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# SINYALA FOREST MANAGEMENT PLAN

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## **SUMMARY**

*The management of the chosen area is an attempt to conserve and protect the ecological integrity of the components that are present through the formulation of a strategic plan that is for a specific life span. This plan will seek to maintain its biodiversity conservation functions, continue providing services such as recreation and research, and increase the availability of non-wood forest products and eventually help to empower sustainable management of the forest. As stipulated by the manager under consultation with key stakeholders shall develop a local resource management plan for the protection and sustainable use of the natural resources, specifically for Sinyala community.*

*These plans will be systematically achieved through the identification of the current resources, an inventory of the present flora and fauna throughout the multi-strata area, the present biotic and abiotic problems that exists and proposed solutions, the present pest and disease status as well as forest fires, the formulation of an Environmental and Social Impact Assessment (ESIA), the impact measures and mitigation plans and finally the future management plan. This will contribute to the completion of the set objectives while conserving and protection the biodiversity that is present and will ensure its availability to the future generations.*

## **1.0 SINYALA VILLAGE FOREST MANAGEMENT PLAN**

The Forest Management Plan formulates the strategy of sustainable forest management in an area. It describes the management objectives and qualitative indicators for the forest management plan. It provides a description of the forest resources, the main environmental constraints, and based upon these factors the proposed silviculture management approach. It should be a short and concise document with supporting topographic maps and appendices. It provides a description of the contract holder's and its human, technical and financial resources. The Plan shall refer throughout to the contract holder's agreed business plan, not least with regard to relations with local communities, value-added processing and forest certification.

## **2.0 OBJECTIVES FOR MANAGEMENT**

### **2.1. General objective**

The objective of the management plan is to protect and conserve biodiversity and ecological integrity, while continuing to provide ongoing social benefits to the community, through the sustainable access to non-wood forest resources and enjoyment of other forest values, including its use as a place for recreation and research.

### **2.2 Specific objectives**

The specific objectives for this forest management plan are:

- ✓ To maintain the forest condition in close to natural condition so as to maintain its biodiversity conservation functions.
- ✓ To maintain forest condition so that it continue providing services such as recreation and research.
- ✓ To increase the availability of non-wood forest products e.g. honey.
- ✓ To empower surrounding communities to participate in the sustainable management of the forest.
- ✓ To sustainably conserve existing indigenous trees species and other wildlife found in the forest

### **3.0 DESCRIPTION OF LOCAL SITUATION**

#### **3.1 Location**

Sinyala Village Forest Area is located Lilongwe District in Malawi. It is found in the rural area of Lilongwe and it can be found through the Likuni road and Bunda road. Sinyala is found close to the Kamuzu dam which is the source of water for Lilongwe Urban. Sinyala VFA covers approximately 27 hectares of land. The whole area is covered with indigenous trees, herbs and shrubs that are mostly native to Malawi. It is located at 36L 566118.40m E, 8432407.79m S. It can be included in temperate grassland, savannas and shrub lands biome since structurally its conditions are characterized by interspersed individuals or clusters of trees with shrubs, grass present. Lilongwe is located in central Malawi, at an elevation of 1,041 m (3,415 ft.), has a moderately warm climate with adequate rainfall. The average daily minimum and maximum temperatures in November, the hottest month, are 17° C (63° F) and 29° C (84° F), respectively. July is the coolest month with 7° C (45° F) and 23° C (73° F). The average temperature of Lilongwe is 20.3 degree Celsius. In a year the average rainfall is 806mm. The driest month is august with 0 mm.

#### **3.2 Legal status of the forest area**

The Sinyala Forest Area is managed by an agreement with Government of the Republic of Malawi and Sinyala community. The parties entered into an agreement whereby the Government, the lessor, is transferring specific rights and obligation regarding the use and management of the land, water and resources within the specific area, to the Sinyala community under customary land. Sinyala Village Forest Area (VFA) is located in central Malawi in Lilongwe district. The VFA land is covered with indigenous trees and it under the protection of community people from Sinyala village led by the Traditional Authority (T/A) Masumbankhunda by the act of Government on Community Forestry in Malawi Forest Act 1997. The VFA was established by Chief Sinyala who visionally realised that with time the area will be depleted of wildlife. With the agreement that has the following specific aims: Conservation and sustainable development for the optimum benefits of all the stakeholders. Conservation of the natural resources in and around the sites and the activity area.

#### **3.3 Environmental conditions**

From the time it was established, the environmental conditions of the forest have been partially disturbed, hence initiatives for conserving of the forest area. Reduction of environmental activities pertaining to harm for the environment needs to be put in consideration to prevent environmental degradation which affect other components of the ecosystem necessary to human life and the surrounding living things.

Sinyala is located some miles from Kamuzu Dam which is the main source of pipe water in Lilongwe district and offers vital services to people surrounding it.

Soil and water conservation are critical elements of this management plan. All silvicultural activities that will be done, will be conducted in strict compliance with best silvicultural management that will support the all varieties of wildlife in Sinyala forest.

### **3.2 Hazards**

Different hazards available in the forest includes

- a. Diseases e.g. bacterial wilt.
- b. Pests e.g. *Mycosphaerella* leaf disease.
- c. Fire: of which currently has no evidence,
- d. Human activities: such as illegal harvesting of tree.
- e. Insects: A number of insects have been identified e.g. longicorn beetle, ants
- f. Invasive species e.g. *Lantana Camara* and *Gmelian Aborea*

### **3.3 Forest resources**

Sinyala Village Forest Area is dominated by natural species which are mainly used for construction purposes and fire wood. Some of these indigenous species include *Bauhinia thonningii*, *Rauwolfia caffra*, *Combretum molle*, *Terminalia serisea*, *Acacia polycantha*, *Ziziphus mauritiana*, *Albizia lebbek* etc. In the forest there is also different types of herbs and shrubs. Besides, wildlife species which include Velvet monkeys, Birds, Bush pigs, Duikers, alligators, fish, Guinea fowls, Hyena among others are also available. The presence of the river in the lower side of the forest allows this wildlife to have adequate food and water hence a good habitat for their survival. Other non-timber forest products from the forest include fruits and bee keeping practices are being done.

### **3.4 Environmental and Social Impact Assessment**

Environmental Impact Assessment (EIA) and Social Impact Assessment (SIA) that were conducted before the establishment to identified some of the components of the environment and the socio-economic factors of the surrounding community that will be affected by the forest and wildlife. The EIA and SIA also identified some of the benefits that the project of Sinyala Village Forest establishment will bring to the surrounding community.

Some of the benefits were that people living in the surrounding area will have an opportunity to fire wood, thatching grass, poles and establishment of non-timber based enterprise. Primarily Sinyala Village Forest will be a home for conservation and aid to tourism, education and research.

However, the establishment of the Sinyala Village Forest area created problems in a way that the surrounding community are not allowed to graze their livestock in the forest, fetch firewood or poles anyhow unless accepted by the village committee. It is stipulated that there will be unnecessary no cutting, clearing of indigenous vegetation or removal of timber or firewood or any other natural resources. No activities that may disturb wildlife, plants or natural scenery in any way.

<b>COMPONENT</b>	<b>POTENTIAL IMPACT</b>	<b>MITIGATION</b>
Soil	Soil destabilisation	Allow grass and trees to grow.
Water quality	Soil erosion	Conservation of tree and grass.
Biodiversity	Loss of fauna and flora	Planting trees, allow regeneration, prevent fires and avoiding poaching.
Climate	Global warming	Afforestation, prevent forest fires and deforestation.
Population	Employment opportunity	Labour based

**Table 1:** Environmental and social impact assessment.

### **3.5 Equipment required and Labour**

The labour will be provided by the people from the surrounding area which are currently the stuffs. The equipment required during the operations includes those required during silvicultural operations, inventory, during harvesting, for transportation and management. These equipment include Panga knives, tapes, hoes, callipers, GPS, chain saws or hand saws and transportation.

## **4.0 MANAGEMENT**

### **4.1 Silvicultural and management systems**

Silvicultural system is the process whereby a forest is established, tended, harvested and replaced by new crops. Different silvicultural practices will be applied to the plantation to ensure that objectives for management are achieved. The forest shall be managed using both high and low systems since it's a mixed stand. Low forest methods produces from coppices and high forests reproduced from seed.

### **4.2 Protection activities**

Several methods to protect the forest from different types of disturbances have been set and these will be applied when necessary. To protect the forest from fire, firebreaks will be made and forest patrols will be intense to ensure that there is no illegal harvesting of which will affect the aim of the wilderness. Patrols will be the utmost protection activity and the forest is requiring much security to reduce its degradation. These illegal harvesting are the epicentre of distraction in the wilderness prompting an increase in patrols for effective management. Currently, there is no specific method that has been put in place to control pests and diseases. Logging will be an effective way.

#### **4.2.1 Patrolling Plan**

- The Village Committee shall appoint forest guards' to conduct weekly patrols according to established patrol schedule.
- The forest guards shall undertake patrols every month – a patrol schedule shall be prepared at the beginning of every year.
- All license or permission holders shall report any illegal activities that they observe during the course of their work. Failure to do so will result in cancellation of their right to utilize the forest.

### **4.3 Monitoring and research**

Sinyala Village Forest will be monitored based on different factors that have been set to be monitored. These include growth and survival rate of trees, pest and disease attack, fire management, deforestation, animal safety, illegal harvesting, water management etc.

### **4.3.1 Monitoring plan**

- This management unit should be monitored for invasive species on a regular basis, at least annually.
- Quarterly reports shall be produced by the Forest supervisor that includes information on all activities according to the Activity Plan and management of the wilderness
- Records of illegal activities, names of those apprehended and found guilty and fines imposed shall be kept by the Forest Manager.
- Regular review meetings shall be held.
- Field visits by Forest section should be conducted on regular basis.

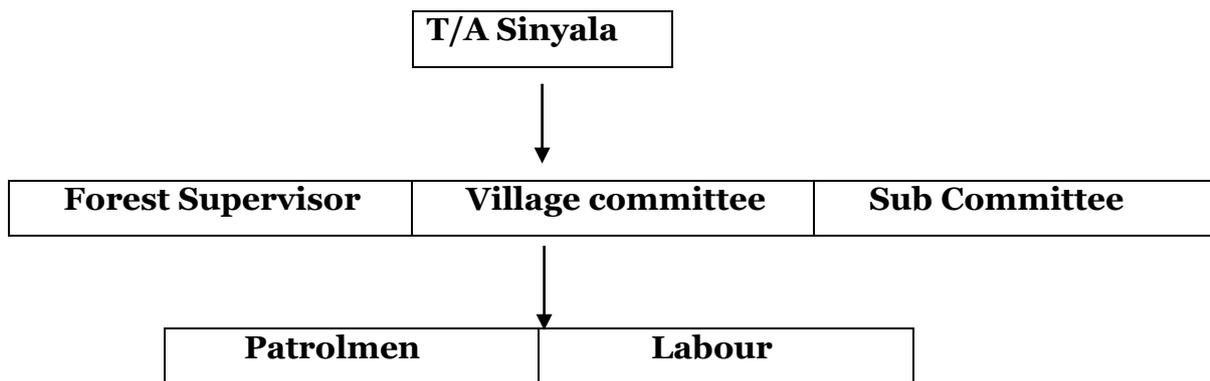
### **4.4 Environmental safeguard**

Measures to protect the environment from degradation have been put in place. All the activities which seem to have impacts on the environment have been considered in the way that their effect should be minimized to the lowest level possible. To protect the soil from being compacted or exposed to erosion during different operations such as harvesting, workers will be trained to have harvesting strategies to have very low impact on environment.

### **4.5 Social impact**

The forest area was being used as a normal forest for different forest activities. All these have been stopped and the implementation of the management plan is requiring an extended ban from social activities. All unapproved access to the forest will be restricted by management and surrounding villages will have to get authorization from the forest managers.

#### 4.6 Organisation and Administrations



**Figure 1:** Organogram for the forest

#### 4.7 Markets and utilization

There will be no business activities taking place such as the selling of timber, fruits, poles, fire wood etc. The aim of this forest as testified is conservation of wildlife which will only allow bee keeping practices and other non-timber forest products. The access for firewood and other services will be done through authorisation of the Committee under agreeable utilised arrangements.

#### 4.8 Records and Revision

Each and every activity done on the forest will be recorded and done in compliance with environmental standards. The subcommittee is responsible for aspects pertaining to the series of activities that will be done in the forest.

#### 4.9 Operation of the plan

This plan comes into operation on 24<sup>th</sup> October 2017 and continues to operate until 2029 and works in unison with previous Natural Resource Management Plan. As many of the requirements of the plan are complex, the various parts of the plan will be implemented progressively according to available resources. Reports on the plan's implementation will make clear which activities are not progressing or fully implemented due to resource constraints. This Forest Management Plan will revoke the previous Management Plan if they happen to be contradictions, so that those Ministerial conditions and commitments attached to its implementation will no longer be in force.

## 5.0 Activity plan (yearly)

No	ACTIVITY	TASK	RESOURCE	RESPONSIBLE
01	Fire breaks	Slashing and screefing	Panga Knives and hoes	Sinyala Community
02	Prescribed burning	Burning of the dry grasses	Hoes, slasher and panga knives	Sinyala Community
03	Afforestation	Identify site, mark for pitting, actual pitting, and planting.	Hoes, ropes, tapes, panga and planting trowel	Sinyala Community
04	Nursery establishment	Site, terracing, seed sowing, pot filling, watering and planting.	Shovel, rake, seeds, watering cane, polythene tubes, and wheelbarrow.	Sinyala Community
05	Seed procurement	Seed collection	Sacks and storage	Sinyala Community
06	Conduct meetings	Community and school meetings	Papers, books and pens	Sinyala Community
07	Reduction of illegal activities	Conducting patrols	Security equipment e.g. touches, boots etc.	Sinyala Community
08	Silvicultural activities	Managing coppices	Panga knives	Sinyala Community
09	Bee keeping project	Commencement of bee keeping project	Bee suits, hive tools, bee hives and hoes	
09	Collection of non-timber forest	Mushroom, thatching grass, poles, mices, okra	Baskets and panga knives.	Sinyala Community

	products	among others		
<b>10</b>	Forest protection	Protection from fire, pest and diseases.	Panga knives, hoes and logging	Sinyala Community

### **8.0 CONCLUSION**

The management plan will be followed strictly by utilization of laws and must introduce the keeping of records of any activity that is undertaken. As it pursues to conserve, protect, stabilize and continue the provisional, supportive and ecological roles of the forest.