



REPUBLIC OF ZAMBIA

MINISTRY OF LANDS AND NATURAL RESOURCES



Forestry Department

The Project Idea Note (PIN) for Zambia

SADC-JICA Programme for Indigenous Forest Landscape Restoration

Through

Enhancement of Trans boundary Forest Fire Management

Sesheke District in the Lower West Zambezi Game Management Area.

Project proponent: Forestry Department of Zambia in collaboration with Japan International Cooperation Agency (JICA)

Contact person(s) (1) Ignatius Makumba
Director-Forestry
inmakumba@gmail.com

(2) Bwalya Chendauka
Principal Forestry Officer
bschendauka@gmail.com

Funding summary:

	Total (in US\$)
Requested funds:	3000,000
Proponent contribution:	400,000 (CPF)

1.0	Background	エラー!ブックマークが定義されていません。
1.1	<i>Challenges</i>	エラー!ブックマークが定義されていません。
1.2	<i>Project Rationale</i> :.....	エラー!ブックマークが定義されていません。
1.3	<i>Potential Beneficiaries</i>	エラー!ブックマークが定義されていません。
1.4	<i>Geographic Scope</i>	エラー!ブックマークが定義されていません。
1.5	<i>Policy Framework</i>	エラー!ブックマークが定義されていません。
1.6	<i>Socio-Economic Features</i>	エラー!ブックマークが定義されていません。
2.0	Objectives	エラー!ブックマークが定義されていません。
2.1	<i>Broad Objective</i>	エラー!ブックマークが定義されていません。
2.2	<i>Outcomes</i> :.....	エラー!ブックマークが定義されていません。
3.0	Implementation Agencies.....	エラー!ブックマークが定義されていません。
4.0	Activities of the Project	エラー!ブックマークが定義されていません。
5.0	Work plan	エラー!ブックマークが定義されていません。
6.	Budget	エラー!ブックマークが定義されていません。
7	Budget description	エラー!ブックマークが定義されていません。
8	Benefits	エラー!ブックマークが定義されていません。
9	Monitoring and Evaluation	エラー!ブックマークが定義されていません。
10	Risk assessment	エラー!ブックマークが定義されていません。
11	Environmental and Social Safeguards	エラー!ブックマークが定義されていません。
	Appendices	エラー!ブックマークが定義されていません。

1.0 Introduction

The Western Province of Zambia has not been spared by Climate change, experiencing excessive floods and frequent drought. By, March 2019, Western Province had experienced a severe drought affecting its crop production and fishing. Extreme weather conditions that include both flooding and drought are regular occurrences.

Findings from the UNDP Climate Change Country Profile report indicate that, the mean annual temperature for Zambia has increased by 1.3°C since 1960, an average rate of 0.29°C per decade. The rate of increase is most rapid in the winter, at 0.34°C per decade. Daily maximum temperature exceeds the tenth percentile in the period 1970-99, while the daily maximum temperature is below the ninetieth percentile in the same period. (McSweeney et al., 2008). The same report indicates that the mean annual rainfall over Zambia has decreased by an average rate of 1.9 mm per month (2.3%) per decade since 1960. This annual decrease is largely due to decreases in DJF rainfall, which has decreased by 7.1mm per month (3.5%) per decade.

The Western Province provides a landscape to the Zambia Teak Forests dominated by *Baikiaea plurijuga* also known as African Teak, Rhodesian Teak, Zambezi redwood, and Mukusi. Other valuable indigenous timber trees species include the Rose wood (*Guibortia coloesperma*). *Pterocarpus angolensis* (African teak, blood wood) as well as *Burkea africana* (Wild syringa). The *Baikiaea plurijuga* tree has since the early 1900 been exploited extensively for railway sleepers during the construction of the railway line by Mr. Cecil Rhodes in his effort to link Cape to Cairo.

The major tree species under threat is *Baikiaea plurijuga* (Mukusi). Although its population is still abundant (i.e. greater than 10 000 individuals), there is no successful regeneration taking place. The species takes about 100 years to grow to merchantable timber size but destruction through logging, fires and other damaging agents are taking a higher toll.

The PIN is to be implemented within the Lower West Zambezi Game Management Area (LWZGMA) in the Sesheke District which shares the border with the Caprivi State Forest in neighbouring Namibia. The two areas share the same ecological features particularly as Wildlife corridors and faces the same challenges of climate change exacerbated by uncontrolled transborder fire occurrences as well as illegal harvesting and transportation of forest resources.

The LWZGMA falls within the Sioma Ngwezi National Park under the Ministry of Tourism and Arts. and forms part of the KAZA-Trans Frontier Conservation Area

which covers Angola, Botswana, Namibia, Zambia and Zimbabwe. The purpose of Lower West Zambezi GMA as agreed and defined by the Management Plan is:

“To enhance conservation of heritage and natural resources by encouraging community participation, while allowing for sustainable utilization and tourism development for the improvement of livelihood of the local community in LWZ GMA and to provide a buffer to the Sioma-Ngwezi (Ngweze) National Park”

This PIN conforms to this objective of the LWZGMA as it is based on the Restoration of Indigenous Forest Land-capes through the enhancement of transboundary forest fire management.

Western Province is one of the remote provinces in Zambia, with high poverty levels (83% -FNDP) and characterized by mono economy, poor infrastructure, poor access to social & economic amenities, poor water & sanitation conditions, and low levels of economic activity which is currently based on natural resource base but exploited unsustainably.

It is hoped that at the end of the project, the following results will have been achieved:

- Enhanced resilience and improved capacity to adapt to climate change among local communities whose livelihoods depend on forestry resources and related activities including diversification away from dependence on woody resources.;
- Improved capacity of the Forestry department and key stakeholders to manage forest fires.
- Reduced loss of forest habitat, property and life caused by fire.
- Strengthened coordination and transboundary cooperation among target states regarding forest fire prevention and management will result in efficient use of resources particularly funds and personnel for natural resource management by the two countries.
- Forest cover and other biological elements will have been restored and this will promote more tourism as a sound source of income.
- Improved M&E capacities within implementing entities and executing entities

1.1 Challenges

The management Plan for the LWZ GMA has identified the following challenges affecting the sustainable management of natural resources in the area as follows:

- Encroachment into the Forest areas
- Uncontrolled bush fires
- Uncontrolled logging

- Inadequate capacity by the Forest Department and Department of Parks and Wildlife to monitor and control illegal harvesting of natural resources, particularly timber and non-timber forest products such as devil's claw
- inadequate participation and support of local communities in management of natural resources

These actions have resulted in the following negative impacts:

- Climate change effects.
- Cross border fires
- Loss of forest cover and habitat for wildlife
- Loss of bio-diversity
- Lack of environmental and social safeguards

Cross border illegal forest activities such as logging and timber trade

1.2 Project Rationale

The Forests need to be restored so that they support the community resilience to adapt to climate change, contribute to the provision of rich wildlife habitat (LZGMA under the KAZA-TFCA) timber and non-timber forest products. Restoration of these forests will also contribute to enhanced carbon sequestration, thereby mitigating global warming. The project also responds to national developmental objectives on food security and nutrition, poverty alleviation, value addition and employment creation.

1.3 Potential Beneficiaries

The Population of Lower West Zambezi GMA is approximated at 70,157 people, 52% female (36,482) and 48% male (33,675). The total number of households in the GMA is, 13,773. Mutomena area recorded highest with 9,923, followed by Mambolomoka 9,820, while Kapau recorded the lowest at 800. Annual Population growth for Western Province is at 1.7% and population density of 7.1 persons per square kilometre (2010 Census). Shangombo, is the fastest growing at 2.9%, followed by Sesheke at 2.4%. Impact of population growth on the GMA is at a high rate of resource utilisation, which might eventually lead to depletion

Table 1: Lower West Zambezi GMA (Sesheke West) Population Estimates per VAG/Area

NAME OF VAG/AREA	CRB	ESTIMATED POPULATION	NO. OF HOUSEHOLDS
Silolo	Sesheke West	1,100	245
Ngwezi	Sesheke West		
Mutemwa	Sesheke West	1,011	169
Kalobolelwa	Sesheke West	2,937	414
Lusu	Sesheke West	2,000	330
Silumbu	Sesheke West	2,242	373
Kaale	Sesheke West	1,500	135
Kapau	Sesheke West	800	120
Makanda	Sesheke West	1,700	494
Totals		13290	2280

Source: RHCs & CSO 2010 Census

1.4 Geographic scope

The selected project areas extends from the intersection of the Zambia, Angola and Namibian border extending east wards along the Namibia Zambian border up to the Zambezi River and provide a wildlife corridor particularly to the African Elephant. The area is used as commonage for the seven communities lying South West of the Sioma Ngwezi National Park and experiences a lot of unplanned fires which has reduced the amount of biomass and subsequently affecting the number of wildlife species in the Sioma Ngwezi National Park. The Lower West Zambezi GMA is part of the KAZA transboundary national park that allows for the free movement of animals between neighbouring countries, i.e. Angola, Zambia, Namibia, sharing boundaries with the mighty Zambezi River and Sioma Ngwezi National Park

1.5 Policy Framework

The proposed program: Enhancement of transboundary Forest Fire management is **within the KAZA- Trans Frontier Conservation Area of Zambia** fits in with government policy and international commitments on climate change issues. Zambia is a signatory to a number of local, Regional and international treaties and conventions which have direct effect on sustainable management of forest landscapes and improved community livelihoods in project areas. These include United Nations Framework Convention on Climate Change (UNFCCC), The Convention on Biological Diversity (CBD), The United Nations Convention to Combat Desertification (UNCCD), The SADC Protocol on Forestry, Montreal

Protocol on substances that deplete the Ozone layer, United Nations Convention on the law of the sea 1982, Vienna Convention for the protection of the Ozone layer, 1985, Convention on International Trade in Endangered species (CITES), and the Ramsar Convention on Wetlands.

A number of national policies and strategies are in place all of which seeking to address climate change impact mitigation and adaptation. These include the following: The National Policy on Environment (NPE) which was launched in July 2009; The National Forest Policy of 1998; The Policy for National Parks and Wildlife 1998; the National Energy Policy 1994; 2010 “National climate change response strategy”; 2014 “NAMA”, “National forest policy”; 2015 “National REDD+ strategy.

1.6 Socio-Economic Features

The activities of the project take into cognisance the local people and their dependency on forest resources within the project area, i.e. sustainable harvesting of wood and non-wood forest resources and will ensure that all ethnic groups and gender will participate equally in decision-making, training, and income generating activities without discrimination.

2. Objectives

2.1 Broad Objective:

2.2 The main objective is to restore the indigenous forest landscape in the identified biodiversity hotspots within the selected State Forests through reduction of forest fires in indigenous forests, restoration of indigenous forest landscape and prevention of deforestation and forest degradation

2.2 Specific Objectives:

- To enhance the effective early warning and provision of evaluated weather-related information for communities to respond adaptively to climate change.
- To support the communities in project sites with forest fire prevention enhancement skills and knowledge to be able to prevent fires.
- To support and strengthen the community’s resilience to climate change through conservation agriculture and sustainable income generating activities.
- Improved transboundary cooperation and to respond to forest fires.
- Harmonized policies and strategies on law enforcement on transboundary forest fire management and trade in natural resources particularly timber

Outcomes

- Improved community resilience to climate change.
- Restoration of the forest cover and other biological elements.
- Reduced transboundary forest fires
- Increased capacity of the Forestry Department to use ICT for early warning and information/evaluation and fire cutline measurements and assessments.
- Enhanced carbon sequestration of forests to mitigate climate change.
- Improved cross border cooperation in forest fire management and in forest products particularly timber.

3. Implementation Agencies

The proponent's principal executing entity is the Ministry of Lands and Natural Resources through the Forestry Department. However, an integrated participatory approach will be employed considering that the area has multiple land use systems involving many sectors and policies.

The key actors are as follows:

- Ministry of Lands and Natural Resources; Forestry Department as a Lead agency
- Ministry of Tourism and Arts;
- Department of Wildlife and National Parks;
- Ministry of Agriculture;
- Ministry of Chiefs and Traditional Affairs;
- Women and youths;
- Farmers Cooperatives and Associations
- Zambian Police.
- Community Resources Boards (CRB),
- Village Action Groups (VAGs)

4. Activities for the project

The program is guided by 4 Key result Areas as per the JICA Concept Note prioritized activities as follows:

- 1) **Early Warning, Information Technology and Evaluation** systems,
- 2) **Enhancement of Forest fire Prevention Capacity and Participatory Forest Management.**
- 3) **Enhancement of Trans-Boundary Cooperation and Forest Fire Response.**
- 4) **Documentation of best practices in sustainable forest management for further scaling up in the main long-term project**

6. Budget

Summary budget for Zambia

Total sum of USD 3000 000 over a five-year period.

Component 1 Enhanced early warning and information evaluation	Component 2 Enhanced prevention and participatory Forest management	Component 3 Enhanced transboundary cooperation on forest fire management.	Component 4 Enhancing information sharing on best practices and experiences
USD 865 000	USD 1 800 000	USD 200 000	USD135 000
Detection, evaluation and response triggers	Fire prevention and participatory forest management	Cooperation with neighboring states on fire and sustainable forest management issues.	Upscaling of best experiences and recording best lessons for replication to other areas

Detailed budget per each component

Activity	Budget Item	Estimated Cost (USD)
1. Early Warning and Information, evaluation (ICT) activities:	1.1 Training of Forest officers and Village Resource Boards at operational, Local and central Divisions in ICT for early warning and evaluation and measurement of forest cut lines	20 000
	1.2 Procurement of ICT equipment (5 tablets, 25 smart phones, 4 Computers, 4 savers, 4 printers and accessories	420 000
	1.3 Procurement of transport (2Land Cruisers and 3 quadbikes) for forest officers on the ground for assisting in detecting and reporting forest fires.	360 000
	1.4 Training of Village resource Boards and communities on how to access and use the early warning information on forest fires.	25000
Sub-total for activity 1		865 000
2. Forest fire prevention enhancement and participatory forest management:	2.1 Create external and internal firebreaks as well as beacons	50 000
	2.2 Procure and maintain fire tools.	30 000
	2.3 Train Community resource Boards and community members in forest fire management.	20 000
	2.4 Conduct a forest resource inventory in the targeted forest area	120000
	2.5 Develop a resource map and management plan of the area.	20 000
	2.6 Train forestry officials and resource boards in forestry regulations on concessions and support with acquisition of community-based timber	10 000

	concessions.	
	2.7 Enforce the Forestry Act through the permit system and regular patrols.	25 000
	2.8 Train Village resource Boards and community members in sustainable harvesting techniques for both timber and NTFPs	5 000
	2.9 Establish some tree nurseries and produce seedlings of local tree species for planting in the field.	90 000
	2.11 Formulate a forest use agreement with the farmers occupying or farming in the forest areas	10 000
	2.12 Promote local seed collection of indigenous trees and conduct direct seeding in the field	200 000
	2.13 Promote and support beekeeping activities	60 000
	2.14 Support and regulate the harvesting of timber and NTFPs such as devils' claw	15 000
	2.15 Support with training of communities in entrepreneurships and marketing of community based natural resource products.	40 000
	2.16 Support the implementation of climate smart agriculture	170 000
	2.17 Enhance the operational capacity of the Forestry Department to implement the project activities.	295 000
	Procure equipment for forest fire response	560 000
	Participate in trans boundary forest fire management, suppression activities in project site and trans boundary forest fire response activities including cooperation with police	80 000
Sub-total for Component 2		1 800 000
3. Enhancement of trans boundary cooperation in forest fire	3.1 Participate in trans boundary fire management	200 000

management.	cooperation meetings and activities including with the police (Interpol)	
Sub-total for Component 3:		2000 000
	Source out the development of economic models for successful Projects implemented	100 000
	Document best practices on CDs and hard copies	35 000
Sub-total for Component 4		135 000

Grand Total (USD)	3 000 000
--------------------------	------------------

7. Budget description

The project is to be implemented on a budget of 2000,000 (Two Million) United States Dollars over a period of five years. However, most of the equipment and materials to be procured will remain for a long time in supporting the sustainable management of the forest resources. The disbursement of funds shall be done on bi-annual basis upon submission of relevant accounting documents.

The funds shall be used mainly on activities for early warning and information, provision for communities' resiliency to climate change adaptation. The restoration of the forest cover through tree planting activities and there by mitigating climate change, transboundary forest fire management and regulating the illegal logging and transboundary timber and none wood forest product trade. The Department of Forestry in Mongu has in 2018 received a considerable number of professionals and technicians who are able to implement the project effectively if well equipped with the necessary equipment and logistics which includes daily subsistence allowances and hence, the project is to be fully implemented by the Forest Department without external professional staff.

8. Benefits

Impact potential

The Population of Lower West Zambezi GMA is approximated at 70,157 people, 52% female (36,482) and 48% male (33,675). The total number of households in the GMA is, 13,773. Mutomena area recorded highest with 9,923, followed by Mambolomoka 9,820, while Kapau recorded the lowest at 800. Annual Population growth for Western Province is at 1.7% and population density of 7.1 persons per square kilometre (2010 Census). Shangombo, is the fastest growing at 2.9%, followed by

Sesheke West at 2.4%. Sesheke West which is the intervention site has a total of nine settlements with a total population of 13,290 with 2,280 households.

Paradigm Shift

Public private sector collaboration in the form of central government funding and involvement of multilateral stakeholders and non-state actors should increase availability of funding to the program. It is expected that beneficiaries will also contribute to the project activities through cooperation and participation as well as contribution through levies of the incomes they generate from harvesting forest program. Part of the funding requested will be used to support both review and formulation of relevant policies aimed at protecting indigenous forests and adoption of climate smart farming practices.

Possibility of Sustainable development

A wide variety of positive outcomes are expected and these include benefits for forest residents and formers through capacity strengthening and livelihood diversification, capacity strengthening of the line ministry and other coordinating entities in the government, restoration of the forests through ecosystem services should lead to a sustainable change at all levels of the project.

Key expected co-benefits are as below;

1) **Environment:** The reduction of GHG emission through among other things activities targeting Restoration of the forest cover in areas degraded through illegal timber harvesting and shifting cultivation is done through tree planting of indigenous tree species, Sustainable and regulated Utilization of Forest Resources, forest fire regimes are implemented for sustainable forest management and climate change mitigation. Improved capacity to detect, manage and control transboundary fires,

2) **Social:** Among other things, the program will target Ecosystem service recovery and improvement, and increasing productivity on education, health and other life activities of the valuable beneficiaries households through the following activities: Sustainable farming activities are implemented for providing resilience of farmers to climate change and hence reduce pressure on natural woodland, Sustainable income generating activities are implemented to reduce pressure on woodlands as a source of income and hence restoration of the forest cover.

3) **Economy:** Market access and alternative livelihood of beneficiaries will be improved through training and capacity development. These will include the

implementation of **Sustainable income generating activities aimed at reducing pressure on woodlands as a source of income and hence restoration of the forest cover:** beekeeping activities and marketing of honey, regulate the harvesting of devil's claw, craft making and marketing, introduction of non wood forest products, Guinea fowls and mushroom production, training of communities in entrepreneurship

4) **Gender:** Health risk and work labor will be alleviated in females through the improvement of firewood energy utilization.

5) **Organization and implementation ability:** Line ministries and other government departments capacity will be strengthened through the following targeted interventions: Establishment of a Project Steering Committee (working group) for governing the implementation of the project, Procurement of vehicles and other operational equipment, training of key stakeholders in sustainable management of indigenous forests, strengthening local working groups such as Community resource Boards, Village Action Groups and other forest users to support the coordination and implementation of the project, Conduct meetings of the project steering committee for reviewing project progress, implement the project monitoring and evaluation system. Overall these activities should contribute to strengthen of governance of the program.

Needs of recipients

The program targets the needs of the program beneficiaries at different levels in the following ways:

- Capacity strengthening of the Line ministry and its departments. This will go a long way in alleviating the problems that include the lack of operational capacity by the Forestry Department to sustainably manage the forest resources in the province, these include, vehicles, office equipment and materials, lack of maps and even regulations for field-based officers to be able to supervise timber concessions.

9. Monitoring and Evaluation

The Provincial Forestry (principal Forestry Officer) based at Mongu will appoint a professional staff to do the monitoring of the project activities. JICA may time to time send external evaluators to monitor the progress.

An M&E plan will be developed with input from all programme stakeholders (implementers, funders and beneficiaries) guided by the final approved Funding proposal. Among other things, the M&E Plan will detail routine implementation programme progress through the Monitoring component. The actual results

recorded will be compared against targets agreed with all stakeholders. Programme monitoring will be done continuously and quarterly progress reports will be produced and shared with all stakeholders.

The monitoring and evaluation reports together with the evaluation report will be presented to the project steering committee. The Project Steering Committee will consist of key stake holders identified here in the above relevant section and will meet on bi-annual basis.

10. Risk assessment

- The area where the project shall be implemented is under the Ministry of Tourism and Arts while the Executing Agency (Forestry Department) is under the Ministry of Lands and Natural Resources; this may raise a problem on sector coordination if not well handled. This shall be mitigated through an effective steering committee and regular consultations. A consent letter will also be obtained from the Director of Parks and Wild life for the Forestry Department to have access to information concerning the park.
- The response to illegal logging and unsupervised concessions, marketing of timber resources and poaching might be a risk if the other sectors such as law enforcement, agents do not cooperate, this will be mitigated through the project Steering Committee Meetings and closer cooperation with some limited support with transport and other logistics to the Zambia Police and other law enforcement agents.
- The lack of sector coordination in the implementation of the project particularly in the control of communities occupying and farming illegally in targeted forest area might be a risk. This will be mitigated through effective law enforcement through working with the police and project steering committee meetings.
- Absence of sound and sustainable income generating activities might be demotivating to community members if not properly executed. This will be mitigated through studies and training of communities in sustainable income generating activities and entrepreneurship

11. Environmental and Social Safeguards

The project has built-in mechanisms for integrating environmental and social issues into decision-making. Specialised tools for improving development aspects for the benefit of people and environment, as well as mechanisms for supporting participatory approaches and transparency aimed to achieve sustainable development through promotion of sustainable income generating activities, i.e., value adding to timber and non-timber forest produce, and community-based income generating activities such as bee keeping, crafts, devils claw and proper implementation of the community based timber concessions.

Further, the policies will be integrated through supporting law enforcement activities, including blitzes related to environmental protection. Equally the project will integrate activities and rights of women, youth groups and civil society in general into sustainable income generating and environmental conservation activities.

Annexes

Attachment 01: Map of LWZGMA

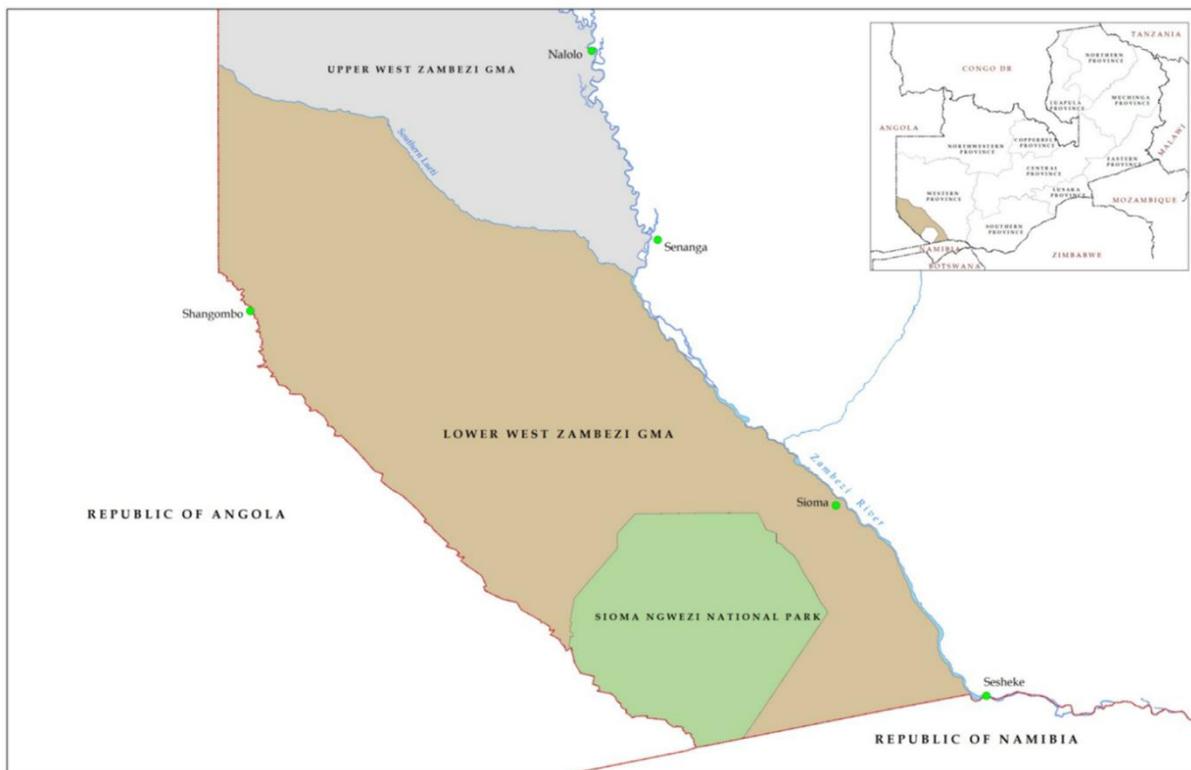


Figure 1: Location of Lower West Zambezi Game Management Area in relation to other protected areas of Zambia.

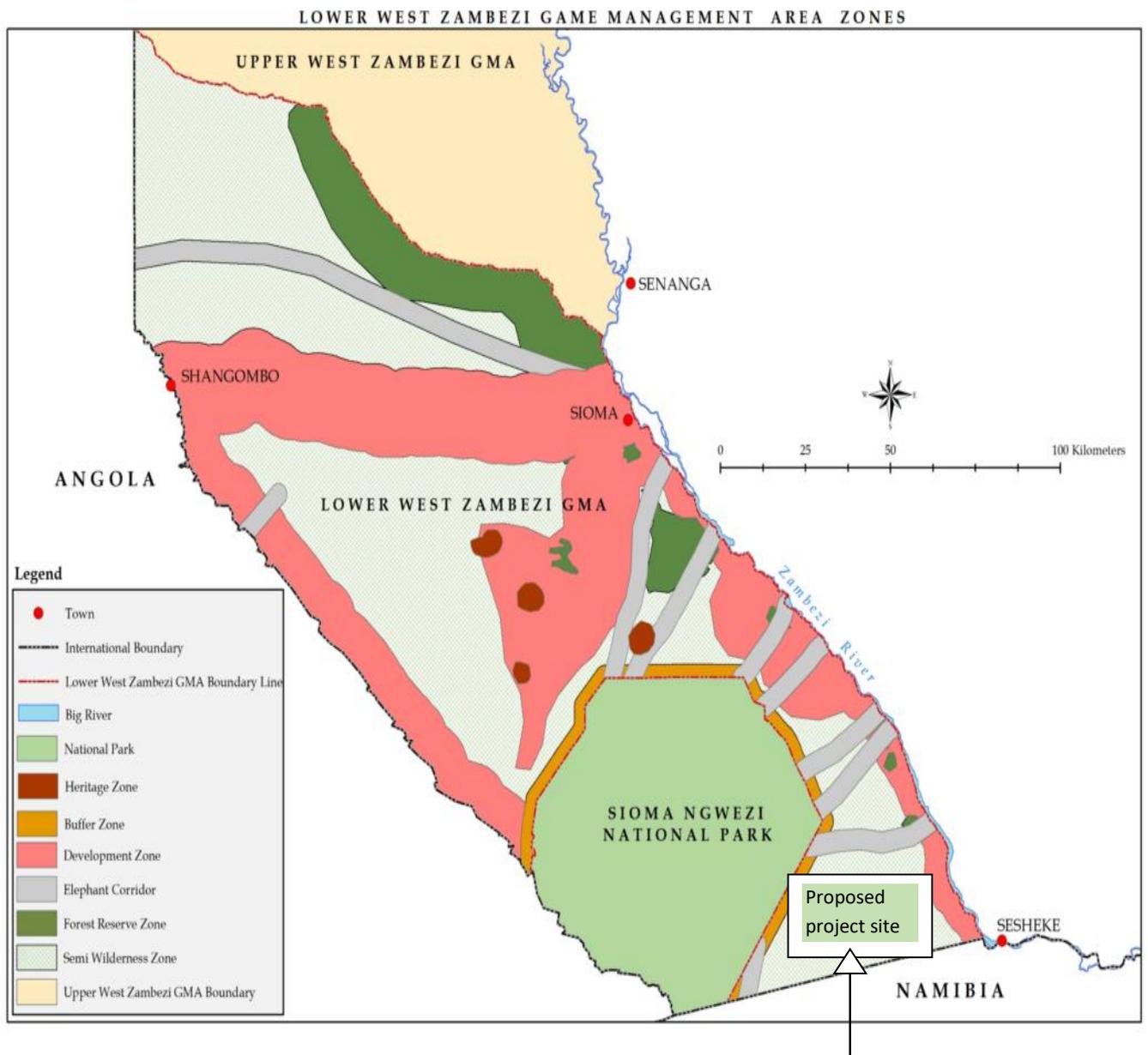


Figure 2: Zonation map of the Lower West Zambezi Game Management Area

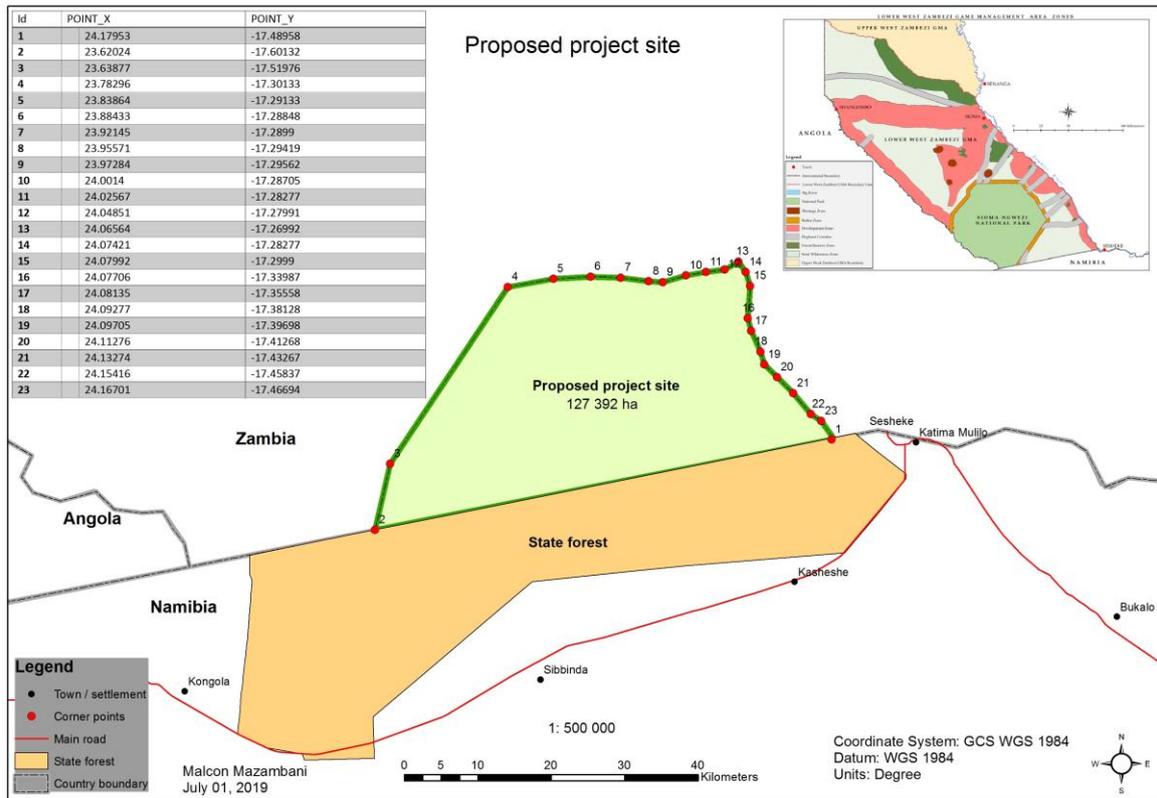


Figure 3. Transboundary project areas between Zambia and Namibia.