement meetings which involved meetings with the Chief, Indunas, Headpersons and eventually the community at large in sharing the PLUP concept so that Free Prior Informed Consent (FPIC) could be adhered to.

Since Ng'ongwe ward has villages which are far stretched apart, community engagement meetings were held at three designated villages. This was done in order to ensure that many members of each particular village community attend in large numbers for the purpose of getting acquainted with the PLUP concept first-hand information for better and uniform decision making processes in each respective community stretching across the whole ward.

Community engagement meetings were held in three phases as follows:

First Phase: Consisted of first village meetings. During the first village meetings, community members were exposed to the concept of PLUP which involved community identification of shared resources, identification of problems affecting the management of resources, sketch mapping of these resources and other spatial features. Participants were guided to draw sketch maps that show resources in their area. To enhance participation, participants were put in three separate groups of youths, women and men. This allowed peer interaction of participants during the exercise. After drawing the sketch maps one representative from each group was asked to present the maps before the meeting. The maps revealed a number of resources, natural and man-made, that were in Ng'ongwe ward. These resources included streams, dams, forests, hills, wetlands, fields, schools, health facilities, roads etc. After the exercise, facilitators captured images of the maps and original copies were left with the communities.

Second Phase: Consisted of village rapid assessments where village coordinate points were captured by the enumerators in the company of indunas so that shared resource maps can be digitised and produced.

Third Phase: In this phase community engagement meetings were also conducted for the verification of the digitised Shared Resource Maps in all the villages. This presented an opportunity for the community members to make objections, corrections and additions on the earlier submitted resource information. Community engagement meetings also involved zoning activities in all the village areas for future land uses. Members of the community were involved in the mapping of the proposed future land use areas. It was during the third phase community engagement that resource governance rules were also formulated for approval by HRH Chief Madzimawe.

The attendance registers for each meeting have been attached on Annex 2.

5.2 Agreed Local Rules for Land Use and Resource Management

Prudent management of natural resources where the residents derive much of their livelihood in the rural communities is a daunting task in the absence of agreed local rules for land use and resource management. The formulated by-laws for Ng'ongwe ward are attached as Annex 1.

5.3 Problem Identification

There are several challenges that rural communities face and Ng'ongwe residents are not an exception. The most prominent challenges are synonymous to unsustainable agriculture practices, lack of tenure security due to undocumented tenure rights, marginalization of the vulnerable groups such as women and youths due to patrilineal practices.

All the issues affecting land use in Ng'ongwe Ward were captured during the clustered community meetings which were conducted. The problems, causes and suggested solutions to the problems faced by residents of Ng'ongwe Ward are as outlined in the table below.

Problem	Causes	Possible Solutions
<ul style="list-style-type: none"> ● Inadequate safe water sources ● Drying of streams ● Delayed rains ● Loss of soil fertility ● Reduced crop yield ● Shortage of land for agriculture ● Poor roads ● Deforestation ● Inadequate communication facilities ● Inadequate Dams 	<ul style="list-style-type: none"> ● Poverty ● Ignorance ● Seasonal streams and late onset of rains ● Lack of alternative livelihood sources ● Unsustainable agricultural practices ● Land degradation ● Lack of by-laws ● Inadequate communication towers ● Siltation 	<ul style="list-style-type: none"> ● Drilling of boreholes and Dam construction ● Adopting conservation farming practices ● Adopting climate smart agriculture practices ● Rehabilitation/construction of roads and related infrastructure ● Skills in mushroom conservation and bee keeping ● Construction of communication towers ● Construction of Dams.

Table 6: Problems Identified

6. CORE ISSUES AFFECTING LAND USE AND THE ENVIRONMENT

The three clustered community meetings held at Mngwangwa, Monga Chunga and Chibamu villages identified various problems affecting them. During this session, participants were guided to prioritise the identified problems. This was done through pair wise ranking which involved participants comparing a particular problem against each identified. This was done to help communities to identify and rank problems in order of importance and gravity so that core problems could be identified for intervention. This activity revealed real core problems to be addressed as others were a mere manifestation of core problems. The main core problems identified in table 5 above were as follows: delayed rains, loss of soil fertility, reduced crop yield, shortage of land for agriculture, drying of streams, deforestation, lack of safe water sources, poor roads, poor communication network and lack of adequate dams.

The quest to increase crop production often leads to expansion of agricultural fields and consequently encroachment into forests. The high levels of poverty in the ward makes communities heavily dependent on fuelwood and charcoal. The identified alternative sources of energy such as gas stoves and cook stoves are unaffordable and extensively unavailable. Land tenure regarding forests and other communal/shared resources is often misunderstood because the communities claim that forests and trees in the wild in general do not belong to anyone. In addition, forest fires were identified as a key driver to deforestation and forest degradation. There is a general belief held among communities that bush fires, being a long-term part of the forest ecological system and historical part of their culture, does not significantly affect forests in a negative way.

Participants were further guided to identify the causes of such problems. This was done to make them realise that there was a human activity element related to the problems. Facilitators summed up the activity by explaining that some of the problems identified, especially those related to the environment, were as a result of lack of land use planning.

6.1 Lack of Safe Water Sources

Residents of Ng'ongwe Ward mainly depend on boreholes and water wells for water, although most of the boreholes are limited to areas around schools and health facilities. As a result, those living far from such facilities have challenges in accessing water, especially that all the streams in the Ward are seasonal.

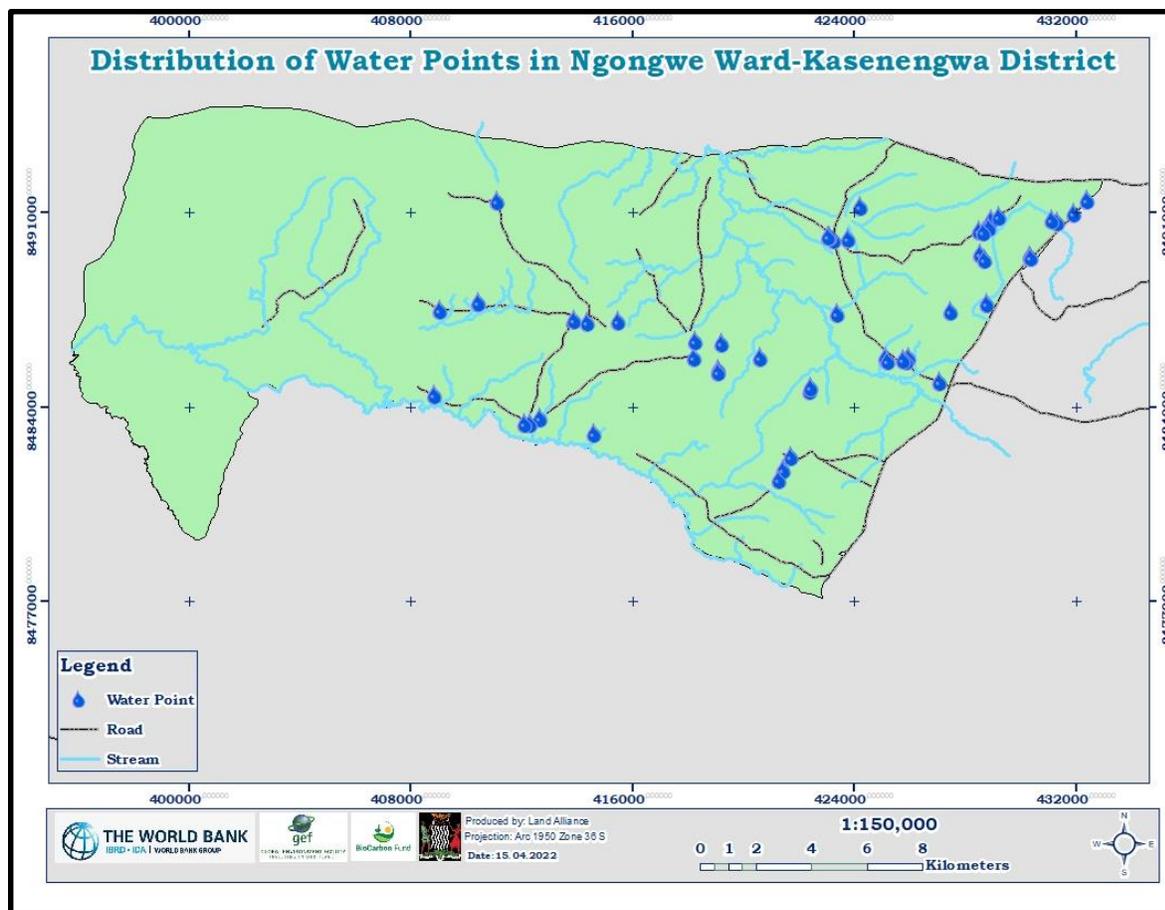


Figure 13: Distribution of Water Sources

6.2 Soil Degradation

This problem is mainly as a result of unsustainable agricultural practices, bush fires and cutting down of trees for either charcoal production, field expansion or by animal grazing. This has, in turn, affected land productivity, leading to food insecurity and livelihood challenges. Thus, adoption of climate smart agriculture and formulation of by laws prohibiting unsustainable land resource usage can help avert the problem of land degradation.

6.3 Poor State of Roads and Related Infrastructure

Inadequate transport system and lack of proper road network hampers development in Ng'ongwe Ward because the movement of goods and services (required for such development) depends on transportation. Most feeder roads in Ng'ongwe Ward are in poor condition especially in the rainy season and require routine maintenance and rehabilitation. The Ward also lacks road related

infrastructure such as bridges/culverts making certain areas inaccessible especially during the rainy season. This makes access to essential services such as health facilities and schools very difficult for residents especially those in far away places.

6.4 Long Distances to Schools

The entire Ng'ongwe ward has a total of 11 schools and only Chinunda Secondary school is a secondary school which is currently servicing the residents in the ward. The primary schools in the ward are Chambobo, Chibamu, Chambizi, Chinunda, Kamuna, Chamaseche, Mkotamo, Kadama, Kasenengwa Basic and Luona Primary Schools. School children walk long distances to school, which at times discourages them and makes some opt to drop out of school.

With reference to the Ministry of Education standards of population of having access to school facilities within 5 kilometres distance, the analysis on Ng'ongwe Ward shows that:

- 64 out of 69 villages within the Ward of Ng'ongwe fall within the recommended 5km radius of one or more primary education facilities.
- A total of 5 villages, namely; Nyongani, Kasauka, Kazyolela 2, Yohane and Msekanji do not fall within the recommended 5km radius of any primary education facility within the ward.
- A total of 14 villages fall within the recommended 5km service radius of the one (1) secondary school in Ng'ongwe (Chinunda Day Secondary School).
- 55 villages out of 69 villages within Ng'ongwe Ward fall outside the recommended 5km service radius of the one (1) secondary school in Ng'ongwe Ward (Chinunda Day Secondary School).

In addition, the literacy levels are generally low in the ward (Chipata, Kasenengwa, Chipangali JIDP, 2020) and on average the teacher pupil ratio for schools in the Ward stands at; community schools 1: 200, primary schools 1:145 and 1:40 for the secondary school. These statistics are contrary to the teacher pupil ratio of 1:37 for both primary and secondary schools recommended by the Ministry of Education. This disparity is mainly attributed to lack of decent accommodation for teachers, poor classroom infrastructure (e.g. inadequate teaching materials and desks) and inadequate information and communications technology (ICT) equipment.

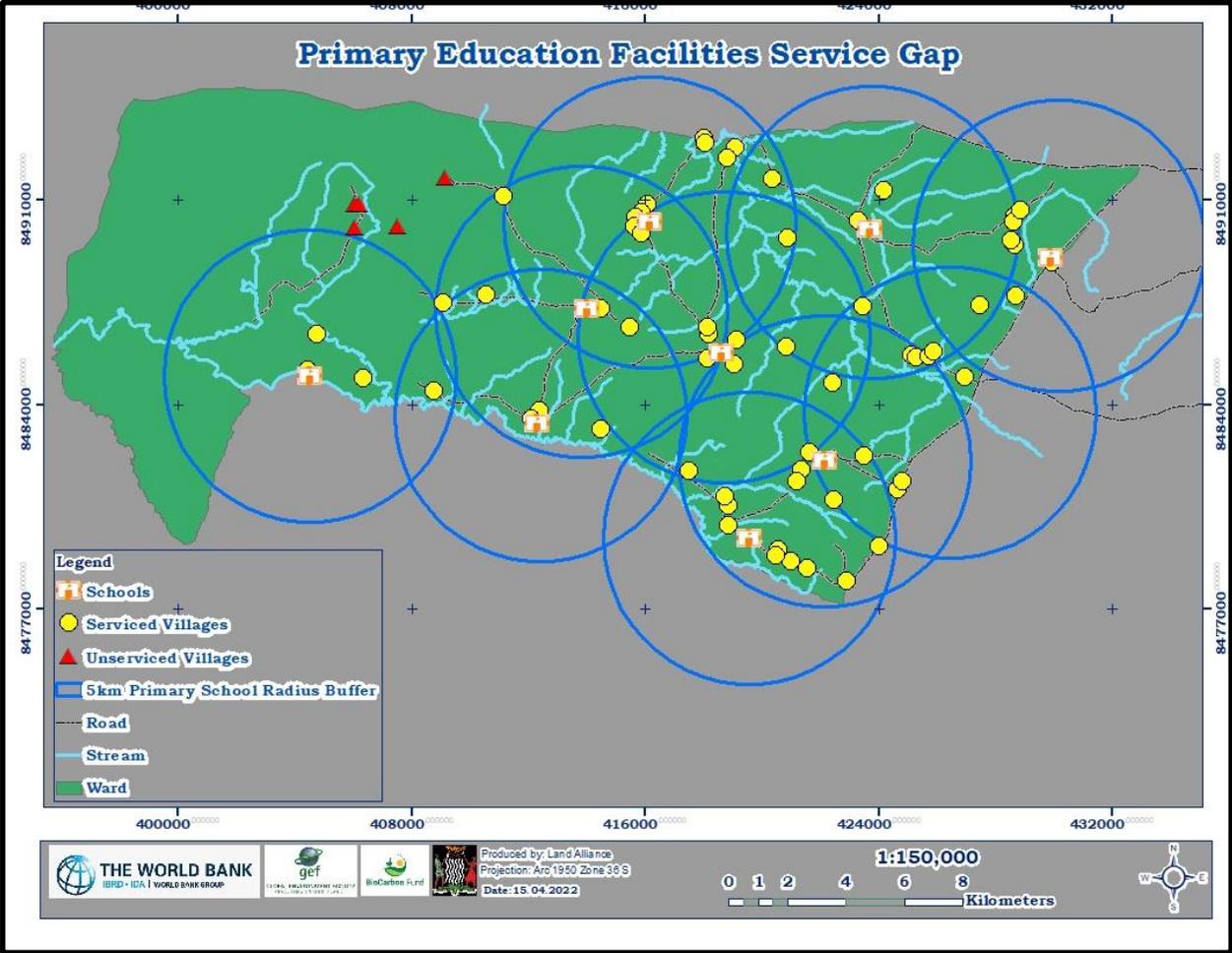


Figure 14: Primary Education Facility Service Gap

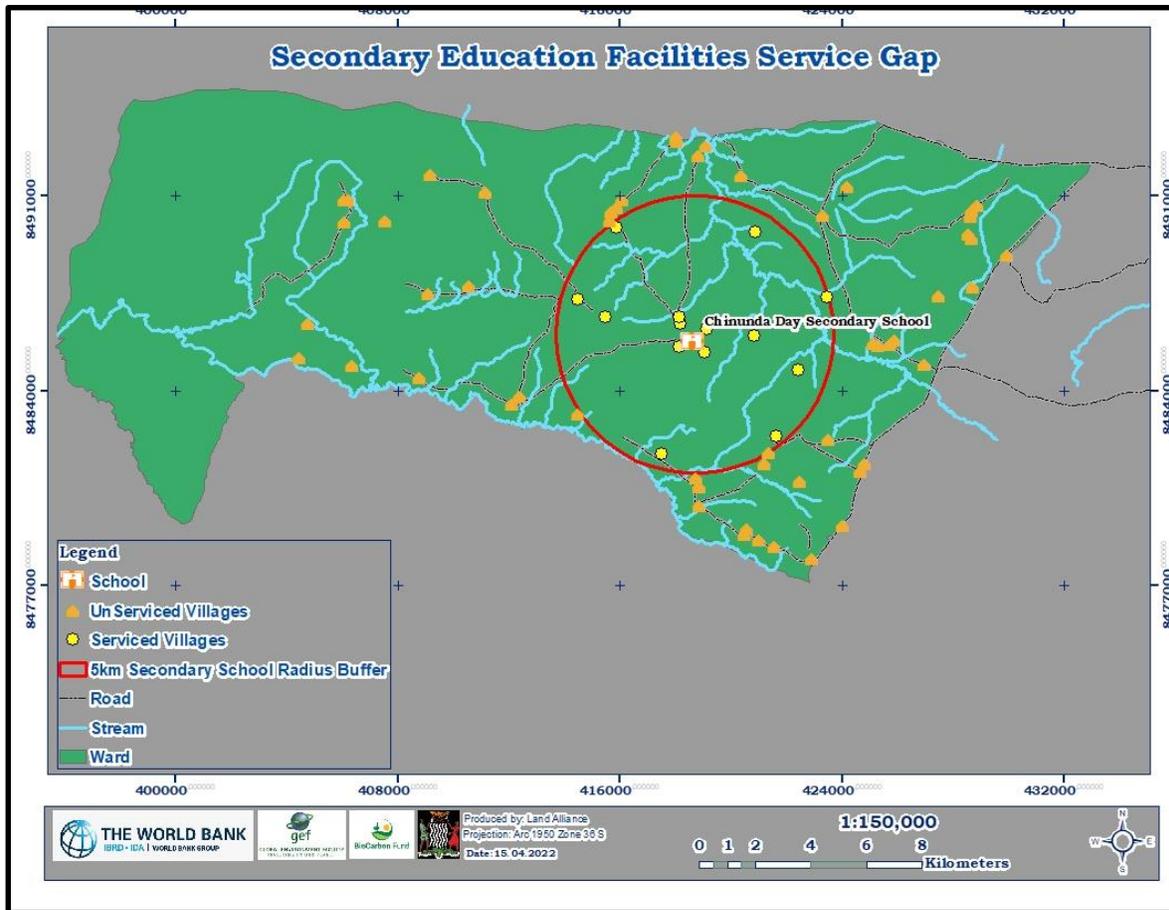


Figure 15: Secondary Education Facility Service Gap

6.5 Inadequate Health Facilities

There are only 43 villages in the ward with easy access to four (4) health facilities of which one is a main hospital in Kasenengwa. About 26 villages in the ward fall outside the 5KM health standards recommendation set by the Ministry of Health.

Ng’ongwe ward is currently serviced by Kasenengwa main hospital, Kasenengwa clinic, Kadama clinic and Chinunda clinic. All these health facilities cater not only for Ng’ongwe ward residents but all surrounding wards of Kasenengwa district. Some people still have difficulties in accessing health care services because of long distances to these health facilities coupled with the poor state of roads.

It suffices to mention that any future plans by the community should take care of the demand for primary health care which will increase in Ng’ongwe ward and surrounding areas due to people migrating from other parts of the district. The current health services will need to be expanded

in order to improve the quality of healthcare. More health personnel will be required to ensure that the current high health worker to patient ratio is reduced.

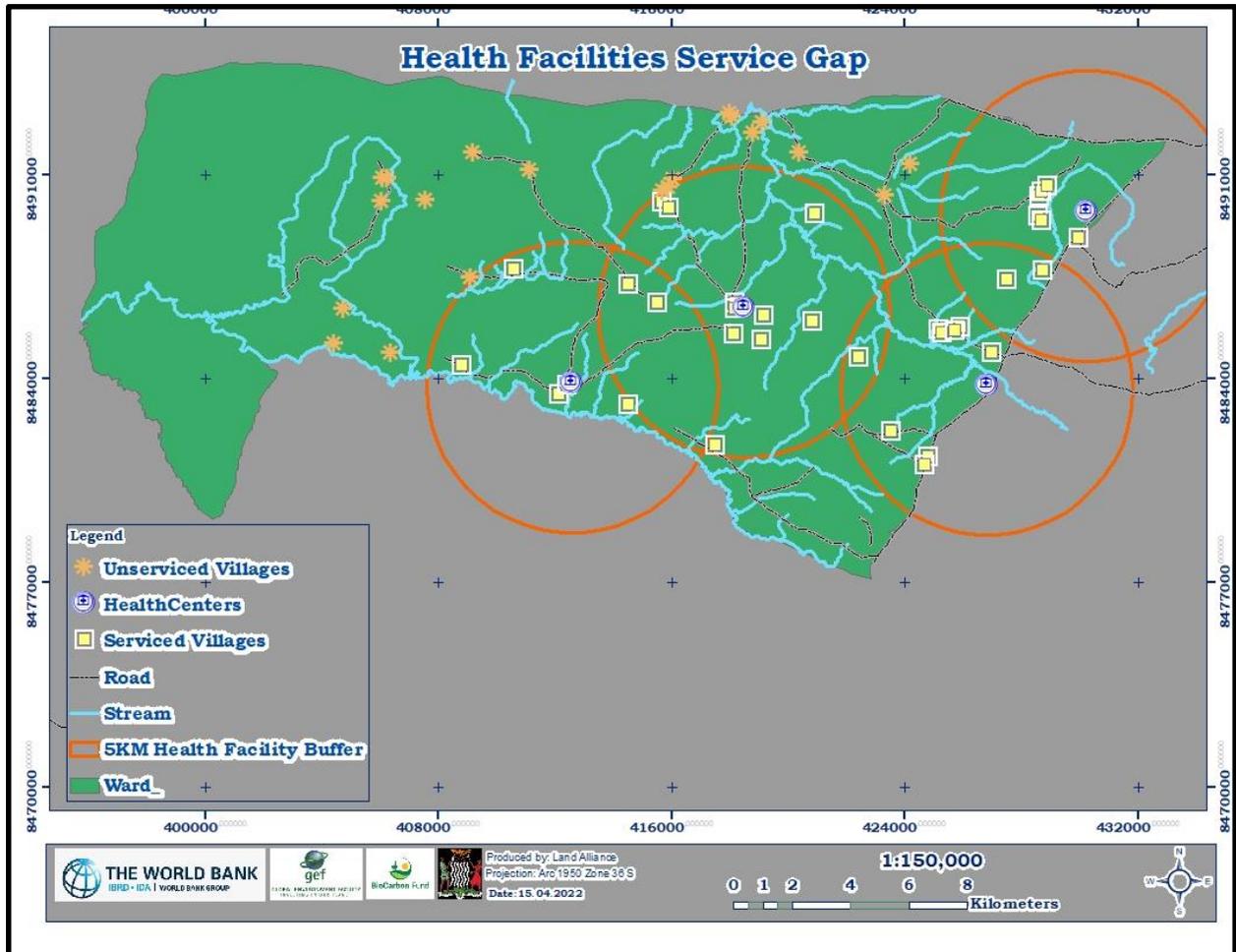


Figure 15: Health Facility Service Gap

6.6 Inadequate Telecommunication Facilities

The community in Ng’ongwe ward identified telecommunication as a major challenge affecting them. The data analysis in the area shows deficiency of this service as no communication tower has been installed in the ward. The telecommunication network installations facilitate the ease of transportation and access to diverse forms of information within the shortest possible time. This enables the citizens residing in Ng’ongwe ward and surrounding areas to interact through phone-calls, messaging, internet etc. With the development of the 4G internet speed, citizens are able to surf the internet with less difficulty. Mobile money platforms have also made money transactions easier. In order to make this possible, several service providers ZAMTEL (Zambia Telecommunications Network), MTN (Mobile Telecommunications Network), AIRTEL and Liquid Telecom) have established themselves in the district, through the installation of network

towers which enable transmission of signals containing information from the sender to the recipient, and vice versa, and capturing of satellite signals.

The advent of the Covid-19 pandemic, which led to the closure of all learning institutions in the country in 2021, forced most institutions to conduct lessons using e-learning platforms, especially for students and pupils in examination classes. However, most pupils in Ng'ongwe ward were affected because these telecommunications facilities are non-existent in the ward and the little network accessed from the neighbouring Makungwa ward is not stable.

7. LAND USE PLANNING – ZONING AND VALIDATION

The proposed future land use plan was developed through consultative meetings that were conducted in three clustered community meetings held at Mngwangwa, Monga Chunga and Chibamu in Ng'ongwe Ward. The proposed land uses are based on the problems that were identified during the first village meetings. The following are the proposed future land uses from different villages that participated in the three clustered community meetings.

7.1 Mngwangwa Community

The first validation meeting was held at Mngwangwa village with the representation of 18 villages. The total number of participants in this meeting was **49** (25 Male, 24 Female).

The community proposed Malambalala hill as a forest, proposed the construction of two dams and a trading area. The rationale on proposed development was built on the problems that were identified during the first village meetings conducted in the area as a measure of mitigating climate change as well as improving their welfare by identifying alternative sources of livelihood. Example, if the dam can be constructed, it will provide an opportunity for smallholder farmers to venture into fish farming and irrigation farming. Meanwhile the same dam will provide water to their animals and in the long run, the dependence on charcoal production as a means of survival will reduce. The forest will provide an opportunity for beekeeping while with the establishment of trading areas, investment will be attracted which will result in upgrading and serving of roads.

The table below shows the proposed areas and the land coverage:

S/N	Proposed Development	Area (Ha)
1.	Dam Construction (Chinyembe and Chifombo)	11.122
2.	Trading Area (Mngwangwa)	1.264

Table 7: Land Reservations for Mngwangwa Community

The community committed to adopting the climate smart agriculture farming techniques and conserving community forest in order to abate soil infertility and degradation. The map below shows the proposed developments and future land uses for villages that are represented by the Mngwangwa community.

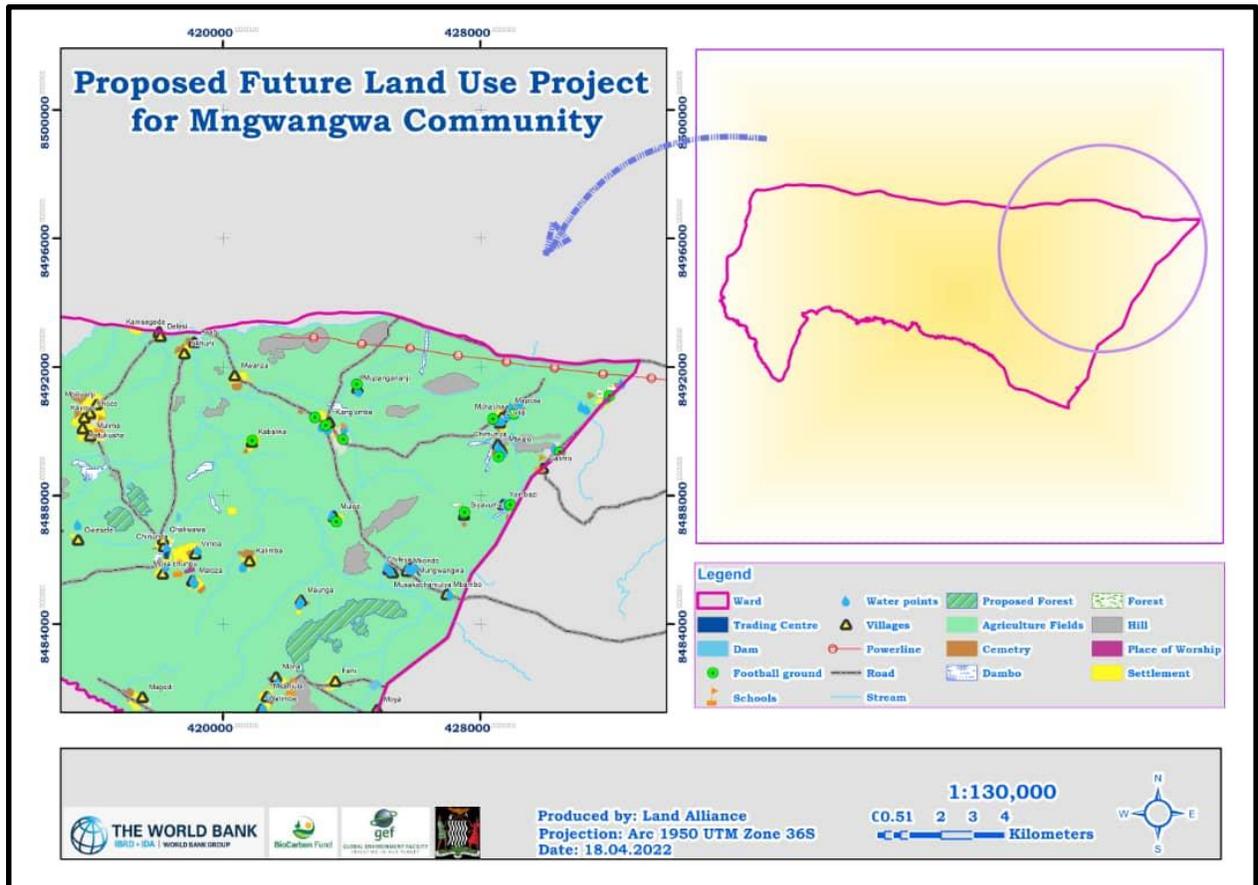


Figure 16: Future Land Use Map for Mngwangwa community

7.2 Monga Chunga Community

The second validation and zoning meeting was held at Monga Chunga village with the representation of 27 villages; Yohane, Kasauka, Magawa, Maliro1, Maliro2, Mducha, Msekanji, Yambani, Sadalaki, Kakhwesi, Smart, Mekelane, Mchenga, Guzani, Guze, Chinunda, Chakwawa, Maloza, Vimba, Chunga, Kalimba, Gwesele, Mwanamlangeni, Segulani, Kangómbe, Kawalika and Magomelo. The total number of participants was 92 (36 Male, 56 Female). The community proposed Kanyauzinde and Ng'ongwe hills as forests, adding to the already existing Malambalala Forest which is already under community forest management. They also proposed the construction of two dams and a trading area. The rationale on proposed development was built on the problems that were identified during the first village meetings conducted in the area as a measure of mitigating the climate change as well as improving their welfare by identifying alternative sources of livelihood.

S/N	Proposed Development	Area (Ha)
1.	Forest (Kanyauzinde)	37.839
	Forest (Ngo'ngwe)	45.409
2.	Trading Area (Ngongwe)	3.549
3.	Dam (Chinunda)	2.589
4.	Extension of Chinunda Clinic	2.672

Table 8: Land Reservation for Monga Chunga Community

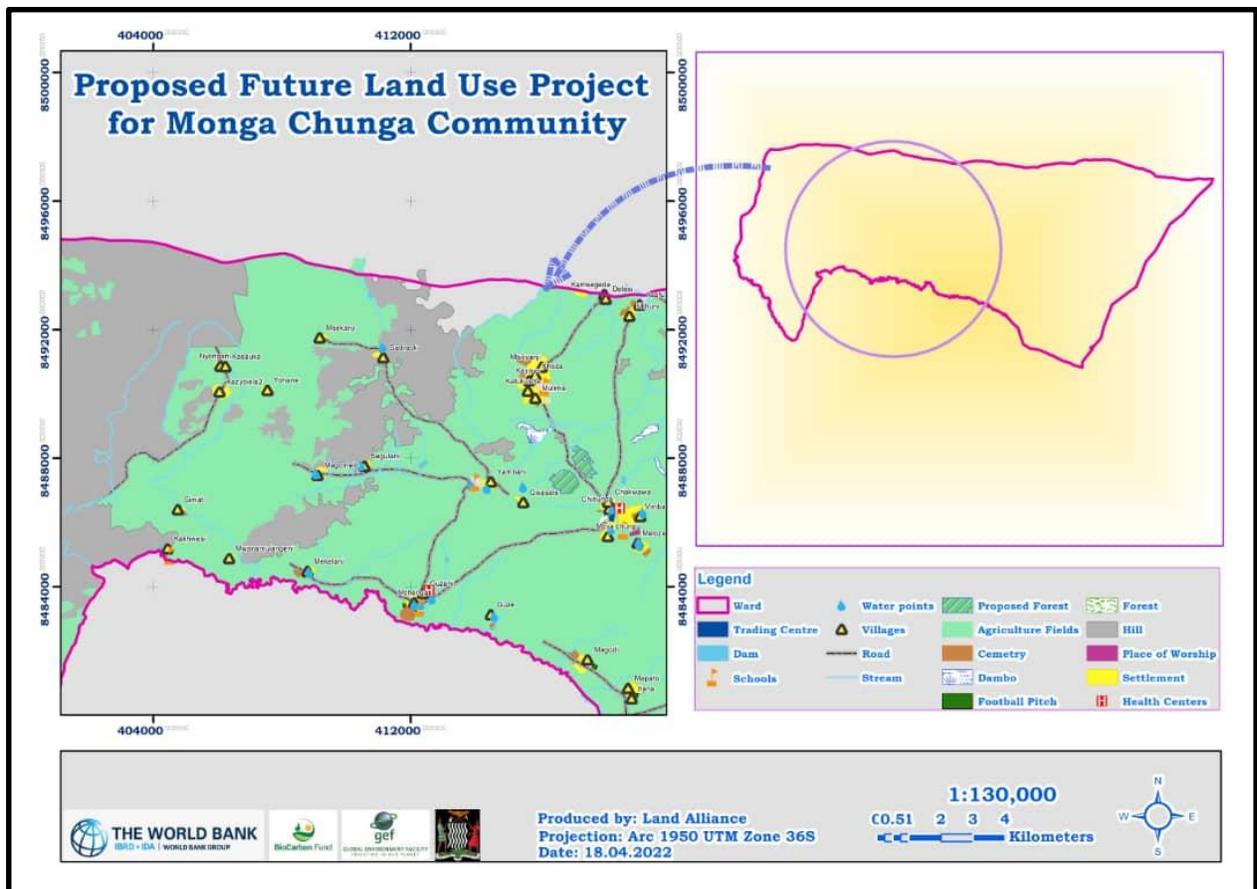


Figure 17: Future Land Use Map for Monga Chunga Community

7.3 Chibamu Community

The third validation and zoning meeting was held at Chibamu village with the representation of 11 villages namely Sikondwa, Chibamu, Mapato, Itana, Msangala, Mona, Maunda, Feni and Msengwa. The total number of participants was **72** (41 Male, 31 Female). The community proposed Siwaluwa and Chamwavi hills as forests. The rationale on the proposed developments was built on the problems that were identified during the first village meetings conducted in the area as a means of mitigating climate change as well as improving their welfare by identifying alternative sources of livelihood.

S/N	Proposed Development	Area (Ha)
1.	Forest (Siwaluwa) Forest (Chamwavi)	40.519 18.727

Table 9: Land Reservation for Chibamu Community

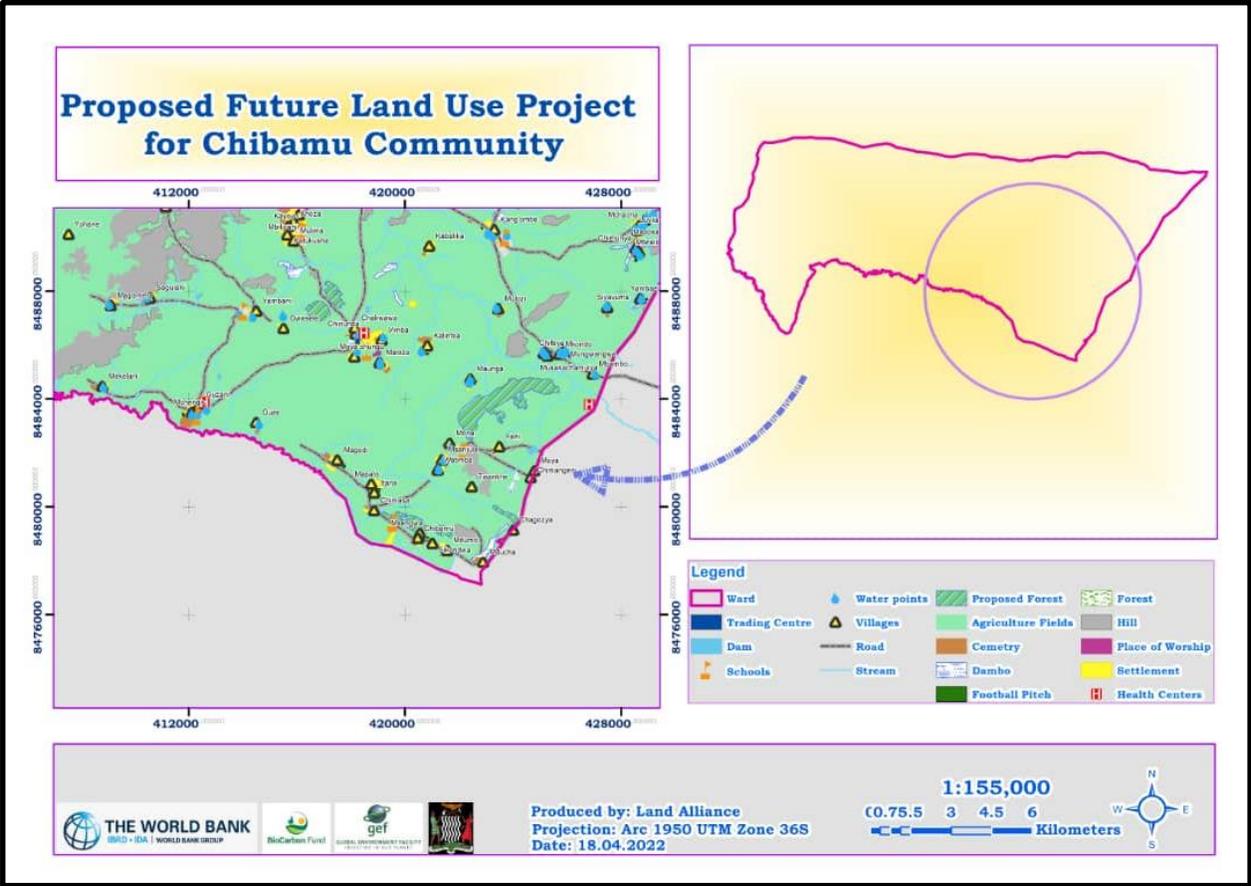


Figure 18: Future Land Use Map for Chibamu Community

8. FRAMEWORK OF THE PLUP AND ENVIRONMENTAL MANAGEMENT PLAN

The environmental assessment of Ng’ongwe Ward highlighted the immediate development trends and environmental requirements of the area. Based on that, the PLUP Environmental Management Framework was compiled with the aim of guiding future developmental planning and decision-making processes. However, the potential environmental and social impacts of the PLUP activity are numerous, but mainly positive. However, much of the negative impacts may be experienced during implementation of the identified sub-projects (based on the identified core issues within the ward) aiming to provide alternative livelihood sources and helping in mitigating unsustainable natural resource use and management. The specific impacts will be evaluated and distinguished during the preparation of the specific Environmental Management Plans (EMP) based on the identified sub-project investments. Therefore, this PLUP Environmental Management Plan was made with guidance originating from the current land uses and the proposed future land use analysis.

S/N	Aspect	Description	Impact	Mitigation Measure
1	Soil Erosion and Degradation	Loss of fertile soil due to exposure and land degradation due to indiscriminate cutting of trees for agriculture and construction of homesteads	-Clearing land for agricultural expansion, settlements, etc. increases the soil erosion potential. -Crop cultivation methods have an impact on the soil quantity and quality leading to soil degradation.	-Revegetate cleared and abandoned areas -Adoption of climate smart agriculture -Reduce land clearing to avoid unnecessary exposure of bare ground to the elements of the weather
2	Habitat Destruction	Clearing of land for agricultural use around water bodies, which leads to drying of streams. Cutting of trees for charcoal production.	Clearing of land for agricultural use around water bodies leads to drying of streams. Cutting of trees for charcoal production leads to forest habitat destruction.	-Enhance community sensitization -Restrict activities in sensitive habitats -Avoid unnecessary exposure -Restrict cutting down of trees
3	Loss of Fauna	Loss of biodiversity and siltation in the rivers	Destruction of wild fauna habitat due to unsustainable resource management. Potential investments are likely to break ecosystems, isolate species and cut off movements. For example, dams may block the upstream and downstream passage of migrating aquatic animals.	-Enhance community sensitization -Prohibit hunting -Restrict bush fires -Minimise cutting down of trees -Forest conservation -Restrict locations of dams
4	Air Pollution	Decreased air quality	Dust is anticipated during the construction phase of the identified investments as well as from vehicle movements and vehicle emissions is likely to cause air pollution.	-Revegetate bare areas -Minimise vehicle movements and speed -Water down cleared areas to reduce dust emissions

5	Resource Use Conflicts	Sabotage of investment and lack of ownership	Dam construction investments may cause conflict between those with different water needs such as farmers and pastoralists, fishery, household use, etc.	<ul style="list-style-type: none"> -Formulation of by-laws -PLUP development -Land use decisions must be inclusive of all users and groups, including women, youths and differently abled people in the area.
6	Loss of Land	Displacement of communities or households and reduced grazing land which can cause conflict	There may be loss of farm and grazing land among others by the local communities owning land to investments projects and forest conservation.	<ul style="list-style-type: none"> -Communities must identify project areas in consultation with their leaders. -Communities must use Free Prior Informed Consent (FPIC)

Table 10: Environmental Management Plan

9. IMPLEMENTATION STRATEGY

The table below outlines the PLUP Implementation Strategy

Problem	Objectives	Strategy	Output	Indicator
Shortage of Water	To Improve Access to Clean and Safe Water Supply and Sanitation	Drilling of boreholes equipped with solar power for pumping	At least 24 boreholes drilled in villages without boreholes	Number of boreholes drilled
		Dam Construction at Chinyembe, Chifombo and Chinunda.	At least 3 dam is constructed	Number of dams constructed
Inadequate Trading Areas	To promote investment and access to goods and services	Construction of markets at Mngwangwa and Ng'ongwe.	At Least two (2) markets constructed	Number of markets constructed
Inadequate Telecommunications Towers	To create connectivity between the rural and urban communities for easy dissemination of information such as COVID prevention and other pandemics	Construction of communication towers by Telecommunication Companies	At Least each Telecommunication Company should put up a tower (Zamtel, Airtel, MTN)	Number of communication towers constructed
Soil Degradation	To Promote Environmental Protection and Conservation of Natural Resources	Tree planting exercise and promote natural vegetation growth	Plant at least 10,000 trees	Number of trees planted
		CFMG establishment	Formalise the establishment of the proposed 4 CFMGs (Ng'ongwe, Siwaluwa, Chamavi and Kanyauzinde)	Number of CFMGs established

	To promote agricultural productivity.	Construction of Agriculture Camp	At least 1 Camp constructed	Number of agriculture camps constructed
		Adoption of Climate smart Agriculture	At least 75% of local farmers adopt the CSA technique	Percentage adoption of CSA
		Deployment of extension workers	At least 3 extension workers deployed	Number of extension workers deployed
		Establish Livestock Service Centre	At least 2 Livestock Service Centres established	Number of Livestock Service Centres established
Poor State of Roads and Related Infrastructure	To promote spatial growth and improve transport system	Rehabilitation of feeder roads	Rehabilitate all feeder roads	Number and length (KM) of feeder roads rehabilitated
		Construction of culverts and bridges	Construct culverts and bridges across all streams	Number of culverts and bridges constructed
Inadequate Health Facilities	To increase the number of health facilities	Construction of health facilities	Construction of at least 2 health facilities (Chibamu and Chinunda)	Number of health facilities constructed
		Construction of health staff houses	At least 3 staff houses per health facility	Number of staff houses constructed
Long Distances to schools	To attain a high quality education standard by increasing the number of schools and reducing the teacher to pupil ratio in all schools within the ward	Construction of new classroom blocks	Construct at least 10 classroom blocks in the ward (1 per school)	Number of classroom blocks constructed
		Upgrading of primary schools to secondary schools	Upgrading of Luona Primary School to a secondary school	Number of primary schools upgraded to secondary schools
		Construction of teachers' houses	Construction of 20 teachers houses (2 houses per school)	Number of teachers' houses constructed

Lack of Alternative Livelihood Sources	To enhance human development through skills training and empowerment programs	Establishment of a skills training centre	At least 1 skills centre established	Number of skills centres established
		Train farmers in fish farming, bee keeping and mushroom conservation Techniques	Train as many people as possible	Number of people trained
		Establishment of value addition plants	At Least 2 value addition plants established in the ward	Number of value addition plants established
		Establishment of an artefact centre and promotion of historical sites	At least 1 artefact centre and historical site in the ward	Number of artefact and historical sites recognized

Table 11: PLUP Implementation Plan

9.1 Capital Investment Projects

Priority Projects	Quantity	Unit Cost (K)	Total Cost (K)
Drilling of boreholes	24	70,000	1,680,000
Dam Construction	3	TBA	TBA
Construction of health Post	1	500,000	500,000
Construction of a school	1	500,000	500,000
Construction of Staff Houses	20	200,000	4,000,000
Establish Livestock Service Centre	3	TBA	TBA
Feeder Roads Rehabilitation	3	TBA	TBA
Construction Agriculture Camp	1	100,000	100,000
Construction of classroom blocks	10	450,000	4,500,000

Table 12: Capital Projects Identified

10. INSTITUTIONAL ARRANGEMENT FOR PLAN IMPLEMENTATION

The Local Authorities will play a critical role in supporting the implementation of PLUP in line with the guidelines and provisions of the URP Act No.3 of 2015. The Forestry Department, Department of National Parks and Wildlife and Ministry of Agriculture will be the main implementers of the PLUP while the Ministry of Health, Ministry of Education and other line ministries will be monitoring adherence to the zoning of the land use plan with regards to schools, health facilities and other developmental and social land reserves.

Ng'ongwe Ward PLUP is envisaged to be implemented in line with Chipata, Kasenengwa and Chipangali JIDP which is running for a period of 10-years from 2021-2030. Being a local plan, the Traditional Authority will work hand in hand with the Joint DMT team in the implementation process since the plan is part of the Integrated Development Planning framework. The plan also provides an opportunity for the traditional leaders to lobby for support from government through local authorities e.g. from the Constituency Development Funds (CDF).

At chiefdom level, the traditional authority with guidance from the Joint DMT team will choose community representatives who will be overseeing and executing PLUP activities and will intermittently rehearse with both the Joint DMT and the Chief on the implementation process.

The mandate to carry out minor (pilot) measures may in some cases need to be transferred to the civil society (i.e. self-help groups, cooperatives, farmers' organisations or local NGOs). It is also possible that private sector companies or individual consultants take over this part so that the Government through the Joint DMT only concentrates on the supervision and monitoring of the process.

11. CONCLUSION

The PLUP for Ng'ongwe Ward was developed through a consultative and participatory process, and technically analysed by the Land Alliance Consortium - the TSP hired by ZIFL Project - in consultation with the Chipata Joint DMT team. Additionally, the PLUP analysed the current situation in Ng'ongwe ward, issues pertaining to Land Use Planning were identified, with lack of alternative source of livelihood being one of the key drivers of unsustainable natural resources management. At the same time there has been haphazard and unsustainable use of land and other natural resources by residents of Ng'ongwe Ward and those residing in surrounding areas largely due to lack of documented rules and regulations governing the use of resources. Therefore, it is hoped that this PLUP will be used for the purpose for which it was developed.

12. GLOSSARY

12.1 Natural Resources

One of the essential and prerequisite activities when embarking on participatory land use planning is understanding the quality and quantity of the land resources. Besides, participatory land use planning forms a basis for obtaining optimum level of production and also helps in introducing appropriate land management practices for better and/or improved livelihoods (Schwedes and Werne, 2010). Therefore, natural resources must be understood as conditions and elements of the land that can be exploited, developed or managed without causing negative impacts that risk the fragile environmental relationships (Negash. 2012). The following are some of the natural resources:

12.1.1 Vegetation

In the context of PLUP, vegetation refers to all plant species that are not sustainably managed and used by communities for any of their land uses. The vegetation is used to mainly fulfil community needs such as gathering firewood, fruits, medicine, poles and also serves as habitats for wild animals. On the other hand, vegetation provides cover for the soil, allows the rainwater to percolate into the ground, and protects the soil from erosion.

12.1.2 Soils

This is one of the key elements across the globe that determines what land can be used for, taking into consideration the physical and chemical properties (FAO, 2006). The soils exert influence in determining the feasibility of land uses and composition of natural communities such as plants, animals, etc of an area. Thus, land use planning may demand a study on physical and chemical conditions, composition, and overall characteristics of soils (GIZ, 2012; Negash, 2012). This is due to the fact that knowing the soil characteristics helps in understanding the past and present land uses and helps in predicting future land use potentials.

12.1.3 Water

This is an essential resource which is required for use by human beings and Wildlife. It is also used for irrigation and navigation by person and by plants to perpetuate, grow and produce (Mitchell et al, 2004). Besides, the quantity of available water determines the type of land use

options and land utilisation types. Thus, the availability and accessibility of water resources in an area determine sustainability and the types of land uses that can be implemented (GIZ, 2012).

12.2 Climate

Climate is one of the factors that affects land use as it is the major agent that determines water balance and dictates the nature and type of natural vegetation in a specific area (Malcolm et al, 2006). Interactions among climate, relief and soils are important in determining socially acceptable, economically viable and environmentally sound land use types (FAO, 1993). The main climatic elements which directly govern land use types to be considered for a certain area are the rainfall amount and distribution and the air temperature level (Negash. 2012). Thus, data on these elements is so important for sustainable local level land use planning processes. The following climatic elements are important factors in determining the land use options of a certain locality or planning area;

12.2.1 Rainfall

The term precipitation includes rainfall, snow and dew. The availability of water through precipitation or rather the lack of it is often the most limiting physical factor in crop and livestock production in areas where water is scarce for irrigation. It's of great importance to know the rainfall patterns of a given area when undertaking any level of land use planning. Besides, the seasonal distribution of rains governs the choice of major land uses, crops and the optimal planting time, harvesting and other farming operations such as land preparation, weeding and threshing (Negash. 2012).

12.3 Land Use Planning

According to Liversage and Mangiafico (2014), land-use planning is the systematic assessment of land and water potential, alternatives for land use and economic and social conditions in order to select and adopt the best land-use options. It's a process of decision making on the use of the resources of a certain unit of land for options of more productivity, environmentally sound and sustainable economic uses (JICA, 2011). However, Negash (2012) argued that decisions on land use options are based on the analysis of potentials and constraints of the land resources as guided by the competing needs of the communities.

12.4 Participatory Land Use Planning

This is an interactive process in which local communities could discuss and determine how to manage the land and other natural resources in their locality (JICA, 2011). It is based on dialogue among all stakeholders with an aim of making sustainable land use decisions through negotiation (GIZ, 2012). The intention is to form comprehensive land use options based on the quality and quantity of the resources and the needs of the community (PLUP Manual, 2019). The land use plan aims at improving the livelihoods of the existing community and meeting the resources development and administration needs of the future generation (Negash. 2012).

12.5 Livelihood

This can be defined as means and ways of making a living. It encompasses people's capabilities, assets, income and activities required to secure the necessities of life (Mutea et al, 2019). According to Kassa (2018) livelihood is said to be sustainable if it enables people to cope with and recover from shocks and stresses (such as natural disasters and economic or social upheavals) and enhance their well-being and that of future generations without undermining the natural environment or resource base.

Presently, natural resources are overexploited exceeding the rate at which they are replenished due to the increase in the demands because of high population increase and unsustainable usage (Abu and Soom, 2016). Hence, land use planning is the tool that can well be utilised in order to improve and maximise the usage and management of resources in order to better improve the livelihoods of people. This is because LUP bases its processes on the quantity and quality of resources available that can improve livelihoods and the environment (GIZ, 2012). Thus, decisions are made based on the knowledge of resources by all stakeholders.

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ANNEXES

Annex 1: Ng’ongwe Ward by- Laws on Land Use and Natural Resource Management

Preamble

Having resources identified and zoned is not a guarantee that there will be proper management, hence establishing rules is key to sustainable management of all natural resources. The communities of Ng’ongwe ward did not want just to leave things at zoning level but they also formulated by-laws pertaining the natural resources that were identified in their community. Traditionally, no one is allowed to give a penalty to the offenders except the chief as he is the custodian of natural resources in the chiefdom.

GOVERNANCE RULES FOR NG’ONGWE WARD

Resource/development	Rules	Penalty to offenders
Water Resources	<ul style="list-style-type: none"> ● No farming activities around the dam and other water bodies, the buffer zone of 50m shall be applied. ● No illegal fishing on the dam. ● No disposition of poisonous chemicals in the dam. ● All gardening activities to be done on one side of the dam to allow animals to have access to water. ● No cutting down of trees around the dam. ● No farming activity to be done around the buffer zone of the dams and streams. 	<ul style="list-style-type: none"> ● Direct report to HRH Madzimawe. ● Face the punishment.
Forest	<ul style="list-style-type: none"> ● No cutting down of trees in forest area ● No charcoal burning in the forest ● No cattle grazing in the forest ● No farming activities in the forest area ● No fire burning in the forest ● No fetching of firewood without permission in the forest. 	<ul style="list-style-type: none"> ● Face punishment from HRH Madzimawe
Trading area	<ul style="list-style-type: none"> ● No building of a house in the trading area ● Only the development committee recognised by the chief has the right to allocate plots. 	<ul style="list-style-type: none"> ● The land rights will be revoked ● Report to the chief

	<ul style="list-style-type: none"> • No farming activities are allowed in the trading area 	
Expansion of agricultural area	<ul style="list-style-type: none"> • Anyone wishing to expand the field should get consent from the chief. 	<ul style="list-style-type: none"> • Any offender shall be reported to the chief for further action
Hunting	<ul style="list-style-type: none"> • No hunting is allowed in the chiefdom 	<ul style="list-style-type: none"> • Any offender shall be reported to the chief for further action

Table 13: Offences and Penalties

Annex 2: Proposed Future Land Use Map

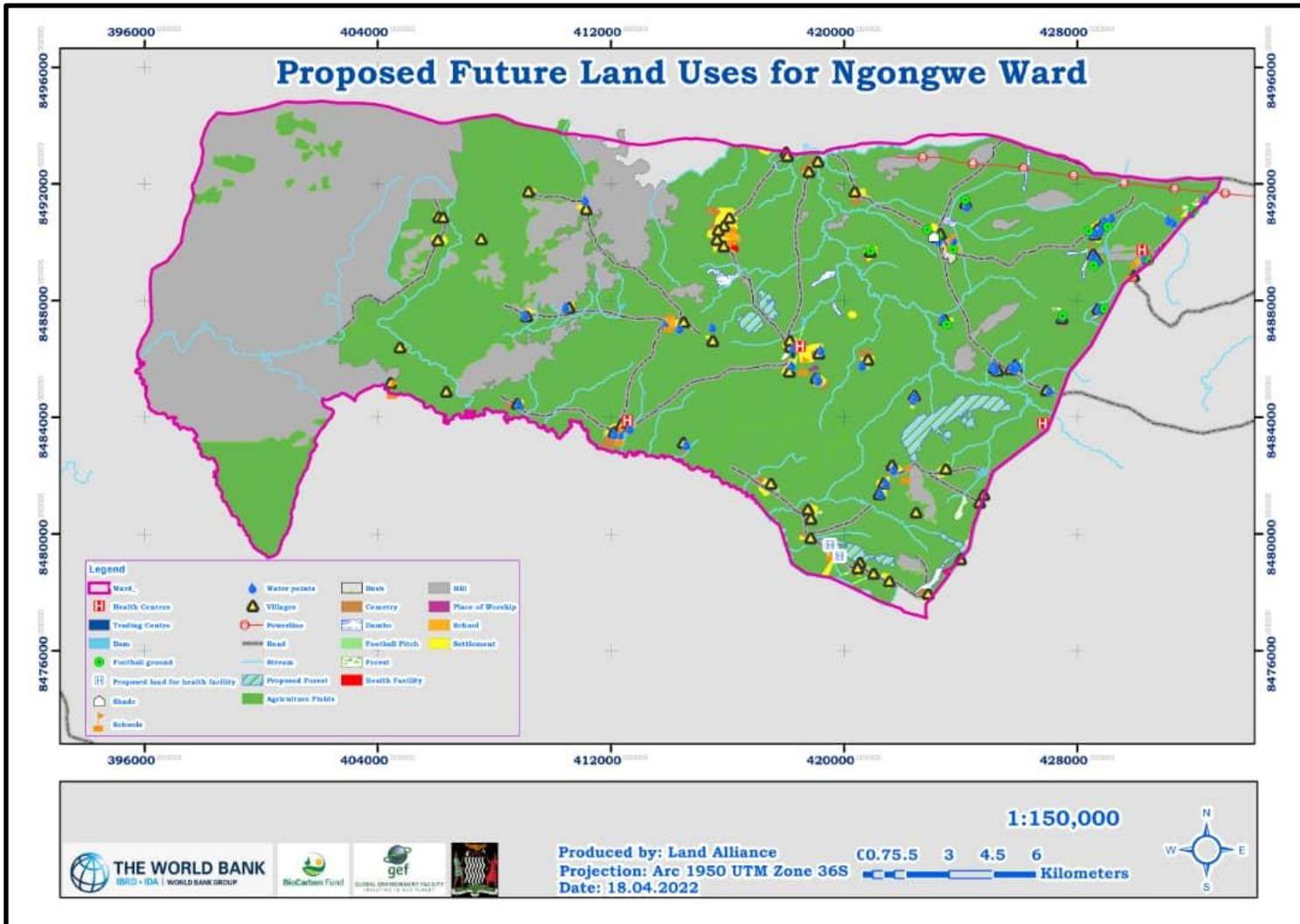


Figure 19: Future Land Use Map for Ng’ongwe Ward

Annex 2: Meeting Attendance Registers

Indunas Meeting

Address: PLUP Date: 21/10/2021
 Venue: NGONGWE District: KASOMENGWA

S/N	NAME	INSTITUTION	Sex	CONTACT NO	NRC	SIGNATURE
1	JERRY RICHARD	St. Mary's	M	0971910055	16574404	[Signature]
2	Mphahlele KULOO	St. Mary's	M	0971910055	16574404	[Signature]
3	Mphahlele M. Zulu	St. Mary's	M	0971910055	16574404	[Signature]
4	CHIKISI TOLFORD	St. Mary's	M	0971910055	16574404	[Signature]
5	MASHONGO TEMBO	St. Mary's	M	0971910055	16574404	[Signature]
6	MASHONGO MASHONGO	St. Mary's	M	0971910055	16574404	[Signature]
7	MASHONGO MASHONGO	St. Mary's	M	0971910055	16574404	[Signature]
8	SHAWA PATRICK	St. Mary's	M	0971910055	16574404	[Signature]
9	Banda Christian	St. Mary's	M	0971910055	16574404	[Signature]
10	Daniele Xulu	St. Mary's	M	0971910055	16574404	[Signature]
11	Biziso Thely	St. Mary's	M	0971910055	16574404	[Signature]
12	Mphahlele MASHONGO	St. Mary's	M	0971910055	16574404	[Signature]
13	Mphahlele MASHONGO	St. Mary's	M	0971910055	16574404	[Signature]
14	Mphahlele MASHONGO	St. Mary's	M	0971910055	16574404	[Signature]
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16	Mphahlele MASHONGO	St. Mary's	M	0971910055	16574404	[Signature]
17	Mphahlele MASHONGO	St. Mary's	M	0971910055	16574404	[Signature]
18	Mphahlele MASHONGO	St. Mary's	M	0971910055	16574404	[Signature]
19	Mphahlele MASHONGO	St. Mary's	M	0971910055	16574404	[Signature]
20	Mphahlele MASHONGO	St. Mary's	M	0971910055	16574404	[Signature]
21	Mphahlele MASHONGO	St. Mary's	M	0971910055	16574404	[Signature]
22	Mphahlele MASHONGO	St. Mary's	M	0971910055	16574404	[Signature]
23	Mphahlele MASHONGO	St. Mary's	M	0971910055	16574404	[Signature]
24	Mphahlele MASHONGO	St. Mary's	M	0971910055	16574404	[Signature]

Activity: RUF DATE: 21.12.21
 Venue/WARD: Ng'ongwe DISTRICT: Ngazun

S/N	NAME	INSTITUTION	Sex	CONTACT NO	NRC	SIGNATURE
1	Releta Lungu	H/m Gwesele	F		234556/51	R. Lungu
2	Tembo Jordan	H/m Malung	M		292663/41	J. Jordan
3	WACKSON Phiri	H/m Mhuyesende	M		352079/41	W. Phiri
4	JODES NYAU	H/m FEMU	M	07794827	443011/42	J. Nyau
5	Henry Tembo	H/m Kalimba	M		502962/52	H. Tembo
6	Jacob Mwaile	H/m Thembani	M	0975146284	299835/40	J. Mwaile
7	Ramford Mwaile	H/m Wangemba	M	097961631	263772/51	R. Mwaile
8	FREDRICK MSONI	H/M MATISA	M	0771048421	06206/60	F. Msoni
9	ISAAC MUYA Zulu	H/M CHIBAMU	M	0776184302	64262/50	I. Muya
10	STAIN Phiri	H/m Yambani	M			S. Phiri
11	ASAFU JEZE	H/m Zondani	M			A. Jeze
12	Lungu Mabvuto	H/m Wangemba	M	097862350	114433/50	L. Lungu
13	SILAS JACOBS	H/m Mwaile	M	09611062725	5058126/1	S. Jacobs
14	Edison Xumba	H/m magawa	M	0957663877	260874/50	E. Xumba
15	Cephase Zulu	H/m musokani	M	0970160565	525106/51	C. Zulu
16	MASANGO Phiri	H/m Mayaga	M		424750/51	M. Phiri
17	Matayo Zulu	H/m Mhuyesende	M			M. Zulu
18	Mabvuto Phiri	H/m Cipayo	M	0972740153	12734/52	M. Phiri
19	Saulos Zulu	H/m Mhuyesende	M			S. Zulu
20	Mathews Mwaile	H/m Cipayo	M	0976499783	48577/51	M. Mwaile
21	MARYUNIKI NYIRODA	H/m FEMU	M	097918532	431510/50	M. Nyiroda
22	MWAILE Tembo	C/P Mwaile	M	0771970672	58987/51	M. Tembo
23	VINCENT SOSO	H/m Mhuyesende	M			V. Soso
24	DAKA BENJAMIN	H/m Kumbani	M		551622/50	D. Kumbani

Activity: PLUP DATE: 22.10.21
 Venue/WARD: NS'ungu DISTRICT: Raxungu

S/N	NAME	INSTITUTION	Sex	CONTACT NO	NRC	SIGNATURE
1	Lamekani Banda	H/mande	M	-	10353956	L. Banda
2	JEPHAS Zuku	H/m-msaka	M	0970657023	395146621	J. Zuku
3	ZIPELEKA Lungu	H/m. nyangani	M	09766542005	546011521	Z. Lungu
4	Charis mbeut	nduna mapusa	M	09778700867	685415152	C. mbeut
5	Cimpant Chama	KTC	F	0971555109		
6	Peter Lungu	Stadium	M	-	510775121	Peter Lungu
7	KILLAND NAKDOLLO	CHIPANT	M	097457654P	#0246611	KILLAND
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First Village Meeting

ATTENDANCE SHEET

Activity: AWP DATE: 4.10.22
 Venue: Mpanthony DISTRICT: Mpanthony

S/N	NAME	INSTITUTION / ORGANISATION	Sex	CONTACT NO	NRC	SIGNATURE
1	FRANCIS MWAASA	LUNDA	M	0976773585	47347/52/1	[Signature]
2	WILYAD JELE	MKOSI	M		150394/63/1	W. JELE
3	Jeanes Nyawali	KAMPALA	M	0779271611	427683/52/1	J. Nyawali
4	Freddy NERO	CHINYO	m		246974/52/1	[Signature]
5	MANKA BRADA	MADWA	M			M.B
6	COSMAS MANKA	BUNGA MOJO	M			C.M
7	ALION MWAASA	KAMPALA	m	0761825580	309139/54/1	A.M
8	Alick Tombo	Kampala	M	0761942977	228026/52/1	[Signature]
9	T-ISON BAKA	MIENGULENI IRA	M	0968408834	315403/52/1	T.I
10	ELIAS NERA	NJELCNDILE	M	0975741698	436206/52/1	E-NERA
11	COSMAS ZULU	MALUME	M	0967967807	423834/52/1	[Signature]
12	FRANSON ZULU	ZILOLE	M			F.Z
13	BLAZEKAL MWAASA	GOLE	M			B.M.
14	COSMAS MITI	SHAWA	M	0968951210	420780/52/1	C.M.
15	LANCE ZULU	SHAWA	M		248294/52/1	L.Z
16	WILSON LUNDA	MAZULU	M			W.L
17	FREDY NGWANTA	MUKOSI	M			F.N
18	NATHAN MITI	MUKOSI	M	0969811202	1436568/52/1	[Signature]
19	BICKSON MUMBA	MALUME	M	0760325346	605194/52/1	B.MUMBA
20	EMMANUEL JERB	GOMANI	M	0975816130	467186/52/1	[Signature]

ATTENDANCE SHEET

Activity: PLUP DATE: 4/10/21
 Venue: Makungu DISTRICT: Karungu

S/N	NAME	INSTITUTION / ORGANISATION	Sex	CONTACT NO	NRC	SIGNATURE
1	LYSON JEJE	KATINHA	M	0962675533	-	L JEJE
2	Fredrick Phiri	GOMANI	M	-	-	[Signature]
3	Chikaiko Jobvu	MAZULU	M	0170735138	545129/52/1	[Signature]
4	Rigiso Zulu	NISHONZE	M	-	133166/52/1	R. Zulu
5	JESAT Lungu	GOMANI		0969842844	-	J. Lungu
6	Kesitengema	Nyatunwe		0966230821	497950/52/1	K. ngema
7	Sekina JEJE	SETECH	F	0973148251	-	[Signature]
8	Rebecca Nyazi	Chingumai	F	-	1003969/52/1	R. Nyazi
9	Eliza Moku	Chingumai	F	0961466624	502291/52/1	E. Moku
10	MATHIJE	GOMANI	F	-	409501/16/1	NIFE
11	Tamala Newa	Londe	F	0969547332	-	T. Newa
12	Katai Frope	Londe	F	-	-	F. Katai
13	Setridah Boma	Mazulu	F	-	-	S. ngoma
14	Alice ngoma	Munukwa	F	-	-	A. ngoma
15	Nyanvize ngema	Malume	F	-	-	N. ngoma
16	Judith Mbulu	Ndira	F	-	-	J. Mbulu
17	Mwanida Mbulu	Malume	F	-	-	M. Mbulu
18	Vallet Zulu	Shabati	F	-	-	V. Zulu
19	Rosimery Zulu	Mukiso	F	-	-	R. Zulu
20	Lukosa Njobvu	CHIGUMANE	M	0765924704	671987/52/1	L. Moku

ATTENDANCE SHEET

Activity: PLUP DATE: 13.10.21
 Venue: NO'ONGUR DISTRICT: KAZUNGURU

S/N	NAME	INSTITUTION / ORGANISATION	Sex	CONTACT NO	NRC	SIGNATURE
1	dina mphanza	Zillale	F	0762920402		d mphanza
2	Sarah Ondya	Shwabati	F	0963525356	1051751/1	S. Ondya
3	Wendson Nwala	KORDA	M		325668/1	Wendson
4	Acles Nwala	MARUWU	F		17527266/1	Aacles
5	Mary Shumba					
6	ELISA BANDA					
7	Efina Lungu	SHOBE	F	0961810095	324702/52/1	Efina
8	Idah Lungu	MUKISO	F			I. Lungu
9	Ruth Nkhoma	Mtenguleni	F	0963537528	441486/52/1	R. Nkhoma
10	VICTORIA CHISHA	Mtenguleni	F		109287/42/1	V. CHISHA
11	Falesi Miti	Kabintu	F	0964102345		F. Miti
12	Fridah Namanye	Chande	F	0966257279		F. Namanye
13	ASTOR LUNGU	CHIGUMARE	M	0770725567	3589/8/52/1	Astor
14	DANA WHYSON JOHN	FUNSAWI	M	0976293625	370247/5/1	D. Whyson
15	NGOMA GEORGE	CHICHIGUMARE	M	0762692296	392419/52/1	G. Ngoma
16	INAYA ISAC					
17	JOSEPH PHIP	NKOLENDE	M	0962927733	3448/4/52/1	J. Phip
18	Francis NYA O	mfuleni	M	0964238730	269613152/1	F. Nyao
19	Wendson Lungu	MARUWU	M	07		Wendson
20	Kodiwele Chumbe	NYALUBE	M	0962262800	479834/52/1	Kodiwele

ATTENDANCE SHEET

Activity: Plus DATE: 13.10.22
 Venue: Ng'engwa DISTRICT: Kisumu

S/N	NAME	INSTITUTION / ORGANISATION	Sex	CONTACT NO	NRC	SIGNATURE
1	JOSPE LUNGU		M			J. Lungu
2	Sohn Ihweti	Ng'engwa	M	0975264126	ACC106/5211 295157	S. Ihweti
3	ROBERT TEMBO	ZUNDO	M		260441/5211	R. Tembo
4	SHADRECK PHIE	MUSU	M		480202/5211	S. Phie
5	NORMAN SOKO	MASWA	M		447084/5211	N. Soko
6	Leyana Miti	NKINDWA	M	0971474233		L. Miti
7	Alick Denka	Bungoma	M			A. Denka
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ATTENDANCE SHEET

Activity: Plan DATE: 5.10.22
 Venue: Ng'angwa DISTRICT: Rongai

S/N	NAME	INSTITUTION / ORGANISATION	Sex	CONTACT NO	NRC	SIGNATURE
1	STEADY NJAMUWA	CHANDE SEC	M.	0962406011	1425601511	[Signature]
2	NKHUBISI MWAZA	CLONE	F.	0966094620	56220315211	[Signature]
3	GIFI NYAU	CLONE	F.	0967842244		G. NYAU
4	Natasha Tembo	NYALUBWE	F.	0963732321		N. Tembo
5	Loice chungu	NYALUBWE	F.	0963856776	40877152	L. chungu
6	Julia Lungu	Bungamoto	F.	0973856373		J. Lungu
7	Esstele Jere	CONGOMANI	F.		285317511	E. Jere
8	MARY NAWA	CHIMAYEZO	F.	0975326883	5775815211	M. NAWA
9	Eunice Mwanza	Zondo	F.	0968075182	34844015211	E. Mwanza
10	Brenda Jere	MWASI	F.	0760978027	309153/541	B. Jere
11	Dalata NAWA	CHIMAYEZO	F.			D. NAWA
12	ELITA DAVA	NDIENDELE	F.		476030/521	E. DAVA
13	CHAKU SHUMBA	NDIENDELE	F.	076364704		C. Shumba
14	Esant mbao	Kampala	F.			E. mbao
15	Fabnes Jere	Zondo	F.			F. Jere
16	Grace Zulu	Chigumane	F.		308896/5211	G. Zulu
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ATTENDANCE SHEET

Activity: PLUP DATE: 4/11/21
 Venue: NEONOME WARD DISTRICT: KABONENZI GWA

S/N	NAME	INSTITUTION / ORGANISATION	Sex	CONTACT NO	NRC	SIGNATURE
1	GEOFFREY PHIRI	TRAINING	M	0968109594	#967451521	<i>[Signature]</i>
2	LAMECK JERE	MARION	M	—	—	L. JERE
3	MASANGO Zulu	CHURCH	M	0971308830	519897/52/1	M. Zulu
4	CHRISTOPHER MAYO	SABAZACK	M	—	398705/52/1	C. Mayo
5	PETER LUNGM	H. SABAZACK	M	—	510775/52/1	<i>[Signature]</i>
6	Compassion Clans	Keserengwa T.C	F	0961 941 659	322857/66/1	<i>[Signature]</i>
7	JENNIFER NGOMA	Komondibe	M	0972563976	244647/52/1	J. Ngoma
8	LWAZO BHWABA	CDL A	F	0963553104	292552/76/1	L. Bhwaba
9	WARREN TEMBO	COUNCIL	M	0965564902	648568/52/1	<i>[Signature]</i>
10	SUSAN MUYWOA	FORESTRY	F	0964281556 / 0979804683	492401/52/1	S. Muywoa
11	Emmanuel Zulu	COUNCIL	M	0976717677	439326/11/1	E.P. Zulu
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ATTENDANCE SHEET

Activity: Plus DATE: 04/11/22
 Venue/WARD: NGONOME DISTRICT: KASEVENONA

S/N	NAME	INSTITUTION / ORGANISATION	Sex	CONTACT NO	NRC	SIGNATURE
1	FREDRICK MISONI	HEARDMAN	M	097147242	462006/52/1	F. Misoni
2	JOSEPH BANDA	HEARDMAN	M	0965278189	41348/52/1	J. Banda
3	DAVID MBULO	LINDA	M	0964417337		D. Mbulo
4	DICKSON SOKO	ELDER	M	0953860612	431368/52/1	D. Soko
5	SKLAT PHIRI	MSEKANI	M			S. Phiri
6	RICHARD ZUKU	MSEKANI	M			R. Zuku
7	JACK NJOBVM	CHUNGU	M			J. Njobvm
8	DAVISON BANDA	MAGOMBO	M	0953983507	707052/52/1	D. Banda
9	GEORGE ZUKU	TRADING	M	0971567711	390411/52/1	G. Zuku
10	FREDRICK NGOMA	SMART	M	0960604957	347114/52/1	F. Ngoma
11	COPPAS ZUKU	MSEKANI	M	0970160563	525106/52/1	C. Zuku
12	ZAGWA MOYO	MAGOMBO	M			Z. Moyo
13	MULICHABE TEMBO	GURU	M		342416/52/1	M. Tembo
14	PETER LUNGU	GURU	M	0957447292	249232/16/1	P. Lungu
15	BATRUMIYA BANDA	GURU	M		382766/11/1	B. Banda
16	ABRAM TEMBO	ABRAM PARM	M			A. Tembo
17	MABIKU TEMBO	ABRAM PARM	M			M. Tembo
18	MABVITO PHIRI	MENDELANI	M	0973713873	518504/52/1	M. Phiri
19	LASEN NJOBVM	TSEKANI	M	0950045631	395033/52/1	L. Njobvm
20	LEVISON LUNGU	GNETSELE	M	0975299530	576822/52/1	L. Lungu

ATTENDANCE SHEET

Activity: Pump DATE: 4/11/21
 Venue/WARD: NGONGWE DISTRICT: KASERENGA

S/N	NAME	INSTITUTION / ORGANISATION	Sex	CONTACT NO	NRC	SIGNATURE
1	SIGUETI PHIRI	CHURCH	M			S. Phiri
2	KELVINE NYAMALI	KAKHYESI	M	0766608287		K. NYAMALI
3	TIBIAS BANDA	KAKHYESI	M	0960158228	126952/54/1	T. BANDA
4	CHUNGU SAKAZA	SMART	M			C. SAKAZA
5	MOFFAT SAKAZA	GUZANI	M	0764883858		M. SAKAZA
6	KACHAJE PHIRI	CHUNGU	M	0954852048	467167/52/1	K. PHIRI
7	GEORGE TEMBO	JAMBANI	M	0961148897	463651/52/1	G. TEMBO
8	ISAACC SAKA	H. CHINDA	M			I. SAKAZA
9	MOBESI MBURI	CHUNGU	M	0975047259		M. MBURI
10	PATRICK SAKAZA	TRAINING	M			P. SAKAZA
11	NDAH NGOMA	MALIZA	M	0966866737	460944/52/1	N. NGOMA
12	NSIMIC MSONI	MALIZA	M			D. MSONI
13	EMMANUEL MPHAKATI	CHUNGU	M		606712/52/1	E. MPHAKATI
14	ABHAM MITI	TRAINING	M	0962698065	466676/52/1	A. MITI
15	CHRISTOPHER BANDA	H. MEKELANI	M		062826/52/1	C. BANDA
16	KULABO MPHAKATI	H. NYMBA	M	0976835329	586825/1/1	K. MPHAKATI
17	MALIRO NKHOMA	H. MALIRO	M			M. NKHOMA
18	TRENTA TEMBO	NYONGANI	F	0763270795		T. TEMBO
19	ESTHER PHIRI	CHETSILE	F			E. PHIRI
20	JULIET MITI	CHAKWABA	F		170370/52/1	J. MITI

ATTENDANCE SHEET

Activity: Plup DATE: 21/11/21
 Venue: NGONOME WARD DISTRICT: KASENEDU CWA

S/N	NAME	INSTITUTION / ORGANISATION	Sex	CONTACT NO	NRC	SIGNATURE
1	LOVEDISS NYENONA	CHINUNDA	F	0977498186	221119/11/1	L. Nyenona
2	CATHERINE BANDA	CUMBA	F	0764358213	315122/52/1	C. BANDA
3	RECHAI LUNGU	NYONGANI	F	-	-	R. LUNGU
4	WALET BANDA	MEKELANI	F	-	-	W. BANDA
5	LINETA LUNGU	GWESOLE	F	-	2321556/52/1	L. LUNGU
6	RACE NGOMA	SMART	F	0764351588	-	A. NGOMA
7	BRIDGET ZULU	TRADING	F	0763121980	17/1197/52/1	B. ZULU
8	ANNA NGOMA	SMART	F	0962912562	-	A. NGOMA
9	ATINISS NYOM	KAKHABSI	F	-	-	A. NYOM
10	JUDITH BANDA	GUZE	F	-	-	J. BANDA
11	JERONIMUS TEMBO	MEKELANI	F	-	-	J. TEMBO
12	FALESS LUNGU	ABRAM PARM	F	-	-	F. LUNGU
13	TILANGILE SAKALA	CHINUNDA	F	-	-	T. SAKALA
14	FESTINA TEMBO	GUDANI	F	0952165482	-	F. TEMBO
15	ZEFENIA TEMBO	CHAKWABA	M	0979930408	594524/52/1	Z. TEMBO
16	BONTRICE KAMANGA	MALIZA	F	-	-	B. KAMANGA
17	MONBE NGOMA	MALIZA	F	-	-	M. NGOMA
18	GRACE PHIRI	CHUNGU	F	-	631912/52/1	G. PHIRI
19	REGINA BANDA	ABRAM PARM	F	-	-	R. BANDA
20	EMGLIA PHAKATI	CHUNGU	F	-	-	E. PHAKATI

PLUP REGISTER

01/10/22

S/N	NAME	SEX	INSTITUTION	N.R.C	CONTACT	SIGN
1	NGOMA ANOLD	M	MAPOSA	554025/52/1	0961199184	Ngoma.
2	Zulu CLIVE	M	CIMWAYA	602523/52/1	0762896555	Zulu.
3	Nyangu Emmanuel	M	MTWALO		0762770935	
4	SADSON MALUNGA	M	DICKSON	671993/52/1	0779503738	Sadson
15	Randa DAYID	M	LONDANI	-	-	D. Randa
6	BEATRICE JERE	F	MKONDO	370240/52/1	-	B. Jere
7	MARTHA PHIRI	F	MTWALO	465995/52/1	097346290	M. Phiri
8	MARTHA ZIMBA	F	MTWALO	211355/16/1	0764893081	M. Zimba
9	TINE SHAWA	F	MAGWANGWA	-	-	T. Shawa
10	MAINIDAH NGOMA	F	MAKONDA	-	-	M. Ngoma
11	IREEN ZIMBA	F	MKONDO	-	-	I. Zimba
12	BEATRICE ZIMBA	F	KUULA	576676/52/1	-	B. Zimba
13	LIDAH JERE	F	MBAMBO	422779/52/1	-	L. Jere
14	DOREEN Zulu	F	MBAMBO	-	0972726780	D. Zulu
15	DOREEN CHULU	F	YAMBARI II	504357/52/1	-	D. Chulu
16	CHARITY MSHUZI	F	YAMBARI II	-	0978072928	C. Mshuzi

PLUP REGISTER

01/10/21

S/N	NAME	SEX	VILLAGE	N.R.C	CONTACT	SIGN
17	ENA CHONGWE	F	SIANUMA	403858/521	0970797964	E. Chongwe
18	OLIVA DAKA	F	SIANUMA	—	—	O. Daka
19	ELITA Zulu	F	LUNJILA	—	—	E. Zulu
20	TISAUKE NJOBVU	F	MASWANGWA	—	—	T. Njobvu
21	ALICE MBEWE	F	DICKSON	—	0977280469	A. Mbeve
22	GETRUE Zulu	F	LONDANI	—	—	G. Zulu
23	FADESS Zulu	F	NGAKA CAMUNYA	—	0974934920	Fade
24	MARTHA SAKALA	F	MAPOSA	—	0965666308	m. Sakala
25	RHOBA MITI	F	DICKSON	—	0967604588	R. miti
26	MARY JERE	F	LONDANI	—	—	m. JERE
27	JESKA MSONI	F	MAPOSA	—	—	J. MSONI
28	ABIGAIL WOKHUMBU	F	MBAKA CAMUNYA	—	—	Abigail
29	RHOBA BANDA	F	CIFEYA	390796/521	—	R. Banda
30	JUSTWAH NJOBVU	F	AMUNYA	—	—	J. Njobvu
31	ESTHER Zulu	F	AMUNYA	—	—	E. Zulu
32	CHARLES NGOMA	M	CIMUNYA	424571/521	0979268746	G. Ngoma

PLUP REGISTER

05.10.22

S/N	NAME	SEX	VILLAGE	N.R.C	CONTACT	SIGN
33	MICHAEL PHIRI	M	YAMBARI II	—	—	M. PHIRI
34	JACOB PHIRI	M	LUVILA	—	—	J. Phiri
35	ISAAC NYAWAM	M	MAPOSA	—	—	I NYAWAM
36	MISHECK NJORU	M	CIFEYA	479107/52/1	0978684207	M. Misheck
37	ABRAHAM NGOMA	M	MTWALO	631879/52/1	0973756534	A. Nyoma
38	COSMAS NGOMA	M	MKONDO	64445/52/1	0979862497	Cosmas
39	EMMANUEL NJORU	M	CIFEYA	466336/52/1	0770729285	E. N. Njoru
40	GEOFFREY PHIRI	M	MUSWANGWA	541159/52/1	0975906890	G. Phiri
41	PILATO JERE	M	MKONDO	46338/52/1	0971511717	P. JERE
42	LAZARUS NKHUWA	M	MKONDO	635317/52/1	0975852877	L. Nkhwa
43	EZEKIEL KAMANGA	M	MUSWANGWA	—	—	E. Kamanga
44	LIMTED MUSALE	M	DICKSON	—	0962674766	L. Musale
45	LUKAS NYAU	M	Mbambo	596250/52/1	0978873638	L. Nyau
46	SILIZGANI MAFULEKA	M	Mbambo	—	—	S. Mafuleka
47	JASON NGOMA	M	LUVILA	359797/52/1	09447050	J. Nyoma
48	JOHN PHIRI	M	MUSWANGWA	—	—	J. Phiri

Validation Meetings

ATTENDANCE SHEET

Activity: VALIDATION AND ZONING DATE: 15/03/2022
 Venue: NGUNWE WARD DISTRICT: KASENENCWA

S/N	NAME	SIGNATURE WARD	Sex	CONTACT NO	NRC	VILLAGE SIGNATURE
1	Cletina Banda		F			MSAIKA
2	Mphakati Bathromco	[Signature]	M	0779485874		Chifeta
3	Mabvu Baisan	[Signature]	M	0974578650		Chiteya
4	Kamanga Josias	[Signature]	M	0979258228		Mugwanganwa
5	Mlobvu Shadrack	[Signature]	M	0974134920		Musaka Chamunga
6	Solomon zimba	[Signature]	M	0763144814		Chimunya
7	Muchitengi njema	[Signature]	M	0979845078	55411/52/1	Chimunya
8	VELIAS Banda	[Signature]	M	0963831059		Yambazi
9	Gualadi zulu	[Signature]	M	0	469510/52/1	Zr Siyabvuma
10	Mery Chitwa	[Signature]	F			Yambaxi
11	Sheny Zulu	[Signature]	F			Yambaxi
12	Dorothy Nyungu	[Signature]	F			Yambaxi
13	Sisipi Pin	[Signature]	F		436600/52/1	Mungwanganwa
14	Judith mwace	[Signature]	F			mbeimba
15	Singa Tembo	[Signature]	F			

ATTENDANCE SHEET

Activity: VOLUNTARY AIDS TRAINING DATE: 18/03/2022
 Venue: NG'ONGWA WARDS DISTRICT: KASENENGUA

S/N	NAME	Sig WARD	Sex	CONTACT NO	NRC	V/o SIGNATURE
1	Idah Nyangu	A. Nyam	F			Siyavuma
2	Idah Nyangu Susanget Tembo	F. Tem	F			Mukondo
3	Giff+ mafuleka	A. Nyam	M	0978768812	613244/52/1	Mukondo
4	Solomon Zulu	Zulu	M		803081/52/1	Musaka Chamu
5	Kosimas ngoma	X. Kun	M	0979862497	641445/52/1	Mukondo
6	Daniel Kamany	D. Kam	M	0979453150	395158/52/1	Mungwangwa
7	Pilato Jere	P. Jere	M		461338/52/1	Mukondo
8	Ruzious Nkhonza	R. Nkh	M	0975852877	863537/52/1	Mukondo
9	Patricas Zulu	P. Zulu	M	0977650132	348349/52/1	Mbambiso
10	George ngoma	G. ngoma	M	0973177478	322449/11/1	Himbani
11	Dickson ngabyu	D. ngabyu	M	0971450376	458428/52/1	Chimunya
12	JEFAS Zulu	J. Zulu	M	0970657023	345146/52/1	Musaka Chamu
13	Francisco Bunda	F. bunda	M	0976427101	291204/52/1	Siyavuma Yambizi
14	Steve Piri	S. Piri	M		504266/52/1	Mungwangwa
15	Petter Piri	P. Piri	M			