

Publication Draft



**REPUBLIC OF ZAMBIA**

## **MINISTRY OF GREEN ECONOMY AND ENVIRONMENT**



### **MPOTO LOCAL FOREST: P233 MANAGEMENT PLAN 2025-2035**

## **APPROVAL PAGE**

### **MPOTO LOCAL FOREST No. P233 - 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, 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 Acts, 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 Acts, 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 Mpoto Local Forest Management Plan (MLFMP) has been 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 their Royal Highnesses, Headmen and the community around Mpoto Local Forest for the commitment to support this plan and importantly the sustainable management of the 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 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. Their Royal Highness' contributions 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 Mpoto 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. These in the case of Mpoto Local Forest are extreme and if not addressed immediately may result in the loss of the forest and the functions it was reserved to protect. 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 Mpoto Local Forest from degradation in order for it to fully contribute to local and national development as well as for the benefit of the future generations of Zambia.

### ***Translating Policy into***

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, action 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 Mpoto 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 action, 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 (ZIFLP) a Zambian Government initiative in the Ministry of Green Economy and Environment.

### ***Forest resource & community well being assessment***

During 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 Acts, 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 Mpoto Local Forest.

In view of the current condition of the forest, the inventory results indicate a total standing volume for all species in Mpoto Local Forest estimated at (59.43m<sup>3</sup>/ha), with a total bole volume estimated at 24.13m<sup>3</sup>/ha). Total Biomass for trees ≥5cm DBH is estimated 86.33 tonnes per hectare with an above ground carbon estimate of 43.17tons/ha. A basal area figure of 8.67m<sup>2</sup> per hectare is a moderate figure for the type of forest. This confirms the status of Mpoto Local Forest as a forest not achieving optimum growth potential.

### ***Summary socio economic analysis***

Mpoto Local Forest as at 2021 livelihood survey was surrounded by approximately 10 villages and farming blocks with a total population of 288. The main ethnic groups in the area are the Kaunda's and Chewa's. 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 and groundnuts. The land tenure of the population surrounding the Mpoto LF is mostly

under customary land tenure system. Those households within have no formal title deeds or letter of allotment.

### ***Forest change & issues analysis***

A consultation meeting of stakeholders for Mpoto Local Forest was held on 22<sup>nd</sup> December, 2023 at Council Guesthouse Hall, in Mambwe District. 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.

### ***Stakeholders' observations and Concerns***

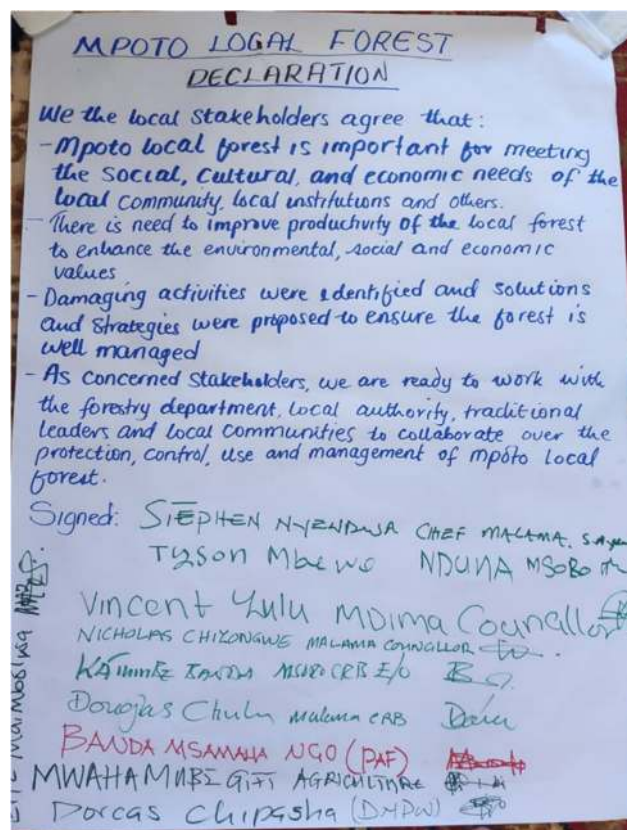
The stakeholders made several observations and raised some concerns notable among them include the following:

- The forest is important to the surrounding communities as well as a habitat for animals. Forest loss threatens everyone and everything that depends on this forest.
- There are serious encroachments in MLF, therefore there is need to protect what is remaining of the forest at the same time find a lasting solution to the illegal forest activities.
- Need to change the mindset of the people for them to appreciate the grave consequences of deforestation as well as need to provide sustainable/alternative livelihoods.
- To resolve the inadequate human resource issue there was need to be re-introduce forest guards to police the MLF and need to stiffen laws.
- The community forestry model should be promoted as it also promotes local ownership of the need to protect and manage the forest.

## ***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, Traditional leaders, and stakeholders agreed that there was 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 Mpoto Local Forest.

The declaration confirmed that Mpoto 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 action***

Based on the policy and legal framework and the consultation process conducted, the General Objectives for the management of Mpoto 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.

These in the case of Mpoto Local Forest are urgent and if not actioned immediately may result in the loss of the forest and the functions it was reserved to protect.



### ***Proposed management actions***

The following management action which are proposed for Mpoto Local Forest reflect the statutory purpose of the Local Forest as set out in section 19 of the Forests Acts, 2015. The actions are intended to address and reverse the degrading factors threatening the current existence of the Local Forest.

#### ***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 Mpoto Local Forest are key stakeholders in the conservation of this forest as well as beneficiaries from its sustainable management. This aims to meeting the social, cultural and economic needs and thereby improving the livelihoods of the communities around Mpoto 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 the forest.

#### ***2 Forest Protection, Restoration, Management and Conservation of Biodiversity***

Mpoto Local Forest is an important forest ecosystem containing different plant species and fauna. Further, it is part of a wider network of protected areas within a Game Management Area. However, the forest is impacted 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.

### ***Safeguards & other crosscutting issues***

In implementing the above management, 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 Mpoto Local Forest and empowered through equal participation in decision making, governance and benefit sharing.

### ***Contribution to Emissions Reduction in Eastern Province***

Improved management of Mpoto Local Forest through the proposed interventions will directly address the need for emissions reductions through promotion of Sustainable Forest Management. This centres on 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 restoring degraded areas.

### ***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 action 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.

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## ***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**

CAPI	Computer Assisted Personal Interviews
CFMG	Community Forest Management Groups
CSA	Climate Smart Agriculture
DBH	Diameter at Breast Height
EA	Enumeration Area
EP-JSLP	Eastern Province Jurisdictional Sustainable Landscape Programme
FD	Forestry Department
FMA	Forest Management Area
FMP	Forest Management Plan
FPIC	Free Prior Informed Consent
FRSP	Forest Reserve Support Project
GHG	Greenhouse Gases
GMA	Game Management Area
GMP	Game Management Plan
HFO	Honorary Forest Officers
MLFMP	Mpoto Local Forest Management Plan
MLF	Mpoto Local Forest
MGEE	Ministry of Green Economy and Environment
MOE	Ministry of Energy
NGO	Non-Governmental Organization
REDD	Reducing Emissions from Deforestation and Forest Degradation
SFM	Sustainable forest management
USAID	United States Agency for International Development
ZAMSTATS	Zambia Statistics Agency
ZIFLP	Zambia Integrated Forest Landscape Project

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# **MPOTO LOCAL FOREST MANAGEMENT PLAN**

## **1 INTRODUCTION**

The Mpoto Local Forest Management Plan (MLFMP) 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. This is in line with provisions of the Forests Acts No. 4 of 2015.

### **1.1 Purpose of the Forest Management Plan**

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

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 Ministry of 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 from the date that the plan is approved and registered in the Government Gazette. However, implementation of the Plan will be monitored periodically and evaluated at year 5 and may be adjusted accordingly as lessons are learned.

### **1.3 Policy 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 Management Objectives**

The General Objectives for the management for the Forest Reserve are aligned with the purpose of a Local Forest as defined in the Forests Act, 2015, and 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

Mpoto Local Forest (Reserve No. P233) forms part of the forest estates in Eastern Province. The reserve is situated West of Mambwe District Business Centre about 50km away. It is approximately 27km from Msoro sub-Centre.

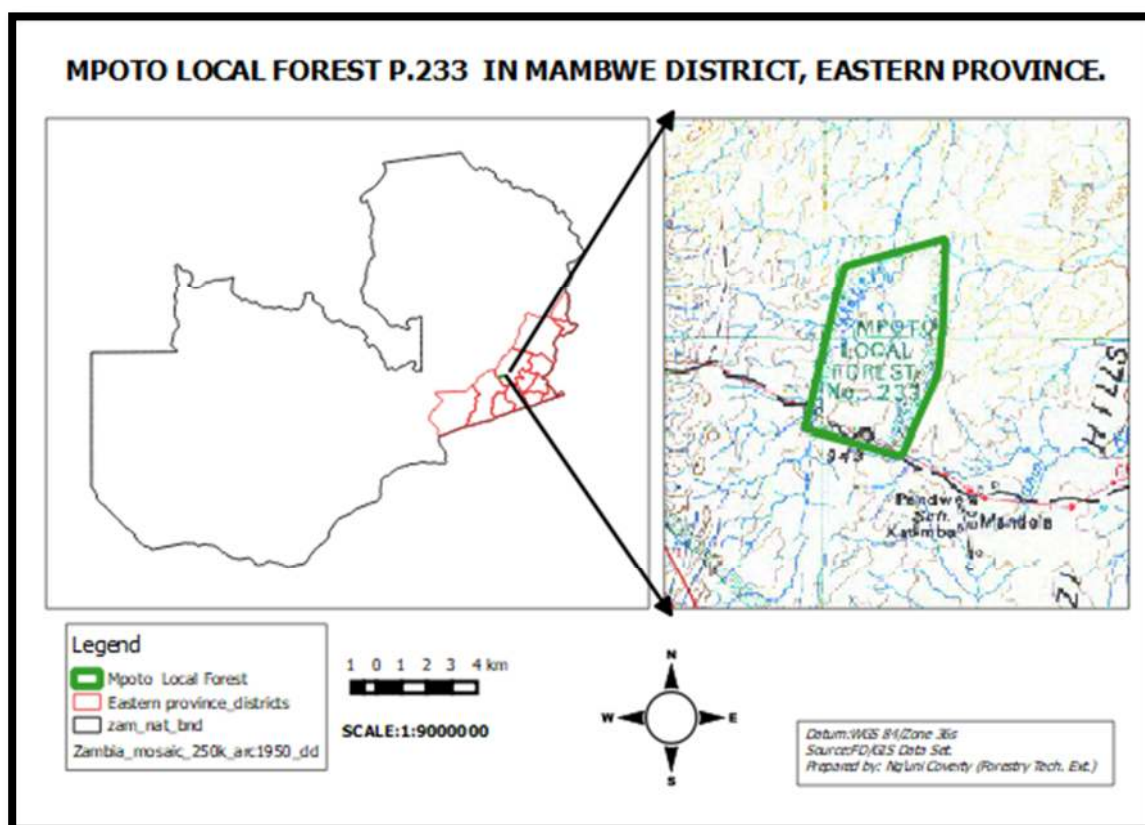


Figure 1: Map of Mpoto Local Forest

The Local Forest falls within the Lupande Game Management Area (GMA) in Mambwe District and mostly within the Lower Lupande Hunting Block. A detailed description of the gazetted forest boundary is provided in Annex 1.

### 2.2 Ownership and control

Mpoto Local Forest No. 233, It was originally declared a forest reserve and gazetted under Statutory Instrument No. 66 of 1975 and deposited in the office of the Surveyor-General on Map No. F.R.301. It is a protected forest area with the designation of "Local Forest" covered by section 19 of the Forests Acts, 2015. Therefore, the Forestry Department is responsible for the protection and management of the reserve.

## 2.3 Reasons for Reservation

The reservation was aimed at protecting stream catchment area, conservation biodiversity of indigenous tree species and securing the supply of forest and non-forest products for present and future generation in particular communities around the forest reserve.

## 2.4 Physical and Biophysical Environment

### ***Topography, Geology & Soils***

The Forest lies on Mpoto Hills which occupies about half the area. The soils are mainly dark coloured sandy loam with quarts gravel and stones occurring in the top soil particularly on hill slopes.

### ***Rainfall & Temperature***

The rainfall usually lasts for 5 to 6 months starting from November to March and the peak months are December and February. The rainfall amount ranges from 900 to 1000mm.

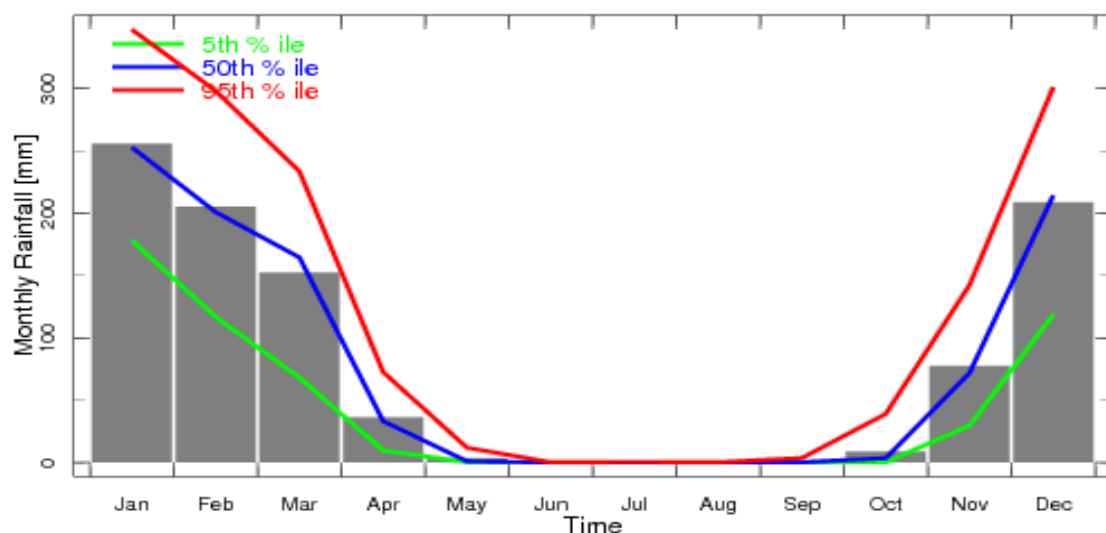


Figure 2: Monthly rainfall Eastern Province Source: The Zambia Meteorological Department

Normally, temperatures are very high, especially during the dry months which occurs between August and December. The maximum average monthly temperature is between 27°C and 34°C. The highest maximum temperature occurs in October. The lowest average temperature is between 21°C and 23°C during the cool dry season occurring especially between May and June.

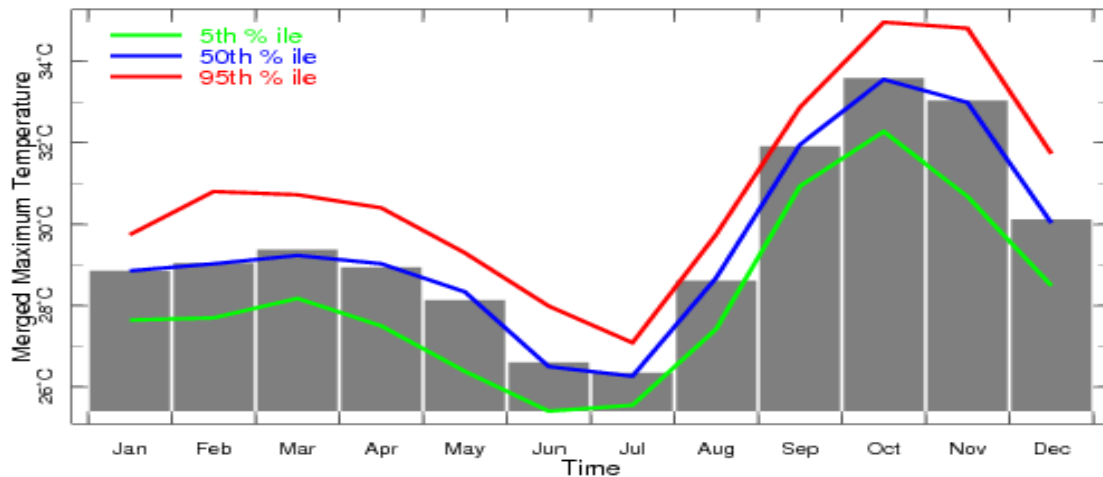


Figure 3: Monthly temperature Eastern Province Source: The Zambia Meteorological Department

## Vegetation Type

Mpoto Local Forest is a heterogeneous forest. The vegetation type is mopane woodland on clay tree flora including *Combretum molle*, *Combretum zeyheri*, *Piliostigma thonningii*, *Pterocarpus rotundifolius*, *Zyziphus abyssinica*, *Lannea stuhlmannii*, *Diplorhynchus condylocarpon*, *Dalbergiella nyasae* and many other species with *Colophospermum mopane* being the dominant species.

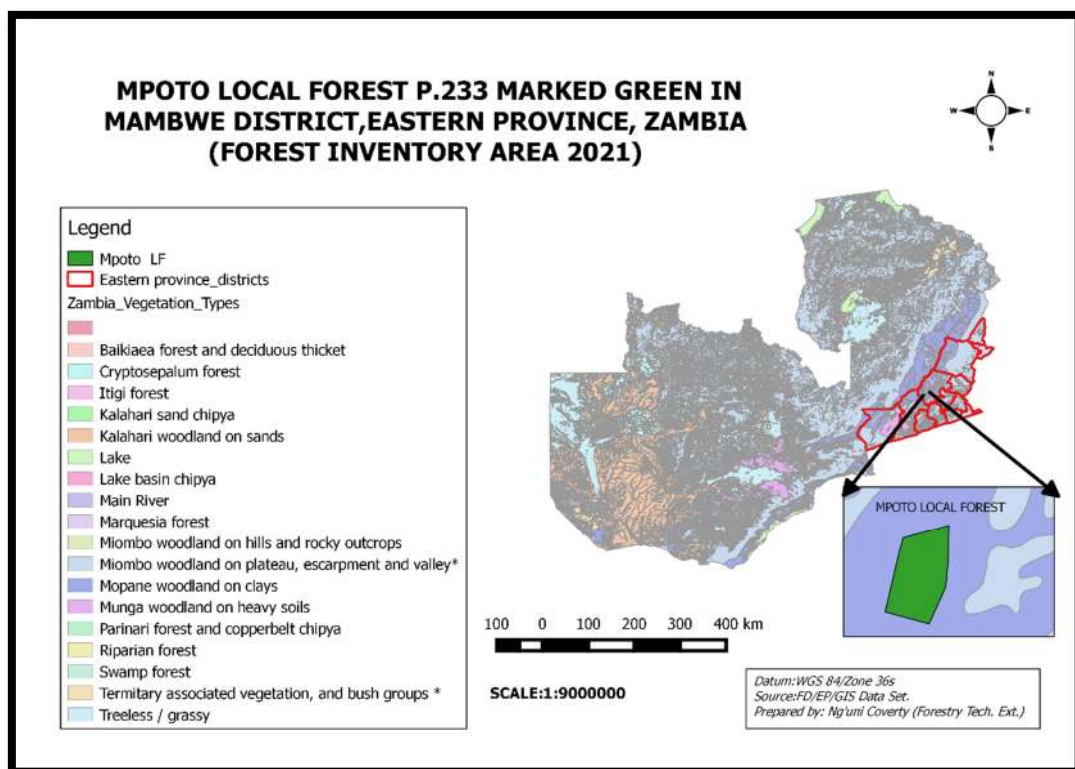


Figure 4: Vegetation type Mopane woodland on clay

## **Fauna**

During both the reconnaissance survey and the forest inventory, there was physical observation of major wildlife as the reserve is in Lupande Game Management area. 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 Warthog, Bush pigs, Elephants, Antelopes, Guinea fowls and common Duikers are present. Smaller animal species such as squirrels, birds, Snakes and Lizards were encountered during the surveys.

### **3 PAST MANAGEMENT**

The Mpoto Local Forest was declared and gazetted in 1975. The management of the reserve has been guided by the objectives of reservation proposal as stated in the proposal at the time the forest was gazetted as a protected forest area under notice 50 of 1970 and subsequently under Statutory Instrument No.50 of 1965 and 66 of 1975. The reservation aimed at protecting stream catchment area of the Matizye River, conservation biodiversity of indigenous tree species and securing the supply of forest and non-forest products for present and future generation in particular communities around the forest reserve.

The Public Service Reform Programme (PSRP) in 1997 and economic downturn, had an adverse on the management of the Local Forest. This combined with an increase in population, high poverty levels resulted in increase pressure on the forest compounded by a Department of reduced manpower. With the result, Mpoto Local Forest has over the years been partially encroached, with selective timber harvesting. Various initiatives have taken place to address including meetings with Chiefs, stakeholder meetings and in 2018 a programme of issuing notices to those illegally settled within the Reserve.

The Local Forest falls within the Lupande Game Management Area (GMA) declared through Statutory Instrument No 44 Of 1972 and protected by the Wildlife Act, 2015. The GMA has a draft Game Management Plan (GMP), prepared in 2011, though never signed into operation. The purpose of Lupande Game Management Area is to enhance community participation in conservation and integrated resource management in order to accrue benefits from natural resource management and tourism development. The Local Forest falls within Zone IV – Local Forest Zone, but surrounded by Zone 3 - Conservation Limited Use Zone of the draft GMP. The purpose of Zone IV is to provide for conservation and development of forest with a view to securing supplies of timber and other forest produce, protection against floods, erosion and desiccation and maintaining the flow of rivers.

The draft GMP indicates Permissible Development for Zone IV as: Management and Operations, Infrastructure, Camp Sites, Picnic Sites Roads Recreation Facilities, Telecommunication Infrastructure. Bush Camps, Repeater Stations, Bridges and Culverts Water point. Prohibited Activities cover: Pollution, Illegal Logging, Cultivation, Settlements, Grazing, Entry without permit, Removal of beacons, removal of any forest produce without a licence, Uncontrolled Fires, Fire any tree, under growth and forest produce deforestation (including Illegal Charcoal production).

#### **Maintenance works**

In 2018, Mpoto Local Forest boundary beacons were verified and new maps produced under the Forest Reserve Support Project funded by US Forest Service.

In 2021 ZIFLP supported the district officers to conduct boundary clearing and checking boundary beacons. In December 2021, a total of 18km of Mpoto local Forest boundary had been cleared. Boundary beacons were renewed where required. See Annex 1 for details and map. In 2022, 3 signboards were erected to indicate the Local Forest and restrictions therein. Sporadic prescribed burning has been implemented, most recently in 2025.

## 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.

A forest inventory was conducted by the Forestry Department in 2021 with financial support from the Zambia Integrated Forest Landscape Project. The following section provides the results and analysis from the data collected. The location of the sample plots is provided in Annex 1. 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. 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 to medium and long-term management of Mpoto Local Forest.

### 4.1 Tree species abundance

The inventory data indicates that there are over 30 different types of tree species that include tree seedlings in the forest. The table below provides a summary of the forest inventory and will be described in the sections below;

Stratum total by diameter class per hectare for all species

Diameter Class	0-4	5-9	10-14	15-19	20-29	30-39	40+	Total
Vol (m <sup>3</sup> )/ha	0.01	3.57	6.33	8.19	9.49	10.44	21.40	59.43
Bole Vol (m <sup>3</sup> )/ha	0.00	1.56	2.69	3.37	3.83	4.17	8.51	24.13
Density/SPH	0.99	210.86	107.66	56.53	29.99	14.74	11.30	432.14
Basal area (m <sup>2</sup> )/ha	0.00	0.89	1.23	1.29	1.37	1.39	2.53	8.67
Biomass, Total (Tons)/ha	0.03	5.36	9.40	12.57	13.81	15.63	29.54	86.33
Carbon, Total (Tons)/ha	0.01	2.67	4.70	6.29	6.90	7.81	14.77	43.17
Volume by Species use								
Vol (m <sup>3</sup> )/ha Saw logs	0.00	0.03	0.09	0.00	0.74	1.43	8.03	10.31
Vol (m <sup>3</sup> )/ha Poles	0.00	0.83	1.33	1.57	0.90	0.00	0.00	4.63
Vol (m <sup>3</sup> )/ha Fruits	0.00	0.17	0.14	0.11	0.40	0.41	0.00	1.26
Vol (m <sup>3</sup> )/ha Medicinal	0.00	0.84	1.17	1.53	3.17	3.66	4.23	14.60
Vol (m <sup>3</sup> )/ha Firewood	0.01	0.91	1.79	3.30	2.80	1.40	5.13	15.36
Vol (m <sup>3</sup> )/ha Others	0.00	0.77	1.77	1.57	1.31	3.54	4.00	12.97
Seedlings								1,370

Table 1: stratum total for all species

### Ten most frequent species

S/no.	Species	Local Names (Nyanja)	Species codes
1	<i>Colophospermum mopane</i>	mupane .. sanye	81
2	<i>Markhamia obtusifolia</i>	Mutendakwale	211
3	<i>Brachystegia boehmii</i>	Mufendaluzi	46
4	<i>Piliostigma thonningii</i>	Musekese	244
5	<i>Brachystegia Spiciformis</i>	Puti	52
6	<i>Pterocarpus rotundifolius</i>	Mukambo	265
7	<i>Combretum mole</i>	Kalama	86
8	<i>Combretum zeyheri</i>	Kalamafupa	89
9	<i>Dalbergiella Nyasae</i>	Kasalusalu	103
10	<i>Diplorhynchus condylocarpon</i>	Mtowa	114

Table 2: Top Ten Abundant Species in the Forest Reserve

### Tree and Sampling Distribution by Size Classes

Size Class Distribution is a way to describe the structure of a forest by categorizing the tree population by size of the tree through measurement of each tree, its diameter-at-breast-height (DBH) in centimetres and allocating each measured tree into a size range as means to assess the tree population. Trees below 5cm are counted, not measured. The actual distribution of measured trees into various classes is then compared to a suggested "ideal" benchmark as an indicator of forest health and sustainability. The presence or absence of trees in various size classes informs the manager of past management, current stocking and the future growth potential of the forest.



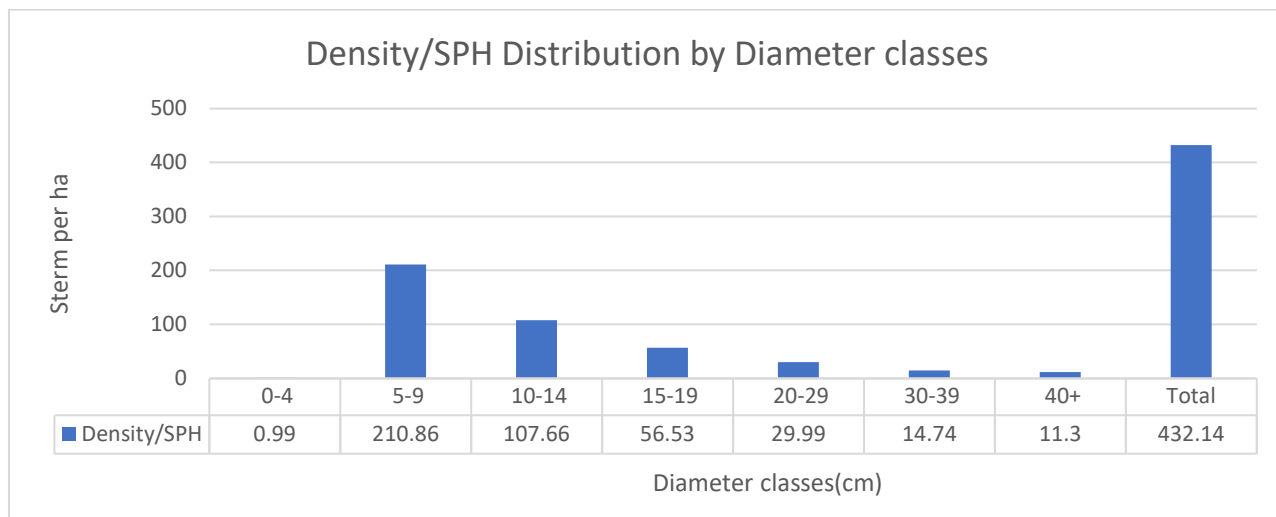


Figure 4: Density by diameter class/ha for all species

In Mpoto Local Forest, a stocking density for trees  $\geq 5$  cm DBH was estimated as 432.14 stems per hectare with the higher in diameter 5-9 and less in 40+. The outcome indicates that there is a lot of tree coppicing and regeneration.

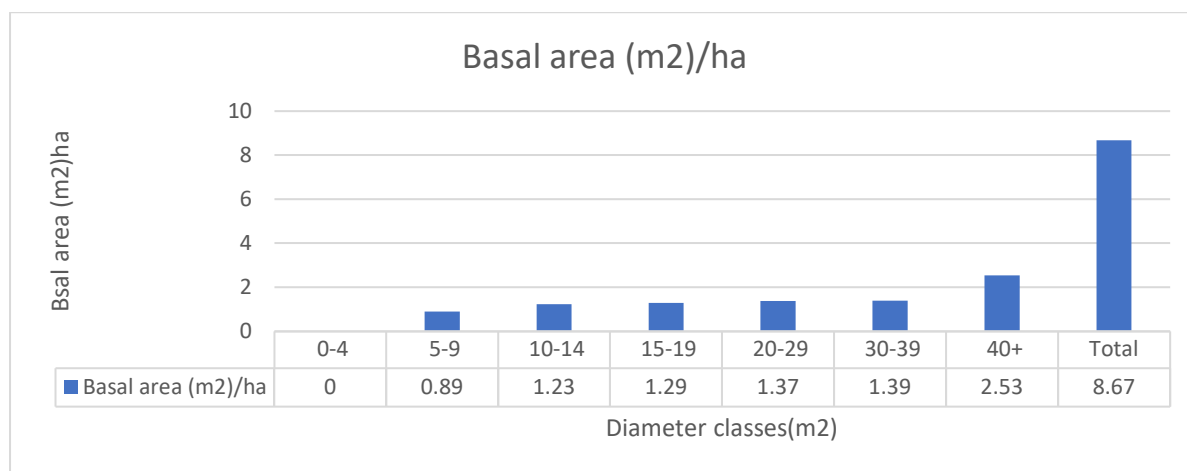


Figure 5: Basal area (m2) by diameter class/ha for all species

The stocking by diameter class basal area per hectare is more in 20 to 40cm class. The data shows that larger trees are present and perhaps there has been low tree harvesting. This indicates that the forest in terms of growth is in a relatively healthy condition allowing succession from one size class to the next higher one. The data also suggests that this is a primary forest. The species with the high density is *Cormbretum molle* with 102 stems per hectare, this is followed by *Brachystegia boehmii* and *Markhamia obtusifolia*.

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 all the measurements and expressing this as a figure of square meters, either in their size class categories or as a total per hectare. A figure of 8.67 m<sup>2</sup> per hectare is a moderate figure for basal area in a similar type of forest type. This indicates past incidences of wild fires and most likely current high levels of grazing pressure of animals and increasing human presence. Therefore this confirms the need to improve the management of Mpoto Local Forest.



#### 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 meters (m<sup>3</sup>) 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.

The total standing volume per hectare for all species in Mpoto Local Forest is estimated at 59.43m<sup>3</sup>/Ha., with a total bole volume estimated at 24.13m<sup>3</sup>/Ha. Total Biomass for trees ≥5cm DBH is estimated at 86.33 tonnes/ha and it has carbon estimated at 43.17tonnes/ha.

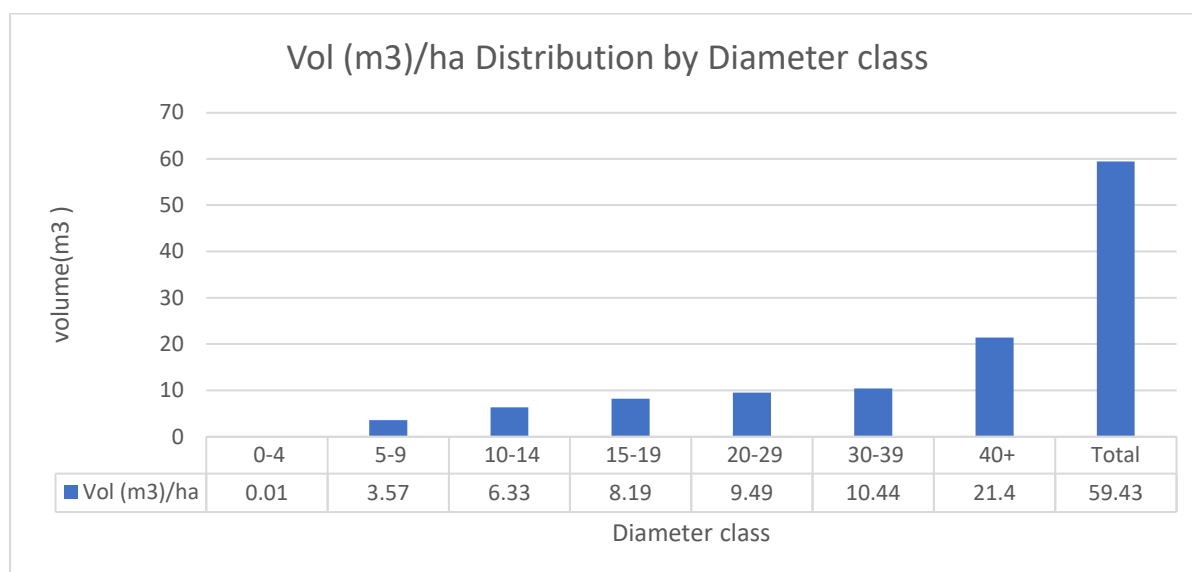
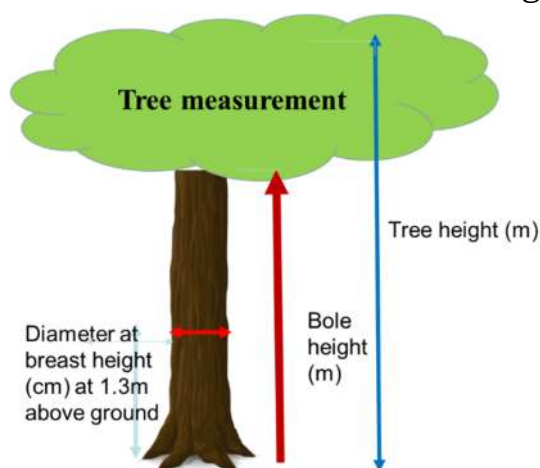


Figure 6: Volume (m<sup>3</sup>) by diameter class/ha for all.

#### Technical characteristics

The volume of other technical characteristics or use are computed per hectare as follow: Saw-log 10.31m<sup>3</sup>, Pole 4.63m<sup>3</sup>, Fruit 1.26m<sup>3</sup> and others 12.97m<sup>3</sup>. The poles are evenly distributed mainly in diameter class 5 to 29. The saw logs are minimal considering the size of the forest, less than 5 cubic meters per hectare. This

indicates that the forest is able to support small scale concession License because of the presence of larger sized species.

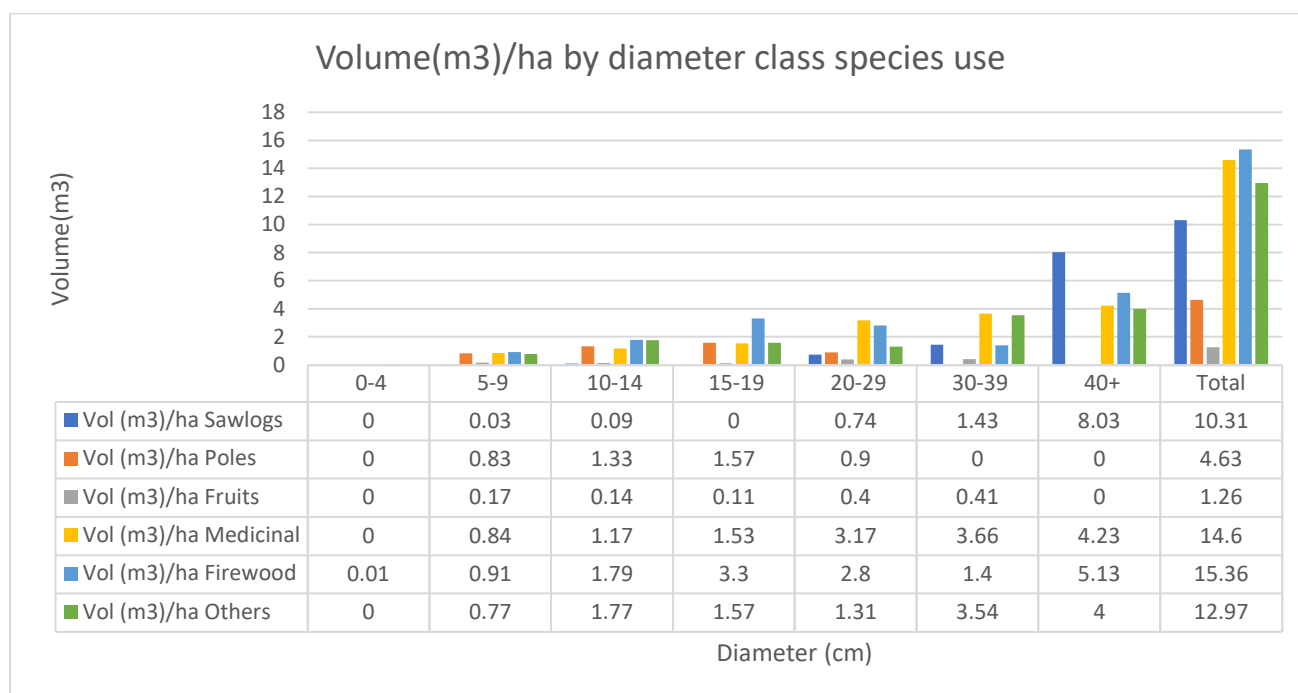


Figure 7: Volume (m<sup>3</sup>) by diameter class/ha for all species by use

#### 4.2 Bole volume total by diameter class/ha for all species

The total bole volume by diameter class per hectare is 24.13 cubic meters with higher in diameter class 15– 40 and less from 15 and below. The outcome indicates that there is low harvesting of trees in the Local Forest.

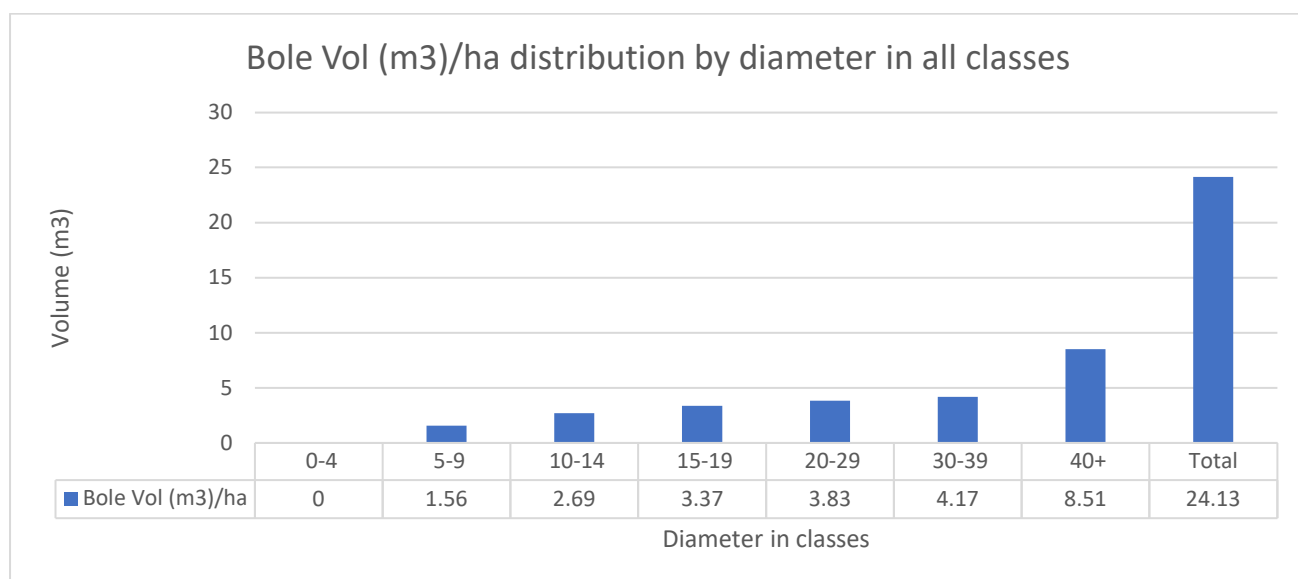


Figure 8: Bole volume (m<sup>3</sup>) by quality diameter class for all species

### 4.3 Presence of Commercial Tree Species

Based on the inventory data, species used for high valued saw log such *Pterocarpus angolensis*, *Swartzia madagascariensis*, *Pterocarpus chrysotrix* and the medium valued are *Brachystegia speciformis* and *Julbenadia globiflora*, are not abundant in the forest. The harvestable volume is relatively low. Therefore, Mpoto Local Forest in its current condition cannot sustain large scale selective timber harvesting operations or timber concession.

#### Volume of all species by use

No	Description	Volume(m <sup>3</sup> /ha)	Explanation
1	Sawlogs	10.31	These are merchantable trees with the average diameter of 40cm ha and above and are of exceptionally high valued suitable for timber production
2	Poles	4.63	These are tree species with relative straight poles length with the average diameter at breast height of 5cm to 29cm
3	Fruits	1.26	The tree species include all fruit bearing either edible or not edible
4	Medicinal	14.6	All medicinal plants
5	Firewood	15.3	These include all dead and or diseased trees which can be used for firewood
6	Others	12.97	These include all tree species which are not classified in any of the above categories

Table 3: Trees in Name of forest National Forest in terms of forest product categories.

#### Biomass and carbon above ground

Based on the inventory data, the biomass and carbon figures by size class and total are summarized below. Note, this figure is standing carbon and not the amount of carbon that may be traded under carbon trading schemes which are based on measured reduction of carbon emissions.

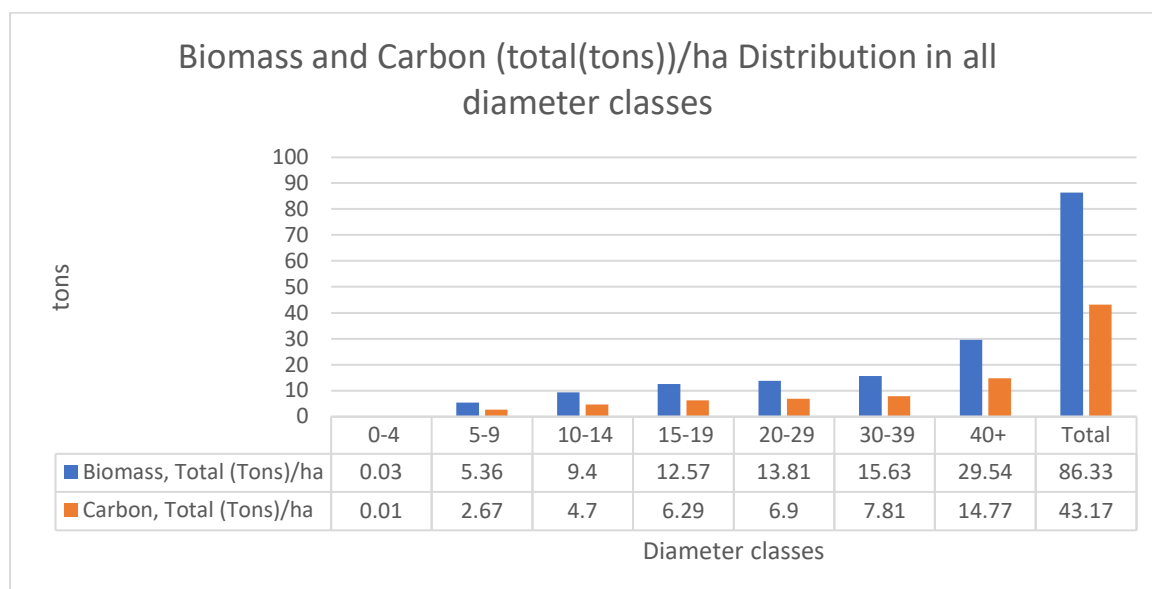


Figure 9: Biomass and Carbon above ground by diameter class/ha for all species

The total biomass and carbon stocks per hectare respectively of 86.33 and 43.17 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 underground is in the figure above is within the IPCC requirement of half of biomass constitute carbon stock.

#### 4.4 Forest Condition and Restoration Assessment

In order to ensure the ecological functions of the forest as well as the socio-economic needs of the local community, forest restoration analysis using remote sensing is very important to plan the next step in the management of the forest. The remote sensing analysis data indicates approximately ninety nine (99%) percent of the forest was remaining, with a very small area opened and/or degraded due to agricultural activity. The table below shows land cover category for Mpoto Local Forest using remote sensing.

Land cover category	Estimated area	Percentage
Forest	1,869.64	99.2
Cropland	15.00	0.8
Total	<b>1,884.61</b>	<b>100</b>

Table 4 Forest condition analysis 2024 by land cover

While the current pressure on the forest is relatively low, the risk of further loss and degradation is increasing due to influx of households to this area. The approach for Mpoto Local Forest is to secure areas with forest cover and restore areas of lost forest cover with people's participation in order to improve environmental, social and economic impact. The landcover analysis allows for identification of restoration strategies. These are outlined in the chapter on proposed management options.

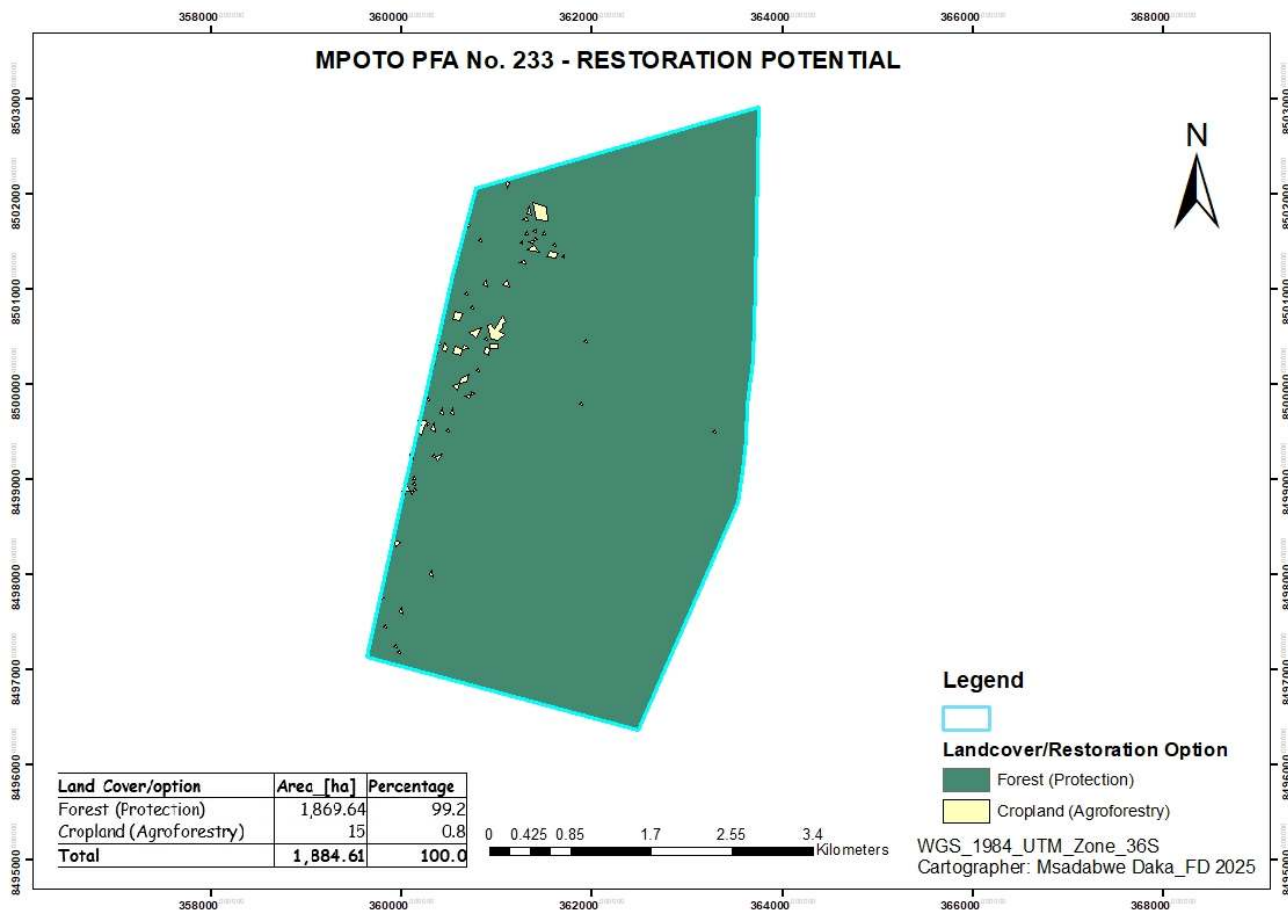


Figure 10 Landcover and restoration option analysis.

## Restoration map narration

The projected restoration potential map was developed using Sentinel-2 2025 images (date filtered: 2024-01-01 - 2025-07-01) at a resolution of 30 meters. Land use land cover (LULC) classification was performed using a supervised classification method for accurate IPCC classes, with all computations performed in Google Earth Engine. The Normalized Difference Vegetation Index was calculated for: Forest Land, Cropland, Grassland, Wetlands, Settlements, and Other Land. Since forest shapefiles were utilized, the area of different land classes was calculated using Compute Geometry in ArcMap. Therefore, the combined area may not necessarily be the same as the original gazetted forest area.

## 5 SOCIO-ECONOMIC CONDITIONS

### 5.1 Livelihood Data analysis

Forestry livelihood survey was conducted by the Zambia Statistics Agency (ZAMSTATS) Eastern Regional Office, November 2021. The main objective of the Forestry livelihood Survey is to measure the well-being of the communities dependent on Mpoto Local Forest and to measure the utilization 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 Activity, poverty, and food security. Considering the household population distribution of Mpoto Local Forest can be translated as having an average size of the household membership of about 5 per household.

#### 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  $K = N/n$

#### Data analysis

The 2021 forest livelihood survey was collected using Computer Assisted Personal interview (CAPI), using Tablets android Ver9. The CAPI system allows quality check of the data at the server (HQ) as it is collected. It also minimizes data entry errors after data collection, the data were subjected to extensive checks on their validity and consistency as it was synched to the server. Analysis was done using statistical package SPSS version 24, which was done by Mully Phiri.

#### Household and Population dynamics

Mpoto Local Forest as at 2021 livelihood survey was surrounded by approximately 10 villages and farming blocks as indicated in Annex: III with a total population of 288. The main ethnic groups in the area are the Kunda's and Chewa's. 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 and groundnuts. The land tenure of the population surrounding the Mpoto LF is mostly under customary land tenure system. Those households within have formal no title deeds or letter of allotment.

## 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 Mpoto Local Forest was found to be mainly primary level that contributed 68.4 percent. The rest being No formal education and secondary education indicating 5.3 percent and 26.3 percent respectively. As shown in the table below:

Education Level	Percent
No Education	5.3
Primary	68.4
Secondary	26.3
Total	100.0

Table 5: Education levels attained.

## Economic activity

The population in the area depends on farming as their main occupation. The results showed that 89.4 percent of the household population surrounding Mpoto Local Forest had farming as their main occupation, while the rest of economic Activity contributed 5.3 percent those in paid employment and 5.3 percent in small businesses.

Main Economic activity	Percent
Business	5.3
Employment	5.3
Farming	89.4
Total	100.0

Table 6: Percentage distribution of main economic activity

The survey indicates that the majority depend of farming as main source of income as shown in the table above.

## Types of energy used for cooking.

Almost all households in the localities surrounding Mpoto Local Forest use firewood as their energy for cooking. The livelihood survey revealed a percentage of about 100 percent using firewood as energy for cooking. It shows how threatened the forest is as every household depends on the forest for cooking energy.

## Main tree resources used for firewood.

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

MAIN TREE RESOURCES USED FOR FIREWOOD
<i>Brachystegia boehmii</i>
<i>Brachystegia Spiciforms</i>
<i>Pterocarpus rotundifolius</i>
<i>Combretum mole</i>
<i>Combretum zeyheri</i>
<i>Dalbergiella Nyasae</i>
<i>Diplorhynchus condylocarpon</i>

Table 4 shows the main tree resource used for firewood.

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

### Non wood forest products

The main non wood forest products used by households surrounding the Mpoto LF are as shown in the table below.

Non wood Forest products
<ul style="list-style-type: none"> <li>• Mushroom</li> <li>• Caterpillars</li> <li>• Fruits</li> <li>• Medicine</li> </ul>

Table 5: Non-Wood Forest Products used by households surrounding the Name of forest LF Reserve

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

The livelihood survey revealed that 84 percent of all the households interviewed were willing if called upon to voluntarily support management of the forest reserve with the Forest Department and other stake holders in the community. This is a lower percentage than found around other Forest Reserves in the Province.

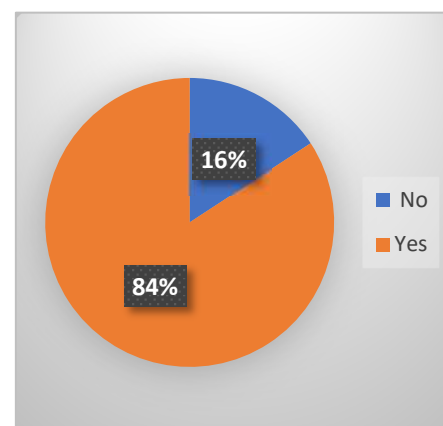


Figure 11 Distribution of willingness to participate when called upon to support FM



## Land Occupation

The livelihood survey for the communities surrounding the Mpoto Local Forest revealed that most of the land is occupied by households under customary arrangements that showed 79 percent ownership compared to those who don't own at 21 percent. All land occupied by households is mainly used for agriculture purpose.

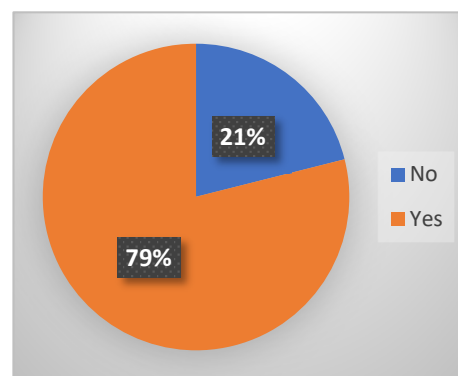


Figure 12 Distribution of land occupation of the population around the forest

## Willingness to plant trees on land owned.

The survey revealed the willingness to planting trees by the households owning land. Those willing to plant trees on their land contributed 89 percent, while those not willing to plant trees had 11 percent contribution as shown in the figure.

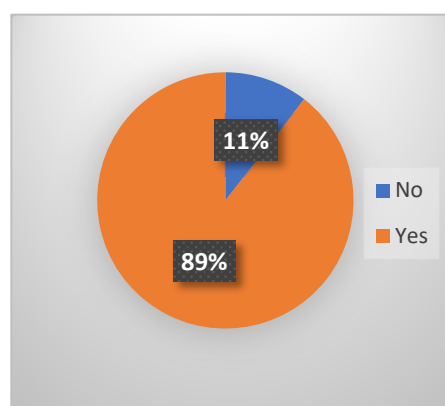


Figure 13 Percentage distribution of willingness to planting trees

## 5.2 Utilization issues and solution proposed by stakeholders

The population of surrounding Mpoto Local Forest utilize the forest for their daily needs. It shows how threatened the forest and its surroundings are as every household depends on the forest for cooking energy. Mpoto LF forest consultative meeting held on 23<sup>rd</sup> December 2023, the stakeholders identified the uses and users of the forest reserve.

### Uses of the forest

- Timber production
- Charcoal production
- Firewood
- Wild fruits and mice for food purpose
- Habitat for animals

### Who -Uses the forest?

- Communities
- Hunters
- Wild animals
- Government

### Issues

- Encroachment
- Existing fields
- unplanned fires
- Unsustainable cutting of trees

### Solutions

- Eviction of encroachers
- No expansion
- Promote planned fire burning
- Sustainable cutting of trees and plant where necessary

### **5.3 Enterprise opportunities**

A healthy forest ecosystem provides a strong foundation for income generation through forest products by maintaining biodiversity, soil fertility, and water resources essential for their sustainable production. When forests are in good ecological condition, they support the growth of high-value timber and Non-Timber Forest Products (NTFPs) which local communities and others can harvest and commercialize in a regulated manner. A well-managed forest ensures a continuous supply of these resources without depleting them, allowing for long-term economic benefits.

Mpoto Local Forest provides a number of income generation/enterprise opportunities based on the current forest condition, the interests of local communities and other stakeholders. However, distance to markets and accessibility will be challenging. Nevertheless, the foundations for community-based forest enterprises can be built on the elements of forest resource condition and associated forest product availability, access to markets, an identified enterprise group and importantly. Good governance arrangements will be needed to regulate access, use and protection of the forest.

Through the resource assessment and mapping exercise, combined with the socio-economic survey as well as the stakeholder consultation, the following enterprise opportunities have been identified:

#### **Potential Forest product enterprises**

- Organic Beekeeping
- Wood biomass energy production
- Nature based/Eco-Tourism

The development of the above identified opportunities would be subject to conduct of specific forest product value chain analysis and enterprise development assessment to ensure a viable and financially feasible forest-based enterprise could be promoted in line with the Forestry Department Forestry Enterprise Strategy for 2025-2030. This strategy seeks to promote sustainable forest management while enhancing value addition in forestry value chains through empowering local communities.

#### **5.4 Encroachment- illegal settlement and cropping**

Mpoto Local Forest currently is in a dynamic state due to external pressure factors. However, the reasons for encroachment include:

- Illegal harvesting of forest products (both wood and non-wood)
- Land demand and clearing for agriculture and settlement expansion
- Inadequate presence of forest officials and extension service.

Mpoto Local Forest has over the years been encroached by influx of migrants from surrounding areas and Chiefdoms. Timber selective harvesting and informal land allocation for settlement are the major challenges facing the Local Forest for some time. The encroachment includes areas of smallholder farms as evidenced by the forest restoration and land use mapping highlighted earlier.

Over the years, various initiatives have taken place to address including meetings with Chiefs, stakeholder meetings and a programme of issuing notices to those illegally settled within the Reserve. In addition, a number of settlements are within the gazetted forest area. In 2018 a programme of issuing notices to those illegally settled within the Reserve was conducted following a nationwide instruction from the Minister of Lands and Natural Resources.

Initiatives to address and reverse the situation with a view to restore more of the ecological function of the Local Forest as well as meeting the social, cultural and economic needs of the local community are set out in the following chapter.

## 6 PROPOSED MANAGEMENT OPTIONS

In view of the current condition and threat of deforestation and forest degradation, the overall objective is to secure the ecological functions of the forest through engaging local stakeholders and surrounding communities and agree new strategies for management and restoration of the Local Forest. This includes applying the community forestry process which supports community control, use and management of forest areas in partnership with the Forestry Department. Learning from this approach in this critical local Forest will inform similar processes for other selected protected forest areas in Eastern Province and across Zambia. All approaches will conform to the stated purpose of a Local Forest as described in section 19 of the Forests Acts, 2015:

<b>19.</b> 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—  (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.	Purpose of Local Forest
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The emphasis will be on Forest Landscape Restoration (FLR) as a process for regaining ecological functionality, increasing availability of resources and therefore enhancing values across deforested or degraded forest landscape of MLF. The approach will be to secure areas with forest cover and restore areas of lost forest cover with people's participation in order to improve environmental, social and economic impact. In order to achieve these impact, the main management strategies identified focus on steps to protect, restore and replant, as follows:

- **Protect** - areas where the forest is intact with local stakeholder involvement;
- **Restore** - the forest where it is degraded by promoting regeneration encouraging regrowth of local species or reforestations with people's participation.
- **Replant-increase Forest** cover through planting agroforestry species in fields where cropping is taking place. This aims to increase tree cover, soil fertility, provide fodder and small biomass for energy needs. Further, reforestation through planting of indigenous or exotic species in abandoned fields in a plantation environment where practical.

Opportunities for collaboration with partners and seeking investment and sustainable financing through climate change mitigation / emissions reduction trading will be explored to provide the investment, incentive and reward for sustainable land management in the forest. Sharing benefits from the anticipated Jurisdictional Sustainable Landscape Programme will be core to the process of incentivizing and rewarding good practices in mitigating the effects of climate change and providing the mechanism for monetary benefits to accrue to local communities and other service providers from carbon trading by Government.

## 6.1 Zoning the forest for effective management

This management plan recognizes the 2 major zones identified during the stakeholder consultation of December 2023, which identified use of the forest, the main users of the forest, issues affecting Mpoto Local Forest, local solutions and permitted Activity. A further zone (3) covers the immediate area surrounding the Local Forest to Acts as a buffer which will the focus of development as well as emissions reductions related Activity.

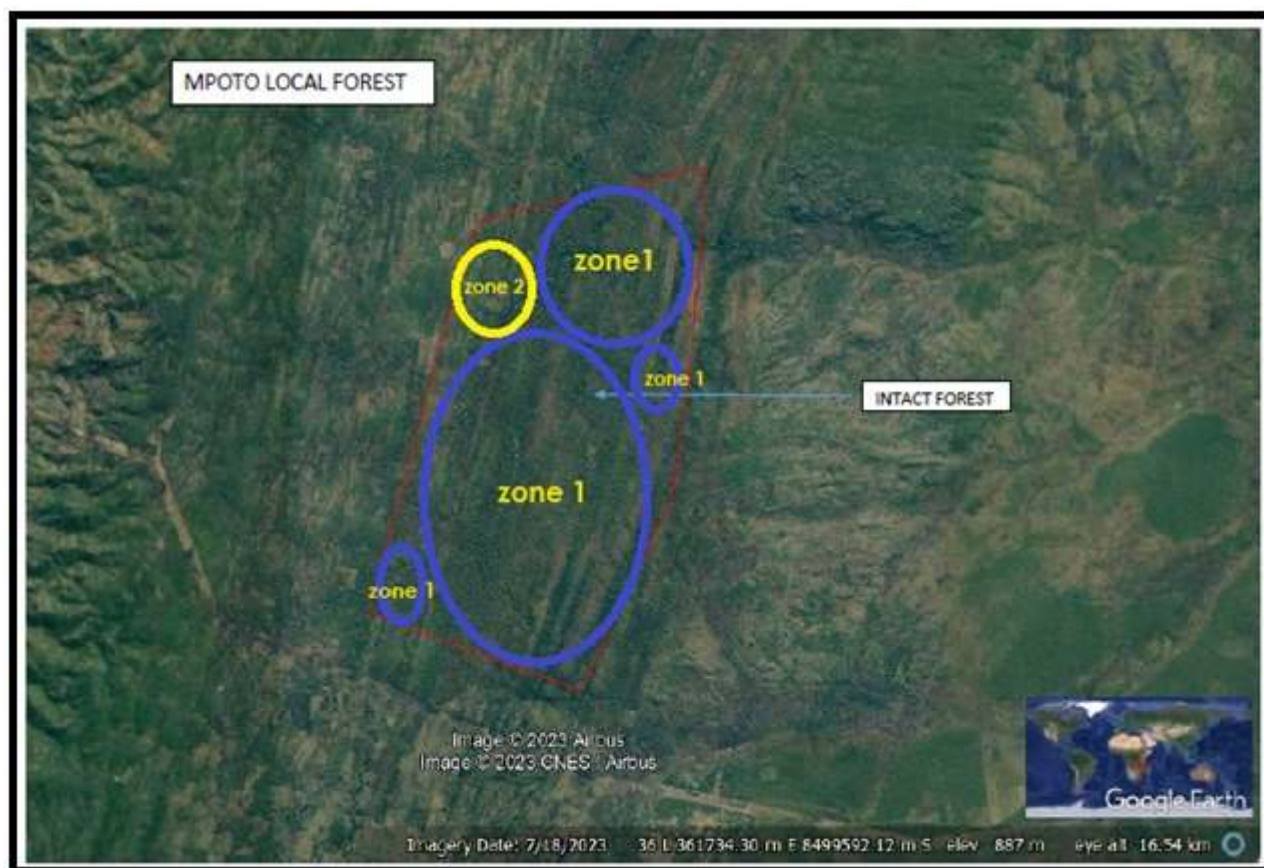


Figure 14: Zoning of Mpoto local forest based on community consultation

### Zone 1: Forest Protection, Management and Conservation of Biodiversity

Mpoto Local Forest is an important forest ecosystem containing different plant species and fauna. It provides an important function to safeguard downstream communities through rainwater interception and release. However, 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 stakeholders and 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 this protection zone.

## **Zone 2: Forest restoration zone**

This covers the areas already impacted by human factors including seasonal and permanent farming including settlement. The main focus within this zone is to re-establish tree cover and therefore conform with the purpose of the Local Forest. This will involve promoting forest restoration approaches, agroforestry and tackling the core issue of encroachment through a variety of initiatives.

Zones 1 & 2: 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 3: Development buffer area:**

The area to the West of the Local Forest is where farming and settlements are located. These will be the focus for forest extension activity, creation of community and household woodlots, use of energy efficient stoves, promotion of agroforestry and other climate smart agricultural Activity. The other sides are bounded by Community Forest Management areas under the control of Malama and Msoro CFMGs respectively.

All areas of action will be managed in partnership with the local community and other stakeholders including the Department of National Parks & Wildlife as the Local Forest falls within a Game Management Area (GMA). It is important therefore that the protection and management of Mpoto LF is aligned with other protection systems and institutional arrangements and any General Management Plan for the GMA.

## **6.2 Forest landscape restoration guiding principles**

Successful forest landscape restoration (FLR) integrates a number of guiding principles, including:

- *Focus on the entire landscape.* Consideration and restoration across the entire landscape of MLF as opposed to individual sites. This entails balancing a mosaic of land uses across the gazetted forest, such as securing in forested areas, regenerating degraded forests, promoting agroforestry systems, climate smart agriculture, well-managed plantations where appropriate, as well as identifying ecological corridors and riparian strips to protect watercourses and waterways.

- *Sustaining and restoring ecological functions.* Sustain and restore the ecological functionality of the landscape, such as its richness as a habitat, its ability to contain erosion and floods, and its resilience to climate change and various disturbances. This can be done in many ways, one of which is to restore the landscape “back” to the “original” vegetation, but other strategies may also be used, ranging from natural regeneration to tree planting.
- *Allowing for multiple benefits.* Increasing tree cover across the landscape including existing cleared farmed areas, without necessarily forming a forest canopy, in order to enhance food production, reduce erosion, provide shade, and produce firewood. In other places, trees may be added to create a closed canopy forest capable of sequestering large amounts of carbon, protecting downstream water supplies, and providing rich wildlife habitat.
- *Promoting stakeholders’ involvement.* Actively engaging local stakeholders in decisions regarding restoration goals, implementation methods, and trade-offs for sustainable land management practices which provides incentives and performance benefits.
- *Adaptively managing* the restoration strategy over time as environmental, social and economic conditions evolve supported through continuous monitoring and learning through the restoration process.

The land use assessment conducted using remote sensing described in chapter 4, indicates approximately 15ha of forest cleared for agriculture or non forest.

<b>Land cover options</b>	<b>Estimated area</b>	<b>Percentage</b>
Forest – protection	1,869.64	99.2
Restoration - agroforestry	15.00	0.8
<b>Total</b>	<b>1,884.61</b>	<b>100</b>

*Table 7 Restoration landcover and option analysis.*



### 6.3 Core forest management action

The identified management action are described as follows:

#### **Action 1: Forest Protection, Management & Conservation of Biodiversity**

Mpoto 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. However, the awareness of the importance of ecosystem services, conservation of biodiversity and climate change mitigation services of Mpoto 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.

Therefore, the following are the 7 steps that the stakeholder communities have to be taken through in order to develop a full partnership for shared management:

- Step 1. Stakeholder engagement, community awareness raising and mobilisation;
- Step 2. Stakeholder mapping including forest use, users and geographic area of interest.
- Step 3. Forming community level institutions to coordinate, manage and control local resource use in partnership with the Forestry Department.
- Step 4. Developing forest product and issues based operational management plans for areas of interest.
- Step 5. Agreeing roles, rights, responsibilities and obligations for shared management.
- Step 6. Implementing practical forest protection and management interventions that bring value and other environmental and social benefits.
- Step 7. Conducting joint monitoring and evaluation of management and benefit sharing measures to ensure a sustainable partnership.



These 7 steps to establishing shared management responsibilities and benefit sharing directly mirrors the 7 steps of the National Guidelines for Community Forestry in Zambia. Therefore, tangible steps will be taken to incentivise and reward local stakeholder communities in the protection and management of Mpoto Local Forest through following the community forestry development steps and processes. This management actions will be operationalized and results measured as follows:

No	Specific Objectives	Strategy	Actions	Responsible	Indicators
1	To develop a shared management approach to forest protection, management and utilisation.	1. Stakeholder engagement, community awareness raising and mobilisation;	Conduct awareness meetings with traditional leadership & communities	FD	Meetings conducted
		2 Stakeholder mapping including forest use, users and geographic interest.	Conduct meetings to determine effective span of management control across MLF	FD	FPIC Meetings conducted
		3. Forming community level institutions to coordinate, manage and control local resource use in partnership with the Forestry Department.	Through participatory processes, form local committee responsible to coordinate and assist management of the MLF	Community groups & FD	
		4. Developing forest product and issues based operational management plans for areas of interest.	For each Zone and area of shared management, development management plans and resource use rules		
		5. Agreeing roles, rights, responsibilities and obligations for shared management.			Signed CFM agreements. Annual work plan reports

No	Specific Objectives	Strategy	Actions	Responsible	Indicators
		6. Conducting joint monitoring and evaluation of management and benefit sharing measures to ensure a sustainable partnership.	See monitoring section of NLFMP		
2	To protect the Forest from late fires	Practice 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
3	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
4	To conserve and enhance the biodiversity of the forest reserve through environmental awareness and education.	Enhance understanding of the forest ecosystem and its function and benefits to community groups and schools.	-Awareness on biodiversity with regard to indigenous knowledge. -Promote local participation and ownership through meetings.	FD/NGOs	
5	To ensure protection against pests and human damage	Frequent monitoring of forest resources	Inspections for diseases and pests and detection of possible illegalities.	FD/ Community	Hectarage of forest protected from pests and human damage
6	To significantly reduce levels of illegal forest	Involve the local communities in the management of	-Conduct sensitization meetings.	FD/ community and other	Number of illegal harvesters

No	Specific Objectives	Strategy	Actions	Responsible	Indicators
	product harvesting.	forest resources in order to create a sense of ownership. Engage honorary forest Officers/guards	-Conduct forest patrols.	security wings	/ Activity reduced
7	Improve local awareness of biodiversity and its value.	Seek greater participation of local communities in research and other biodiversity Activity 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 Activity is sustained over time.

## Action 2: Forest Restoration 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 and within Mpoto 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 and within Mpoto Local Forest. Within this management Action, the following interventions will be undertaken in Zone 2 of the Local Forest as well as extension services and Activity in Zone 3, the areas surrounding Mpoto Local Forest;

- Promotion of community forestry and the establishment of a community forest management group;
- Promote interventions with community groups to protect, restore and replant, as follows:
  - **Protect** - areas where the forest is intact with local stakeholder involvement;

- **Restore** - the forest where it is degraded by promoting regeneration encouraging regrowth of local species or reforestation with people's participation.
- **Replant-increase Forest** cover through planting agroforestry species in fields where cropping is taking place. This aims to increase tree cover, soil fertility, provide fodder and small biomass for energy needs. Further, reforestation through planting of indigenous or exotic species in abandoned fields.
- Promote 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 wildlife stocks ;

This management actions 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 communities	Promote community forestry approach	Conduct CFM Steps 1-7 (see Action 1)	FD	Signed CFM agreement .  Annual work plan reports from the CFMG
2. To protect, restore and replant forest cover in the fragmented forest areas of the National Forest	To Provide Forest extension services.	Training the communities in assisted natural regeneration Promotion of agroforestry and Woodlot establishment for communities surrounding the forest.	FD	Hectarage of forest in the fringe areas increased year on year.
3. 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	FD/ Agric/ CSO's/ community	Tonnage of GHG emissions in the forest reserve reduced by 15% by

Specific Objectives	Strategy	Actions	Responsible	Indicator
		tree nursery species.		mid-year review.
4. 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 midterm review
5 Reduce Forest dependency by local communities.	Promoting diversification of Activity, particularly on-farm Activity such as agroforestry and establishment of wood-lots, to create alternative Sources for forest products.	Involve local communities in woodlot establishment.	FD/ Adjacent communities	Number of people dependent on the forests reserve reduced by half at midterm review
6. To contribute towards meeting social, cultural and economic needs and improving the livelihoods of forest-adjacent communities.	Forest resource condition is improved through management action 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 Activity developed and producing income.
7. 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 thereby income shared to community is improved year on year.

## 6.4 Promoting Forest Based Enterprises

Based on the condition of the forest including plant species as well as information gathered during the socio-economic assessment and stakeholder consultation meetings, a number of enterprise opportunities were identified and described earlier. Therefore, through the proposed management action where appropriate in the relevant zones, forest-based enterprises will be promoted within the context of the purpose of a Local Forest as described in the Forests Acts, 2015. These relate to utilisation of forest resources at local level in order to meet the social, cultural and economic needs of the local community whilst ensuring the protection of ecosystems, particularly the protection of land and water supplies of local strategic importance. These reflect the importance of the principles of sustainable forest management. Therefore, the following enterprise initiatives are highlighted for promotion through local stakeholder involvement:

<b>Forest product/enterprise</b>	<b>Beekeeping</b>	<b>Wood biomass energy production</b>	<b>Nature based eco-tourism</b>
<b>Market/demand</b>	High, local & urban (Mambwe). Organic honey off-takers	Medium local, potential supply Sandwe/ Mfuwe/ Mambwe.	Local & international demand
<b>Product supply</b>	Patches of flowering trees with suitable pollen fodder, water restricted to certain areas	Through agroforestry & forest restoration Activity	Wildlife availability in the forest.
<b>Potential entrepreneurs</b>	Community groups plus individual beekeepers	Community groups plus individual households	Private sector/community groups/ individuals
<b>Opportunities</b>	Available, developed market through off-takers. Local safari lodges in Malama area.	Planned forest restoration works including agroforestry in cropped areas, potential bamboo sites.	The area is already a Game Management Area.
<b>Challenges</b>	Investment in sufficient hives, Honey bulking Centre and water reticulation system investment, technical & business skills training	Seedlings, marketing, Transportation costs	High initial capital to undertake the business. Also falls within a larger hunting concession, therefore coordination with photo-safari operations would be required.

*Table 8: Promoting potential forest-based enterprises*

## 6.5 Fire management strategy

Fire has a critical impact on the forest environment, the condition of the forest and the services that it provides. While fire is frequently naturally occurring in the dryland forests of Eastern Province, it has been used as a management tool technically by foresters as well as by communities for different socio-economic and cultural needs. However, fire that occurs late in the year when the forest is dry causes the greatest harm to the health of the forest as well as the succession process influencing the future productivity, abundance of forest products and therefore its economic contribution locally and nationally. Further, forest fire is a key source of emissions of greenhouse gases (GHGs) in Eastern Province, that affects weather patterns, locally, regionally and globally. Therefore if managed correctly as a management tool, prescribed fire can reduce these emissions and impact, safeguarding the forest resources, biodiversity while providing enhanced opportunities for local economic development.

Therefore a fire management strategy and plan is essential for the proper management of the forest incorporating elements of fire protection and fire suppression. Recognizing the important role the forest plays in support to surrounding communities, the fire management strategy for the Local Forest will be developed through stakeholder consultation and implementation participation with clear roles and responsibilities. The fire protection strategy should indicate: priority areas for protection – valuable and fire sensitive species, newly planted areas, enrichment planting, areas of fire sensitive natural regeneration, as well as high risk areas based on access, use and past frequency of fires. Based on the participatory assessment, protection measures such as: firebreaks – both internal and boundary should be planned, areas for prescribed (early) burning identified as appropriate. An action/activity plan with roles, responsibilities and timings should be discussed and agreed with stakeholders.

The **Fire suppression strategy** details the response should a wild-fire start which threatens the forest area. This will detail the pre-planned procedures along with roles and responsibilities. It will include the following:

- **A fire detection system:** The process and procedures to report the incidence of fire to promote prompt action and therefore protection.
- **Procedures in response to a fire alert:** How to alert stakeholders and local community members to assist with fire suppression including the availability and location of equipment to fight the fire.
- **Fire fighting strategy:** This will include details of various approaches to tackling fires using the materials and equipment that are available locally.
- **Methods to fight fires:** This will cover different fire suppression methods depending on the nature of the fire (Frontal attack, Flank attack, Indirect attack – back burning). These will have been explained and key personnel trained in each of the approaches. This will also include risk assessment methods and requirements for personal protective equipment.

A **Fire Education Strategy** will be developed at the start of the implementation of the FMP: This aims to raise awareness of the community on the impact of fire and the need to protect the forest from fire. Groups which represent a higher risk should be targeted for education, e.g., honey collectors, charcoal burners, mice collectors, schoolchildren etc.

## **6.6 Law enforcement Strategy**

This Law Enforcement Strategy aims to protect and sustainably manage Mpoto Local Forest; P 233, through effective enforcement of legal provisions, regulations, and community participation. Ensuring compliance is essential to prevent illegal activities such as illegal management action, poaching, and forest encroachment.

### **Objectives**

- To prevent illegal exploitation of forest resources.
- To promote community participation in enforcement.
- To ensure timely and fair response to violations.

### **Key Enforcement Strategies**

#### ➤ ***Regulation of Forest activities***

- Designating legal zones for access, selective timber harvesting and charcoal production.
- Issuing permits and licenses for activities such as harvesting, collection, and tourism.
- Enforcing restrictions on cutting, hunting, or collecting forest products outside authorized zones.

#### ➤ ***Monitoring and Surveillance***

- Regular patrols by forest rangers and enforcement officers.
- Using technology such as drones, and GPS tracking.
- Engaging Honorary Forest Officers in reporting illegal Activity.

#### ➤ ***Community Involvement in Law Enforcement***

- Strengthening community forest groups' role in patrols and reporting.
- Providing incentives for communities that actively participate in enforcement.
- Publicizing penalties to serve as deterrents.

#### ➤ ***Collaboration with Stakeholders***

- Coordinating with police, community groups, NGOs, and traditional leaders.
- Promoting joint patrols and awareness campaigns.



## 6.7 Environmental and social safeguards and other crosscutting issues

The Forestry Department shall ensure that the management of Mpoto 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 action, 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 action 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 Mpoto 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 Mpoto 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 activity 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 impact, 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

### **Infrastructure Development**

In order to achieve the forest management objectives for Mpoto 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 Mpoto Local Forest to the main road is a major challenge.

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.	FD/Maintenance/Infrastructure	All infrastructure maintained to optimum standards

### **6.8 Sources of Revenue**

Sources of revenue in Mpoto Local Forest typically is from the forest's resources, outlined below;

#### **Licenses and Permits**

- Issued by forest authorities (e.g., Forestry Department unless transferred under a CFM Agreement) for:
  - Timber / fuelwood harvesting
  - NTFP collection
  - Carbon projects (REDD+)
  - Eco-Tourism and Recreation
  - Visitor fees, concessions, or partnerships with private operators.
  - Others as provided by the Forests Act, 2015 or relevant regulations.

#### **Climate change emissions reduction trading**

The Government of the Republic of Zambia has identified climate financing as a potential source of revenue to support climate change mitigation and adaptation activities to safeguard the natural environment and importantly the ecosystem services that society as a whole and specifically rural communities depend on for their livelihoods and wellbeing. In the Eastern Province, the Ministry of Green Economy and Environment is implementing the Jurisdictional Sustainable Landscape Programme (EP-JSLP). The Programme Development Objective (PDO) is

“to promote greenhouse gas (GHG) emissions reduction or removals in the Eastern Province, while simultaneously improving rural livelihoods including forest and wildlife conservation and management. These emissions reductions are being measured, verified, traded and revenue distributed according to an agreed Benefit Sharing Plan. An estimate has been made of the potential revenue that might be generated through the GRZ emissions reduction trading under the JSLP benefit sharing mechanism. The GHG baseline inventory indicated that the major emissions in the Province are coming from forest land through degradation from forest fires. Implementing improved forest management, conducting fire management and protecting the integrity of the forest areas including from forest loss, degradation and encroachment can be measured and monetised.

In the case of Mpoto Local Forest and based on the intact forest area of 84% may generate emissions reduction of over **4,600** tonnes of carbon equivalent which may be monetised to generate around **\$14,000 or ZMW 350,000** annually. This may increase as prescriptions of forest restoration may result in increased carbon sequestration that can be measured and monetised.

## 6.9 Summary Budget of Forest Management Plan Implementation.

Forestry Programme	Cost in ZMW for 10 years
1 Forest Conservation through Community Participation and Livelihood Development	2,646,683
2 Forest Protection, Restoration, Management and Conservation of Biodiversity	1,989,187
3. Support the development of viable forest-based enterprises.	894,372
Summary costs total (ZMW)	<b>5,530,242</b>
Estimated Revenue (ZMW)	<b>5,828,683</b>
Net surplus (ZMW)	<b>298,441</b>

*Table 9: Summary Cost of Forest Management Plan Implementation*

Budget breakdown is provided in Annex VII

## 7 STAKEHOLDERS ROLES AND RESPONSIBILITIES

Effective implementation of the Mpoto Local Forest Management Plan (FMP) requires Active participation and collaboration among all key stakeholders. Each stakeholder has specific roles and responsibilities to promote sustainable forest management, conservation, and community development.

### District Forest Office (DFO)

The District Forest Office plays a pivotal role in on-the-ground forest management, enforcement, and community engagement. Its specific responsibilities include:

- **Conduct Regular Patrols:** Carrying out routine patrols within the Mpoto Forest to prevent illegal Activity such as unauthorized selective timber harvesting, poaching, and encroachment.
- **Maintain Boundaries and Beacons:** Ensuring all forest boundaries and beacons are clearly marked, visible, and maintained to prevent boundary disputes and illegal incursions.
- **Monitor Forest Recovery and Growth:** Tracking Forest regeneration, health, and overall ecological status to inform management decisions and detect signs of degradation.
- **Develop and Implement Forest Fire Management Plans:** Establishing proactive fire prevention, detection, and suppression strategies, including community-based fire management initiatives.
- **Conduct Environmental Education (EE) Campaigns:** Raising awareness among local communities and stakeholders about sustainable forest use, conservation practices, and the importance of forest resources.
- **Train Communities in Sustainable Forest Management (SFM):** Providing capacity-building programs, workshops, and technical assistance to community members and forest management groups.
- **Report and Document Activity:** Preparing and submitting comprehensive reports on forest conditions, patrol outcomes, enforcement action, and community engagement efforts to relevant authorities for oversight and planning.

### Provincial Forest Office (PFO)

The Provincial Forest Office provides strategic oversight, governance, and support to ensure effective implementation of the Forest Management Plan. Its primary responsibilities include:

- **Monitoring and Evaluation:** Regularly assessing the implementation of the FMP at district and community levels using predefined performance indicators to measure progress and identify gaps.
- **Disbursement of Funds:** Managing financial resources allocated for forest management Activity, community support programs, capacity-building, and infrastructure development.
- **Facilitation of Audits:** Overseeing and supporting the auditing process of District Forest Offices and community initiatives to ensure transparency, accountability, and proper use of resources.

- **Coordination and Support:** Offering technical guidance, resources, and capacity-building support to District Forest Offices, community groups, and other stakeholders involved in forest management.
- **Policy and legal framework:** Ensuring that the FMP aligns with national forestry policies and legal frameworks, particularly the Forests Acts, 2015.
- **Stakeholder Engagement:** Facilitating communication and collaboration among government agencies, communities, NGOs, private sector partners, and other relevant entities.

### **Role of the Local Authorities**

Local authorities are vital for integrating sustainable forest management into broader development initiatives at the district and community levels. Their responsibilities include:

- Incorporating the FMP into local development plans, ensuring that forest management considerations are mainstreamed into land use, infrastructure, and ecosystem planning.
- Facilitating alignment between forest management Activity and other sectors such as agriculture, water, and health.
- Supporting the enforcement of forest laws and regulations within their jurisdictions.
- Promoting rural development projects that leverage forest resources to enhance community livelihoods and economic resilience.

### **Role of Traditional Authorities**

Traditional leaders play an influential role based on customary authority, community trust, and cultural management systems. Their roles encompass:

- Providing mentorship and guidance to community members on sustainable resource use.
- Helping resolve conflicts related to forest access, use, and rights according to customary laws.
- Providing formal consent for community-based forest management processes, including recognition and signing of community forest management agreements with the Director of Forestry.
- Supervising the community forest management groups, ensuring their Activity conform to customary norms and legal provisions.
- Overseeing access control, management of natural resources, and the conduct of community elections for forest management committees.
- Ensuring that enforcement of rules and resolutions reflects community values and customary laws.

### **Role of Communities**

Communities are the primary custodians of the forest and hold the rights to sustainably manage and benefit from forest resources. Their responsibilities include:

- Controlling access to forest resources to prevent illegal Activity and overexploitation.

- Actively participating in decision-making processes related to forest management.
- Implementing community-based sustainable forest practices as outlined in the management plan.
- Protecting the forest from illegal Activity such as selective timber harvesting, poaching, and encroachment.
- Ensuring equitable sharing of benefits derived from forest resources, including income, employment, and social services.
- Reporting violations and participating in community-led enforcement efforts.
- Maintaining the community forest management groups and ensuring transparency and accountability in their operations.

### **Role of Honorary Forest Officers (HFOs)**

Honorary Forest Officers are community members appointed based on peer nominations and official approval by the Minister. Their roles include:

- Facilitating community compliance with forest laws, bylaws, and resolutions.
- Supporting enforcement of sustainable harvesting and access regulations.
- Acting as mediators in conflict resolution within the community regarding forest use.
- Reporting action and assisting in investigations related to illegal Activity.
- Collaborating with District Forest Officials to ensure harmonized enforcement efforts.

### **Role of Private Sector and Civil Society Organizations (CSOs)**

Private sector entities and civil society organizations are crucial for fostering economic development and social empowerment through forests. Their roles include:

- Providing technical and financial services to support community enterprises, such as training, capacity building, and infrastructure development.
- Developing market linkages for forest-based products, ensuring fair trade and sustainable value chains.
- Promoting innovative approaches and investments that enhance forest conservation while generating income.
- Supporting additional services such as environmental education, capacity building, and advocacy for policy reforms.
- Facilitating the development of non-timber forest products (NTFP) enterprises, eco-tourism, and other sustainable livelihood opportunities.
- Monitoring social and environmental impact of forest-based activity to ensure compliance with sustainability standards.

## **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 Activity 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 Mpoto Local Forest which will operationalize the management action described in Chapter 6.

### **8.1 Monitoring**

To ensure that implementation of the management plan is on course, FD will facilitate monitoring of Activity and programmes in coordination with partners, stakeholders and community representatives in the MLF 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 action 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 MLF 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 Activity 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 Activity 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 action Chapter. The lead implementing agencies represented by the Forestry Department will undertake monitoring and evaluation of the implementation of the plan.

<b>Programme</b>	<b>Indicator of Success</b>	<b>Means of Verification</b>	<b>Assumptions</b>
<b>Forest Protection</b>	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
<b>Biodiversity Conservation</b>	Increase in species biodiversity.	Surveys on biodiversity, records, photographs and reports.	The Plan is successfully implemented Good working relationship between stakeholders Availability of resources
<b>Community Conservation and Livelihood development</b>	-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
<b>Environmental Education</b>	Number of school conservation clubs formed. No. of awareness meetings and attendance. -No of trainings held/exposure visits	Records, monitoring & Evaluation reports and photographs.	The plan is successfully implemented with funds made available.
<b>Infrastructure Development</b>	Number and type of infrastructure Developed/ maintained	Records Monitoring and evaluation reports	The Plan is successfully implemented Availability of funds
<b>Human Resource Development</b>	Number of people employed Number of people trained. Number of community members involved in forest Activity	Records Monitoring and evaluation report	The Plan is successfully implemented Availability of funds

Table 10: strategic monitoring indicators



## Annex 1: Declaration Order, Topo Map & Inventory Map

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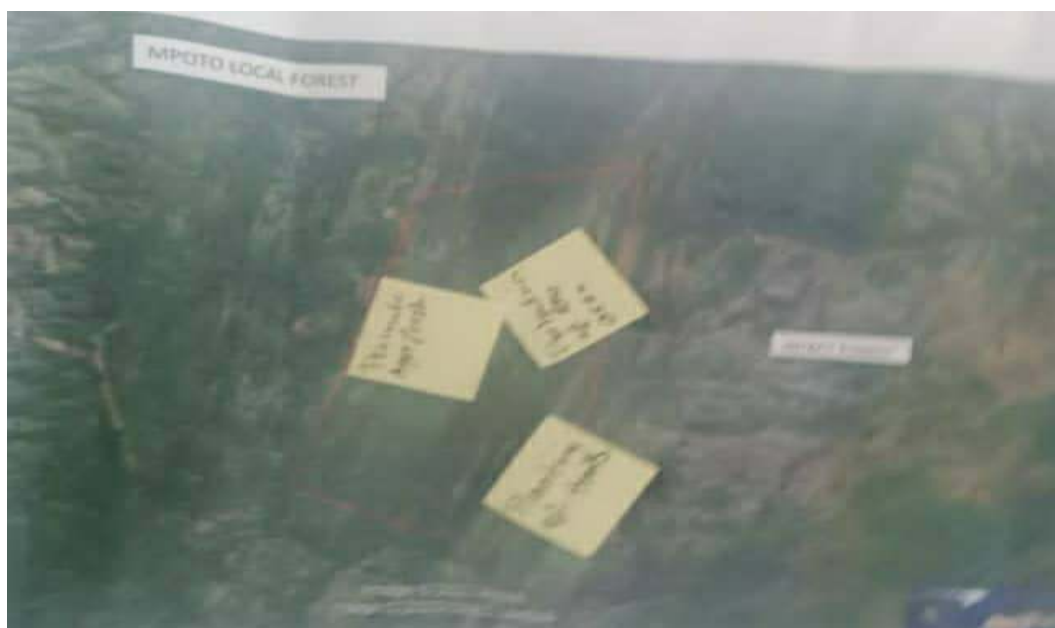


Figure 16: Map of Forest Zones relating to Forest condition.

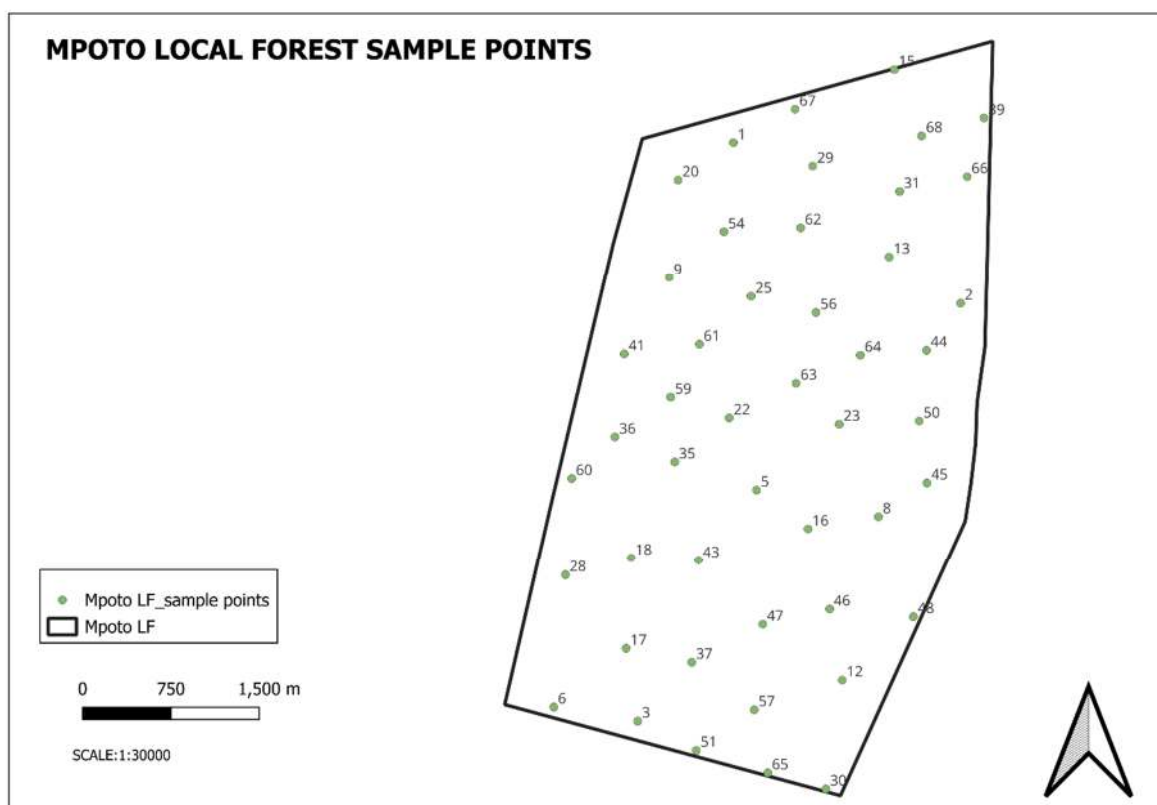
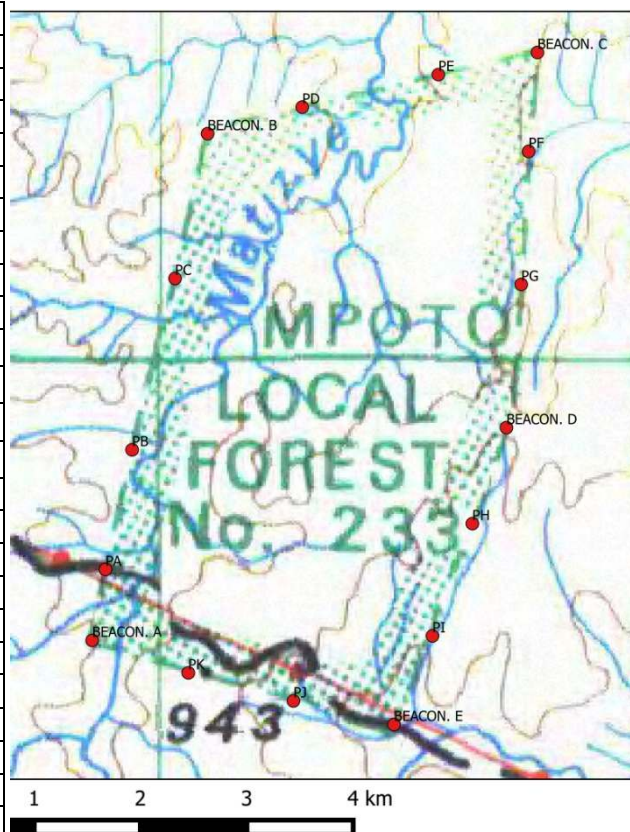


Figure 17: Systematic Sample points

BEACON ID	X	Y
BEACON. A	359645	8497154
BEACON. B	360774	8502053
BEACON. C	363734	8502894
BEACON. D	363691	8500276
BEACON. E	363625	8499721
BEACON. F	363546	8498768
BEACON. G	362487	8496387
BEACON PA	359834	8498108
BEACON PB	360039	8498963
BEACON PC	360256	8499917
BEACON PD	360433	8500672
BEACON PE	360610	8501441
BEACON PF	361580	8502285
BEACON PG	362399	8502531
BEACON PH	363039	8502720
BEACON PI	363737	8502168
BEACON PJ	363713	8501471
BEACON PK	363702	8500831
BEACON PL	363285	8498198
BEACON PM	362996	8497527
BEACON PN	362735	8496929
BEACON PO	361735	8496568
BEACON PP	360927	8496777
BEACON PQ	360230	8496972



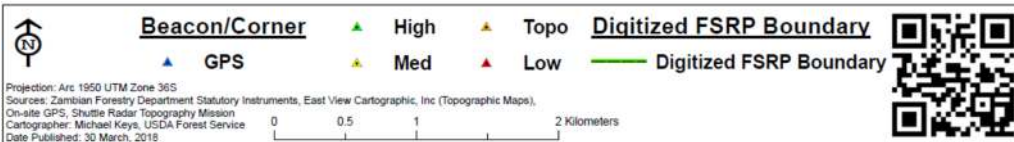
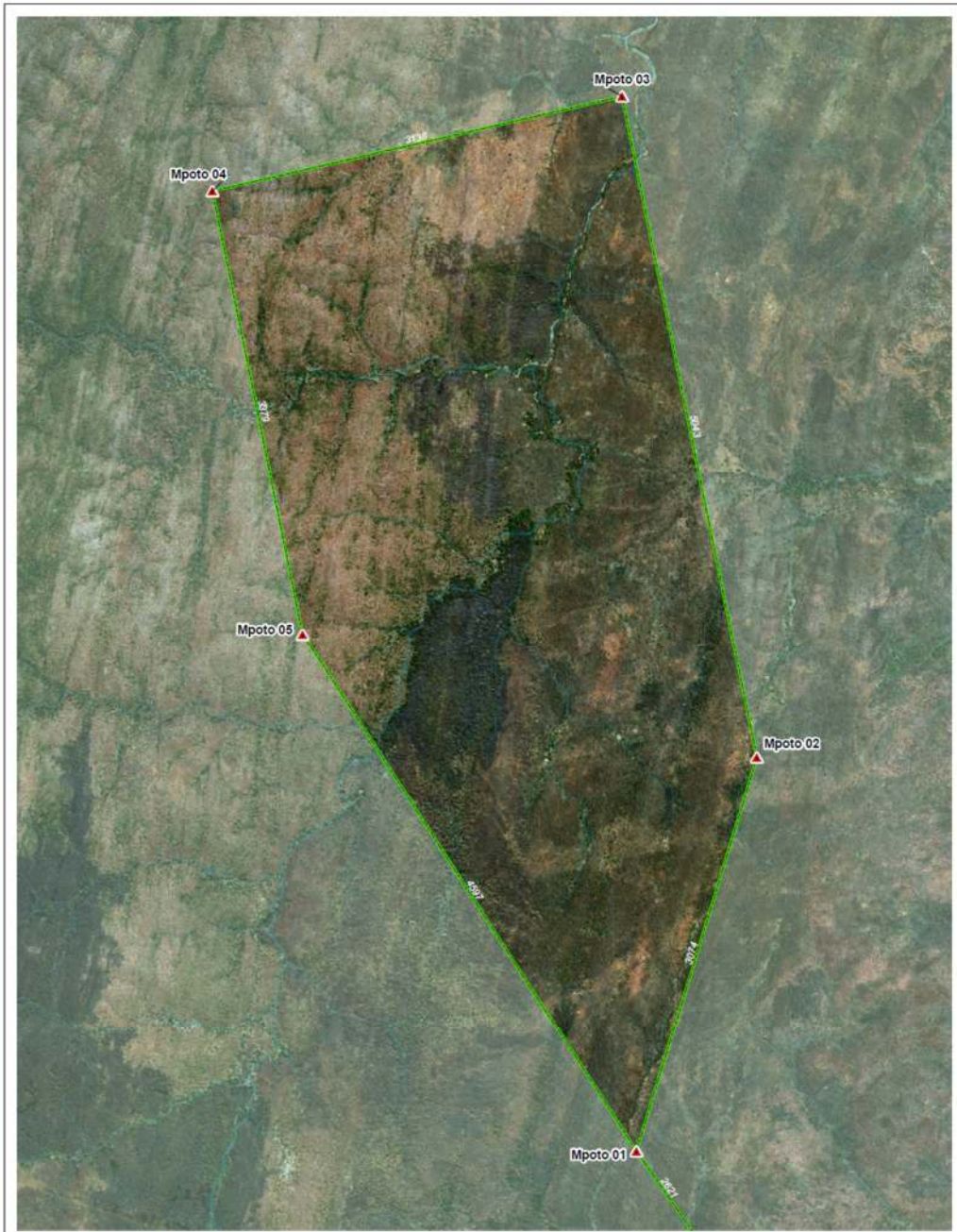
Boundary beacon points from the FSRP survey

CONFIDENCE	BEACON/POINT NAME	LATITUDE DD	LONGITUDE DD	UTM EASTING	UTM NORTHING
Low	Mpoto 01	-13.59232	31.73208	8497137	362826
Low	Mpoto 02	-13.56579	31.74053	8500077	363725
Low	Mpoto 03	-13.52107	31.73148	8505018	362719
Low	Mpoto 04	-13.52731	31.70319	8504312	359661
Low	Mpoto 05	-13.55728	31.70925	8501001	360335



# Mpoto Local Forest

1861 Ha.



## Annex II: Inventory Data

Diameter Class	0-4	5-9	10-14	15-19	20-29	30-39	40+	Total
Vol (m <sup>3</sup> )/ha	0.01	3.57	6.33	8.19	9.49	10.44	21.40	59.43
Bole Vol (m <sup>3</sup> )/ha	0.00	1.56	2.69	3.37	3.83	4.17	8.51	24.13
Density/SPH	0.99	210.86	107.66	56.53	29.99	14.74	11.30	432.14
Basal area (m <sup>2</sup> )/ha	0.00	0.89	1.23	1.29	1.37	1.39	2.53	8.67
Biomass, Total (Tons)/ha	0.03	5.36	9.40	12.57	13.81	15.63	29.54	86.33
Carbon, Total (Tons)/ha	0.01	2.67	4.70	6.29	6.90	7.81	14.77	43.17
<b>Volume by Species use</b>								
Vol (m <sup>3</sup> )/ha Saw logs	0.00	0.03	0.09	0.00	0.74	1.43	8.03	10.31
Vol (m <sup>3</sup> )/ha Poles	0.00	0.83	1.33	1.57	0.90	0.00	0.00	4.63
Vol (m <sup>3</sup> )/ha Fruits	0.00	0.17	0.14	0.11	0.40	0.41	0.00	1.26
Vol (m <sup>3</sup> )/ha Medicinal	0.00	0.84	1.17	1.53	3.17	3.66	4.23	14.60
Vol (m <sup>3</sup> )/ha Firewood	0.01	0.91	1.79	3.30	2.80	1.40	5.13	15.36
Vol (m <sup>3</sup> )/ha Others	0.00	0.77	1.77	1.57	1.31	3.54	4.00	12.97
Seedlings								1,370

### Annex III: Demographics of fringe communities

Demographics of major forest fringe communities of Mpoto Local Forest

Locality Name	Sex of household head			Population		
Village	Female	Male	Total	Male	Female	total
Bwezani	0	2	2	3	4	7
Chambukila	0	6	6	19	16	35
Chauwa	1	2	3	13	7	20
Elifala	0	16	16	31	46	77
Kadzakaloba	0	4	4	10	9	19
Kapenya	1	6	7	12	13	25
Lungwani	1	4	5	13	12	25
Musosoka	0	2	2	5	6	11
Petulo	0	8	8	22	21	43
Yokoniya Daka	1	3	4	11	15	26
<b>Total</b>	<b>4</b>	<b>53</b>	<b>57</b>	<b>139</b>	<b>149</b>	<b>288</b>

Table 11: Population Distribution of major forest fringe localities of the Reserve by sex

#### **Annex IV: Stakeholder consultations**

The Forestry Department in Eastern Province initiated a process to prepare forest management plans for 12 forest reserves with support from Zambia Integrated Forest Landscape Project (ZIFLP). In accordance with section 41 of the Forests Acts, 2015, a process of engagement with traditional leaders was conducted in order to gain support from the Chiefs in the preparation of the Forest Management Plans before the proposed data collection Activity and later local validation meetings. It was planned to meet their Royal Highnesses to gain consent and have an input in these Forest Management Plans.

Therefore, the Chiefs under which the Local Forest 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 to Chiefs on FMP consultations**

During the courtesy call the team gave the background of forest inventories conducted in Mpoto Local Forest and the interventions that ZIFLP is supporting, the importance of the landscape and the areas of interventions including 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.

#### **Meeting Chief Malama and Chief Msoro on Mpoto Local Forest.**

Forest Management plan to be written effectively, his Royal Highnesses Chief Malama and Chief Msoro were visited for consultation over Mpoto Local Forest of Mambwe Districts.

## **Annex V: Stakeholder validation meeting**

### REPORT FOR THE MPOTO LOCAL FOREST MANAGEMENT PLAN STAKEHOLDERS' VALIDATION MEETING HELD AT COUNCIL GUEST HOUSE, MWAMBWE DISTRICT ON 22<sup>ND</sup> DECEMBER, 2023

#### **1.0 Introduction:**

The Forestry Department in 2021 undertook a forest inventory exercise to take stock of the forest resources in Mpoto Local Forest (MLF) among others with the view of collecting data to inform the preparation of Forest Management Plans (FMPs). The FMPs are prepared to guide the community-government partnership in the management of protected forest areas (FPAs) in the Eastern Province. Following the forest inventory exercise, draft FMPs were prepared for all the selected reserves in Eastern Province.

The Stakeholders Validation Meeting for MLF in Mambwe was organized to validate the FMP for the MLF which was developed by the Forestry Department. The Stakeholders Validation Meeting for the MLF brought together 24 participants: 6 females and 18 males drawn from government departments, civic leaders, CSOs, private sector, CFMG and traditional leaders.

#### **2.0 Official Opening**

Mr. Levy Matongo from the Ministry of Education on behalf of the, District Commissioner for Mambwe officiated at the meeting. The acting District Commissioner informed the participants that the formulation of Forestry Management Plans (FMPs) was required by law (Forests Acts No. 4 of 2015) to be validated by stakeholders. Hence the meeting was very important. The meeting was called to facilitate sustainable management of the MLF which has had no management plan. In this regard the District Commissioner implored the stakeholders to constructively engage and contribute actively in the meeting. The District commissioner reiterated that FMP formulation is a legal obligation and needed to be formulated and validated in a consultative and participatory way. The importance of the meeting could not be over emphasized.

#### **3.0 Meeting's Expectations**

Mr. Gondwe facilitated the session on meeting's expectations. And the stakeholders brought out the following expectations:

- i. to learn how to manage their forest and what to do;
- ii. take part in the deliberation and learn what we need to do
- iii. to discuss issues and come up with solutions
- iv. how the forest operates and how best it can be managed
- v. learn more and contribute more on issues of forest management
- vi. to see that the objectives are met and everyone understands
- vii. know more about forest conservation
- viii. to learn and understand issues surrounding CFMGs



#### **4.0 Meeting Objectives**

- Policy and legal context
- Situational analysis on the Natural Resources and Economic Profiles.
- Identifying users and uses, issues, threats and solutions
- Agreeing the strategies and partnerships for management

#### **5.0 Structure of Meeting**

The meeting had three main components presentations, group work and plenary discussions

##### **5.1 Presentations**

Three main context setting presentations were made by the workshop facilitators: i) Policy and legal context; ii) Natural Resources profiles; and iii) Socio-economic profile

##### **5.1.1 Policy and Legal Context**

The presentation on Policy and legal context was done by Mr. Alastair Anton, Community Forest Technical Advisor, ZIFLP. The presentation covered the roles and functions of protected forest areas (PFAs); and why they are established. To enhance comprehension of the information in the presentation imagery was also used. Also highlighted in the presentation was a brief overview of the Zambia Integrated Forest Landscape Project (ZIFLP) and its significance in the sustainable forest management. The major highlights from the presentation were:

- An overview of selected of existing pieces of Forest legislation were shared such as the National Forest Policy 2014, National Strategy to Reduce Deforestation and Forest Degradation, National Forestry Acts No 4 of 2015 among others. Contents such as vision, objectives and measures were also shared;
- Also presented were the policy and pieces of legal documents pertaining to MLF. It was highlighted that MLF was gazetted as a forest in 1975 as a local supply of timber. Forest protection was important for both the present and future generation as provided for in the legal documents;
- ZIFLP supported the Forestry Department through enhancement of tree nurseries to help with assisted natural regeneration of the degraded and deforested areas.
- Action was needed at national and subnational levels, but importantly local level;

The meeting was being held because sustainable forest protection and management required concerted efforts and that FMPs formulation was a legal obligation that needed to be done in a consultative and participatory manner;

##### **Stakeholders' Observations and concerns**

The stakeholders made several observations and raised some concerns notable among them include the following:

- The forest is important to the surrounding communities as well as a habitat for animals. Forest loss threatens everyone and everything that depends on this forest.
- There are serious encroachments in MLF, therefore there is need to protect what is remaining of the forest as well as bring it back to its former glory at the same time find a lasting solution to the illegal forest Activity.
- Need to change the mindset of the people for them to appreciate the grave consequences of deforestation as well as need to provide sustainable/ alternative livelihoods.
- To resolve the inadequate human resource issue there was need to be re-introduce forest guards to police the MLF and need to stiffen laws.
- The community forestry model should be promoted as it also promotes local ownership

### **5.1.2 Situation Analysis**

The presentation on situation analysis focused on the two surveys- Natural Resources Profiles and the other on the socio-economic profile, that were undertaken in the Local Forest 2019 and the results.

a) Natural Resources Profiles- Mr. Christopher Gondwe, presented the situation analysis highlighting the natural resources profiles and inventory results and change analysis. Major highlights from the presentation included:

- Total number Protected Forest Reserves in eastern province was 73: 11 NFs and 62 LFs covering 469,142 ha which translates to 9.2% of the total surface area of the eastern province. the total boundary area covers 2,042.7km;
- MLF was gazetted in 1975 with total hectarage of 2023,
- Explanation how volume was calculated/measured was demonstrated
- The sampling design used to select the sample plots in the survey was systematic sampling design through which sample plots were created and data was accordingly collected from all the sample plots;
- Parameters that were considered in the survey were highlighted and explained.
- The proposed programs as contained in the draft FMP for MLF were also presented.

b) Social-Economic Profile.

Mr. Mully Phiri from Zambia Statistics Agency made the presentation on Social-Economic Profile. Noteworthy highlights from the presentation included the following:

- The Province undertook the Socio-Economic Survey in MLF in 2019 alongside the Forest Inventory.
- At the time of the survey, the total population sample taken was 288 for MLF which included the survey that derived benefits from the forest was out of which 139 were male and 149 were female. The sample comprised 288 households, out of which 268 were male headed households and 20 were female headed households;

- Farming (79 %) was the main source of livelihood for the people surrounding the Forest;
- Firewood (100%) all the people sampled Majority depended on firewood for cooking while about (31.6%) of the sample population had the MLF as the main source of water;
- About (84%%) of the people in the sample expressed willingness to protect and manage the MLF;
- The main form of land use for the sampled are was agriculture that is, 79.1% of the land in the sampled area was used for agriculture, while 21.1% was natural forest.

Clarifications raised by participants included:-

- The villages surrounding MLF had been willing to co-manage the forest since 2014 when the Forestry Department engaged pertaining joint management MLF. Through the same process the community a management plan was even developed. However, the department went quiet; there had been no follow-up since then until now. The community had been waiting for the actualization the plan.

## **4.2 Group Work**

Group work on issues and threats affecting the Protected Forest Area (PFA) and identification of hot spots of concern was facilitated by Mr. Anton. Two groups were formed to:-

- Identify issues and suggest possible solutions;
- Identify priorities and strategies;
- Identify uses of the forest and map where they were most prevalent
- Zone the FPA and identification of practices which should be allowed or not allowed in the respective zones

The groups were asked to discuss:

Who should be involved in the management of MLF, how should they be selected, their role, office tenure, what authority in terms of decision making should they make, who decides, how should the benefits be shared?

### **4.2.1 Group Presentations**

The Groups made presentations to facilitate agreement of the strategies and partnership for management. Arising from the group presentations, Mr. Anton presented the synopsis of the situation Analysis as presented by the participants.

## **6.0 Collaboration Declaration Pledge**

The stakeholders signed a joint declaration pledging to collaborate in the sustainable management of MLF. Below are the contents of the Declaration Pledge:

“We the interested stakeholders of MLF agree the need to increase the productivity of the MLF to enhance the environmental, social, cultural and economic values.

Damaging Activity were identified and solutions and strategies put forward to ensure the forest is well managed and protected. Permitted practices were identified as well as those which should be controlled.

As concerned stakeholders we are ready to work in partnership with the Forestry Department, Local Authority, traditional leaders to collaborate over the protection, control, use and management of MLF”.

## **5.0 Next steps**

Mr. Anton and Mr. Mully Phiri facilitated the session on next steps. Below were the agreed next steps/ way forward

- Forestry Department team to capture discussions, issues, strategies and recommendations from the meeting and report the opportunities to the Provincial Forestry Office and the Forestry Department Headquarters
- The chiefs’ representative should report Their Royal Highnesses the proceedings of the meeting
- Forestry Department Team to:
  - Support follow up Activity
  - Develop proposal to secure funding for development of MLF with stakeholders’ involvement
  - Subject to Project extension, check for opportunities for supporting enterprise development

## **7.0 Vote of thanks, Closing Remark and Prayer**

A representative of the stakeholders thanked government for convening that important meeting but appealed to government to implement the recommendations.

Mr. Gondwe thanked everyone for attending the meeting and contributing through their inputs in perfecting the FMP. He implored the stakeholders to report back to their superiors and/or their communities.

## **8.0 The following is a synopsis of the group work and write up from the flipcharts and other materials**

### **GROUP WORK- 1**

1. Identify in Mpoto Local Forest.

#### **What -uses of the forest**

- Timber production
- Charcoal production
- Firewood
- Wild fruits and rats for food purpose
- Habitant for animals

### **Who -Uses the forest?**

- Communities
- Investors
- Wild animals
- Government

Where -it is used /harvested

ISSUES	SOLUTIONS/OPPORTUNITIES
Encroachment	Eviction of encroachers
Existing fields	No expansion
unplanned fires	Promote planned fire burning
Unsustainable cutting of trees	Sustainable cutting of trees and plant where necessary

3, Zoning of forest

4. List of permitted /prohibited practices in each zone identified

5. List suggestion /strategies to improve productivity /management of the forest

### **What should be priority?**

- Sustainable cutting down of trees and tree planting
- No expansions of agriculture files in the forest
- No encroachment in the forest

### **Who should be involved?**

- Community
- Government department
- Cooperating partners
- Transitional leaders

### **How do we work together?**

- Stakeholders meetings
- Community sensitizations

## **GROUP 2 WORK**

2. Identify in Mpoto Local Forest

### **What -uses of the forest**

- Honey harvesting
- Medicinal herbs
- Firewood
- Poles/timber
- Contribute to carbon cycle

### **Who -uses the forest?**

- Local people

### Where – it is used /harvested

THREATS	SOLUTIONS
Poaching	Enforcing more patrols
Illegal settlement	Resettlement /no expansion
Late burning	Practice early burning

6. Zoning of forest

7. List permitted practices /prohibited practices in each identified.

8. List suggestion/strategies to improve productivity /management of the forest

### What should be the priority?

- Conducting sensitization meetings to local people, civic leader as well as traditional leaders
- Intensifying patrols in Mpoto forest

### Who should be involved?

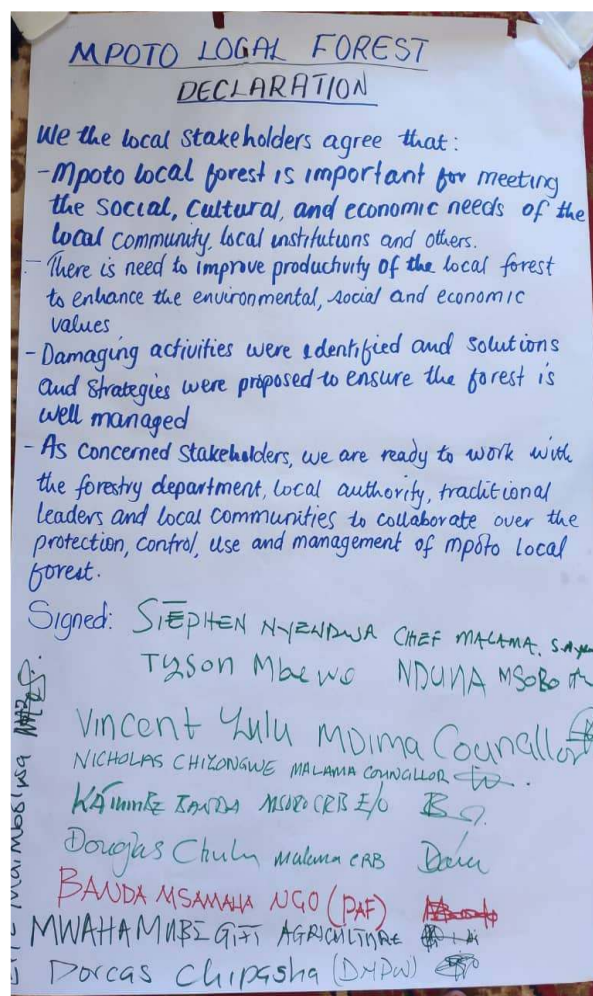
- Traditional leaders
- Civic leaders
- Community members
- Stakeholders

### How do we work together?

- Collaboration
- Promoting transparent ,accountability and inclusive model

### Declaration

The stakeholders meeting for Mpoto Local Forest that was held on the 22<sup>nd</sup> of December, 2023, at Council Guest house, in Mambwe district. The stakeholders signed a joint declaration pledging to collaborate in the sustainable management of Mpoto Local Forest.



## **Annex VI: References**

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

- ❖ Government of Zambia, (2018) The National Guidelines for Community Forestry in Zambia, Forestry Department, Lusaka, Zambia. <https://ziflp.org.zm/cfm/>
- ❖ 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.

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

Action 1: Forest Protection, Management & Conservation of Biodiversity		Unit of Measure	Quantity	Freq	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	Total cost
1. To develop a shared management approach to forest protection, management and utilisation.	1. Stakeholder engagement,	Community meetings	2	2	2,000	8,000	-	-	-	17,569	-	-	-	-	-	25,569
	2.community awareness raising and mobilisation;	Community meetings	1	2	5,000	10,000	-	-	-	14,641	-	-	-	-	-	24,641
	2. Stakeholder mapping including forest use, users and geographic interest.	Community meetings	2	1	5,000	10,000	-	-	-	-	-	-	-	-	-	10,000
	3. Forming community level institutions to coordinate, manage and control local resource use in partnership with the Forestry Department.	Community meetings	1	1	5,000	5,000	-	-	-	-	-	-	-	-	-	5,000
	4. Developing Forest product and issues based operational management plans for areas of interest.	Community meetings	2	2	4,000	16,000	-	-	-	26,354	-	-	-	-	42,443	84,797
	5. Agreeing roles, rights, responsibilities and obligations for shared management.	Community meetings	1	1	3,000	3,000	-	-	-	-	-	-	-	-	-	3,000
	6. Conduct training in control functions: Permits, rules, financial management, law enforcement	Community meetings	1	2	3,000	6,000	-	-	-	17,569	-	-	-	-	-	23,569
2. To protect the Forest from late fires	7. Conducting joint monitoring and evaluation of management and benefit sharing measures to ensure a sustainable partnership.	Community meetings	1	10	3,000	30,000	33,000	36,300	39,930	43,923	48,315	53,147	58,462	64,308	70,738	478,123
	Practice early burning within and outside the forest by involving local communities.	2023ha	1	10	1500	15,000	16,500	18,150	19,965	21,962	24,158	26,573	29,231	32,154	35,369	239,061
3. To secure the boundary and define the extent of the boundary and																
	1. Carry out annual Boundary maintenance.	48.8KM	1	1	30,000	30,000	33,000	36,300	39,930	43,923	48,315	53,147	58,462	64,308	70,738	478,123





6. To contribute towards meeting economic needs and improving the livelihoods of forest-adjacent communities.	Forest enterprises promoted & supported	Enterprise groups formed & trained	4	1	2,000	8,000	8,800	9,680	10,648	11,713	12,884	14,172	15,590	17,149	18,864	127,499
		Equipment	3	1	20,000	60,000		66,000				72,600		-	-	198,600
7. To reduce carbon emissions from deforestation and forest degradation by ensuring community benefit from carbon credits.	Access to an incentive benefit sharing mechanism through the carbon trading scheme to be established by Government in Eastern province	Community meetings	3	1	3,000	9,000		9,900		10,890		11,979		13,177		54,946
																-
8. To ensure cross cutting issues are mainstreamed in all aspects of forest management for social equity wellbeing and empowerment through sustainable development	1. Ensure that all environmental and social impact, risks and liabilities are identified and mitigated.	Community meetings	3	1	5,000	15,000		16,500		18,150		19,965		21,962		91,577
	2. Identify training needs.	Community meetings	3	1	2,500	7,500		8,250		9,075		9,983		10,981		45,788
	3. Monitoring safeguards & Grievances	Community meetings	1	1	2,500	2,500	2,750	3,025	3,328	3,660	4,026	4,429	4,872	5,359	5,895	39,844
9. To maintain the infrastructure necessary to achieve the multiple objectives of forest management.	Maintain the existing infrastructure	Site specific														-
SUB-TOTAL						214,500	104,500	235,400	126,445	191,846	152,998	304,605	185,128	249,760	224,005	1,989,187

Action 1 Sub total 2,646,683

Action 2 Sub total 1,989,187

Grand total for the period of the Plan (ZMW)

4,635,870





REPUBLIC OF ZAMBIA

## Ministry of Green Economy & Environment

The Zambia Integrated Forest Landscape Project (ZIFLP) 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 ZIFLP and EP-JSLP are a 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



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