PUBLICATION DRAFT

REPUBLIC OF ZAMBIA

MINISTRY OF GREEN ECONOMY AND ENVIRONMENT

KAZIMULI LOCAL FOREST P337

MANAGEMENT PLAN

2024-2034

APPROVAL PAGE

KAZIMULI LOCAL FOREST No. P337 - FOREST MANAGEMENT PLAN

Notice of completion

This Forest Management Plan has been prepared in accordance with the requirements of section 40, Part IV of the Forests Act, 2015. National and local enquiries were conducted as required to obtain representation from the local community, Chief and other stakeholders in the prescribed manner. Further, consultations were conducted with holders of rights and the local community in the area and account taken of their submissions.

In accordance with section 43 of the Forests Act, 2015, I therefore cause notice of completion to be published in the Gazette.

Director of Forestry

Date:_____

Registration of the Forest Management Plan

Following receipt of notification from the Director of Forestry, that the Forest Management Plan has been notified in the Government Gazette in accordance with the provisions of section 43 of the Forests Act, 2015, I therefore cause this Forest Management Plan to be registered and approve a notice of registration to be published in the Government Gazette.

Minister for Green Economy and Environment

Date:_____

FORESTRY DEPARTMENT

FOREWORD

Forests provide essential functions and services to the local community and the country at large, conserving and protecting biodiversity, social and livelihood wellbeing. Zambia has adopted a participatory approach to forest management allowing community based natural resource management in respect to forest management between the Forestry Department whose function is to control, manage, conserve and administer Local and National Forests, promoting partnership with communities and civil society organizations. This forest management approach is driven by the need to promote sustainable use and management of forests across the country and reduce forest degradation and deforestation. The high demand for forest resource products and services due to increase in human population, and the ever-changing environmental conditions have highlighted the need to hasten the partnership approach to the management of forests in a planned manner. It is for this reason that Kazimuli Local Forest Management Plan (KLFMP) is formulated.

Signature:

Director of Forestry

Date:

ACKNOWLEDGEMENTS

The development of this Forest Management Plan was made possible through support from the Zambia Integrated Forest Landscape Project (ZIFLP). The Forestry Department would like to recognize and appreciate the efforts of His Royal Highness Chief Mlolo, Headmen and the community around Kazimuli Local Forest for the commitment to support this plan and importantly the sustainable management of Kazimuli Local Forest.

In addition, the Forestry Department, Eastern Province, would like to recognize and appreciate the efforts of the participants in the consultation workshop for their valuable contribution to the development of the Forest Management Plan.

The production of the Plan would not have been possible without the input from ZAMSTATS and present and past officers of the Forestry Department. The contribution of the members of the forestry inventory, livelihood data collection, analysis and reporting teams who made it possible to generate the needed information to develop this forest management plan is acknowledged. Local community contribution was vital in both the livelihood and biodiversity surveys as well as in the participatory discussion. His Royal Highness' contribution during the awareness meetings leading to livelihood survey for the development of the FMP are also highly appreciated.

The Forestry Department acknowledge the financial support of the World Bank and its partners through the Zambia Integrated Forest Landscape Project (ZIFLP) in the development of the draft FMP. Finally, since it is not possible to mention each person engaged in the development of the FMP, the contribution of all persons who participated directly or indirectly in the preparation and completion of this document is appreciated.

EXECUTIVE SUMMARY

Forests, woodlands and trees are among the nation's most important natural heritage resources. The vision of the National Forestry Policy, 2014 is to attain sustainable forest management at all types of forests to enhance forest products and services that will contribute to mitigation of climate change, income generation, poverty reduction, job creation and protection and maintenance of biodiversity. The Policy encourages participatory forest management anchored on the active participation of local communities, traditional institutions, private sector and other stakeholders in the management and utilisation of forest resources at all levels of decision making, implementation, monitoring and evaluation.

This Forest Management Plan has been prepared for Kazimuli Local Forest with the aim of equipping the management team and other interested stakeholders with a capable tool of directing the approach to be followed, guiding the process of partnerships with key stakeholders and addressing the challenges facing the management of the forest at present. Adjacent communities can play an important role in the rational utilisation of the existing forest through participation in decision making, active management, protection and benefit sharing. Thus community collaboration is an imperative so as to protect the remaining forest cover of Kazimuli Local Forest from degradation in order for it fully contribute to local and national development as well as for the benefit of the future generations of Zambia.

Translating Policy into practice

This management plan translates national policies into a well thought-out strategic framework to guide the preparation of annual operational programmes for effective and efficient management of this Local Forest. The management plan will regulate forestry activities for a period of 10 years through the application of prescriptions that specify targets, actions and control arrangements. In this respect this plan will form part of the general forest management system that regulates protection, silviculture practices, conservation, monitoring and other relevant operations to ensure sustainable management of the forest.

Community based natural resource management is core to this Forest Management Plan. Through promoting community involvement in the management of Kazimuli Local Forest, rights to forest products and uses of the forest will be negotiated whilst agreeing obligations and other responsibilities for protection and management activities with local communities. This is intended to achieve the parallel goals of ending open access,

promoting enhanced forest management, whilst unlocking the full potential of sustainable forest use for economic development in the local communities. Surrounding communities have both the most to lose from its destruction and most to gain from its good management. The Community Forestry approach followed in Zambia provides an incentive mechanism and capacity development process to make this a reality.

To ensure effective implementation, including monitoring, this plan has been prepared using up to date and accurate information on the reserve covering: location and extent; ownership and rights; topography, climate and soils; flora and fauna; potential income and other benefits; challenges and opportunities for sustainable management. This forest management plan has the purpose not only of setting out approved management objectives and specified actions, but equally important, communicating these to the resource users and other stakeholders who are concerned with the implementation of the plan.

The Forest Management Plan was prepared through a consultative, interactive and participatory strategic planning process involving all key stakeholders. The data collection and consultation process was financed through the Zambia Integrated Forest Landscape Project (ZIFLP0 a Zambian Government initiative in the Ministry of Green Economy and Environment.

Forest resource & community well being assessment

During 2019 and 2021, the Forestry Department undertook forest resource assessments, engaging surrounding local communities and their traditional leaders as part of the enquiries for the purpose of preparing this forest management plan in accordance with the Forests Act, 2015. In parallel, ZAMSTATS undertook forest livelihoods and economic surveys with communities surrounding the Local Forest.

Traditional leaders were consulted and approvals to proceed with data collection and subsequent participatory land use planning processes. Local stakeholder meetings were held with community representatives, local organisations and other Government Departments to raise awareness of climate change issues, the sources of greenhouse gas emissions in the Province, sensitise on the policy and legal framework, the proposed collaborative planning approach, issues affecting the specific forest areas and exploring opportunities for a partnership for management.

The information collected allowed assessment of the condition of the forest, the value of the forest both economic as well as biodiversity value in terms of species diversity and abundance. Past management, exploitation as well as current management and pressures

on the forest can be seen in the species abundance and size distribution in the areas assessed. These as well as the current Policies and development priorities can guide the short, medium and long term management of Kazimuli Local Forest.

The inventory results indicate a total standing volume for all species in Kazimuli estimated at 24.9m^3/ha, with a total bole volume estimated at 10.4m^3/ha. Total Biomass for trees ≥5cm DBH is estimated 38.6 tonnes per hectare with an above ground carbon estimate of 19.3 t/ha. A basal area figure of 3.69m^2 per hectare is a low figure for the type of forest by over a factor of 5. This confirms the status of Kazimuli Local Forest as a secondary forest following past and most likely current high levels of exploitation of large sized trees. Further, there is great need to bring the plantation areas under sound management and prepare site specific management plans for the plantation compartment and sub compartments. Current levels of planting are not considered viable for commercial timber or sustained pole production in the short and medium term.

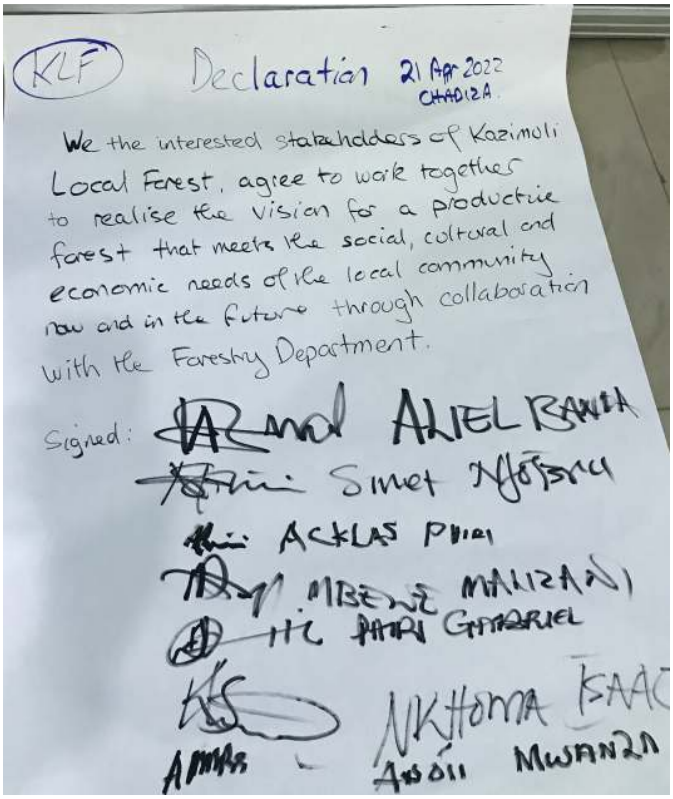
Summary socio economic analysis

The livelihood survey conducted in 2019 indicated that Kazimuli Local Forest is surrounded by approximately 30 villages with a total population of 2,344. These households depend on farming as their main occupation, the principal crops grown are maize, sunflower and groundnuts from land holdings ranging between 0.25ha to 6ha. Almost all households use firewood as their energy for cooking. The survey revealed that 100 percent of all the households were willing if called upon to voluntarily support management of the forest reserve with Forestry Department. At time of survey, there were no squatters within the forest.

Forest change & issues analysis

A consultation meeting of stakeholders for Kazimuli Local Forest was held on 6th May 2022, at Elshadai Lodge, in Chadiza. Participants were requested to review the uses and users of the forest, the issues that are contributing to forest loss and forest degradation, but importantly to propose local solutions to these issues. Utilising forest cover imagery, participants were able to relate to the areas of forest and forest loss through agriculture and settlement across the forest and surrounding areas. This was used to focus discussion on issues, identifying different zones of use and management, possible strategies and priorities for management as well as agreeing permitted and non-permitted activities within each of the identified zones.

Making a commitment to work together for change



As a statement of concern, but interest to work together with the Forestry Department, the Local Authority and Traditional leaders, stakeholders agreed the need to collaborate over the protection, sustainable use and management of the protected forest area and a declaration of intent was signed pledging to collaborate in the sustainable management of Kazimuli Local Forest.

The declaration confirmed that Kazimuli Local Forest is of importance for meeting the local social, cultural and economic needs of the surrounding communities as well as of environmental importance, primarily through securing local water resources. The stakeholders requested to work in partnership with the Forestry Department and others to safeguard the forest.

Objectives and management actions

Based on the policy and legal framework and the consultation process conducted, the General Objectives for the management of Kazimuli Local Forest are:

(a) To secure forest resources of local and national importance

(b) To protect and restore ecosystems, particularly the protection of land and water supplies of local and strategic importance;

(c) To ensure the sustainable utilisation of forest resources and other natural resources within the protected area;

(d) To ensure full participation of all stakeholders at all levels of society for sustainable forest resource and ecosystem management through appropriate incentives and benefit sharing mechanisms

(e) To meet the social, cultural and economic needs of the local community and wider society involved in management of the Forest in a gender equitable manner.

Proposed management actions

The following management actions proposed for Kazimuli Local Forest reflect the statutory purpose of the Local Forest as set out in section 19 of the Forests Act of 2015.

1 Forest Conservation through Community Participation and Livelihood Development

Community empowerment is central to participatory forest management for the effective coordination and sustainable management of forest resources. This Plan recognizes that communities surrounding Kazimuli Forest Reserve are key stakeholders in the conservation of this forest as well as beneficiaries from its sustainable management. This action aims to meeting the social, cultural and economic needs and thereby improving the livelihoods of the communities around Kazimuli Local Forest. This will be achieved through promotion of community forestry and the establishment of a community forest management group to partner over the management of Zones 2 and 3 of the Local Forest, as well as a development zone (4) in the immediate surrounding area to promote greenhouse gas emission reduction interventions;

2 Forest Protection, Restoration, Management and Conservation of Biodiversity

Kazimuli Local Forest is an important forest ecosystem containing different plant species and fauna. The forest is surrounded by an increasing population which is highly dependent on it for subsistence and increasingly economic needs including collection of mushroom, wild fruits, caterpillars, honey, firewood and poles. The level of unsustainable use is anticipated to intensify with increasing human populations resulting in higher levels of resource exploitation and degradation. Protection of this forest habitat is therefore essential to ensure the continued ecosystem services and local livelihood needs.

Without considering the needs of local communities, gaining their support, and working with them, rather than against them, forest protection and management goals and objectives will not be reached. Consequently, the strategy will be to work together with communities to develop joint protection systems in return for agreed levels of utilization within the capacity of the forest to meet subsistence needs whilst safeguarding the environmental aspects including conservation of biodiversity.

Forest plantation establishment and management

Forest plantations are important for the supply of poles, timber and wood energy. Due to its proximity to the urban areas of Chadiza, the demand for construction timber and wood energy will increase over time there by increasing the pressures on Kazimuli Local Forest. Investment in the plantation area is therefore critical in order to meet future demand. This will require rehabilitation of plantations from which the timber products will be derived. Silvicultural operations are core to maximise the production potential of the demarcated plantation areas. Activities will include site preparation, planting, maintenance operations, production forecasting, harvesting and marketing with subsequent replanting/ regeneration. These will be detailed in an annual plan of operations to be prepared by the Officers responsible for the management of the Local Forest. Such operations are expected to create employment and income generation opportunities in the local communities.

Safeguards & other crosscutting issues

In implementing the above management actions, cross cutting issues as well as other environmental and social safeguards processes will be mainstreamed in all aspects of forest management. Specific activities as well as the annual workplan and operational plans should include a process of social and environmental screening. These should be reviewed and updated in accordance with the type of activity being planned and general screening reviewed annually. A Grievance Redress Mechanism will be operational at the District and Provincial level to allow a mechanism for grievances to be raised, documented and addressed. Documentation and tracking is core to this issue. Women shall be integrated into all aspects of management of Kazimuli Local Forest and empowered through equal participation in decision making, governance and benefit sharing.

Contribution to Emissions Reduction in Eastern Province

Improved management of Kazimuli Local Forest through the proposed interventions will directly address the need for emissions reductions through promotion of Sustainable Forest Management. This centres around expansion of community forestry and strengthening collaboration in the management of this and other protected forest areas in the Province. Carbon sequestration will also be achieved through plantation forestry and locked in timber products.

Delivering sustained results

The expected outcomes of participatory management through local stakeholder involvement in the management of this and other protected forest areas will be to reduce emissions in the Eastern Province. Strengthening sustainable land and forest management practices, creating increased incomes and resilience of local communities, conforming to national strategies will reduce the effects of climate change. Implementing the proposed management actions should result in improved local livelihoods and local economic development, improved availability of major forest products whilst sustaining the key ecological functions of the Local Forest and its surrounding area.

Definition of Terms

Above ground Biomass- refers to *vegetation above the soil, including stem, stumps, branches, bark, and foliage*

Basal Area- is the measure of cross-sectional areas of a tree trunk at breast height, typically measured in square meters per hectare

Below ground Biomass This is one of the carbon pools including biomass of the roots and organic matter

Biomass- refers to the total mass of living organisms in a particular ecosystem or biological community

Bole height - The distance from the base of a tree to the base of the living branch that part of the tree crown

Bole volume- refer to the amount of wood contained in the trunk or stem of the tree, typically from the ground level up to a point where the trunk reached a certain diameter or height. It is used in forestry inventory

Community Forest - refers to forest management that has ecological sustainability and local community benefit as central goal

Fauna- refers to the animals in particular region or ecosystem it includes all animal species that inhabit a given area from tiny insects to and microorganisms to large mammal and birds

Flora- refers to the plants, trees, flowers and other living organisms that are classified as part of the plant kingdom

Regeneration- refers to the process of renewing a forest or woodland to replace those that have been harvested or lost due to natural causes

Topography- refer to the physical features of a particular area of land, including its elevation, shape and relief

ACRONYMS

CFMG	Community Forest Management Groups
CSA	Climate smart agriculture
DBH	Diameter at Breast Height
EA	Enumeration Area
FD	Forestry Department
FMA	Forest Management Area
FMP	Forest Management Plan
GHG	Green house gases
HFO	Honorary Forest Officers
KLFMP	Kazimuli Local Forest Management Plan
MGEE	Ministry of Green Economy and Environment
MOE	Ministry of Energy
NGO	Non-Governmental Organization
PAPI	Paper Assisted Personal Interviews
REDD	Reducing emissions from deforestation and forest degradation
USAID	United States Agency for International Development
ZAMSTATS	Zambia Statistics Agency
ZIFLP	Zambia Integrated Forest Landscape Project

TABLE OF CONTENTS

List of Figures and Tables

Summary Cost of Forest Management Plan Implementation by: <u>Programme Cost (ZMW)</u> Cost breakdown is provided in Annex VII

Forestry Programme	**Cost in ZMW for 10 years**
1 Forest Conservation through Community Participation and Livelihood Development	**659,317**
2 Forest Protection, Restoration, Management and Conservation of Biodiversity	**2,436,464**
3 Forest plantation establishment and management	**3,897,483**
Grand Total (ZMW)	**6,993,264**

KAZIMULI LOCAL FOREST MANAGEMENT PLAN

1 INTRODUCTION

The Kazimuli Local Forest Management Plan (KLFMP) is prepared in response to the National Forestry Policy of 2014 which has set forth clear guidelines to: "ensure adequate protection and sustainable utilization of forests, by promoting the development and use of forest and non-forest products by involving all interested key stakeholders particularly local communities around the forest reserve in the management of the forests and non-forest products in line with provisions of the Forests Act, No. 4 of 2015.

1.1 Purpose of the forest management plan

The purpose of the forest management plan is to guide the rural communities, traditional and local leadership, and key stakeholders in collaboration with the Forestry Department during the exploitation and management of the forest resources of the Kazimuli local Forest in a sustainable approach and manner.

The plan will serve as a legal document to guide utilization and management of resources by local communities and key stakeholders around the forest and the Forestry Department through the Green Economy and Environment (MGEE).

This Forest Management Plan aims to contribute towards the Goal of the National Strategy for REDD which is to reduce deforestation and forest degradation for sustainable natural resource management, improvement of livelihoods and achievement of a green economy.

1.2 Duration of forest management plan

The duration of the FMP is ten (10) years. In theory, this means that ten years from the date that the plan is approved and adopted. In practice, however, there is need to be flexible and adjustment from lessons learned along the way, the plan may be adjusted every year during the first few years of implementation. In other words, the plan should be dynamic, and lessons learned are incorporated as they become obvious.

1.3 Developmental Objectives

The Development Objectives for this Forest Management Plan are aligned with the objectives of the National Forestry Policy, 2014, which include:

Objective 1: To manage the country's forest resources in order to maximize productivity and the development potential of the forest resources:

Objective 2: To empower local communities and traditional leaders in order to ensure adequate protection and management of forests:

Objective 3: To improve the role of forests in addressing climate change in order to contribute to reducing its impact through mitigation and adaptation measures:

1.4 General Objectives

The General Objectives for the management for the Forest Reserve include:

(a) To secure forest resources of local and national importance

(b) To protect and restore ecosystems, particularly the protection of land and water supplies of local and strategic importance;

(c) To ensure the sustainable utilisation of forest resources and other natural resources within the protected area;

(d) To ensure full participation of all stakeholders at all levels of society for sustainable forest resource and ecosystem management through appropriate incentives and benefit sharing mechanisms

(e) To meet the social, cultural and economic needs of the local community and wider society involved in management of the Forest in a gender equitable manner.

2 GENERAL DESCRIPTION

2.1 Location Details

Kazimuli Local Forest (Reserve No. F72) forms part of the forest estates in Eastern Province, covers a land area of approximately 353 hectares in extent with total perimeter of 7Km, and is situated approximately 30Km East of the administrative centre of Chadiza District.

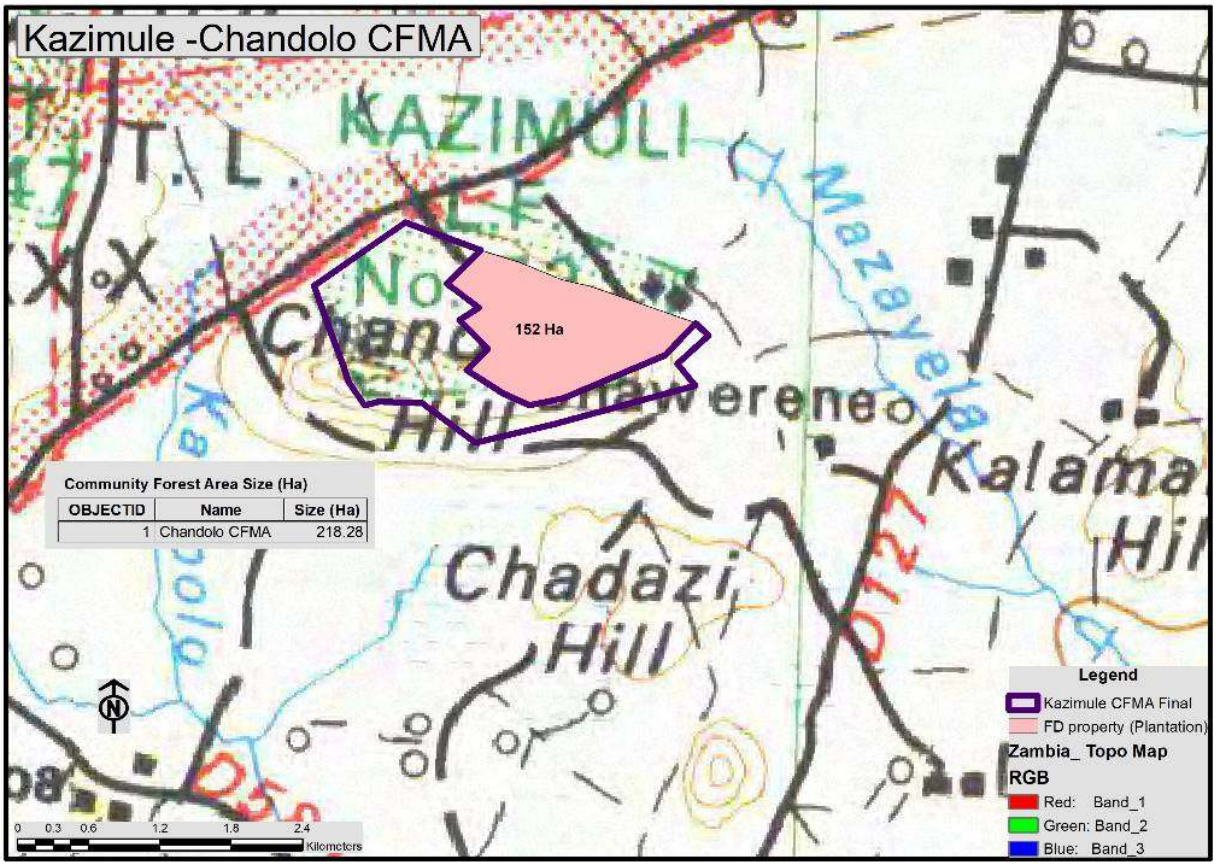


Figure 1: Map of Kazimuli Local Forest

A detailed description of the gazetted forest boundary is provided in Annex 1.

2.2 Ownership and control

Kazimuli Local Forest No. F72, was originally declared a forest reserve and gazetted under Statutory Instrument No. 180 of 1966. It is a protected forest area with the designation of "Local Forest" covered by section 19 of the Forests Act, 2015. The area is under the

jurisdiction of the Forestry Department, Ministry of Green Economy and Environment through powers bestowed under the Forests Act No. 4 of 2015 of the Laws of Zambia.

2.3 Physical Environment

2.3.1 Topography, Geology & Soils

The Kazimuli Local Forest is relative flat with few rock outcrop and geologically the area seems to be located on Precambrian metamorphic rocks characterized by gneisis with igneous intrusion of syenite. The Forest geologically has few rock outcrop and geologically the area seems to be located on Precambrian metamorphic rocks characterized by gneisis with igneous intrusion of syenite. The Forest is relative flat with few rock outcrop and geologically the area seems to be located on Precambrian metamorphic rocks characterized by gneisis with igneous intrusion of syenite.

2.3.2 Rainfall & Temperature

The rainfall usually last for 5 to 6 months staring from November to March and the peak months are December and February. The rainfall amount ranges from 900 to 1000mm.
The temperature usually is in the range from 27 to 34 during dry months between August and December. The hottest month is October.

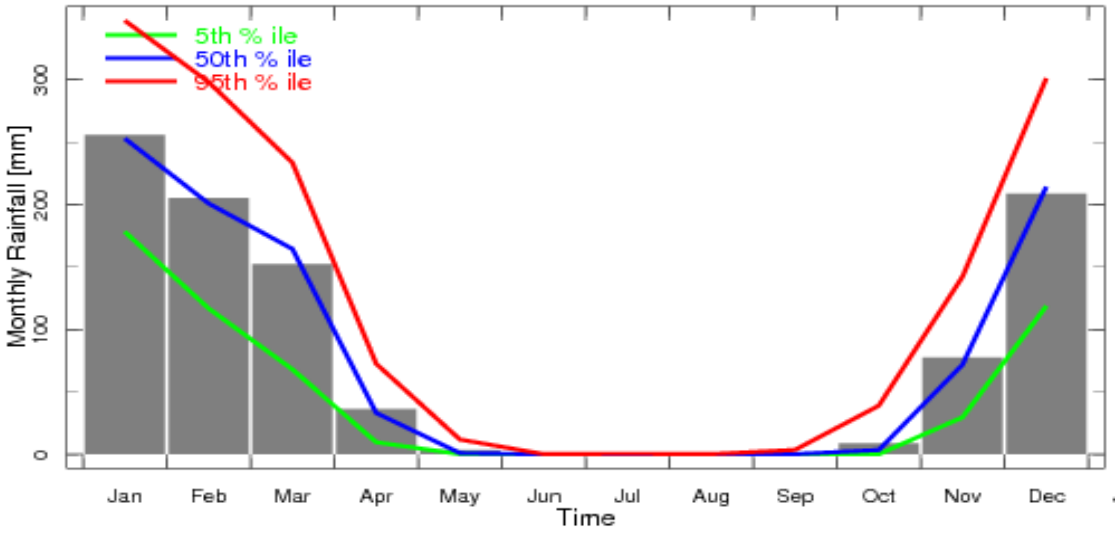


Figure 2: Monthly rainfall *Source: The Zambia Meteorological Department*

Normally, temperatures are very high, especially during the dry months which occurs between August and December. The maximum average monthly temperature is between 27C and 34 C. The highest maximum temperature occurs in October. The lowest average

temperature is between 21^{0}C and 23^{0}C during the cool dry season occurring especially between May and June.

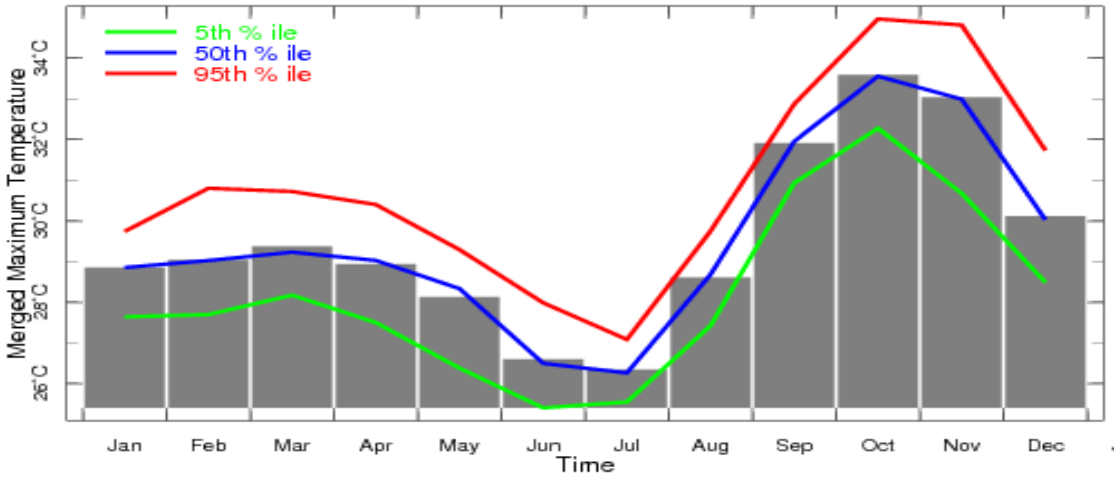


Figure 3: Monthly temperature Source: The Zambia Meteorological Department

2.4 Biophysical Environment

2.4.1 Vegetation Type

Kazimuli Local Forest is a homogeneous forest. The vegetation type is miombo woodland on the hilly area with a diverse tree flora including *Julbernardia paniculata*, *Isoberlinia angolensis*, *Brachystegia boehimii*, *Brachystegia floribunda*, *Parinari curatellifolia* and many other species with *Brachystegia speciformis* being the dominant species.

2.4.2 Fauna

During both the reconnaissance survey and the forest inventory, there was no physical observation of major wildlife. However, an indication of their presence was recorded through observations such as foot prints and droppings as well as through oral interviews with some community members. Animals such as Vervet Monkeys, Warthog, Bush pigs, Guinea fowls and common Duikers are present. Smaller animal species such as squirrels, birds, Snakes and Lizards were encountered during the surveys.

2.5 Infrastructure and communication

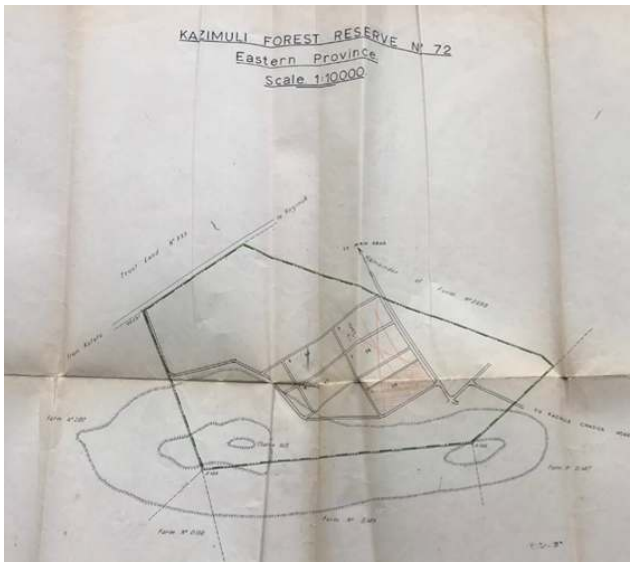
The forest reserve is defined by statutory boundary and there is forest camp infrastructure inside the area and plantation area. The area is well linked and accessed through the Chadiza road and forest road inside. The cleared boundary around the forest

reserve and some firebreaks in the exotic plantations which equally act as access ways exist in the forest reserve.

In order to achieve the forest management objectives for Kazimuli Local Forest a certain level of infrastructure is required. Roads, vehicle and buildings are essential to sound management of the forest. But they cannot be maintained without considerable financial expenditure since the forest itself yields very little in terms of direct revenue.

3 PAST MANAGEMENT

The Kazimuli Local Forest was declared and gazetted under S.I No.180 of 1966 as a Forest reserve under section 5 of CAP 105, the Forests ordinance. The reservation proposal of establishing Kazimuli Local Forest/plantation was based on a request from department of agriculture for the portion of the farm FAR/2099 to be developed into a local supply plantation. The release of the part of farm 2099 as requested by the Provincial Forestry officer for Eucalyptus plantation was fully discussed by the Chief Agricultural Officer, Agricultural officer (Planning), Provincial Forestry Officer, Resident Secretary and Under-Minister. The proposal was for plantation establishment with a view to supply of plantation poles (Eucalyptus) in the Ngoni area.



Maps were later developed and in 1966 Kazimuli was declared as a forest reserve/plantation.

Following the internal restructuring of the Department under the Public Service Reform Programme (PSRP) in 1997 affected manpower as a number of officers were laid-off especially in the lower ranks who managed forest stations among them Kazimuli Local Forest. The reduced manpower especially from 2004 and onwards dynamics changed: Economic downturn, increase in population, high poverty levels, Forestry Department preparedness to cope with crisis was lacking compounded by delayed revision of Forest Policy of 1998 and legislation the Forests Act No.39 of 1973 and less treasury funding of planned activities affected smooth and development of forest operations in Kazimuli Local Forest. However, the current Forest Act no. 4 of 2015 addresses some of the challenges experienced in past forest management by involving communities surrounding forest reserves in the management.

Kazimuli Local Forest received support from USAID through the Forest Resource Support Programme (FRSP). The project provided resources to delineate forest boundaries, to erect

beacons on the boundaries, to conduct forest patrols inside and outside the reserve, to enhance extension services and the production of information materials for communities living around protected forest areas help in promoting forest management and hence combating climate change. The project also helped in digitizing the maps of the reserve.

The boundary fence is no longer in place.

4 GROWING STOCK

Assessing the growing stock of the forest is important in terms of ensuring Sustainable Forest Management. In basic terms, assessment is needed to ensure that the removal of trees and forest products does not exceed the rate of replacement in terms of growth and abundance. This is the basic principle of sustainable forestry otherwise the forest will be depleted and degraded.

This chapter provides the results and analysis from the data collected. A systematic sampling system was used to determine the location of the sample plots, measurement of trees and soils followed the Department's Guidelines and the software *forestcalc* (version 6.4.1) used to process the data to provide the summary information contained in this chapter. A map of the distribution of the sample plots for Kazimuli is provided in Annex I. The information collected allows assessment of the condition of the forest, the value of the forest both economic as well as biodiversity value in terms of species diversity and abundance. Past management, exploitation as well as current management and pressures on the forest can be seen in the species abundance and size distribution in the areas assessed. These as well as the current Policies and development priorities can guide the short, medium and long term management of Kazimuli Local Forest.

Stratum total by diameter class per hectare for all species

The outcome of key variables are tabulated in table 3 below. The forest reserve despite low level of tree cutting mainly for domestic use, the forest reserve has the potential to regenerate if protected from illegal activities. The estimated stocking per hectare of total volume and bole volume of 24.9 and 10.4. Density or number of stems per hectare 279.4 with highest stems in diameter class 20 to 29. Average basal area of 3.6m^2. Biomass and carbon total 38.6 and 19.3 tons per hectare. The biomass and carbon stocks estimates methodological framework used is that developed by the IPCC documented in the 2006 guidelines for national greenhouse inventories volume 4, chapter 2 and 4.

The volume of other technical characteristics or use are computed per hectare as follow: Saw-log 1.3m^3, Pole 7.1m^3, Firewood 5.9m^3, Medicinal 9.2m^3, Fruit 0.9m^3 and Others 0.4m^3. The seedlings for all species per hectare is 8,135.

The summary table of forest resource information is as follows:

Stratum Values	0-4	5-9	10-14	15-19	20-29	30-39	40+	Total
Vol (m^3)	0	3	4.2	4.2	8.5	3.2	1.7	24.9
Bole Vol (m^3)	0	1.1	1.5	1.6	4.2	1.6	0.4	10.4
Density (SPH)	0	164.3	65.3	22.2	22.3	4.3	1	279.4
Basal area ($^{m2)}$	0	0.7	0.7	0.6	1	0.4	0.2	3.6
Biomass (tons)	0	4.7	6.8	6.3	13	4.9	2.8	38.6
Carbon (tons)	0	2.4	3.4	3.2	6.5	2.5	1.4	19.3
Volume by Species Use								
Stratum Values	0-4	5-9	10-14	15-19	20-29	30-39	40+	Total
Saw log Vol (^{m3})	0	0	0	0	0.6	0.8	0	1.4
Firewood Vol (m3)	0	0.8	1.1	1.6	3.5	0.1	0	7.1
Pole Vol (^{m3})	0	0.8	1.7	1.5	1.9	0	0	5.9
Fruit Vol (^{m3})	0	0	0.4	0.2	0.1	0.2	0	0.9
Medicinal Vol (m3)	0	1	0.1	0.8	2.3	0.9	0	5.1
Other Vol (m3)	0	0.1	0.2	0.1	0	0	0	0.4
Seedlings								8,135

Table 1. Distribution of Stratum total by diameter class per hectare for all species

Total Volume by diameter class per hectare for all species

The total volume by diameter class per hectare is 24.9 cubic meters per hectare with higher in diameter class 20-29 and evenly distributed in diameter class 5-19. The outcome indicate that there is less disturbance to the forest.

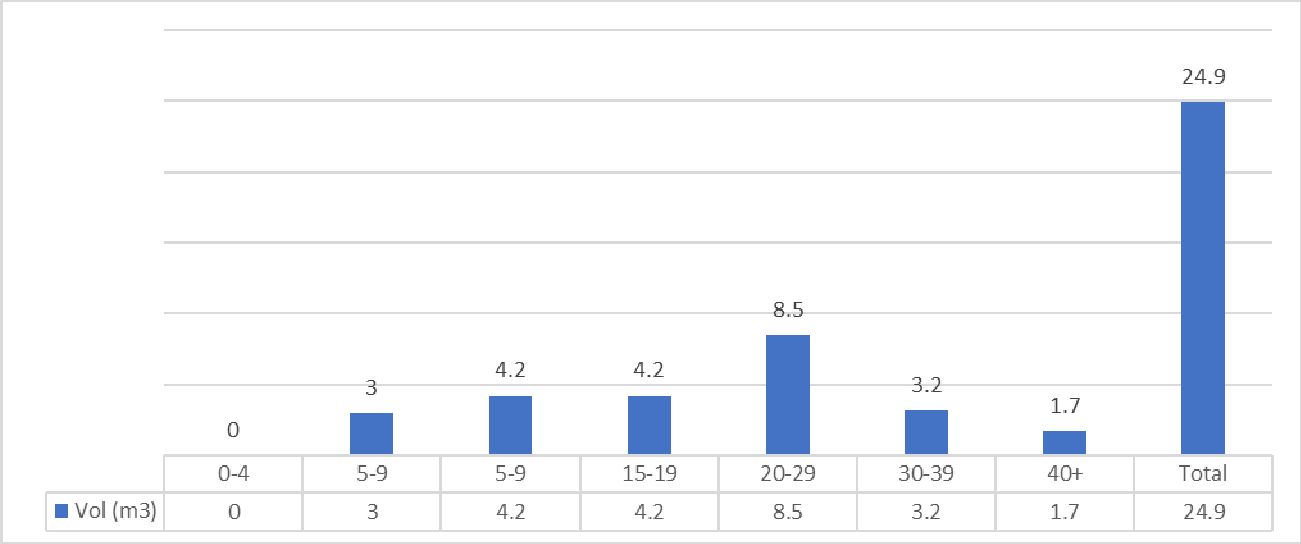


Figure 4: Distribution of total volume by diameter class/ha for all species

Total bole volume by diameter class per hectare for all species

The total bole volume by diameter class per hectare is 10.4 cubic meters with higher in diameter class 20-29. The results indicate that there is less disturbance to the forest and it is a health with potential for selective harvesting on a small scale.

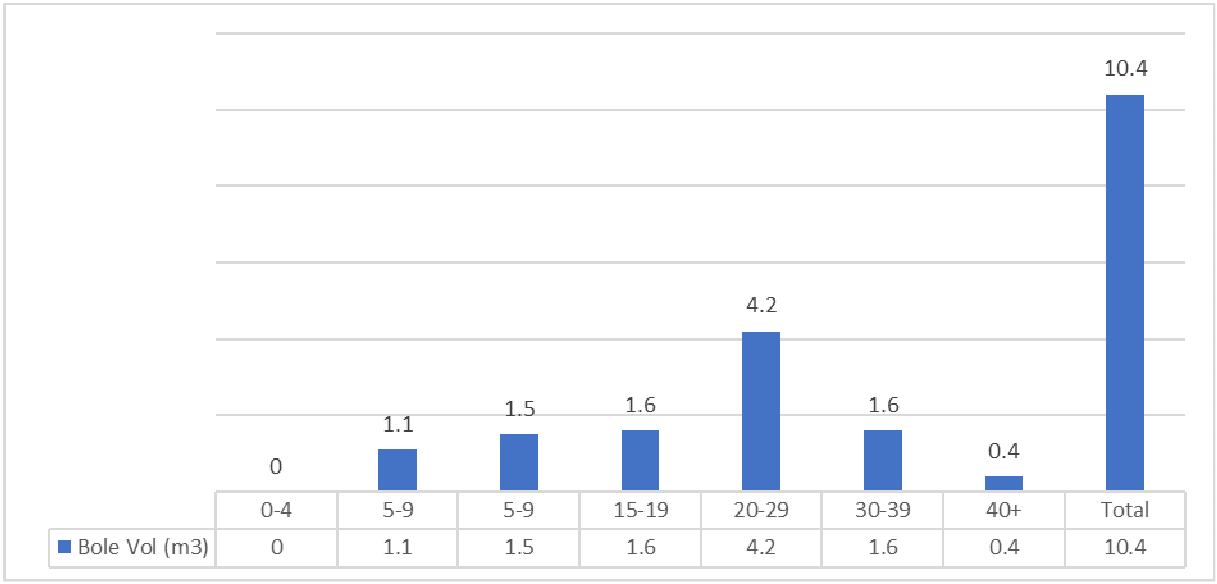


Figure 5: Distribution of total bole volume by diameter class/ha for all species

Total Density by diameter class per hectare for all species

The density or number of stems by diameter class per hectare is 279.4 with higher in diameter class 05 – 14 and less from 15 and above. The outcome indicate that there is a lot of tree coppicing and regeneration.

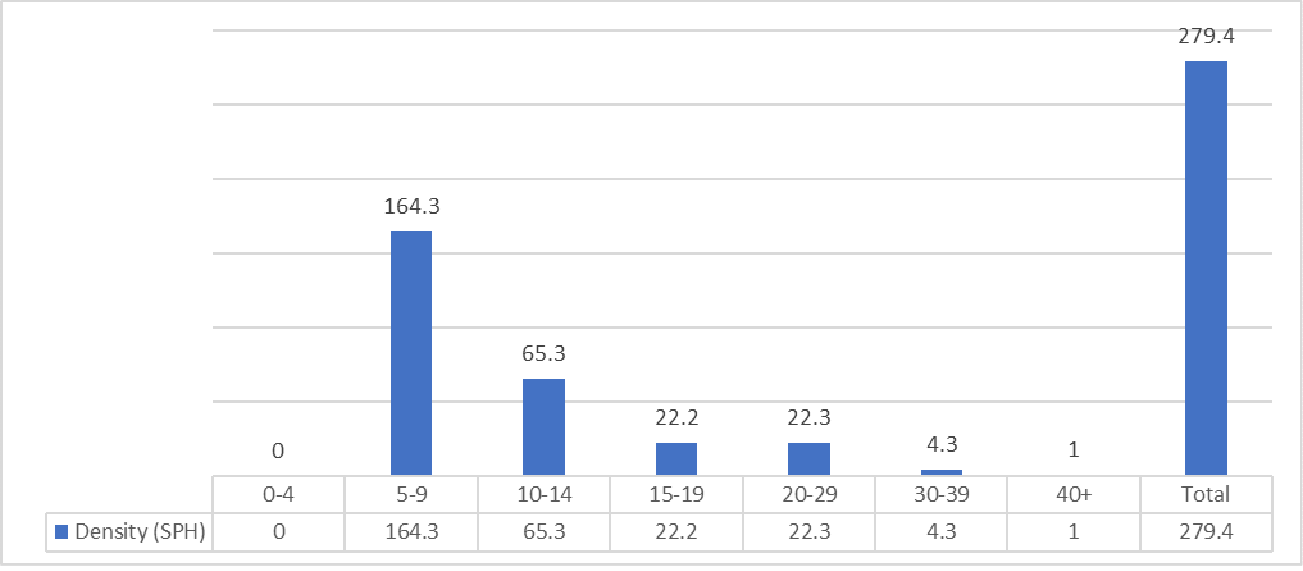


Figure 6: Distribution of density (SPH) by diameter class/ha for all species

Total basal Area by Diameter Class per Hectare

Forest condition is further assessed by the amount of area occupied by the stems of trees, termed basal area. This is measured by determining the cross-sectional area of a tree at breast height (1.3m), summing up all the measurements and expressing this as a figure of square metres, either in their size class categories or as a total per hectare.

The basal area by diameter class per hectare for all species is 3.6 with higher in diameter class 20 – 29. The outcome indicate that there is a lot of regeneration and coppicing in the forest reserve. The forest is health and less disturbance as shown by the inventory results on the number of regeneration.

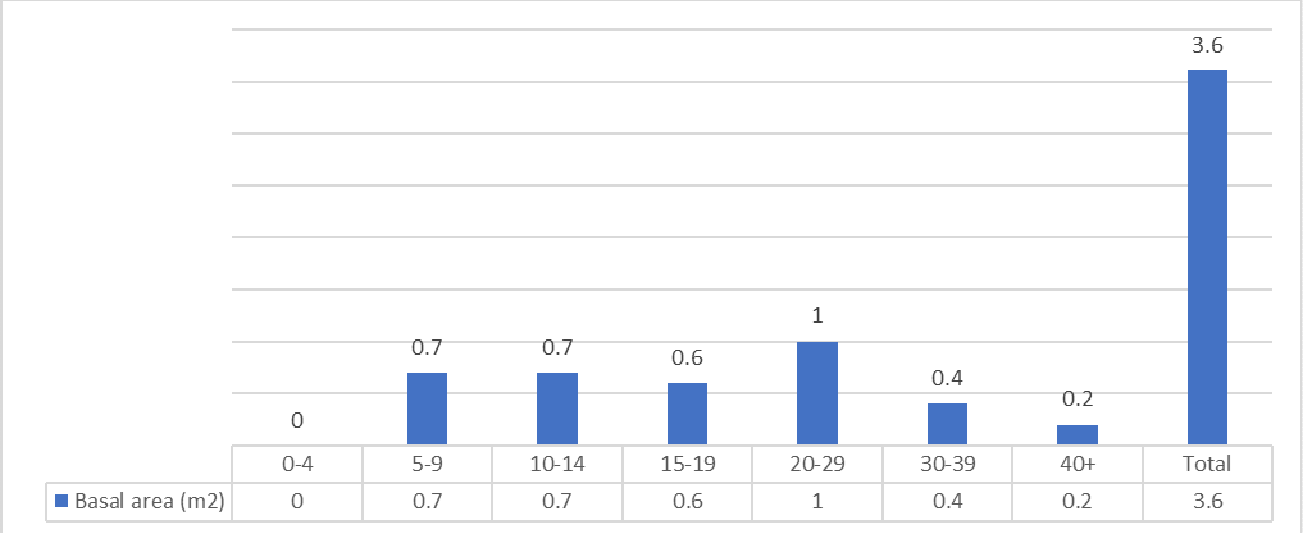
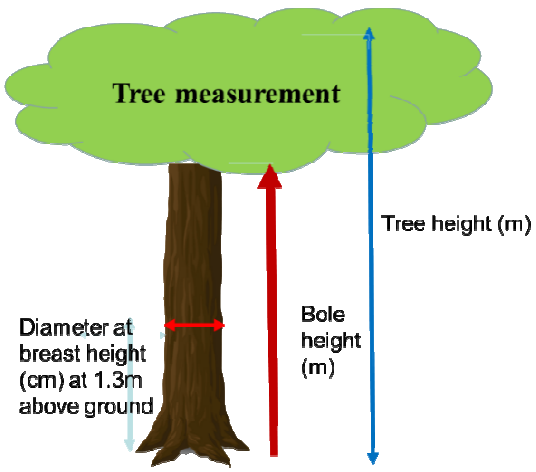


Figure 7: Distribution of basal area (m²) by diameter class/ha for all species

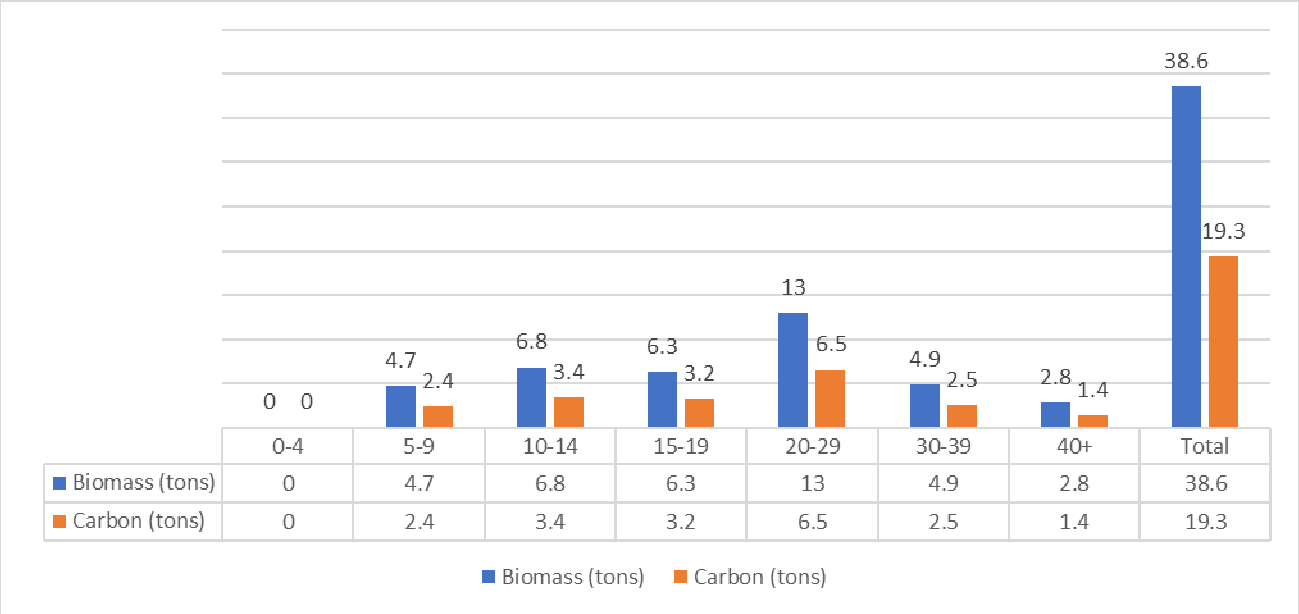
4.1 Total Volume, Biomass and Carbon estimate of all Species

Calculating volume of the standing trees of DBH > 5cm is a further measure of the condition of the forest, site quality and previous management and exploitation. Tree volume to different heights is measured and calculated by individual trees and summed to give a total volume estimate per hectare. An estimate of the volume in a stand or plot is important for forests quantification and management decision making. The amount of



merchantable wood in cubic metres (m^3) in a tree, as well as across the forest, was estimated while the trees are still standing using the methods of forest mensuration. Tree bole volume is based on the timber height relating to the parts of the tree that could be cut and sawn. Stand volume based on tree height is important for providing an estimate of total wood biomass resource. An assessment of carbon stocks was then estimated using the methodological framework developed by the IPCC

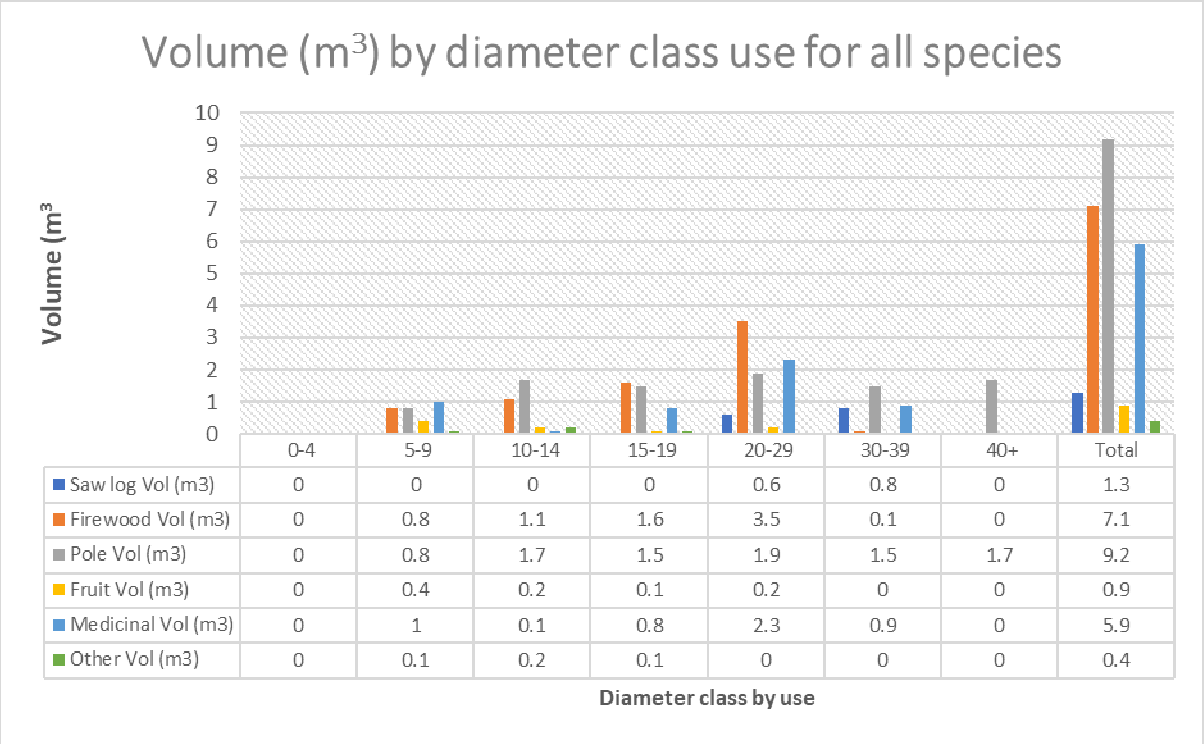
Total Biomass and Carbon total (tons) by diameter class per hectare for all species



	0-4	5-9	10-14	15-19	20-29	30-39	40+	Total
Biomass (tons)	0	4.7	6.8	6.3	13	4.9	2.8	38.6
Carbon (tons)	0	2.4	3.4	3.2	6.5	2.5	1.4	19.3

Figure 8. Distribution of Biomass and Carbon total (tons) by diameter class per hectare for all species

The total biomass and carbon stocks (tons) by diameter class for all species respectively of 38.6 and 19.3 estimates methodological framework applied is that developed by the IPCC documented in the 2006 guidelines for national greenhouse inventories volume 4, chapter 2 and 4. The correlation of total biomass and carbon both above and belowground is in the figure above is within the IPCC requirement of half of biomass constitute carbon stock.



	0-4	5-9	10-14	15-19	20-29	30-39	40+	Total
Saw log Vol (m3)	0	0	0	0	0.6	0.8	0	1.3
Firewood Vol (m3)	0	0.8	1.1	1.6	3.5	0.1	0	7.1
Pole Vol (m3)	0	0.8	1.7	1.5	1.9	1.5	1.7	9.2
Fruit Vol (m3)	0	0.4	0.2	0.1	0.2	0	0	0.9
Medicinal Vol (m3)	0	1	0.1	0.8	2.3	0.9	0	5.9
Other Vol (m3)	0	0.1	0.2	0.1	0	0	0	0.4

Figure 9. Technical characteristics or use (m³) by diameter class/ha for all species

The volume of other technical characteristics or use are computed per hectare as follow: Saw-log 1.3m³, Pole 9.2m³, Firewood 7.1m³, Fruit 0.9m³, Medicinal 5.9m³ and Others 0.4m³. The poles are thinly distributed mainly in diameter class 20 to 29. The saw log are good in diameter class 30.

Volume of all species by merchantable quality

Trees in Kazimuli Local Forest are relatively straight, about 99.92% of the trees assessed are straight and 0% are bent and 0.07% are crooked. Three quarters of the trees in Kazimuli are of harvestable quality.

Table 2: Volume of all species by merchantable quality

No	Description	Volume(m³/ha)	Explanation
1	Straight	24.74m³	The entire bole length of these trees are straight
2	Slight bend	0m³	The bole length of these trees are slight bend but are sawable
3	Crooked	1.13m³	These trees have bad form, they are crooked and cannot be sawn

Presence of Commercial Tree Species

Based on the inventory data, species used for high valued sawlogs such *Pericopsis angolensis, Pterocarpus angolensis, Dalbergia melanoxylon, Faurea saligna* and the medium valued are *Brachystegia speciformis* and *Julbenadia globiflora,* are not abundant in the forest. The harvestable volume is low. Therefore Kazimuli Local Forest in its current condition cannot sustain large scale logging operations or timber concession.

No	Description	Volume(m^3/ha)	Explanation
1	Sawlogs	1.4m^3/ha	These are merchantable trees with the average diameter of 30-39cm dbh are high valued suitable for timber production
2	Poles	5.9m^3/ha	These are tree species with relative straight bole length with the average diameter at breast height of 5cm to 29cm
3	Fruits	0.9m^3 /ha	The tree species include all fruit bearing either edible or not edible
4	Medicinal	5.1m^3/ha	All medicinal plants
5	Firewood	7.1m^3/ha	These include all dead and or diseased trees which can be used for firewood
6	Others	0.4m^3/ha	These include all tree species which are not classified in any of the above categories

Table 3: Volume of all species by merchantable quality

4.2 Plantation Area

In view of the systematic sampling system followed, the plantation areas were not assessed separately. Currently a relatively small area totaling about 24ha consists of newly established young plantations of *Eucalyptus grandis*. Under previous management regimes resources to establish and maintain the plantation area were limited. The involvement of the local community has been in supporting plantation establishment as paid labourers.

There is great need to bring the plantation areas under sound management and prepare site specific management plans for the plantation compartment and sub compartments. Firstly there is need to understand the factors that have led to poor performance of plantation species and put corrective actions in place. Current levels of planting are not considered viable for commercial timber or sustained pole production in the short and medium term. A separate study and preparation of a plantation management plan is highly recommended.

5 STAKEHOLDER DEMOGRAPHICS

Introduction

Forestry livelihood survey was conducted by the Zambia Statistics Agency (Zamstats) Eastern Regional office, between October and November 2019. The main objective of the Forestry livelihood Survey is to measure the well-being of the Kazimuli LF population and to measure the utilisation and management of trees resources. Also, to determine the benefits the surrounding communities derive from forest reserve.

The demographic characteristics of any area are important in understanding the living conditions of the people through the impact they have on the prevailing situations. Furthermore, data on the demographic characteristics provide background information and the necessary framework for the understanding of other aspects of the population, including economic activities, poverty and food security.

Considering the household population distribution of Kazimuli Local Forest can be translated as having an Average size of the household membership of about 5 per household.

5.1 Methodology

The systematic sampling method was used to select households from each Enumeration Area (EA). The method assumes that households are arranged in a straight line and the following relationship applies.

Let K = N/n Where:

N = total number of households assigned sampling serial numbers

n = total desired sample size to be drawn from an EA

K = Sampling interval in each EA calculated as K = N/n

5.2 Data analysis

The 2019 forest survey was paper Assisted Personal Interviews (PAPI) collected. All the field questionnaires were checked for completeness by the field supervisors. After data collection, all questionnaires were submitted for data entry using statistical software SPSS, Version 20.

After data entry was completed, the data were subjected to extensive checks on their validity and consistency in order to facilitate analysis using statistical package SPSS version 20.

5.3.1 Household and Population dynamics

Kazimuli Local Forest as at 2019 livelihood survey was surrounded by mainly farming blocks other than villages as some forest reserves as indicated in Annex: III with a total population of 2,344. The main ethnic groups in the area are the Chewas. The forest adjacent population are mostly small-scale farmers who utilize the forest for some of their livelihood requirements. The main crops grown are Maize, Sunflower, Soya beans, V/tobacco and groundnuts. The land tenure of the population surrounding the Kazimuli Local Forest is mostly under customary land tenure system and partly under TBZ (Tobacco Board of Zambia) the households have no title deeds or letter of allotment.

5.3 Level of Education.

Education is one of the fundamental factors that enhance the well-being and quality of life for persons and for entire society. Education, therefore, has profound effect on the population's welfare in terms of health, employment earnings, poverty levels and nutrition.

Education levels of the head of households in the Villages/Localities surrounding the Kazimuli Local Forest was found to be mainly primary level that contributed **58 percent**, while tertially contributed about **1 percent**. The rest being No formal education and secondary education indicating 19 **percent** and 22 **percent respectively**. As shown in the figure below:

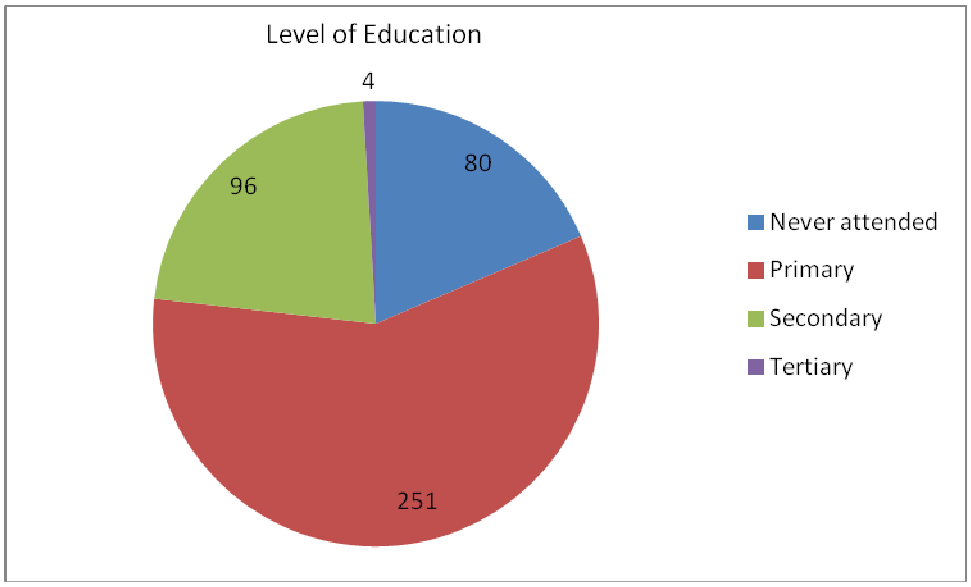


Figure 10: Level of Education of household heads attained surrounding the Kazimuli LF

5.4 Economic activity

Kazimuli Local Forest population depends on farming as their main occupation. The results showed that 96 percent of the household population surrounding Kazimuli Local Forest had farming as their main occupation, while the rest of economic activities contributed 4 percent those in small scale business and the rest contributed 0 percent.

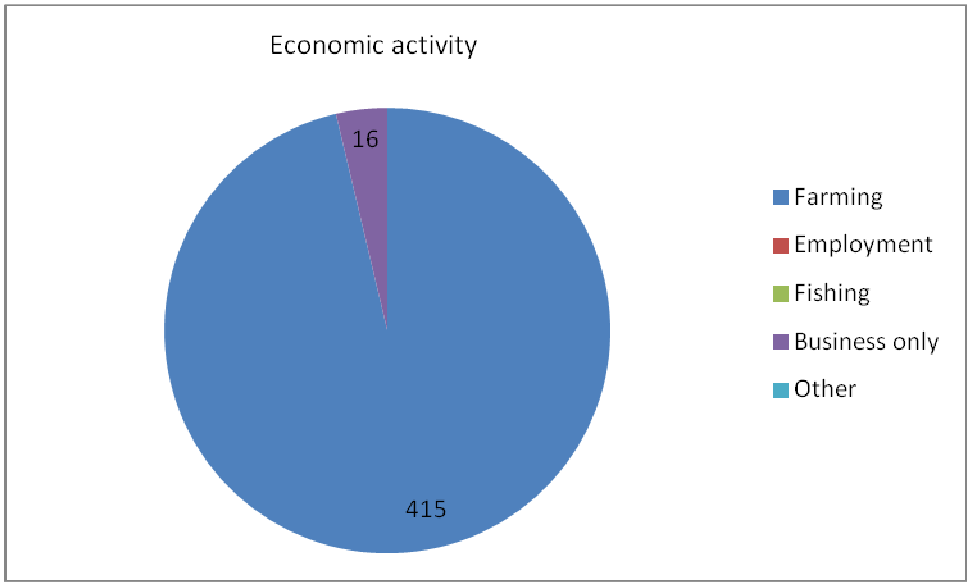


Figure 11: Shows percentage distribution of main economic activity

NOTE: As farming is on high side of main income generating activity, and that one of main crop is Tobacco that requires firewood for curing its important mitigation measures are required in the management plan.

5.5 Utilization and zoning of forestry resources

Kazimuli Local Forest consultative meeting held on 21st April, 2022, the stake holders identified the uses of the forest reserve and zoned the Kazimuli forest as below:

Figure 12: community zoning of Kazimuli Local Forest

NOTE: The upper part allowed:

- Mushroom harvesting
- Herbs harvesting
-

Lower part of the forest

- Beekeeping (modern)
- Controlled animal grazing

Near Forest camp

- Timber harvesting
- Poles harvesting

5.6 Types of Energy Used For Cooking

Almost all households in the localities surrounding Kazimuli Local Forest use firewood as their energy for cooking. The livelihood survey revealed a percentage of about 94 percent using firewood as energy for cooking, while 6 percent using electricity (national grid). As in figure below.

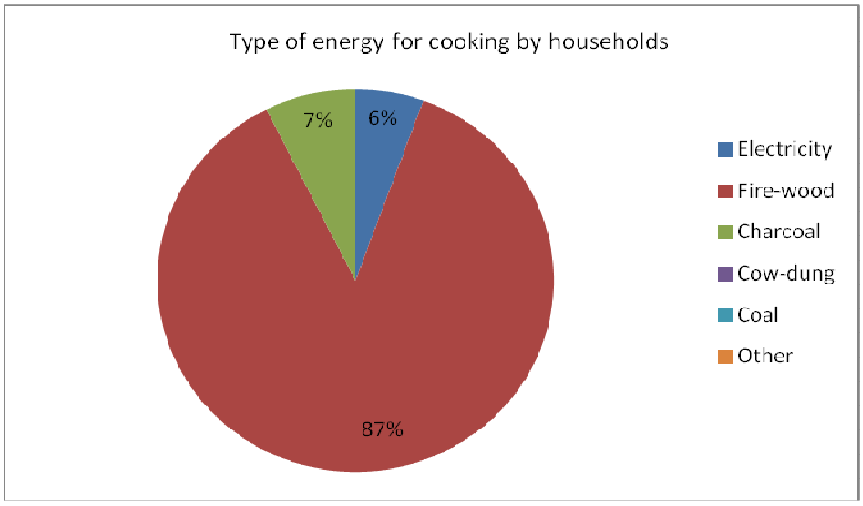


Figure 13: Shows percentage distribution of energy for cooking by households

The forest is under pressure as most of the population depend on the forest for energy for cooking hence need to have mitigation measures in the management plan

Main tree resources used for firewood

The main tree resources used for firewood by households in the localities surrounding the Kazimuli Local Forest are as shown in the table below.

Main Tree Resources Used – Kazimuli Forest Reserve	
Brachystegia	*Bohemii*
Brachystegia	*spiciformis*
Julbernadia	*globiflora*
Diplorynchus	*condlocarpon*
Pericopsis	*angolensis*
Pseudolachnostylis	*maprouneifolia*
Combretum	*collinum*
Bauhinia petersiana	*collinum*
Piliostigma	*thoningii*
Brachystegia	*manga*
Parinari	*curatellifolia*
Julbenadia	*Paniculata*
Albizia	*antunesiana*

Table 4: shows the main tree resource used for firewood

Note: these species are therefore under serious threat for wood energy as the statistics can show and mitigation measures are required in the management plan.

- Non wood Forest products

The main Non wood Forest products used by households surrounding the Kazimuli are as shown in the following table.

Non wood Forest products
Mushroom
Fruits
Grass
Medicine
Caterpillars

Table 5: Non Wood forest Products used by households surrounding the Kazimuli LF

5.1.3.3 Willingness of community to participate in forest Management of the forest reserve

The livelihood survey revealed that 90 percent of all the households surrounding the Kazimuli Local Forest were willing if called upon to voluntarily support management of the forest reserve with forest department and other stake holders in the community.

5.1.3.4 Land Ownership and Use

The livelihood survey for the communities surrounding the Kazimuli Local Forest revealed that most of the land owned by the households was for agricultural activities which indicated 69 percent, followed by other uses at 17 percent, fallow land 9 percent, Land maintained as natural forest 3 percent and land used for growing trees at 2 percent.

6 PROPOSED MANAGEMENT ACTIONS

The following management actions proposed for Kazimuli Local Forest reflect the statutory purpose of the Local Forest as set out in section 19 of the Forests Act of 2015. These include:

> **19.** Subject to the other provisions of this Act and any other written law, all land comprised in a Local Forest shall be used for the conservation and development of forests for— Purpose of Local Forest
>
> *(a)* the security of forest resources;
>
> *(b)* the protection of ecosystems, particularly the protection of land and water supplies of local strategic importance;
>
> *(c)* the utilisation of forest resources at the local level; and
>
> *(d)* meeting the social, cultural and economic needs of the local community.

6.1 Zoning

This management plan recognizes the 3 zones identified during the stakeholder consultation of Aril 2022, which identified use of the forest, the main users of the forest, issues affecting Kazimuli Local Forest, local solutions and permitted activities. A further zone (4) covers the immediate area surrounding the Local Forest to act as a buffer which will the focus of development and emissions reductions related activities.

Zone 1: Plantation production zone

Zone 2: Indigenous forest sustainable use area

Zone 3: Dambo wetland management area

Zone 4: Development buffer zone

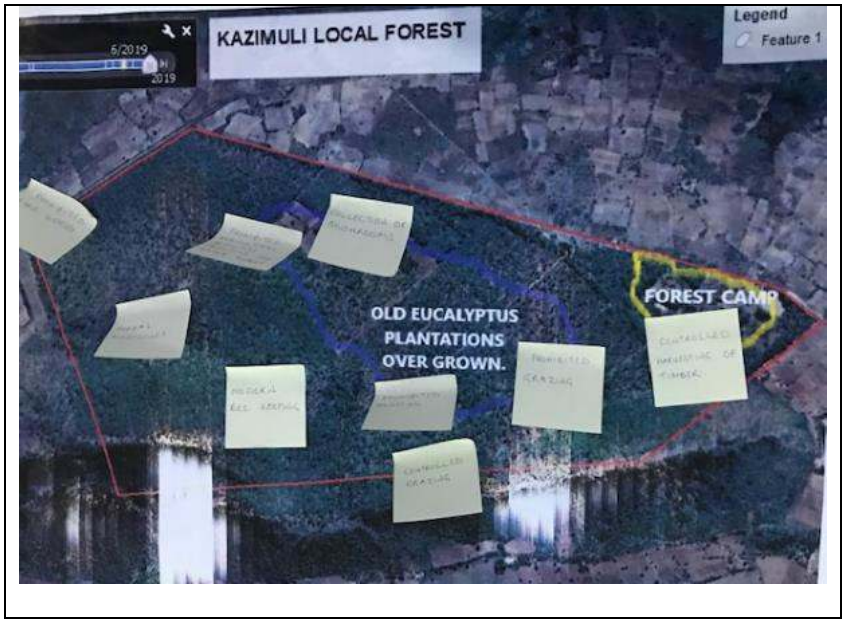


Figure 14: Zoning of Kazimuli Local Forest based on community consultation

The following management approaches are proposed for the identified zones:

Zone 1: **Production forestry:** In order to fulfil its regulatory mandate of establishing plantations and securing forest resources for the local economy, this zone will be managed by the Forestry Department. The plantation zone will be managed for the supply of wood products, timber, poles and wood energy to the nearby urban area of Chadiza and support local enterprise development. The plantation production zone includes the recently upgraded tree nursery, water reticulation system, office and forest staff housing. The need for market analysis mentioned in the 1982 forest management plan is still relevant and therefore should be updated to inform the product supply planning of forest products and appropriate commercial species.

Zones 2 & 3: **Community forest areas** to meet the social, cultural and economic needs of the local community. These zones will be managed in partnership with the local community following the community forestry approach as set out in the Forests (Community Forest Management) Regulations, 2018, and the National Guidelines for Community Forestry, 2018. This will be covered by a Community Forest Management Agreement, management plan and local resource use rules which set out both rights and obligations for control, protection and management of the identified forest area. Annual workplans will be developed by the community with technical guidance from the Forestry Department to ensure the sustainable management of these zones.

Zone 4: Development buffer area: This is the area immediately surrounding the reserved forest area where farming and settlements are located. These will be the focus for forest extension activities, creation of community and household woodlots, use of energy efficient stoves, promotion of agroforestry and other climate smart agricultural activities.

6.2 Core forest management actions

The identified management actions are described as follows:

Action 1: Forest Conservation through Community Participation & Livelihood Development

Community empowerment is central to participatory forest management for the effective coordination and sustainable management of forest resources. This Plan recognizes that communities surrounding Kazimuli Local Forest are key stakeholders in the conservation of this forest as well as beneficiaries from its sustainable management. This action aims to meeting the social, cultural and economic needs and thereby improving the livelihoods of the communities around Kazimuli Local Forest. Within this management action, the following interventions will be undertaken in Zones 2 and 3 of the Local Forest as well as extension services and activities in Zone 4, the areas surrounding Kazimuli Local Forest;

- Promotion of community forestry and the establishment of a community forest management group;
- Forest enterprise development (based on stakeholder consultations to be further developed through the CFM process). These may include:
    - Beekeeping using improved hives;
    - Mushroom collection and processing;
    - Community management of wild fish stocks through local harvesting rules;

This management action will be operationalized and results measured as follows:

Specific Objectives	Strategy	Actions	Responsible	Indicator
1. Enter into partnership with clear roles and responsibilities with surrounding	Promote community forestry approach	Conduct CFM Steps 1-7	FD	Signed CFM agreement. Annual work plan reports

communities				from the CFMG
2. To contribute towards meeting social, cultural and economic needs and improving the livelihoods of forest-adjacent communities.	Forest resource condition is developed and improved through management actions emphasizing the use of best practices.	Training forest-adjacent communities in sustainable forest enterprises, such as beekeeping, and other non- wood forest enterprises	FD/NGOs	Forest enterprise activities developed and producing income.
3. To reduce carbon emissions from deforestation and forest degradation by ensuring community benefit from carbon credits.	Establish an incentive benefit sharing mechanism through the carbon trading scheme to be established by Government in Eastern province	Stake holder participatory awareness meetings (Traditional leaders, Government, NGOs and the community)	FD/NGOs	Tonnage of GHG sequestered increased, income shared to community is improved year on year.
4 Reduce forest dependency by local communities.	Promoting diversification of activities, particularly on-farm activities such as agroforestry and establishment of wood-lots, to create alternative Sources for forest products.	Involve local communities in woodlot establishmen t.	FD/ Adjacent communities	Number of people dependent on the forests reserve reduced by half at mid term review

Action 2: Forest Protection, Restoration, Management & Conservation of Biodiversity

Kazimuli Local Forest is an important forest ecosystem containing a number of different plant species and fauna. The forest is surrounded by an increasing population which is highly dependent on it for subsistence and increasingly economic needs like collection of mushroom, wild fruits, caterpillars, honey, firewood and poles. The level of unsustainable use is anticipated to intensify with increasing human populations resulting in higher levels of resource exploitation and degradation. Protection of this forest habitat is therefore essential to ensure the continued ecosystem services and local livelihood needs. In addition, awareness of the importance of ecosystem services, conservation of biodiversity and climate change mitigation services of Kazimuli Local Forest is low among the adjacent communities. Forest protection is therefore key in the sustainable management of forest resources. Traditionally, patrolling has been relied upon as the main protection activity but, despite these efforts and in view of the staffing levels, it has not been possible to control the level of unregulated use. Experience has shown that adequate levels of forest protection cannot be achieved through confrontation and conflict between the managers and forest-adjacent communities. In practice, both local people and the government have a mutual interest in conserving the forest, and utilizing forest products in a sustainable way. Without considering the needs of local communities, gaining their support, and working with them, rather than against them, forest protection and management goals and objectives will not be reached. Consequently, the strategy will be to work together with communities to develop joint protection systems in return for agreed levels of utilization within the capacity of the forest to meet subsistence needs whilst safeguarding the environmental aspects including conservation of biodiversity.

In order to achieve this the following activities will be undertaken;

- Fire management, boundary and firebreak maintenance.
- Joint forest patrols (FD/HFOs).
- Promotion of agroforestry and woodlots in surrounding villages (Zone 4).
- Promotion of energy saving cook stoves and production biomass for energy (Zone 4).
- Promotion of environmental education to create wider awareness of the forest, its importance, and the need for its conservation (review Biodiversity Conservation actions to be included here explicitly).

- Promotion of environmental standards for forest operations, use of chemicals and other hazardous substances to health and safety of employees and communities.

This management action will be operationalized and results measured as follows:

No	Specific Objectives	Strategy	Actions	Responsible	Indicators
1	To protect the Local Forest from late fires	Encourage early burning within and outside the forest by involving local communities.	-Conduct prescribed and early burning. -Training the local communities on fire management techniques -Sensitizing the local community on the importance of early burning.	FD/ Adjacent communities	Area in hectares of controlled burning
2	To secure the boundary and define the extent of the boundary and prevent possible encroachment	Involve forest adjacent communities in Forest protection and management.	-Carry out annual Boundary maintenance. -Beacon maintenance - Erection of sign post on roads entering the Forest	FD/ Community	Distance in km of forest perimeter cleared
3	To conserve and enhance the biodiversity of the forest reserve.	Enhance understanding of the forest ecosystem.	-Awareness on biodiversity with regard to indigenous knowledge. -Promote local participation and ownership through meetings.	FD/NGOs	
4	To ensure protection against pests and human	Frequent monitoring of forest resources	Inspections for diseases and pests and detection of	FD/ Community	Hectarage of forest protected

	damage		possible illegalities.		from pests and human damage
5	To significantly reduce levels of illegal forest product harvesting.	Involve the local communities in the management of forest resources in order to create a sense of ownership. Engage honorary forest Officers/guards	-Conduct sensitization meetings. -Conduct forest patrols.	FD/ community and other security wings	Number of illegal harvesters/ activities reduced
6	To significantly reduce levels of tree cutting for wood energy.	Promotion of energy efficient Cook stoves and Alternative energy sources.	Training community members in construction of Permanent energy cook stoves. Provide incentives to people using the improved cook stoves.	FD/ DoE/ community	Volume of wood cut for energy reduced by 30% by mid term review
7	To reduce carbon emissions from agric soils and dependency on inorganic fertilizer	Promote CSA through Agroforestry	Partnership with MoA and others in training communities in CSA and agroforestry. Establishment of agroforestry tree nursery species in Kazimuli nursery.	FD/ Agric/ CSO's/ community	Tonnage of GHG emissions in the forest reserve reduced by 15% by mid year review.
8	To improve forest cover in the fringe areas of the forest reserve	To Provide Forest extension services.	Promotion of agroforestry and Woodlot establishment for communities	FD	Hectarage of forest in the fringe areas increased year on year.

			surrounding the forest. Training the communities in assisted natural regeneration		
9	Improve local awareness of biodiversity and its value.	Seek greater participation of local communities in research and other biodiversity activities Such as eco-tourism, with the result that biodiversity values will become of more direct relevance to them.	1.Conduct research that documents and utilizes the indigenous knowledge of Forest-adjacent communities. 2.Promote local participation and benefits from eco-tourism as a means of creating better awareness of biodiversity	FD/Forestry Research	Levels of community participation in forest management activities is sustained over time.

Action 3: Forest plantation establishment & management

Forest plantations are important for the supply of poles, timber and firewood. Due to its proximity to Chadiza urban, the demand for construction timber and wood energy will increase over time there by increasing the pressures on Kazimuli Local Forest. Investment in the plantation area is therefore critical in order to meet future demand. The programme will involve the rehabilitation of plantations in Zone 1 from which the products will be derived. The following shall be the interventions which will be employed;

- Production forecasting, market analysis and development for a plantation management plan;
- Nursery management as a tree seedling production facility for the Reserve and wider distribution;

- Silvicultural operations to maximise the production potential of the demarcated plantation areas. Includes site preparation, planting, maintenance operations, harvesting and marketing with subsequent replanting/ regeneration;
- Employment and income generation in the local communities.

These will be detailed in an annual plan of operations to be prepared by the Officers responsible for the management of the Reserve. This management action will be operationalized and results measured as follows:

Specific Objective	**Strategy**	**Activity**	**Responsibility**	**Indicators**
1. To promote nursery management as a tree seedling production facility for the plantation & wider distribution	Expand and manage the existing tree nurseries.	Resource mobilization for nursery establishment	FD/NGOs/ Community	Number of seedlings raised in the forest nursery increased year on year.
2. To increase productivity in demarcated plantation areas	Undertake Silvicultural operations to maximise the production potential of the demarcated plantation areas.	Resource mobilization on site preparation, planting, production, harvesting and marketing with subsequent replanting	FD/Community	Hectarage of plantation area increased year on year.
3. To improve livelihoods of the local community adjacent to the forest	Create employment for income generation to the communities around the forest.	Silvicultural and forest protection operations	FD/Community	Income of local community adjacent to the forest increased

6.3 Environmental and social safeguards and other crosscutting issues

The Forestry Department shall ensure that the management of Kazimuli Local Forest is carried out in accordance with the Environmental and Social Standards (ESSs) in relation to national policies as well as international standards and agreements, both multilateral and bilateral as appropriate. Existing requirements are set out in the National Strategy to Reduce Deforestation and Forest Degradation, 2016 as well as new requirements that may come into force through the Eastern Province Jurisdictional Sustainable Landscapes Programme. In implementing the indicated management actions, these safeguards and other cross cutting issues will be mainstreamed in all aspects of forest management. In view of the participatory approaches applied in the development of the FMP and follow-up actions to promote community forestry it is expected that this FMP will have a positive impact upon local livelihoods and to provide support for the development of more sustainable or alternative livelihoods, where needed.

In brief, safeguards will ensure:

- Gender equity and empowerment including addressing issues of gender based violence. Women shall be integrated into all aspects of management of Kazimuli Local Forest and empowered through equal participation in decision making, governance and benefit sharing. Gender equity shall be pursued to ensure that both men and women have the full range of opportunities and benefits arising from the management of Kazimuli Local Forest. This aspect should be in line with the National Gender Policy and Climate Change Gender Action Plan. Further safeguards in relation to emissions reductions benefit sharing plan for Eastern Province should be adhered to.
- Environmental and social screening processes. Specific activities as well as the annual workplan and operational plans should include a process of social and environmental screening. These should be reviewed and updated in accordance with the type of activity being planned and general screening reviewed annually.
- A Grievance redress mechanism will be operational at the District and Provincial level to allow a mechanism for grievances to be raised, documented and addressed. Documentation and tracking is core to this issue.

Specific Objectives	**Strategy**	**Activity**	**Responsible**	**Indicator**
To ensure cross cutting issues are mainstreamed in all aspects of forest management for social equity wellbeing and empowerment through sustainable development	Ensure that all environmental and social impacts, risks and liabilities are identified and mitigated. Identify training needs. Promote ownership and access to forest products and services.	Awareness raising Short courses Exchange visits Refresher courses	FD/NGOs	All crosscutting issues mainstreamed in all forest management aspects. Zero grievances raised. Grievances addressed and closed within 3 months

Environmental Education

Environmental education is the key to ensuring the future of Kazimuli Local Forest reserve. With improved understanding and appreciation of its importance especially amongst the surrounding local communities, there will be less pressure on this forest with regard to destructive activities. In the long term, improved environmental education will lead to a better understanding of the importance of conserving Kazimuli Local Forest. The following interventions will be undertaken in order to create wider awareness of the forest, its importance, and the need for its conservation:

No	**Specific Objectives**	**Strategy**	**Actions**	**Responsibility**	**Indicators**
1	To create wider awareness of the forest, its importance,	1. To target a wider range of groups in the community through different actions including school children,	-Conduct meetings and drama performances to assess community understanding	FD/MOE/NGOs	Number of awareness raising activities undertaken

	and the need for its conservation	and headmen.	on forest use and conservation. -Sensitization on Climate change through radio. - Produce pamphlets on the need for forest conservation. (Local language).		
		2. To encourage the involvement of local clubs and schools to use the forest conservation Clubs as an educational resource.	-Facilitate the formation of forest conservation clubs in surrounding schools.	FD/MOE	Number of awareness raising activities undertaken
		3.Strengthen school environmental education programmes	-Conduct environmental talks in schools on forest conservation & climate change. Conduct study visits to other areas and projects to gather practical experiences from elsewhere.	FD/Other Partners	Number of awareness raising activities undertaken

Infrastructure Development

In order to achieve the forest management objectives for Kazimuli Local Forest, maintenance of infrastructure is required. To date, the forest itself yields very little in terms of direct revenue, the maintenance of infrastructure is an ongoing problem for forest management, where funds are always scarce. Maintenance of the track road connecting Kazimuli to the main road is a major challenge. Similarly, maintenance of the existing good quality infrastructure (office, houses, water and reticulation system) is vital.

No	**Specific Objectives**	**Strategy**	**Actions**	**Responsibility**	**Indicators**
1	To maintain the infrastructure necessary to achieve the multiple objectives of forest management.	Maintain the existing infrastructure	1. Maintain the road network. 2. Maintaining of offices and staff housing units at the Forest Station.	FD/Maintenance/ Infrastructure	All infrastructure maintained to optimum standards

7 STAKEHOLDERS ROLES AND RESPONSIBILITIES

All key stakeholders will be involved in the implementation of the Kazimuli Forest Management Plan in line with the following roles and responsibilities:

Forestry Department

The Forestry Department (FD) have a key role to play in promoting sustainable forest management and shall inform all relevant government departments on the management plan and raise awareness on the programmes and activities. The Department shall facilitate the implementation of the FMP at District and local level with oversight from Provincial level.

Role of the Local Authorities

The Local authority have a key role to play to fully integrate the management plan into local development plans with good cross sectorial linkages. The Local Forest is a natural resource asset within the district boundary supporting local economic development and wider well being of the community.

Role of the Traditional Authorities

Traditional leaders play a vital role in providing mentorship and guidance to communities and helping resolve any conflicts and enforcement of customary laws relating to natural resource management. In terms of the community forestry approach, the chief plays a key role in providing consent to the process of recognition of the community and to the signing of the community forest management agreement between the community and the Director of Forestry. This agreement further reinforces the role of the traditional leaders in the oversight of the community forest management groups, including controlling access and use of the forest, hearing cases that cant be dealt with by the community, ensuring reporting and conduct of the election of office bearers is in conformity with the community constitution.

Role of communities

As key rights holders must take the lead in controlling access to the forest, ensuring benefits from sustainable use are maximized. Through the community forestry process roles, rights and responsibilities for controlling access and use as well as protection and

sustainable management are clearly defined. The local community are therefore core to the implementation of the management plan.

Role of Honorary Forest Officers

As community members nominated by their peers and appointed by the Minister, Honorary Forest Officers are key to the protection of the Local Forest and therefore play an important role in the implementation of the Forest Management Plan. The District Forest Officials and officers allocated responsibilities for the management of Kazimuli Local Forest require to coordinate the work of the HFOs in enforcing community resolutions and bylaws and where necessary enforce the statutory laws provided by the Forests Act, 2015.

Role of Private sector & Civil society organization

Both private sector entities and civil society organisations can play a key role in providing services (both forest and non forest) and promoting new investment, development of market linkages for community based forest enterprises. These can assist promoting economic value to the sustainable management of Kazimuli Local Forest and therefore well being of surrounding communities.

8 MONITORING AND EVALUATING IMPLEMENTATION

Monitoring and evaluation (M&E) of the management plan is essential since it provides a basis for observation, adjustment and improvement of the targeted activities and assessment of the achievements. The Forest Management Plan will be implemented by Forestry Department by involving local communities around the forest reserve. The Department will provide a forum for dialogue, consensus building, priority setting and balancing of the various interests involved. Monitoring and evaluation of this management plan will also be based on annual work plans that will be prepared for Kazimuli Local Forest which will operationalise the management actions described in Chapter 6..

8.1 Monitoring

To ensure that implementation of the management plan is on course, FD will facilitate monitoring of activities and programmes in coordination with partners, stakeholders and community representatives in the KLFMP including the impact of the FMP on the well being of the communities on the forest fringes. Implementation of the FMP will be monitored through a number of identifiable indicators as described in the management actions in Chapter 6. These will be subject to regular review during the plan period. Continuous monitoring during the implementation period will be maintained through preparation and submission of monthly, quarterly and annual progress reports.

8.2 Evaluation

The KLFMP implementation and impact will be evaluated at two points. Mid-term (5years) and at end of term (10 years). Evaluation will involve analysis of both activities and impact generated to sustainable management of the forest and the fringe communities as this will generate evidence to inform the development, focus and implementation of future management plans. Evaluation carried out will assess progress in the implementation of planned activities and achievement of objectives. The evaluation report will also provide essential information to revise the management plan.

8.3 Monitoring Responsibilities

The Provincial Forestry Office will undertake monitoring and evaluation of the implementation of the plan. The District Forestry Office will be responsible for submitting annual plans of operations, as well as monthly, quarterly, and annual progress reports to the Provincial Forestry Office.

8.4 Strategic monitoring indicators

strategic monitoring indicators provide a measure of assessing whether set targets are progressively being achieved as described in the management actions Chapter. The lead implementing agencies represented by the Forestry Department will undertake monitoring and evaluation of the implementation of the plan.

Programme	**Indicator of Success**	**Means of Verification**	**Assumptions**
Forest Protection	Reduced incidences of forest crimes Reported. Performance of the local communities and honorary forest officers.	Records and reports.	The Plan is successfully completed and implemented with Cooperation from community Members
Biodiversity Conservation	Increase in species biodiversity.	Surveys on biodiversity, records, photographs and reports.	The Plan is successfully implemented Good working relationship between stakeholders Availability of resources
Community Conservation and Livelihood development	-Number of people - trained and practicing sustainable forest enterprises. -No. of woodlots established -Number and types of IGAs. -Crop and livestock yields.	Records, reports and photographs. -Community Visits.	The Plan is successfully implemented Availability of funds
Environmental Education	Number of school conservation clubs formed. No. of awareness meetings	Records, monitoring & Evaluation reports and photographs.	The plan is successfully implemented with funds made available.

	and attendance. -No of trainings held/exposure visits		
Infrastructure Development	Number and type of infrastructure Developed/ maintained	Records Monitoring and evaluation reports	The Plan is successfully implemented Availability of funds
Human Resource Development	Number of people employed Number of people trained. Number of community members involved in forest activities	records Monitoring and evaluation report	The Plan is successfully implemented Availability of funds

9 REFERENCES

References that were used in the collection of information for this Forest Management Plan included the following:

- Fanshawe D.B (1971), The Vegetation of Zambia, Forest Research Bulletin No. 7 Ministry of Rural Development, Republic of Zambia, Government Printer, Lusaka, Zambia
- Hollingworth, L.T D. Johnson, G. Sikaundi, S. Siame, (2015) Fire Management Assessment of Eastern Province, Zambia. Washington. DC: USDA Forest Service.
- ILUA II (2006) Integrated Land Use Assessment Phase 1- Field Manual.
  The Food and Agriculture Organization of the United Nations and the Forestry Department, Ministry of Lands and Natural resources, Lusaka, Zambia
- ILUA II (2008) Integrated Land Use Assessment Phase 1- Report for Zambia.
  The Food and Agriculture Organization of the United Nations and the Forestry Department, Ministry of Lands and Natural resources, Lusaka, Zambia

  ILUA II (2014) Forest Biophysical Field Data Entry Booklet; Forestry Department, Ministry of Lands and Natural Resources, Lusaka, Zambia
- ILUA II (2016) Integrated Land Use Assessment Phase II- Report for Zambia.
- The Food and Agriculture Organization of the United Nations and the Forestry Department, Ministry of Lands and Natural resources, Lusaka, Zambia
- ILUA II (2016) Integrated Land Use Assessment Phase II- Technical Report for Eastern Province.

10 ANNEXES

Annex 1: Declaration Order, Topo Map & Inventory Map

SECTIONS 5 AND 6-THE LOCAL FOREST NO. F72:

KAZIMULI (DECLARATION) ORDER

Order by the Minister

***Statutory Instrument* 180 *of* 1966**

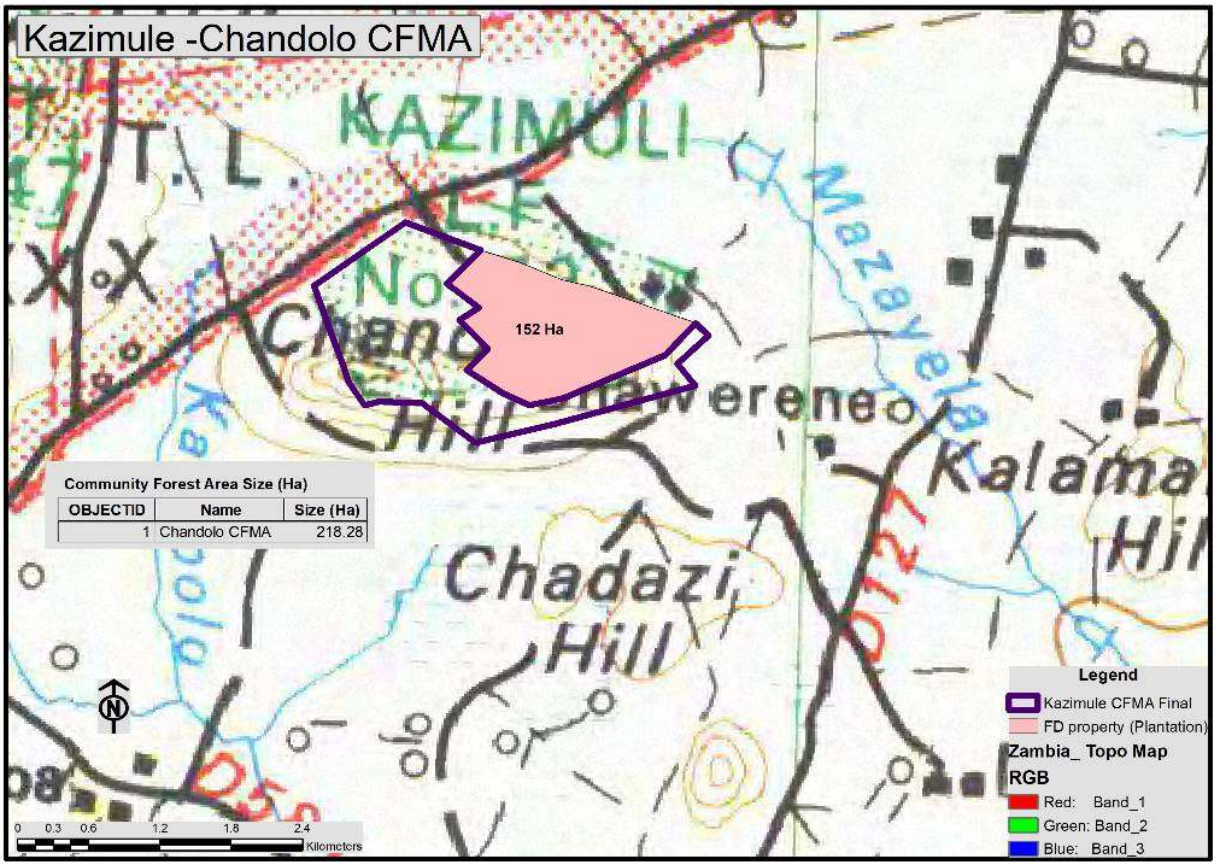
1. This Order may be cited as the Local Forest No. P72: Kazimuli (Declaration) Order. Title

2. It is hereby declared that the area described in the Schedule hereto is a Local Forest.

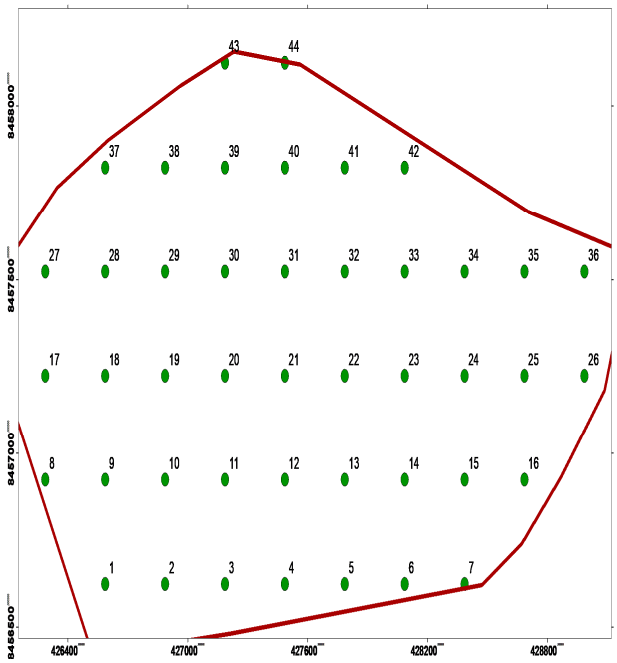
SCHEDULE LOCAL FOREST NO. P72: KAZIMULI

Starting at D109, the most northerly beacon of Farm No. D150, the boundary follows that of Farm No. 2187 for 1,292.0472 metres to Beacon OB297; thence parallel to the Katete-Kazimuli road on a bearing of 56 degrees for 929.64 metres; thence on a bearing of 108 degrees for a distance of 2,560.32 metres; thence on a bearing of 132 degrees for 137.16 metres to the north-western boundary of Farm No. D147; thence down the aforesaid boundary on a bearing of 228 degrees for 899.16 metres to Beacon D109; thence on a bearing of 263 degrees for a distance of 2,142.744 metres to Beacon D109, the point of starting. Bearings, which are referred to Grid North, and distances are approximate. The above described area, in extent 352.8984 hectares approximately, is shown bordered green upon Plan FR242 deposited in the office of the Surveyor-General, signed by him and dated 26th January, 1965.

1. Map of Kazimuli Local Forest



2 Map of Sample points



Annex II: Inventory Data

DENSITY OF SEEDLINGS

Species	Species Code	Density
Afzelia quanzensis	13	7,669
Albizia adianthifolia	15	14
Brachystegia boehmii	46	1,139
Brachystegia floribunda	48	43
Brachystegia longifolia	49	72
Brachystegia utilis	55	14
Dalbergia melanoxylon	101	38,668
Dalbergia nitidula	102	865
Diplorhynchus condylocarpon	114	2,711
Erythrophleum africanum	127	14
Euphorbia candelabrum	139	144
Faurea saligna	145	505
Faurea speciose	147	663
Ficus brachylepsis	149	216
Ficus wakefieldii	157	9,045
Garcinia huillensis	159	2,293
Grumilea buchanani	172	187
Isoberlinia angolensis	185	55,555
Julbernardia globiflora	188	10,854
Julbernardia paniculata	189	1,774
Khaya nyasica	190	87
Kirkia acuminata	192	72
Landolphia kirkii	193	260
Lannea discolor	194	851
Monotes africanus	221	9,247
Olax obtusifolia	226	361
Ozoroa reticulata	229	476
Parinari capensis	232	130
Parinari curatellifolia	233	15,150
Pericopsis angolensis	239	3,950
Phyllocomus lemaireanus	243	461
Pseudolachnostylis maprouneifolia	258	24,325

Rothmannia engleriana	272	548
Securidaca longipedunculata	280	29
Stereospermum kunthianum	287	389
Strychnos innocua	289	50,654
Strychnos pungens	292	43
Strychnos spinosa	293	14
Swartzia madagascariensis	295	101
Syzigium guineense	297	72
Uapaca kirkiana	310	447
Uapaca nitida	311	288
Vitex doniana	321	332
Ximenia americana	328	29
Xylopia odoratissima	332	159

Annex III: Demographics of major forest fringe communities

Demographics of major forest fringe communities of Kazimuli Local Forest

Locality Name	POPULATION		TOTAL POPULATION	HOUSEHOLDS		TOTAL NUMBER OF HOUSEHOLDS
	MALE	FEMALE		Male headed HH	Female headed HH	
Total	**1190**	**1154**	**2344**	332	99	431
Bonzo	9	7	16	4	0	4
Edwin	19	10	29	3	2	5
Lyson	14	14	28	4	1	5
Benson	7	5	12	1	1	2
Bornface	7	7	14	1	1	2
Tembo	22	12	34	8	0	8
Mwale	6	4	10	2	0	2
Edward	5	3	8	1	0	1
Adamson	8	3	11	2	0	2
Gibson	4	11	15	3	0	3
Paulo	6	6	12	1	0	1
Sanilile	2	4	6	1	0	1
Jephiter	6	4	10	1	0	1
Ezekie	3	9	12	0	1	1
John	4	7	11	3	0	3
Kezi	4	5	9	1	0	1
Geofrey	5	3	8	2	0	2
Bikwiwe	5	3	8	1	1	2
Wilson	4	5	9	1	0	1
Kafumu	8	6	14	2	1	3
Mwanza	14	9	23	4	0	4
Anelo	1	4	5	1	0	1
Piyason	3	2	5	1	0	1
Sineti	6	7	13	1	1	2
Kalipani	20	24	44	4	3	7
Jose	6	4	10	2	0	2
Kalamba	5	9	14	1	1	2
Mvula	5	2	7	1	0	1
Dickson	3	7	10	1	1	2
Kephasi	6	6	12	4	0	4
Sainani	18	13	31	4	0	4
Motipulayi	6	8	14	0	1	1
Chisoni	18	31	49	5	2	7

Jessy	26	19	45	6	5	11
Mwanena	28	29	57	4	7	11
Valikani	18	23	41	8	2	10
Magisana	3	1	4	1	0	1
Mbazima	5	8	13	2	0	2
Vilendyana	12	12	24	3	0	3
Mwale Alick	9	6	15	1	2	3
Chichezo Farm	9	6	15	3	0	3
Kamembe 2	7	6	13	1	2	3
Pa Lyford Zulu	6	6	12	2	0	2
Mukhonje farm	5	3	8	1	0	1
Mvula yalelo	11	10	21	2	0	2
Daniel Njobvu	10	10	20	3	1	4
Ziyande Phiri	7	9	16	2	1	3
Tenis Njobvu	3	1	4	1	0	1
Forest	16	13	29	7	0	7
Bwanza Farm	19	16	35	3	5	8
Onjezani	15	15	30	4	1	5
Khazi	2	6	8	1	0	1
Amagi	9	11	20	2	2	4
Salaula	2	2	4	1	0	1
Levy	3	1	4	1	0	1
Khomalelo	7	2	9	0	1	1
Amake Masiye	3	5	8	0	1	1
Kaphedyani	9	7	16	2	1	3
Chishimba	8	6	14	2	0	2
Idah	0	0	0	1	0	1
Khondowe	2	3	5	1	0	1
Mathews	0	0	0	1	0	1
Machila	12	10	22	4	0	4
Mutila	56	50	106	18	1	19
Kapunula	5	3	8	2	0	2
Jimu	9	8	17	2	1	3
Laison	6	3	9	2	0	2
Winiston	6	3	9	2	0	2
Farm 7	0	3	3	0	1	1

Makwakwa	6	1	7	1	0	1
Zimbabwe	6	7	13	2	0	2
Haward	6	2	8	2	0	2
Potifale	16	23	39	4	2	6
Musanivute	14	8	22	6	0	6
Numelo Farm 7	8	11	19	2	0	2
Lameck	6	4	10	1	1	2
Musunge Farm	7	8	15	2	1	3
Kamembe Farm 1	9	11	20	3	2	5
Kapena Farm	6	7	13	2	0	2
Potifa	6	8	14	1	0	1
Handson	20	12	32	3	0	3
Sugar	3	4	7	1	0	1
Malinga	16	9	25	3	2	5
Nkhuwa	10	14	24	3	2	5
Post Office	19	22	41	6	2	8
Jere	2	4	6	1	0	1
Spokes Sakala	9	7	16	3	0	3
Pa Shula	3	6	9	1	0	1
Same	17	11	28	5	0	5
Eletina	12	12	24	2	2	4
Langiford	8	19	27	1	0	1
Matias	4	3	7	1	0	1
Richard Soko	8	14	22	3	1	4
Biemba	4	7	11	1	1	2
Zulu	2	5	7	1	1	2
Kamutambe	2	6	8	2	1	3
Eliza	15	17	32	3	1	4
Milanzi	11	6	17	2	0	2
Fashoni Chikondi	6	10	16	1	2	3
Nchele	6	6	12	4	0	4
Miti	10	8	18	3	0	3
Sakala	8	10	18	4	0	4
Tyson	4	6	10	1	0	1
Kapiri	14	14	28	6	0	6
Luckson Miti	8	12	20	2	1	3

Madevu	7	5	12	3	0	3
Patikani	8	4	12	2	0	2
Banda Phiri	6	4	10	1	0	1
Patson	4	5	9	1	1	2
Nyawali	2	2	4	1	0	1
Katongozola	5	6	11	1	2	3
Jimu	8	8	16	3	0	3
Gwilani	3	5	8	1	0	1
Apostoric Church	13	11	24	6	0	6
Wachi	11	7	18	3	1	4
Mayeda	19	13	32	6	0	6
Lingiston	7	5	12	0	2	2
Handseni	4	2	6	1	0	1
Kamuzingeni	5	3	8	1	0	1
Malemya	71	59	130	18	11	29
Malata	47	48	95	9	6	15
Chibepakapaka	4	5	9	1	0	1
Chilela	3	4	7	1	0	1
Lukhelo Farm	5	4	9	3	0	3
Peter sakala	10	20	30	4	1	5
Patrick Nkhuwa Farm	2	2	4	1	1	2
Saineti Farm	13	15	28	4	0	4
Thomson Msoni Farm	9	8	17	3	0	3
Margret	3	2	5	0	1	1
Kazimuli post office	3	3	6	2	0	2

Table 6: Population Distribution of major forest fringe localities of Kazimuli LF by sex

Annex IV: Stakeholder consultations

Consultations

The Forestry Department in Eastern Province with support from Zambia Integrated Forest Landscape Project (ZIFLP) conducted consultations on the draft forest management plan for Kazimule Local Forest in accordance with sections 41 & 42 of the Forests Act, 2015.

In order to get gain support from the Chiefs in the preparation of the Forest Management plans before the proposed local validation meetings, their Royal Highnesses were met to have an input in the Forest Management Plan. Therefore, the Chiefs under which Kazimuli Local forest reserves fall were targeted with the following objectives.

- To provide a platform of getting the views of the concerned Chiefs, in relation to the respective developed forest management plans for forest reserves in their Chiefdoms.
- To collect and incorporate the agreed views from the Chiefs in the message pack for the local validation meeting.

Visitations

Paramount Gawa Undi

Prior to meeting Chewa Sub Chiefs, the first visit was to pay courtesy call to the Paramount Chief of the Chewa people Kalonga Gawa Undi who was represented by his Induna Hon. Lucas Phiri in Chipangali district. Kazimuli Local Forest under Chief Mulolo fall in Kalonga Gawa Undi Kingdom.

Meeting with Paramount Gawa Undi's senior Induna Mr. Lucas Phiri in Chipangali district

The Team was led by the National Project Coordinator Dr. Tasila Banda. During the courtesy call the Project Coordinator gave the background of forest inventories conducted in Kazimuli LF reserve and the interventions that ZIFLP is helping, the importance of the Luangwa landscape and the areas of intervention like, agriculture expansion through interventions like climate smart agriculture, support to Forestry department to continue protecting existing forest estates, support to nurseries, assisted natural regeneration and also support to establishment and management of Community forests.

The specifics of the visit were also made clear as to have an input from the Royal Highnesses in the development of the forest management plans.

The Senior Induna informed the team that through the Chewa Development Trust, Gawa is able to bring a halt to all illegal cutting in the Chewa territory, and he acknowledges that development in the territory can only come by working with other stakeholders. Paramount Kalonga Gawa Undi welcomed the ideas of developing forest management plans for the targeted forest reserves and encouraged the team to move forward and report to Gawa challenges that we may be encountered with any of his sub chief during this engagement.

Chief Mulolo– Chadiza District- Kazimuli local forest (353ha)

Upon meeting HRH Mulolo, the team gave a brief of the purpose of their visit to get input for the FMP for Kazimuli LF and also to bring some forested areas in the chiefdom under CF. HRH also encouraged the team to engage Chief Mwangala as he has potential for CF.

HRH Chief Mulolo submission to the FMP

The Chief submitted that Community forest for Kazimuli is the way forward considering what is happening around this forest. The forest is surrounded by tobacco growers; therefore, it would be prudent to engage all surrounding communities in CF and quick ways of bringing illegal cutting of trees to a halt are needed.

HRH Chief Mulolo fourth from right with the team at his palace

The Chiefs meeting was preceded by stakeholders Validation Meeting for Kazimuli Local forest that was organized to validate the FMP for the Kazimule local forest on 06th May 22. The Stakeholders Validation Meeting for the KLF brought together 31 participants: 4 females and 27 males drawn from government departments, civic leaders, CSOs, private sector, CFMG and traditional leaders.

Stakeholders consultative meeting held on 21st April 2022 in Chadiza District

Annex V: Stakeholder validation meeting

REPORT ON STAKEHOLDERS CONSULTATIVE MEETINGS REGARDING THE DEVELOPMENT OF FOREST MANAGEMENT PLANS IN CHADIZA DISTRICT (KAZIMULI LOCAL FOREST F72)

1.0 Introduction

The Zambia Integrated Forest Landscape Project (ZIFLP) is an initiative by The Government of the Republic of Zambia with support from the World Bank. The Project Development Objective (PDO) for the ZIFLP is "to improve landscape management and increase environmental and economic benefits for targeted rural communities in the Eastern Province and to improve Zambia's capacity to respond promptly and effectively to an Eligible Crisis or Emergency". The project aims to provide support to rural communities in Eastern Province to allow them to better manage the resources of their landscapes so as to reduce deforestation and unsustainable agricultural expansion; enhance benefits they receive from forestry, agriculture and wildlife; and reduce their vulnerability to climate change.

To ensure the project is on course to achieving this PDO, Forestry department in Eastern Province is preparing the first ever forest management plans for 13 forest reserves with support from Zambia Integrated Forest Landscape Project (ZIFLP). The following are the targeted forest reserves. Lumimba local forest, Chadiza National forest, Chadiza dam local forest and Kazimule local forest in Chadiza district. Others are Masupe LF, Lutembwe LF and Msipazi in Chipata district. Katete National forest, Chiswa East and West LFs, Kandongwe LF and Sinda NF in Sinda district. Kazimuli LF in Chadiza. Therefore, in order for the Forest Management plans to be effective the consultation with local authority, local community, chiefs and any other stakeholders in the forest area must be conducted as stipulated in the forest act No. 4 of 2015 (Part iv, section 40, sub section 1).

From this background the consultation process was conducted in Chadiza District for Kazimuli local Forest (F72) from 20th April, 2022 to 21st April, 2022. Since the Chiefs were consulted earlier, only the community and other stakeholders surrounding Kazimuli Local forest (F72) were engaged.

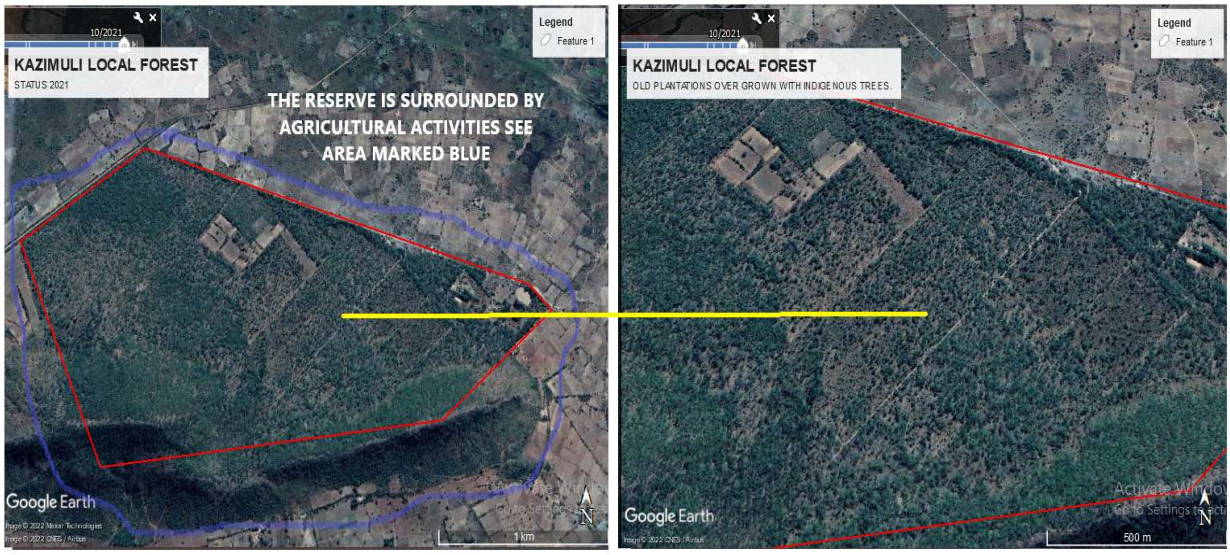
The main objectives for the consultation process were as follows:

- To provide a platform of getting the views of the concerned stakeholders, in relation to the respective developed forest management plan for Kazimuli local forest (F72).

- To collect and incorporate the agreed views from the Stakeholders in the Forest management plan.

1.1 Background Information Captured During the Meeting for Kazimuli Local Forest.

Kazimuli Local Forest No. F72, 353 hectares in extent was gazetted way back in 1965. The area is surrounded by Farms with a lot of agricultural activities. The purpose of its establishment was mainly to supply timber to the local communities and the district at large.



Google Map showing Kazimuli Local forest with its surrounding activities.

2.0 PRESENTATION

2.1 Policy and Legal Context.

Most of the key presentations delivered to the meeting under this heading includes:

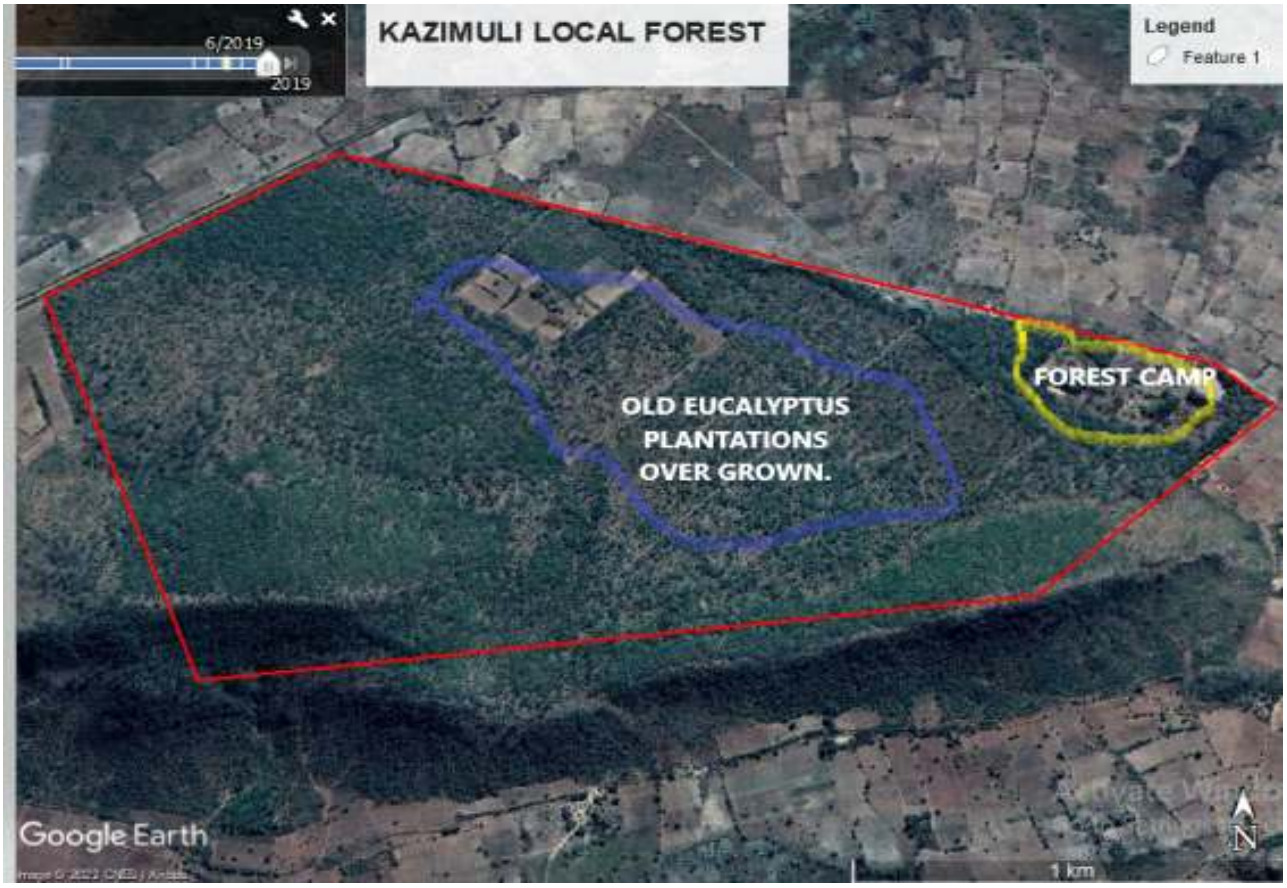
National Forest Policy and **Forests Act** contents highlights. The operations of the forestry department with its; key mandate to Reduce Deforestation and Forest Degradation.

2.2 The role and the function of the forest

- The forests purify the air we breathe, filter the water we drink, prevent erosion, and act as an important buffer against climate change.
- Forests also provide us with **shelter, livelihoods, water, and food and fuel security**. All these activities directly or indirectly involve forests. Some are easy to figure out - fruits, paper and wood from trees, and so on.

2.3 Natural resource Profile

The assessment which was conducted in 2019 indicated that; the forest reserve despite low level of tree cutting mainly for domestic use, the forest reserve has the potential to regenerate if protected from illegal activities. The estimated stocking per hectare of total volume and bole volume of 174.2 and 72.5. Density or number of stems per hectare 1,956 with highest stems in diameter class 20 to 29. Average basal area of 25m^2.



Google map showing Kazimuli Local Forest resource profile.

2.4 Social economic profile

According to 2019 livelihood survey the demographic characteristics of the surrounding community shows the living conditions of the people through the impact they have on the forest. The data on the demographic characteristics provided the background information and the necessary framework for the understanding of other aspects of the population, including economic activities, poverty and food security.

2.5 Willingness of community to participate in forest management

The livelihood survey revealed that the majority of head of households in localities surrounding the Kazimuli local forest Reserve are willing, to voluntarily support management of the forest reserve with forest department and other stakeholders in the community. This can be shown below on a chart, almost 90 percent are willing.

2.6 Benefits identified by the community delivered from the forest

Listed below are the benefits for the community around the forest:

- Medicine, Firewood for cooking, Mushroom, Timber, Hunting, Grass for roofing, wild fruits and harvesting of honey.

3.0 ISSUES AND THREATS AFFECTING KAZIMULI LOCAL FOREST AND ITS SOLUTIONS

ISSUES	**Solutions/opportunities**
• Animal grazing • Illegal fetching of firewood • Poor agriculture practices	• Fencing the entire forest • Employ more forest guards • Introduce conservation farming
• Illiteracy	• Community needs more forest extension services.
• Poverty	• Provide livelihood incentives to the communities.
• Trespassing	• Enhance security by employing more forest guards.
• Late fires • The forest road were turned into crop fields. • Indiscriminate cutting of trees	• Encourage early burning. • Re-open the forest road to enhance forest activities. • Sensitize and Plant mores trees in the forest.

4.0 Identified Permitted practices in the forest

- Beekeeping
- Traditional medicine
- Mushroom and Honey collection.

5.0 Identified Prohibited practices

- Opening of the forest for agriculture purposes in the forest.

- Late fires
- Charcoal production
- Cutting down of trees

6.0 Situation analysis summary.

- Important for meeting social, cultural and economic needs of the surrounding communities.
- Most utilization is at the local level.
- Prohibited activities were identified.
- Identified need for security for forest, control, rules and enforcement involving the community in coordination with Forest Department and traditional leaders
- Identified need to reduce pressure on the forest and promote energy saving stoves, control grazing and fires.
- Identified need to protect water resources
- Restoration of degraded areas and tree planting in buffer areas surrounding.

7.0 Zoning

This is the process of dividing land areas to be used for different purposes. For this reason the stakeholders managed to zone the forest accordingly as illustrated below:

8.0 Vision for Kazimuli Local Forest

A productive forest that meet the social, cultural and economic needs of the local communities now and for future generation.

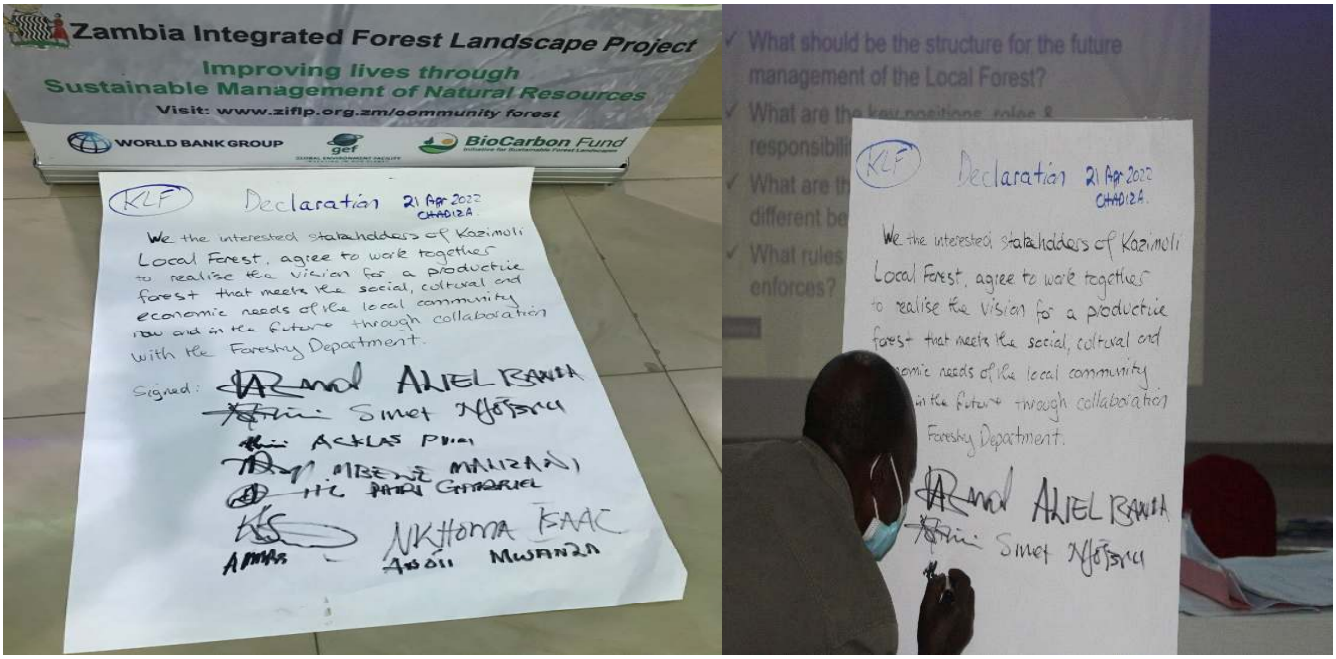
9.0 Next step

- Management plan- Capture learning –draft plan. Communicate interest from the community to Provincial forestry office and director's office.
- Future management arrangements- Letter of interest from stakeholder representatives. Inform His Royal Highness (HRH) on workshop and intention for Community forest CF
- Secure funds to support CF Process.
- Initiate CF process
    - Community awareness

- Confirm area
- Form CFMG and seek recognition from Director
- Develop Forest management plan and rules and sanctions
- Enter into CFM Agreement –rights and responsibilities
- Explore sub grant opportunities.

10.0 Declarations (21st April, 2022)

We the stakeholders of Kazimuli Local Forest agree to work together to realize the vision for the productive forest that meets the social, cultural and economic needs of the local community now and in the future through collaboration with forestry Department.



Kazimuli local forest surrounding communities acknowledging the declaration statement.

11.0 LIST OF PARTICIPANTS

MINISTRY OF GREEN ECONOMY AND ENVIRONMENT
ZAMBIA INTERGRATED FOREST LANDSCAPE PROJECT
Attendance List

IA: ____________ Activity Title: FOREST MANAGEMENT PLAN SENSITISATION & VALIDATION MEETING - Location: CHADIZA Date: 21st APRIL 2025

#	Name	Organization/affiliation	Phone Number	Email	Gender	Signature
1	ALICE BANDA	COUNCILLOR	0961259283		M	[illegible]
2	PHIRI MASUZYO	WATER RESOURCES	0965202937	masuzophiri1@gmail.com	M	[illegible]
3	RUDO MULEYA	FORESTRY DEPT	0972375922	luumuleya@gmail.com	F	[illegible]
4	MOFFAT PHIRI		343179/521		M	[illegible]
5	SINET NJOBVU		407098/52		M	[illegible]
6	ELIMASI PHIRI		360596/52		M	
7	RICHARD SOKO		353085/52		M	[illegible]
8	Betwell Banda	ZAMIS	123595/55/1	betwellbanda@gmail.com	M	[illegible]
9	ANOTI MWANZA	HEADMAN	320367/521		M	A. MWANZA
10	LEONA ZULU		124741/551		L	ZULU
11	Kelempino Tembo	Headman			C	Tembo
12	ACKLOS PHIRI	H. Kankime	0955802144		M	[illegible]
13	Falison PHIRI	H/chimutadu	0953992236		M	F. PHIRI
14	PHIRI GABRIEL	ZAMBIA SCHOOL OF TBZ FARMERS	0978460550		M	[illegible]
15	Kabange Masenga	MOA	0977305306	kabangemasenga@yahoo.com	M	[illegible]
16	ISAAC NKHOMA	COUNCILLOR	0953087068		M	[illegible]
17	MBEWE MALIZANI	COUNCILLOR	0957492722		M	[illegible]
18	BULEKE FELIX	CHADIZA TOWN COUNCIL	0975786773	bulekef@yahoo.com	M	[illegible]

Annex VII: Cost of Implementing management actions

The various prescribed activities are outlined and their corresponding costs are indicated

Programme:	Forest Conservation through Community participation and Livelihood Development														
Specific Objective	**Prescribed treatment**	**Unit of Measure**	**Quantity**	**Frequency**	**Unit Cost**	**Total Cost Year 1**	**Total Cost Year 2**	**Total Cost Year 3**	**Total Cost Year 4**	**Total Cost Year 5**	**Total Cost Year 6**	**Total Cost Year 7**	**Total Cost Year 8**	**Total Cost Year 9**	**Total Cost Year 10**
To Enter into partnership with clear roles and responsibilities with surrounding communities	Establish community forest	No	8	1	145,000	145,000									145,000
	Forest enterprise development • Beekeeping • Mushroom collection & production		8	8	2000	16,000	17,600	19,360	21,296	23,426	25,768	28,345	31,179	34,297	37,727
To contribute towards meeting social, cultural and economic needs and improving the livelihoods of forest-adjacent communities.	Trainings; • Beekeeping • Mushroom drying • Gardening	No.	15	1	4000	60,000	66,000	72,600	79,860	87,846	96,631	106,294	116,923	128,615	141,477
To reduce carbon emissions from deforestation and forest degradation by ensuring community benefit from carbon credits.	Stake holder participatory awareness meetings(Traditional leaders, Government, NGOs and the community)	No	2	1	20000	40,000	44,000	48,400	53,240	58,564	64,420	70,862	77,949	85,744	94,318
	Establish an incentive benefit sharing mechanism			1	5,000	5,000									5,000
To reduce forest dependency by local communities.	Woodlot establishment for communities surrounding the forest.	No.	10	2	5000	100,000	110,000	121,000	133,100	146,410	161,051	177,156	194,872	214,359	235,795
Subtotal						**366,000**	**237,600**	**261,360**	**287,496**	**316,246**	**347,870**	**382,657**	**420,923**	**463,015**	**659,317**

Programme: Forest Protection, Restoration and Management and Conservation of Biodiversity

Specific Objective	Prescribed treatment	Unit of Measure	Quantity	Frequency	Unit Cost	Total Cost Year 1	Total Cost Year 2	Total Cost Year 3	Total Cost Year 4	Total Cost Year 5	Total Cost Year 6	Total Cost Year 7	Total Cost Year 8	Total Cost Year 9	Total Cost Year 10
To secure the boundary and define the extent of the boundary and prevent possible encroachment.	Carry out annual external boundary maintenance in accordance with the boundary maintenance schedule	km	7	1	1500	10,500	11,550	12,705	13,976	15,373	16,910	18,601	20,462	22,508	24,758
	Forest beacon maintenance	No.	14	1	650	9,100	10,010	11,011	12,112	13,323	14,656	16,121	17,733	19,507	21,457
	Erection of sign post on roads entering the Forest	No.	15	1	300	4,500	4,950	5,445	5,990	6,588	7,247	7,972	8,769	9,646	10,611
To significantly reduce levels of illegal forest product harvesting.	Conduct sensitization meetings	No.	24	1	2000	48,000	52,800	58,080	63,888	70,277	77,304	85,035	93,538	102,892	113,181
	Conduct forest patrols	No	72	6	1100	475,200	522,720	574,992	632,491	695,740	765,314	841,846	926,030	1,018,633	1,120,497
To reduce carbon emissions from agric soils and dependency on inorganic fertilizer	Promotion of Climate Smart Agriculture	No.	8	4	3000	24,000	26,400	29,040	31,944	35,138	38,651	42,516	46,767	51,443	56,587
To protect Forest Reserve from late fires	Conduct prescribed and early burning.	596Ha	1	1	5500	5,500	6,050	6,655	7,321	8,053	8,858	9,744	10,718	11,790	12,969
	Training the local communities on fire management techniques	No	5	1	2500	12,500	13,750	15,125	16,638	18,301	20,131	22,145	24,359	26,795	29,474
To ensure protection against pests, fire, and human damage for the sustainability of forest	Inspections for diseases and pests, and detection of possible illegalities.	No	4	4	15,000	240,000	264,000	290,400	319,440	351,384	386,522	425,175	467,692	514,461	565,907
To improve forest cover in the fringe areas of the forest reserve	Woodlot establishment for communities surrounding the forest.	No	20	1	1500	30,000	33,000	36,300	39,930	43,923	48,315	53,147	58,462	64,308	70,738
To conserve and enhance the biodiversity of the forest reserve.	Promote local participation and ownership through meetings.	No	8	4	2000	64,000	70,400	77,440	85,184	93,702	103,073	113,380	124,718	137,190	150,909
Improve local awareness of biodiversity and its value.	Awareness on biodiversity with regard to indigenous knowledge through drama.	No.	8	4	2500	80,000	88,000	96,800	106,480	117,128	128,841	141,725	155,897	171,487	188,636
	Conduct meetings and drama performances to assess community understanding on forest use and	No	12	1	2500	30,000	33,000	36,300	39,930	43,923	48,315	53,147	58,462	64,308	70,738
Subtotal						**1,033,300**	**1,136,630**	**1,250,293**	**1,375,322**	**1,512,855**	**1,664,139**	**1,830,553**	**2,013,607**	**2,214,967**	**2,436,464**

REPUBLIC OF ZAMBIA

Ministry of Green Economy & Environment

The Zambia Integrated Forest Landscape Project is a Government initiative which provides support to rural communities in the Eastern Province to allow them to better manage the resources of their landscapes so as to reduce deforestation and unsustainable agricultural expansion; enhance benefits they receive from forestry, agriculture, and wildlife; and reduce their vulnerability to climate change.

Simultaneously the project is creating the enabling environment for emission reduction purchases to be done through the subsequent phase - the Zambia Eastern Province Jurisdictional Sustainable Landscape Programme (EP-JSLP).

The ZIFL- Project is a product of cooperation between the Government of Zambia, the World Bank & partners.

Forestry Department

Supported by:

Zambia Integrated Forest Landscape Project

Improving lives through sustainable management of natural resources

WORLD BANK GROUP

BioCarbon Fund

Initiative for Sustainable Forest Landscapes

gef

GLOBAL ENVIRONMENT FACILITY

INVESTING IN OUR PLANET