

# NGONYE FALLS HYDROPOWER PROJECT, SIOMA AND SENANGA DISTRICTS FINAL RESETTLEMENT ACTION PLAN

CLIENT: WESTERN POWER COMPANY LIMITED



MAY 27, 2024

## Executive Summary

Western Power Company (WPC, the Proponent), a Zambian Independent Power Producer (IPP) based in Lusaka, seeks to develop the Ngonye Falls Hydropower Project (the Project) – a run-of-river hydropower scheme located on the Zambezi River approximately 9 kilometres downstream of Sioma Town, Western Province in Zambia (Figure 1). The rationale of the Project is to generate power up to a capacity of 196 MW for supply to the Zambian and regional electricity grid systems.

The Project will be developed as a build-own-operate (BOO) scheme initially operating under a 25-year power purchase agreement (PPA) with the intention that this will be renewed upon expiry. It will be the largest private infrastructure project built in the Western Province with a total cost of over USD500 million.

## Overview of the Project

The Project will include:

- 3.5 km long headworks comprising a low weir (3m high) across the right channel of the river, low embankments extending across the head of the islands and a gated barrage in the far-left channel feeding a canal intake structure;
- A head pond with a permanent inundation zone of ~200 ha extending about 4 km upstream of the headworks;
- 2.9 km long, 84 m wide concrete lined canal;
- 600 m long forebay lake immediately upstream of the powerhouse;
- A powerhouse about 6.8 km downstream of the Falls containing turbines;
- Switchyard located next to the powerhouse;
- 4.5 km double circuit 330kV transmission line joining to the new ZESCO main powerline proposed to run from Sesheke-Mongu;
- Access roads and bridges, accommodation/facilities, and a visitors' centre.

This document presents the Resettlement Action Plan (RAP) for the Project, to establish the compensation and resettlement support to be provided by the Proponent to communities and households affected by physical and economic displacement, as required under Zambia law and international good practice, specifically International Finance Corporation (IFC) Performance Standard 5 (PS5).

## Scope of Displacement

The Project will need to secure approximately 78ha of land for temporary project components, and 407 hectares of land for permanent project components.

A total of 419 households are included in resettlement planning relating to loss of primary and secondary structures, land, crops, trees and graves. Within this total number of affected households:

- 119 PAHs who will lose structures (primary and/or secondary);
- 375 PAHs who will lose land permanently (of which 234 are registered as only impacted by loss of inactive landholdings<sup>1</sup>); and
- 23 PAHs will lose land temporarily.

An additional 239 fishers are included in resettlement planning who will experience loss of Maungwe and Limbelo fishing sites.

The types of losses to be incurred by Project Affected Households (PAHs) due to the establishment of the Project infrastructure, as well as the head pond and flood risk extent, include:

- Homesteads (165 primary structures and 244 secondary structures);
- Dryland farms (36.2 ha active);
- Floodplain gardens (5.8 ha active);
- Landholdings (82.0 ha inactive dryland farms and 50.0 ha inactive floodplain gardens);
- Maungwe and Limbelo fishing grounds (155 Maungwe sites and 245 Limbelo sites);
- Cultural and heritage resources (including 17 graves);
- Natural resources and grazing areas; and
- Community infrastructure (1 clinic, 2 churches and 5 water points).

### Social Baseline

The Project is located within the Sioma and Senanga Districts of the Western Province of Zambia, and within the area that falls under the administration and control of the Barotse Royal Establishment.

Village	Induna	Senior Chief	Area Chief
Imamongo	Linganga	Litunga La Mboela	Mwanamwalye
Linganga	Linganga	Litunga La Mboela	Mwanamwalye
Sioma	Linganga	Litunga La Mboela	Mwanamwalye
Songa	Songa	Litunga La Mboela	Mwanamwalye
Kabele	Simumbi	Lukama	Imukondo
Nalubwe	Simumbi	Lukama	Imukondo
Katulu	Simumbi	Lukama	Imukondo

<sup>1</sup> The 221 PAHs losing inactive landholdings will not experience loss of any household structures or actively cultivated fields. Landholdings are areas of land that are not cultivated, un-used, and have not been active for at least two years, if at all. These PAHs were assessed in an additional study to the initial resettlement surveys to ensure that any loss of inactive land that provides households with areas for growth and development, or the potential for crop rotation and ability to implement fallow areas is fully compensated for.

Village	Induna	Senior Chief	Area Chief
Sikuka	Simumbi	Lukama	Imukondo
Thebe	Simumbi	Lukama	Imukondo
Kandiana	Libanda	Lukama	Imukondo

Local communities are predominantly of Lozi ethnicity, living in households of around 4.5 members, with parents and children, and in some case extended family members. Amongst the survey population, around 43% are below the age of 15 years, indicating a relatively young population and high dependency levels on adults of working age. Only 5% of the surveyed population are over the age of 55. Several female household heads were noted in the surveys, largely either single or widowed, indicating a degree of vulnerability amongst affected households. Homesteads typically comprise a primary residential structure with living and sleeping quarters, with around half having additional secondary residential structures, as well as separate kitchen or cooking areas, a pit latrine or wash room, and in some cases additional crop storage or livestock enclosures, often all contained within a fenced area. Around a third of households source potable water from boreholes, whilst others depend on the Zambezi river or its tributaries.

Farming is the predominant livelihood activity, and as such access to and the ownership of land is of critical importance, with the majority held under traditional or customary ownership. Households own an average of 2.7ha of land, cultivating dryland farms dependent on rainfall away from the river, as well as smaller garden areas along the river bank that are seasonally flooded and have access to water throughout the dry season. Households also typically own portions of uncultivated land, referred to as landholdings, providing areas for future crop rotation, future development should other areas become infertile, or areas to hand over to children. Livestock husbandry is a secondary, but important, livelihood strategy adopted by local households, with households owning chickens, cattle and goats. Fishing is also undertaken as a supplementary or secondary livelihood activity after farming, with 21% of males listing it as their secondary occupation. Fish provide an important supplementary protein food source, and are an important income generating livelihood to families in the project area. Fishing is divided into four distinct practices, Gill-Netting, Hook-and-Line Fishing, *Maungwe*, traditional fishing structures used by local households on the Zambezi River where the river is sufficiently slow-flowing and shallow, and *Limbelo*, practiced within the channels and rapids of Ngonye Falls where there is a natural constriction that meets the right flow and depth conditions for placement of a basket trap.

Natural resources play a significant role in the lives of local communities, providing food and income from agriculture, livestock grazing and fishing activities (Sections 2.2.5.1 and 2.2.5.5), and key household services such as water supply from boreholes and the river for drinking water, washing and livestock, and energy supply from firewood.

Agriculture is the most common source of household income. Income supply from fishing, handiwork or crafts, informal trading and informal employment or piecework was also relatively common. Very little formal employment is available.

## Surveys and Consultation

A number of studies have been undertaken for the Project since 2013 as part of the Social Impact Assessment (SIA), as well as in support of the preparation of the Resettlement Policy framework (RPF) and this RAP, providing a comprehensive understanding of local communities. Surveys for the RAP included:

- Household census and assets survey in November / December 2021;
- Farmland surveys in February / March 2022 (to include assessment of seasonal crops); and
- Fisheries surveys from September 2022 to March 2023.

Valuations were prepared by a government approved valuation officer for the replacement value of all affected assets.

Consultation has been ongoing throughout the resettlement planning process, ensuring stakeholders are informed about the Project and resettlement process, are provided the opportunity to comment and collaborate in the planning process, and have the opportunity to raise grievances. Key consultation activities have included:

- First phase of consultation in November 2021 / January 2022 to notify stakeholders of the commencement of the resettlement process, provide key information on the scope of displacement and subsequent resettlement planning steps and obtain consent for census and assets surveys.
- Second phase of consultation in June 2022 to allow stakeholders and PAHs to input into the technical planning components, with discussions around the mandate of the Resettlement Advisory Committee, eligibility criteria, entitlement framework, valuation study results, housing designs, livelihood restoration plan, and relocation site land acquisition process.
- Third phase of consultation in February 2023 to present the Draft RAP to stakeholders and PAHs, providing updates to the entitlement framework, housing designs and livelihood restoration activities, explanation of the host site and replacement land process, and information on the household compensation agreements.
- Fisheries consultation – Two rounds of specific consultation with affected fishers in October 2022 (with key aims to gain permission to collect data and weigh fish catches, and ensure all active fishers were included in the data collection exercise) and a further round of consultation was undertaken in June 2023 to:
  - Present the key findings of the fisheries assessment;
  - Present proposed compensation and entitlements relating to fisheries;
  - Present proposed livelihood restoration measures;
  - Gain feedback and input from fishers on the proposed entitlements;
  - Explain the upcoming process of implementation of fisheries agreements; and
  - Reinforce the grievance mechanism.

## Eligibility Criteria

Project affected persons (encompassing individuals, groups of persons, families, institutions, or any other entity) are eligible for compensation or resettlement assistance for the loss of property which is directly related to the Project as per the entitlement framework presented below. This includes the following:

- Persons losing a homestead / residential property.
- Persons losing residential and ancillary structures.
- Persons (with formal title or customary rights) losing upland farmland.
- Persons (with formal title or customary rights) losing flood recession farmland.
- Persons with either temporary or permanent loss of land irrespective of land-use.
- Persons losing crops or trees.
- Persons losing access to Maungwe and Limbelo fishing grounds.
- Persons losing tenancy rights to homes or farmland.
- Communities losing access to communal land or community infrastructure.

## Entitlement Framework

No.	Impact	Affected Party	Entitlement
<b>1. Communal Land</b>			
1.1	Customary Communal Land and Resources	Local Communities	Community Partnership Agreement
<b>2. Titled Land</b>			
2.1	Titled Land	Formal Landowner	Market transaction between Western Power Company and landowner.
<b>3. Farmland, Crops and Trees</b>			
3.1	Permanent Loss of Upland Farmland	Landowner based on confirmed customary rights	<b>Option 1:</b> Self sourced replacement land
			<b>Option 2:</b> Land allocation by traditional authorities / Project
			<b>Option 3:</b> Monetary compensation at <i>full replacement</i> value only where the eligible person has access to residual or alternative land not less than 2.5 hectares
			<b>And</b> 1. Disruption Allowance 2. Land Preparation Allowance 3. Transitional Allowance

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No.	Impact	Affected Party	Entitlement
			4. Access to Livelihoods Restoration Programmes
3.2	Permanent Loss of Floodplain Gardens	Landowner based on confirmed customary rights	<b>Option 1:</b> Self Sourced Land
			<b>Option 2:</b> Land allocation by traditional authorities / Project
			<b>Option 3:</b> Monetary compensation
			<i>In addition to the above Options 1 – 3 PAHs will be provided with irrigation support, either:</i>
			<b>Option 1:</b> Treadle pump
			<b>Option 2:</b> Communal solar irrigation
			<b>And</b> 1. Disruption Allowance 2. Land Preparation Allowance 3. Transitional Allowance 4. Access to Livelihoods Restoration Programmes
3.3	Loss of Landholdings / Unutilised Land (including dryland and floodplain garden areas)	Landowner based on confirmed customary rights	<b>Option 1:</b> Self Sourced Land
			<b>Option 2:</b> Land allocation by traditional authorities / Project
			<b>Option 3:</b> Monetary compensation
			<i>Where Landholdings are within defined floodplain areas, the following additional entitlement options will be provided, either:</i>
			<b>Option 1:</b> Treadle pump
			<b>Option 2:</b> Communal solar irrigation
			<b>And</b> 1. Disruption Allowance 2. Access to Livelihoods Restoration Programmes
3.4	Loss of Annual and Perennial Crops	Crop-Owner	<b>Option 1:</b> Cash compensation and harvest where possible
			<b>And</b> 1. Disruption Allowance 2. Access to Livelihoods Restoration Programmes
3.5	Loss of Productive and Non-Productive Fruit and Non-Fruit Trees	Tree-Owner	<b>Option 1:</b> Cash compensation for productive trees
			<b>And</b> 1. Provision of replacement saplings 2. Disruption Allowance 3. Access to Livelihoods Restoration Programmes
3.6	Temporary Loss of Dryland or Floodplain Garden	Landowner	<b>Option 1:</b> Lease agreement
			<b>And</b> 1. Land Preparation Allowance 2. Access to Livelihoods Restoration Programmes
3.7	Loss of Land for Tenants or Free Occupants	Landowner (Landlord)	<b>Option 1:</b> Existing tenant leases the new asset
			<b>Option 2:</b> Cash compensation
		Land-User Tenant)	<b>Option 1:</b> Existing landlord leases the new asset to the tenant
			<b>Option 2:</b> Rental allowance
<b>4. Loss of Housing and Structures</b>			



No.	Impact	Affected Party	Entitlement
4.1	Loss of Primary Residential Structures	Structure Owner	<b>Option 1:</b> Replacement structure including micro-solar lighting, kitchen with fuel-efficient wood-fired stove, and ventilated pit latrine and washroom
			<b>Option 2:</b> Cash compensation (subject to eligibility)
			<b>And</b> 1. Disruption Allowance 2. Moving / Transportation Allowance 3. Permitted to Salvage All Movable Materials
4.2	Loss of Secondary Structures <sup>2</sup> .	Structure Owner	<b>Option 1:</b> Cash compensation
			<b>And</b> 1. Disruption Allowance 2. Moving / Transportation Allowance 3. Permitted to Salvage All Movable Materials
4.3	Loss of Shelter for Tenants or Free Occupants	Structure Owner (Landlord)	<b>Option 1:</b> Cash compensation
		Structure Occupant (Tenant)	<b>Option 1:</b> Rental allowance
<b>5. Loss of Fishing Grounds</b>			
5.1	Loss of Maungwe Fishing Sites/Grounds	Site owner based on confirmed customary rights	<b>Option 1:</b> Cash compensation
			<b>And</b> 1. Disruption Allowance 2. Access to Livelihoods Restoration Programmes
5.2	Loss of Limbelo Fishing Sites/Grounds	Site owner based on confirmed customary rights	<b>Option 1:</b> Cash compensation
			<b>And</b> 1. Disruption Allowance 2. Access to Livelihoods Restoration Programmes
<b>6. Business</b>			
6.1	Business structures	Business owner	<b>Option 1:</b> Cash compensation <b>And</b> 1. Provision of a replacement business plot. 2. Provision of business transitional allowance 3. Access to Livelihoods Restoration Programmes
<b>7. Graves, Places of Worship and Cultural Heritage Sites</b>			
7.1	Loss of Graves or Gravesites.	Private or Community	<b>Option 1:</b> Project exhumes and reburies
			<b>Option 2:</b> Cover over of graves.

<sup>2</sup> Secondary structures refer to non-residential structures such as kitchens, crop storage sheds, crop drying shelves, poultry coups, house fences, goat pens etc.



No.	Impact	Affected Party	Entitlement
		Custodian of Graves	<b>And</b> Ceremonial allowance; OR Part in-kind package of ceremonial implements part monetary allowance.
7.2	Loss of Access to Graves or Gravesites	Private or Community Custodian of Graves	<b>Option 1:</b> Ceremonial allowance.
			<b>Option 2:</b> Part in-kind package of ceremonial implements part monetary allowance.
			<b>And</b> Project arranges necessary access rights.
7.4	Loss of Places of Worship	Private or Community Custodian of the Place of Worship	Replacement structure
			<b>AND</b> 1. Disruption Allowance 2. Moving / Transportation Allowance 3. Permitted to Salvage All Movable Materials 4. Provision of a Ceremonial Allowance.
7.5	Loss of Cultural Heritage Sites	Custodian of Heritage Sites	Engagement to determine appropriate compensation and ceremonial allowances.
<b>8. Public Facilities</b>			
8.1	Loss of Health Facility	Affected Community	Replacement health facility
8.2	Loss of Water and Irrigation Infrastructure	Affected Communities or Co-Operatives	Replacement water and irrigation infrastructure
8.3	Loss of Sports Grounds	Affected Community	Replacement sportsground
<b>9. Communal Resources</b>			
9.1	Loss of Grazing Land	Affected Households	Livelihood restoration
9.2	Loss of Reed Beds	Affected Community	Livelihood restoration
<b>9. Road and Mobility Access</b>			
9.1	Loss of Access	Affected Community	New access routes
<b>10. Gender and Vulnerable People</b>			
10.1	Impacts on Women	Female headed households and women	Additional support measures including supporting engagement, in-kind transitional support as defined in Section 6.8.
10.2	Impacts on Vulnerable People	Verified Vulnerable Households	Additional support measures including supporting engagement, in-kind transitional support as defined in Section 6.8.

No.	Impact	Affected Party	Entitlement
<b>11. Absentees</b>			
11.1	Absentees	Absent owner	Escrow account, and then payment to Barotse Royal Establishment Development Trust.

### Livelihood Restoration

The Project will support the restoration and improvement of livelihoods of physically and economically displaced households (the scope of the program will include host communities). The restoration measures are deemed mandatory and will form a key provision in RAP, while further development benefits will also be supported via the separate Community Development Plan.

Key programmes of livelihood restoration planning include:

- Agricultural Development (starter packs, irrigation, conservation farming, agro-forestry, elephant-proof fencing, devils claw production, community nursery, bee keeping, household grain stores, central grain storage depots, community hammer mills, market development and support).
- Livestock Development (chicken rearing, goat pass-on / rearing, livestock improvements, veterinary services)
- Water and Sanitation Support (potable water supply and improved sanitation facilities).
- Fisheries Support (management and monitoring of fish stocks, support for alternative sustainable fishing and aquaculture development).
- Reed Beds Support (replanting programme).
- Agricultural Credit and Input Support and Enterprise Development (training and skills development, linkages to suppliers, linkages to financial institutions and credit).

### Institutional and Legal Framework for Implementation

The RAP has been developed in line with Zambian national legislative requirements, specifically:

- The Constitution of Zambia
- Environmental Management Act 2011
- The Lands Act Cap 184
- Land Acquisition Cap 189
- Local Government Act No. 2 of 2019
- Chiefs Act Chapter 287
- Barotseland Agreement 1964
- The Valuation Surveyors Act Cap 207
- Arbitration Act No.19 of 2000
- National Heritage Conservation Commission Act Cap 173 of 1989
- The Electricity Act No.11 of 2019
- National Resettlement Policy
- National Gender Policy 2014

- Urban and Regional Planning Act 2015
- The Land Survey Act Cap 188
- National HIV/AIDS Strategic Framework 2017-2021

The development and implementation of a land acquisition and resettlement process has also been guided by international good practice as framed under the International Finance Corporation (IFC) Environmental and Social Sustainability Standards of 2012. This standard is an international benchmark for financing of private investment developments. Specifically, the RAP conforms with the requirement of the IFC Performance Standard 5 on Land Acquisition and Involuntary Resettlement.

The institutional framework for the development and implementation of the RAP comprises three primary bodies:

- The Proponent: WPC have an established team, with presence both on site and at headquarters to guide resettlement planning and implementation. The team will engage and work with partners throughout the implementation phase, including district officials and NGOs, incorporating specialist expertise where required and available. WPC will also work with the Resettlement Advisory Committee and Community Resettlement Committees throughout the planning and implementation phases to ensure stakeholders are included in planning and decision making, and informed of key processes, schedules and developments.
- The Barotse Royal Establishment; and
- The Government of Zambia, including:
  - Ministry of Local Government and Housing.
  - Ministry of Agriculture and Livestock.
  - Ministry of Lands and Natural Resources.
  - Ministry of Green Economy and Environment.
  - Zambia Environmental Management Agency (ZEMA).
  - Ministry of Community Development and Social Welfare.
  - Disaster Management and Mitigation Unit.

### **Budget and Schedule**

The total estimated budget for implementation of the RAP is US\$ 3,820,033 (Table 1. Resettlement implementation is anticipated to commence subject to the approval of ZEMA and international funders, continuing for an estimated 18 months.

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**Table 1: Provisional Budget**

Item	Description	ZMW	USD
1.0	Structures	27,598,882.25	1,149,953.43
2.0	Land	3,198,478.22	133,269.93
3.0	Crops	913,400.53	38,058.36
4.0	Trees	1,377,459.00	57,394.13
5.0	Fisheries	5,094,481.18	212,270.05
6.0	Loss of Cultural Heritage	932,954.68	38,873.11
7.0	Lost Communal/Public Infrastructure	796,992.88	33,208.04
8.0	Allowances and Other Support	4,465,208.66	186,050.36
10.0	Livelihood Restoration and Development	23,804,773.56	991,865.57
11.0	Vulnerable People and Gender	1,920,000.00	80,000.00
12.0	Project Management and Administration	3,242,000.00	135,083.33
	<b>Sub-Total</b>	<b>73,344,630.95</b>	<b>3,056,026.29</b>
	Contingency (25% of Budget)	18,336,157.74	764,006.57
	<b>Grand Total</b>	<b>91,680,788.69</b>	<b>3,820,032.86</b>

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## ACRONYMS

Acronym	Definition
<b>APP</b>	African Power Company
<b>BNNB</b>	Basic Needs and Nutrition Basket
<b>BOO</b>	Build Own Operate
<b>BRE</b>	Barotse Royal Establishment
<b>BREDT</b>	Barotse Royal Establishment Development Trust
<b>CLA</b>	Community Liaison Assistant
<b>CLC</b>	Community Liaison Committee
<b>CLT</b>	Community Liaison Team
<b>CPA</b>	Community Participation Agreement
<b>CRC</b>	Community Resettlement Committees
<b>CRR</b>	Comments and Response Report
<b>CSM</b>	Community and Stakeholder Engagement Manager
<b>CSO</b>	Civil Society Organisation
<b>DMMU</b>	Disaster Mitigation and Management Unit
<b>DNPW</b>	Department of National Parks and Wildlife
<b>EIA</b>	Environmental Impact Assessment
<b>EMA</b>	Environmental Management Act
<b>ESIA</b>	Environmental and Social Impact Assessment
<b>ESLIP</b>	Enhanced Smallholder Livestock Investment Programme
<b>GBV</b>	Gender Based Violence
<b>GIIP</b>	Good International Industry Practice
<b>GoZ</b>	Government of Zambia
<b>GRM</b>	Grievance Redress Mechanism
<b>IFC</b>	International Finance Corporation
<b>IRIR</b>	Internal RAP Implementation Reports
<b>JCTR</b>	Jesuit Centre for Theological Reflection
<b>LOC</b>	Land Ownership Certificate

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<b>LRP</b>	Livelihood Restoration Program
<b>MGCD</b>	Ministry of Gender and Child Development
<b>NASF</b>	National HIV-AIDS Strategic Framework
<b>NGO</b>	Non-Governmental Organisation
<b>NHCC</b>	National Heritage Conservation Commission
<b>PAH</b>	Project Affected Household
<b>PIDG</b>	Private Infrastructure Development Group
<b>PLC</b>	Project Liaison Committee
<b>PPA</b>	Power Purchase Agreement
<b>PS</b>	Performance Standards
<b>RAC</b>	Resettlement Advisory Committee
<b>RAP</b>	Resettlement Action Plan
<b>RICS</b>	Royal Institute of Chartered Surveyors
<b>RLC</b>	Resettlement Liaison Committee
<b>RoW</b>	Right of Way
<b>RPF</b>	Resettlement Policy Framework
<b>SCBT</b>	Sioma Community Benefit Trust
<b>SIA</b>	Social Impact Assessment
<b>VSRB</b>	Valuation Surveyor's Registration Board
<b>WPC</b>	Western Power Company
<b>WWF</b>	World Wildlife Fund
<b>ZEMA</b>	Zambia Environmental Management Agency

## LIST OF DEFINITIONS

**Affected Persons:** Any individual, persons, family, household, group, or collective body that is affected by either physical or economic displacement and are deemed eligible to resettlement assistance and/or compensation under this RAP.

**Asset Inventory:** The investigation and measuring of all land, interest on and rights to that land, as well as any assets and unexhausted improvements on that land. The Asset Inventory forms the basis for the determination of resettlement assistance and/or compensation to be granted to Affected Persons.

**Allowances:** Additional cash compensation provided in addition to any resettlement assistance and/or compensation provided for the loss of assets, and generally provide transitional support while Affected Persons restore their living conditions and livelihoods after resettlement.

**Compensation:** The forms a combination of cash or in-kind replacement assets to be provided to Affected Persons for compensation of the acquisition of land or the loss of assets.

**Cut-off date:** The date of completion of the census and assets inventory represents a cut-off date. Individuals taking up residence in the project area after the cut-off date are not eligible for compensation or resettlement assistance provided that notification of the cut-off date has been well communicated, documented, and disseminated. Similarly, the loss of fixed assets (such as built structures, crops, fruit trees, and woodlots) established after the cut-off date should not be compensated.

**Economic Displacement:** The loss of assets or access to assets that leads to loss of income sources or livelihoods but does NOT necessarily result in the direct loss of a place of residence.

**Eligible Persons:** See Affected Persons

**Entitlement Framework:** A framework that establishes the specific entitlements (i.e. forms of compensation) granted to Affected Persons who will lose proven assets, as determined during the Asset Inventory.

**Grievance Redress:** procedure for the submission of grievances and guidelines for their resolution.

**Host Communities:** Communities receiving resettled people as a result of involuntary resettlement activities.

**Household Census:** The registration of Affected Persons and the collection of their details forming the basis for the confirmation of Affected or Eligible Persons.

**Improvements:** Anything resulting from expenditure of capital or labour and includes carrying out of any building, engineering, clearing, improvement, or other operations in, on, over, or under land, or the making of any material change in the use of any building or land and charges for services provided and other expenses incurred in the development or towards the development of land.

**Livelihoods:** The daily activities adopted by members of households that support the generation of cash income or the securing of household food needs.

**Livelihoods Restoration:** A range of measure and programmes that ensure that the existing livelihoods of Affected Persons is restored, or ideally improved, during and after the resettlement process.

**Monitoring:** The process of repeated observations and measurements of environmental and social quality parameters to assess and enable changes over a period of time. Monitoring primarily involves the systematic use of information to determine the extent to which plans are being implemented effectively, and the desired outcomes are achieved.

**Physical Displacement:** The displacement, loss, or destruction of the place of residence as a direct result of the development of the Project.

**Resettlement Action Plan:** A detailed action plan that establishes the measures to be adopted by the Project in the implementation of any resettlement and compensation.



## 1 INTRODUCTION

Western Power Company (WPC, the Proponent), a Zambian Independent Power Producer (IPP) based in Lusaka, seeks to develop the Ngonye Falls Hydropower Project (the Project) – a run-of-river hydropower scheme located on the Zambezi River approximately 9 kilometres downstream of Sioma Town, Western Province in Zambia (Figure 1). The rationale of the Project is to generate power up to a capacity of 196 MW for supply to the Zambian and regional grid systems.

The Project will be developed as a build-own-operate (BOO) scheme initially operating under a 25-year power purchase agreement (PPA) with the intention that this will be renewed upon expiry. It will be the largest private infrastructure project built in the Western Province with a total cost of over USD500 million.

### 1.1 Project Description and Location

#### 1.1.1 The Proponent

The Proponent comprises the following shareholders:

- **African Power Projects (APP):** APP is a Zambian based power project development company established by the Project founders to develop the Ngonye Falls Project. The founders are a group of Zambian business professionals who manage the day-to-day operations of Western Power Company in cooperation with InfraCo Africa. APP is a major shareholder in Western Power and has also raised significant development funding for the project through a network of private investors in Zambia and internationally.
- **InfraCo Africa Ltd:** InfraCo Africa is an infrastructure development facility of the Private Infrastructure Development Group (PIDG). InfraCo Africa seeks to alleviate poverty by mobilising expertise and finance to develop and structure financeable private sector and PPP infrastructure projects across the majority of sub-Saharan Africa. InfraCo Africa is a major shareholder in Western Power and is supporting the company with significant development funding as well as expertise in the form of experienced infrastructure development.
- **Barotse Royal Establishment Development Trust (BREDT):** The Barotse Royal Establishment is headed by His Majesty (the *Litunga*) who is the traditional leader of the communities of the western Zambia and the Kingdom of Barotseland. The BRE represents all of the communities that host the Ngonye Falls Project and own 6% of the project in trust (through the BREDT) for the community in recognition of the natural resources being supplied to the development. The BRE have been instrumental in working with Western Power, the Government of Zambia, and the other development partners to bring the project to a successful conclusion having recognised the development benefits that the project will provide to the people of western Zambia.

Key institutions involved in the Project, supporting agencies and NGOs are presented in Sections 4.4 and 4.8.

### **1.1.2 Project History**

The Project has undergone a number of design iterations over time. The Proponent started looking at the scheme in 2011, undertaking a series of technical, environmental, and economic studies to define the feasibility of the Project.

A Scoping Report and Terms of Reference (which form part of the Environmental Impact Assessment process) were submitted to the Zambian Environmental Management Authority (ZEMA) in June 2013 for a proposed 45 MW scheme. The Scoping Report was approved by ZEMA on 8 July 2013.

In December 2015, the Proponent and the Zambian government signed an implementation agreement (IA) for the Project, formalising the government's commitment to and ensuring the Proponent had exclusive rights to develop the Project.

Subsequently, the original scheme was reviewed by the Proponent with the conclusion that the Project had not been optimized to its full potential and that a scheme of approximately 180 MW would be achievable. The higher capacity scheme design was taken forward to feasibility.

As a result, a second Scoping Report and Terms of Reference was submitted to ZEMA in October 2018. ZEMA provided their approval on 12 November 2018. A full Environmental and Social Impact Assessment (ESIA) was thereafter completed in September 2020 and conditionally approved by ZEMA on 06 April 2021..

One condition of the environmental approval was that the Proponent was required to prepare a Resettlement Action Plan (RAP) for the Project, based on the Resettlement Policy Framework (RPF) as detailed below.

### **1.1.3 Resettlement Policy Framework**

An RPF was prepared by the Proponent in 2018 (NomadConsulting, 2018) and submitted alongside the ESIA application to ZEMA. The objective of the RPF was to establish the overall principles and steps to be adopted in managing both physical and economic displacement as a result of the Project. It acted as a precursor document to the development of this RAP.

### **1.1.4 Current Project Description**

The Project is located at Ngonye Falls on the upper Zambezi River near the township of Sioma in Zambia's Western Province, about 120 km upstream of Sesheke and 300 km upstream of Victoria Falls. The Project is located within the administrative areas of Senanga District on the east bank and Sioma District on the west bank, with the centre line of the Zambezi River marking the boundary of the two districts (Figure 1).

The Project is a run-of-river hydropower scheme which seeks to utilise the head created at the Ngonye Falls where the Zambezi changes from flowing in a shallow, wide floodplain to a narrow and deep, constricted gorge. Water will be diverted from above the Falls into a power canal and passed through hydropower turbines before returning the water to the river, about 6.8 km

downstream of the falls (and about 8km downstream of the intake). The Project has a nominal capacity of 180 MW, generating an average of 832 GWh gross energy per annum that will be supplied to the national grid.

### **1.1.5 Primary Infrastructure**

Key components of the Project will include the following (as illustrated in Figure 2, and based on information presented in the ESIA 2020 (DH\_Engineering\_Consultants, 2020):

- A 3.5 km long headworks comprising a low weir (3 m high) across the right channel of the river, low embankments extending across the head of the islands and a gated barrage in the far-left channel feeding a canal intake structure.
- A head pond with a permanent inundation zone of ~200 ha extending about 4 km upstream of the headworks (Figure 4).
- A 2.9 km long and 84 m wide concrete lined trapezoidal power canal.
- A 600 m long forebay lake immediately upstream of the powerhouse.
- A powerhouse located 6.8 km downstream of the Falls containing four bulb turbine units.
- An outdoor switchyard located immediately adjacent the powerhouse.
- An approximately 4.5 km double circuit 220 kV transmission line interconnection to the new 220 kV ZESCO main line proposed to run from Sesheke-Mongu.
- Associated project infrastructure including access roads, access bridges, operation-stage accommodation/facilities, and a visitors' centre.

The primary purpose of the weir will be to maintain the head pond at a constant level of 990 mEL in order to enable the diversion of the required generation flow through the adjoining canal and powerhouse. Flood passages, the release of environmental flows (Eflows) and flushing of sediment will be provided for in the headworks through a combination of adjustable variable-height steel flap gates in the weir and radial gates in the barrage structure.

The head pond created will result in a permanent body of water upstream of the weir, which will inundate ~200 ha of land. In areas upstream of the permanent head pond, the Project will alter the local flood regime, including changes in flood extent and frequency.

The project will operate as a true run-of-river scheme, without storage, and as such the headworks are not a high dam creating a large reservoir for the storage of water to be released for generation at a later time, as with more conventional storage type hydroelectric projects such as the Kariba reservoir.

The canal system will direct water flows from the head pond to the powerhouse. The powerhouse will generate power by allowing the flow of water through the four turbines. Once the diverted river-flows have passed through the turbines, it will be directed to the tailrace which will regulate the discharge the river-flows from the powerhouse back into the Zambezi River.

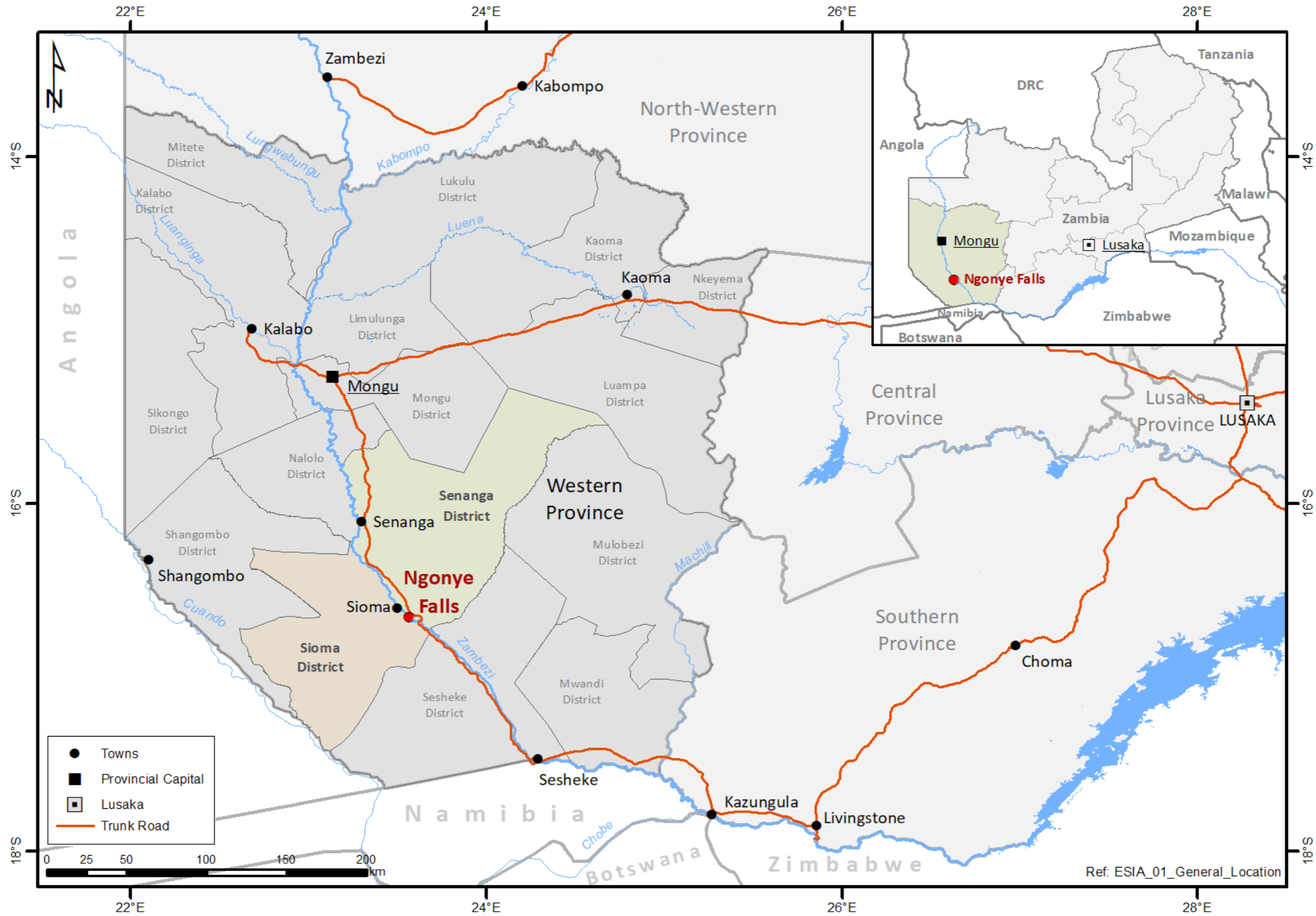


Figure 1: Project Location

### 1.1.6 Ancillary Infrastructure

The main ancillary infrastructure for the Project is detailed as follows and presented in Figure 3.

#### 1.1.6.1 Access Roads and Bridges

Existing community access tracks will be upgraded for use both during the construction and operation phases. The upgraded roads will be left in place (and if necessary upgraded) for continued use by both the Project and local communities during the operational phase.

New roads will be required along the embankments of the canal, the powerhouse, across the barrage and along the weir. This will be predominantly for operational use by the Project and will not be open to the public.

In addition, three permanent bridges are proposed across the canal at:

- The inlet of the canal, for public access, full vehicle loading and two-lane traffic.
- The Mid-section of the canal, for public access, pedestrians, and livestock.
- The powerhouse for Project access only for full vehicle loading and two-lane traffic.

Only two bridges will be accessible to the public during operations in order to maintain existing public access across the canal where several access tracks are already present. The bridge locations are existing crossing points and were identified in consultation with the local communities.

#### 1.1.6.2 Construction Infrastructure

Construction infrastructure includes worker accommodation designed to accommodate an average of 2,800 people (80% of peak workforce) with a maximum workforce of up to 3,100, quarry and crusher area and several contractor work / laydown areas located near the powerhouse, the weir on the right bank of the Zambezi and the canal and barrage on the left bank. Most construction infrastructure will be temporary in nature and will be decommissioned once construction is complete. However, some components will remain as permanent installations, including spoil disposal areas, access roads and buildings that can usefully be left for community use (worker clinic, community centre).

#### 1.1.6.3 Operations and Maintenance Camp

The Project will be a permanently-manned facility, with a team composed of operations and maintenance staff, administration staff, security and a management team totalling approximately 60-100 people. This will require a residential complex to house the operations staff. It is anticipated that this facility will be located near the powerhouse and will initially be used as accommodation for the owner and project engineer during construction. The complex will be designed and built to be a permanent facility with associated support infrastructure such as waste management, electricity and water supply.

#### 1.1.6.4 *Visitor Centre*

The Project will also construct a permanent visitors centre, that will house information displays and will be situated within walking distance of the powerhouse along the frontage of the forebay lake. Visitor facilities such as observation decks / machine floor viewpoints may also be incorporated within the design of the powerhouse.

The objective is to incorporate the Project as a tourism feature to complement existing tourism plans for the area, as well as working with local planning authorities and tourism operators. In addition, the visitors centre will likely include a dedicated area documenting the cultural heritage of the area. The Project is in discussions with the local leadership and the National Heritage Conservation Commission (NHCC) on the location/design of this dedicated area.

The ancillary infrastructure for the Project is detailed below and presented in Figure 3.



## 1.2 Analysis of Alternatives: Measures to Avoid or Reduce Displacement

A key component of the resettlement planning process is to consider opportunities to avoid and/or minimise the extent of displacement through careful project design. Where resettlement cannot be avoided, the provision of this RAP would then come into play.

### 1.2.1 Project Alternatives

During the conceptual design of the project, a number of alternatives were considered, ranging from entirely different sources of generation to alternative sizes of project, and the no-project option.

#### 45MW Hydropower Scheme

In 2016, a smaller scheme on the Ngonye Falls was investigated as part of the draft Technical and Economic Feasibility study (TEFS), providing some of the grid stability and transmission benefits, but far lower power generation. A smaller scheme would have a less significant impact on the biological and amenity values of Ngonye Falls, and a lower land requirement for the head pond, but there would still be some impacts, and it would have similar impacts during the construction stage. The Project would have difficulty in achieving the tariff necessary to make the Project economically viable, and dividends available for community investment would be far lower.

#### Thermal Power

Zambia has confirmed coal deposits of over 80 million tonnes, and is currently exploring how to use these reserves. Thermal power based in Western Province could provide the grid stability, quality of service, and transmission benefits that a hydropower project can provide. However, coal deposits are not located in Western Province, so there would be considerable transport costs, with associated environmental impacts, which probably render coal powered generation in the province to be financially infeasible. In addition, thermal power sources such as coal emit high levels of greenhouse gasses and pollute the local environment.

#### Alternative Renewable Power

Both wind and solar power represent environmentally- friendly sources of generation with no harmful gas emissions or pollution, however studies on wind energy potential in Zambia have yet to show this as a reasonable alternative. A solar PV farm of similar installed capacity would generate a significantly lower amount of energy than the proposed project, and any larger scale PV farms would require large tracts of land. The location of a solar PV farm is more flexible than a hydropower scheme, and could more likely avoid displacement impacts. However, both wind and solar power are affected by weather fluctuations, and the national power system has at present limited technical capacity to incorporate the variability of generation resulting from these technologies. The stable, synchronous generation of power provided by sources such as hydro increases the grid systems capacity to absorb and carry less stable and intermittent supplies such as wind and solar, and as such, hydro is highly complementary to these technologies.



### No-Go Option

The no-project option must be weighed up against the loss of certain benefits that would be gained by the local community, the region, and the nation as a whole. All of the below benefits of the Project would not be achieved. Principally:

- The no-project option would not address the current power deficit of about 500 MW in the country, which has resulted in widespread load shedding and disruptions to industry, agriculture, and households.
- The no-project option would leave western parts of the National Grid with weak grid stability, especially in times of abrupt power outages. The proposed project will contribute toward the electrification effort for the Western Province in conjunction with the national utility and is fully compatible with the general economic development of the province. In addition, the increased grid stability provided by this project will increase the quota of solar power that can be developed for supply to the national utility in the west of the country.
- The no-project option would not generate revenues for community development. Through the Community Participation Agreement (CPA), the Project is committed to a comprehensive benefit sharing programme with the community which will provide significant resources for social and economic development improvements to one of the poorest regions of the country. These benefits would accrue through the life of the Project to the local community as well as the province in general.

Table 2 provides a summary of the project alternatives, indicating the annual gross generation, carbon emissions, assessment of stability of the power supply, anticipated resettlement impacts, and community benefits. Large hydropower was selected as the option that is most aligned with the strategic needs and objectives of the project despite having potential high displacement impacts in general. Options for thermal or other renewable energy sources may have lower displacement potential for structures given their flexibility in location, but still require significant land, with associated impacts to agriculture, natural resources, and livelihoods. Alternative options were also excluded based on being higher carbon-generating and providing intermittent power.

**Table 2: Assessment of Alternatives and Resettlement Impact**

Power Alternative	Annual Gross Generation (GWh)	GHG (gCO <sub>2</sub> e/kWh)	Stable Supply	Loss of Land	Loss of Structures	Community Investment through benefit sharing
<b>Proposed 180MW Scheme</b>	832	1.25	Yes	237ha	380	Significant
<b>TEFS 45MW Scheme</b>	281	>1.25	Yes	67ha	>10	Moderate

Power Alternative	Annual Gross Generation (GWh)	GHG (gCO <sub>2</sub> e/kWh)	Stable Supply	Loss of Land	Loss of Structures	Community Investment through benefit sharing
<b>Thermal Power (180MW)</b>	1,103	990	Yes	900ha	Unknown – potentially high given land requirements	Low
<b>Other Renewable Power</b>	394	Solar PV: 28 Wind: 12	No	580ha		Low
<b>No-Go Option</b>	Nil	Nil	No	Nil	Nil	Nil

### 1.2.2 Design Alternatives to Minimise Displacement

Full details of project design alternatives are presented in the ESIA completed in September 2020. Under the feasibility study, a primary decision in the final scheme headworks design concerned the height of the weir. Modelling was undertaken to assess the potential upstream inundation impacts of a selection of weir heights. The greater the height of the weir, the higher risks of inundation. Beyond a certain height the risks of permanent or annual inundation increased exponentially, and development of the head works up to 990 mEL was therefore recommended to limit the impact on upstream communities.

A number of alignments were also considered for the canal, taking into consideration the topography, available materials, costs, volume of excavation required, and the requirements for land acquisition and resettlement of households. Option C was selected as (alongside other technical and economic considerations) it has the lowest number of households displaced (1 household) and impacts the smallest number and area of agricultural plots (31ha), as it utilizes a section of the Litunga canal. The route was also discussed with the traditional authorities and no objections raised.

The alignment of the powerline was also considered during project design, with a number of options assessed. Option 1 was selected, as although up to four structures may be relocated, the route traverses land adjacent to the river which is communally held under the traditional leadership and therefore would result in less acquisition of land or resettlement of households. In contrast, Options 2 and 3 traversed prime privately-owned property with river and road frontage. Option 1 also crosses degraded habitat and runs alongside the existing 66 kV line for much of its length; therefore, this option will have the least impact in terms of loss of natural habitat (primary miombo woodland) and habitat fragmentation, limiting impacts on natural resource availability for communities.

### 1.3 Objectives of the Resettlement and Compensation Project

The overall objective of this RAP is to establish the compensation and resettlement support to be provided by the Proponent to communities and household affected by physical and economic displacement, as required under Zambia law and international good practice. The resettlement process will be guided by the following principle objectives, as defined by International Finance Corporation (IFC) Performance Standard 5 (PS5):

- To avoid, and when avoidance is not possible, minimize displacement by exploring alternative project designs;
- To avoid forced evictions;
- To anticipate and avoid, or where avoidance is not possible, minimize adverse social and economic impacts from land acquisition or restrictions on land use by (i) providing compensation for loss of assets at replacement cost and (ii) ensuring that resettlement activities are implemented with appropriate disclosure of information, consultation, and the informed participation of those affected;
- To improve, or restore, the livelihoods and standards of living of displaced persons; and
- To improve living conditions among physically displaced persons through the provision of adequate housing with security of tenure at resettlement sites.

Key aspects of the RAP that contribute to achieving these goals include:

1. Confirming and registering Affected Persons that will either need to relocate their homes from the head pond and project infrastructure or will lose their livelihoods due to the loss of access to land and riverine resources.
2. Determining an Eligibility Framework that defines who is eligible for compensation and an Entitlement Framework that defines the type of compensation and resettlement assistance that will be offered to Affected Persons depending on the type of losses they will incur.
3. Undertake an Asset Inventory and Valuation Study to determine the compensation to be provided to Affected Persons, consistent with Zambian land acquisition law and regulations, depending on the types of losses they will incur.
4. Undertake regular consultation with Affected Persons and key stakeholders to obtain consent for the resettlement process, and to discuss compensation measures to be provided to Affected Persons.
5. Plan additional measures to support the restoration of affected livelihoods, as well as promoting sustainable development through community and livelihood development programmes.
6. Prepare a detailed plan (this RAP) which may be submitted to the Zambian Environmental Management Agency (ZEMA) for statutory approval, and which will guide the Proponent during the implementation of the compensation and resettlement process.

## 1.4 Overall Estimates of Land Acquisition and Resettlement and Compensation

The Project will need to secure approximately 78ha of land for temporary project components, and 407 hectares of land for permanent project components. A total of 418 households are included in resettlement planning relating to loss of primary and secondary structures, land, crops, trees and graves. Within this total number of affected households:

- 119 PAHs who will lose structures (primary and/or secondary);
- 375 PAHs who will lose land permanently (of which 234 are registered as only impacted by loss of inactive landholdings<sup>3</sup>); and
- 23 PAHs will lose land temporarily.

An additional 239 fishers are included in resettlement planning who will experience loss of Maungwe and Limbelo fishing sites.

A total of 17 graves have been identified as impacted, and community infrastructure, including a church and clinic and 5 water points. Full details of the scope of displacement are presented in Section 2.

## 1.5 Institutions Involved in the Project

The institutional framework for the development and implementation of the RAP comprises three primary bodies – (1) the Proponent, the (2) Barotse Royal Establishment and (3) the Government of Zambia. Key government institutions include:

- The Ministry of Local Government and Housing;
- The Ministry of Agriculture and Livestock
- The Ministry of Lands and Natural Resources;
- The Ministry of Green Economy and Environment;
- Ministry of Community Development and Social Services;
- Zambian Environmental Management Agency; and
- Disaster Mitigation and Management Unit.

Full details of the institutional framework, including relevant roles and responsibilities in the development and implementation of the RAP are presented in Section 4.4.

## 1.6 Structure of this Resettlement Action Plan

This RAP is divided into the following chapters:

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<sup>3</sup> The 221 PAHs losing inactive landholdings will not experience loss of any household structures or actively cultivated fields. Landholdings are areas of land that are not cultivated, un-used, and have not been active for at least two years, if at all. These PAHs were assessed in an additional study to the initial resettlement surveys to ensure that any loss of inactive land that provides households with areas for growth and development, or the potential for crop rotation and ability to implement fallow areas is fully compensated for.

- **Chapter 1: Introduction:** presents the Project proponent and objectives of the RAP, the project history and brief summary of the project components. .
- **Chapter 2: Baseline Data:** presents the number of affected persons and the number of verified land and assets losses as determined by the asset inventory and field surveys. And presents the findings of detailed census and assets surveys undertaken on project affected households (PAHs) carried out between November / December 2021 and February / March 2022..
- **Chapter 3: Eligibility and Entitlement Framework:** presents the criteria for determining which communities, households or persons are eligible, and the types of compensation to be provided by the Project.
- **Chapter 4: Legislative, Policy, Good Practice, and Institutional Framework:** presents the Zambian and international legislation and guidelines adopted for the RAP as well as the institutions involved in review, oversight, and approval, and presents the methodology and process for undertaking census and assets surveys and valuation assessments.
- **Chapter 5: Consideration of Alternatives:** presents the project and resettlement alternatives.
- **Chapter 6: Compensation and Relocation Assistance:** presents detailed measures and options for replacement assets and cash compensation in line with the entitlement framework, and additional resettlement support to be provided by the Project, and presents a description of the process of securing multiple host site(s) for replacement homesteads and replacement farmland, with several options being made available to PAPs..
- **Chapter 7: Transitional Arrangements:** presents the measures for support for PAHs during the transition to replacement land, housing, livelihoods etc.
- **Chapter 8: Livelihood Restoration and Improvement:** presents the measures to be adopted in the restoration and development of livelihoods that will be lost or affected (including farming and fisheries) as a direct result of the Project.
- **Chapter 9: Social and Environmental Impacts of the Resettlement Program:** evaluates the potential impacts on the social and biological environment due to the resettlement and outlines mitigation measures to avoid, reduce, restore, or compensate for such impacts.
- **Chapter 10: Public Consultation:** outlines the way in which the public and PAHs have and will continue to be consulted, and associated records, and provides the procedures for PAHs to express any grievance and the process in which it will be investigated and resolved by WPC throughout the stages of the Project cycle..
- **Chapter 11: Implementation Responsibilities and Schedule:** indicates the proposed schedule to execute the RAP and target dates for completion.
- **Chapter 12: Costs and Budgets:** outlines the actual costs for resettlement inclusive of compensation, land lease, and the construction of replacement housing.
- **Chapter 13: Monitoring and Evaluation:** outlines the program for internally and externally reviewing and monitoring the resettlement process and outcomes, and how WPC can resolve issues relating to the resettlement shortcomings should they arise.

The RAP is accompanied by the following appendices:

- Appendix A: Stakeholder Engagement Materials
  - A1: Round 1 Consultation
  - A2: Round 2 Consultation
  - A3: Round 3 Consultation
- Appendix B: Stakeholder Engagement Records
  - B1: Round 1 Consultation
  - B2: Round 2 Consultation
  - B3: Round 3 Consultation
- Appendix C: Census and Asset Forms
- Appendix D: Valuation Reports
- Appendix E: Sample Household Agreement
- Appendix F: Replacement Housing Designs
- Appendix G: Resettlement Committee Mandate and Membership
- Appendix H: Grievance Mechanism
- Appendix I: Budget
- Appendix J: Signed Household Agreements
- Appendix K: Detailed Maps
- Appendix L: Consent for Replacement Land
- Appendix M: Fisheries Report



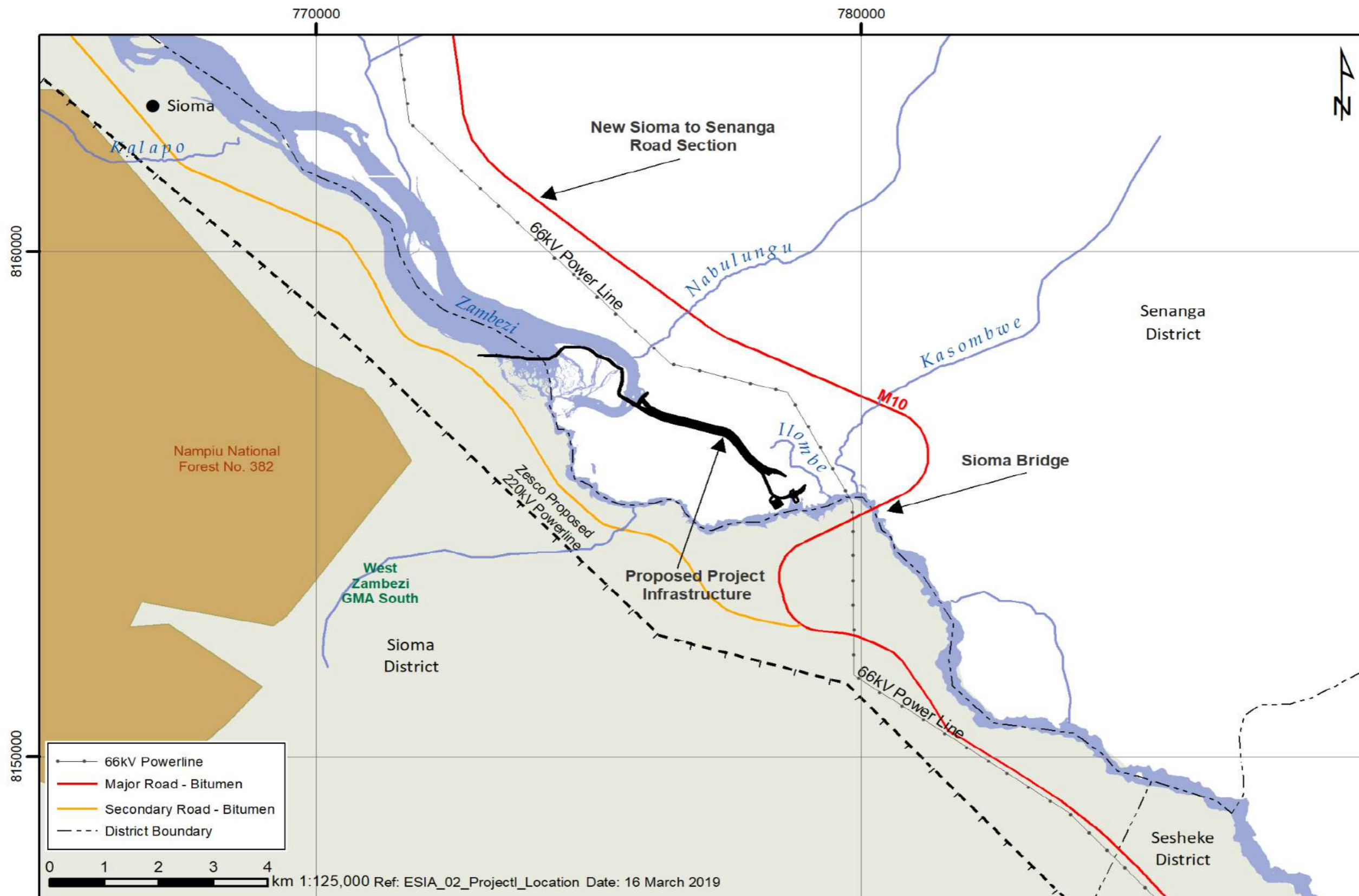


Figure 2: Layout of the Project infrastructure



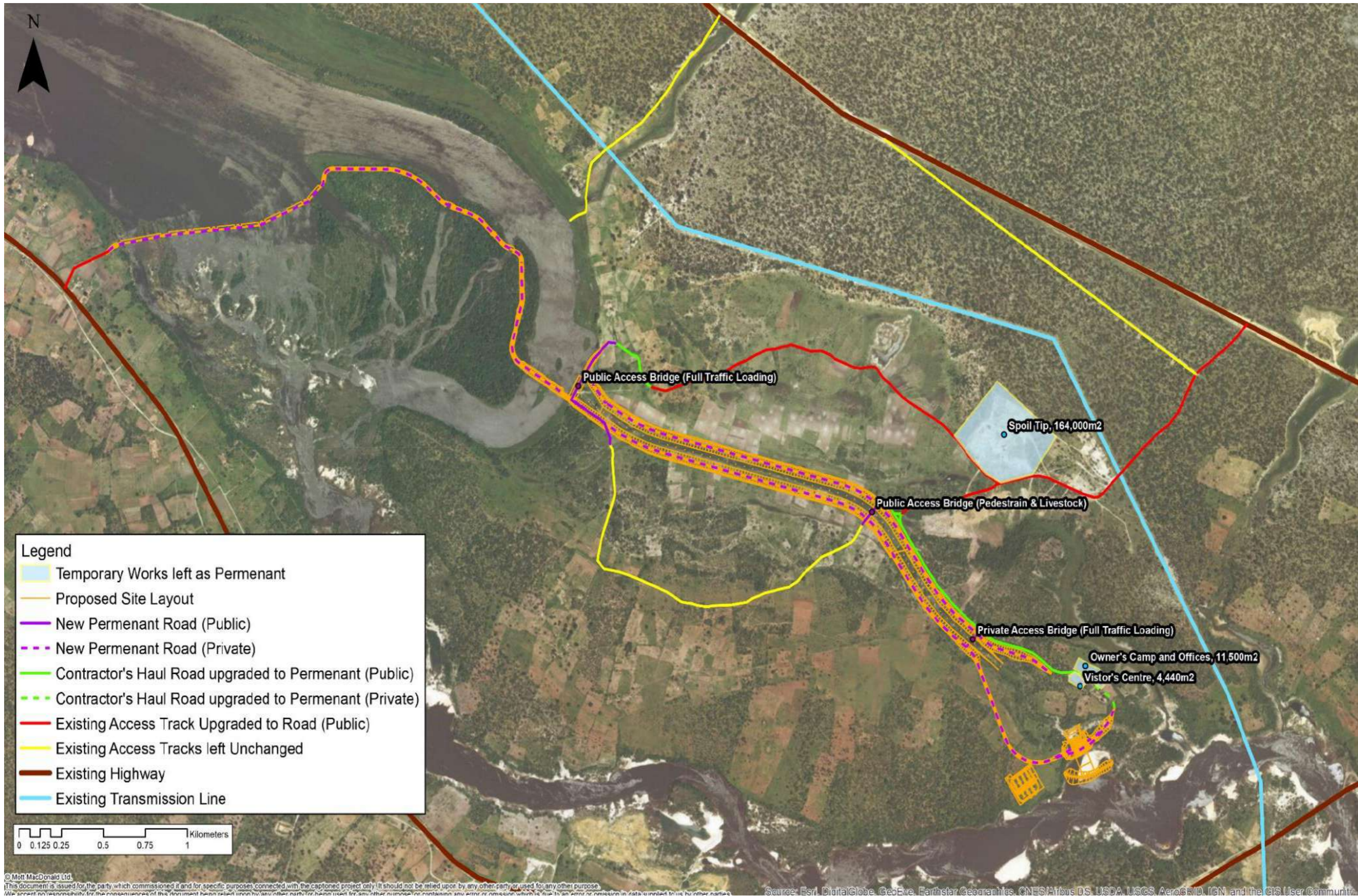


Figure 3: Ancillary Infrastructure Source: Mott MacDonald Feasibility Study, 2018



## 2 BASELINE DATA

### 2.1 Scope of Land Acquisition and Resettlement

To support the development of the Project, the Proponent will be required to acquire land and resettle households, specifically the land required for the establishment of the Project infrastructure, as well as from the land that will be inundated by the head pond.

#### 2.1.1 Project Infrastructure Land Requirements

The Project will need to secure approximately 78ha of land for temporary project components, and 407 hectares of land for permanent project components as presented in Table 3 (DH\_Engineering\_Consultants, 2020).

**Table 3: Project Components and Land Take**

Project Component	Land Take (ha)	Duration
Work areas and contractor offices	44	Temporary (3 years)
Worker accommodation and auxiliary infrastructure	34	Temporary (3 years)
Access roads (existing track upgraded and haulage roads included in canal RoW)	0	Temporary (3 years)
Project infrastructure (incl. operators camp)	186	Permanent
Head pond	203	Permanent
Spoil tip (returned to the community to an agreed standards)	18	Permanent

#### 2.1.2 Project Headpond Land Requirement

The construction of the headworks will raise the river level creating a head pond that will be held at a constant level of 990 mEL at the weir. The formation of the head pond will result in a permanent inundated area upstream of the weir covering an area of around 200 ha as defined by the water level at the D3 Q25 (post-construction Q25) flood line, and extending approximately 3km upstream of the weir. This is shown as Zone 1b in Figure 4.

In addition to the permanent inundated area, the regulating effect of the weir will also result in changes in the local flood regime beyond and upstream of the permanent head pond, including changes in flood extent and frequency.

Hydrological modelling has determined that the changes in flood regime will have an impact beyond the normal flood regime potentially putting structures and households at risk. The area with an appreciable increase in flood risk exposure is considered to be all land within the R100 (1-in-100 flood event) flood line and restricted within 5km upstream of the weir. This is shown as Zone 1a in Figure 4. The increased risk applies to fixed structures only as impacts are expected to be seasonal in nature, and are unlikely to significantly affect crops and trees.

Additional impact areas are defined as Zone 2a and Zone 2b, as illustrated in Figure 4. Zone 2a applies to permanent infrastructure areas including the weirs and barrages, canal, roads, headworks, and connector powerline inclusive of a 30m buffer around the perimeter of the extent of permanent infrastructure development. This area will result in permanent impact on structures and land. Zone 2b applies to the temporary laydown areas needed during construction and temporary work areas which will be rented. Impacts on structures and fields, and compensation of these will be considered in this area, however land will be returned back to the owners following construction.

### 2.1.3 Types of Losses

The types of losses to be incurred by Affected Persons due to the establishment of the Project infrastructure, as well as the head pond and flood risk extent include the following:

- **Homesteads:** The land affected by the Project supports scattered rural homesteads – or a single, continuous plot of land, owned by an individual, family, or group, including all fixed / non-movable assets such multiple residential structures, several secondary structures, trees, gardens, wells etc.
- **Dryland Farms:** Dryland farms are located inland of the Zambezi River and are not subject to annual flooding. Dryland farming is almost exclusively reliant on rainfall and is closely linked to the summer rainfall season from November to February. Crops more tolerant to dry conditions are favoured with maize and sorghum being the dominant crops.
- **Floodplain Gardens:** Floodplain farming occurs on the Zambezi floodplains, its tributaries, back/side-channels and on some of the larger river islands. These garden areas are seasonally flooded and only farmed during the dry-season (August to January) when the river-banks are exposed. Water-hungry and high values crops including mixed vegetables and maize are generally favoured. Gardens have been separated into those that are active and inactive.
- **Landholdings:** Landholdings refer to areas of land that are uncultivated, but under ownership by households. These include both dryland and garden areas. Landholdings often form an important component of a household's total land ownership, providing areas for future crop rotation, future development should other areas become infertile, or areas to hand over to children.
- **Maungwe Fishing Grounds:** Maungwe is a traditional fishing practice that involves the construction of rock-piles along the banks of the Zambezi River. These rock-piles become fish refuges, with fish collected using reed-baskets. Maungwe tend to be clustered in distinct fishing-grounds, limited to areas River that are sufficiently fast flowing and shallow (between 1 to 1.5 metres). The Project may impact the functioning of Maungwe at these grounds due to the increase in water-levels created by the formation of the head pond. Any increase in natural water levels above 0.5 metres is likely to render the Maungwe non-functional or provide sufficient disruption to their continued use. Specific impacts to Maungwe fishing grounds have been assessed as part of a separate Fisheries Study which is appended.
- **Limbelo Fishing Grounds:** Limbelo are fishing sites that support a specific traditional fishing method. This practice is site specific, undertaken downstream of the proposed weir within the

Ngonye Falls channels, with some extending further upstream on the east bank of the Zambezi River. The Mbelo are placed within the rapids during the low flow seasons where the channels of Ngonye Falls are accessible. A key requirement is that the rapids provide the shallow yet fast flowing water over rocky terrain with constricted streams and channels to allow the establishment of Limbelo. The Project will alter downstream flows through the falls and channels, impacting the fishing practices. Changes are likely to be highly dynamic, therefore it is difficult to predict which Limbelo ultimately become non-functional. Specific impact to Limbelo fishing grounds have been assessed as part of a separate Fisheries Study which is appended.

- **Cultural and Heritage Resources:** A separate Heritage Impact Assessment (National Heritage Conservation Commission, 2018) was undertaken to identify the range of tangible cultural heritage resources that may be impacted by the Project. The heritage resources are distributed over a large area including both upstream and downstream of Ngonye Falls, and specifically include the Litunga Canal.
- **Natural Resource Harvesting and Grazing Areas:** Local households harvest a range of natural resources to supplement household food needs and support basic living conditions. These resources are collected from a range of habitats and are generally not location specific. There remain significant tracts of primary and secondary woodland outside of the Project footprint; therefore, the ability of households to harvest natural resources is unlikely to be significantly impacted. There may however be some impacts related to the loss of the Litunga's canal and floodplain areas which are used for grazing, livestock watering and some plants harvesting as the canal and floodplain areas retain greater soil moisture.
- **Public Infrastructure:** The Project will result in the loss of 17 graves, 1 clinic (the Sikuka Health Post), 2 churches (in Sikuka and Linganga) and 5 water points.
- **Employment:** Employment levels in the Project area are low, with livelihoods predominantly based on subsistence farming and fishing activities, as described in Section 2.2. The Project will not result in the loss of any formal employment amongst local communities, however, local employment opportunities may become available through the construction and operation activities of the development.

#### **2.1.4 Project Affected People**

The Project infrastructure, head pond and flood risk extent will result in the physical or economic displacement of various assets and livelihoods as summarised in Table 4, identifying all households affected by loss of land, according to land categories, loss of trees, those impacted by loss of housing, impacted businesses, and households impacted by loss of access to fishing and grazing areas. Land calculations relate to the total amount of land that will need to be compensated. This has been calculated based on the percentage of each field impacted, and assessment of whether the remaining portion is still viable for farming. Should the area be unviable, the total field has been included in resettlement calculations.

A total of 418 households are included in resettlement planning relating to loss of primary and secondary structures, land, crops, trees and graves. Within this total number of affected households:

- 119 PAHs who will lose structures (primary and/or secondary);
- 375 PAHs who will lose land permanently (of which 234 are registered as only impacted by loss of inactive landholdings<sup>4</sup>); and
- 23 PAHs will lose land temporarily.

### **2.1.5 Vulnerable Project-Affected People**

Vulnerable persons is a term given to individuals, households, or groups of people that may be disproportionately affected by a Project based on their gender, ethnicity, age, physical or mental disability, economic disadvantage, or social status within their community. Engagement throughout the RAP has aimed to include potentially vulnerable people, consulting communities to assist in identifying vulnerable groups, seeking guidance on the most appropriate methods of engagement and inclusion and any measures that need to be taken to additionally support vulnerable people.

Defining vulnerability is a multi-dimensional aspect, therefore a set of vulnerability groups have been established below, taking into consideration feedback and input from local communities:

**Elderly Households with Limited Support:** A vulnerable group is elderly headed households (older than 60 years of age) or where the household comprises elderly who have no or marginal support from economically active (able adults) family members.

These households do not have the labour to support subsistence-based livelihoods and are likely to depend on other people for support. Any form of physical displacement that further undermines their ability to generate food or income, or where their social support networks are disrupted will result on a disproportionate impact on these households.

Surveys of Project affected households shows that there are 12 households with a household head over the age of 60, of which 7 households have no other household support. In addition, 5 of these households are headed by single females, and 6 have non-economically active dependents.

**Female-headed or Female-Only Households:** A vulnerable group is female-headed or female-only households. While the rights for women are protected under law in Zambia, local customary rights (notably those linked to land) may undermine those rights. A total of 32 single-female headed households were recorded, virtually all of whom have non-economically active dependents. Around 7 other households were identified female household heads, however in these cases, the women were married, and both male and female identify as head of the household.

**Child-Headed Households:** This vulnerable group covers cases where the household head is below the age of 18 and has no or marginal support from an economically active (adult) family member. Based on surveys undertaken in the preparation of this RAP, no cases of child-headed

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<sup>4</sup> The 221 PAHs losing inactive landholdings will not experience loss of any household structures or actively cultivated fields. Landholdings are areas of land that are not cultivated, un-used, and have not been active for at least two years, if at all. These PAHs were assessed in an additional study to the initial resettlement surveys to ensure that any loss of inactive land that provides households with areas for growth and development, or the potential for crop rotation and ability to implement fallow areas is fully compensated for.

households were found, which is not unexpected as extended family members tend to adopt/foster orphans.

**Persons with Disabilities:** Households where one or more household members are defined as disabled (including physical, mental, and long-term illness) are potentially vulnerable. Based on surveys undertaken in the preparation of this RAP, a total of 5 households have household heads with some form of disability, while an additional 5 households have at least one household member with a disability. CLOs are aware of disabilities within affected households, and have engaged households on a one-on-one basis to ensure they are fully supported in receiving information, attending consultation, and contributing to the resettlement planning process. During implementation, these households will also be engaged individually to ensure they are supported.

**Landless:** Agriculture is the primary livelihood strategy adopted by local households. Therefore, households without claim to land are potentially vulnerable as their ability to generate food and income is undermined. No household claims to not own or have access to any agricultural land. Some households will borrow or lease land from their parents or extended families. The latter is generally limited to newly established households (normally the adult son leaving his father's homestead) that are yet to obtain land from the traditional authorities or inherited land from their family. Two households in Sikuka claimed to be occupying their homestead / land without consent, and another was renting in cash. This group may be defined as vulnerable.

**Ethnic Minorities:** Local households are nearly exclusively comprised of the Lozi ethnic group irrespective of their gender, and this ethnic group is the largest group in the Western Province. Broadly speaking, Zambia provides protection for minority groups and there is no commensurate level of exploitation that has occurred in neighbouring countries. There is also no evidence to show that there is local systemic pressure on ethnic minorities, that may result in these groups being deemed vulnerable.

**Table 4: Scope of Displacement**

Category	Indicator	Quantity
<b>Relocation of Households</b>	Households Loosing Primary Structures	71
	Households Loosing Secondary Structures	104
	Number of Lost Primary structures	165
	Number of Lost Secondary structures	244
<b>Dryland (Active Farming)</b>	Area of Affected Farmland (ha)	42.7
	Number of Affected Households	50
	Average per Household (ha)	0.75
<b>Dryland (Inactive Farming / Landholdings)</b>	Area of Affected Farmland (ha)	108.8
	Number of Affected Households	107
	Average per Household (ha)	1.12
<b>Floodplain (Active Farming)</b>	Area of Affected Farmland (ha)	5.8
	Number of Affected Households	71
	Average per Household (m <sup>2</sup> )	829
<b>Floodplain (Inactive Farming / Landholdings)</b>	Area of Affected Farmland (ha)	50
	Number of Affected Households	211
	Average per Household (m <sup>2</sup> )	2,276
<b>Temporary Land Lease</b>	Area of Affected Farmland	48
	Number of Affected Households	23
	Average per Household (ha)	2.94
<b>Trees</b>	Number of Productive Trees	563
	Number of Non-Productive Saplings	1,206
	Number of Households	93
	Average per Household	19
<b>Businesses</b>	Informal Shops	6
<b>Livestock</b>	Number of Affected Households	87
	Number of Cattle	764
	Area of Lost Grazing Land (ha)	486
	Animal Units (Lost Dryland)	261
	Dryland Equivalent Lost Grazing Land (ha)	1019
<b>Fisheries</b>	Number of Affected Households	239
	Number of Lost Maungwe Sites	155
	Number of Lost Limbelo Sites	245
<b>Public Infrastructure</b>	Number of Lost Graves	17
	Number of Lost Clinics	1
	Number of Lost Churches	2
	Number of Lost Water Sources	5



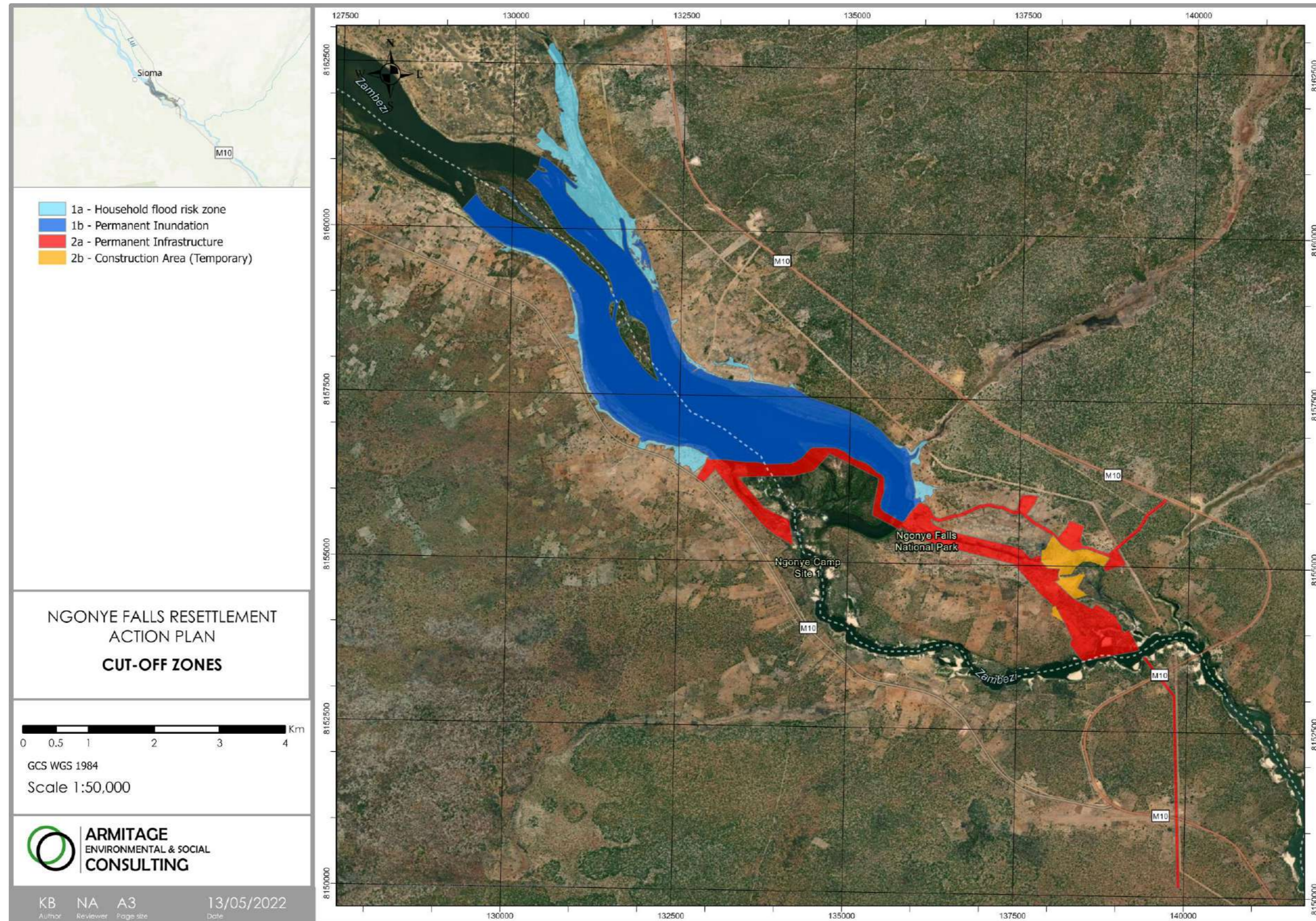


Figure 4: Resettlement Cut-Off Zones



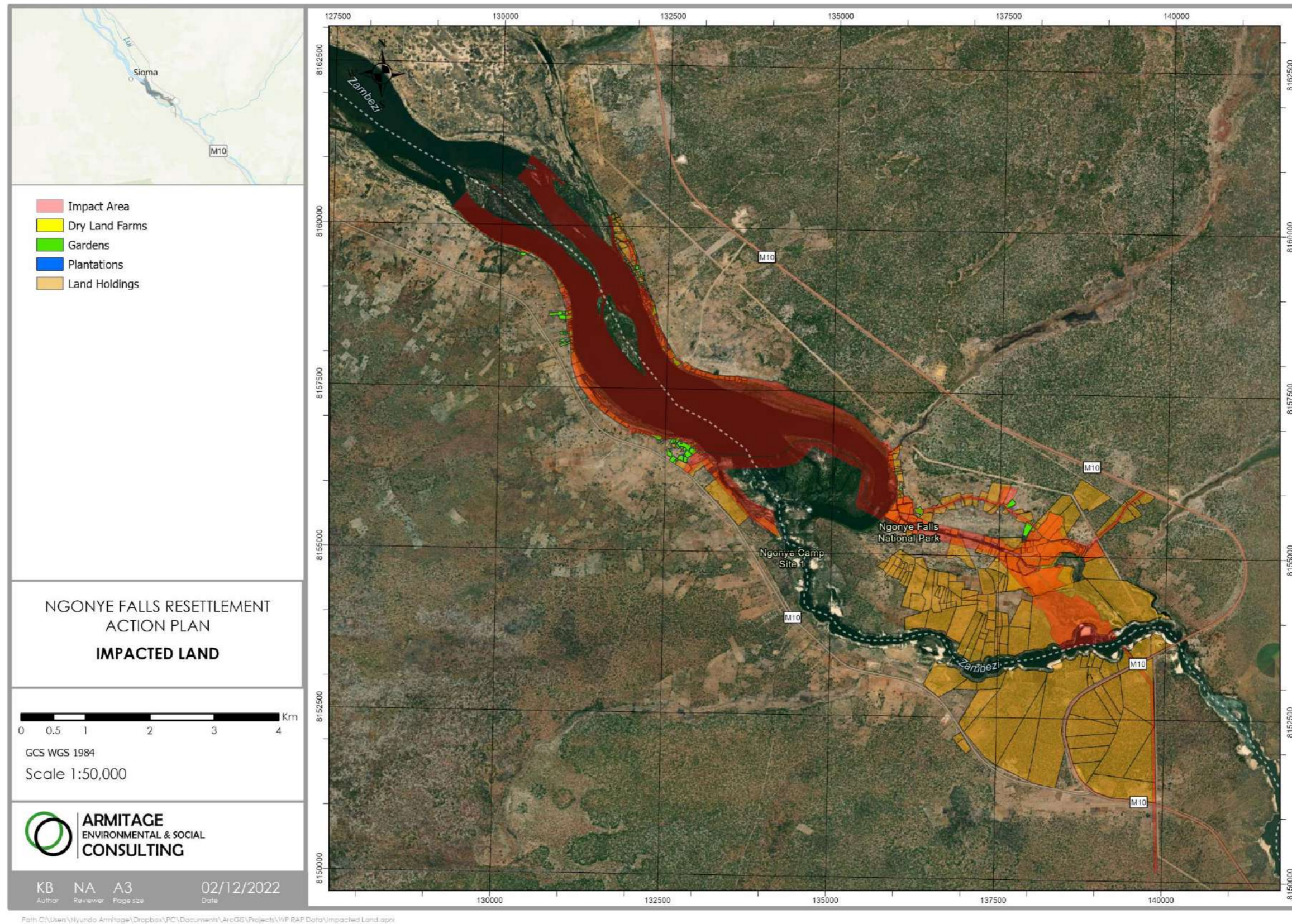


Figure 5: Impacted Land



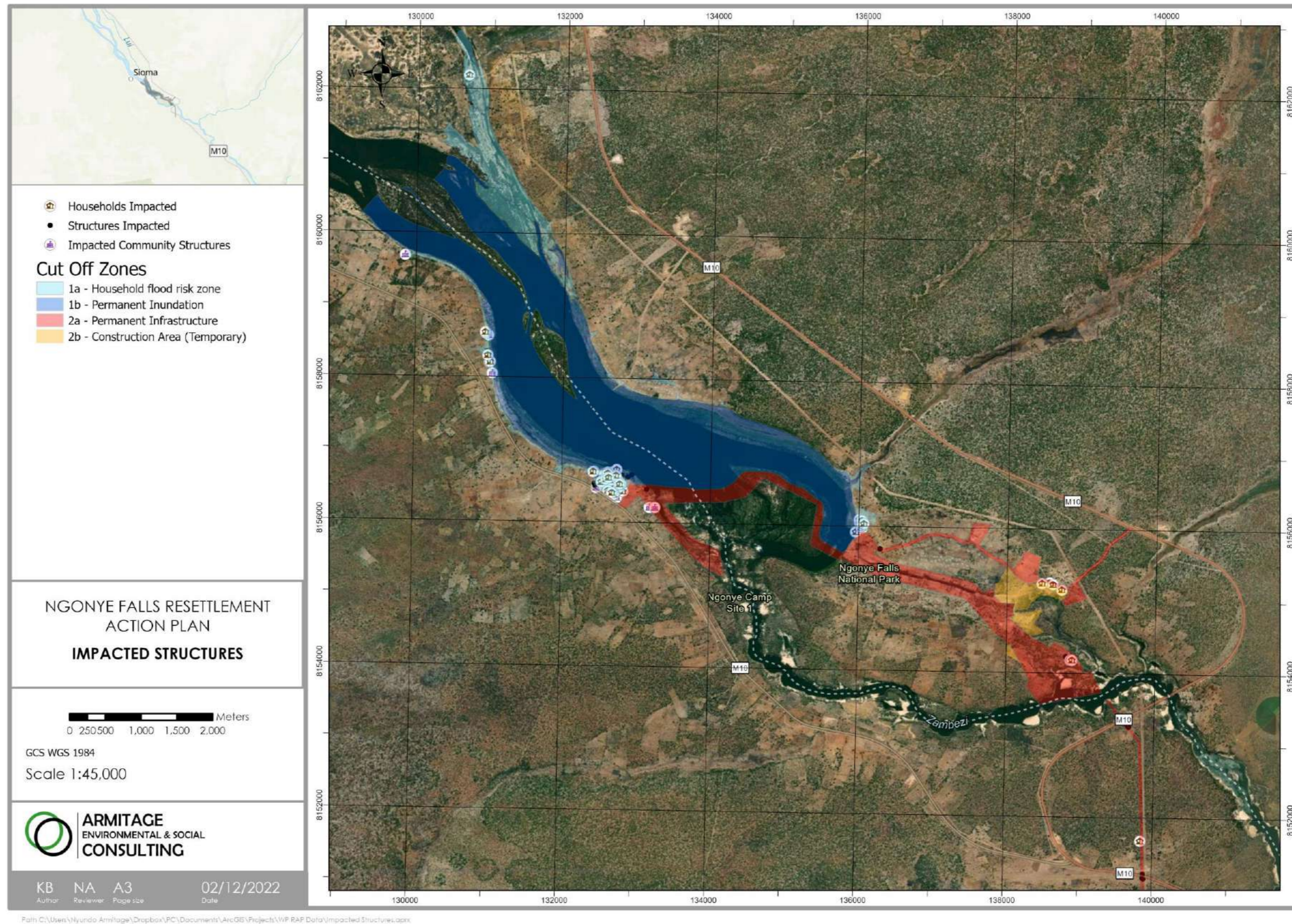


Figure 6: Impacted Structures



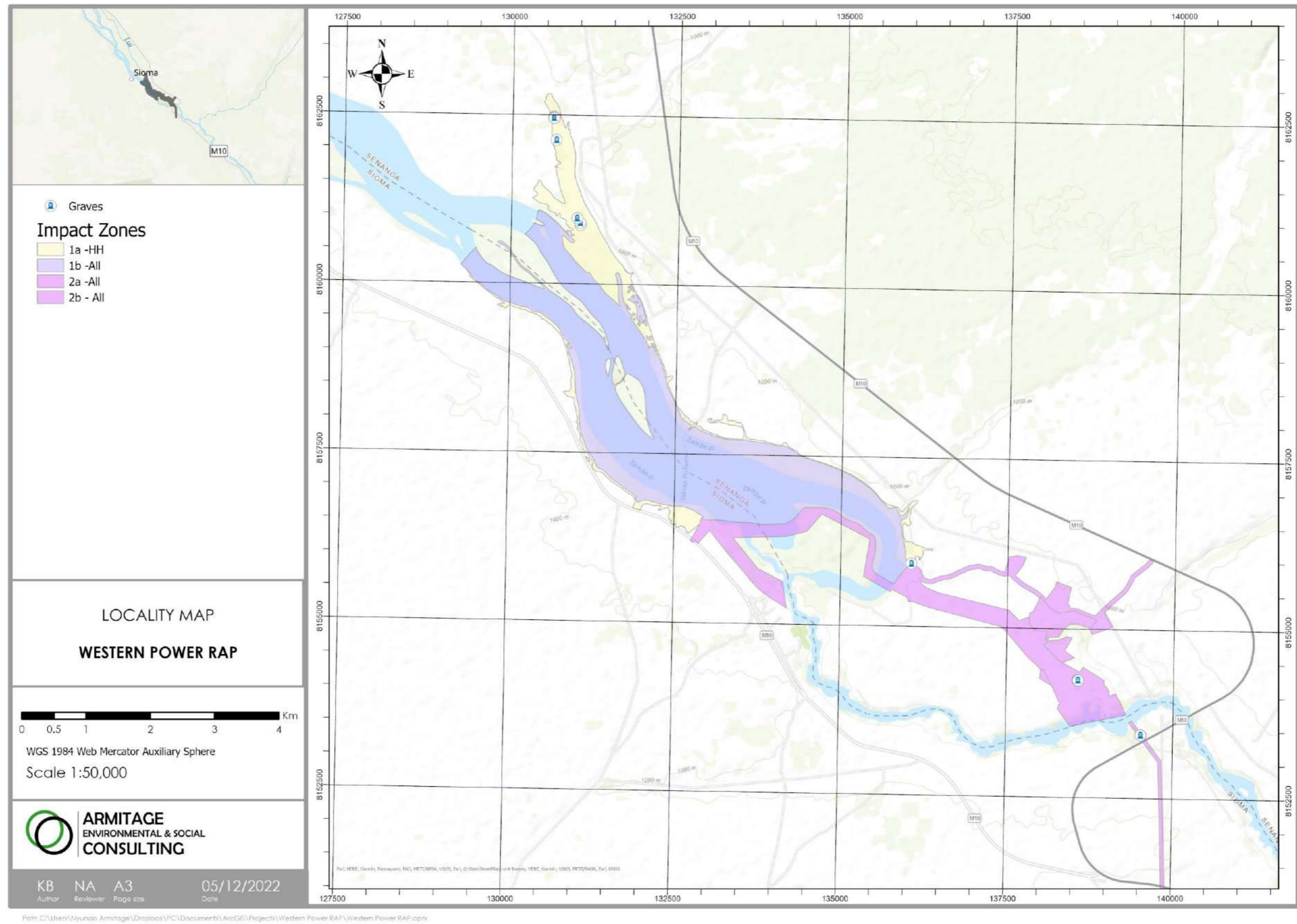


Figure 7: Impacted Graves

## 2.2 Census and Socio-Economic Surveys

Several studies have been undertaken since 2013 as part of the Social Impact Assessment (SIA), as well as in support of the preparation of the RPF and this RAP. Past studies have included those presented in Table 5 below.

**Table 5: Previous Studies**

Year	Study	Details
2013	Reconnaissance Survey	Semi-structured interviews, using questionnaires, were held in 2013 with 41 families making up 71 households located in the area between the Zambezi River and the 66-kV transmission line on the east bank. This area was deemed to be the most directly affected as all infrastructure of the proposed hydro project is to be located on the east bank. However, at the time of the survey, the exact location of the infrastructure in the area had not yet been determined
2016	Project-Affected Persons Survey	Interviews using questionnaires were held with all households identified to be directly affected by the proposed hydro project, either by losing (agricultural) land, vegetable gardens land and assets or losing inherited fishing grounds. A total of 112 households/families on the east bank and one household on the west bank were interviewed.
2016	Fishing Grounds Inventory	An inventory of all inherited fishing grounds with men and women on the east and west bank was conducted in 2016, using GPS and physical visits to the fishing grounds.
2017	Baseline Household Survey	Socio-economic sample survey of 176 households selected randomly from across the 12 Induna areas
2019	Fishing Grounds and Socio-Economic Survey	Inventory of fishing grounds with 204 identified PAPs, including survey of fishing practices and full household survey with a focus on determining specific practices and areas and economic livelihoods.

The most recent socio-economic data collection was undertaken in November / December 2021 in support of preparing this RAP. This included the completion of household assets survey, and supplemented in February / March 2022 to incorporate dry land farming. A total of 89 households and assets surveys and 172 crops surveys focusing on land away from residential structures were undertaken<sup>5</sup>. An additional 221 surveys were undertaken to record affected landholdings (areas without habitation or cultivation, but under claim by an individual / household). Additional studies were undertaken from September 2022 to March 2023 to assess Maungwe and Limbelo fishing grounds. The questionnaires used to collect data are presented in Appendix C.

Key aspects included:

<sup>5</sup> Note that some households were surveyed with both the assets survey and the crops survey to account for seasonal dryland farm cultivation. As such, the number of surveys undertaken is greater than the total number of PAHs.

- Name and household composition details, including official documentation;
- Household demographic information, including the age, gender, education level and primary skills of all household members;
- Details on household structures: each structure within the homestead was identified and information on the structure type and the total area recorded and verified with the owners and related persons on the site. This included temporary and permanent buildings and other structures such as goat pens, water wells, etc
- Access to social structures and resources, including water, sanitation, energy, health and education facilities;
- Details of land ownership, including various land types, locations, sizes, and usage;
- Information on crop cultivation, including the type and percentage cover of each crop per field;
- Data on fruit trees, including the number and type of tree and whether the tree was a sapling or productive;
- Details on livestock and grazing areas;
- Information on income sources;
- Access to community services and community organisations;
- Access and usage of communal natural resources; and
- Data on vulnerability indicators to determine the potential vulnerability status of households.

Surveys were undertaken on tablets using Survey123 Collector, recording GPS coordinates for each structure and asset, and using the Field Mapper to determine areas and locations of fields and structures. Each plot owner / tenant / caretaker was questioned in a relaxed environment, with a note taker recording the responses. In most cases, the spouse of the plot owner was present, and, in a number of cases, other members of the household were also present to verify answers. Photographs of the individuals interviewed and, where relevant their assets, were taken, where permission was provided, to supplement identification and enable transparency with respect to assets and further prior to filing, while monitoring, quality assurance and mentoring of the survey teams was conducted by AESC.

As part of consenting, the survey team explained the objectives of the survey to respondents and how the results would be used. All respondents were informed, prior to consenting, that their participation was voluntary and would not affect their eligibility to receive services from the project. Because of low literacy levels, the survey team requested verbal consent of respondents. The survey team also informed respondents that the data collected would be held in strict confidence and that respondents were free to terminate the interview at any point, and to skip any question which they did not wish to respond.

## 2.2.1 Social Demographics

### 2.2.1.1 Administrative Structure

The Project is located within the Sioma and Senanga Districts of the Western Province of Zambia, and within the area that falls under the administration and control of the Barotse Royal Establishment. This results in a dual administrative structure comprising both formal government departments (largely representing national ministries and local administration) and traditional structures.

Under the formal administration, the Zambezi forms the common boundary between the Sioma and Senanga Districts. The Project therefore falls within both these administrative districts. Sioma District was established in 2012 and has established some local administrative functions, but is currently building its resource capacity and associated planning initiatives. Senanga District has long been established and is fully operational in terms of government departments.

The overall structure of traditional administration of the BRE is presented in Section 4.5 and illustrated in Figure 39 to Figure 42. Table 6 provides a summary of the Indunas and Chiefs of the villages that are affected by either physical or economic displacement.

**Table 6: Affected Villages and Traditional Leadership**

Village	Induna	Senior Chief	Area Chief
Imamongo	Linganga	Litunga La Mboela	Mwanamwalye
Linganga	Linganga	Litunga La Mboela	Mwanamwalye
Sioma	Linganga	Litunga La Mboela	Mwanamwalye
Songa	Songa	Litunga La Mboela	Mwanamwalye
Kabele	Simumbi	Lukama	Imukondo
Nalubwe	Simumbi	Lukama	Imukondo
Katulu	Simumbi	Lukama	Imukondo
Sikuka	Simumbi	Lukama	Imukondo
Thebe	Simumbi	Lukama	Imukondo
Kandiana	Libanda	Lukama	Imukondo

Outside of the formal and traditional authorities, local communities have also established support groups within villages, many female-based. These are largely Church groups (Catholic and Seventh Day Adventist) which volunteer work in the community, support the sick and elderly and orphans. Farming groups have also been established, with support from the World Wildlife Fund in Sikuka.

### 2.2.1.2 Population Demographics

The average household size is 4.5 persons, with households predominantly comprising the nuclear family of two parents and an average of 2.5 children (83% of the total surveyed population). Other common family members included grandchildren (7% of surveyed individuals) or brothers /

sisters of the household head (4% of surveyed individuals), while the remaining 6% of the surveyed population were a mixture of other relatives.

Most household members reside permanently at the household (91%) suggesting that economic migration is very limited. Non-residents include around 4% of children that are at boarding schools, 1% of migrant workers returning monthly, and 3% working in nearby towns and returning to the village occasionally.

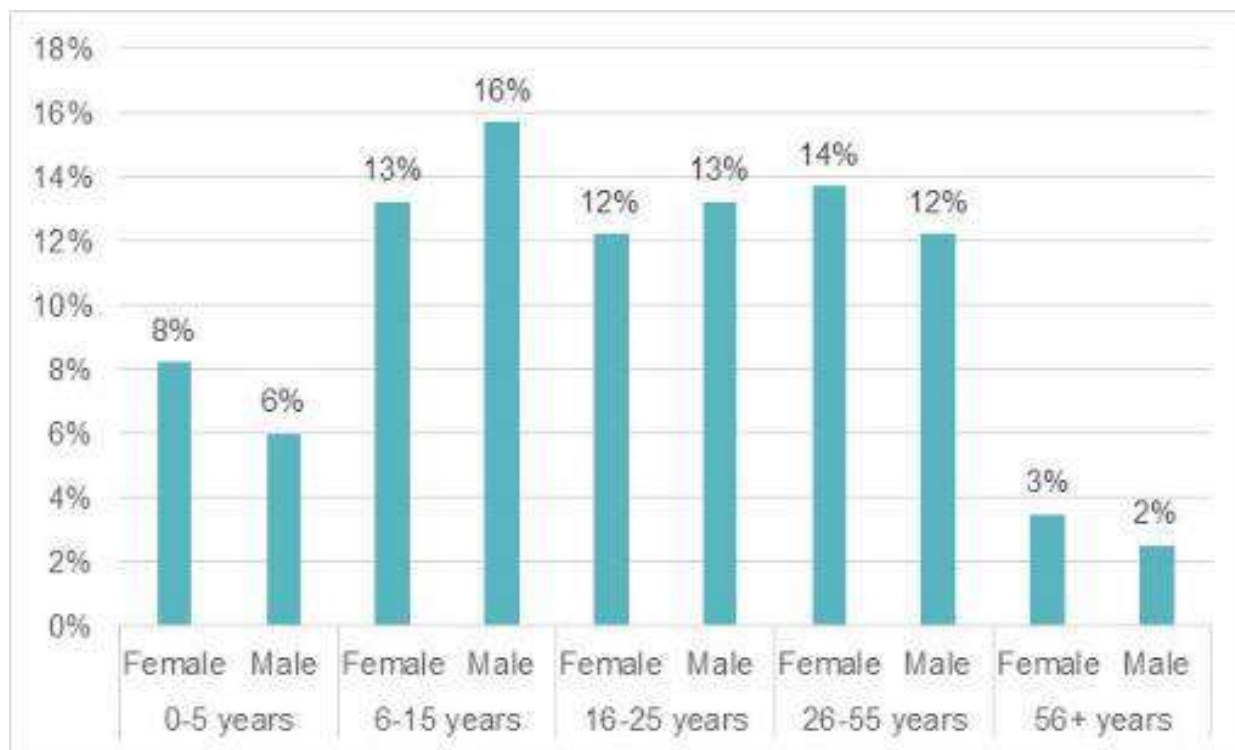
Previous surveys have reported a tendency for males to be identified as household head, with local custom supporting the line of inheritance father to eldest son. In compound homesteads, the senior male (usually the grand-father) retains ownership of the land and his own household assets, while adult sons may divide into separate households upon marriage but remain on their father's land. The current survey however found gender distribution of the household head to be relatively equal, with 54% and 46% of surveyed household heads being male and female respectively, potentially due to more in-depth questioning and ensuring female representation during the survey.

Of the female household heads, 40% are single, 21% are widowed and 5% divorced, equating to 27 households, a large proportion of which live in Sikuka village. All but one of these female household heads have children or are supporting grandchildren / other relatives, and 5 are over the age of 60. In all cases, female headed households are deemed to be vulnerable.

The overall gender distribution amongst the survey population is 49% male and 51% female (see Figure 8) suggesting a statistically balanced population, and one that has not seen any gender disruption from migration, shocks, or crises.

Of the total surveyed population, 14% are aged 5 years or below while a total of 43% are aged 15 years or below. This indicates a relatively young population and high dependency levels on adults of working age. Only 5% of the survey population (24 individuals) are over the age of 55.





**Figure 8: Age and Gender Distribution, Total Survey Population**

### 2.2.1.3 Ethnicity

Virtually all survey respondents are of Lozi origin, with Lozi as the main language used, although some also use English. Only 8 of the surveyed households indicated originating outside of Western Province, with representation from the Copperbelt, Luapula and Northern Provinces. The Government of Zambia grants special recognition to the Barotse Royal Establishment as the political authority of the majority Lozi ethnic group in the Western Province. This suggests that the *Lozi* are not a specifically targeted or vulnerable minority group, nor is this highlighted in international minority rights groups literature.

### 2.2.1.4 Gender Dynamics

Women are generally defined as the providers of food and caretakers of their household. However, this is an oversimplification as male and female members of households pursue different or concurrent livelihood strategies, supporting or complementing one another's activities. Both men and women engage in farming and fishing activities. Animal husbandry is mainly practised by men when it comes to cattle, but women will also be involved in chicken and goat keeping.

Women however play a central role in household maintenance and care, including cooking, collection of water, cleaning, and child-care. Often women and small girls are exposed to the greatest risk of animal attacks when collecting water from the Zambezi River, and are most concerned with child education and family health and food security.

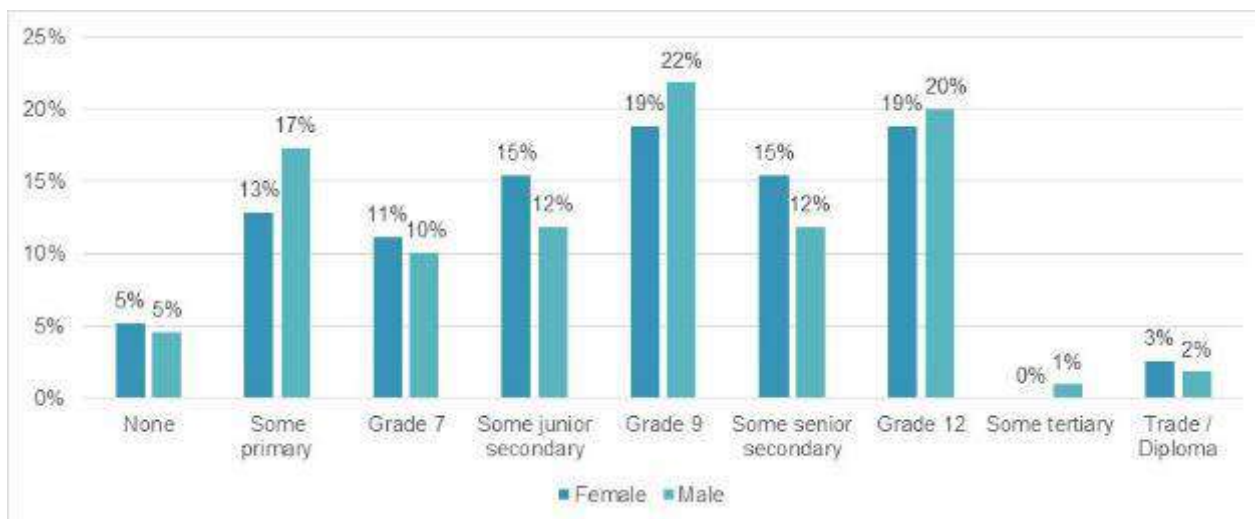
There is no evidence of systemic discrimination of women and girls. Education levels between males and females are largely similar as shown in Section 2.2.1.5, and there is no indication that

females play a completely subservient role in their family. While there is at time clear differentiation of roles in terms of livelihoods and home care, this is unlikely directly related to any form of active discrimination.

There however does remain noted discrimination of women in terms of their role in traditional administration, political processes, and decision-making. Much of this centres on traditional customs, notably with respect to land ownership that largely runs along patriarchal lines. Women stills struggle to secure tenure to land on their own right and land is generally obtained via the male line.

### 2.2.1.5 Education and Literacy

Education levels amongst the population of working age (16-55 years) are relatively consistent between males and females, and higher than in some other rural areas of Zambia (see Figure 9). Around 21% of males and 19% of females have completed Grade 12, with a further 34% of females and 34% of males completing Grade 9 or progressing beyond to complete some senior secondary education. Whereas in many areas of Zambia, females have lower levels of education than males, there is very little difference in educational attainment amongst the survey group.

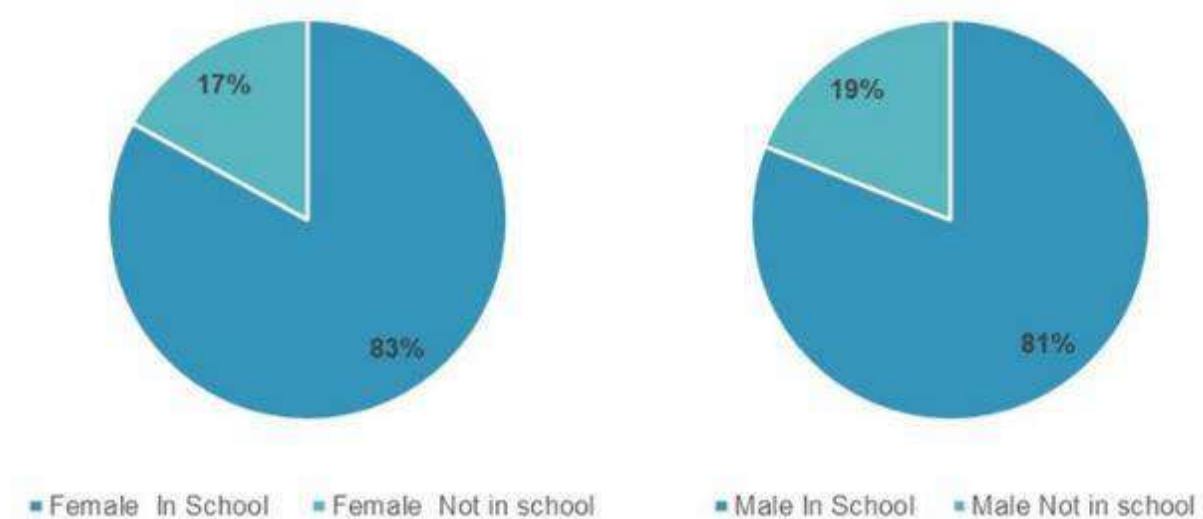


**Figure 9: Highest Education Level, Males / Females Aged 16-55 Years**

Systemic lack of education is however still apparent for both genders, with 5% of males and females having no education at all, while 13% of females and 17% of males having only some primary schooling without completing Grade 7. Whilst these individuals are generally of an older generation, some are in their early twenties, with several economically active years ahead of them, suggesting limitations to their livelihood options.

Around 19% of females and 21% of males aged 16-55 years also stated their primary occupation to be 'student', indicating attendance in secondary school institutions for some of the population, however, attendance at secondary school is impacted by lack of availability and the need to travel further afield, and in many cases find accommodation or board, with associated costs.

Around 83% of females and 81% of males aged between 6 and 15 years of age were, at the time of the survey, enrolled in school (see Figure 10). Many of the children not enrolled in school were aged 6-7 years with parents describing them as too young to start school. Other children did not attend school due to the distance to access schools, while some children are older and have never attended school.



**Figure 10: Current School Attendance, Male / Female Age 6-15 Years**

#### 2.2.1.6 Health

Malaria is the most reported illness, impacting at least one household member in 96% of surveyed households over a given year. Almost all surveyed households however have access to mosquito nets (only 3 households reporting having no net), with 83% household indicating that all household members sleep under the nets. Where nets are insufficient for all family members, it is most commonly the household head, or household head and spouse that use the net rather than children. Despite availability of nets, malaria rates still appear to be high, potentially indicating poor use or quality of nets, or poor treatment practices.

Around 35% of households reported cases of diarrhoea in the last year, potentially linked to unclean water supply or poor sanitation practices. Common colds and fevers as well as dental issues were also commonly reported by surveyed households.

Healthcare is generally sought at local health posts or with a community health worker, with any medication purchased from these facilities, or from a hospital, if visited. However, 29% of surveyed households also indicated buying medication from street traders, with potential implications for the quality or appropriateness of prescriptions.

Almost all the surveyed households indicated having knowledge of HIV/AIDS, with information largely sourced from health workers. The HIV/AIDS prevalence rate in Western Province was estimated as being 13.2% for women and 7.1% for men (GoZ, Demographic and Health Survey, 2018). These figures are marginally below national averages, however, they are far higher than many other rural areas in Zambia, which typically have lower HIV levels than urban areas. Limited

health services within the project area may impact residents' ability to access sufficient care and treatment.

## 2.2.2 Structures and Basic Services

### 2.2.2.1 Household Structures

Homesteads generally comprise several different structures, serving varying purposes, with an average of 4 structures within the homestead, including primary residential and secondary structures, with many enclosed within a fence or hedge.

Most surveyed households have a primary residential structure, with living and sleeping areas, with around half having an additional secondary residential structure acting as a separate or ancillary bedroom. The primary residential structures have an average size of 25.6m<sup>2</sup> with 1.9 rooms.

Walls are predominantly made of wattle and daub (68%), with a compacted mud / earth floor (67%), a roof of metal sheets (40%) or thatch (36%), and a solid wood door (79%). Windows are largely simple openings (56%), although some have wooden frames (27%). The typical structure is presented in Figure 11 below.



**Figure 11: Typical Residential Structures**

Other common secondary structures within the homestead include kitchens (owned by 55% of surveyed households), toilets (owned by 43% of surveyed households), and showers (owned by 29% of surveyed households). Structures for chickens and other livestock are also common within the homestead area (owned by around 25% of surveyed households), as are structures for crop storage (owned by 39% of surveyed households). Typical examples of such secondary structures are presented in Figure 12. These secondary structures are often less formal, with walls constructed out of thatch, poles, reeds, or sticks (65%), bare earth floors, and often no roof (47%). Secondary structures have an average size of 7.5m<sup>2</sup>.

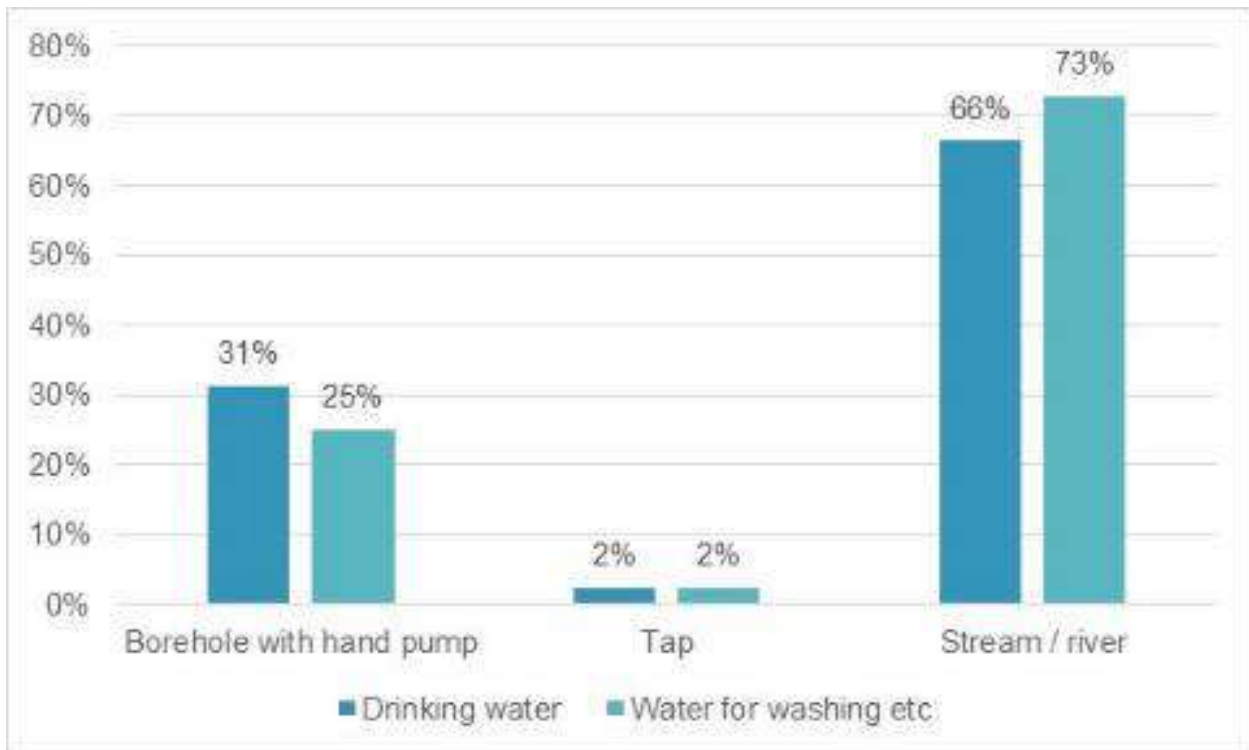




**Figure 12: Examples of Crop Storage and Toilet Structures**

2.2.2.2 *Water and Sanitation*

Around one third of surveyed households source their water from a community borehole, with others depending on streams or the river for water supply (Figure 13). Water collection is largely undertaken by women with support of children, with an able-bodied adult woman typically able to carry 2 twenty-litre containers in a single trip.



**Figure 13: Main Source of Water for Drinking and Washing / Cooking**

Water is used for domestic needs (cooking, cleaning, and drinking) as well as small-livestock watering, often resulting in the need for females to undertake multiple trips. Borehole water is accessed wherever available and is generally favoured. However, the use of boreholes is

dependent on their distance from the homestead and the proximity of the Zambezi River. Where less effort is needed, households will obtain water from the Zambezi River, however there is a constant risk of crocodiles and hippopotamus attacks that females cite as a major problem in using the river.

Streams or rivers are also commonly used for personal washing, and are used by 68% of surveyed households. Around 20% of surveyed households have also constructed small outdoor washrooms within the homestead for personal washing.

Pit latrines are the most common form of sanitation, and most pit latrines are simple constructions (without improvements or ventilated) as used by 74% of surveyed households. A further 7% of surveyed households indicated using pit latrines shared with another household. However, at least 5% of households reported having no pit latrines, instead practicing open defecation. Pit latrines are commonly constructed within the homestead boundaries, with reeds or sticks providing shelter.

#### *2.2.2.3 Energy*

Firewood is the predominant source of energy for cooking for 90% of surveyed households. Firewood is collected daily, mostly by females and children, from communal open land near the homestead, although males may assist in the transport of firewood. Around 7% of households indicated using charcoal for cooking, predominantly in Sikuka. Charcoal is more commonly used for income generation than household use.

Lighting is largely provided by torches or lanterns: 58% of households depend on battery-powered lights, whilst 36% use solar-powered lights.

#### *2.2.2.4 Waste Disposal*

No formal waste disposal system exists within villages, with the majority of surveyed households (58%) having a private waste pit near the household, while 23% of households indicated that they burn their waste. Composting of waste for use on fields is practiced by a few households, however, around 15% indicated having no waste disposal system, throwing waste in nearby bushes or fields.

### **2.2.3 Community and Public Services**

There is little in the way of public facilities and services in local villages in the study area, with households required to travel to neighbouring towns in many cases. Schools accessed by the survey population include Kandiana Community School, Mbuyu Community School, Sankandi Primary School, Senanga Secondary School, Sioma Basic School, Sioma Secondary School; and Songa Primary School. Most schools are located in Sioma Town, often requiring children to cross the Zambezi River on a daily basis.

Whilst community or basic schools are present in some villages, further secondary education and other services such as formal administrative functions, formalised cemeteries, markets, police stations, and markets) are concentrated in Sioma Town.

Health facilities are also limited, with households accessing the rural health centres of Sankandi, Maziba, or Mbuyu for basic needs, but needing to travel to Sioma Town for more serious medical needs. Sikuka is also used for cemeteries, churches, and shops, mostly by households on the west bank of the Zambezi River.

Senanga Town is a secondary support area, accessed predominantly by east bank villages in Senanga District for administrative purposes, police stations and the Senanga District Hospital which is a first referral hospital.

Community infrastructure that will be directly impacted by Project induced displacement includes the following (and as depicted in Figure 14 to Figure 24):

1. **Kandiana Village:** Tank stands for the Lilato and Lwitisi Cooperatives, and a community handpump with borehole.
2. **Sikuka Village:** One health post, one church (Roman Catholic), two handpumps with boreholes, one tank stand for the Mubaylo Community Club, two solar panels, and a sports field.
3. **Linganga Village:** New Apostolic Church.



Figure 14: Kandiana Tank Stand - Lilato Cooperative



Figure 15: Kandiana Tank Stand - Lwitisi Cooperative





**Figure 16: Kandiana Borehole / Handpump**



**Figure 17: Sikuka Health Post**



**Figure 18: Sikuka Church**



**Figure 19: Sikuka Handpump / Borehole**



**Figure 20: Sikuka Handpump / Borehole**



**Figure 21: Sikuka Water Tank and Stand -  
Muyabalo Community Club**



**Figure 22: Sikuka Solar Panel and Stand -  
Muyabalo Community Club**



**Figure 23: Sikuka Sports Field**



**Figure 24: Linganga New Apostolic Chapel**

Households are generally reliant either on bicycles, walking or the use of local taxis to access neighbouring villages and towns. River crossings are required for villages on the east bank to access services in Sioma Town. There are several *harbours* (informal boat launch locations) that are used by local people to traverse the Zambezi in either community boats or traditional canoes (*mokoros*). Interviews indicate that this cross-movement is common, notably for children that access schools and females accessing local markets and health centres in Sioma Town. Peak flooding of the Zambezi restricts this movement. Households on the east bank would have in the past used the government pontoon, however with the pontoon no longer functional and the new bridge relatively far from most of the study area villages are isolated on the east bank during times of high flood.

#### **2.2.4 Cultural Heritage and Grave Sites**

The specialist Heritage Impact Assessment (National Heritage Conservation Commission, 2018) identified a range of tangible (i.e., physical) artefacts or sites having either archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious value. The heritage that is anticipated to be directly impacted includes those presented in Table 7.

**Table 7: Geomorphological, Archaeological, Historical and Anthropological Sites / Artefacts (NHCC, 2018)**

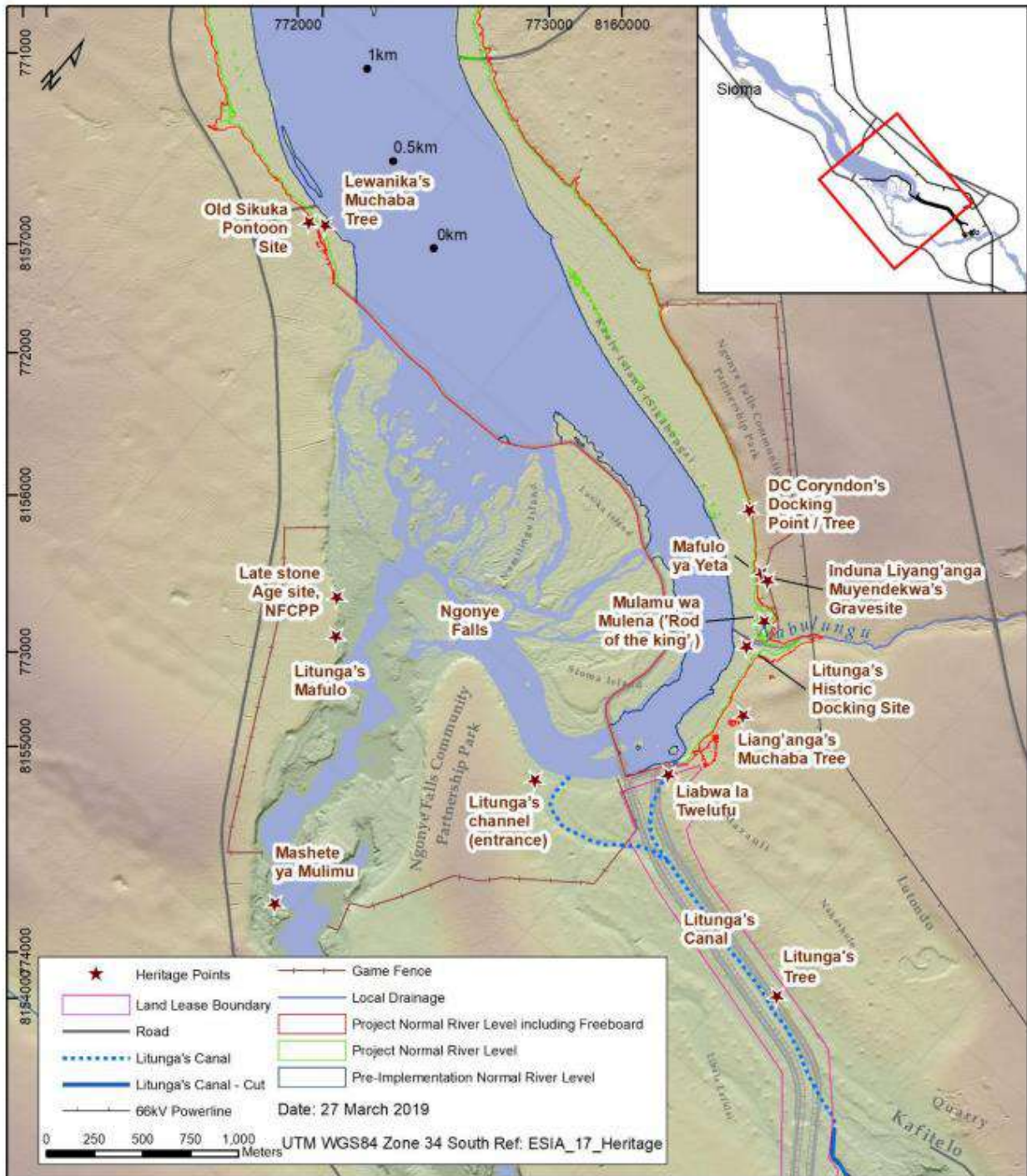
No.	Description of Site / Artefact	Conservation / Preservation Importance	Legally Protected	Permit Required	Local Importance	National Importance	International Importance	Impact	Mitigation
1	<b>Ngonye Falls</b> – The Ngonye Falls in its entirety is both a geomorphological and natural heritage resource.	High	Yes	Yes	High	High	High	Reduction of water flow and change in integrity and visual appearance	Commitment to maintaining environmental flow requirements
2	<b>Sacred Trees</b> – There are four sacred trees: 1. <i>Ficus sycamorus</i> / Muchaba on the banks of the Zambezi which is believed to have emerged from a walking stick used by King Lewanika, and 2. <i>Ficus sycamorus</i> / Muchaba on the eastern bank at Liang’anga old homestead. 3. “Yeta’s Tree”, a specimen of <i>Combretum imberbe</i> believed to have sprouted from a walking stick (staff) of a previous Litunga, and 4. <i>Brachystegia spiciformis</i> which is referred to as the District Commissioners (DC’s) tree.	High	No	No	High	Med	Med	Risk of inundation and loss	Documentation and working closely with the local leadership and local people within the project area
		Low	No	No	Med	Low	Low		
		High	No	No	High	Med	Med		
		Low	No	No	Low	Low	Low		



No.	Description of Site / Artefact	Conservation / Preservation Importance	Legally Protected	Permit Required	Local Importance	National Importance	International Importance	Impact	Mitigation
3	Itiyelo Island – This island was used as a hiding place for the local people during the tribal raids by other tribes and ravaging migrants like the Kololo and the Ndebele in the 19th Century.	Low	Yes	Yes	Med	Low	Low	Risk of inundation and loss	Engage NHCC in the event of artefact discovered and adopt a chance finds procedure
4	Nabuchi Island – A scared island that, in the past, used to be the ‘food basket’ for the Litunga in the 18th and 19th centuries.	Low	Yes	Yes	Med	Low	Low	Risk of inundation and loss	Engage NHCC in the event of artefact discovered and adopt a chance finds procedure
5	Matunda Island – Matunda Island was a settlement for the early Sioma inhabitants. Local traditionalists regard it as their first home before they settled on either side of the River.	Low	Yes	Yes	Med	Low	Low	Risk of inundation and loss	Engage NHCC in the event of artefact discovered and adopt a chance finds procedure
6	Bwisibi Island Early Settlement – A large island which was an early settlement for the indigenous people.	Low	Yes	Yes	Med	Low	Low	Risk of inundation and loss	Additional engagement as necessary
7	Litunga’s Mafulo Site – This site, historically, would be used by the Litunga, whom would occasionally and temporarily settle during his rare visits to his people in this part of the country.	Med	Yes	Yes	High	Low	Low	Low risk	Additional engagement as necessary

No.	Description of Site / Artefact	Conservation / Preservation Importance	Legally Protected	Permit Required	Local Importance	National Importance	International Importance	Impact	Mitigation
8	Mafulo a Yeta Site – Beginning with Litunga Yeta I to Yeta III, this site was used as an occasional campsite where the Litunga rested on routine visits to their subjects in the Sioma area. The site is largely intact and kept in reverence and sacredness.	Med	Yes	Yes	High	Low	Low	Risk of increased frequency of flooding	Additional engagement as necessary
9	District Commissioner Corydon's Docking Point – A historic site, which was a docking point for District Commissioner Robert Corydon who during the colonial era moved about in North-Western Rhodesia to create a firm imperial presence in area.	Med	Yes	Yes	Low	Low	Low	Risk of increased frequency of flooding	Additional engagement as necessary
10	Litunga's Historic Docking Site – A historic site where past Litungas would have docked. Some 50m from the water is a raised mound where a huge Ficus tree used to shelter multitudes of people that usually came to celebrate the Litunga's rare and triumphant arrival is said to have been.	Low	Yes	Yes	Med	Low	Low	Risk of increased frequency of flooding	Documentation and working closely with the local leadership and local people within the project area
11	Liabwa la Twelufu – Meaning the canal of twelve'. It is a historic canal which was used to drain as well as to supply water for easy navigation during the reigns of King Lewanika in the 19th century.	Low	Yes	Yes	Low	Low	Low	Risk of inundation and loss	Documentation and working closely with the local leadership and local people

No.	Description of Site / Artefact	Conservation / Preservation Importance	Legally Protected	Permit Required	Local Importance	National Importance	International Importance	Impact	Mitigation
									within the project area
12	The Litunga's Canal – The Litunga's canal or channel is an important feature within the project site. Although not in used and severely degraded, its history and significance were evidently cherished by the local people.	High	Yes	Yes	High	Med	Low	The western end of the canal is at risk of inundation because of the project	Documentation of the entire canal, and the preservation of the remaining eastern part
13	The Islands as Historical Sites – The islands on the immediate upstream of the Ngonye Falls are historic sites – include the Sioma, Lusika, Simugumbuko, Kaale, Namilangu and Matunda Islands. They were the historical residences of local ethnic groups and may contain burial sites of the earliest inhabitants of the region.	Low	Yes	Yes	Low	Low	Low	Risk of inundation and loss	Engage NHCC in the event of artefact discovered and adopt a chance finds procedure



**Figure 25: Cultural Heritage Sites**

2.2.4.1 *Graves*

A total of 17 graves were identified as within the project impact zone, as illustrated in Figure 7 and Table 8.



Initial engagement with impacted custodians of affected graves indicated that:

- Custodians in Imamongo and Thebe wish to continue using the burial family burial site and do not want the graves to be relocated;
- Custodians in Linganga support the relocation of the graves to a new burial site of their choice. The family also indicated that it should be compensated, and all the burial rites must be performed.

Custodians of all grave sites were engaged during the negotiation process and in signing individual household compensation agreements to determine final decisions on relocation or compensation of grave sites. Household compensation agreements included details on affected graves as relevant to households, with options for either exhumation and reburial or cover over of graves, and options for a ceremonial allowance or part in-kind / cash compensation. Households selected options in these agreements, which are included as Appendix J.

**Table 8: Burial Sites Registered During Surveys**

Name of Deceased	Year	Adult / Child
Muyolela Lifasi	1999	Adult
Libali Muyendekwa	1998	Adult
Monde Mumbuwa	2021	Adult
Rosemary Masiliso	2014	Adult
Mukitwa Musiwa	2013	Adult
Machilombo Musha	2021	Adult
Daughter Munalula Sibote	2021	infant
Namushi Mwakoi	1999	Child
Mundia Sitali	1989	Adult
Masiye Mundia	2001	Adult
Namukolo Mundia	1992	Adult
Katekelelwa Mundia	1994	Adult
Likando Mufalali	2019	Adult
Spencer Silumesi Mufalali	1995	Adult
Makachana Lungowe	1999	Adult
Muyunda Silumesi	2001	infant
Mwimanenwa Mwimanenwa	2015	infant

Additional graves have been identified outside of the current inundation area by the cultural heritage specialist (CHS) as at potential risk of increased frequency of flooding or loss of access in the case of burial sites on islands (Table 9). Communities have requested that monitoring be undertaken to ensure these sites are not impacted, and measures put in place if necessary for compensation or relocation.

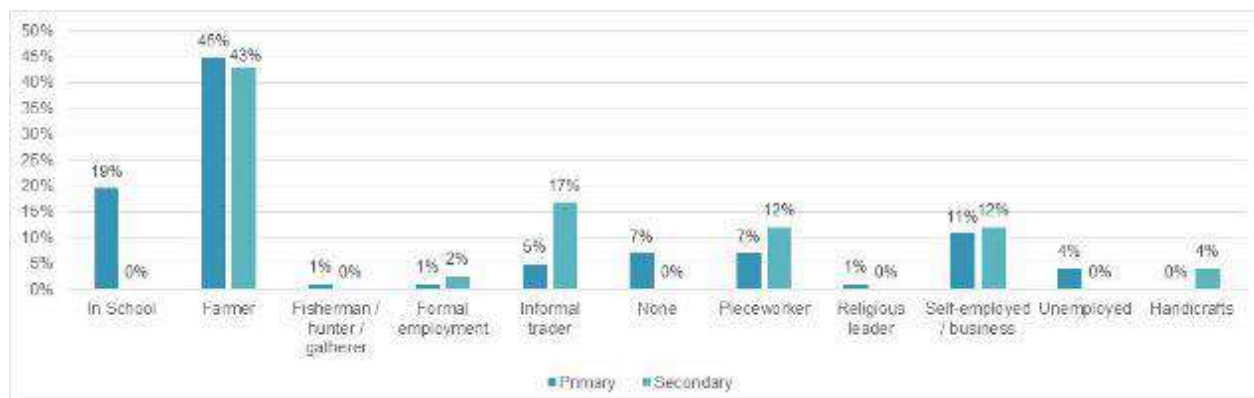
**Table 9: Burial Sites Identified by Heritage Specialist to Monitor**

No.	Name	Village	Description	
1	2 graves 200m east of the Induna Ling'anga burial site under the care and custody of Mr Kandala Kandala	Situmba (Induna Linganga)	Low risk of impact but CHS is the opinion that with time, rising waters in the dam may inundate the burial site.	Next of kin do not wish to have the burial site and its graves relocated but should there be serious indications that the burial site would be inundated, then the graves should be relocated to a new burial site of their choice. The family should be compensated, and all the burial rites performed.
2	2 graves 95m from the Zambezi under the care and custody of Mr Muyakwabo Lwili	Kasize (Induna Mukwala)	Low risk of impact but CHS is the opinion that with time, rising waters in the dam may inundate the burial site.	Consultation with the next of kin indicated that the affected family do not wish to have the burial site and its graves relocated but should there be serious indications that the burial site would be inundated then the graves should be relocated to a new burial site of their choice. The family should be compensated, and all the burial rites performed.
3	More than 50 graves on the island under the care and custody of Mr Mundia Mundia	Lweti Island (Induna Songa)	Possible inundation from the head pond	Next of kin do not wish to have the burial site and its graves relocated but should there be serious indications that the burial site would be inundated then the graves should be relocated to a new burial site of their choice. The family should be compensated, and all the burial rites performed.
4	More than 150 graves on the island under various custodians, represented by Mr Mukitwa Mukitwa	Mutundandom be Island, Induna Songa with graves belonging to residents of Mbowe Village	Possible inundation from the head pond	Initial consultation resulted in the call for further discussions within the village to decide on whether grave should be relocated or inundated
5	11 graves located 50m from the Zambezi, under the care of custodian Mr Kayuni Moola	Kanyamba, Headman Munyamba under Induna Songa	Low risk of impact but CHS is the opinion that with time, rising waters in the dam may inundate the burial site.	Consultation with representative (Induna Ing'ombe / Acting Imunonoko) of the affected family indicated that since annually the burial site is inundated and it is possible that with the water levels rising in the Zambezi River, the site might permanently be inundated the does not wish to

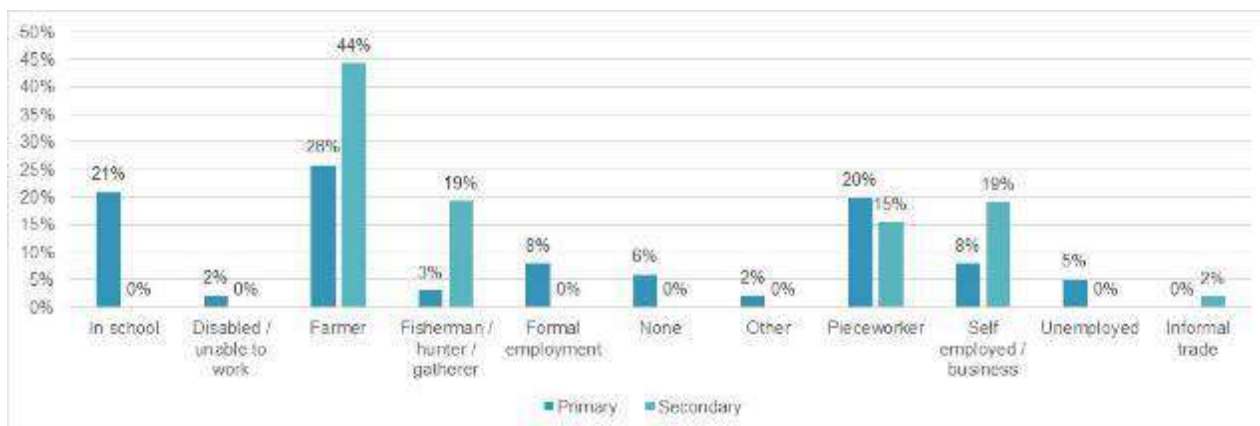
No.	Name	Village	Description
			have the burial site relocated but receive a blanket compensation for the loss. He further requested that a new cemetery be found and prepared by Western Power Company for the Malombe local community.

### 2.2.5 Livelihoods

Farming is the predominant livelihood activity, undertaken by 88% of females and 70% of males aged 16-55 years as either a primary or secondary occupation (Figure 26 and Figure 27). Males largely contribute to land preparation, clearing trees and vegetation and ploughing with oxen. However, most post-land preparation activities are undertaken by women, with females responsible for hand-ploughing, sowing, tending, irrigating, and harvesting of crops, often supported by children. Men assist in the transport of crops to the homestead, and both men and women can be involved in the sale of agricultural produce. Around a third of households also employ casual labour during the labour-intensive land clearing and preparation that extends over September to November.



**Figure 26: Primary and Secondary Occupation, Females Aged 16-55 Years**



**Figure 27: Primary and Secondary Occupation, Males Aged 16-55 Years**

Few other livelihood activities are practiced outside of agriculture. Females may engage in informal trade or business, selling agricultural or other small-scale market products as a secondary business (Figure 26). Fishing is listed as a secondary activity by 19% of males, undertaken as a seasonal activity during lower river flows. Males also undertake piecework when available and run their own businesses, especially carpentry (Figure 27).

#### 2.2.5.1 Land Ownership

Given that local livelihoods are predominantly small-scale farming, access to and the ownership of land is of critical importance. All the affected households have access to some form of land, the majority under traditional or customary ownership. Customary land is formally recognised, protected, and administered via local traditional customs and structures, and plays a considerable role in the development of land tenure security in customary areas. Under such system, individuals and families may hold exclusive rights to land (acting as *de-facto* landowners), with such land often handed-down via inheritance (see Section 4.5).

The tenure status for project-affected land largely falls under customary tenure, secured directly from the relevant Induna or via inheritance, although three households have land formally registered on a title deed. The dominant customary form of tenure is most common for households that have been present over several generations or decades.

Around 57% of households indicated owning their land through inheritance, 19% described having access to the land because of being born there and were therefore entitled to land use, and a further 9% were allocated land from the traditional authorities. Renting or occupying land without any consent is relatively uncommon, noted by only a few households in Sikuka village.

Purchase of land is also uncommon, although 9% of households indicated buying their current land. Some of the younger households (resident for less than 7 years) have been established via leasing or renting land, potentially indicative of land-pressures, or costs of securing new land from local authorities.



#### 2.2.5.2 *Agriculture*

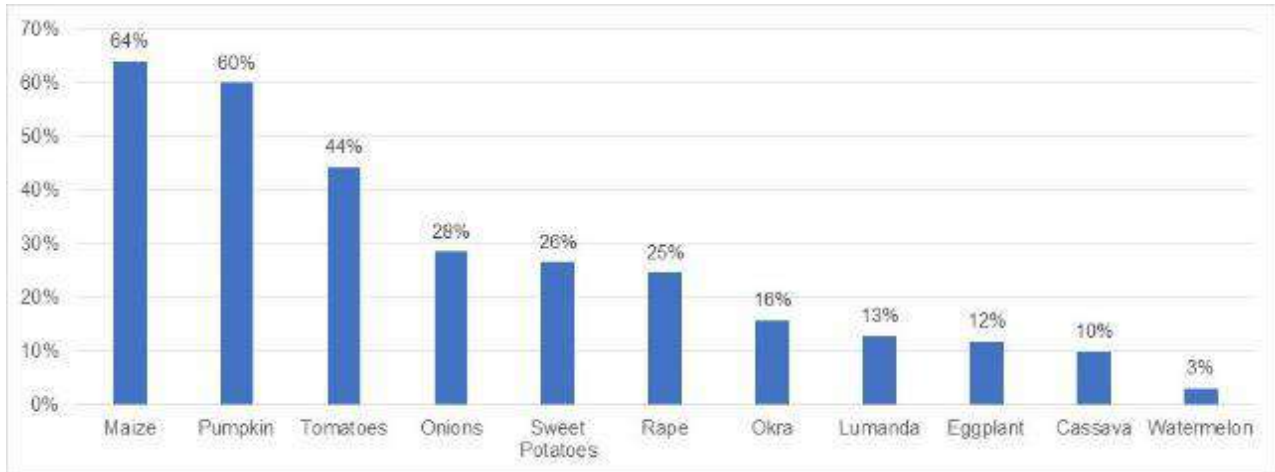
Households typically own an average of around 2.81ha of land, including both dryland and floodplain areas (described below). Overall ownership of land is often higher than land currently cultivated, due to practices of land rotation as well as the capacity to clear land, purchase seeds and inputs and cultivate crops during that season. Dryland areas form most of the land owned, with an average of 2.52ha per household, of which an average of 27% (0.68ha) is cultivated at any one time. Floodplain farms or gardens are much smaller, with availability of these restricted to available river frontage. On average, each household owns around 0.285ha of floodplain land of which 20% (0.056ha or 557m<sup>2</sup>) is cultivated at any one time.

Two dominant types of farming take place in the study area – *floodplain* and *dryland* farming. Floodplain farming occurs in areas that are prone to seasonal flooding. Dryland farming is undertaken in upland areas on elevated land located further away from the river and generally not subject to regular flooding. Where households have access to both types of farming practices, they farm them consecutively with dryland farming undertaken in the wetter months, and flood-recession farming undertaken in the dryer months where the water flows of the Zambezi are at the lowest. In combination, these two sets of farming are critical in terms of household food security and trade.

#### **Floodplain Agriculture**

Floodplain farming occurs on land that is seasonally flooded by the Zambezi River, its tributaries, back/side-channels and on some of the larger river islands. This form of farming is therefore location specific and limited to areas that are gently sloped along or near to the Zambezi riverbank and where sediments can settle. Floodplain plots may be owned by households whose property extends to the river edge and claim exclusive use to the adjacent land. It is also common for floodplain farms to be located on unclaimed / community land, with numerous small-plots being farmed by multiple households. As the homesteads are broadly scattered, the garden plots tend to not be aggregated to a specific location but rather to randomly spread along both banks of the Zambezi River.

The rationale for such farming is that seasonal flooding is relatively predictable, with receding floods leaving behind areas of higher soil fertility, and where crops can grow based on the residual soil moisture. This allows for the establishment of water-hungry crops that are hand-irrigated with water sourced from the Zambezi River. Maize is a dominant crop, grown in 64% of fields, as is pumpkin, grown in 60% of fields. Other vegetables such as tomatoes, onions, sweet potatoes, and greens such as rape and lumanda also feature in many gardens (Figure 28 and Figure 29).



**Figure 28: Percentage of Floodplain Gardens with Crops**



**Figure 29: Examples of Floodplain Gardens**

The floodplain plots are abandoned during the flood season (Jan-April), and re-established annually once the flood levels recede. In most cases, plots are only established with vegetables in August and maize in late November, with cultivation ending in January or February the following year as the flood waters rise again. The annual cropping calendar is presented in Table 10.

Land preparation for floodplain farms is largely restricted to initial clearing of flood debris, with the land ploughed using animal-drawn ploughs, most commonly cattle-drawn (25% of households), or hand-hoes where the household does not own or is unable to rent draught animals (around 60% of households).

The value in floodplain farming is not only related to the improved soil fertility and retained moisture, but also to irrigation opportunities. More than half of the fields are irrigated using water from the Zambezi River or streams/dambos, whilst virtually none of the upland dryland farms are irrigated. Households actively irrigate via small pumps or hand-held containers, throughout the dry season (June – November), an activity mostly undertaken by women. Few households have sufficient resources for a diesel-powered pump or treadle-pump, with these tending to be limited to larger, co-operative based farm plots with a focus on cash income.

**Table 10: Crop Calendar for Floodplain Agriculture**

Activity	Jun	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
<b>Fencing</b>												
<b>Land Preparation</b>												
<b>Ploughing</b>												
<b>Planting</b>												
<b>Growing</b>												
<b>Harvesting</b>												
<b>High Water Level*</b>												
<b>Med Water Level**</b>												
<b>Low Water Level***</b>												

\* Above 1000 cumecs  
 \*\* Between 500 and 1000 cumecs  
 \*\*\* Below 500 cumecs

### Dryland Agriculture

Dryland farming is extensively adopted by local households, constituting the dominant form of agriculture by total area of land (Figure 30). Dryland farming is undertaken on elevated land that is not affected by seasonal flooding, usually on the same plot of land on which the homestead sits, leading to a close correlation between the location of households and dryland farm plots. Most farming is concentrated along the Zambezi River, but households may also farm upland areas that can extend up to two kilometres from their homesteads.



**Figure 30: Example of dryland farming**

Dryland farming is exclusively reliant on rainfall. Land preparation and ploughing is undertaken in October and November, before the start of rains, in a similar manner to that of floodplain preparation, with land cleared and then ploughed. Planting is then undertaken in November and December with maize (the most dependent on water supply) planted first, and millet or sorghum intercropped with the maize. Crop harvesting of all these crops takes place between March and May.

**Table 11: Crop Calendar for Dryland Farming, Maize, and Sorghum**

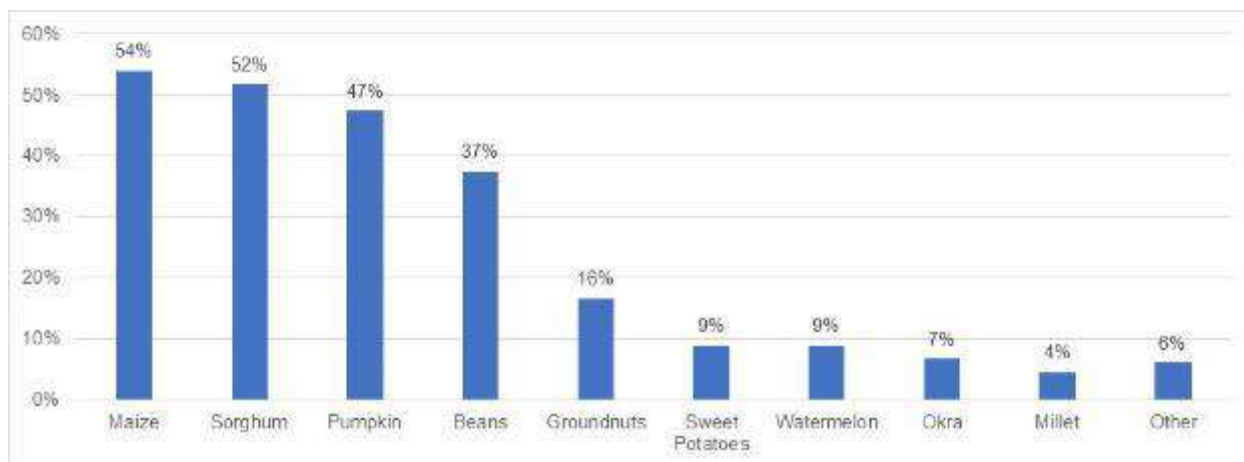
Activity	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug
Land Preparation	■	■										
Ploughing		■	■									
Planting (Maize)			■	■								
Planting (Sorghum)				■	■							
Tending				■	■	■	■					
Harvesting (Maize)							■	■	■	■		
Harvesting (Sorghum)							■	■	■	■	■	
High Rainfall*				■	■	■						
Med Rainfall**			■				■					
Low Rainfall***	■	■						■	■	■	■	■

Maize ■  
Sorghum ■

\* Above an average of 150 mm/month  
 \*\* Between an average of 50 to 150 mm/month  
 \*\*\* Below an average of 50 mm/month

As with floodplain gardens, maize is the predominant crop on dryland farms, grown in 54% of fields, followed by sorghum in 52% of fields. Pumpkin (47%) and beans (37%) are also widely grown, with crops such as groundnuts, sweet potatoes, watermelon, okra and millet less common, as depicted in Figure 31.





**Figure 31: Percentage of Fields with Crops Grown**

Inputs such as the manure, seed, and labour are secured by the individual households: many keep seeds from the previous harvest, and those owning livestock keep manure for use on fields. There is limited Government support for local farming, and while the district authorities do provide agricultural extension services, local households claim this is infrequent. Several villages have established collective bodies or societies, which include farmer groups. These groups are not established as formalised co-operatives, but rather function as societies or clubs, and have been established to obtain support from the state.

The preparation and storage of harvested crops is critical in maintaining food security between harvests. Interviews indicate that the loss of crops to postharvest pests and crop rot results in nearly half of the harvested crops being lost before it is consumed or marketed. Storage of crops is generally limited to unprotected piles outside or inside of the house, or the use of crop storage structures constructed of sticks and reed mats that make up a basket like crib. There is no evidence that households make use of any sealed storage containers.

### 2.2.5.3 Livestock

Livestock husbandry is a secondary, but important, livelihood strategy adopted by local households. Chickens are kept by around 45% of households, cattle by 37% and goats by 10%. Cattle are mostly used as a measure of household wealth and prestige, for cultural practices, and for trade when there are pressing income needs. Cattle also function as important draught animals for ploughing farmland or transporting goods. However, cattle are not a key household food source.

Smaller livestock and poultry, including goats and chickens, are used to secure household food needs and function as an important protein source alongside fish. There is however little diversity in small livestock with only chickens being commonly reared by surveyed households.

There is no formal designated communal grazing land for cattle, with grazing undertaken between farm plots and within proximity to the cattle-owning homesteads, while smaller livestock are permitted to roam around the homestead. Households also herd their cattle to better grazing areas located on the banks of Zambezi River, its tributaries, or back-waters where there is better

grass which is sustained by shallow ground-water. Around 41% of surveyed households indicated using grazing land for cattle, with the majority (96%) describing this land as under communal ownership.

Cattle are primarily watered along the Zambezi River as there is a low risk of crocodiles attacking them since they are generally too large, according to community interviews. Crocodiles however regularly take goats and other small livestock. Small livestock are therefore provided with drinking water at the homestead from local household wells or boreholes.

Adult males focus on rearing large livestock, notably cattle, with support of younger males of the household, however no male is considered to be exclusively a herder / herds-boy, and herding of cattle is normally undertaken alongside other daily activities. Females focus on caring for smaller livestock and poultry that stay within the homestead.

#### 2.2.5.4 *Fruit Trees*

Around 61% of households own fruit or productive trees, with each household owning an average of 11 trees. Around 27% of all trees owned are productive, and 73% saplings. Mango trees are the most common, followed by paw paw and guava. Households also keep bananas, lemon trees, moringa, mulberry and cashews. Fruit trees are largely kept for household consumption, with little trade in fruit or products noted.

#### 2.2.5.5 *Fishing Activities*

Fishing is undertaken as a supplementary or secondary livelihood activity after farming, with 21% of males listing it as their secondary occupation. Fish provide an important supplementary protein food source, as well as acts as an important income generating livelihood to families in the project area. Fishing is divided into four distinct practices, Gill-Netting, Hook-and-Line Fishing, *Maungwe* and *Limbelo*, as described below<sup>6</sup>.

### **Gill Netting, Hook-and-Line Fishing**

Both netting and hook-fishing are undertaken from the land along the Zambezi River, and when fishing from a mokoro (canoe) on the river, with the practice being largely non-site-specific. Around 38% of households were recorded as having fishing equipment to support one or both types of fishing practice.

### **Maungwe**

*Maungwe (plural)* is a term given to a traditional fishing structures used by local households on the Zambezi River where the river is sufficiently slow-flowing and shallow. *Maungwe* are constructed piles of rocks (of different sizes) placed at a depth of between 1-1.5 metres (Figure 32). The *Liungwe (singular)* is left for a period of approximately 3-8 weeks allowing it to be adopted by small fish as refugia. After this period the fishermen return to inspect the *Liungwe* for the

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<sup>6</sup> The following data is sourced from the Nomad studies undertaken in 2016 and 2019.

presence of fish. If fish are present, the stones are slowly removed and used to simultaneously establish a new *Liungwe* onto a spot adjacent to the old one.

The removal of the rocks forces the fish to move down further toward the base of the rock-pile. The fishermen then place a reed basket (*Lukuko*) at the base of the *Liungwe* in a gap in the stones that has been created, with additional stones and grass / reed traps being placed around the basket to channel fish into the *Lukuko* basket. This is usually done by a team of 2-4 fishermen, where some continue to remove stones until the rock-pile is removed, directing fish toward the basket entrance, while others maintain the basket and surrounds and scoops the basket up at the appropriate moment.



**Figure 32: Examples of Maungwe Fishing Grounds**

Maungwe fishing sites are not a communal resource, and households claim *exclusive-use* rights to such sites. A fisher may have multiple rockpiles as a site, with the site boundaries recognised by local fishers. Such a Maungwe site or area with recognised boundaries is known as a *Luchwe*. These *exclusive-use* rights are not formalised under law but are broadly accepted by local households under customary practice. In addition, these rights are transferrable from father to son via inheritance. A person who wishes to establish a new *Maungwe* site at a place not already occupied would need to seek permission for allocation of the site through the Induna, like

obtaining a new plot of land. However, most existing Luchwe sites are old, established, inherited sites.

The Maungwe tend to be clustered in specific locations, and notably where local islands divide the Zambezi River. Interviews with fishermen indicate that these locations are sufficiently shallow (whereas the main river channel is too deep), provide a rocky substrate (from which the rock piles are constructed) and are sufficiently fast-flowing to support Maungwe fishing practices.

Fishing is practiced between the months of July to December (or even February if the river level allows) – or in areas where the Zambezi has the lowest flows during the flood season. The determining factor is water depth, as fishermen need to be able to stand freely while working. This limits Maungwe to locations that are between approximately 0.5 to 1.5 metres deep, with such sites becoming non-functional when the water levels rise, whilst other sites become deep enough. Households respond to level rises by either (1) abandoning their site until the next season, or (2) moving to other sites which now become viable.

The Maungwe season is divided into three traditional harvest periods. *Sitwe* is the first harvest which is mostly completed during the months of July and August; the second harvest period, *matulo*, takes place mainly during September and October; the third harvest period, *matilili*, begins with the onset of the rains (usually in November) and may continue up to the end of December.

Interviews with local Maungwe fishermen indicate that their catch is used to secure a combination of household food and trade for income. Anecdotally, local fishermen claimed that a third of the catch is used for food, while the remaining two-thirds was sold to the neighbours or in Sioma Town on occasion. Fishermen also noted that their yield was highly variable, so the proportion used for trade or food would also vary considerably.

A survey of Maungwe fisheries, undertaken by the Project in 2019, registered a total of 142 Maungwe sites, supporting 2596 individual traps, that would be located within the Project head pond, as depicted in Figure 38 to 40. An additional Fisheries Study was completed in April 2023 to verify the results of the 2019 research on Maungwe practices, and to provide greater detail on the number of active fishers, the number of active sites, and accurate data on catch levels and frequency. The results of this study are appended.

### Limbelo Fishing

Limbelo (plural) are fishing sites that support a specific traditional fishing method. The *Mbelo* (singular) is a location within the channels and rapids of Ngonye Falls where there is a natural constriction that meets the right flow and depth conditions for placement of a basket trap ('*mbelo*' can be translated from Lozi as 'passage way'). (see Figure 33).





**Figure 33: Example of Limbelo Fishing Site and Trap**

At these locations, small v-shaped weirs (called *Walelo*) constructed by fishermen using local stones or harvested reeds and grasses direct water flow (and fish) through the Mbelo to basket traps (called *lukuko* (sg) *makuko* (pl)) that are wedged into the weir outlet using local stones. The Limbelo are orientated in the direction of the water flow which channels fish into the weir and into the basket traps. The basket traps include a sieve that prevents the fish from escaping the traps.

The Limbelo form of fishing practice is largely restricted to the channels and rapids around Ngonye Falls. These areas provide the needed shallow yet fast flowing water over rocky terrain with constricted streams and channels to allow the establishment of *Limbelo*. The water needs to be sufficiently shallow that the traps are not damaged, and fish are prevented from swimming over the weir and trap.

Fishing is predominately undertaken between November to February – from the beginning of the rainy season as river levels begin to rise.. However, the differing elevations of the various inter-island channels and flood-activated side channels around Ngonye Falls allows different *Limbelo* to be active at different periods.

Much like the *Maungwe*, *Limbelo* fishing spots are ‘owned’ by local households. As such, they are not a communal resource, and households claim exclusive-use rights to such spots. These

exclusive-use rights are not formalised under law but are broadly accepted by local households and are transferrable. Interviews with local fishermen indicate that while the Limbelo are in use, the owners visit their sites daily or on a regular basis, and if the baskets are not cleared the caught fish die and rot. Generally, this is undertaken in the late morning or early afternoon after farming has been completed for the day. Males solely undertake these visits.

Interviews with fishers indicate that their catch was both used to secure household food and trade for income. With local fishermen again indicating that around a third of the catch is used for food, while the remaining two-thirds is sold to the neighbours or in Sioma Town on occasion. Fishermen also noted that their yield was highly variable, so the proportion used for trade or food would also vary considerably.

A survey of Limbelo fisheries, undertaken by the Project in 2019, registered a total of 204 separate Limbelo sites, supporting 374 individual traps, that all are in the channels/rapids below Ngonye Falls and lateral flood channels of the river as depicted in Figure 40. An additional Fisheries Study was completed in April 2023 to verify the results of the 2019 research on Limbelo practices and to provide greater detail on the number of active fishers, the number of active sites, and accurate data on catch levels and frequency. The results of this study are appended.



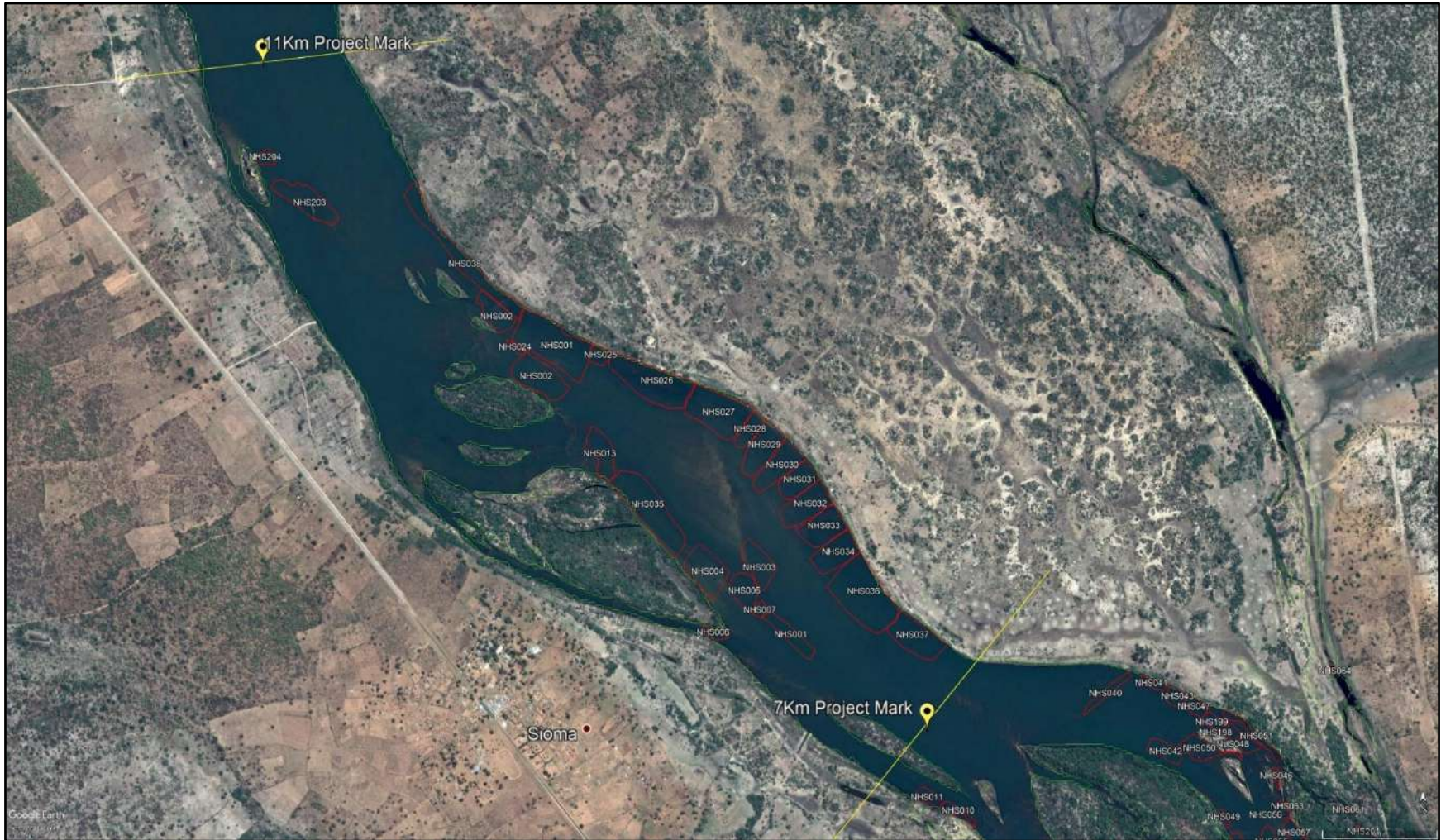


Figure 34: Maungwe and Limbelo Fishing Sites Surveyed (a)







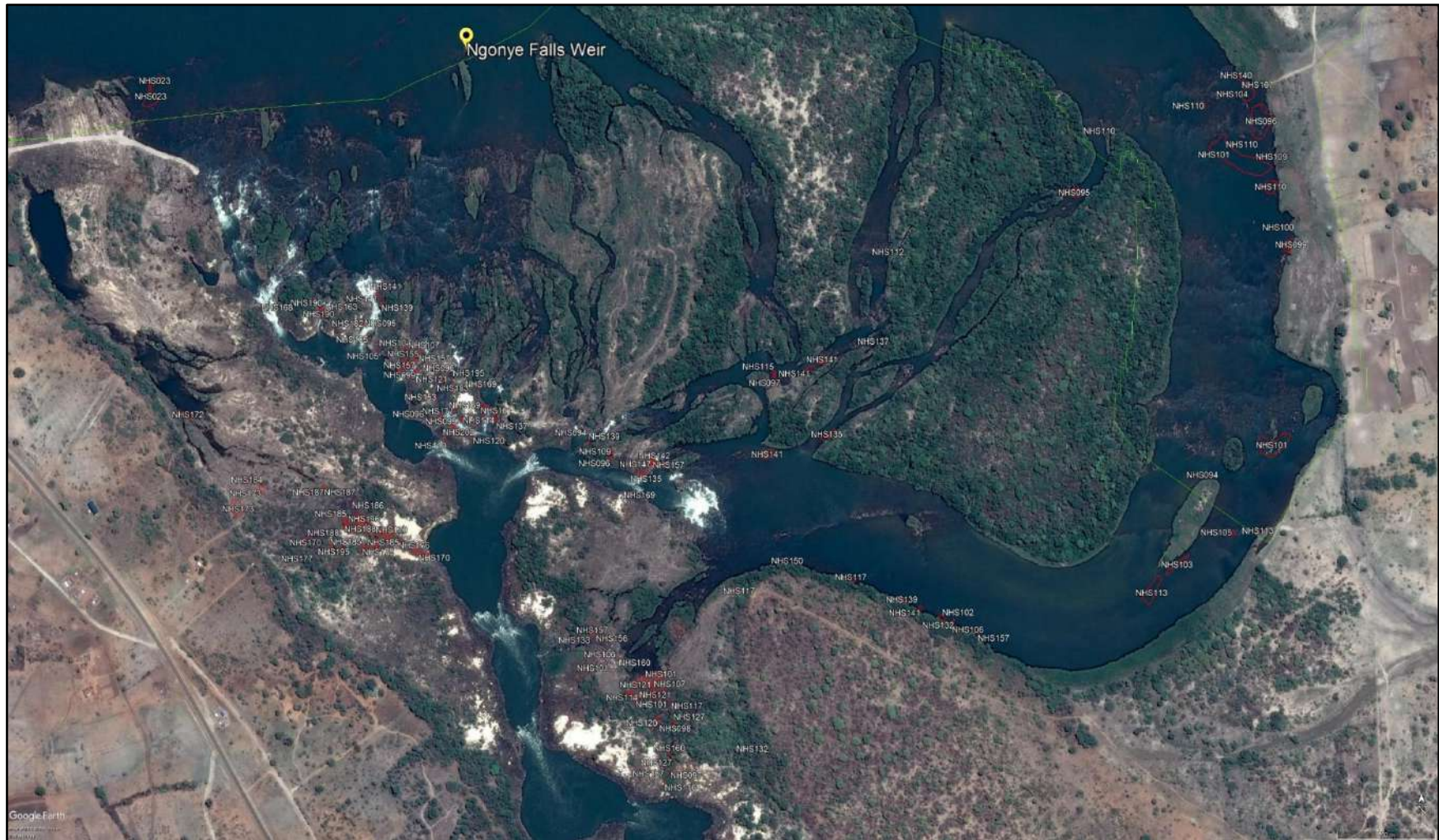


Figure 36: Maungwe and Limbelo Fishing Sites Surveyed ©

#### 2.2.5.6 *Natural Resources*

Natural resources play a significant role in the lives of local communities, providing food and income from agriculture, livestock grazing and fishing activities (Sections 2.2.5.1 and 2.2.5.5), and key household services such as water supply from boreholes and the river for drinking water, washing and livestock, and energy supply from firewood.

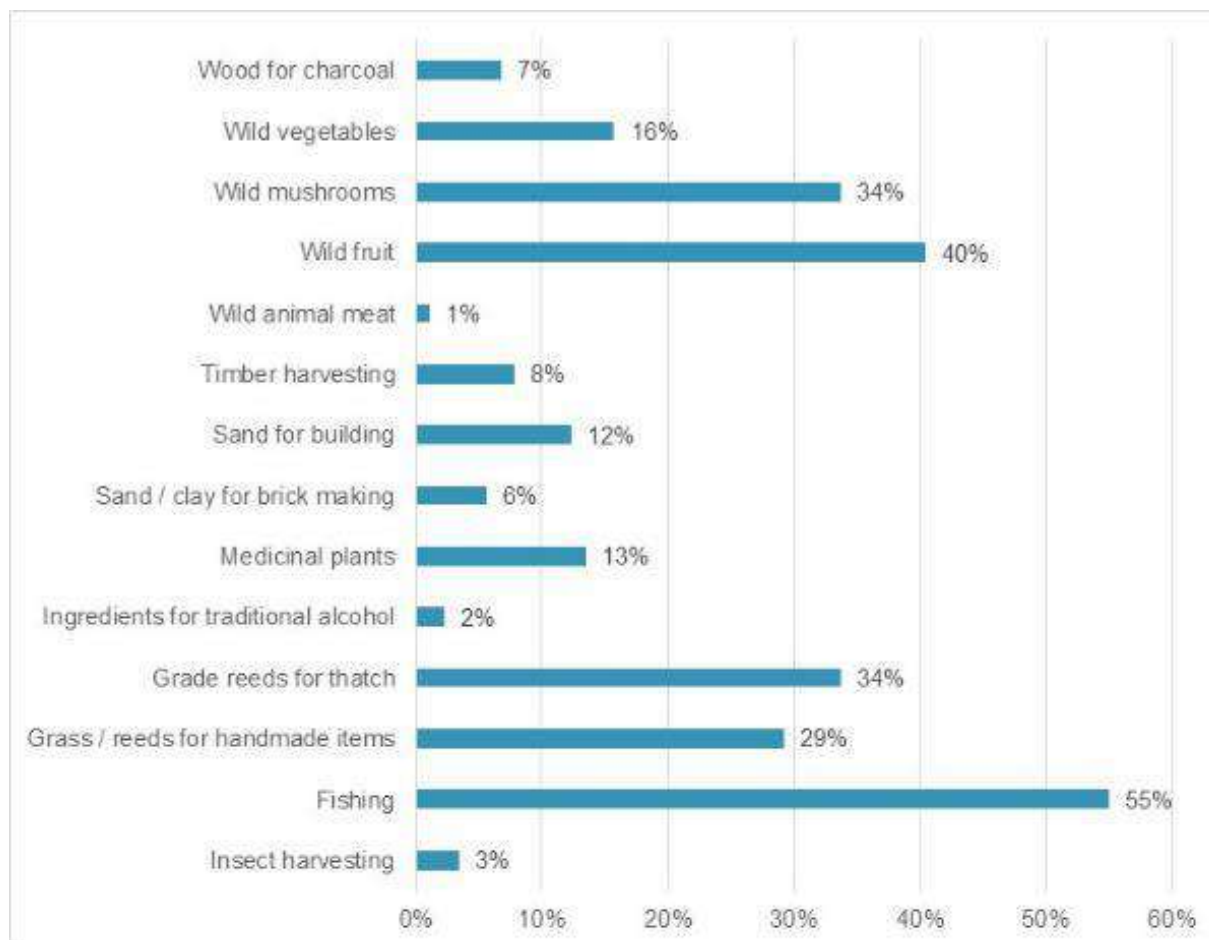
In addition, 40% of surveyed households harvest a range of natural resources from local communal land (Figure 37). This includes collecting a variety of wild fruits, wild vegetables, and wild mushrooms on a seasonal basis. These resources are largely used to supplement household food supply, although some indicated selling wild products to supplement household income.

Grasses, reeds, sand and wood are also collected by surveyed households (Figure 37) to support mostly the construction of structures, notably those constructed of wattle and daub or mud-brick. Fencing around fields, reed mats, fishing baskets and traps, and fishing rods also require natural resources.

Communities generally make use of the following:

- *Phragmites mauritianus*: this reed is found along much of the riverbank and on island shores, used as a construction material for fencing, thatching and for making baskets etc.
- *Cyperus papyrus*: this reed is smaller than phragmites, often found next to and amongst phragmite reed beds along much of the riverbank and island shores, used as a material for reed mats.

Charcoal production is practiced by around 7% of surveyed households, largely for resale in nearby towns or transported to Lusaka. Despite relatively low community involvement in the practice, the impact of charcoal production is clearly apparent in the area, with trees felled and burnt from land surrounding communities.



**Figure 37: Households Harvesting Natural Resources**

#### 2.2.5.7 Household Income Sources

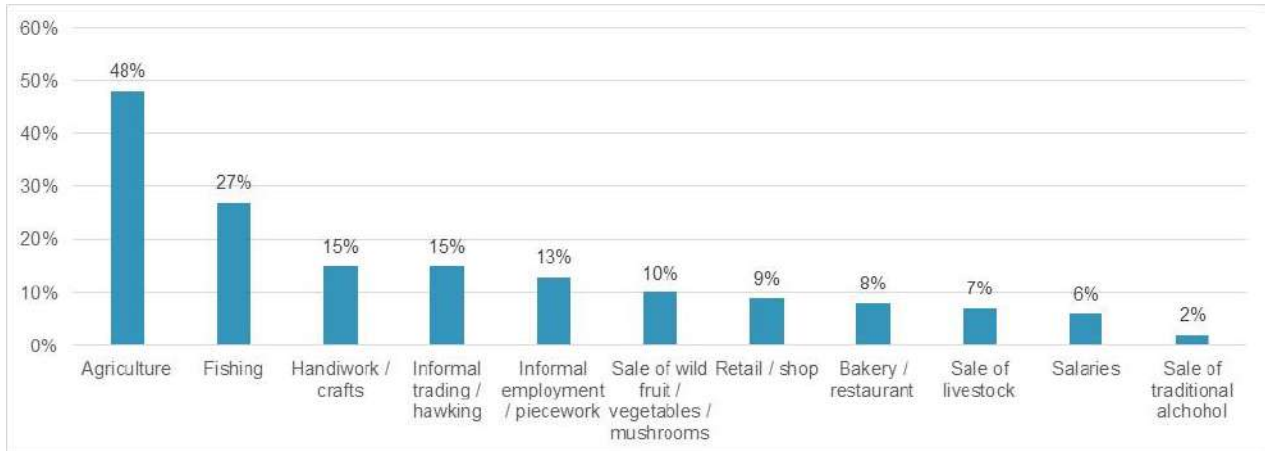
Surveyed households generally generate income from multiple sources, which in turn tend to be variable throughout year depending on the season, as well as availability of natural resources and household labour.

Agriculture is the most common source of household income. Whilst crop cultivation is primarily undertaken to support household food supply, a portion of crops is sold each year, depending on the success of the harvest, the level of surplus food, as well as household income needs.

Studies undertaken in 2018 indicated that whilst nearly 80% of surveyed households practice dryland farming for household food needs only, floodplain farming produce is used for a combination of household food and income by 47% of surveyed households. Only 20% of surveyed households indicated that crops were grown only for income generation.

Similar studies undertaken in 2021 indicated that nearly half of surveyed households listed agriculture as one of the top three household income sources (Figure 38). Fishing also provided an important source of income, with 27% of households identifying fishing as one of the top three income sources. Income supply from handiwork or crafts, informal trading and informal

employment or piecework was also relatively common. Very little formal employment was available, however, 6% of households indicated that formal salaries contributed to their household.



**Figure 38: Household Top Three Income Sources**

The cost of living has rapidly increased over recent years: the Jesuit Centre for Theological Reflection (JCTR) undertakes a monthly assessment to calculate the cost of living for a family of five in Zambia, calculated as the Basic Needs and Nutrition Basket (BNNB), and including basic food and non-food items. The estimated monthly household cost at the time of surveys (December 2021) in Mongu was ZMW 4,339.90 (equating to around USD 270). Given the limited income generating opportunities, it is highly unlikely that households within the Project area achieve monthly incomes anywhere near this figure, suggesting that many are unable to meet basic household needs.



### 3 ELIGIBILITY AND ENTITLEMENT FRAMEWORK

This chapter describes the criteria used to determine which communities, household or persons are deemed eligible for compensation and resettlement support. In addition, the chapter presents the entitlement framework which defines the types of compensation (including monetary and in-kind compensation) that will be provided to eligible persons based on their different types of losses.

#### 3.1 Eligibility Framework

Eligible persons (encompassing individuals, groups of persons, families, institutions, or any other entity) may make a claim for compensation or resettlement assistance for the loss of property which is directly related to the Project.

Eligible persons include all persons with a formal *interest* on the land – in the form of propriety ownership, co-proprietary, tenants, or any persons with other limited interests. The term is further expanded to include *affected* persons – persons who gain a benefit or utilise the land or improvements made on that land irrespective of their legal standing.

Under the Land Acquisition Act, Cap 189, eligible persons are defined as any entity, group or person that retains an interest in or rights over land or property, but does not provide any additional definitions or explanations.

Under international good practice, eligible persons are defined as:

1. Persons who have formal legal rights to land or assets, through formally registered title deeds or other relevant formal and documented legal proof of ownership.
2. Persons who do not have formal legal rights to land but have a claim that is recognised under national or customary law, or are granted exclusive occupancy rights by a representative of the Barotse Royal Establishment.
3. Persons who do not have formal legal rights to land but have a claim through adverse possession – or where a person gains additional rights to that land after peaceful occupation of land over a period of time, and where such occupation is not contested by the landowner or local authorities.
4. Persons who have no recognisable legal right or claim to land or assets they occupy or use, nor are recognised under national or customary law as rightful occupiers or users of the land.

The Project has committed to international good practice standards, and has therefore adopted the higher and more conservative definition of eligible persons as contained under the international standards above.

Based on the eligibility criteria noted above, as well as the expected types of asset losses (as presented in Section 2.1.3) as a result of the Project, eligible persons will include the following:

1. Persons losing a homestead / residential property.
2. Persons losing residential and ancillary structures.

3. Persons (with formal title or customary rights) losing upland farmland.
4. Persons (with formal title or customary rights) losing flood recession farmland.
5. Persons with either temporary or permanent loss of land irrespective of land-use.
6. Persons losing crops or trees.
7. Persons losing access to Maungwe and Limbelo fishing grounds.
8. Persons losing tenancy rights to homes or farmland.
9. Communities losing access to communal land or community infrastructure.

Eligible persons will be confirmed through the review of multiple forms of evidence including any documented land title registration certificates, letters of offers and landownership certificates from traditional chiefs, tenancy agreements, and business operating licenses or similar evidence. Where no documentation is available, land rights will be confirmed through validation by the village chiefs, community elders, and the neighbours of any eligible person.

### **3.2 Cut-Off Date**

The entitlement cut-off date refers to the time when the assessment of persons and their property in the project area was carried out. The cut-off date is set at the date of the asset inventories of property (land and residential structures) which was undertaken between 10 and 30 December 2021.

The establishment of a cut-off date is required to prevent opportunistic invasions into the selected land and illegitimate claims at a later stage. Should any additional claims be made following the cut-off date, these will be processed through the Grievance Redress Mechanism (GRM) (described in Section 10.12) to determine their eligibility.

The assets survey included a survey slip for PAHs to sign, indicating a summary of assets included in the survey and a signature page agreeing to the accuracy of data. The survey included discussion around the cut-off date, with this being applied upon completion of the survey and signing of the household survey form.

During assets surveys and subsequent consultation, it has been emphasised that all persons who occupy the area, make extensions or modifications to houses, including works to unfinished structures documented in the survey, or build new structures after the cut-off date will not be eligible for compensation or any form of resettlement assistance.

The displacement date is anticipated to be in the first quarter of 2024, on the condition of the approval of the RAP by ZEMA, and review and acceptance by Project lenders. Information on the anticipated project timeline and expected displacement date, including the conditions for this to occur, was provided to PAHs in the third round of consultation (see Section 10.5.3 for details and associated appendices for materials) and the process of signing household compensation agreements.

Households have been able to cultivate and harvest crops and collect natural resources to continue livelihoods within this period, and have signed Household Agreements in May – October 2023 in agreement of survey details and resettlement and compensation values. Development of

entitlements has taken the time period between surveys and displacement into consideration, ensuring that communities have been engaged throughout this period, that all households receive a disturbance allowance, and that households will be able to harvest currently-cultivated crops prior to displacement in addition to receiving cash compensation for surveyed crops.

### 3.3 Resettlement Definitions

Definitions relevant to the eligibility criteria, entitlement framework and resettlement plan are provided below:

**Affected Persons:** Any individual, persons, family, household, group, or collective body that is affected by either physical or economic displacement and are deemed eligible to resettlement assistance and/or compensation under this RAP.

**Asset Inventory:** The investigation and measuring of all land, interest on and rights to that land, as well as any assets and unexhausted improvements on that land. The Asset Inventory forms the basis for the determination of resettlement assistance and/or compensation to be granted to Affected Persons.

**Allowances:** Additional cash compensation provided in addition to any resettlement assistance and/or compensation provided for the loss of assets, and generally provide transitional support while Affected Persons restore their living conditions and livelihoods after resettlement.

**Compensation:** The forms a combination of cash or in-kind replacement assets to be provided to Affected Persons for compensation of the acquisition of land or the loss of assets.

**Cut-off date:** The date of completion of the census and assets inventory represents a cut-off date. Individuals taking up residence in the project area after the cut-off date are not eligible for compensation or resettlement assistance if notification of the cut-off date has been well communicated, documented, and disseminated. Similarly, the loss of fixed assets (such as built structures, crops, fruit trees, and woodlots) established after the cut-off date should not be compensated.

**Economic Displacement:** The loss of assets or access to assets that leads to loss of income sources or livelihoods but does NOT necessarily result in the direct loss of a place of residence.

**Eligible Persons:** See Affected Persons

**Entitlement Framework:** A framework that establishes the specific entitlements (i.e. forms of compensation) granted to Affected Persons whom will lose proven assets, as determined during the Asset Inventory.

**Grievance Redress:** procedure for the submission of grievances and guidelines for their resolution.

**Host Communities:** Communities receiving resettled people because of involuntary resettlement activities.

**Household Census:** The registration of Affected Persons and the collection of their details forming the basis for the confirmation of Affected or Eligible Persons.

**Improvements:** Anything resulting from expenditure of capital or labour and includes carrying out of any building, engineering, clearing, improvement, or other operations in, on, over, or under land, or the making of any material change in the use of any building or land and charges for services provided and other expenses incurred in the development or towards the development of land.

**Livelihoods:** The daily activities adopted by members of households that support the generation of cash income or the securing of household food needs.

**Livelihoods Restoration:** A range of measure and programmes that ensure that the existing livelihoods of Affected Persons is restored, or ideally improved, during and after the resettlement process.

**Monitoring:** The process of repeated observations and measurements of environmental and social quality parameters to assess and enable changes over a period of time. Monitoring primarily involves the systematic use of information to determine the extent to which plans are being implemented effectively, and the desired outcomes are achieved.

**Physical Displacement:** The displacement, loss, or destruction of the place of residence as a direct result of the development of the Project.

**Resettlement Action Plan:** A detailed action plan that establishes the measures to be adopted by the Project in the implementation of any resettlement and compensation.

### 3.4 Entitlement Framework

The *entitlement framework* defines the type of compensation, either in-kind or cash, to be provided to *eligible persons* for each type of loss incurred as a direct result of the Project. The framework was developed in conjunction with affected communities and persons (from 14 – 24 June 2022) and is presented in Table 12. Options presented in the framework are further defined and explained as necessary in Section 5, presenting the cash compensation rates and approach, and specifications for in-kind replacement asset options.



**Table 12: Entitlement Framework**

Nr	Impact	Affected Party	Entitlement
<b>1. Communal Land</b>			
1.1	Customary Communal Land and Resources	Local Communities	Community Partnership Agreement setting out community equity, community benefit program support payments to the Barotse Royal Establishment Development Trust, governance structure and principles to guide programs.
<b>2. Titled Land</b>			
2.1	Titled Land	Formal Landowner	Market transaction between Western Power Company and landowner.
<b>3. Farmland, Crops and Trees</b>			
3.1	Permanent Loss of Upland Farmland	Landowner based on Confirmed Customary Rights	<b>Option 1: Self Sourced Land:</b> For PAHs that want to secure their own land (independent of the local authorities) the Project will cover the administrative costs of securing the land, but limited to the value of their lost land. Costs to secure traditional permissions will be borne by the Project. The process required for Option 1 is further detailed in Section 6.1
			<b>Option 2: Land allocation by traditional authorities / Project:</b> For PAHs that require land to be secured on their behalf, the Project will approach the local authorities to explore and assess alternative unclaimed land (as discussed in Section 6.5.2), or land that local communities or households are willing to sell
			<b>Option 3: Monetary compensation at full replacement value only</b> where the eligible person is able to demonstrate that they have access to residual or alternative land not less than 2.5 hectares (inclusive of dryland farms, gardens and landholdings), and where the household is not classified as vulnerable.
			<b>And</b> 1. Disruption Allowance 2. Land Preparation Allowance 3. Transitional Allowance 4. Access to Livelihoods Restoration Programmes

Nr	Impact	Affected Party	Entitlement
3.2	Permanent Loss of Floodplain Gardens	<p>Landowner based on Confirmed Customary Rights</p> <p>Eligibility extended to PAHs with loss of both dryland and floodplain gardens</p>	<p><b>Option 1: Self Sourced Land:</b> For PAHs that want to secure their own land (independent of the local authorities) the Project will cover the administrative costs of securing the land, but limited to the value of their lost land. Costs to secure traditional permissions will be borne by the Project. The process required for Option 1 is further detailed in Section 6.1</p> <p><b>Option 2: Land allocation by traditional authorities / Project:</b> For PAHs that require land to be secured on their behalf, the Project will approach the local authorities to explore and assess alternative unclaimed land (as discussed in Section 6.5.2), or land that local communities or households are willing to sell</p> <p><b>Option 3: Monetary compensation at full replacement value only</b> where the eligible person is able to demonstrate that they have access to residual or alternative land not less than 2.5 hectares (inclusive of dryland farms, gardens and landholdings), and where the household is not classified as vulnerable.</p> <p><b>In addition to the above Options 1 – 3 PAHs will be provided with irrigation support, either:</b></p> <p><b>Option 1:</b> For PAHs who wish to cultivate independently, eligible persons will be provided a treadle pump, to provide irrigation on replacement land.</p> <p><b>Option 2:</b> For PAHs that are willing to care for their gardens as a group, the Project will establish small, irrigated farm blocks with secure fencing and irrigated infrastructure (including a solar pump, pipework, storage tank, storage). The farm blocks may be split into 6 separate one size blocks located at multiple sites along the Zambezi River to ensure that they are in proximity to PAPs homes.</p> <p><b>And</b></p> <ol style="list-style-type: none"> <li>1. Disruption Allowance</li> <li>2. Land Preparation Allowance</li> <li>3. Transitional Allowance</li> <li>4. Access to Livelihoods Restoration Programmes</li> </ol>
3.3	Loss of Landholdings / Unutilised Land	Landowner based on Confirmed Customary Rights	<p><b>Option 1: Self Sourced Land:</b> For PAHs that want to secure their own land (independent of the local authorities) the Project will cover the administrative costs of securing the land, but limited to the value of their lost land. Costs to secure</p>

Nr	Impact	Affected Party	Entitlement
	(including dryland and floodplain garden areas)		<p>traditional permissions will be borne by the Project. The process required for Option 1 is further detailed in Section 6.1</p> <p><b>Option 2: Land allocation by traditional authorities / Project:</b> For PAHs that require land to be secured on their behalf, the Project will approach the local authorities to explore and assess alternative unclaimed land (as discussed in Section 6.5.2), or land that local communities or households are willing to sell</p> <p><b>Option 3: Monetary compensation at full replacement value only</b> where the eligible person is able to demonstrate that they have access to residual or alternative land not less than 2.5 hectares, and where the household is not classified as vulnerable.</p> <p><b>Where Landholdings are within defined floodplain areas, the following additional entitlement options will be provided, either:</b></p> <p><b>Option 1:</b> For PAHs who wish to cultivate independently, eligible persons will be provided a treadle pump, to provide irrigation on replacement land.</p> <p><b>Option 2:</b> For PAHs that are willing to care for their gardens as a group, the Project will establish small, irrigated farm blocks with secure fencing and irrigated infrastructure (including a solar pump, pipework, storage tank, storage). The farm blocks may be split into 6 separate one size blocks located at multiple sites along the Zambezi River to ensure that they are in proximity to PAPs homes.</p> <p><b>Option 3:</b> Monetary equivalent of Option 1 where the eligible persons proves that they have access to an alternative livelihood supported by both spouses.</p>
3.4	Loss of Annual and Perennial Crops	Crop-Owner	<p><b>Option 1:</b> Provision of cash compensation, based on the compensation rates established in the Valuation Report, to the crop-owner irrespective of their land tenure status to the land on which they farm. In addition, crop owners will be permitted to harvest crops where cultivation is possible prior to land clearance and development, with permission from Western Power, and in the event that the health and safety of individual household members and development of project activities is not impacted.</p>

Nr	Impact	Affected Party	Entitlement
			<b>And</b> 1. Disruption Allowance 2. Access to Livelihoods Restoration Programmes
3.5	Loss of Productive and Non-Productive Fruit and Non-Fruit <sup>7</sup> Trees	Tree-Owner	<b>Option 1:</b> Provision of cash compensation for loss of productive trees to the value of the annual yield for the period it takes the sapling to start producing fruits / becoming of economic or household value, based on the compensation rates established in the Valuation Report. Compensation will be provided to the tree-owner irrespective of their land tenure status to the land on which the tree is located.  <b>And</b> 1. Provision of replacement saplings equal to the number of lost trees for both productive and non-productive trees. 2. Disruption Allowance 3. Access to Livelihoods Restoration Programmes
3.6	Temporary Loss of Upland Farmland or Flood Recession Farmland	Landowner	<b>Option 1:</b> Establishment of the lease agreement between the Project and the landowners, based on average land rental costs in the area, for the duration of the loss of the land by eligible person.  <b>And</b> 1. Land Preparation Allowance 2. Access to Livelihoods Restoration Programmes
3.7	Loss of Land for Tenants or Free Occupants	Landowner (Landlord)	<b>Option 1:</b> Existing tenant agrees to lease the new asset (subject to tenant choosing Option 1 below)  <b>Option 2:</b> Provision of cash compensation to the value of the average rental income earned by the landowner / landlord covering a period of 6 months.
		Land-User Tenant)	<b>Option 1:</b> Existing landlord agrees to lease the new asset to the tenant (subject to landlord choosing Option 1 above)  <b>Option 2:</b> Provision of traditional rental allowance to the value of the average rental income of similar land in the area covering a period of 6 months.

<sup>7</sup> Limited to trees actively planted and of household or economic use.



Nr	Impact	Affected Party	Entitlement
<b>4. Loss of Housing and Structures</b>			
4.1	Loss of Primary Residential Structures	Structure Owner (irrespective of the land tenure arrangements on which the structure is located, and irrespective of whether structures are occupied by the owner or a tenant).	<p><b>Option 1:</b> Provision of a replacement structure, of similar size and number of rooms, and superior build quality to be constructed by the Project on behalf of eligible persons at the replacement homestead / residential plot.</p> <p><b>And</b> Provision of micro-solar lighting, one open-sided kitchen with fuel-efficient wood-fired stove, one mini household silo, and one ventilated pit latrine and washroom</p> <p><b>Option 2:</b> Provision of cash compensation at <i>full replacement value</i>, as established in the Valuation Report, to eligible persons for all primary residential structures. .</p> <p><b>And</b> 1. Disruption Allowance 2. Moving / Transportation Allowance 3. Permitted to Salvage All Movable Materials</p>
4.2	Loss of Secondary Structures <sup>8</sup> .	Structure Owner (irrespective of the land tenure arrangements and irrespective of whether structures are occupied by the owner or a tenant).	<p><b>Option 1:</b> Provision of cash compensation at full replacement value, as established in the Valuation Report, to eligible persons for all secondary non-residential structures.</p> <p><b>And</b> 1. Disruption Allowance 2. Moving / Transportation Allowance 3. Permitted to Salvage All Movable Materials</p>
4.3	Loss of Shelter for Tenants or Free Occupants	Structure Owner (Landlord)	<b>Option 1:</b> Provision of cash compensation to the value of the average rental income earned by the structure owner / landlord covering a period of 6 months.
		Structure Occupant (Tenant)	<b>Option 1:</b> Provision of traditional rental allowance to the value of the average rental income of similar accommodation in the area covering a period of 6 months.

<sup>8</sup> Secondary structures refer to non-residential structures such as kitchens, crop storage sheds, crop drying shelves, poultry coups, house fences, goat pens etc.

Nr	Impact	Affected Party	Entitlement
<b>5. Loss of Fishing Grounds</b>			
5.1	Loss of Maungwe Fishing Sites/Grounds	Site Owner based on Confirmed Customary Rights	<b>Option 1:</b> Provision of cash compensation/transitional allowance, as determined by the Fisheries Assessment. Entitlement to be updated upon completion of study in March 2023.
			<b>And</b> 1. Disruption Allowance 2. Access to Livelihoods Restoration Programmes
5.2	Loss of Limbelo Fishing Sites/Grounds	Site Owner based on Confirmed Customary Rights	<b>Option 1:</b> Provision of cash compensation/transitional allowance, as determined by the Fisheries Assessment. Entitlement to be updated upon completion of study in March 2023.
			<b>And</b> 1. Disruption Allowance 2. Access to Livelihoods Restoration Programmes
<b>6. Business</b>			
6.1	Business structures	Business owner	<b>Option 1:</b> Provision of cash compensation at <i>full replacement value</i> , as established in the Valuation Report, to eligible persons for all business structures. <b>And</b> 1. Provision of a replacement business plot. 2. Provision of business transitional allowance 3. Access to Livelihoods Restoration Programmes
<b>7. Graves, Places of Worship and Cultural Heritage Sites</b>			
7.1	Loss of Graves or Gravesites.	Private or Community Custodian of Graves	<b>Option 1:</b> Project to cover all costs for the exhumation and reburial of graves, and Project will obtain permission from BRE and Ministry of Health for any exhumation.
			<b>Option 2:</b> Cover over of graves.

Nr	Impact	Affected Party	Entitlement
			<b>And</b> Ceremonial allowance; OR Part in-kind package of ceremonial implements part monetary allowance.
7.2	Loss of Access to Graves or Gravesites	Private or Community Custodian of Graves	<b>Option 1:</b> Ceremonial allowance.
			<b>Option 2:</b> Part in-kind package of ceremonial implements part monetary allowance.
			<b>And</b> 1. Project will obtain permission from BRE and Ministry of Health to close site, fence and signpost the site, and arrange for periodic access to custodians. .
7.4	Loss of Places of Worship	Private or Community Custodian of the Place of Worship	Provision of a replacement structure, of similar size and number of rooms, and superior build quality to be constructed by the Project on behalf of eligible persons at a replacement plot.
			<b>AND</b> 1. Disruption Allowance 2. Moving / Transportation Allowance 3. Permitted to Salvage All Movable Materials 4. Provision of a Ceremonial Allowance.
			Engagement with impacted communities and traditional leaders supported by cultural heritage specialist to determine appropriate compensation and ceremonial allowances.
7.5	Loss of Cultural Heritage Sites	Custodian of the Heritage Sites	Engagement with impacted communities and traditional leaders supported by cultural heritage specialist to determine appropriate compensation and ceremonial allowances.
<b>8. Public Facilities</b>			

Nr	Impact	Affected Party	Entitlement
8.1	Loss of Health Facility	Affected Community	Provision of replacement health facility based on an agreement reached with the affected communities and the Project. At minimum, the replacement infrastructure should provide the same, and ideally better, level of health care provided by the existing infrastructure.
8.2	Loss of Water and Irrigation Infrastructure	Affected Communities or Co-Operatives	Provision of replacement water and irrigation infrastructure based on an agreement reached with the affected communities and the Project. At minimum, the replacement infrastructure should provide the same, and ideally better, level of water supply provided by the existing infrastructure.
8.3	Loss of Sports Grounds	Affected Community	Provision of replacement sportsgrounds based on an agreement reached with the affected communities and the Project. At minimum, the replacement sport grounds should provide the same, and ideally better, access by existing users.
<b>9. Communal Resources</b>			
9.1	Loss of Grazing Land	Affected Households	Access to livelihood restoration programmes
9.2	Loss of Reed Beds	Affected Community	Access to livelihood restoration programmes
<b>9. Road and Mobility Access</b>			
9.1	Loss of Access	Affected Community	Where access is lost between local communities, households and farmland, the Project will construct new access gravel roads or walking paths suitable to anticipated traffic.
<b>10. Gender and Vulnerable People</b>			
10.1	Impacts on Women	Female headed households and women in general	The Project will provide additional support measures as defined in Section 6.8, including specific engagement activities, guidance during negotiations and an emphasis on in-kind support where possible.
10.2	Impacts on Vulnerable People	Verified Vulnerable Households	The Project will provide additional support measures as defined in Section 6.8, including specific engagement activities, guidance during negotiations and an emphasis on in-kind support where possible.



Nr	Impact	Affected Party	Entitlement
<b>11. Absentees</b>			
11.1	Absentees	Absent owner	Escrow account, and then payment to Barotse Royal Establishment Development

## **4 LEGISLATIVE, POLICY, GOOD PRACTICE, AND INSTITUTIONAL FRAMEWORK**

This chapter provide a summary of the legislative, policy and international best practice standards that are relevant to the Project. Special emphasis is placed on aspects related to land acquisition and compensation for the loss of the land and improvements to that land, with additional description of the valuation and survey approach.

### **4.1 *Zambian Legislative Framework***

#### **4.1.1 *The Constitution of Zambia***

The Constitution of Zambia (1996), updated by the Constitution of Zambia (Amendment) Act No.2 of 2016, grants rights and freedoms of expression and rights to protection from discrimination to every Zambian (GoZ, 1996) (GoZ, 2016).

Article 11 provides for 'protection for the privacy of his home and other property and from deprivation of property without compensation'. Article 16(1) further states that 'no property of any description shall be compulsorily taken possession of, and no interest in or right over property of any description shall be compulsorily acquired, unless by or under the authority of an Act of Parliament which provides for payment of adequate compensation for the property or interest or right to be taken possession of or acquired'.

Article 16 further provides that the 'an Act of Parliament...shall provide that in default of agreement on the amount of compensation payable, a court of competent jurisdiction shall determine the amount of compensation'.

#### **4.1.2 *Environmental Management Act 2011***

The Environmental Management Act 2011 outlines the requirements for undertaking an Environmental Impact Assessment for developments in Zambia (GoZ, 2011). ZEMA consider a RAP to be part of an ESIA and environmental licensing process, and therefore apply similar legislative requirements, including a statutory requirement that the RAP must be authorised by ZEMA prior to its implementation or the development of the Project.

#### **4.1.3 *The Lands Act Cap 184***

The Lands Act Part II (3) states that 'all land in Zambia shall vest absolutely in the President and shall be held by him in perpetuity for and on behalf of the people of Zambia' (GoZ, 1995). The Act provides procedures relating to alienation of land, provides for the continuation of leaseholds and leasehold tenure, recognizes customary land, and guides the conversion of land from customary tenure to statutory.

Article 3 states that the President may only alienate land held under customary tenure when they have taken consideration of local customary law on land tenure, consulting the local Chief and authorities as well as consulting with any persons or body with a vested interest in the land.

Article 7 states that customary land is legally recognised and establishes that the customary systems in place at the commencement of the Land Act will continue to be so held and recognised and the Provisions of the Land Act will not be construed as to infringe on these customary rights. The Act also recognises the rights and privileges of any persons to hold land under customary tenure as determined by the local customary law.

In the context of compensation and resettlement, land will include any unexhausted improvements on the land – where improvements include anything resulting from the expenditure of capital or labour and includes any buildings or any activity that results in a material change in the use of land and other expenses incurred in the development or towards the development of land.

#### **4.1.4 Land Acquisition Act Cap 189**

The Land Acquisition Act guides the process of compulsory land acquisition and compensation of land in Zambia (GoZ, 1970). Article 4 states that the President, via the Ministry of Land or any authorised person, is legally permitted to access the target land to undertake surveys or any other act necessary to ascertain whether the land is or may be suitable for a public purpose in question.

Article 10 of the Act states that ‘where any property is acquired by the President under this Act the Minister shall on behalf of the Government pay in respect thereof, out of moneys provided for the purpose by Parliament, such compensation in money as may be agreed or, in default of agreement, determined in accordance with the provisions of this Act’.

Further, provided that where the property acquired is land, the President may, with the consent of the person entitled to compensation, make to such person, *in lieu* of or in addition to any compensation payable under this section, a grant of other land not exceeding in value of the land being acquired, for an estate not exceeding the estate acquired and upon the same terms and conditions, as far as may be practicable, as those under which the land acquired was held.

Article 12 establishes the requirements for determining the value of compensation, and specifically makes provision for the valuation of assets at market value (if sold in the open market by a willing seller). Any valuation is however limited to land and assets in place at a time of formal notice (under Article 7) and no allowance is given to any subsequent improvements.

Article 15(2) continues, to state that ‘no compensation shall be payable in respect of undeveloped land or unutilised land... Save where the land acquired is unutilised land to which an absentee owner is beneficially entitled, compensation shall be payable in respect of the unexhausted improvements on unutilised land’.

#### **4.1.5 Local Government Act No. 2 of 2019**

The Local Government Act provides for the establishment of District Councils and associated functions (GoZ, 2019). Article 21 (1) states that ‘a local authority may acquire land by agreement whether by way of purchase, lease, exchange or gift’, while Article 23 (1) states that ‘a local authority may sell, let or otherwise dispose of any property belonging to the local authority’. The First Schedule of the Act stipulates that ‘a local authority shall, in relation to registration, keep and maintain the enumeration and registration of persons or property for any purpose connected with the administration of the area of the local authority’. The Act also provides for the establishment and functions of Ward Development Committees, who play an integral role in many communities in terms of development, planning and collection of revenues.

#### **4.1.6 Chiefs Act, Chapter 287**

This Act makes provision for the recognition, appointment, and functions of Chiefs and Deputy Chiefs. The Chief is required to discharge the traditional functions of his office under African customary law as far as the discharge of such functions is not contrary to the Constitution or any written law and is not repugnant to natural justice or morality.

With respect to the Project, the Act also formally recognises the office of Litunga of the Western Province or of any other chiefly office in the Western Province. The Act also limits recognition of a holder of an office unless that person is recognised by the Litunga and traditional council to be a member of a ruling family.

#### **4.1.7 Barotseland Agreement, 1964**

The recognition and legal power granted to the Litunga of the Western Province is established under the Barotseland Agreement of 1964. This Act grants the power of the Litunga, or his representatives, in the administration of land under customary law and practice. The law does not establish any proscription to such power in terms of land administration.

#### **4.1.8 Urban and Regional Planning Act, 2015**

All land in Zambia is vested in the President who holds it in perpetuity on behalf of the Zambian people. However, the President has delegated his execution and disposition powers to the Commissioner of Lands, who is supported by Agents who plan and sub-divide the land into plots, and select and recommend suitable candidates to him for issuance of a certificate of title. The Agents are the District, Municipal, and City Councils, who use the provision of the Urban and Regional Planning Act of 2015 for this purpose (GoZ., 2015(1)). The Act outlines functions and responsibilities of regional, provincial, and local planning authorities. Inclusion of relevant planning authorities in the development of RAPs for the Project will be critical to ensure coordination of planning and development goals, and in determining land availability and use.



#### **4.1.9 The Land Survey Act Cap 188**

The Land Survey Act applies to any survey used for the purpose of effecting the registration of any parcel of land, or for re-determining the position of a curvilinear boundary or of any beacon defining the boundary of any registered parcel of land (GoZ, 1960). Article 14 states that no person, except a land surveyor, shall- (a) perform any survey for the purpose of preparing any diagram or plan to be filed or registered in the Registry or referred to in any manner whatsoever in any other document to be so filed or registered; (b) perform any survey affecting the delimitation of the boundaries or the location of the beacons of any parcel of land registered or to be registered in the Registry; or (c) hold himself out in any matter whatsoever as a land surveyor. For the purposes of the Project, all cadastral surveys of affected land portions and assets will be required to be undertaken by a registered and licensed government surveyor.

#### **4.1.10 The Valuation Surveyors Act Cap 207**

The Valuation Surveyors Act states that 'no person, unless he is registered as a valuation surveyor, shall practice valuation surveying of land', and as such any valuation of assets impacted by the Project should be assessed by a government registered valuer. A register known as the "Register of Valuation Surveyors" shall be maintained by the Board and published annually of every person to be registered as a valuation surveyor, his name and address, qualifications, date of registration and such other particulars as may be prescribed by regulations. For the purposes of the Project, any determination of the value of affected land and improvements or associated compensation values will be undertaken by a registered valuer.

#### **4.1.11 Arbitration Act No. 19 of 2000**

The Act has provision for arbitration in case of any dispute regarding compensation (GoZ, 2000). An arbitrator can be appointed for this purpose. If the parties will not agree with the appointing procedure, the Act provides to appoint separate arbitrators for each party. If the parties do not agree with the arbitrators within thirty days of appointment, the arbitrator shall be appointed by an arbitration institution upon request of a party.

#### **4.1.12 National Heritage Conservation Commission Act, Cap 173 of 1989**

Under the Act, any project being implemented is required to disclose any new archaeological, paleontological, or cultural sites it encounters to the National Heritage Conservation Commission (NHCC) and to follow their procedures for the investigation and/or removal of material from them prior to continuing construction activities (GoZ, National Heritage Conservation Commission Act Cap 173, 1989). Any Project-supported activities that could impact sites of social, sacred, religious, or heritage value will have to be reported to the Commission prior to the activities being carried out, including the relocations of any such resources.

#### **4.1.13 The Electricity Act No. 11 of 2019**

The Electricity Act regulates the generation, transmission, distribution, and supply of electricity. The President may, in accordance with the Lands Acquisition Act, compulsorily acquire land that the President may consider necessary for purposes of, or associated with, the generation, transmission, distribution or supply of electricity by a licensee. Adequate compensation shall be paid to any person who suffers loss or damage through the exercise (of land acquisition).

## **4.2 Zambian Policies**

### **4.2.1 National Resettlement Policy**

The Disaster Mitigation and Management Unit of Zambia developed a national resettlement policy in 2015, to guide resettlement in Zambia. This policy is one of the few overarching guiding texts for resettlement in Zambia (DMMU, 2015). The guidelines identify rights and guarantees which are relevant to the protection of persons from internal displacements and their protection and assistance during displacements as well as during return, resettlement, or re-integration.

### **4.2.2 National Gender Policy 2014**

This policy is a revised version of the National Gender Policy of 2000, and gives a clear mandate to the Ministry of Gender and Child Development along with other line ministries to mainstream gender in their operations (MGCD, 2015). The 2014 Policy addresses persistence and emerging gender-related issues such as the increase in gender-based violence (GBV), rising rates of cervical cancer, drug trafficking, feminization of HIV/AIDS, and climate change. The policy focusses on enabling women at community levels to participate actively in the decision-making process for development activities and infrastructure. As a standard requirement, the composition of Ward Development Committees needs to be 50% women to promote their participation in development activities in peri-urban areas.

Previous gender assessments have noted that whilst the Constitution protects women against discrimination, it negates this guarantee by allowing the application of customary law in matters of personal law. In particular, the dual legal system limits women's rights of access to and control over productive resources. Gender and development issues are influenced by customary and cultural practises of Barotseland, and notably the Barotse Royal Establishment. This establishment includes an advisory council (Anatambumu), comprised entirely of women chosen by the Litunga and a central parliament from members of the royal family and other Barotse families. These women have access to the Litunga at all times and can denounce anything that is against the interest of the people, and they can obtain views from other women (Jain, Chileshe, Muwowo, & Lupiya, 2016). Selected Queens (2 or more) of the Litunga also have the right to access at any time the central parliament (Kuta) to discuss matters that are of interest to women.

Resettlement planning will need to take into consideration gender dynamics and roles within communities, key aims and principles of the National Gender Policy, as well as customary

practices, to ensure that women and children are fully included in resettlement planning and negotiations, and are not deprived of compensation entitlements. Consultation with stakeholders and the grievance mechanism should be sensitive towards gender-based issues.

#### 4.2.3 National HIV / AIDS Strategic Framework 2017 - 2021

The National HIV-AIDS Strategic Framework (NASF) of 2017-2021, provides an overall strategy for the planning, coordination and implementation of the multi-sectoral national response based on available evidence (NAC, 2017-2021). The principal goal is to reposition prevention of new HIV infections as the focus of the national multi-sectoral HIV and AIDS response. A great emphasis is laid on scaling up HIV combination prevention services that enable individuals to maintain their HIV negative status as well as improve access to quality treatment and care services. NASF was developed through highly participatory and consultative process and reflects aspirations of the Zambians in their efforts to fight HIV and AIDS epidemic. The framework is designed to support decentralised implementation with meaningful involvement of communities, people living with HIV, Civil Society Organisations (CSOs) and marginalized populations, so as not to leave anyone behind in the response. Planning for the Project will need to take into consideration potential impacts relating to HIV/AIDS and develop appropriate mechanisms for HIV/AIDS awareness creation as part of consultation activities.

### 4.3 Summary of Legislation and Project Relevance and Compliance

Table 13 provides a summary of the legislation presented above, with key notes on the relevance and Project compliance.

**Table 13: Legislation Relevance and Compliance**

Legislation	Relevance	Compliance
<b>The Constitution of Zambia</b>	Provides for the protection of property and the need for compensation in cases of acquisition	RAP provides for compensation of affected land and assets in line with national legislation
<b>Environmental Management Act 2011</b>	Outlines requirements for a RAP as part of the ESIA process	RAP undertaken in line with the ZEMA format and ESIA regulations
<b>The Lands Act Cap 184</b>	Provides procedures relating to the alienation of land, inclusive of customary owned land	RAP provides for compensation of affected land and assets in line with national legislation, recognizing customary ownership structures and procedures
<b>Land Acquisition Cap 189</b>	Guides the process of land acquisition and compensation	Compensation calculated in line with legislative requirements, with provision of in-kind land wherever possible

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Legislation	Relevance	Compliance
<b>Local Government Act No. 2 of 2019</b>	Establishes District Councils and Ward Development Committees and their roles in development and planning	Local government officials included in ongoing resettlement consultation and committees
<b>Chiefs Act Chapter 287</b>	Provides for the recognition, appointment, and functions of Chiefs, inclusive of the Litunga	Traditional leadership included in ongoing resettlement consultation and committees
<b>Barotseland Agreement 1964</b>	Grants power to the Litunga in the administration of land under customary law	Traditional leadership engaged and BREDT formed as shareholders in the Project
<b>Urban and Regional Planning Act 2015</b>	Outlines functions and responsibilities of regional, provincial, and local planning authorities, including in determining land availability and use	Local government officials included in ongoing resettlement consultation and committees
<b>The Land Survey Act Cap 188</b>	Outlines the requirements for surveyance of land	Government surveyor appointed to undertake and oversee required surveys
<b>The Valuation Surveyors Act Cap 207</b>	Outlines the requirements for land valuation and determination of compensation rates	Government valuation officer appointed for land and assets valuations (valuation report provided in Appendix D)
<b>Arbitration Act No.19 of 2000</b>	Provides for arbitration in case of any dispute regarding compensation	Grievance mechanism established allowing for dispute resolute in line with Act
<b>National Heritage Conservation Commission Act Cap 173 of 1989</b>	Outlines requirements for reporting and associated procedures for sites of social, sacred, religious, or heritage value impacted by the Project	Heritage assessment undertaken and procedures established for the compensation of heritage sites and a chance finds procedure developed
<b>The Electricity Act No.11 of 2019</b>	Provides for the payment of compensation for land acquisition in relation to electricity infrastructure and development	Compensation for affected households / land provided for in line with land acquisition act and international guidelines
<b>National Resettlement Policy</b>	Identifies rights for the protection of persons from internal displacements and their protection and assistance during displacements, with guidance for the overall resettlement process.	RAP prepared in line with policy requirements. DMMU engaged as part of ongoing resettlement planning and implementation
<b>National Gender Policy 2014</b>	Focuses on the inclusion of women and gender dynamics and roles in communities in engagement and resettlement planning	Women included in all aspects of stakeholder engagement, with separate consultation undertaken taking into consideration local gender dynamics. Resettlement committees include balanced male and female representation.



Legislation	Relevance	Compliance
		Key gender provisions included in all aspects of the RAP, including compensation allocations and payments and livelihood restoration activities.
<b>National HIV/AIDS Strategic Framework 2017-2021</b>	Provides the strategy for the response to HIV/AIDS to be considered during all development activities	Ensure risks relating to HIV/AIDS identified in the ESIA are taken into consideration during the resettlement process.

## 4.4 Institutional Framework

### 4.4.1 Overview

The institutional framework for the development and implementation of the RAP comprises three primary bodies – (1) the Proponent, the (2) Barotse Royal Establishment and (3) the Government of Zambia, as follows:

**The Proponent** (WPC) is the primary responsible party in terms of the development and implementation of the RAP, consistent with its legal obligations under the Environmental License. This includes the management and financing of all required studies, negotiation on entitlements, stakeholder engagement, provision of resettlement assistance and payment of compensation.

The financing for the Project and the resettlement will however be sourced from a range of international private and public financiers. The condition for securing international financing includes ensuring that the resettlement process conforms with international good practice (as framed in the World Bank and International Finance Corporation standards (See Section 4.5).

**The Barotse Royal Establishment** is a semi-autonomous body headed by the local king or paramount chief (termed Litunga). The administration of customary land and land-tenure in the Western Province remains under the power of the Litunga. As such, the Barotse Royal Establishment will be the primary authority in terms of all land acquisition requirements. The Barotse Royal Establishment, via its local land tribunals and representatives (i.e. village indunas), will also be the primary body for the resolution of competing land claims or land disputes, facilitating the transfer of land to the Project, dealing with grievances and arbitration on land matters.

**The Government of Zambia** via the local District Authorities and local offices of the government ministries also play a key role in the development and implementation of the RAP. This includes, but is not limited to, the following:

- a. Authorising the RAP (via the Zambian Environmental Management Agency)
- b. Undertaking cadastral and asset inventory surveys (via the Cadastral Department)
- c. Determining land compensation rates for lost assets (via the Valuation Department)
- d. Determining crop compensation rates for lost assets (via the Ministry of Agriculture)
- e. Support resettlement planning via the Resettlement Advisory Committee.

- f. Ensure that RAP is consistent and fully compliant with national law.
- g. Represent the interests of Affected Persons during the resettlement process.
- h. Supporting the Proponent during stakeholder engagement and participation.
- i. Providing local capacity and support the livelihood restoration programmes.

The roles of the key ministries and institutions are further elaborated below:

#### **4.4.2 Ministry of Local Government and Housing**

The Ministry of Local Government and Housing falls under the local government and decentralization sector. The Ministry is charged with the administration of the local government system and ensuring that the people of Zambia are provided with the necessary municipal services. The Ministry is multi-functional in nature and oversees the implementation of delegated functions and responsibilities by the local authorities, by managing the social, economic, and political spheres of governance. According to Government Gazette No. 547 of 2004, the Ministry has been assigned the following functions:

1. Co-ordination of Local government administration;
2. Regulation and provision of social amenities;
3. Urban planning and regional planning;
4. Valuation of property;
5. Waters Supply and sanitation;
6. Provision of housing;
7. Provision of municipal infrastructure services and support services;
8. Co-ordination of the implementation of the National Decentralisation Policy; and
9. Provision of feeder, community, and urban roads.

The Ministry functions also form the basis for the Local Government Act of 1991, which sets out the legal provisions for the creation and classification of local authorities, their establishment, functions, and operations.

The Ministry is directly involved in resettlement activities as it has overall responsibility for the oversight of all local authorities, including the affected District Councils as land administrators, and bears political and social responsibility over the area.

The Sioma and Senanga District Councils are body corporates established by the Ministry of Local Government and Housing, under the Local Government Act of 1991, to discharge local government functions. Related social and environmental functions of the District Councils include:

1. To prepare and administer agricultural schemes for the encouragement of and participation in, community development.
2. To exercise general control, care and maintenance of all public roads, streets, avenues, lanes, sanitary lanes, and foot walks forming part thereof, bridges, squares, ferries, and water courses and to remove all obstacles therefrom.
3. To establish and maintain cemeteries, crematoria and mortuaries and otherwise to provide for and control the burial of the dead, and destitute persons who die in the area of the council.

4. To maintain, protect and control local forests and woodlands.
5. To establish and maintain grazing grounds.
6. To establish and maintain sanitary services for the removal and destruction of, or otherwise dealing with, all kinds of refuse and effluent, and compel the use of such services.

The Sioma and Senanga District Councils, having land, services, and public service administration duties, have some degree of authority over how the RAP provisions may be implemented with respect to securing replacement land, housing, and public services. With their community development function, the councils can support the RAP by enlisting the participation of affected communities. Critically, local districts are also responsible for providing a schedule of rates and valuations for affected assets, including structures, land and crops.

#### ***4.4.3 The Ministry of Agriculture and Livestock***

The Ministry of Agriculture and Livestock initiates policies on agriculture, livestock, fisheries and food security. The mission of this Ministry is to facilitate and develop mechanisms to ensure that the policies and objectives for the agricultural sector are achieved and to recommend changes where necessary. They are also mandated to provide estimates on crop production for each agricultural season, together with the Central Statistical Office (CSO). This information is used to plan for the country's food security situation in each year. In determining crop data, the Ministry is responsible for providing market values and compensation rates for agricultural crops and fruit trees that may be displaced.

#### ***4.4.4 The Ministry of Lands and Natural Resources***

The Ministry of Lands and Natural Resources has responsibility for land administration on behalf of the people of Zambia, including land policy, land administration as well as the survey and registration of formal rights. This Ministry is expected to play a key role with respect to the survey of land and the valuation of land and improvements to the land through its various departments.

#### ***4.4.5 Ministry of Green Economy and Environment***

The Ministry of Green Economy and Environment is responsible for natural resources and environmental protection, with the overall responsibility of providing guidance in the environment and natural resource sectors of the economy of Zambia. It is responsible for policy development and formulating new environmental and natural resources legislation, including incorporation of international environmental and natural resources conventions into national law. As such, the Ministry is also responsible for ZEMA whose authority is outlined below.

#### ***4.4.6 Zambian Environmental Management Agency (ZEMA)***

ZEMA is a regulatory body under the Ministry of Green Economy and Environment established under the repealed Environmental Protection and Pollution Control Act, of 1990 and continues to exist as a body corporate under the current Environmental Management Act of 2011.

Amongst other functions ZEMA is mandated to ensure sustainable management of natural resources and protection of the environment, and the prevention and control of pollution. The Agency also manages the EIA process, and any form of resettlement is a Category A project for which an EIA is mandatory. As such, ZEMA is responsible for reviewing and approving the RPF and subsequent RAPs for the Project.

#### **4.4.7 Ministry of Community Development and Social Services (MCDSS)**

The MCDSS is responsible for implementing basic social protection services to provide social assistance and livelihood and empowerment support to poor and vulnerable individuals in Zambia. The ministry is directly involved in community development policy and training, and may play a role in the planning and implementation of livelihood restoration activities and additional community development activities linked to the RAP. The ministry has a further mandate for welfare service and counselling, and will provide key counselling support to PAHs in advance of and post resettlement implementation.

#### **4.4.8 Disaster Mitigation and Management Unit (DMMU)**

The DMMU have a statutory mandate over disaster and conflict induced displacement in Zambia and have considered this to include private sector led resettlement. As the developers of the main resettlement policy guidelines within Zambia, DMMU have been involved in the review and approval process of RAPs in addition to ZEMA, as well as providing input and support in livelihood restoration activities and processes. The DMMU coordinates the provision of infrastructure in resettlement schemes in order to make them socially and economically viable. The infrastructure provided in resettlement schemes includes access roads, schools, health facilities, boreholes and agricultural storage sheds among others. In addition, the department is charged with the responsibility of collecting and analysing statistics on the implementation of resettlement programmes. Engagement with the DMMU throughout the development and implementation of this RAP is important to ensure that the guidelines are followed, and support is provided by the DMMU wherever possible.

### **4.5 Customary Law**

Customary law is not codified, but rather based on accepted practices and traditions, that are unique to communities under a common customary system, and the locations within which this system is applied.

The Project is largely located within customary / traditional administrative areas under the *Barotse Royal Establishment* (with the exception of one area under formal title). This establishment is a semi-autonomous body headed by the local king or paramount chief (termed *Litunga*). The *Litunga* is supported by both Deputy *Litungas* and Senior Chiefs – who function as the institutional bodies of local administration. The Senior Chiefs are further supported by Senior *Indunas* and Village Headmen (or *Sub-Induna*) for the administration of specific areas or villages.



The Senior-Induna and Sub-Induna's play an active role in terms of administration of most functions at the village and household level, and therefore work at the grassroots level. The Induna's also function as the direct interface between the Project, traditional administration, and local households. In this regard, the Project sites and potential upstream impacts extends through 12 Senior-Induna and Sub-Induna's areas (Figure 40).

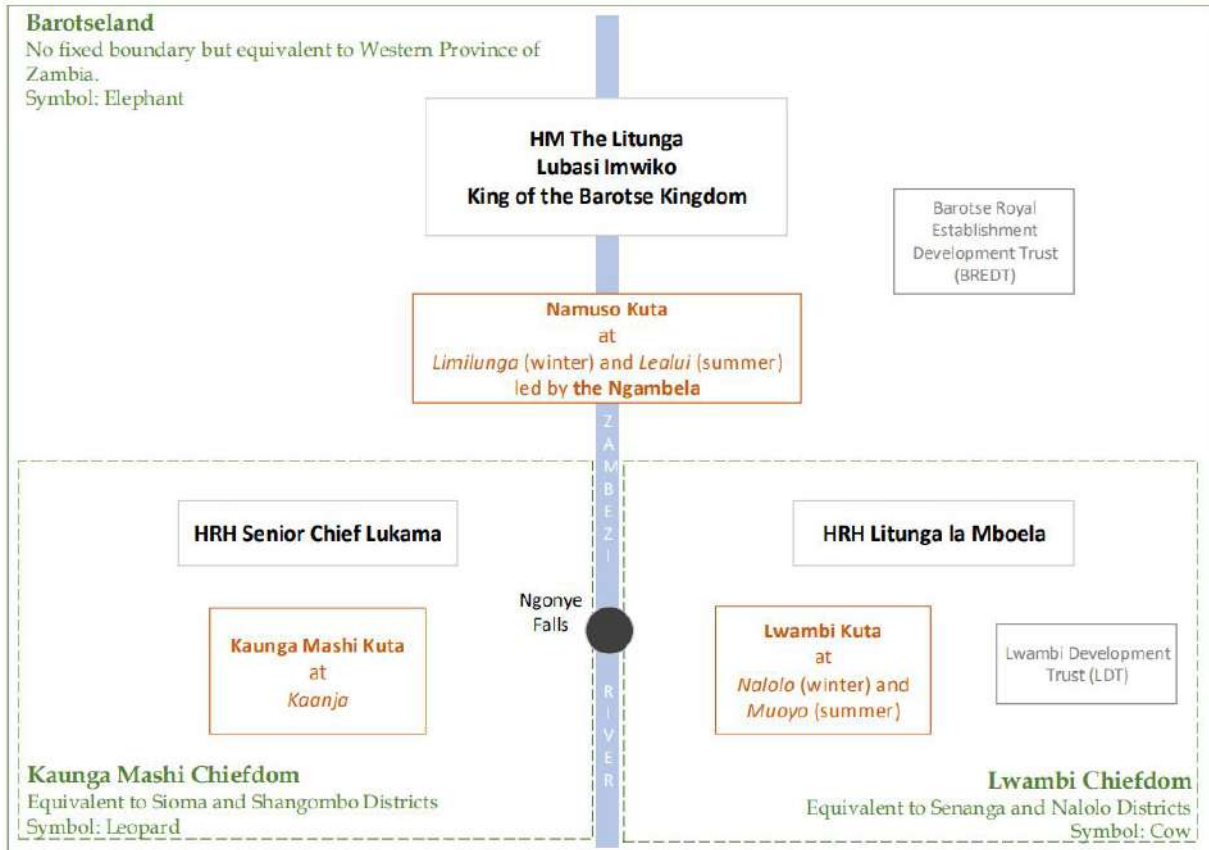
Customary land is formally recognised, protected, and administered via local traditional customs and structures described above, and plays a considerable role in the development of land tenure security in customary areas. Under such system, individuals, families, or communities may hold rights to land, with such land often handed-down via inheritance.

Under the customary system, *de facto* land allocation is carried out by the chiefs or sub-chiefs of villages, although *de jure* ownership still resides with the Government of Zambia. The chiefs can give land to individuals or families for their personal use and occupation. The precise mechanism by which land is distributed and rights granted to the holder of the land under customary laws differs somewhat from one community to the other.

The administration of customary land and land-tenure in the Western Province remains under the power of the *Litunga* and the *Barotse Royal Establishment*, who have largely enjoyed autonomy in terms of land administration. The *Litunga* is supported by Senior Chiefs, Senior Indunas and Sub-Indunas. The latter two function at the village level as function as the local institutional bodies of land administration (Jain, Chileshe, Muwowo, & Lupiya, 2016).

Any person seeking to obtain land would need to approach the Village Headman, and if no land is made available that individual may approach the Sub-Chief and then the Chiefs whom administer progressively larger tracks of land. Once a suitable site is located, the headman is required to apply to the *Kuta* (a form of land tribunal) on behalf of the applicant. Once land is secured, the applicant is granted a Land Ownership Certificate (LOC) directly by the *Barotse Royal Establishment* (Jain, Chileshe, Muwowo, & Lupiya, 2016). Most local households do not have such letters as it costs money, and in most cases, ownership is only recognised by the local headman and community and recorded in the village book.

The LOC, despite providing written confirmation of land claims, is a *de facto* right and is not formally protected under statutory law (unlike formal title deeds). The *Barotse Royal Establishment* and local customary authorities can withdraw customary rights to land, although interviews suggest that this does not commonly happen. A challenge presented by the system is the informal nature of land administration, with little land demarcation often resulting in double allocation of land and land conflicts.



**Figure 39: Senior Chieftoms Hierarchy**

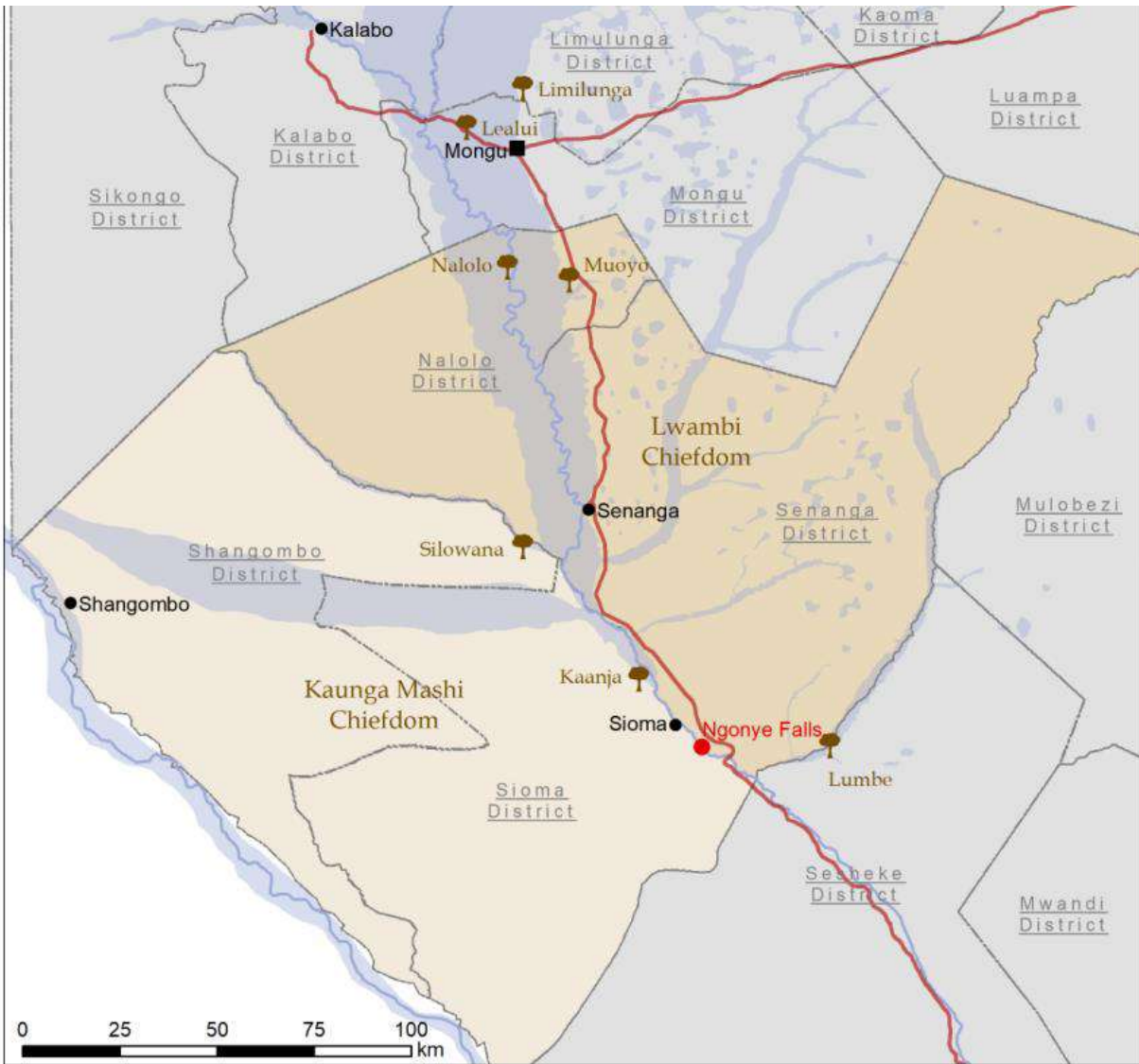


Figure 40: Senior Chiefdoms

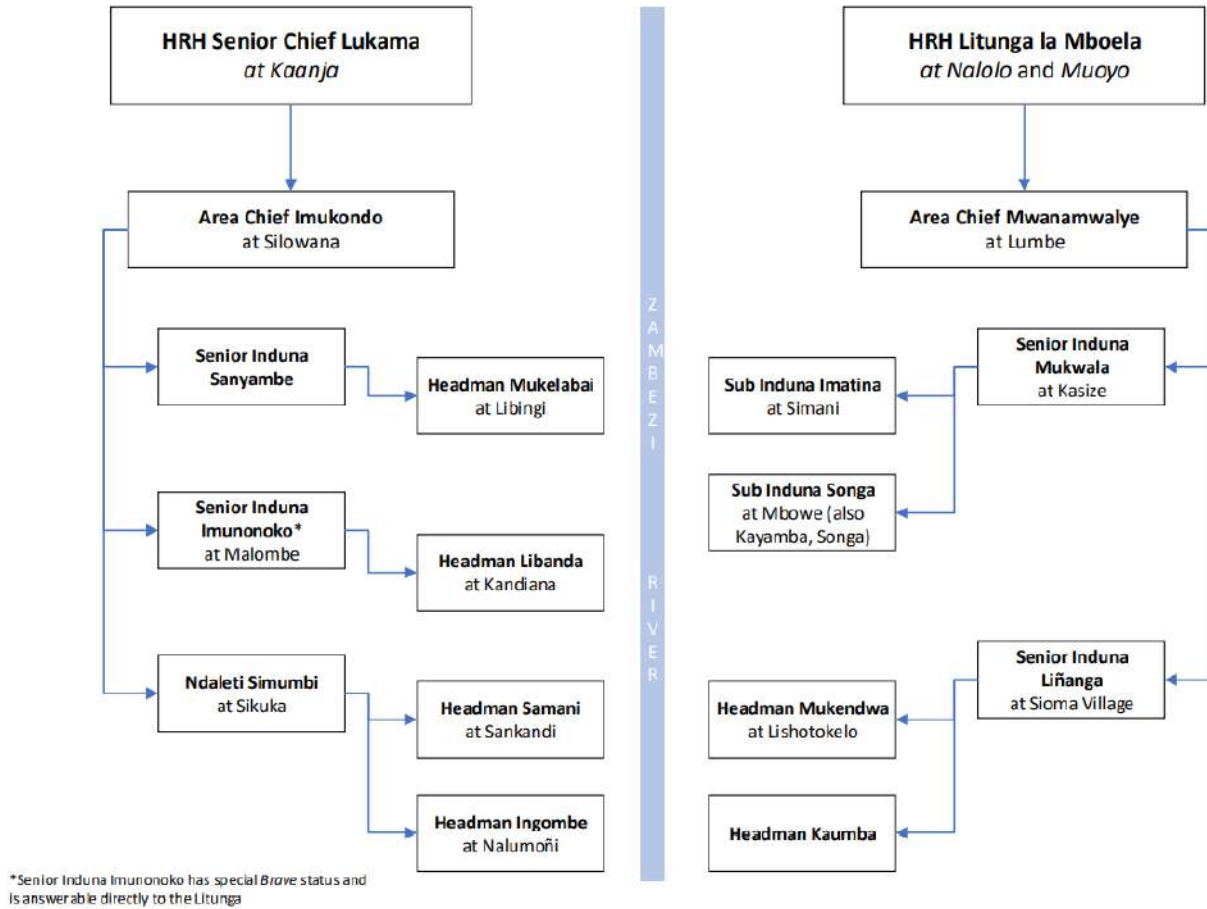


Figure 41: Senior Chiefs, Indunas and Headmen Hierarchy



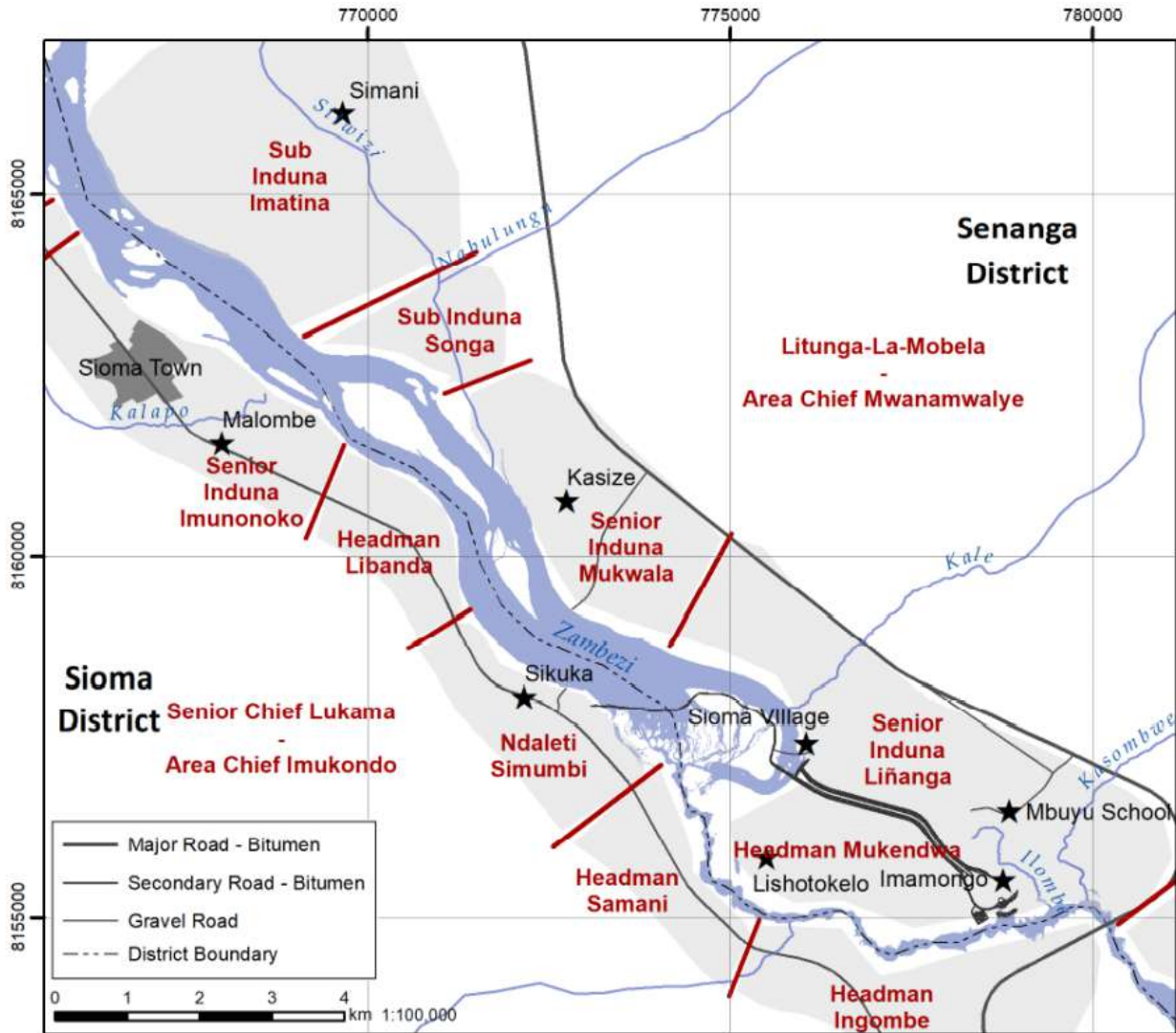


Figure 42: Senior Chiefs, Indunas and Headmen

## 4.6 International Guidelines

### 4.6.1 IFC Performance Standards

The development and implementation of a land acquisition and resettlement process has been guided by international good practice as framed under the International Finance Corporation (IFC) Environmental and Social Sustainability Standards of 2012. This standard is an international benchmark for financing of private investment developments.

Specifically, the RAP conforms with the requirement of the IFC Performance Standard 5 on Land Acquisition and Involuntary Resettlement (IFC, 2012) which requires the following:

- The Project design will consider feasible options to avoid or minimize physical and/or economic displacement, while balancing environmental, social, and financial costs and benefits.
- Where such displacement cannot be avoided, the Proponent will offer displaced communities and persons compensation and / or resettlement assistance to help them improve or restore their standard of living or livelihoods.
- The Proponent will engage directly with affected communities and persons through a process of stakeholder engagement through the planning, implementation, monitoring, and evaluation of the resettlement process.
- The Proponent will establish a grievance mechanism to receive and address specific concerns about compensation and relocation raised by displaced persons or members of host communities in a timely fashion.
- Where involuntary resettlement is unavoidable, the Proponent will be required to prepare a Resettlement Action Plan (in the case of physical displacement) and a Livelihoods Restoration Plan (in the case of economic displacement).
- In the development of the RAP or LRP, the Proponent will be required to conduct a census to determine eligible peoples and an inventory of their assets as a basis of determining their asset holdings. Both will be linked to a suitable development moratorium.
- Where affected persons are required to be relocated, the Proponent will offer feasible resettlement options, including adequate replacement housing or cash compensation where appropriate.
- Economically displaced persons who face loss of assets or access to assets will be compensated for such loss at full replacement cost, and well as assistance to improve, or at least restore, their means of income-earning capacity, production levels, and standards of living.
- In cases of Government-managed resettlement, the Proponent will collaborate with the responsible government agency, to the extent permitted by the agency, to achieve outcomes that are consistent with this Performance Standard. Where government measures of insufficient, the Proponent will be required to prepare a Supplemental Resettlement Plan.

IFC PS7 relates to Indigenous Peoples as ‘*social groups with identities that are distinct from mainstream groups in national societies, are often among the most marginalized and vulnerable segments of the population*’ and includes specific provisions to ensure the needs and rights of indigenous peoples are respected in all aspects of Project planning and implementation, including resettlement. This RAP, and all previous SIA, RPF and ESIA reports have not identified any indigenous peoples according to the IFC PS7 definition.

#### **4.6.2 InfraCo Policies**

InfraCo, as a major public shareholder, has policies and procedures that commits the Project to follow the aforementioned IFC Performance Standards. They further state that all of the Company’s investment and operating decisions shall be taken having due regard to the impact of

supported investments on the environment, compliance with local laws, adherence to appropriate environmental, health, social and safety and other relevant standards.

InfraCo also applies the PIDG due diligence policy and procedures which serves as a minimum standard for the PIDG Group. The due diligence policy believes and recognises that a one-sized fits all approach cannot be applied to due diligence, and therefore each PIDG Company will decide on the level of due diligence which is required on each individual opportunity. The scope and depth of the due diligence assessment will be proportionate to the risk, location and value of the opportunity, recognising the balance to be achieved between seeking assurance and the need to minimise unnecessary burden on the PIDG Company but recognising the need to keep PIDG owners informed of any reputational risks. Key standards of relevance outlined within the overarching Health, Safety, Environmental and Social (HSES) safe guarding rules include:

- **HSES-003-001-PIDG HSES Life Saving Rules:**  
Provides specific requirements on driving; drugs and alcohol; journey management; personnel safety and security; permit to work; system override; working at height; confined space; lifting; excavation; moving objects; isolation.
- **HSES-003-004-PIDG Incident and Emergency Response Standard**  
Outlines the requirements for PIDG Companies and Projects including the need for an emergency response coordinator, appropriate emergency response plans, and health and safety performance reporting.
- **HSES-003-008-PIDG Stakeholder Engagement Standard**  
Outlines the requirements for stakeholder engagement personnel and management, the structure and content of a stakeholder engagement plan, inclusive of a grievance mechanism, and requirements for review of the stakeholder requirements across projects as part of the HSES Management Review process.
- **HSES-003-009-PIDG Grievance Mechanism**  
Outlines the requirements for all workers, contractors and host communities have access to fair, transparent and confidential grievance mechanism routes that address concerns promptly and are sensitive to the needs of vulnerable groups, including women and girls.
- **HSES-003-010-PIDG Local Employment and Labour Management Standard**  
Outlines the requirements for non-discrimination and equal opportunities in all employment, the requirement for employment and labour risk identification, requirement for workers management inclusive of recruitment procedures, training requirements, provision of a grievance mechanism and fair treatment, requirements for workplace management and management of third parties, and the various plans required to ensure the implementation of all aspects of the PIDG.
- **HSES-003-011-PIDG Gender Equality Standard**  
Ensures correct governance and resources to promote the fair treatment, non-discrimination for women workers, to ensure that women's views are captured during project planning and

their views reflected in impact mitigation mechanisms, and benefits, where appropriate, and to ensure that women's perspectives and interests are factored into all aspects of livelihood restoration and resettlement planning and implementation Gap Analysis

#### **4.7 Gap Analysis of National and International Standards and Legal Requirements**

Table 14 provides a summary of key issues and gaps between Zambian and international requirements, and any provisions required to close gaps and achieve international best practice.



**Table 14: Gap Analysis between Zambian Law and International Good Practice**

Topic Area	IFC Performance Standard 5 requirement	Zambian National Legislation requirement	Gaps identified and the steps taken to address them
<b>Consideration of alternative project designs</b>	Clients must consider feasible alternative project designs to avoid or minimise physical and/or economic displacement.	<p>Not specifically stated in national legislation or policy frameworks, although it is accepted practice that the regulator expects adverse impacts from Projects to be avoided, or minimised, to the extent possible.</p> <p>Furthermore, the ZEMA RAP format stipulated in EMA No.12 of 2011 requires a detailed description of alternatives considered giving reasons why the best option was considered, with the idea to minimise displacement.</p>	No gaps identified. The RAP contains a specific section that describes the way in which displacement has been avoided/minimised.
<b>Compensation and benefits for displaced persons</b>	Clients must offer displaced communities and persons compensation for loss of assets at full replacement cost, and other assistance.	<p>Article 16 of the Constitution of Zambia provides that no property of any description shall be compulsorily taken possession of without payment of adequate compensation. The Land Acquisition Act (CAP 189) Section 12 (b) determines compensation to be the amount which the property might be expected to realise if sold in the open market by a willing seller</p> <p>National legislation in the form of the Valuation Surveyors Act (CAP 207) of 1976 regulates the practise of valuation in Zambia. All Valuation surveyors must be certified by the Valuation Surveyor's Registration Board (VSRB). The VSRB requires that all certified members follow the Royal Institute of Chartered Surveyors (RICS) standards as promulgated in the practise statements and the Red Book. The RICS standards reflect the market price of the asset, where the physical depreciation of the asset is taken into consideration.</p>	<p>National legislation requires valuations to be at market value taking into consideration depreciation, although policy recommends the highest of either market or replacement cost, and makes provision for food, transport and shelter as necessary during relocation.</p> <p>All assets have been valued using the principle of full replacement cost without depreciation factors. Additional assistance will be provided in the form of 1) transport allowances or assistance 2) disturbance allowances 3) provision for recovery of assets including building materials.</p>

Topic Area	IFC Performance Standard 5 requirement	Zambian National Legislation requirement	Gaps identified and the steps taken to address them
		However, the National Resettlement Policy states that compensation for involuntary resettlement shall be based on market or replacement cost whichever is higher including transaction costs. In addition people who are physically displaced should be provided with transport, food and shelter during their relocation.	
<b>Compensation reflecting the livelihoods of displaced persons</b>	Where livelihoods are land-based, the Client will offer land-based compensation as an alternative to (just) cash-based compensation.	<p>The National Resettlement Policy 2015, the Environmental Management Act No.15 of 2011 and The Constitution of Zambia, Chapter 1, adopt a compensation strategy of providing in-kind land compensation, although this is only provided to displaced persons who have security of tenure recognised under national law.</p> <p>The Lands Acquisition Act also states that in lieu of or in addition to any compensation payable, a grant of other land may be made where the property affected is land.</p>	<p>National legislation does not recognise informal land use as being eligible for in-kind compensation.</p> <p>The RAP provides options for in-kind land compensation for all eligible persons as defined by PS5 as an alternative to cash compensation.</p>
<b>Timing of compensation in relation to resettlement</b>	The Client will take possession of the acquired land and related assets only after compensation has been made available, and resettlement sites and moving allowances have been provided to the displaced persons in addition to compensation.	The National Resettlement Policy 2015 and the Environmental Management Act No.15 of 2011 require compensation to be paid prior to the relocation of the displaced persons.	<p>No gaps identified.</p> <p>Displaced persons will be provided with compensation, and other eligible allowances, before being required to relocate.</p>
<b>Provision of opportunities</b>	The client will provide opportunities to displaced communities and persons	Not required under national legislation	National legislation does not require displaced persons to be provided with opportunities.

Topic Area	IFC Performance Standard 5 requirement	Zambian National Legislation requirement	Gaps identified and the steps taken to address them
<b>to displaced persons</b>	to derive appropriate development benefits from the Project.		The RAP provides for Project-related benefits to be preferentially offered to displaced persons.
<b>Engagement on resettlement options - general</b>	The client will engage with affected communities through stakeholder engagement. This should include information on resettlement options, alternatives, and choices.	ZEMA through the Environmental Management Act No.12 of 2011 requires inclusive, meaningful consultations be conducted with displaced persons. This includes the disclosure of Project information.	No gaps identified. The RAP has been prepared using a process of meaningful consultation and information disclosure with displaced persons and communities.
<b>Engagement on resettlement options - gender dynamics</b>	The consultation process should ensure that women's perspectives are obtained, and their interests factored into all aspects of resettlement planning and implementation. Addressing livelihood impacts may require intra-household analysis in cases where women's and men's livelihoods are affected differently. Women's and men's preferences in terms of compensation mechanisms, such as compensation in kind rather than in cash, should be explored	The National Gender Policy focuses on enabling women at community levels to participate actively in decision-making processes for development activities and infrastructure.	Whilst policy directs inclusion of women in consultation, national legislation has no direct reference to gender dynamics during resettlement engagement. The RAP ensures consultation makes provision for obtaining women's perspectives and preferences for resettlement.
<b>Disclosure of information to</b>	The client will disclose relevant information	Under national legislation ZEMA through the Environmental Management Act No.12 of 2011	No gaps identified.

Topic Area	IFC Performance Standard 5 requirement	Zambian National Legislation requirement	Gaps identified and the steps taken to address them
<b>displaced persons</b>	during the planning, implementation, monitoring and evaluation of compensation payments, livelihood restoration activities, and resettlement activities.	meaningful consultation along with the disclosure of Project information must be undertaken with displaced persons and their communities. National Resettlement Policy also requires that the investor/promoter in consultation with the relevant Government institutions shall engage with affected communities through a process of informed consultation and participation.	
<b>The availability of a grievance mechanism</b>	The client will establish a grievance mechanism.	Under the Constitution and Zambian Arbitration Act 19, of 2000 displaced persons (and any other citizen) have the right to legal remedies directly from the courts, for example, by seeking an injunction constraining the Project to undertake certain activities, or refrain from certain actions, pending the outcome of a court hearing. However, there are barriers in obtaining judicial remedy which include ability to pay legal and administrative fees, slow movement of the judicial system, and high illiteracy rates which impede judicial access to citizens.	Whilst in principal there are no gaps, access to the judicial system is not equally accessible to all citizens. The RAP includes details of the Project resettlement grievance mechanism.
<b>Socio-economic and census data</b>	The client will conduct a census to collect appropriate socio-economic baseline data to identify the persons displaced, their eligibility for compensation and assistance.	Under national legislation the ZEMA document 'format of RAP' (EMA No.12 of 2011) requires the completion of a census and presentation of social, cultural and livelihood baseline information.	No specific gap identified, although requirements for specific socio-economic information are more detailed in international legislation. The RAP presents baseline information and details the assets and census survey process eligibility criteria.
<b>Uneconomic parcels of land</b>	Uneconomic parcels of land (sometimes referred to as orphaned land)	There is no specific requirement under national legislation in relation to this topic.	Resettlement principles state that any uneconomic parcels of land shall be included in the



Topic Area	IFC Performance Standard 5 requirement	Zambian National Legislation requirement	Gaps identified and the steps taken to address them
<b>Establishment of a cut-off date for eligibility</b>	<p>should be acquired along with the entire land parcel.</p> <p>The client will establish a cut-off date for eligibility, after which any land-related improvements will not be eligible for compensation. Information regarding the cut-off date will be well documented and disseminated throughout the project area.</p>	<p>The Lands Acquisition Act states that no allowance shall be made on account of any improvements effected or works constructed after the publication of the notice to yield up possession. The Valuation Surveyors Act (CAP 207) of 1976 requires valuers to record what they observe on the ground, thereby excluding all opportunistic land-based improvements that are made after this date.</p> <p>The National Resettlement Policy states that a Resettlement Agreement shall be developed between the Promoter/Investor and the affected persons or communities on the resettlement process, compensation and rehabilitation terms and shall include a cut-off date for eligibility. The date of completion of census and assets inventory of persons affected by the project must be publicized and persons occupying the project area after the cut-off date are not eligible for compensation and resettlement assistance.</p>	<p>compensation valuation, or in-kind provision of land.</p> <p>No major gaps identified.</p> <p>The RAP has used the last date of the asset and inventory survey as the cut-off date. Affected Persons were asked to sign (or thumbprint) an acknowledgment form to reflect that they have been informed about the purpose of the cut-off date.</p>
<b>Specific requirements associated with physical displacement – resettlement choices</b>	<p>If people living in the project area are required to move to another location, the client will: (i) offer displaced persons choices among feasible resettlement options, including adequate replacement housing or cash compensation where</p>	<p>National legislation under the National Resettlement Policy 2015 (Guiding Principle 5.0) requires displaced persons to be offered resettlement options, and relocation assistance.</p>	<p>No gaps identified.</p> <p>The RAP describes how displaced persons will be provided with resettlement options and relocation assistance.</p>

Topic Area	IFC Performance Standard 5 requirement	Zambian National Legislation requirement	Gaps identified and the steps taken to address them
	appropriate; and (ii) provide relocation assistance suited to the needs of each group of displaced persons.		
<b>Specific requirements associated with category (i) and (ii) of displaced persons</b>	Displaced persons in category i) who have formal legal rights to the land or assets they occupy or use; and category ii) who do not have formal legal rights to land or assets, but have a claim to land or assets that is recognised or recognisable under national law, will be provided with a choice of replacement property of equal or higher value, security of tenure, equivalent or better characteristics of location, or cash compensation as equivalent.	<p>The National Resettlement Policy 2015 (Guiding Principle 5.0) requires displaced persons who hold land under customary or other legally recognised tenure system, to be provided with compensation in the form of cash compensation or in-kind provision of land.</p> <p>There is no requirement for displaced persons to be provided with a replacement structure / property with security of tenure under national policy. Only land is provided for with in-kind compensation, with other assets eligible for cash-compensation.</p>	<p>National legislation does not provide for replacement housing, only compensation for assets.</p> <p>The RAP provides options for in-kind compensation of primary structures for all category (i) and (ii) affected persons, with compensation at replacement value as an alternative, and cash compensation for secondary / auxiliary structures.</p>
<b>Specific requirements associated with– category (iii) of displaced persons</b>	Displaced persons may be classified as persons: (iii) who have no recognisable legal right or claim to the land or assets they occupy or use. In the case of physically displaced persons under	National legislation does not recognise the legal status of category (iii) of displaced persons who have no recognisable legal right or claim to the land or assets they occupy or use. The Lands Act states that a person shall not without lawful authority occupy or continue to occupy vacant land, and any person who occupies land is liable to be evicted	<p>Category (iii) of displaced persons is not recognised under national legislation.</p> <p>The RAP includes category (iii) of displaced persons as being entitled for compensation.</p>

Topic Area	IFC Performance Standard 5 requirement	Zambian National Legislation requirement	Gaps identified and the steps taken to address them
	<p>category (iii), the client will offer them a choice of options for adequate housing with security of tenure so that they can resettle legally without having to face the risk of forced eviction. Economically displaced persons (category iii) who are without legally recognisable claims to land will be compensated for lost assets other than land (such as crops, irrigation infrastructure and other improvements made to the land), at full replacement cost.</p>	<p>The National Resettlement Policy states that Government is not obliged to compensate squatters/encroachers.</p>	
<p><b>The preparation of a resettlement planning document</b></p>	<p>In the case of physical displacement, the client will develop a Resettlement Action Plan which should be designed to mitigate the negative impacts of displacement; identify development opportunities; develop a resettlement budget and schedule; and establish the entitlements of all categories of displaced</p>	<p>Under national legislation the EMA, No.12 of 2011 requires that a RAP is prepared in accordance with the format provided.</p>	<p>No significant gaps identified, however international guidelines require greater detail in some sections. The RAP has been developed in line with ZEMA format and IFC requirements.</p>

Topic Area	IFC Performance Standard 5 requirement	Zambian National Legislation requirement	Gaps identified and the steps taken to address them
	persons (including host communities).		
<b>The provision of livelihood restoration measures</b>	The client will provide economically displaced persons whose livelihoods or income levels are adversely affected with opportunities to improve, or at least restore, their means of income-earning capacity, production levels, and standards of living.	The National Resettlement Policy states that resettlement should be conceived as an opportunity for improving the livelihoods of the affected people and undertaken accordingly by the investor and livelihood restoration measures must be provided to the displaced persons.	Livelihood restoration required by both national and international guidelines, however, no specific guidance provided in national policy.  Livelihood restoration planning has been undertaken, identifying livelihood restoration measures for affected persons.
<b>The provision of transitional support</b>	The client will provide transitional support to all displaced persons, based on a reasonable estimate of the time required to restore their income-earning capacity, production levels, and standards of living.	The National Resettlement Policy requires that people who are physically displaced should be provided with transport, food, and shelter during their relocation.  The RAP format provided for in EMA, No.12 of 2011 requires a section on transitional arrangements, including transport to the host site for persons, assets and livestock, and provision of temporal accommodation as necessary.	National policy only provides recommendations for support for physically displaced persons, with no reference to economic transition or loss of income.  The RAP contains details of transitional support measures that affected persons will be eligible for.
<b>Entitlements to tenants and sharecroppers</b>	Land tenant and sharecroppers are not entitled to compensation for land but are entitled to compensation for non-land assets (such as crops) and improvements made to land. Land tenant and sharecroppers should be provided with livelihood	The Rent Act (Chapter 206 of the Laws o Zambia) indicates that a landlord would be required to compensate a tenant (under Section 5 (a)) - for any loss or damage suffered by the tenant in consequence of having been required to give up possession. This could be interpreted to mean loss of crops, structures etc that have been developed by the tenant.	Not specifically indicated in the Rent Act as the responsibility of the Developer to compensate tenants, rather the responsibility of the Landlord.  The RAP contains details of entitlements for displaced persons that are tenants.



Topic Area	IFC Performance Standard 5 requirement	Zambian National Legislation requirement	Gaps identified and the steps taken to address them
	restoration measures to assist them to continue their livelihood at an alternative location.		
<b>The entitlement to compensation for the loss of access to communal resources</b>	The provision of initiatives that enhance the productivity of the remaining communal resources to which the community has access which may include improved resource management practices or inputs to boost the productivity of the resource base, in-kind, or cash compensation for loss of access, or provide access to new alternative sources of the lost resource.	Not required under national legislation.	Not required under national legislation.  The RAP eligibility and entitlement matrix includes provision for initiatives that aim to address the loss of communal land as necessary.
<b>The provision of additional support to vulnerable people.</b>	During the design of the resettlement planning document, particular attention will be paid to the needs of the poor and the vulnerable.	The RAP format provided for in EMA, No.12 of 2011 states that the baseline should include any vulnerable or “high-risk” groups or sectors that may be affected, with eligibility criteria including high risk groups.	No specific gap identified, although greater detail required in international guidelines.  The RAP identifies vulnerable groups and households and the process undertaken for inclusion and compensation
<b>The use of a completion audit</b>	Implementation of a resettlement planning document will be considered completed	The Environmental Protection and Pollution Control (Environmental Impact Assessment) Regulations 1997 state that a post-EIA audit is required within a period of not less than 12	A post-EIA / RAP audit is required however this does not specifically reference RAP completion and full

Topic Area	IFC Performance Standard 5 requirement	Zambian National Legislation requirement	Gaps identified and the steps taken to address them
	<p>when the adverse impacts of resettlement have been addressed in a manner that is consistent with the relevant plan as well as the objectives of this Performance Standard. An external completion audit of the resettlement planning document may be required.</p>	<p>months and not more than 36 months after the completion of the Project or the commencement of its operations, whichever is earlier. As a RAP would be appended to an EIA and be part of the broader approval process, then this type of audit is required, the scope of which could include the RAP.</p>	<p>restoration of livelihoods as per international guidelines.</p> <p>The RAP provides for a Completion Audit to ensure that the adverse impacts of resettlement have been addressed and the objectives of PS5 have been achieved.</p>
<b>Monitoring and evaluation</b>	<p>The client will establish procedures to monitor and evaluate the implementation of the resettlement planning document. The displaced persons will be consulted during the monitoring process.</p>	<p>Not required under national legislation.</p>	<p>Not required under national legislation.</p> <p>The RAP includes requirements for monitoring and evaluation.</p>

## 4.8 Non-Governmental Organisations Operational in Sioma / Senanga

### 4.8.1 World Wildlife Fund (WWF)

The vision of WWF is to build a future in which people live in harmony with nature. To deliver this mission, WWF aims to work to conserve and restore biodiversity, the web that supports all life on Earth; to reduce humanity's environmental footprint; and to ensure the sustainable use of natural resources to support current and future generations. WWF is one of the world's leading conservation organization, and works in nearly 100 countries.

The history of WWF in Zambia started in 1962 on the Kafue Flats with the purchase of private land which was donated to the Government to create Lochinvar and Blue Lagoon National Parks. Since then WWF operated through a series of specific isolated projects including support to; anti-poaching, conservation education, community based natural resource management and wetlands conservation.

In 1991, WWF signed a memorandum of understanding with the Government of the Republic of Zambia (GRZ) to create a coordinating office in Zambia.

WWF has been in operation in the Silowana landscape since 2007 through the CCCDP with Department of National Parks and Wildlife (DNPW). The Silowana landscape covers all the GMAs from Sesheke to Nalolo and the Sioma Ngwezi and Liuwa Plains National Parks. It has a team of 9 people based in Sesheke.

Current WWF activities can be broken down into three categories:

- Community livelihoods: training and support is offered under community livelihood for the projects relating to conservation agriculture, irrigation, chicken rearing, peanut butter processing, mobile money booths, devils claw processing, mongongo oil processing and beekeeping.
- Natural Resource Management: aimed at protecting the environment. Activities under this category include fire management which also includes the creation and maintenance of fire breaks, clearing of routes, boundary marking, and building of community campsites in GMA.
- Building Tourism Potential: this includes the translocation of animals which takes place in between July and August to help increase animal population numbers, support offered to CRBs to enable them to employ Scouts in the GMAs, collaring of animals such as elephants, lions, Wildebeest, and buffalo for the purpose of tracking; and game counts.

### 4.8.2 Water Aid

WaterAid is a Global Organisation with a mission to transform the lives of people who have been left furthest behind by improving access to safe water, sanitation, and hygiene. Its global strategy for 2022 to 2032 aims to:

- Achieve universal, sustainable, and safe access in focused geographic areas to influence wider change;

- Prioritise WASH across the health sector to improve public health;
- Strengthen the resilience of WASH to climate change; and
- Increase the quantity and quality of financing.

Water Aid have a project office in Sesheke and are working on several WASH related activities inclusive of:

- Working to provide piped water to communities;
- Equipping all health centres with running water, and all maternity clinics with functional and suitable ablutions;
- Developing safely managed sanitation systems (e.g. septic tanks to protect groundwater); and
- Providing ablution blocks to communities and schools.

## 4.9 Valuation and Survey Approach

The Project is committed to providing fair and equitable compensation, defining, and presenting the replacement value of affected assets, as well as the option of replacement assets in lieu of cash, as well as relocation assistance. This chapter describes the basis and methodology used for valuations and surveys..

Valuations were prepared by a valuation surveyor that is registered with Valuation Surveyors Board) as required under law providing valuations for all types of affected assets. The formal valuation report may be found in Appendix D, and a summary of its provisions are provided below.

### 4.9.1 Basis of Valuations

The basis of all valuations was the Land Acquisition Act, Chapter 189, which establishes that the compensation for the acquisition of land/property must be at market value, as follows:

*“...the value of the property shall, subject as hereinafter provided, be the amount which the property might be expected to realize if sold in the open market by a willing seller at the time of publication.... of notice to yield up possession.”*

Market value describes an exchange between parties that are unconnected and operating freely in the marketplace, and ignores any price distortions caused by special value, or synergistic value, it represents the price that would be most likely to be achieved for a property across a wide range of circumstances.

To meet the Project’s international commitments, the valuation also conforms with the provision of the International Finance Corporation Performance Standard 5, which requires that compensation is based on *full replacement cost* as follows:

*“...the rate of compensation for lost assets should be calculated at full replacement cost, i.e., the market value of the assets plus transaction costs. In applying this method of valuation, depreciation of structures and assets should not be taken into account.”*



In cases where national law and international good practice compensation rates differ, Performance Standard 5 requires that the higher value is adopted.

#### **4.9.2 Valuation Method**

Property valuation must be carried out by valuation professionals, that are registered under the Valuation Surveyors Act, Chapter 207. A registered valuation surveyor is a trained professional who has a thorough knowledge and understanding of the factors that create, maintain, or diminish values of real estate or assets.

The valuation of assets is done in accordance with the Practice Statements and Guidance Notes published by the International Valuation Standards Committee, which have been adopted and recognized by international accounting standards, risk management professionals and the Surveyors Institute of Zambia. The valuation of land and assets affected by the Project was undertaken using a combination of the following approaches by the registered surveyor:

**Direct Comparison Method:** This method compared other similar available transactions with reference to locations, accessibility, demand/supply etc., and the prevailing economic and property market trends. Sales within the area were analysed and processed to form units of value per square metre. These were then compared with the subject property to produce an adjusted unit value and applied to affected properties.

In the absence of an active local property market, applicable value rates were adopted from other districts / regions – including Serenje, Zimba, Chikankata, Mazabuka, Kafue, Chongwe, and Mufumbwe and Kabompo Districts.

**Cost Approach:** The cost approach requires descriptive data on the improvements to land being valued. Costs consist of all expenditures necessary to complete construction of a house or other structures. Costs are either direct, including materials and unskilled labour, or indirect, including costs of obtaining building permits, registering the house with relevant government agencies, or architect fees.

The cost approach determined the *full replacement cost* from which appropriate deductions may then be made to allow for age, condition, economic or functional obsolescence and environmental and other factors which might result in the existing structure being worth less than a new replacement. However, under the valuation, depreciation was not deducted to align with international good practice requirements.

**Income Approach:** The income approach is a valuation method used for real estate appraisals, calculated by dividing the capitalization rate by the net income received as payments generated by the asset. In valuation, this calculation is used to value assets based on their profitability. Crops and fruit trees were valued in this manner, where the compensation values for fruit trees was based on income potential from sales of fruit.

For clarity, the compensation values are based on *full replacement cost* – or the cost to replace lost assets and cover transaction costs. Where domestic law does not meet the standard of

compensation at *full replacement cost*, compensation under domestic law will be supplemented by the Project with additional measures necessary to meet the *full replacement cost*.

#### **4.9.3 Asset Inventory**

An inventory of all affected assets (including land, structures, crops, trees, and other assets) was undertaken by the registered valuers from 10 to 27 November 2021. The inventory was witnessed by each PAP to ensure the accuracy of the information. Compound assets were separated into appropriate units for valuation, and an asset calculation process undertaken applying valuation rates developed by registered valuers.

## 5 CONSIDERATION OF ALTERNATIVES

The Project alternatives to minimise displacement have been presented in Section 1.2. These include consideration of project alternatives during the conceptual design of the project, ranging from entirely different sources of generation to alternative sizes of project, and the no-project option, and design alternatives such as the height of the weir, canal and powerline alignment to minimise displacement.

The overall Project investment is valued at over \$500 million. The provisional budget for resettlement implementation is presented in Section 12, with an estimated \$3,694,569 currently allocated, representing around 1% of the overall Project cost. This budget has been compiled taking into consideration PAH preferences for in-kind compensation and housing designs, preferences and feasibility of livelihood restoration activities, and options for land compensation and replacement.

Options for land compensation and replacement have taken into consideration the potential for cascading displacement impacts, which can occur in cases where large areas of farmland are affected, and existing land pressure exists, as is the case with the Project in certain areas. Sourcing of replacement land can potentially cause further displacement in this case. The approach towards replacement land will follow an in-fill approach, whereby replacement plots of land are sought in unutilised areas of land in between the land held or used by relocation site communities. The land will be obtained through a process of individual consultation with traditional leaders and existing landholders. Surveys will be undertaken to ensure that remaining land is sufficient to achieve pre-resettlement levels of productivity of both the displaced and relocation site communities. This approach is more effective at minimising overall displacement impacts than obtaining contiguous blocks of replacement land.

In planning for resettlement, a number of alternatives have been included, taking into consideration stakeholder and PAH needs and preferences. The Project is committed to providing PAPs with the option of selecting in-kind replacement assets *in lieu* of cash compensation, in line with international guidelines, as these have been shown to have greater success in effectively restoring and improving the livelihoods and social welfare of displaced households and communities, and in line with recommendations from the BRE and PAHs. Section 6 presents a detailed description of the in-kind replacement and cash compensation options presented to and discussed with PAHs. These options will be available to PAHs as defined by the eligibility criteria defined in Section 3.1 and in the Entitlement Framework presented in Section 3.2.

Initial options for compensation and relocation assistance were presented to PAHs in the second phase of consultation in June 2022. Stakeholders and PAHs were invited to comment on options, which were then refined and presented again to PAHs in February 2023. Records of consultation activities, comments and responses are provided in summary in Section 10.5 and in detail in Appendix B.

## 6 COMPENSATION AND REHABILITATION ASSISTANCE

### 6.1 Community Participation Agreement (Entitlement 1.1)

The Community Participation Agreement (CPA) signed between WPC and the BRE establishes the communities of the Western Province as shareholders of the Project and documents the company's financial and non-financial commitments to the communities.

Two community trusts will be set up to receive fixed financial commitments and dividends: the Barotse Community Development Trust for the wider Western Province and the Sioma Community Benefit Trust (SCBT) for the Project-affected communities. These trusts will fund community development initiatives such as education, sanitation and healthcare improvements.

In accordance with the CPA, a fixed annual community payment of USD 500,000 will be allocated to the trusts from the start of operations. An earlier one-off allocation of USD 500,000 will be made at the start of construction. From the end of the first year of operations, all shareholders of the Project will be eligible for a dividend based on the revenues from generation: the trusts will receive an annual dividend proportional to the communities' 6% shareholding (expected to be no more than 2.5 million USD in any given year).

The set-up of the trusts will be the subject of separate meetings with the communities to discuss their governance and objectives. WPC is appointing a trusts adviser to assist with this work to ensure the process and functioning of the trusts meets good international industry practice (GIIP).

### 6.2 Compensation / Rehabilitation Assistance for Loss of Land

Affected land was assessed according to location and type, with clear separation of the two major land-uses – namely floodplain farming and dryland farm areas. The valuation rates have been determined based on the land-use types presented in Table 15, and take into consideration whether land is cultivated or uncultivated, as well as to compensate for land preparation activities and labour that will have been applied.

**Table 15: Land Valuation Rates**

Category of Land	Rate (ZMW/m <sup>2</sup> )	Unit
Residential Land	2.5	m <sup>2</sup>
Garden Land (Floodplain): Cultivated	2.1	m <sup>2</sup>
Garden Land (Floodplain): Uncultivated	2.0	m <sup>2</sup>
Farmland (Upper / Dryland): Cultivated	1.1	m <sup>2</sup>
Farmland (Upper / Dryland): Uncultivated	1.0	m <sup>2</sup>
Commercial Land	12.5	m <sup>2</sup>
Tourism Land	12.5	m <sup>2</sup>

### **6.2.1 Dryland Farms (Entitlement 3.1)**

The asset inventory confirmed that 50 PAHs hold dryland farm plots covering a combined area of 42.7 hectares. The majority are deemed to be economically non-viable for continued farming and PAHs would need to accept cash compensation or replacement land.

The loss of dryland farmland will occur on both the west and east banks, and to ensure that PAPs remain in close proximity to their home villages, any replacement land will be secured on each side of the Zambezi River.

Replacement land will be the primary measure to compensate for and restore dryland farming, with options as per the Entitlement Framework in Table 12 for 1) self-sourced land, 2) land allocation by traditional authorities and the Project, or 3) cash compensation (under certain conditions) presented to PAHs for selection according to their specific needs:

All options will need to meet a minimum requirement that the replacement land is of equivalent size and productivity to the land being lost. As such, any proposed replacement land will need to be selected and assessed jointly between the PAH, the Project, and the local authorities to ensure its suitability before being secured. Further details on specific requirements for identifying and sourcing land are presented in Section 6.5.2.

Additional support will be provided to improve agricultural practices and restore and improve livelihoods, as described in Section 7.

### **6.2.2 Floodplain Gardens (Entitlement 3.2)**

The formation of the head pond will result in the permanent inundation of floodplain gardens. In addition, as the water level will be maintained at a static 990 masl, the seasonal fluctuations in water-level will no longer happen. The Asset Inventory and Valuation study verifies 71 PAH have gardens covering a total area of 5.8 hectares that would need to be acquired.

The Project will support the restoration of such farming practices by replacing floodplain gardens with establishment of irrigated gardens located above the head pond (and on community dryland). Replacement land will be provided in accordance with the options presented in Section 3.1 of the Entitlement Framework. In addition, PAHs will be presented with irrigation options as defined in Section 3.2 of the Entitlement Framework, with either 1) provision of a treadle pump for individual use or 2) access to a communal solar irrigation system. Additional research will be undertaken on the specifications of communal irrigation systems, to ensure the long-term sustainability of systems.

Both options will be presented to PAHs, and they may select their preferred option. Once the number of PAHs that have selected Option 2 is known, the Project will be able to determine the most appropriate locations of the farm blocks. It is anticipated 6 blocks of one hectare each will be developed at multiple locations along the Zambezi River to ensure that the blocks are in close proximity to PAHs homes.



Additional support will be provided to improve agricultural practices and restore and improve livelihoods, as described in Section 7.

### **6.2.3 Landholdings (Entitlement 3.3)**

The Asset Inventory and Valuation Study verified an additional 350 land holdings that were not under any form of cultivation, being either fallow or uncleared. This included 107 PAHs that hold upland plots covering 108.8 hectares and 211 PAHs covering 50.0 hectares, held under customary ownership by PAHs.

This additional land is an important component of household food and income security as it allows for crop rotation, extending fields as well as allocating portions of land to family members. It is not land that has no specific function or is not unutilized.

Compensation for such landholdings will be provided in line with the principles outlined in Sections 6.2.1 and 6.2.2 and in accordance with Section 3.3 of the Entitlement Framework.

### **6.3 Compensation / Rehabilitation Assistance for Loss of Residential Structures (Entitlement 4.1)**

The Project will provide the option of *in-kind* replacement structures (Figure 43) or cash compensation at replacement value to PAPs that will lose any residential structures, as defined in Section 4.1 of the Entitlement Framework. These options will extend to both the primary residential structures, as well as any secondary residential structures (ancillary buildings used as separate bedrooms) held by 71 PAHs covering 165 separate residential structures. Secondary structures (kitchens, crop storage, livestock enclosures, chicken coups etc) will be compensated with cash at replacement value, including 104 PAHs and 244 structures, as defined in Section 4.2 of the Entitlement Framework.

Residential structures were valued according to the total floor-space and the number of rooms, as well as the construction materials of the roof, walls, floors, and fittings. Compensation rates were determined by the registered valuer for each component per square meter as summarised in Table 16. The compensation rates apply equally to all residential structures (homes, bedrooms) and all ancillary structures (bathrooms, pit latrines, kitchens, fences etc) and provide the basis for the option of cash compensation at replacement value.



Figure 43: Computer generated design of replacement housing Cat F

Table 16: Structure Valuation Rates

Built Structures Rates	Rate (ZMW)	Unit
<b>1. Floor</b>		
Site clearance and excavation	14.00	m <sup>2</sup>
Foundation box	42.00	m <sup>2</sup>
Concrete slab, foundation, and site clearance	271.00	m <sup>2</sup>
Concrete screed	37.00	m <sup>2</sup>
Compacted earth	46.00	m <sup>2</sup>
<b>2. Walls</b>		
Timber poles -kitchen	32.00	No.
Timber poles - fencing	32.00	No.
Thatch or reed	12.00	m
Timber, thatch, or reed	32.00	m
Mud and sticks	293.00	m <sup>2</sup>
Stone walls	500.00	m <sup>2</sup>
Cement, reeds, and sticks	296.00	m <sup>2</sup>
Concrete block walls	1,734.00	m <sup>2</sup>
Wall plaster	55.00	m <sup>2</sup>
Wall paint (under coat)	18.00	m <sup>2</sup>

Built Structures Rates	Rate (ZMW)	Unit
Wall paint (upper coat)	81.00	m <sup>2</sup>
<b>3. Roof</b>		
Thatch -roof	253.00	m <sup>2</sup>
Corrugated iron - flat roof	264.00	m <sup>2</sup>
Corrugated iron - gable roof	543.00	m <sup>2</sup>
Concrete roof	250.00	m <sup>2</sup>
<b>4. Fittings</b>		
Window: steel / glass	500.00	No.
Window: wood frame / wood	300.00	No.
Local door: wood / wood frame	480.00	No.
Local door: wood / steel frame	928.00	No.
Local door: wood / metal panel	400.00	No.
Skeleton core flush door	1,280.00	No.
<b>5. Fencing</b>		
Concrete block wall	308.00	m
Timber support poles and reeds	32.00	m
Timber pole fencing	160.00	m
Timber support poles with planks	111.00	m
Timber poles with grass or reeds	64.00	m
Wire fencing -barbed wire	39.20	m
Wire fencing	69.33	m
<b>Other Items</b>		
Chicken coup	15.00	m <sup>2</sup>
Metal sheet	160.00	No.
Grain storage	15.00	m <sup>2</sup>
Timber support poles- other	16.00	No.
Timber platform	20.00	m <sup>2</sup>

Where a PAP selects the option of a replacement structure, the size of the replacement structure will be based on the principle of providing a room-for-room replacement structure with, a minimum of equal total floorspace. Replacement housing options are presented in Table 17: these have been allocated to PAHs in accordance with data collected during the Assets and Inventory Survey. The replacement structures will be constructed by the Project to conform with the specifications outlined in Table 18, and the drawings presented in Appendix F.

**Table 17: Replacement Housing Criteria**

Cat.	Details	Replacement Size (m2)	No of Rooms
A	Chalet/Freestanding Room	16	1
B	House (1 Room)	27	2

Cat.	Details	Replacement Size (m2)	No of Rooms
C	House (2 Rooms)	35	3
D	House (3 Rooms)	47	4
E	House (4 Rooms)	66	5
F	House (5 Rooms)*	84	6

\* Where PAHs have greater than 5 rooms in their existing asset holding, Category F housing will be provided, with additional cash compensation based on valuation figures.

**Table 18: Residential House Specifications**

Aspect	Details
Layout	Main house with veranda with solar lighting system
Footings	Plain in-situ concrete poured against faces of excavation.
Walls	150mm blockwork with plaster and paint
Floor	Screeds to floors
Roof	IBR (inverted box rib profile) roof sheeting
Ceiling	Particle board ceiling with timber rendering
Windows	Steel windows fully glazed with opening
Doors	Steel door frame with timber door

Each physically displaced household will be provided one stand-alone kitchen structure, open sided with dwarf walls. The kitchen will be constructed according to the specifications and drawings in Annexure F.

**Table 19: Kitchen Specifications**

Aspect	Details
Rooms	1
Area	12.96 m <sup>2</sup>
Footings	Plain in-situ concrete poured against faces of excavation.
Walls	150mm blockwork dwarf walls on 3 sides.
Roof	IBR roof sheeting
Ceiling	Particle board ceilings
Floor	Screeds to floors
Washroom	Building detached from main structure. Non-slip trowel finish to in-situ. Deep-line soak away at the back.

In addition, each physically displaced household will be provided one new ventilated pit latrine with washroom, irrespective of whether the PAPs retained similar structures. This is to ensure that basic shelter and hygiene requirements are met. The pit latrine will be constructed according to the specifications in Table 20, and drawings provided in Annexure F.

**Table 20: Toilet / Shower Specifications**

Aspect	Details
Rooms	2
Area	7.8 m <sup>2</sup>
VIP	1.3 m x 2 m
Washroom	1.3 m x 2 m
Entrance	1.3 m x 1 m (per VIP / Washroom)
Footings	Plain in-situ concrete poured against faces of excavation.
Walls	150mm blockwork
Roof	IBR roof sheeting
Ceiling	Particle board ceilings with timber rendering
Floor	Screeds to floors with tiles
Washroom	Building detached from main structure. Non-slip trowel finish to in-situ. Deep-line soak away at the back.
Ventilated pit latrines <sup>9</sup>	Area separated from shower room by brick wall. Detached from main house. Latrine with squatting facility.

A contractor will be appointed for the construction and development of replacement housing. At this point, a construction management plan will be developed, including:

- Provision for the inclusion and where possible employment of affected households and local communities in the development and construction activities;
- Procedures and approaches to land clearance, limiting this as far as possible to avoid impacts to vegetation, minimise risks of soil erosion, and maintain natural plant growth and shade around structures;
- Health and safety requirements, especially where structures are being developed in close proximity to existing communities, with clear messaging and guidelines for the workforce and local communities; and
- Procedures for the positioning of structures, taking into consideration the angle of orientation to maximise ventilation and shading in respect of the surrounding environment.

## 6.4 Negotiation Procedures

### 6.4.1 Resettlement Options and PAH Preferences

Compensation and relocation options presented in the following Sections 6.1 to 6.7.6 are the result of consultation and interaction with PAHs and stakeholders throughout the length of resettlement planning, taking into consideration PAH preferences for replacement land, structure and housing designs, the approach to compensation for other assets including communal assets, and preferences for livelihood restoration programmes. Details of consultation activities and key

<sup>9</sup> Ventilated pit latrine to be constructed in accordance with relevant standards (eg correct depth, width and support structure) to maximise ventilation and maximise usage.



comments and concerns are presented in Section 10.5, with full records presented in Appendix B.

The option of cash compensation, in-kind replacement assets or a combination of the two has been explored with PAHs. Households that will be impacted by physical displacement have indicated a preference for resettlement support and in-kind replacement assets over pure monetary compensation. Households generally commented on the following:

1. Households in Kandiana and Linganga all indicated a preference to remain within their existing village to maintain access to farming and livelihood opportunities, natural resources and family and community ties.
2. Households in Sikuka predominantly indicated a preference to remain in Sikuka to continue accessing farming and livelihood opportunities, natural resources, and community ties, although some preferred a move to Sioma to have better access to services.
3. Households in Imamongo all indicated a preference to move to another nearby village to have better access to existing services or business opportunities, or a newly constructed village.
4. Households in Sioma were mixed, with some preferring to remain in Sioma and others to move to a nearby town, all linked to livelihood and farming opportunities.

These preferences have been incorporated into the entitlement framework and Household Agreements. These provide a summary of all assets impacted for each household and relevant compensation entitlements, providing details of monetary compensation values in accordance with official rates outlined above, and in-kind compensation provisions, options, and allowances to ensure compliance with international guidelines. These Household Agreements have been presented to PAHs for review between May and October 2023 for discussion of entitlements, selection of preferences and final signatures. A total of 412 of the 419 affected households have signed agreements. Any concerns raised during the signing of Household Agreements have been captured in the grievance mechanism and will be managed accordingly (as described in Section 10.12). Of the remaining 7 PAHs:

- One was a tenant and has now left the project area with no forwarding address, as such the compensation value will be put into an escrow account;
- Six have continued with negotiations and the matters have now been referred to the kuta in to reach an agreement prior to implementation.

Copies of signed Household Agreements are presented in Appendix J. PAHs were presented with options to select in-kind or cash compensation where relevant and to indicate preferences for where replacement structures are located (on self-identified or existing land portions, on land sourced by WPC, within their existing village, or on a separate housing development). In-kind replacement of assets was prioritised wherever possible to avoid risks associated with cash-only compensation. Household Agreements stipulated that 'selection of cash compensation instead of replacement housing will require assessment by WPC to ensure the household has access to an alternative residence and/or capacity to facilitate development of an alternative residence. Households will be required to complete a guidance program outlining the risks of selecting cash compensation, and training for appropriate cash management'.

### **6.4.2 Negotiation Procedures for Identifying and Preparing Relocation Sites**

Where replacement land is required, either residential or agricultural, PAHs have been provided with options for the location of this land during consultation and in Household Agreements. Full details of the process for identifying and selecting host land are presented in Section 6.5.

## **6.5 Host Relocation Sites**

A *host site* is a term given to a portion or portions of land that have been secured for replacing any lost residential / homestead land (for the relocation of communities and homes) as well as replacing any lost farmland.

Based on the Asset Inventory and Valuation Study, host site(s) are required to provide new residential / homestead land for 71 PAHs, as well as replacement farmland for 375 PAHs losing dryland, floodplain gardens and landholdings.

The chapter describes the processes for identifying and securing new host sites, which is expected to include multiple sites on both the western and eastern side of the Zambezi River, to reduce the distance PAHs will need to be relocated.

### **6.5.1 Residential Host Site(s)**

During consultation, the majority of PAHs have indicated their preference to remain within their existing community, close to family, community, land and natural resources. In a large proportion of affected villages (representing 43 PAHs) households will be able to relocate to alternative homesteads plots within their home community.

This form of *infill resettlement* only requires that the PAHs move further inland and away from the inundation area, but they remain within the boundaries of their current village. In such cases, individual residential portions of land will be identified within the village – jointly between the Project, the Induna, and each PAH.

The only exception may be for PAHs in Sikuka Village and Linganga Village. A total of 40 households will be physically displaced in Sikuka and 6 in Linganga. Land availability within the existing village boundaries for residential development of this extent is limited, as much of the land is already allocated to housing or farming. Alternative host site options will therefore need to be found to accommodate PAHs from Sikuka and Linganga Villages should PAHs be unable to source their own residential land portion.

The following process will be followed for identifying and selecting new host site(s):

- The Project will collaborate with the relevant Indunas and Sub-Indunas as well as displaced PAHs to determine land availability within individual villages, or along their periphery, and confirm the process of acquiring and securing new land portions.
- Proposals for replacement residential land options will be presented to the BRE, to the Resettlement Advisory Committee (see Section 10.8) and the Community Resettlement Committees (see Section 10.9) for discussion and approval.

- PAHs will be engaged on an individual basis to determine their preferred option for securing residential land in accordance with the land options presented in Section 3.1 of the Entitlement Framework. Should PAHs select Option 2 (land allocated by traditional authorities in association with the Project), PAHs will be engaged to determine their preference for the location of replacement residential land under the following sub-options:
- **Sub-option 1:** Residential land within existing village (if available).
- **Sub-option 2:** Resettlement site close to Sikuka / Linganga Village.

In the case where the Project is required to secure a single, communal host site for a group of PAHs, the site will be identified jointly by the Project, the local authorities, and the affected community. Any collective site should meet the criteria presented in Table 21 below. Should a single host site be developed, additional measures will be developed to determine potential impacts on host populations and measures to avoid conflict, however, the Project aims to ensure PAHs are resettled as close as possible to existing communities and structures.

**Table 21: Host Site Criteria**

Ref	Criteria
1	The host site should be in direct proximity to the existing village. This will ensure that existing social connections are retained.
2	The host site should be unoccupied and not being actively utilised for farming or other uses. This is to avoid the displacement of additional households.
3	The host site should be held by a single owner if possible and acquired on a willing-seller, willing-buyer basis. This is to avoid affecting multiple landowners and requiring multiple acquisitions.
4	The host site should be located where it does not result in any, or minimal increases in travel time for households to access existing public infrastructure and services.
5	The host site shall, based on its location, not place undue pressure on any host community public infrastructure and services.
6	The host site shall be located which allows for stable and regular access to water, and does not rely on other existing water sources.
7	The host site should be able to accommodate the required replacement homestead plots and any communal infrastructure (roads)
8	The host site shall provide land near open land of similar or better productive capacity of current landholdings to allow households to reinstate agricultural practices if they seek to do so.
9	The host site shall provide land or access to nearby land to allow for continued grazing and watering of livestock.
10	The host site should be located where it does not conflict or place undue pressure on neighbouring land-uses or land-owners.
11	The host site will be located where it does not result in a change in the formal and customary land administrative structure.
12	The host site shall allow the reinstatement of land tenure rights equal to better than those rights currently held by households.

Ref	Criteria
13	The host site shall be located where households may benefit from employment opportunities at the project, and where community development programmes (i.e., market gardens) may readily be accessed.
14	The host site shall not be located where it results in the clearing of conservation important ecosystems, or result in undue harvesting of resources from these systems.
15	The host site should not be sited where they are exposed to potential pollution or wastes
15	The host site should be located on areas that is not prone to flooding or where can be readily managed.
16	The host site should be located where interaction with project infrastructure and machinery is minimised.
17	The host site should be located away from construction or employee camps to minimise additional demands on services such as health and education from Project employees. The overall Community Development Plan and Workforce Housing / Construction Camp Plan will address workforce social and welfare needs.

### 6.5.2 Agricultural Host Site(s)

The Project will provide the option of *in-kind* replacement farmland to PAHs that will lose either dryland farms or floodplain gardens, as described in Section 6.1 and in Sections 3.1 – 3.3 of the Entitlement Framework. Should PAHs select Option 2 (land allocated by traditional authorities in association with the Project), a host site may be required. Host site options have been identified on both the East and West Bank.

In 2017, the Project in association with the BRE identified a portion of land on the east bank of the Zambezi as an option for replacement land. This land initially covered an area of 150 ha, however, following further studies it was confirmed that the total area available was 36 ha, located approximately 3 km east of Linganga Village, as shown in Figure 44 and Figure 45. PAHs would have access to areas within this land, under the authority of Induna Linganga. An Acting Induna in Linganga had previously been engaged to allocate the land, agreeing to its usage and potential distribution to PAHs. A new Induna has since been engaged and will need to be consulted to determine availability of the land, any encroachment in the area since 2017 when it was last surveyed, and the process for distributing to PAHs.

There are some uncertainties around the remaining extent of this land and suitability in terms of soil quality and distance from communities, as well as the extent available to address PAH requirements. As such, additional areas will be identified on the East Bank for consideration.

A process to identify and acquire portions of land on the east and west banks of the Zambezi is currently underway. This has included engagement with relevant Induna's on the west bank to determine land availability in proximity to the area.

Further engagement will be needed with the Kuta to determine the availability and the process for acquiring land as necessary (the current Induna at Sikuka is a caretaker and as such the authority

to distribute land would need to be confirmed). The engagement will also need to agree on a process for delineating and allocating land for PAHs.

Once appropriate alternatives have been identified, the following will be undertaken with relation to agricultural land compensation:

- The BRE, Indunas and Sub-Indunas will be engaged to present host site options for discussion and approval.
- Host sites will be presented to the RAC and CRC for discussion and approval.
- Individual PAHs will be engaged to present host site options and to agree on selection (if necessary). PAHs will be informed of the process in preparing and allocating land with host sites.
- Customary processes for land ownership will then be carried out to ensure security of tenure to PAHs (inclusive of both male and female household heads).

Assessment of replacement land will further consider potential impacts to biodiversity and critical habitat loss to avoid wherever possible additional environmental impacts, in accordance with commitments and measures outlined in the Environmental and Social Impact Assessment and Management Plan.

## 6.6 Compensation for Assets / Loss of Income

### 6.6.1 Annual Crops (Entitlement 3.4)

The recommendation and preference under Zambian law for impacts to crops is to allow harvest by PAHs prior to development of the Project. Should cultivation be possible prior to land clearance and development, households will be permitted to harvest crops with permission from Western Power, and in the event that the health and safety of individual household members and development of project activities is not impacted. Notice to vacate land will be given at least 3 months in advance, considering the cultivation season(s), to allow PAHs to harvest annual crops.

In addition, PAHs will be compensated for standing crops identified during the assets survey, irrespective of the ability to undertake harvest as defined in Section 3.4 of the Entitlement Framework. The compensation rates have been determined based on the cultivation of different crops, the area or percentage cover of land for each crop, as well as the estimated yield per hectare. The compensation rates were further determined based on the income value of each crop by weights as supplied by the Ministry of Agriculture and Livestock based on assessment of market values at the time of the asset inventory. The final crop compensation rates are presented in Table 22.

**Table 22: Crop Compensation Rates**

Crop	Yield (kg/ha)	Price (ZMW/kg)	Crop Compensation Rate (ZMW/Ha)
Amaranthus	30 000	5.0	150 000



Crop	Yield (kg/ha)	Price (ZMW/kg)	Crop Compensation Rate (ZMW/Ha)
Beans	2 000	25.0	50 000
Cabbage	34 000	4.0	136 000
Cassava	9 000	5.0	45 000
Chilli	980	4.0	3 920
Cotton	11 000	15.0	165 000
Cow pea	2 200	20.8	45 833
Egg Plant	700	2.3	1 628
Groundnuts	2 000	13.9	27 778
Impwa	15 000	10.0	150 000
Maize	1 200	4.2	5 040
Millet	1 500	3.0	4 500
Okra	9 000	10.0	90 000
Onions	25 000	15.0	375 000
Pumpkins	11 000	2.14	23 571
Rape	1 500	10.0	15 000
Rice	3 500	20.0	70 000
Roselle (sindambi)	9 000	10.0	90 000
Sorghum	3 000	3.5	10 500
Spring Onion	10 000	6.0	60 000
Sugar cane	60 000	1.5	88 889
Sweet Potatoes	15 000	8.0	120 000
Tomato	20 000	10.0	200 000

### 6.6.2 Fruit Trees and Trees of Economic / Household Use (Entitlement 3.5)

Fruit trees and trees of economic or household use that have been actively planted have been assessed according to their productivity, with both mature, productive trees and sapling non-productive trees included in the inventory. Non-productive trees (saplings) will be compensated with provision of replacement saplings. Two replacement saplings will be provided for each tree lost to account for potential loss of saplings during initial development. Mature (or fruit-bearing trees) will be compensated with two replacement saplings plus the value of the annual yield for the period it takes the sapling to start producing fruits or the period required to become of economic value as calculated by the Ministry of Agriculture and Livestock (as presented in Table 23). PAHs will be permitted to plant the saplings/seedlings at their homestead or any replacement farmland.

**Table 23: Fruit Tree Compensation Rates**

Tree	Replacement cost of young plant	Cost of care/year	Maturity period	Cost of Mature Plant	Yield	Yield Unit	Price	Price Unit	Total Replacement Value (ZMK)
<b>Avocado</b>	50	174	5	920	600	Fruit/tree/year	5	ZMK/ fruit	15 920
<b>Banana</b>	20	786	1	806	1	Batch/tree/year	100	ZMK/ fruit	906
<b>Cashew</b>	35	935	2	1 905	15	Kg/tree/year	15	ZMK/ kg	2 355
<b>Guava</b>	20	217.5	4	890	150	Kg/tree/year	6.89	ZMK/ fruit	5 024
<b>Lemon</b>	20	202.5	4	830	200	Fruit/tree/year	1	ZMK/ fruit	1 630
<b>Mango</b>	20	174	5	890	375	Fruit/tree/year	1	ZMK/ fruit	2 765
<b>Moringa</b>	5	122.5	2	250	25	Kg/tree/year	25	ZMK/ kg	1 500
<b>Mulberry</b>	5	122.5	4	495	10	Kg/tree/year	1	ZMK/ kg	535
<b>Orange</b>	20	174	5	890	200	Fruit/tree/year	5	ZMK/ fruit	5 890
<b>Pawpaw</b>	10	435	2	880	20	Fruit/tree/year	20	ZMK/ fruit	1 680

The aim of this compensation is to ensure PAHs do not experience negative impacts to food supply previously provided by fruiting trees. As such, cash compensation for the value of the annual yield will be provided in instalments until sapling trees are productive, to ensure ongoing access to resources.

### **6.6.3 Maungwe and Limbelo Fishing Grounds (Entitlement 5.1 and 5.2)**

PAHs losing access to Maungwe and Limbelo fishing grounds will be provided with cash compensation based on the assessment of active fishing grounds, catch levels and frequencies as determined by the additional Fisheries Study currently underway, and a transitional allowance. PAHs indicated a preference for access to alternative livelihood schemes rather than support with fisheries. As such, PAHs will be eligible for livelihood restoration programmes as defined in Section 8. Additional details on entitlements and allowances are detailed in the Fisheries Study presented in Appendix M.

### **6.6.4 Graves**

A total of 17 graves were identified as within the project impact zone, as illustrated in Figure 7 and Table 24.

Initial engagement with impacted custodians of affected graves indicates that:

- Custodians in Imamongo wish to continue using the burial family burial site (in which 5 of the 17 affected graves are located) and do not want the graves to be relocated;
- Custodians in Linganga support the relocation of the graves to a new burial site of their choice. The family also indicated that it should be compensated, and all the burial rites must be performed.

Custodians of all grave sites have been engaged during the negotiation process to determine final decisions on relocation or compensation of grave sites. These are presented in Appendix J with signed Household Agreements selecting compensation options.

**Table 24: Burial Sites Registered During Surveys**

No.	Name of Deceased	Year	Adult / Child
1	Muyolela Lifasi	1999	Adult
2	Libali Muyendekwa	1998	Adult
3	Monde Mumbuwa	2021	Adult
4	Rosemary Masiliso	2014	Adult
5	Mukitwa Musiwa	2013	Adult
6	Machilombo Musha	2021	Adult
7	Daugrher Munalula Sibote	2021	infant
8	Namushi Mwakoi	1999	Child
9	Mundia Sitali	1989	Adult
10	Masiye Mundia	2001	Adult
11	Namukolo Mundia	1992	Adult
12	Katekelelwa Mundia	1994	Adult
13	Spencer Silumesi Mufalalu	1995	Adult
14	Likando Mufalali	2019	Adult
15	Makachana	1999	Adult
16	Muyubda Silumesi	2002	Child
17	Mwimanenwa Mwimanenwa	2015	Child

Additional graves have been identified outside of the current inundation area by the cultural heritage specialist (CHS) as at potential risk of increased frequency of flooding or loss of access in the case of burial sites on islands (Table 9). Communities have requested that monitoring be undertaken to ensure these sites are not impacted, and measures put in place if necessary for compensation or relocation.

#### 6.6.4.1 *Loss of Graves (Entitlement 7.1)*

For grave exhumations, custodians will be consulted to gather additional information on the preferred burial methods and customs/cultures/taboo related to burials. If the grave is older than 100 years, the National Heritage Conservation Commission is required to have oversight of the exhumation. If the grave is less than 100 years old, the Ministry of Health and National Police Force are the relevant local authorities for approval and oversight of the process, as well as traditional authorities.

Visual and Ground Penetrating Radar (GPR) methods will be used in the burial sites to identify the exact location of the graves, depth, etc. The use of GPR will also help as:

- GPR is a non-invasive, or non-destructive equipment which will ensure that unmarked graves are identified before they are damaged by traditional approaches to sub-surface identification
- It will give the actual number of graves in a given area.
- It will give the orientation, depth, and size of graves (this will greatly help the exhuming team)
- No damage to any grave good or object in the grave as it will clearly be picked by the GPR.

Before the exhumation and relocation exercise commences, a meeting will be held with the next of kin so that the team can be shown the new selected burial sites where the relocated remains will be buried (the area will be assessed by the team for established trees and rocks etc).

Whilst the excavations will be going on, other exhuming team members will proceed to dig new grave(s) with the help of local people to ensure that graves are dug in line with local council requirements, and according to any additional requirements of family members where possible.

As a matter of ethical issues related to human remains relocation, the exhuming team will show respect to the interred, as well as the family members during the entire exhumation and relocation process.

On the day of the exercise the following will be done:

- The next of kin and other family members will not be allowed to be part of the exhuming team (note that relocations are very sensitive undertakings and can be emotional and stressful to the family members of the deceased), however up to two family members (or grave custodians / representatives) will be permitted to witness the exhumation;
- The burial site will be screened off from the public by means of tents;
- When the remains are found, with prior permission, their positions in the grave will be carefully recorded, and photographs following standard archaeological recovery techniques (in case where the next of kin refuses to allow any photographic recording, no photographs will be done);
- Similarly, in cases where the burial contains grave goods, they will also be inventoried;
- The remains will be arranged anatomically (and wrapped in black textile) in new medium size coffins and any grave good found inside the grave put in the coffin;

- A 4X4 with a closed canopy will be used to transport the remains to the new burial site with the next of kin and family members where they will conduct all traditions/religious ceremonies associated with burials;
- GPS of the new burial site including photos will be obtained for documentation purpose; and
- Information Panels with deceased’s information will be installed on all the new graves.

In addition, custodians will receive a cash compensation (compassion) of ZMW 7,000 for disturbance per grave.

In the case of custodians opting to have graves covered over in their existing position, custodians will be consulted to ensure they have full understanding on the impacts and consequences of not relocating graves. Additional information will be gathered on any necessary customs or cultural ceremonies required prior to inundation or impact, and individuals provided the opportunity and support for a final ceremony. Cash compensation (compassion) will be provided to a custodian at a rate of ZMW 7,000 per grave.

*6.6.4.2 Loss of Access to Graves (Entitlement 7.2)*

In the case of future access to grave sites being impacted, without graves themselves affected, custodians will be consulted to select options for ceremonial allowances or part ceremonial implements / part cash compensation. In addition, WPC will engage the BRE and Ministry of Health to fence off graves and determine access allowances. Additional information will be gathered on any necessary customs or cultural ceremonies required prior to inundation or impact, and individuals provided the opportunity and support for a final ceremony. Cash compensation (compassion) will be provided to a custodian at a rate of ZMW 7,000 per grave. Future access to the grave location will be discussed, ensuring health and safety risks are discussed in areas of inundation or Project infrastructure, and all restrictions and requirements for access agreed prior to Project development.

## 6.7 Compensation for Community Infrastructure

### 6.7.1 Churches (Entitlement 7.4)

One church at Sikuka (see Figure 18 in Section 2.2.3) and one in Linganga (see Figure 24 in Section 29) will be lost due to the formation of the head pond which will increase water levels.

The Project will provide replacement churches including main church hall, raised altar / pulpit, vestry and foyer, according to the specifications provided in Table 25 and Appendix F. Designs and entitlements have been presented to representative religious and community leaders for sign-off and acceptance as part of the Household Agreement signing process.

**Table 25: Church Specifications**

Aspect	Details
Rooms	2
Area	95 m <sup>2</sup>
Main Hall	6.85 x 11.85 m



Aspect	Details
Vestry	3.15 x 2.85 m
Delivery Room	5.5 x 4.9 m
Foyer	2 x 1 m
Footings	Plain in-situ concrete poured against faces of excavation.
Walls	150mm blockwork
Roof	IBR roof sheeting
Ceiling	Particle board ceilings
Floor	Screeds to floors

### 6.7.2 Cultural Sites (Entitlement 7.5)

The process for loss of cultural heritage sites will be as follows:

- Engage a cultural heritage specialist to manage engagement and negotiations for loss of sites;
- Identify key stakeholders and traditional leaders with authority / jurisdiction over impacted cultural heritage sites;
- Engage traditional leaders and communities to agree on the process required for compensation, timeframes, and necessary ceremonies / allowances, ensuring documentation of agreement by all relevant parties;
- Undertake agreed compensation and ceremonies, with signed agreements that necessary rights have been respected upon completion.

### 6.7.3 Health Facility (Entitlement 8.1)

The Project will provide compensation for the loss of communal and public infrastructure in the form of cash compensation or in-kind replacement infrastructure, as agreed with the custodians of the affected infrastructure. Based on the asset inventory, the affected infrastructure will include:

One clinic (the Sikuka Health Post) will be lost due to the formation of the head pond which will increase water levels.

The Project will provide a replacement clinic including a screening / treatment room, a delivery room, an ante / post-natal room, medical storage room, toilet, general waiting area and maternity waiting area, according to the specifications outlined in Table 26 and Appendix F. The final design includes a separation between the general and maternity waiting areas and dwarf walls around each to ensure privacy of patients, as requested by PAHs during initial consultation.

**Table 26: Clinic Specifications**

Aspect	Details
Rooms	7
Area	115 m <sup>2</sup>
Screening / Treatment Room	5.5 x 4.9 m
Ante / Post Natal room	5.5 x 3.5 m
Delivery Room	5.5 x 4.9 m

Aspect	Details
Maternity Waiting Area	3 x 8.4 m
General Waiting Area	3 x 4.9 m
Footings	Plain in-situ concrete poured against faces of excavation.
Walls	150mm blockwork
Roof	IBR roof sheeting
Ceiling	Particle board ceilings
Floor	Screeds to floors
Power Supply	Solar power and lighting system
Water Supply	100 lt geyser and 2000 lt water tank

#### **6.7.4 Water Supply Infrastructure (Entitlement 8.2)**

Five water supplies will be lost including two tank stands established by the Lilato and Lwitisi Cooperatives and a community handpump with borehole at Kandiana Village. Other losses include two handpumps with boreholes, and one tank stand for Mubaylo Community Club at Sikuka Village.

Replacement water supply infrastructure will be developed in residential resettlement areas. The exact locations and specifics of these will be fully defined following consultation around resettlement options and identification of suitable host sites (described in Section 6.5) to determine the needs and requirements for replacement infrastructure. The Project is also in the process of investigating options to improve water and sanitation supply (described in Section 8.3) as part of livelihood restoration supply and wider community development support.

#### **6.7.5 Loss of Grazing Land (Entitlement 9.1)**

Given that grazing is largely undertaken freely on communal land, individual compensation or replacement assets will not be provided at the household level. PAHs indicated a preference for sourcing their own grazing land: WPC will monitor use of grazing areas and engage PAHs to assess viability of new grazing areas and implement management strategies to ensure land is not over-grazed and areas are well-managed. In addition, the Project will engage with the local traditional authorities to establish livelihoods programmes (see Section 8) to offset the loss of grazing land and allow for the development of livestock rearing in displacement-affected communities.

#### **6.7.6 Loss of Communal Reed Beds (Entitlement 9.2)**

Given that the harvesting of natural resources is largely undertaken freely on communal land, individual compensation or replacement assets will not be provided at the household level. Rather, the Project will engage with the local traditional authorities to establish livelihoods programmes (see Section 8.5) to offset the loss and allow for the establishment of alternative resources..

## 6.8 Additional Support Measures for Vulnerable People

Additional support will be provided to vulnerable PAHs as identified in Section 0 to ensure individual needs are met, and PAHs are able to adjust and adapt to changes associated with resettlement without facing increased stresses. The nature and amount of additional assistance provided will be determined on a case-by-case basis by the Project in collaboration with community representatives, and will be defined in individual compensation agreements. Additional support may include:

- Additional ongoing, one-on-one engagement as necessary to ensure PAHs are fully cognisant of resettlement impacts, process, options, and requirements of the PAH;
- Support to attend community engagements for elderly or disabled PAHs, through provision of transport etc;
- Support with verbal explanations of compensation agreements or negotiations for illiterate PAHs;
- In-kind transitional support for physically displaced vulnerable households (including those with mental or physical disabilities), including assistance with packing, or moving assets, provision of a truck to relocate assets in place of monetary compensation, and support with the re-establishment of assets at the replacement housing;
- Guidance on selection of entitlements, to ensure vulnerable households are supported with locating and securing appropriate replacement land (as per Option 2 of Entitlement 3.1) with no additional effort required from PAHs, and that vulnerable physically displaced households select options for replacement housing rather than cash compensation;
- In-kind support with land preparation activities, including clearing and preparing new fields as necessary where physical disabilities or other vulnerability factors impede or limit this;
- On-going engagement with women and vulnerable households to provide explanations of livelihood restoration activities specifically targeted towards them, and ensure participation. This may include support with travelling to off-site activities, guidance on how to incorporate new initiatives into current daily activities, support with securing child-care if necessary etc.

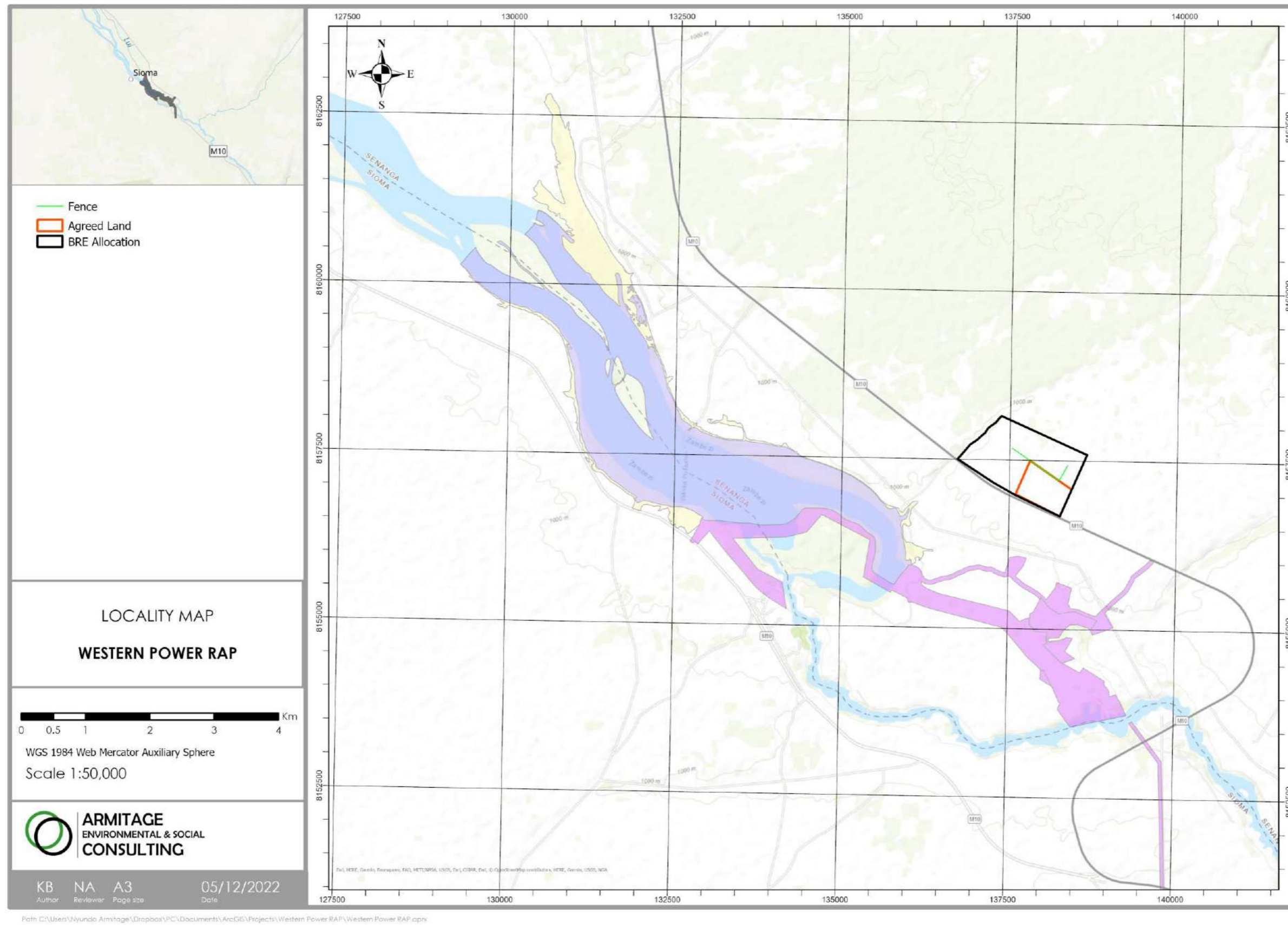


Figure 44: East Bank Host Site Location Overview



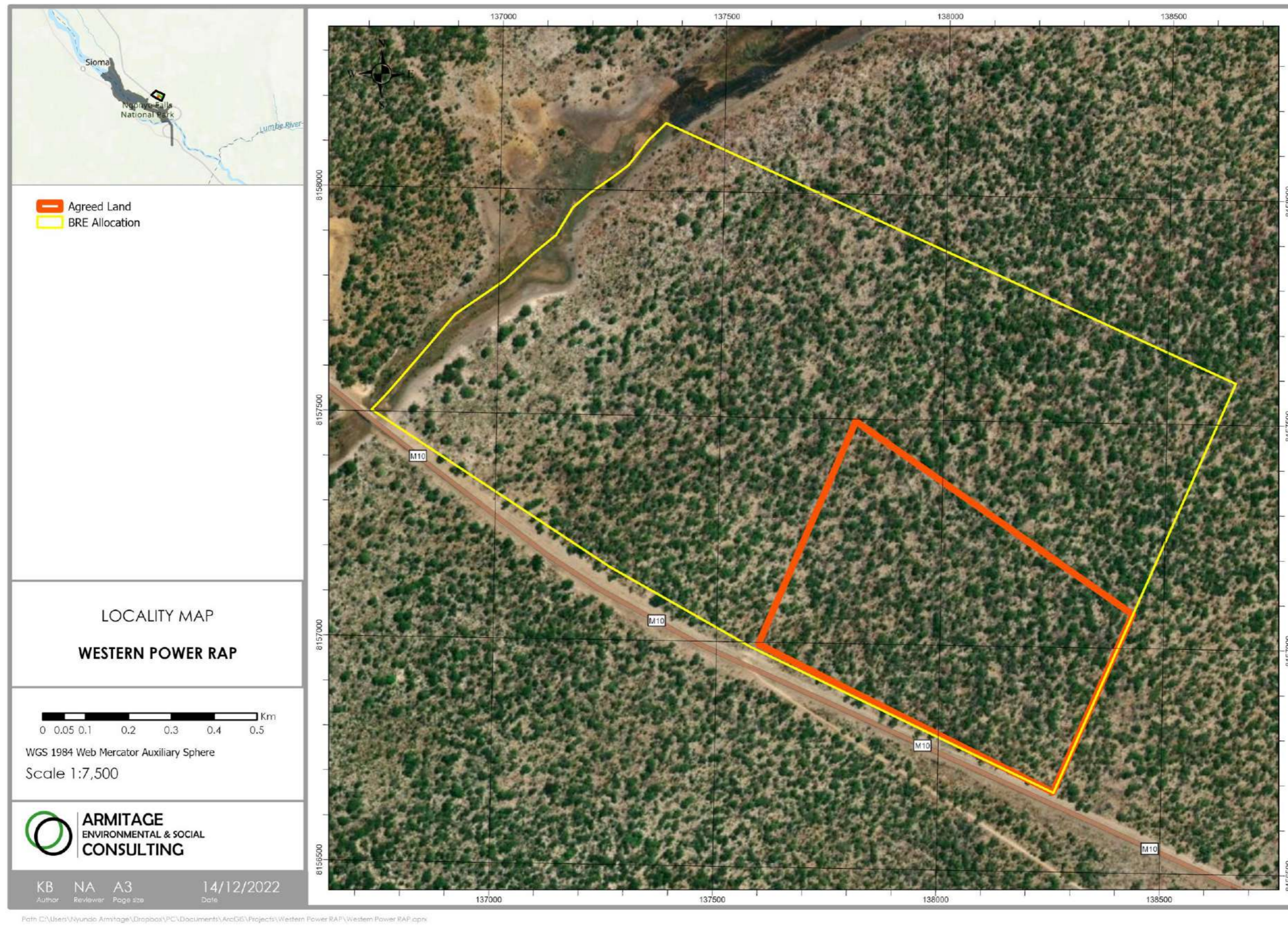


Figure 45: East Bank Host Site: Detail



## 7 TRANSITIONAL ARRANGEMENTS

Transitional support will be provided to PAHs to support them in restoring their income-generating capacity, production levels, and standard of living.

### 7.1 Allowances and Other Relocation Support

In addition to the cash compensation and in-kind replacement assets, the Project will provide a disruption allowance (in the form of cash payments) as required under national law, or other forms of relocation support, as follows:

#### 7.1.1 *Disruption Allowance*

A disruption allowance will be provided to each PAH consistent with national law. The allowance will account for 20% of the compensation value of all lost assets (including land, crops, trees and structures), to be distributed equally between PAHs. Physically and economically displaced PAHs will receive a disturbance allowance of ZMW 10,000 per PAH. PAHs losing landholdings only will receive a disturbance allowance of ZMW 5,000 per PAH.

#### 7.1.2 *Transport Assistance or Moving Allowances*

A moving allowance or transport assistance of ZMW 2,500 will be provided by the Project, however this will be limited to PAPs that are being physically displaced. The allowance or transport assistance will allow PAPs to salvage all moveable materials from their homes and move it to their new homes. Where vulnerable PAHs are unable to manage transport arrangements, the Project will provide one two-tonne truck load from the nearest accessible site of the existing household to the resettlement site.

#### 7.1.3 *Transitional Allowance*

A transitional allowance will be provided to PAHs who are being economically displaced by loss of access to fields (actively cultivated dryland farms and floodplain gardens). The transitional allowance will provide income for households to cover the period until new fields are established and able to provide food supply and income, and/or livelihood restoration activities have been established and are able to support households. The transitional allowance has been calculated based on the value of crops planted and surveyed as part of the assets survey, with an average value per household generated. These crops form the basis of household food supply and income potential, with values based on current market rates, meaning households should be able to source alternatives for similar values. An inflation rate of 10.85% has been included, based on the average inflation rate between 2005 and 2022 (TradingEconomics, 2023), and a transport allowance of ZMW 3,500 per household to enable households to travel to purchase goods not available in local communities. Based on these calculations and inclusions, each eligible PAH will be provided with a transitional allowance of up to ZMW 12,000, to be distributed in monthly

instalments post-displacement, to a maximum of one year, or until point where monitoring data indicates that PAHs have re-established lost assets or livelihood restoration activities provide alternative support.

#### **7.1.4 Land Preparation Allowance**

A land preparation allowance will be provided to PAPs that are economically displaced with respect to losing upland farmland or flood gardens, in order for them to prepare any replacement land. The allowance has been determined based on inputs from the Ministry of Agriculture and Livestock and the registered valuer to the value of ZMW 1,130 per hectare, covering land preparation and labour costs.

#### **7.1.5 Business Transition Allowance**

Where small businesses will be displaced, the Project will provide a business transition allowance to provide income support to PAHs during the period of re-establishment of new business premises. The allowance has been calculated as ZMW 500 per month and will cover a period of 6 months, with the total allowance calculated at a total of ZMW 3,000 per PAH.

#### **7.1.6 Rental (Land or Housing) Allowance**

Where land or housing tenants were verified as part of the asset inventory, the Project will provide a rental allowance to allow for tenants to transition to a new plot or home. The allowance has been calculated as ZMW 500 per month and cover a period of 6 months – with the total rental allowance calculated at a total of ZMW 3,000 per tenant.

### **7.2 Residential and Agricultural Security of Tenure Arrangements**

The Project will ensure that any host residential or agricultural site, identified either by an individual PAH or as part of wider host site planning, is surveyed in line with national survey requirements, and security of tenure achieved prior to PAHs occupation, taking into consideration customary ownership practices and traditional requirements. Written confirmation of ownership will be provided to the PAH, with any costs required for the acquisition and achieving security of tenure covered by the Project.

### **7.3 Agricultural Transition Arrangements**

Where possible, resettlement planning will take into consideration harvesting periods, with maize and sorghum harvested between March and June, and floodplain garden vegetables typically cultivated between November and January (Section 2.2.5.2). Planning for stakeholder engagement activities and relocation from existing households or land to host sites will ensure individuals have sufficient time and capacity to undertake harvests and other agricultural activities.

In line with national legislation, where fields are impacted, every effort will be made to allow households to harvest crops prior to the initiation of Project construction activities, taking into consideration community health and safety considerations and Project timeframes.

## 8 LIVELIHOOD RESTORATION AND IMPROVEMENT

The Project will support the restoration and improvement of livelihoods of physically and economically displaced households (the scope of the program will include host communities). The restoration measures are deemed mandatory and will form a key provision in this Resettlement Action Plan, while further development benefits will also be supported via the separate Community Development Plan.

Planning for livelihood restoration and improvement activities has been guided by the key needs of PAHs, as well as research into existing organisations and development programmes in the region, with a proven track record of success in implementation. Table 27 provides a summary of programmes to be developed and the eligibility of PAHs according to their category. Many contain specific programmes or provisions to enable direct support for women and vulnerable groups. The majority can be further developed to form part of a wider community development initiatives.

**Table 27: Summary of Livelihood Restoration and Improvement Programme Eligibility**

Programme	Target PAH Category					Potential to Expand for Community Development
	Physically Displaced	Economically Displaced	Maungwe / Limbelo	Host Community	Women / Vulnerable Groups	
Agricultural Development	●	●	●	●	●	●
Livestock Development	●	●	●	●	●	●
Water and Sanitation	●					●
Fisheries Support			●			●
Reed Beds Support	●	●			●	
Agricultural Credit / Input Support	●	●	●	●	●	●

### 8.1 Agricultural Development Programme

The Project will support the development and improvement of agriculture for all PAHs, both physically and economically displaced, inclusive of PAHs impacted by loss of traditional fishing sites. Potential host communities will also be eligible for agricultural development programme projects. WPC will investigate previous development projects undertaken by NGOs and/or others in similar environments, and continue engagement with NGOs such as WWF who have existing presence in Western Province (described in Section 4.8.1) to support agricultural development and further refine livelihood restoration activities.

Key agricultural development programmes will include:

- **Agricultural Starter Packs:** eligible PAHs will be provided with once-off agricultural starter packs to support the establishment of new farm areas, including a variety of seed packs, fertilizer, and tools such as a hoe, pick, sickle lasher, axe etc. Items for inclusion in starter packs will be discussed with PAHs to ensure suitability and appropriateness of support prior to implementation.
- **Conservation Agriculture:** promoting the growth of maize, sorghum, millet, groundnuts, and cowpeas using non tillage techniques (e.g. cultivation technique in which the soil is disturbed only along the slit or in the hole into which the seeds are planted normally with animal manure – this technique has been successful in other parts of Western Province). These crops are all familiar to PAHs, with knowledge of both growth and usage. A seed growers association will be developed with representation from PAHs (both male and female). The association will be provided training on how to multiply seeds, which will then be shared amongst PAHs.
- **Irrigation:** the development of communal garden areas supported by a solar water reticulation system has been described in Section 6.2.2. The option for communal garden areas or ‘cluster farms’ will be provided as a livelihood restoration programme to all PAHs, with a communal agreement defined between users, and drip-feed irrigation provided to individual portions within the farm. Additional research will be undertaken on the specifications of communal irrigation systems, to ensure the long-term sustainability of systems.
- **Elephant-Proof Fencing:** wildlife damage to crops has been noted as a key challenge by many during crop cultivation. Elephant proof fencing will be developed around cluster farms, or communally agreed areas to provide protection to crops. Fencing will comprise poles spaced 10m apart, with 1.5m high poly wire, linked to a solar power supply to act as a deterrent. Consideration will be given to the practicalities of the development of chilli bomber teams (who are trained and kitted with chilli cannons, etc), elephant proofing granaries and food storage, and exploration of alternative crops/agriculture that are not a food source for wild animals.
- **Devils Claw<sup>10</sup> Production:** in addition to supporting cultivation of existing crops, the Project will support the production of an alternative variety: Devils Claw. This is a naturally growing plant with an ability to thrive in poor soil conditions. The tuber is medicinal and is known to cure several ailments including Hypertension and Diabetes. It was heavily harvested in the past for sale to foreign nationals, with natural stocks now depleted. Pharmaceutical companies from Germany also buy this product. WWF has conducted research on the growth habit, and it has now been proven that it can be grown (it takes 3 years for the tuber to be harvested). Under the Devils Claw processing project the tubers of this plant are cut into chips, dried, and sometimes powdered. (the Namibian market prefers dried chips, the Zambian Market prefers the powder which is packaged into 250g bottles). This programme will be specifically targeted at women: in association with potential NGO partners, the Project will facilitate the development of women-only cooperatives, provide the necessary training and inputs for cultivation. Planting will be ongoing to ensure continuous harvesting. During the initial growth period prior to harvest, women will be provided with training on the production process, and will be involved in the establishment of necessary production facilities. Information on available markets will be provided, and skills training delivered to improve marketing and resale of the product.

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<sup>10</sup> Devil's claw (*Harpagophytum procumbens*) is a plant native to the Kalahari desert in southern Africa. The plant grows in the savannahs of Namibia, South Africa, and Botswana and is named for the appearance of its fruit. The roots of the devil's claw plant have been used for centuries by the Khoisan people of southern Africa to treat pain, arthritis, indigestion, and skin conditions.



- **Community Nursery:** development of a community tree and vegetable nursery to supply a wider range of improved planting stock to the proposed irrigated farm blocks.
- **Agroforestry:** support for planting of acacia fadherbia to support re-forestation of the local areas and raise the organic matter in the soil. Acacia fadherbia planted at a spacing of 10x10m can fix up to 300kg of nitrogen in the soil per hectare when the trees are fully grown (7 years) providing benefits for crop cultivation and reducing dependency on agricultural inputs. An educational awareness campaign will be delivered to PAHs on the benefits of agroforestry, and an incentive scheme developed: PAHs will be paid ZMW 5 / sapling propagated that is a minimum of 30cm in height, with a further annual payment of ZMW 5 / tree that is actively growing over a period of 5 years.
- **Household Grain Stores:** support for provision of household grain stores (secure from elephants), as PAHs indicated that loss of crops to postharvest pests and crop rot results in nearly half of the harvested crops being lost before it is consumed or marketed.
- **Central Grain Storage Depots:** establishment of central grain storage warehouses on both banks (to be managed by cooperatives).
- **Community Hammer Mills:** development of hammer mills in each of the five senior indunda chiefdoms (Senior Indunas Sanyambe and Imunoko and Ndaleti Simbuni on the west bank, and Senior Indunas Mukwala and Linganga on the east bank).
- **Value addition and improved market linkages.** WPC will work with PAHs and the wider community to identify opportunities to develop stronger market linkages between small scale farmers and commercial enterprises through the formation of cooperatives and supply agreements. Agricultural product value addition (e.g. peanut butter processing, etc) will further be identified and if opportunities exist, investment into such facilities in partnership with other commercial or NGO entities will be undertaken. Lessons from the Strengthening Climate Resilience of Agricultural Livelihoods in Agro-Ecological Regions I and II in Zambia (SCRALA)<sup>11</sup> project being implemented in the district will be closely followed and partnerships with implementing agencies sought.
- **Bee Keeping and honey production.** WPC will work with the District Department of Agriculture to distribute bee hives and train PAHs on bee keeping and honey production.

## 8.2 Livestock Development Programme

The Project will support a livestock development programme, available to all physically and economically displaced households, inclusive of PAHs impacted by loss of traditional fishing sites, and potential host communities. WPC will further engage the Ministry of Agricultural and Livestock to determine existing programmes, such as the Enhanced Smallholder Livestock Investment Programme (ESLIP) to identify current activities and targets, draw on lessons learnt from previous development support, and identify potential areas of collaboration.

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<sup>11</sup> The SCRALA programme is funded by the United Nations Development Programme (UNDP) and being implemented by the Ministry of Agriculture. The programme has the following outputs:

Output 1: Smallholder farmers are able to plan for and manage water resources to support resilient agricultural production

Output 2: Resilient agricultural livelihoods in the face of changing rainfall, increasing drought and occasional floods

Output 3: Increasing farmers' access to markets and commercialization of resilient agricultural products

### **8.2.1 Chicken Rearing**

PAHs will be provided with the option for support with chicken rearing. This has a significantly lower land requirement than cattle, avoiding risks such as over grazing and depletion of natural resources. Chickens have a relatively short growth cycle, providing frequent household income as needed, and additional protein supply to support household nutrition levels. Support for chicken rearing will be provided in association with WWF, who have established similar programs within the region with success.

The programme will operate on a communal level, with community members invited to form small groups for operation. Groups will include both men and women, with the provision for women-only groups. Each group will be provided with Black Australorp (or other suitable breed) chickens and supported with development of a chicken coup. Groups will also be provided with an incubator to help with egg incubation. The aim will be to multiply numbers and share between individuals.

### **8.2.2 Goat Pass on / Rearing**

WPC will work with the District Agricultural Departments and commercial goat farmers (e.g. Barotse Cropping and Ranching who are in process of developing a Goat rearing program using a specially adapted goat breed (Zambezi Red) for the District), to support the goat pass on programme. This programme will be facilitated by WPC using existing governmental and commercial farming resources to provide training and goats (1 male and 4 females) to selected farmers. The Goat pass on programme would require a farmer to pass on goats to new goat farmers once their herd doubles in size.

### **8.2.3 Cattle Improvements**

The Project will support the development of communal resources, in association with the Department of Agriculture, to improve cattle breeding and growth. Key aspects of the programme will include:

- Support for veterinary services, establishing monthly visits from Sioma and Senanga District veterinary service providers that are accessible to PAHs;
- Installation of dip tanks in each of the five senior Indunda chiefdoms (Senior Indunas Sanyambe and Imunoko and Ndaleti Simbuni on the west bank, and Senior Indunas Mukwala and Linganga on the east bank);
- Provision of skills training in breeding, care, and veterinary requirements for cattle (with the option for provision at the agricultural centre described in Section 8.6);

WPC will engage the Department of Livestock to assess current breed improvement strategies and approaches, and determine the viability of artificial insemination as an option for livestock improvement.

Additional research and monitoring will be undertaken within communities to determine cattle numbers and movement, and to monitor changes in available grazing land and potential impacts to cattle and herders, .

### 8.3 Water and Sanitation Support

WPC are committed to improving water and sanitation systems for PAHs. NGOs such as WaterAid (described in Section 4.8.2), have been successful in implementing improved water and sanitation systems providing health benefits as well as improving gender equality in rural communities. WPC will engage NGOs and/or other partners throughout the resettlement planning phase to investigate options for providing improved water supply and sanitation systems to PAHs and the wider community.

As noted in the baseline, around two thirds of households currently depend on the Zambezi for potable water supply, with others using borehole / handpump systems. Both require considerable time and effort, largely for women, to collect water. Pit latrines are the most common form of sanitation across communities, although some households indicated practicing open defecation. Water quality tests indicated the presence of faecal matter in many samples of water used for drinking, highlighting the current risks of existing water and sanitation sources.

The Project will investigate options to provide physically displaced households with a reticulated water system connected to large-scale boreholes wherever possible as part of replacement housing options described in Section 6.3. This would provide an improved supply of potable water to households, having the following benefits:

- Improved water quality for household use, resulting in fewer health risks;
- Reduction in time and effort required by women to collect water from alternative sources;
- Reduction in safety risks for women caused by hippos / crocodiles when collecting water from the Zambezi;
- Increased time available for women to undertake alternative livelihood activities.

The Project will investigate the option of providing sanitation systems with connections to septic tanks to physically displaced PAHs, reducing the risks of water contamination and the presence of faecal matter in potable water. Boreholes would be cased to protect them from the shallow aquifer which is the exposure route for faecal matter from pit latrines. By drilling boreholes to 80m and casing between 20 and 30m depth, this would provide a long term solution compared to water treatment. The Project will investigate options to support the development of a local service industry to service and maintain septic tanks, in coordination with Sioma and Senanga District Councils, developing a handover plan for implementation prior to the Project completion audit (described in Section 13.3). PAHs will also receive information on safe water and sanitation practices.

## 8.4 Fisheries Support

The Zambezi River is a dynamic natural environment and the establishment of the head pond and associated increases in water-levels will have different impacts on Maungwe and Lembelo fishing grounds. A number of sites may become non-functional, while other sites may benefit from extended fishing periods. According to the ESIA, development of the head pond may initially result in a decline in fish stocks, followed by an increase in the availability of lacustrine fish species and a decline in species that prefer lotic conditions. The potential for ongoing fishing activities will therefore only be fully determined post-construction, and will require careful monitoring and assessment of fish stocks.

Existing fishing practices represent a long cultural tradition, and provide a valuable source of protein and income supply that will be lost. However, the Fisheries Department has needed to intervene on many occasions to try and manage available fish stocks and enforce compliance with national fishing regulations, including respecting fishing bans during the breeding season.

Support for fisheries will therefore revolve around the management of fish stocks in new waters without replacing or developing new fisheries sites. PAHs impacted by loss of Maungwe or Limbello fishing sites will be supported with alternative livelihood programmes (see Section 8). Support for fisheries will include:

- Engaging and supporting the Fisheries Department in the management and monitoring of fish stocks, including supporting key messaging amongst local communities around fishing ban periods and catch requirements;
- Monitoring fish stocks within the head pond on an ongoing basis to determine the potential and capacity for fishing activities;
- Should fish stocks be viable, engaging PAHs on appropriate sustainable fishing methods, (as defined by the Department of Fisheries), with support for provision of basic fishing equipment to PAPs who have been recorded as active fishers in the fishing surveys.

## 8.5 Reed Beds Support

Local households utilise riverside reed-beds for thatching, construction, and artisanal goods (basket weaving and reed mats). The reedbeds are natural resources that will be impacted during the inundation and formation of the head pond, impacting the availability of these freely-accessed resources. The Project biodiversity assessment (Ecotone, 2018) indicates that riparian reed-beds are likely to benefit from the formation of the head pond, with the change in depth and flow supporting the growth of reedbeds, particularly on the left bank of the left channel (DH\_Engineering\_Consultants, 2020). The nature of the changes will however only be confirmed once the head pond has been established and is fully stabilised. There may be a temporary period of decline in resources availability during the first few years of operations.

Should the losses be found to be substantive during ongoing monitoring, the Project will establish a replanting programme. Local women from affected communities will be engaged to develop a

collective to assist with re-establishment of the reed beds, to ensure correct variety, planting, and soil conditions for long-term growth.

Women will be remunerated in line with the group agreements for collection and replanting of reed beds. Clear messaging around this process will be shared with local communities, to ensure that new reed beds remain as a free, communal resource, without ownership by those involved in the re-planting scheme.

The Project will engage community leaders to identify nearby communities and areas with availability of reed resources during the period prior to establishment of new resources to supplement reed stocks. Consultation will be undertaken with these communities to negotiate the collection / usage of natural resources in the interim as necessary.

## **8.6 Agricultural Credit and Input Support and Enterprise Development**

The Project will support PAHs by providing access to the following:

- Financial institutions or facilities linked to the Zambia Smallholder Credit Scheme;
- Information and skills training on accessing credit and finance, including principles for establishing revolving credit funds;
- Provision of training to PAHs on small business and enterprise development, including financial management, business and marketing skills, and methods of accessing existing platforms and support for SMEs to improve access to markets for agricultural produce;
- Support for the establishment of cooperatives or smallholder business organisations;
- NGOs and other bodies supporting access to markets, including opportunities for value addition e.g. food processing and packaging to diversify products and improve market sales;
- Information on crop cultivation and skills training workshops as available or required;
- Suppliers of inputs such as fertilizer, chemicals, tools, and equipment used in everyday farming; and
- Training facilities and demonstration plots.

This support will be deployed through either, central support offices (one on each bank), or through existing structures as developed by the Department of Agriculture and/or local farm cooperatives. WPC will further investigate the viability of supporting alternative skills development for enterprise development, based on ongoing interactions with and needs of PAHs, as well as the availability of supporting implementing partners.

## **8.7 Linkages to Community Development**

Livelihood restoration and improvement programmes will be linked to wider community development planning taking into consideration not just affected PAHs, but affected communities,



extending further afield to areas within the affected chiefdoms. Community development planning may extend to include:

- Wider provision of water and sanitation systems targeting whole communities rather than individual PAHs;
- Extension of agroforestry initiatives to the wider community. On a wider scale that includes farmers from outside the affected area, funding can be obtained from various carbon credit and re-forestation funds, standardizing the area in terms of agricultural methodology.
- Extension of community services such as the nursery, food processing (e.g. Devils Claw, Mungongo Oil, Peanut butter etc), chicken rearing, bee keeping, and hammer mills to the broader community based on the success and uptake of programmes;
- Extension of veterinary services and livestock support to the wider community.

## **8.8 Ongoing Consultation and Collaboration**

The Project will promote ongoing consultation and participation of all PAPs to further develop and finalise the livelihood restoration programmes, in conjunction with the local authorities and livelihood restoration specialists.

The consultation will be primarily driven through the Resettlement Advisory Committee (see Section 13.6) and the Community Resettlement Committees (see Section 13.7) which will include representatives of the PAHs, local authorities as well as representatives of the key ministries – including the Ministry of Agriculture and the Ministry of Fisheries – with existing development programmes.

In refining the programmes, the Project will also ensure close engagement and participation of each PAP or beneficiary in each programme. This is to ensure that each beneficiary is well aware and supportive of the livelihood restoration programmes. The consultation will be in the form of focus group meetings, training, and capacity building sessions as well as the establishment of various pilot programmes.

## 9 SOCIAL AND ENVIRONMENTAL IMPACTS OF THE RESETTLEMENT PROGRAM

The resettlement program may result in impacts on PAHs, host communities and the environment. Table 28 provides an initial overview of potential impacts, key aspects to consider and possible mitigation options. These can be further refined upon selection of host sites and replacement land options. WPC has an established management system developed as part of the ESIA, providing health, safety, security, environmental and social procedures and management and monitoring policies throughout all phases of the Project.

**Table 28: Potential Impacts of the Resettlement Program**

Potential Impact	Aspects to Consider	Mitigation Options
<p><b>New Housing Construction</b> Impact of residential housing development in Sikuka assuming a host site with 40 PAHs on residential plots of 30x30m plots, and replacement of church and clinic covering 95m<sup>2</sup> and 115m<sup>2</sup> respectively, and replacement of football field.</p>	<ul style="list-style-type: none"> <li>• Biodiversity loss due to habitat conversion at host site</li> <li>• Loss of agricultural land at host site</li> <li>• Reduction in availability of agricultural land at community level</li> <li>• Impacts relating to additional borehole development (depletion of water resources)</li> <li>• Impacts relating to additional development of sanitation facilities.</li> <li>• Community health and safety impacts related to construction of housing and infrastructure and increased traffic and heavy goods vehicles</li> <li>• Proximity to social services and natural resources (e.g. Zambezi River)</li> <li>• Lack of representation of women in the workforce used to construct replacement housing.</li> </ul>	<ul style="list-style-type: none"> <li>• Engagement with BRE, Indunas, RAC / CRC, and PAHs regarding host sites</li> <li>• Selection of host sites in line with host site criteria and international guidelines</li> <li>• Development and implementation of Environmental, OHS and CHS plans during construction of resettlement infrastructure.</li> <li>• Undertake pre-construction site assessments and implement HSSSES procedures.</li> <li>• Ensure that construction employment include opportunities for women</li> </ul>
<p><b>Replacement Agricultural Land</b> Impact of sourcing replacement dryland</p>	<ul style="list-style-type: none"> <li>• Reduction in availability of agricultural land for both PAHs and host communities as</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing engagement at BRE, Induna and community</li> </ul>

Potential Impact	Aspects to Consider	Mitigation Options
and floodplain garden land, of PAHs entering negotiations at individual housing level	<p>available land is distributed between households</p> <ul style="list-style-type: none"> <li>● Reduction in available 'landholdings' as land portions are sold, resulting in increased pressure on available land portions for cultivation, potential decline in land fertility, and increased need for agricultural inputs</li> <li>● Biodiversity losses due to land clearance and conversion of habitats</li> <li>● Environmental risks due to improper use of pesticides and fertilizers</li> <li>● Impact on known/unknown cultural heritage due to land clearance</li> </ul>	<p>level regarding land availability</p> <ul style="list-style-type: none"> <li>● Implementation of host site criteria during site selection process to avoid areas of biodiversity interest and existing farmland.</li> <li>● Support during the negotiation and implementation process for PAHs to ensure suitable replacement land identified.</li> <li>● Support with agricultural development program to improve existing practices.</li> <li>● Implement best practice environmental protection measures</li> </ul>
<p><b>Impacts of Resettled Community on Host Services</b></p> <p>Potential impact on available health, education, water and sanitation services in host community</p>	<ul style="list-style-type: none"> <li>● Increased pressure on available services, resulting in increased time to access water supply, increased pupil to teacher ratios in schools and pressure on available educational resources, increased ratio of patient to health care provider and pressure on medical resources or equipment</li> <li>● Increased social tension with host community</li> </ul>	<ul style="list-style-type: none"> <li>● PAHs resettled within or nearby existing community to maintain use of existing services and networks</li> <li>● Inclusion of host communities in livelihood restoration and improvement programmes</li> </ul>
<p><b>Impacts of Resettled Community on Host Population</b></p> <p>Potential impact on vulnerable households in host community</p>	<ul style="list-style-type: none"> <li>● Increased social tension with host community.</li> <li>● Increased pressure on community support structures</li> <li>● Decrease in available support or resources upon which vulnerable households depend</li> </ul>	<ul style="list-style-type: none"> <li>● PAHs resettled within or nearby existing community.</li> <li>● Inclusion of host communities in livelihood restoration and improvement programmes</li> </ul>

Potential Impact	Aspects to Consider	Mitigation Options
<p><b>Impacts on Natural Resources</b> Increased dependency on natural resources including firewood, and wild fruit / mushrooms, reeds, timber etc</p>	<ul style="list-style-type: none"> <li>● Increased pressure on available resources due to a decline in resource availability caused by Project activities;</li> <li>● Increased pressure on available resources due to temporary change in livelihood options</li> <li>● Increased deforestation due to temporary lack of alternative livelihood options and need to undertake charcoal production</li> </ul>	<ul style="list-style-type: none"> <li>● Implementation of livelihood restoration activities and transitional allowances in line with RAP with provision for immediate support following displacement</li> </ul>
<p><b>Impact of Livelihood Restoration Program: Livestock Development</b> Changes in land and resource use due to improved livestock breeding</p>	<ul style="list-style-type: none"> <li>● Increased pressure on grazing land due to increased number of cattle, with risks for crop damage</li> <li>● Increased risk of soil erosion due to over-grazing</li> <li>● Risks of negative impacts to existing livestock breeds caused by breed enhancement schemes.</li> <li>● Increased risk of disease transmission due to increases in livestock</li> </ul>	<ul style="list-style-type: none"> <li>● Livestock development program to be implemented in line with recommendations from Ministry of Agricultural and Livestock and local veterinary advice and support.</li> <li>● Ongoing monitoring to be undertaken to assess changes in livestock numbers and potential impacts on grazing land</li> </ul>
<p><b>Impact of Livelihood Restoration Program: Agricultural Development</b> Change in land and resource use due to increased agricultural areas</p>	<ul style="list-style-type: none"> <li>● Increased land clearance and risk of deforestation due to demand for new agricultural areas</li> <li>● Increased risk of soil erosion and contamination from agrochemicals</li> <li>● Increased demand for water supply through irrigation system development</li> </ul>	<ul style="list-style-type: none"> <li>● Agricultural development program to be implemented in line with recommendations from Ministry of Agriculture</li> <li>● Agricultural development to promote conservation farming using non-tillage techniques and sustainable farming methods</li> <li>● Agroforestry program to be implemented to support the re-forestation of surrounding areas</li> </ul>
<p><b>Public Health Risks</b></p>	<ul style="list-style-type: none"> <li>● Increased risk of spread of disease from exposure to new</li> </ul>	<ul style="list-style-type: none"> <li>● PAHs resettled within or nearby existing community.</li> </ul>

Potential Impact	Aspects to Consider	Mitigation Options
Increased risk of spread of disease amongst resettled and host communities	<p>communities from elsewhere, including from an external workforce.</p> <ul style="list-style-type: none"> <li>Risks of greater housing density increasing the potential for spread of disease</li> </ul>	<ul style="list-style-type: none"> <li>Structures designed in accordance with architectural recommendations.</li> <li>Monitoring of key health indicators in association with health facilities</li> <li>Implementation of health training and awareness campaigns amongst the workforce and affected and host communities.</li> <li>Inclusion of host communities in livelihood restoration and improvement programmes and in community development planning</li> </ul>
<p><b>Health and Safety Risks</b></p> <p>Potential risks related to implementation of livelihood restoration activities</p>	<ul style="list-style-type: none"> <li>Risks from use of tools, machinery, and equipment during livelihood restoration activities;</li> <li>Safety risks relating to increased transport and use of vehicles related to activities;</li> <li>Risks of GBV and sexual harassment relating to external trainers and programme implementers</li> <li></li> </ul>	<ul style="list-style-type: none"> <li>All livelihood restoration activities to be designed and implemented in line with Project Community and Occupational Health and Safety Plans and Safeguarding Rules</li> <li>Ongoing monitoring and management for all activities in line with ESMP</li> <li>Implementation of grievance mechanism including GBV specific measures.</li> </ul>
<p><b>Restoration of Fishing Practices</b></p> <p>Potential conflict due to uncertainty of future fishing opportunities and distribution of sites</p>	<ul style="list-style-type: none"> <li>Uncertainty of future fishing opportunities to provide as options for PAHs.</li> <li>Risks of tension or conflict amongst existing displaced fishers in the allocation of potential new sites created by the Project.</li> <li>Risk of tension between displaced fishers and Project should new sites not be</li> </ul>	<ul style="list-style-type: none"> <li>Establish clear messaging around the uncertainty of future sites and process going forwards to assess and allocate</li> <li>Engage local leaders and the fisher community to determine appropriate methods of allocation if required.</li> </ul>



Potential Impact	Aspects to Consider	Mitigation Options
	available or fish stocks not as high	<ul style="list-style-type: none"> <li>Implement livelihood restoration activities (including alternatives) as outlined in the RAP.</li> </ul>
<b>Cash Compensation Payments</b> Risks of misuse of compensation payments	<ul style="list-style-type: none"> <li>Risks of PAHs spending cash compensation payments without investing in replacement land / housing / livelihood as described in the entitlement framework, resulting in long-term negative impacts.</li> <li>Risk of changed social structures and hierarchy as PAHs become 'wealthy' in comparison to non-displaced community members</li> </ul>	<ul style="list-style-type: none"> <li>Provide in-kind compensation wherever possible, in line with the entitlement framework</li> <li>Provide support and guidance during resettlement implementation, ensuring principles to protect women and vulnerable persons are in place</li> <li>Provide community level development to ensure neighbouring communities receive some benefit, especially in the case of host communities.</li> </ul>

## 10 PUBLIC CONSULTATION

The resettlement process requires ongoing engagement and participation between the Project, Affected Persons, and other key stakeholders. The Project has adopted a structured approach to engagement which for the purposes of this chapter are summarised under two main phases – engagement undertaken in the preparation of this RAP, and future engagement during the implementation phase.

### 10.1 Approach to Consultation

The key objectives of the consultation process throughout resettlement planning and implementation are to support the following:

- Inform Affected Persons and key stakeholders about the Project as well as the resettlement process.
- Raise awareness, increase understanding, eliminate misperceptions, and manage expectations.
- Identify and document issues of concern resulting from the development and operation of the proposed project and the resettlement process.
- Allow for joint problem solving and development of locally appropriate measures to support the resettlement process, livelihoods restoration and the development of local communities.
- Enhance transparency and accountability in decision making about the project, and allow for the collaboration in joint decisions on the resettlement process between the Project and Affected Persons.
- Gain public confidence in the project developers, thus enhancing the project's acceptability and "social license".

Meetings and contact with stakeholders have been conducted in a culturally appropriate manner as stipulated in international guidelines. This is particularly relevant when engaging the Barotse Royal Establishment and traditional administrative structure of the Kutas and Indunas. Key steps followed for any engagement activities included:

- Meeting with the Barotse Royal Establishment Ngambela and his Kuta
- Meeting with Queen Litunga La Mboela and her Kuta;
- Meeting with Chief Lukwama and his Kuta; and
- Meeting with Local Indunas.

This process for engagement with traditional authorities will continue throughout the resettlement planning and implementation phases of the Project.

## 10.2 Key Stakeholders

The following categories of key stakeholders have been consulted during the development of this RAP, and will continue to play an important role in any future implementation activities:

- **Traditional Authorities:** As the traditional authority over the Project area and affected communities, the Barotse Royal Establishment (BRE) will be a key stakeholder, with separate direct engagement through the Resettlement Liaison Committee.
- **Affected Communities:** This includes the communities that will experience displacement, through the loss of some households, loss of village land, loss of community facilities and services. These communities will be engaged directly, and through the community leaders that are part of the Resettlement Liaison Committee.
- **Project Affected Persons:** Project affected persons and households have been and will be continued to be engaged through community meetings, and through representation through the Resettlement Advisory Committee and Community Resettlement Committees. The Project also supports engagement on a one-to-one basis for discussion of entitlements and compensation agreements.
- **Host Communities:** Any host communities will be engaged once requirements and location of host resettlement site(s) have been identified. Host community leaders and representatives will be engaged to ensure displaced communities can be accommodated, that the resettlement site is appropriate.
- **Government:** Government authorities are a key stakeholder group, having authority over the Project, and significant ability to influence the project and ensure continued progress and development. The Project has promoted ongoing engagement with national government ministries and agencies, as well as the local government level (including district authorities of the Sioma and Senanga Districts) as well as the local officers of the national ministries.
- **Disadvantaged / Vulnerable Individuals or Groups:** Vulnerable households have been engaged during resettlement planning, to support the development of special measures to ensure their livelihoods and living standards are restored. On-going engagement of these vulnerable households will be undertaken during any future implementation.
- **Non-Governmental Organizations (NGOs):** Advocacy and development NGOs can contribute significantly to resettlement planning, promoting notions of sustainable development and livelihood restoration as well as aligning local development goals and agendas with Project activities. No active NGOs have been identified to date, however, any new organizations will be identified and engaged.
- **Civil Society:** Civil society representatives can have a significant influence on project outcomes and perceptions of the company, often aiming to protect the rights of displaced households, and to identify and voice any issues and concerns.

## 10.3 Resettlement Planning Phase

The resettlement planning phase included three main rounds of engagement to introduce and build consensus for the resettlement process, and enable stakeholders to provide input into this

RAP. Detailed meetings records were maintained as evidence of engagement (supporting documentation, agenda, attendance, minutes, photographs) and are provided in Appendix B. Issues and responses are recorded in an *Issues and Responses* database, and commitments incorporated into the relevant planning components contained within this RAP document.

## 10.4 Previous Consultation

The Project has supported engagement with local communities from as early as 2011, through initial feasibility assessments in 2012, scoping and baseline studies from 2013-2016, initial resettlement planning from 2014-2017, and then revised ESIA studies in 2018-2019. Engagement undertaken in support of the development of this RAP commenced in November 2021. A summary of past engagement is provided in Table 29.

**Table 29: Historic engagement**

Activity	Date	Objective
<b>Workshop with the BRE Liaison Committee</b>	March, 2013	Presentation of the ESIA and RAP Process.
<b>Scoping meeting Sankandi School</b>	May, 2013	Presentation of the Project and ESIA.
<b>Socio-Economic Baseline Survey</b>	August – September, 2013	Information Dissemination and Collection.
<b>Stakeholder Interviews</b>	August – September, 2013	Information Dissemination and Collection
<b>Meeting with DC Sioma</b>	October, 2013	Courtesy, presentation project
<b>Aquatic Specialist Survey</b>	October – November, 2013	Verification of fish strata and fishing practices
<b>Terrestrial Ecologist Survey - Dry Season</b>	November, 2013	Terrestrial Ecology Survey
<b>Terrestrial Ecologist Survey - wet season</b>	March, 2014	Terrestrial Ecology Survey
<b>Verification of Land Plots</b>	March, 2014	Verify inventory land impact
<b>Government Valuation Department</b>	June, 2014	Discussion on valuation process for fixed assets and affected land
<b>Provincial Agricultural Coordinator</b>	June, 2014	Valuation of Affected Crops and Trees
<b>Heritage Impact Assessment</b>	June 2014	Inventory of natural and national heritage, impacts
<b>Fishing Survey</b>	July 2014	Aquatic biodiversity survey
<b>Site surveys by Surveyors</b>	Various Dates	Cadastral Mapping
<b>Health Impact Assessment</b>	September, 2014	Community Health Baseline

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Activity	Date	Objective
Meeting with Indunas	December, 2014	Formation of the Resettlement Liaison Committee (RLC)
Community Meetings (East Bank)	December, 2014	Formation of the RLC
Establishment of the RLC	December, 2014	Members of RLC chosen
Meetings, FGDs at Senanga	December, 2014	Information exchange and collection
Garden Land Inventory	December, 2014	Establish garden land location and ownership
Announcement Cut-Off-Date	December, 2014	Notice of Cut-Off-Date
BRE Liaison Committee Visit	May, 2015	BRE verification of land inventory and ownership
Biodiversity and Eco Systems Survey	October, 2015	Verify natural resources, impact, ecological flow
Asset Inventory Survey (Validation)	March, 2016	Questionnaires with PAPS, baseline, census, impacts
Verification visit access road alignment	March, 2016	Verify alignment and inventory land impact
Meetings with RLC	March, 2016	Feedback on census update, impacts and mitigation
Meeting with Sioma District Stakeholders	March, 2016	Information exchange
Meeting Peace Parks / DNPW Sioma	March, 2016	Information Exchange
Government Valuation Department	June, 2016	Update of valuation fixed assets and affected land
Fishing Inherited Areas Inventory Survey-meetings with local communities	July, 2016	Verification of fishing areas, methods, and ownership
Meeting Resettlement Liaison Committee	July, 2016	Presentation of CPA and construction impacts
WPC Meeting Peace Parks/DNPW Sioma	August, 2016	Information Exchange
Meeting RLC - WPC	August, 2016	Discussion of construction and operational impacts
Meeting with Sioma District Stakeholders	August, 2016	Information exchange



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<b>Activity</b>	<b>Date</b>	<b>Objective</b>
<b>Visual Impact Study</b>	August, 2016	Assess potential impact on visual amenity of the falls and landscape
<b>Verification visit transmission line and access road</b>	October, 2016	Verification alignment and inventory land impact
<b>Announcement of Development Moratorium (West Bank)</b>	October, 2016	Notice of Cut-Off-Date
<b>Fishing Inherited Areas Inventory Survey</b>	October, 2016	Verification and location of owned fishing grounds
<b>Tourism Workshop in Sioma Town</b>	October, 2016	Presentation findings, discussions impacts
<b>Meetings stakeholders Sioma; ZAWA, Potgieter, DC,</b>	October, 2016	Presentation findings, progress
<b>Meeting World Fish Centre</b>	October, 2016	Discussion fishing impacts, mitigations
<b>CLO site visit - meetings</b>	December, 2016	Introduction agricultural officers, general liaison
<b>Sioma District Agricultural Coordination Office Meeting</b>	December, 2016	Update valuation affected crops, trees
<b>CLO FGD with Women's and men's groups</b>	December, 2016	Discussion of gender issues related to land ownership, decision making, RCAP
<b>Meeting ZAWA/KAZA Lusaka</b>	March, 2017	Presentation on the progress of the Project
<b>Fishing Livelihoods Survey</b>	March, 2017	Census, impact verification on fishing, questionnaires
<b>Meetings with Resettlement Liaison Committee</b>	March, 2017	Discuss grievance redress mechanism, suggestion box
<b>Verification of alternatives for resettlement land with BRE, RLC, CLO, community members</b>	March 2017	Verification of land for relocation and land-for-land exchange
<b>ESIA update stakeholder engagement process.</b>	November, 2017	Presentation to local stakeholders on Project changes and the ESIA process.
<b>Updated Socio-Economic Baseline</b>	November, 2017	Additional interviews and households survey of households.

Activity	Date	Objective
<b>Updated Environmental and Social Impact Assessment process</b>	November / December 2018	Updated scoping consultation on Project changes and ESIA process
<b>Updated ESIA feedback</b>	May 2019	Presentation to all stakeholder levels of Draft ESIA

## 10.5 Resettlement Specific Consultation

### 10.5.1 First Round of Consultation

To support the development of this RAP, a major round of consultation was undertaken in November 2021, with further rounds of engagement occurring in January 2022, as presented in Table 30.

**Table 30: RAP First Round Engagement Activities**

Activity	Date
King and his Kuta, BRE	01/11/2021
Acting Provincial Deputy Permanent Secretary	01/11/2021
Queen Litunga Lamboela and two senior Indunas, BRE	02/11/2021
Kuta of the Queen, BRE	02/11/2021
Senior Chief Lukama and two senior Indunas, Sioma	03/11/2021
Kuta of Senior Chief Lukama, Sioma	03/11/2021
District Administrative Office, Sioma	03/11/2021
Council Secretary, Sioma	03/11/2021
Community Liaison Assistants	03/11/2021
Senanga DDCC	04/11/2021
Sioma DDCC	04/11/2021
King and his Kuta, BRE	05/11/2021
CLC	06/11/2021
PLC, Sioma	08/11/2021
PAPs, Induna Simumbi's Area, Sioma	09/11/2021
PAPs, Sioma Village, Sinanga	10/11/2021
PAPs, Kazise, Senanga	10/11/2021
Sioma DC and Agricultural Officers	19/01/2022
Senanga Fishermen, Cattle Ranchers, and Basket Weavers	20/01/2022
Sikuka Farmers	20/01/2022

The first round of engagement focused on the following key messaging:

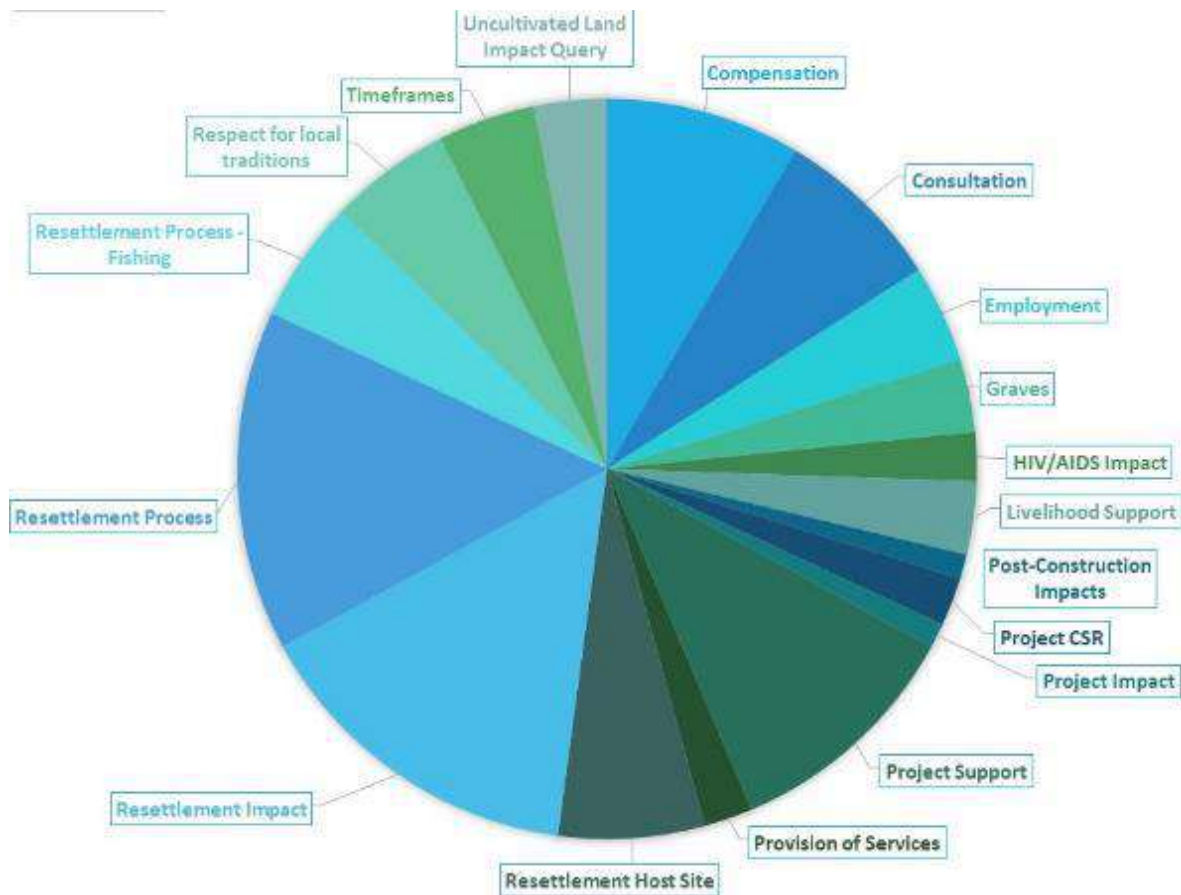
- Informing stakeholders of ZEMA approval of the ESIA.
- Notify stakeholders and Affected Persons of the commencement of the RAP.

- Presentation the latest Project design.
- Presentation of the anticipated project impacts including displacement.
- Explanation and building consensus for the RAP cut-off date.
- Explaining the resettlement planning process and phases of engagement.
- Obtaining consent to proceed with assets and socio-economic surveys.
- Obtaining the secondment of government officers to witness the assets surveys.
- Disclosure of the grievance mechanism.
- Collection of comments, concerns, and issues from stakeholders.

Minutes, attendance registers and photo records for each of the meetings have been compiled for each of the meetings held, and records are presented in Annexure B. A Comments and Response Report (CRR) has been compiled, and a summary of the key issues and questions are listed below (and presented in Figure 46):

- **Resettlement Process** – how fields and structures will be surveyed and assessed, how the cut off zone will work, how land without development is incorporated into the process.
- **Resettlement Impacts** – who will be displaced and included in resettlement planning, how any increased flooding post-construction will be addressed, and how loss of access to reeds, grasses, and stones, used in various livelihood practices will be assessed.
- **Project Support** – support for the project, for development, and for WPC and the survey team.
- **Compensation** – what will be compensated and how this will be paid, the levels of compensation and need to avoid raising expectations and ensure compensation is paid equally for assets, and the need for awareness creation on the benefits of compensation in kind rather than in cash.
- **Consultation** – the need to inform affected persons and leaders about project information, to encourage community participation, and ensure all relevant stakeholders are included;
- **Resettlement host site** – queries over where the resettlement host site will be, whether traditional authorities have approved the land, the need to avoid the elephant corridor, and the need to ensure services at the host site;
- **Resettlement process: fishing** – concerns over the loss of fishing sites and whether these will be included in resettlement planning.
- **Respect for local traditions:** the need to follow cultural traditions and practices during engagement, and to take traditional practices into consideration during planning;
- **Timeframes:** queries over the timeframes of surveys, compensation payments and the overall resettlement process.
- **Uncultivated land impact query:** concerns about whether fields which have not been cultivated in the last season will be included for compensation.

- **Employment** – the need for local employment on the project; and
- **Livelihood support** – the need for alternative livelihood development support following the loss of income and livelihoods from the river.



**Figure 46: Categories and Frequency of Comments from CRR**

Comments received during the first round of consultation highlighted the initial uncertainty with the commencement of the resettlement process in terms of who will be displaced, the eligibility criteria for compensation, and how and when the overall process will proceed.

The socio-economic baseline and assets survey provide the information base for developing the planning components of the RAP. These planning components (eligibility criteria, entitlement framework, livelihood restoration plan, valuation study, host sites) were disclosed in the subsequent second round of engagement, and addressed the questions and concerns raised above.

### 10.5.2 Second Round of Consultation

A second round of stakeholder engagement was undertaken to enable authorities, affected communities and Affected Persons the opportunity to provide meaningful input into the technical planning components of this RAP. During this second phase, the mandate of the Resettlement Advisory Committee, eligibility criteria, entitlement framework, valuation study results, housing designs, livelihood restoration plan, and relocation site land acquisition process were disclosed, and inputs received from the project stakeholders.

In support of this round of engagement, the Project prepared a detailed information pack. This pack included simplified and non-technical versions of the RAP technical planning components in both English and Lozi (see Appendix A) – including pictures, photographs, and maps to help facilitate understanding of the technical content.

A team were sent in advance of the engagements to undertake courtesy calls with stakeholders, distribute invitations, establish the Resettlement Advisory Committee (described in Section 10.8), and arrange logistics and venues. The team engaged the Barotse Royal Establishment to appoint representatives to the Resettlement Advisory Committee and provided copies of the information pack to the Kuta (traditional councils). The King had previously requested that any documentation be provided well in advance to enable the Barotse Royal Establishment to review and adequately prepare prior to engagement meetings. The team facilitated community-level elections of project-affected men, women, and vulnerable representatives to the Resettlement Advisory Committee. The team met with relevant government officials to invite them to be members of the Resettlement Advisory Committee.

The second round of engagement was undertaken over a two-week period from 14th June 2022 to 24th June 2022. The engagement commenced with 3-days of meetings with the Barotse Royal Establishment, followed by a 2-day workshop of the Resettlement Advisory Committee, and then proceeded with a 6-day series of project-affected community level meetings. The engagement program was conducted in this order in alignment with traditional protocols, which require that any communications begin with Kuta’s (traditional councils) of the Barotse Royal Establishment, before proceeding to the indunas and communities. If necessary, the Kuta would seek an audience with the King or Queen. In this second phase of engagement, a brief meeting was required with Her Majesty the Queen.

**Table 31: Phase 2 Engagement Meeting Summary**

Date	Stakeholder	Attend (n)
13 June 22	Barotse Royal Establishment – Ngambela’s Kuta	18
14 June 22	Barotse Royal Establishment – Litunga la Mboela’s Kuta	15
15 June 22	Kaunga Mashu Kuta	19
16-17 June 22	Resettlement Advisory Committee	52
18 June 22	Project Affected Community - Sikuka	77
20 June 22	Project Affected Community - Kandiana	78



Date	Stakeholder	Attend (n)
21 June 22	Project Affected Community - Linganga, Thebe, Lishotokelo, Imamongo	68
22 June 22	Project Affected Community - Kasize	41
23 June 22	Project Affected Community - Sikuka landholders/fishermen	69
23 June 22	Project Affected Community - Malombe landholders/fishermen	60
24 June 22	Project Affected Community - Ling'anga landholders/fishermen	63
24 June 22	Project Affected Community - Kasize landholders/fishermen	130

Project-affected communities were grouped according to impact. Full day workshops were held with both physically and economically displaced households, and half-day workshops were held with communities who held unutilized land only and/or fisherman. Project-affected community-level meetings were on an invitation basis to control numbers to enable effective two-way dialogue. All project-affected households were invited to one of the meetings.

The content of the meetings was adjusted according to stakeholder group. High-level summaries were presented to the Barotse Royal Establishment in the language of choice, followed by discussions. Time was allowed for meetings to proceed into a higher level of detail as required by the Barotse Royal Establishment. Detailed presentations in non-technical language in were provided to the Resettlement Advisory Committee and project-affected communities. Presentations were given in English with Lozi translation. The presentations of resettlement planning components were followed by breakout sessions in the following groups: traditional leaders, government, affected community men representatives, affected community women and vulnerable representatives. Stakeholders were given prompts to foster their input into the resettlement planning components. The prompts were focused on additions to, removals from or changes to planning components. Feedback sessions were held after each breakout session, with a representative from each group presenting the group's feedback. Feedback sessions were followed by responses to the issues raised by the AESC and company team, and discussion.

Documentation: Detailed minutes, voice recordings (where permitted), attendance registers and photographs were taken of all meetings, except for the meeting with the Queen where records were not permitted. Minutes were drafted after the meeting with the Queen to ensure adequate consideration of the important matters raised. A comments and response trail was developed and captured into the online stakeholder engagement database for the project. Engagement records are presented in Appendix B, with a summary of key issues and Project response and measures to address issues presented in Table 32. Comments raised were coded into thematic categories and subcategories and are summarized in this chapter. The issues raised were then considered, and adjustments to the technical planning components of the RAP were made where feasible. Finally, a risk assessment of the material issues was undertaken, and control measures developed and incorporated into the technical planning components of the RAP.

**Table 32: Summary of Key Issues Raised During Second Round of Consultation and Response / Measure to Address**

Stakeholder Comment	Feedback
<p><b>Stakeholder engagement:</b> requests for clarifications on information presented, the need to ensure stakeholders can engage freely during meetings, and that the company provides sufficient information and feedback;</p>	<ul style="list-style-type: none"> <li>● Information document provided to all Project Affected Households and explained during consultation.</li> <li>● Focus on engagement and participation during consultation.</li> <li>● Provision of feedback from previous consultation and during 3<sup>rd</sup> round of consultation</li> </ul>
<p><b>Scope of displacement:</b> requests for clarity on the scope of displacement</p>	<ul style="list-style-type: none"> <li>● Summary scope of displacement presented in information booklet in the second phase, and in the non-technical summary in the third phase of engagement</li> </ul>
<p><b>Entitlements:</b> the need to provide in-kind compensation instead of money. Need for clarification on entitlements.</p>	<ul style="list-style-type: none"> <li>● Preference for in-kind compensation or replacement of assets in the Entitlement Framework</li> <li>● Details of entitlements and compensation are provided in the Entitlement Framework summarised in the non-technical document presented in the third phase of engagement</li> </ul>
<p><b>Replacement land:</b> location of the resettlement site, the process for customary land acquisition, the need to properly compensate for loss of floodplain land, how compensation will be paid, and how compensation will work for those with existing alternative land</p>	<ul style="list-style-type: none"> <li>● Details on replacement land options for dryland farms, floodplain gardens and landholdings presented in the non-technical document presented in the third phase of engagement including options for in-kind and cash compensation</li> </ul>
<p><b>Businesses:</b> how compensation will be calculated and preference for in-kind replacement of business structures instead of cash</p>	<ul style="list-style-type: none"> <li>● Details on compensation for business structures and a business transitional allowance included in the non-technical document presented in the third phase of engagement</li> </ul>
<p><b>Natural resources:</b> concerns over natural resource loss and compensation</p>	<ul style="list-style-type: none"> <li>● Provision in Entitlement Framework for reed beds livelihood restoration programme and access to livelihood restoration programmes including livestock improvements to compensate for loss of grazing land</li> </ul>

Stakeholder Comment	Feedback
<b>Replacement Housing:</b> requests for specific aspects of housing design	<ul style="list-style-type: none"> <li>Updated replacement housing designs included in the non-technical document presented in the third phase of engagement</li> </ul>
<b>Fisheries:</b> concerns over the timing of the fisheries survey, requests for full payment of lost harvest upfront, and for alternative livelihood measures	<ul style="list-style-type: none"> <li>Additional Fisheries Study in progress. Surveys will continue until the end of the fishing season. Compensation and entitlements will be developed, including access to alternative livelihood restoration measures.</li> </ul>
<b>Cut-off zone:</b> Requests for clarity on the cut-off zone and associated flood risks	<ul style="list-style-type: none"> <li>Maps provided in the consultation explaining the cut-off zone areas</li> </ul>
<b>Co-registration:</b> Requests for co-registration and co-signing of agreements to ensure women and dependents receive compensation	<ul style="list-style-type: none"> <li>Names of household head and spouse included in the main list of affected households. Each compensation agreements will require signature of household head and spouse (where applicable)</li> </ul>
<b>Livelihoods:</b> the need for greater variety of livelihood programs, appreciation for reedbed program and the need to ensure this is shared equally amongst women, request for a livestock development program with suggestions of artificial insemination and improved breed varieties	<ul style="list-style-type: none"> <li>Summary of livelihood restoration programmes included in the non-technical document presented in the third phase of engagement. These will include specific programmes and support for women and vulnerable people.</li> </ul>

### 10.5.3 Third Round of Consultation

A third round of consultation was completed in February 2023 to present the Draft RAP, with specific focus on:

- The updated entitlement framework following input from stakeholders in the second round of consultation;
- Final housing and infrastructure designs following detailed architecture drawings and costings;
- The approach to replacement land and host sites, outlining options for identifying and securing land for both residential and agricultural purposes;
- Detailed livelihood restoration activities, following stakeholder input and engagement with government and other possible implementing partners;

- The compensation agreement process, providing details on the format of household agreements, how these will be implemented, and how the compensation agreement process fits within the overall Project schedule; and
- The grievance mechanism.

Consultation commenced with engagement with ZEMA to discuss the Draft RAP, progress to date, upcoming consultation, and overall Project timeframes. A technical presentation was prepared for the consultation for presentation to ZEMA, to the King and his Kuta and to district authorities. A non-technical summary document was prepared and translated into Lozi for presentation to the Queen, PLC, CLC and CLAs, and for distribution to affected households, including men, women, and vulnerable people. Consultation materials are presented in Appendix A.

As with previous consultation, traditional protocols were followed, which require that any communications begin with Kuta’s (traditional councils) of the Barotse Royal Establishment, before proceeding to the indunas and communities, as illustrated in Table 33. Detailed minutes, voice recordings (where permitted), attendance registers and photographs were taken of all meetings, except for the meeting with the Queen where records were not permitted. Minutes were drafted after the meeting with the Queen to ensure adequate consideration of the important matters raised. A comments and response report was compiled, with all engagement records presented in Appendix B. Key issues raised during the consultation and response provided to date are provided in Table 34:

**Table 33: Third Round Consultation Schedule**

Date	Time	Location	Meeting
07/02/2023	AM	Mongu	HRH The Litunga / Namuso Kuta
08/02/2023	AM	Nalolo	HRH The Litunga / Nalolo Kuta
10/02/2023	AM	Sioma	HRH Senior Chief Lukama and Kuta Kaunga Masii
	PM	Nangweshi	Fisheries Department
			Agricultural Department
11/02/2023	AM	Sioma	Community Liaison Committee
	PM		Project Liaison Committee
13/02/2023	AM	Sioma	Community Meeting with PAHs Kasize Area
	PM		Community Meeting with PAHs Linganga Area
14/02/2023	AM	Sioma	Community Meeting with PAHs Sikuka Area
	PM		Community Meeting with PAHs

**Table 34: Summary of Key Issues Raised During Third Round of Consultation and Response / Measure to Address**

Issue	Response
<p><b>Project timeframes:</b> questions over the length of time the Project has taken and the reason for the lengthy process, with explanation that households are ready for the Project and to relocate;</p>	<p>The overall process of the Project was presented to stakeholders, with explanations over the need to ensure all studies are completed correctly, and requirements to achieve ZEMA approval and approval of international funders. A process flow diagram was presented in the non-technical summary document, and will be included in upcoming household compensation agreement engagement.</p>
<p><b>Absentee owners:</b> questions over how absentee owners will be compensated, and the process required to prove ownership, or for a relative to collect compensation;</p>	<p>The process over how to present a legitimate claim to land was explained, with explanation of the need for signed affidavits, legal proof of death or absence etc. It was explained that WPC would examine claims very carefully to ensure only those with legitimate claims are provided compensation or rights without excluding rightful owners.</p>
<p><b>Separation of married couples:</b> questions over how compensation will be paid to couples who have separated or divorced and how the man / woman will benefit;</p>	<p>Stakeholders were advised that both the man and woman would be eligible for compensation if they previously signed survey forms together, and that this would be handled on a case-by-case basis. Further investigation into additional measures to protect women and potentially vulnerable individuals during compensation distribution will be investigated.</p>
<p><b>Fisheries:</b> queries over the inclusion of fisheries, why it is not currently considered and how the fisheries study and compensation will proceed;</p>	<p>The status of the fisheries study and upcoming assessment and consultation was explained to stakeholders.</p>
<p><b>Affected households:</b> concerns over who is included in the resettlement and what will happen to households or gardens that have not been surveyed but may be impacted</p>	<p>The process of identifying affected households and accurately determining impact areas was explained to households. The grievance mechanism and methods to report grievances were reinforced, with explanation that any household not included in the resettlement who does experience impacts can register concerns.</p>
<p><b>Lost Project ID:</b> concerns over misplaced project IDs, and questions over how households will be contacted and identified now</p>	<p>Stakeholders were informed that their NRCs, contact information and photos were collected during surveys which will allow WPC to identify affected households for compensation.</p>



Issue	Response
<b>Replacement land:</b> queries over how replacement land will be found and where, how far away replacement land can be (for example, should a household wish to find land outside of the Project area), and how the land entitlement works, specifically on the eligibility criteria for cash compensation which states that households need to show ownership of a remaining 2.5ha to be eligible for cash rather than replacement land	The process of identifying host sites and replacement land entitlement options were further explained to PAHs, noting that additional explanation will be provided during one-on-one household agreement engagements. WPC explained that the aim was for in-kind land replacement as close to existing communities as possible.
<b>Irrigation:</b> queries over how irrigation support will work, and how households will access solar pumps	Irrigation options were further explained. The specifics of these will be further defined once replacement land has been identified.
<b>Consultation:</b> appreciation for the process and sharing of information with stakeholders	WPC thanked stakeholders and promised to continue sharing information and keeping stakeholders informed of the process.
<b>Livelihoods:</b> stating a need for agricultural and fisheries expert and extension services to provide training and support households	The non-technical summary document presents more detailed explanation of livelihood restoration programmes. WPC held further engagement with the government fisheries and agricultural and livestock departments to further refine viable programmes and ensure linkages to other schemes where possible.

## 10.6 Specific Fishers Consultation

Additional consultation has been undertaken as part of the supplementary fisheries studies in 2022/3. The first round of consultation in support of the current study was undertaken in October 2022, with key aims to gain permission to collect data and weigh fish catches, and ensure all active fishers were included in the data collection exercise. Details of engagements in the annexure of the Fisheries Study appended.

**Table 35: Fisheries Consultation: First Round**

Village	Meeting Date	Time	No. Males	No. Female
Training Day 1	01/10/2022	8-16hrs	7	7
Training Day 2	02/10/2022	9-11hrs	6	7
Kandiana	02/10/2022	12-14hrs	17	3

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Village	Meeting Date	Time	No. Males	No. Female
Linganga	03/10/2022	9-11hrs	14	5
Kasize	04/10/2022	10-12hrs	28	16
Songa	04/10/2022	14-16hrs	26	5
Malombe	29/09/2022	9-11hrs	8	5
Kaunga Mashi Kuta	28/09/2022	10-12hrs	8	1
Sikuka	06/10/2022	10-12hrs	26	27
Simani	05/10/2022	10-12hrs	19	2
Malombe	07/10/2022	10-12hrs	3	1
Sioma Village	30/09/2022	10-12hrs	6	4

Following the completion of assessments and analysis of data, a further round of consultation was undertaken in June 2023 to:

- Present the key findings of the fisheries assessment;
- Present proposed compensation and entitlements relating to fisheries;
- Present proposed livelihood restoration measures;
- Gain feedback and input from fishers on the proposed entitlements;
- Explain the upcoming process of implementation of fisheries agreements; and
- Reinforce the grievance mechanism.

Table 36 provides a summary of meetings held and participation.

**Table 36: Fisheries Consultation: Second Round**

Stakeholder Group	Meeting Venue	Date	Time	Number of Males	Number of Females
<b>Senanga District Commissioner (DC)</b>	DC offices	25/07/2023	16:00	1	1
<b>Nalolo Kuta</b>	Nalolo Summer Palace	26/07/2023	12:05	6	1
<b>Kaunga Mashi Kuta</b>	Kaunga Mashi Palace	27/07/2023	10:15	6	0

Stakeholder Group	Meeting Venue	Date	Time	Number of Males	Number of Females
Community Liaison Committee	Malombe Centre	28/07/2023	10:15	7	4
Project Liaison Committee	Linganga Village	28/07/2023	14:15	7	3
Kasize Fishing Community	Kasize Village	29/07/2023	10:30	46	4
Linganga Fishing Community	Mbuyu Community School	29/07/2023	14:45	19	5
Malombe Fishing Community	Malombe Village	30/07/2023	10:35	21	7
Sikuka Fishing Community	Sikuka Village	30/07/2023	14:15	21	17

A summary of key issues raised during consultation is presented below:

- **Weir Location and Environmental Impact:** The District Commissioner (DC) expressed concerns about the weir's placement, questioning if it would obstruct the falls and if a dam might lead to severe flooding.
- **Fish Depletion and Bad Fishing Habits:** There was shared concern from the BRE over the decline in fish levels due to poor fishing practices, emphasizing the need to address sustainable fishing methods across Western Province.
- **Delayed Project Commencement:** The fishing community, BRE, and DC raised worries about the project's delayed start and its projected duration.
- **Government Participation in Engagements:** The DC stressed the importance of government involvement in stakeholder consultations for transparent communication and conflict resolution.
- **Compensation Clarification:** Clarity was sought on compensation amounts for affected Maungwe and Limbelo sites, and the minimum compensation amount that each fisher would be eligible for.
- **Fish Species and Livelihood Support:** There was a need for clarification about the types of fish to be used in the ponds and the duration of livelihood support.
- **Fingerlings Production Centre:** The idea of constructing a centre for producing fingerlings (young fish) was mentioned by the BRE.

- **Fish Pond Locations:** Concerns were raised by the community about the locations of fish ponds and their potential impact.
- **Group Fish Farming:** Concerns were raised about being in groups if a fisherman chose to venture into fish farming.
- **Grievances and Company Responses:** Participants sought clarification on the grievances raised and how the company planned to address them.
- **Cattle Program Concerns:** Concerns were raised about a cattle program mentioned in previous compensation discussions.
- **Compensation Agreement Timeline:** Participants inquired about when compensation agreements would be finalized and ready for distribution.

The proposed eligibility criteria and entitlement framework developed was generally well-accepted by government authorities, traditional leaders and local communities. Requests for clarification on elements of compensation amounts were met with more detailed explanations of the entitlement framework and compensation process, with the rationale for in-kind support and cash compensation then well-acknowledged and appreciated by affected fishers.

A number of questions were raised about technical aspects of the fish farming programme. It was explained that during implementation of compensation agreements, individual fishers will be provided the option of selecting either fish farming or goat rearing in addition to sustainable fisheries support. Following this selection process, and at the point of project implementation, further engagement and research will be undertaken to fully define the fish farming support, depending on the numbers of fishers selecting this programme, Fisheries Department and other implementing partner priorities and development plans, and the viability of either fish ponds or cage fishing.

The commitment to ongoing stakeholder engagement was re-emphasized during consultation meetings, with further explanation on the potential project timeframes and resettlement process going forwards explained. Stakeholders were also reminded of the project grievance mechanism during presentations, and the process for registering and addressing a grievance explained, with contact numbers and information on how to raise grievances shared on posters and leaflets distributed.

## 10.7 Institutional Responsibility for Consultation

The Project has established resources to support ongoing engagement and communication with local communities and local authorities, and which has facilitated the development of both the ESIA and this RAP. These resources form part of the wider Project planning and implementation team, described in Section 11.1.

The Project has also established committees to support engagement, planning and implementation. A Project Liaison Committee (PLC) was established in December 2014, as a community interface for the Project, meeting monthly to both receive information and disseminate Project information to the affected communities. A separate Community Liaison Committee (CLC)

was also established in Q1 2019, comprising local leadership and community members with representatives from all areas affected by the project. These committees have now been disbanded and replaced with the Resettlement Advisory Committee, established in June 2022 and Community Resettlement Committees, described below.

### **10.8 Resettlement Advisory Committee**

The Project established a Resettlement Advisory Committee (RAC) to function as an advisory forum on resettlement planning matters and any future implementation. The primary objective of this committee is to support meaningful participation of authorities, affected communities and household.

The RAC's mandate depends on the authority levels and jurisdictions of its members, which typically include government and traditional authorities. The formation of the RAC also considered existing project committees and structures, ensuring the all project-affected persons are represented in the new committee without simply appending new responsibilities to existing committees.

Existing membership of RAC the includes the following representatives:

1. Traditional leaders of project-affected communities and host site communities.
2. Government officials from local departments of the relevant national ministries.
3. District elected government officials.
4. Elected representatives of project-affected communities and host site communities.
5. Balanced gender representation from each community.
6. Women and vulnerable groups of the elected community representatives.
7. Project representatives.

A full list of members in the RAC is provided in Appendix G.

The mandate of the RAC is to ensure the regular exchange of information among all parties and the coordination of all resettlement activities. This has been done through regular committee meetings and will continue to occur during any future implementation, including during monitoring activities. The mandate of the RAC is presented in Appendix G.

### **10.9 Community Resettlement Committees**

The RAC acts as an umbrella resettlement advisory body. To support more direct engagement with Affected Persons, the Project has also established separate Community Resettlement Committees (CRCs) at each of the affected communities.

The role of the CRCs is to ensure two-way communication between the Project and Affected Persons, communicate any decisions or resolutions made by the RAC, and provide a forum for Affected Persons to voice any concerns they may have, feeding into ongoing monitoring and evaluation or resettlement planning and implementation activities. The mandate of the CRCs is presented in Annexure G.



The already constituted CRCs comprise an elected group of selected and elected representatives of each Project-affected community including 6-10 elected community members, the traditional leader, and representatives of interest groups within the community that may have no formal leadership role (such as artisans, landless householders, tenants, women, and vulnerable groups). A full list of members in the CRCs is provided in Appendix G.

### **10.10 Framework for Resettlement Consultation**

Table 37 provides an overview of completed resettlement consultation activities, on the RAP document, consultation during the resettlement construction and implementation phases, legal process engagements and key implementation milestone engagements.

**Table 37: Completed Resettlement Engagement Activities**

Phase	Stakeholders	Topics	Supporting Documents	Timing
<p><b>Round 2a:</b>  <b>Technical Planning Components: Formation of Consultative For a</b>  <b>Completed June 2022</b></p>	<p>Company stakeholder engagement coordinator and community liaison officers.                      Company resettlement consultant.                      District Government.                      Barotse Royal Establishment.                      Senior Chiefs.                      Indunas and Headmen.                      Project-Affected Persons.</p>	<p>Appointment of District Government Officers, Barotse Royal Establishment representative, Senior Chiefs, Indunas and Headmen onto Resettlement Working Group.                      Election of community resettlement committees at village-level, and appointment of executive members of community resettlement committees onto the Resettlement Working Group.</p>	<p>Terms of Reference of RAC.                      Terms of Reference of Community Resettlement Committees.</p>	<p>June 2022</p>
<p><b>Round 2b:</b>  <b>Technical Planning Components: Consultation on Technical Planning Components of Resettlement</b>  <b>Completed June 2022</b></p>	<p>Company management representative.                      Company stakeholder engagement coordinator and community liaison officers.                      Company resettlement consultant.                      Resettlement Working Group (technical detail).                      Community Resettlement Committees (non-technical summary).                      Project-Affected Persons (non-technical public feedback session).</p>	<p>Eligibility criteria.                      Entitlement framework.                      Livelihood restoration options.                      Draft valuation report.                      Host site options.                      Replacement housing options</p>	<p>Eligibility criteria.                      Entitlement framework.                      Livelihood restoration plan.                      Draft valuation report.                      Host site map and layout plans.                      Replacement housing designs.                      Non-technical summary of above.</p>	<p>June 2022</p>

Phase	Stakeholders	Topics	Supporting Documents	Timing
<b>Round 2c:</b> <b>Technical Planning Components:</b> <b>Barotse Royal Establishment Consultation on Host Sites</b>  <b>Completed February 2023</b>	Company management representative. Company stakeholder engagement coordinator and community liaison officers. Company resettlement consultant. District Government. Barotse Royal Establishment. Senior Chiefs. Indunas and Headmen.	Host site locations. Replacement land.	Host site criteria. Host site maps.	February 2023
<b>Round 3a</b> <b>Engagement: RAP Document</b>  <b>Completed February 2023</b>	Company stakeholder engagement coordinator and community liaison officers. Company resettlement consultant. Resettlement Advisory Committee (technical detail). Community Resettlement Committees (non-technical summary). Project-Affected Persons (non-technical public feedback session).	Draft RAP document. Compensation certificate sample Grievance mechanism Next steps in the resettlement process	Publication of draft RAP document in local languages. Non-technical summary of draft RAP document in local languages. Sample compensation certificates	February 2023
<b>Round 3b:</b> <b>Compensation Certificates</b>	Company stakeholder engagement coordinator and community liaison officers. Project-Affected Persons Appropriate government witness. Barotse Royal Establishment witness.	Individual compensation agreements	Individual compensation agreements PAH	February / March 2023

Phase	Stakeholders	Topics	Supporting Documents	Timing
<b>Round Engagement: Fisheries Assessment</b>	<b>3c</b> Company stakeholder engagement coordinator and community liaison officers. Company resettlement consultant. Resettlement Advisory Committee (technical detail). Community Resettlement Committees (non-technical summary). Project-Affected Persons (non-technical public feedback session).	Fisheries assessment including entitlements and compensation agreements	Non-technical summary of fisheries assessment in local languages Sample compensation certificates	March / April 2023
<b>Round Engagement: Fisheries Assessment</b>	<b>3d</b> Company stakeholder engagement coordinator and community liaison officers. Project-Affected Persons Appropriate government witness. Barotse Royal Establishment witness.	Fisheries compensation agreements	Individual PAH fisheries compensation agreements	April / May 2023

### 10.11 Resettlement Implementation Phase

Engagement with stakeholders will continue into the resettlement implementation phase when the RAP has been authorised and the Project is ready to commence construction. This will ensure ongoing communication and collaboration, as well as allow for the consideration of stakeholder inputs where possible, to address grievances and conflicts that may arise, to provide regular updates on implementation to stakeholders, to negotiate and sign various resettlement agreements, to handover resettlement infrastructure, to monitor the livelihoods and living standards, and to update stakeholders on the resettlement implementation against the commitments made in this RAP. Monitoring activities described in Section 13 will include engagement and interaction with PAHs and resettlement committees through focus groups and surveys to determine PAH perceptions of resettlement progress and implementation success, and to what extent livelihoods have been restored.

Detailed meetings records will be maintained as evidence of engagement (supporting documentation, agenda, attendance, minutes, photographs). Issues and responses will be recorded in an Issues and Responses database. Additional commitments that may be necessary during implementation will be recorded in a legal and commitments register.



**Table 38: Framework for Resettlement Implementation Consultation**

Phase	Stakeholders	Topics	Supporting Documents	Timing
<b>On-Going Engagement During Resettlement Construction and Implementation Phase</b>	Company Stakeholder Engagement Coordinator and Community Liaison Officers. Quarterly meeting of Resettlement Working Group. Quarterly meeting of Community Resettlement Committees. Quarterly meetings with project-affected communities. Monthly meetings with vulnerable households. Claimants of grievances. Ad hoc Meetings on conflicts arising.	Resettlement implementation update. Grievance update. Commitments register status update. Individual claims and queries. Conflicts arising. Discussion.	Minutes of previous meeting. Resettlement quarterly update report. Grievance report. Grievance database. Investigation reports. Commitments register status report.	Commences from Round 2 engagement during resettlement planning. On-going during 4-year resettlement construction and implementation phase. Concludes on successful resettlement completion audit.
<b>Legal Process Engagements</b>	Company stakeholder engagement coordinator and community liaison officers. Individual project-affected persons. Appropriate government witness. Barotse Royal Establishment witness.	Individual household signing of resettlement contracts (once-off where not already completed as per Table 37) inclusive of (where applicable): <ul style="list-style-type: none"> <li>● Replacement housing</li> <li>● Replacement land</li> <li>● Livelihood restoration program agreements</li> <li>● Grave relocation</li> <li>● Receipt of monetary compensation</li> </ul>	Resettlement contract documentation of various types.	Contracts signed during first two-years of resettlement implementation

Phase	Stakeholders	Topics	Supporting Documents	Timing
<b>Implementation Milestone Engagements</b>	Company management representative. Company stakeholder engagement coordinator and community liaison officers. Barotse Royal Establishment representative. Relevant Government Officers. Relevant Community Resettlement Committees. Project-affected persons.	Ground-breaking of project construction. Ground-breaking of host site construction. Visits to sample replacement infrastructure during construction. Handover of public infrastructure as applicable (schools, clinics, churches, boreholes).		Staggered during first two-years of resettlement implementation (construction phase).
<b>Compliance Review and Completion Audit Engagements</b>	Company stakeholder engagement coordinator and community liaison officers. Company resettlement consultant. ZEMA. Barotse Royal Establishment. Resettlement Working Group (once per two years until completion). Community Resettlement Committees (once per two years until completion). Project-affected communities (once per two years until completion). Vulnerable households (once per two years until completion).	Socio-economic monitoring study (quantitative and qualitative). Review of implementation against commitments in RAP, and any subsequent commitments during fourth year of implementation.	Socio-economic monitoring indicators versus baseline. Legal and commitments register status report. Monitoring report. Completion audit report.	Bi-annual engagement and assessment during implementation One round of resettlement completion engagement at point of implementation completion.

## 10.12 Grievance Redress

A grievance redress mechanism (GRM) is a requirement of IFC PS 1 as follows: “The client will respond to communities’ concerns related to the project .... the client will establish a grievance mechanism to receive and facilitate resolution of the affected communities’ concerns and grievances about the client’s environmental and social performance”.

The Project has established a grievance mechanism that addresses grievances relating to land acquisition, resettlement, and livelihood restoration. The grievance register is designed to ensure household identification numbers are recorded in line with the RAP database and that grievances are categorized according to resettlement issue. Grievances will likely peak during assets surveys, negotiations and finalization of compensation agreements, and structures and resources will need to be in place to manage these smoothly.

Grievances raised by stakeholders are managed through a transparent process that is culturally appropriate, understandable, readily acceptable to all segments of affected communities, and at no cost and without retribution, according to the process outlined in Figure 47, and the principles below:

WPC has an established structure and on-site presence amongst local communities, with long-term interaction between local communities and individual company representatives. Community Liaison Assistants (CLAs) are based throughout the affected communities (described in Section 11.1), each with a designated site for weekly interaction / meetings as required. The CLAs are responsible for receiving and recording all the grievances from the stakeholders. The CLAs have relevant training in handling disputes and stakeholder management and must be viewed as an impartial representative. This is especially important for the building of trust and to ensure that valid concerns and grievances are raised effectively and timeously.

Grievances can be lodged with CLAs in writing or verbally, either through the village headman or individually, as appropriate. Grievance boxes will be placed at each of the CLA base sites for submission of anonymous written grievances. Contact details of the CLA will be placed on the box to allow for verbal telephonic grievances to be registered anonymously. A separate telephone contact number has also been established to allow anonymous verbal submission of grievances to ensure there is no conflict of interest or reluctance to report grievances to locally-based CLA individuals. This contact number will be placed on grievance boxes and made available throughout all stakeholder consultation activities. The Community Liaison Officer (CLO) acknowledges receipt of the grievance and explains (in writing or verbally whichever is more appropriate) in brief the process of redress that will be followed, having overall responsibility for investigation and recommendation of corrective measures in liaison with the Community and Stakeholder Engagement Manager (CSM). All grievances are recorded in the grievance register, indicating details of the grievant, status and address of the person, PAH number according to the resettlement database, type of stakeholder, the date on which the grievance happened and was recorded, a brief description of the grievance, and the outcome that is being sought.

A timeframe for the resolution of matters is stipulated as follows: 14 days for all general matters and 28 days for more complicated matters that require investigation, verification and consultation. Periods for review and appeal will be stipulated based on the complexity of the case.

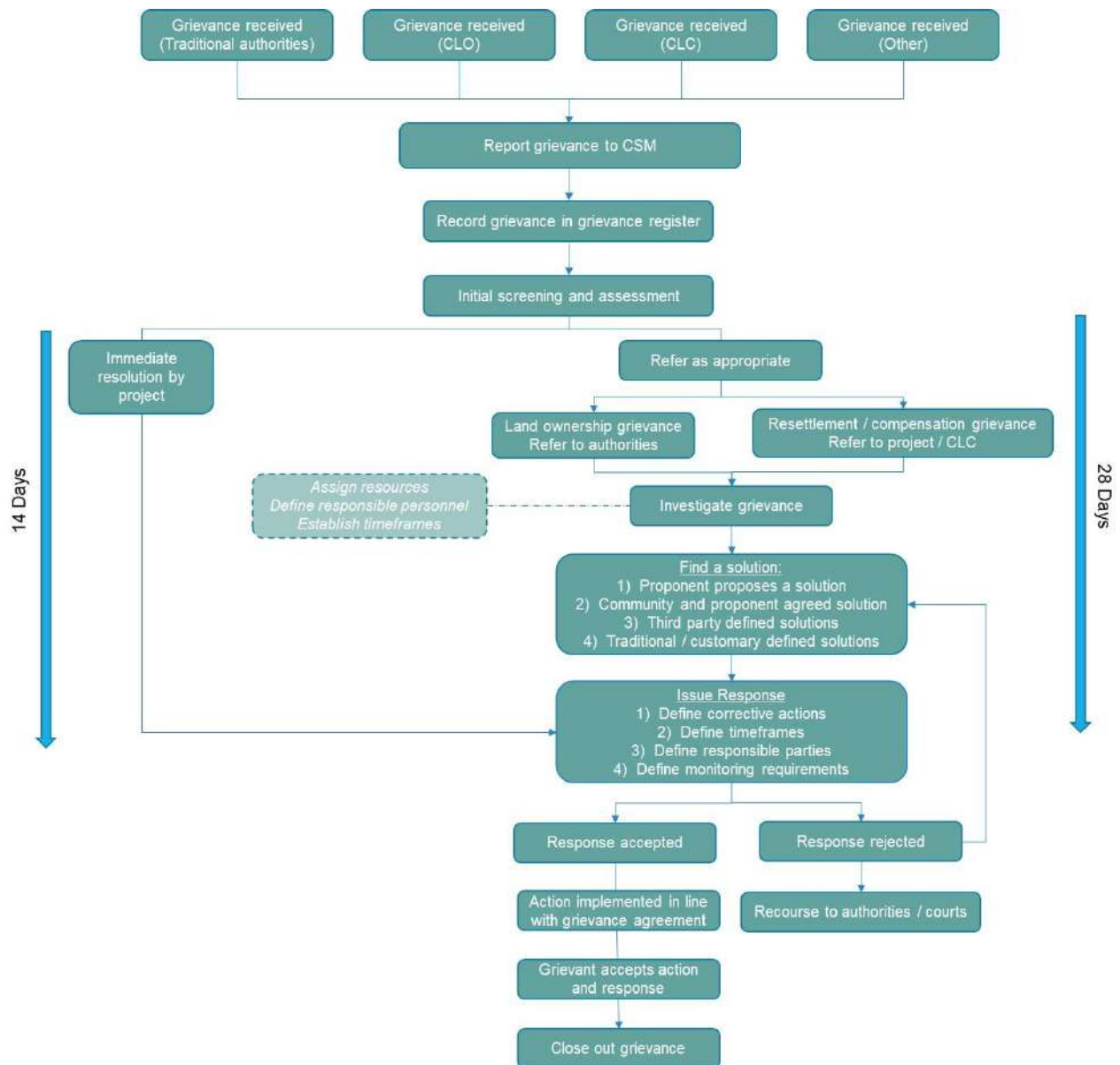
Upon receipt and recording of grievances, the CLO will liaise with the CSM to investigate and resolve the grievance. Depending on the grievance level, investigation should be recorded in the grievance investigation form.

After the matter has been resolved, the resolution will be communicated in writing to the grievant, with verbal explanation provided by the CLAs where necessary. The date on which the matter was resolved, and a summary of the resolution will be recorded in the grievance register.

There is a higher level of recourse involving WPC management, and traditional or local government authorities should the complainant not accept the outcome provided. Should the complainant still be dissatisfied, final recourse is to the courts of law.

Any grievances relating to sexual harassment or gender-based violence (GBV) will be managed with additional steps and measures, to ensure complainants feel confident in their ability to safely report incidents, and are not subject to any risks of stigmatization, rejection and reprisals, in line with best practice guidance (WorldBank, 2018). The follow measures will be followed:

- Complainants will have access to all forms of grievance registration, including both the written and verbal anonymous submission options. Additional channels (such as through health care facilities) will be investigated to provide further suitable and accessible reporting channels;
- No identifiable information on the individual will be stored on the GRM;
- The GRM will not ask for or record information on more than three aspects relating to the incident including:
  - The nature of the complaint (what the complainant says in his or her own words without questioning);
  - If, to the best of their knowledge, the perpetrator is involved in the Project;
  - If possible, the age and sex of the complainant.
- The GRM should refer the complainant to support services, such as those provided by the Ministry of Community Development and Social Welfare, or NGO / other institutions. WPC will undertake a mapping exercise to identify available institutions and referral points;
- The information in the GRM will be confidential – especially when related to the identity of the complainant. In the case of sexual harassment and GBV, the GRM therefore functions to refer complaints to relevant support (and as relevant legal) services, and to record the resolution of the grievance.



**Figure 47: Grievance Mechanism Process**

Appendix G includes the hardcopy grievance form, which must be printed in self-carbonated triplicate books for the purpose of recording grievances and providing PAPs with a copy of their grievance for follow-up. The grievance database includes the following aspects listed in Table 39.

**Table 39: Grievance Mechanism Database Sample**

Category	
Date	
Surname	
Forename	



NGONYE FALLS HYDROPOWER PROJECT, SIOMA AND SENANGA DISTRICTS FINAL  
RESETTLEMENT ACTION PLAN

Category	
PAH No. (e.g., PAH001)	
Village	
Telephone Number	
Grievance	
Grievance Category <i>Consultation / Resettlement Committees / Grievance Mechanism / Compensation Certificate / Compensation Value / Compensation Payment / Land Allocation / Crops Harvesting / Replacement Housing / Fisheries / Livestock / Community Services / Communal Land / Livelihood Restoration Activities / Graves / Project Employment</i>	
Recorded By	
Receipt Given (Y/N)	
14 Day Feedback / Written Confirmation of Progress (Y/N)	
Grievance Response	
Date of Response (1st)	
Response Accepted (Y/N)	
Response Actioned / Implemented	
Action Accepted	
Additional Actions / Recourse	
2nd Grievance Response	
2nd Response Accepted (Y/N)	
Response Actioned / Implemented	
Action Accepted	
Grievance Closed (Y/N)	
Number of Days to Resolve	

## 11 IMPLEMENTATION RESPONSIBILITIES AND SCHEDULE

### 11.1 Roles and Responsibilities

WPC have an established team, with presence both on site and at headquarters to guide resettlement planning and implementation. Figure 48 presents the core WPC team, with specific responsibilities outlined below. The team will engage and work with partners throughout the implementation phase, including district officials and NGOs, incorporating specialist expertise where required and available. WPC will also work with the Resettlement Advisory Committee and Community Resettlement Committees throughout the planning and implementation phases to ensure stakeholders are included in planning and decision making, and informed of key processes, schedules and developments.



**Figure 48: Resettlement Roles and Responsibilities**

#### Community and Stakeholder Engagement Manager

WPC recruited a Community and Stakeholder Engagement Manager (CSM) in 2019 to be responsible for the ongoing development and implementation the overall Project's stakeholder engagement strategy through continuous engagement of key government and community stakeholders, and to manage the Project's Community Liaison Team (CLT) and Grievance Redress Mechanism.

## Environmental and Social Specialist

An Environmental and Social Specialist will assist in completing the preparation of the RAP and lead on implementation of the measures specified in the RAP including resettlement, compensation, and livelihood restoration activities. Specific responsibilities include:

### **RAP Stakeholder Engagement**

- Manage and coordinate the flow of information between the proponents and stakeholders.
- Conduct stakeholder meetings with project stakeholders on matters relating to the RAP.
- Prepare and issue regular information updates throughout the planning and implementation of the RAP
- Manage high level negotiations and consultation with community groups affected by the project.

### **Compensation Agreement Management**

- Explain the entitlement framework and resettlement activities to PAPs.
- Ensure that household Compensation Agreements are signed.
- Coordinate pre- and post- compensation counselling in consultation with relevant ministries.

### **Grievance Management**

- Monitor grievances and alert management to practical problems.
- Assess and monitor vulnerability of PAPs.

### **Resettlement Site Management**

- Contribute to the identification of sites for replacement housing and replacement farmland.
- Coordinate the timing and order of construction and activities to relocate PAPs to replacement housing and farmland.

### **Monitoring and Evaluation of the RAP**

- Prepare process and impact indicators.
- Prepare schedule for monitoring.
- Coordinate surveys to gather monitoring data.

### **Supervise overall implementation of the RAP.**

- Supervise all project staff members responsible for activities relating to resettlement

### **Manage the capacity building of the PAPs and the community under the LRP.**

- Plan and manage capacity building under Livelihood Restoration Program (LRP)
- Ensures PAPs and communities receive training as regards the LRP

- Prepare a Training Schedule for PAPs under the LRP

### Community Liaison Officer (CLO)

A full time CLO was appointed in 2016 to provide a regular presence on site and to help build more effective and trusting relationships with stakeholders / communities. The CLO has played a critical role in stakeholder engagement activities during resettlement planning, providing guidance to assets and census surveys, and contributing to resettlement planning. The CLO will provide key guidance going forwards on resettlement implementation, including presenting and negotiating compensation agreements, signing agreements, and delivering compensation entitlements, and in ongoing monitoring and evaluation activities.

### Community Liaison Assistant (CLA) Supervisor

The CLA Supervisor has responsibilities in the East and West banks, Induna Linganga, Induna Mukwala, Induna Imunonoko, and Induna Simumbi areas, and acts as Secretary of the PLC to provide continuity for this committee. Other responsibilities include:

- Be available to receive community members, at designated location on the East bank of the river – **Mbuyu Community School** - every day at the same time of the day on every occasion;
- Act as a liaison between Western Power Company and members of the Community;
- Act as a first point of contact between the company and members of the affected community with regards to all matters concerning the project;
- Disseminate information regarding the project and its expected impacts to members of the Community;
- Record grievances or observations from the affected communities in relation to the Project and convey these to the CLO;
- Be transparent and impartial in dealing with issues affecting the community and the Project;
- Assist in supervision and direction of the assistant CLO team on the ground;
- Any other duties which you may reasonably be asked to complete corresponding to your designation.

### Community Liaison Assistants

The CLA Supervisor oversees a team of 4 CLAs with similar responsibilities as above, based at the following locations to provide support to individual PAHs and communities:

- CLA 2 covers the **East bank, Induna Mukwala's** areas and is available to receive community members, on the **east bank** of the river – **Songa Primary School** - every day at the same time. CLA 2 also acts as translator whenever required by the Project.
- CLA 3 covers the **West bank, Induna Simumbi's** areas with a designated location on the **west bank of** the river – **Sankandi Primary School**

- CLA 4 covers the **West bank, Induna Imunonoko's** areas with a designated location on the west bank of the river – **Malombe Centre**
- CLA 5 covers the **East bank, Induna Imatina's** areas with a designated location on the east bank of the river – **Simani village**.

CLAs have established relationships with local communities and affected households, have an in-depth knowledge of key issues over the resettlement planning to date, and will play a critical role in resettlement implementation going forwards.

## 11.2 Implementation Schedule

Table 40 presents resettlement implementation activities post approval and financial close, with indicative timeframes. Timeframes will be updated following more detailed implementation planning and preparations, taking into consideration seasonal requirements for planting / harvesting and for construction.



**Table 40: Post-Financial Close Activities and Indicative Timeframes**

Month	0	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	
<b>RAP DOCUMENT</b>																										
RAP Approval by ZEMA																										
Lender Approval and Financing																										
<b>COMPENSATION DISBURSEMENT</b>																										
Engagement of Ministry of Community Development																										
Engagement of PAHs on grave relocation process																										
Identification / engagement of banking institution for compensation																										
Opening of bank accounts																										
Compilation of entitlement according to agreed financial institutions																										
Processing of disbursement of entitlements																										
Provision of cash compensation for PAHs not selecting replacement																										
One on one compensation agreement counselling																										
<b>HOST SITE LAND ACQUISITION</b>																										
Engagement of BRE/Council/PAPs to verify all replacement land																										
Engagement of surveyor																										
Mapping of replacement land by surveyor																										
Record replacement land in village books																										
BRE and Council provide relevant customary certificate of title for land ownership																										
Handover of land to PAHs (dependent on season / type)																										
<b>LIVELIHOOD RESTORATION</b>																										
Consultation meetings with PAPs to discuss LRP programs																										
Allocate PAPs to selected livelihood plan																										
Produce detailed budget requirements and timeline for each livelihood training programs																										
Implement LRP programmes																										

NGONYE FALLS HYDROPOWER PROJECT, SIOMA AND SENANGA DISTRICTS FINAL RESETTLEMENT ACTION PLAN

	Month	0	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
<b>E</b>	<b>REPLACEMENT HOUSING / INFRASTRUCTURE</b>																									
1.1	Identify and engage construction contractor																									
1.2	Plan schedule of building of replacement structures																									
1.3	Construction of replacement houses, structures and public																									
1.4	Inspection and hand over of housing and structures to project																									
1.5	Sign housing handover and acceptance forms with PAHs																									
1.6	Undertake monitoring and maintenance as required on housing / infrastructure (1yr post handover)																									
<b>F</b>	<b>RELOCATION</b>																									
1.1	Engage PAHs on relocation process																									
1.2	Provide transport and relocation allowances																									
1.3	Physical relocation of PAHs from existing structures / fields																									
1.4	Relocation / ceremonial processes for impacted graves / spiritual sites																									
1.5	Demolition of structures / fixed assets remaining																									
<b>G</b>	<b>MONITORING AND EVALUATION</b>																									
1.1	Key indicators monitoring survey																									
1.2	Monthly internal performance monitoring (programme management, moratorium violations, asset compensation / replacement, compensation, vulnerable groups, grievance tracking)																									
1.3	Quarterly internal performance monitoring (livelihoods restoration activities, engagement)																									
1.4	External bi-annual monitoring																									
<i>N.B. implementation of livelihood restoration activities and monitoring and evaluation will continue until a point of completion, as defined in Section 17.2 of the RAP</i>																										

## 12 COSTS AND BUDGETS

Table 41 provides a summary of the provisional estimated budget for resettlement, with the distribution of budget according to aspect presented in Figure 49. This budget follows the signing of compensation agreements with PAHs and selection of compensation and resettlement options. Additional refinements to the budget will be made based on further development of livelihood restoration activities and programmes at the point of implementation.

Full details and breakdown of the budget are presented in Appendix I.

**Table 41: Provisional Resettlement Budget**

Item	Description	ZMW	USD
1.0	Structures	27,598,882.25	1,149,953.43
2.0	Land	3,198,478.22	133,269.93
3.0	Crops	913,400.53	38,058.36
4.0	Trees	1,377,459.00	57,394.13
5.0	Fisheries	5,094,481.18	212,270.05
6.0	Loss of Cultural Heritage	932,954.68	38,873.11
7.0	Lost Communal/Public Infrastructure	796,992.88	33,208.04
8.0	Allowances and Other Support	4,465,208.66	186,050.36
10.0	Livelihood Restoration and Development	23,804,773.56	991,865.57
11.0	Vulnerable People and Gender	1,920,000.00	80,000.00
12.0	Project Management and Administration	3,242,000.00	135,083.33
	<b>Sub-Total</b>	<b>73,344,630.95</b>	<b>3,056,026.29</b>
	<b>Contingency (25% Of Budget)</b>	<b>18,336,157.74</b>	<b>764,006.57</b>
	<b>Grand Total</b>	<b>91,680,788.69</b>	<b>3,820,032.86</b>

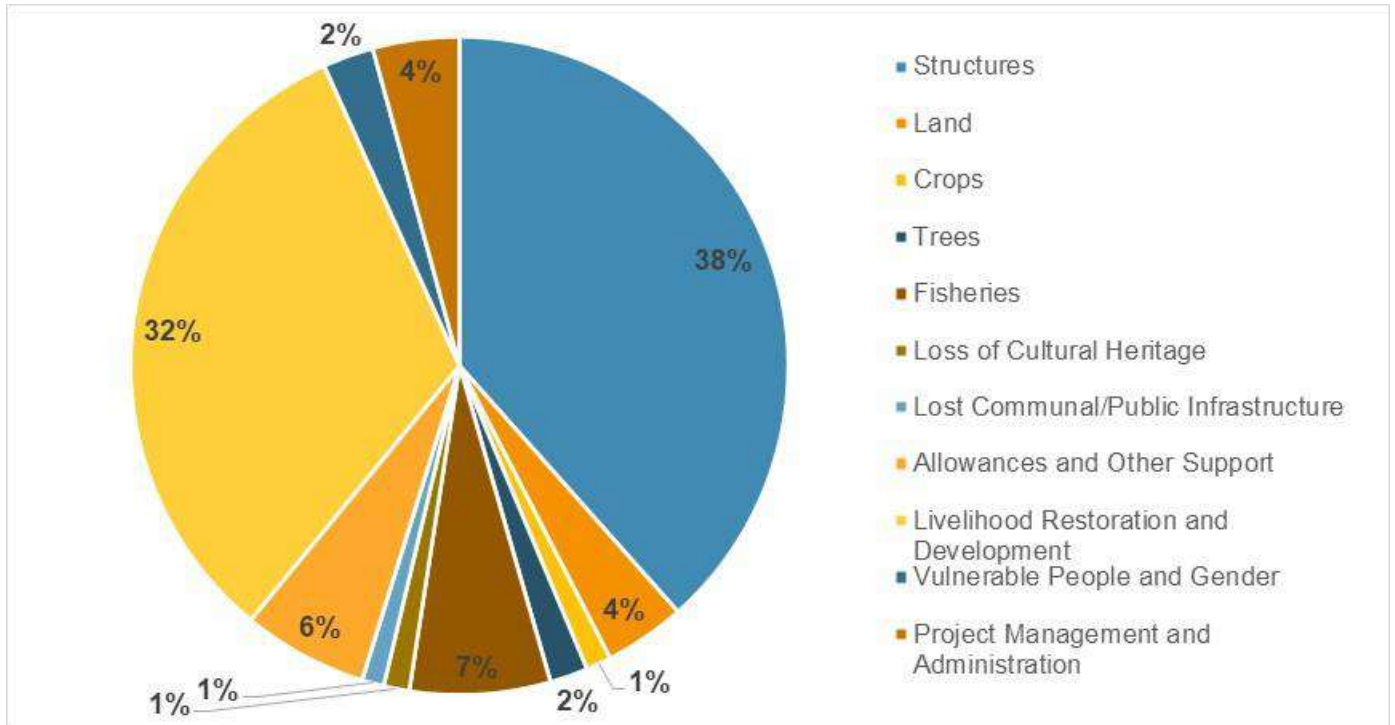


Figure 49: Resettlement Budget Distribution

## 13 MONITORING AND EVALUATION

### 13.1 Institutional Responsibilities for Monitoring

The Project has established resources to support ongoing monitoring activities, and which have facilitated the development of both the ESIA and this RAP. These resources form part of the wider Project planning and implementation team, described in Section 11.1. CLAs will play a critical role in undertaking monthly monitoring against set indicators and contributing to monthly reports under the overall supervision of the CLO and Environmental and Social Specialist.

The Project has also established committees to support engagement, planning and implementation. The RAC and CRCs, as well as affected households, will be involved in monitoring activities, with engagement to assess implementation progress as per the timeframes outlined below.

### 13.2 Internal Monitoring

The Project will undertake internal monitoring to measure progress in implementation of the RAP against set targets, in accordance with the parameters in Table 42. Monitoring reports will be prepared on a monthly, quarterly, or annual basis as indicated. Feedback on Project progress will be provided to stakeholders during engagement activities defined in Section 10.11.

**Table 42: Monitoring Parameters**

Category	Monitoring Parameter	Monitoring Interval
<b>Performance Monitoring</b>		
<b>Programme Management</b>	<ul style="list-style-type: none"> <li>● Actual versus predicted RAP implementation schedule.</li> <li>● Actual versus predicted household relocation implementation schedule.</li> <li>● Actual versus predicted replacement land implementation schedule.</li> <li>● Actual versus predicted payment of compensation.</li> <li>● Actual versus predicted project spend on livelihoods restoration programmes.</li> <li>● Actual versus budgeted cost expenditure.</li> </ul>	Monthly
<b>Moratorium Violations</b>	<ul style="list-style-type: none"> <li>● Number of recorded violations of the moratorium.</li> <li>● Record of responses to violations (pending resolution or closed-out)</li> </ul>	Monthly
<b>Asset Compensation</b>	<ul style="list-style-type: none"> <li>● Number of disclosed compensation packages.</li> </ul>	Monthly



Category	Monitoring Parameter	Monitoring Interval
<b>or Replacement</b>	<ul style="list-style-type: none"> <li>● Number of signed compensation packages.</li> <li>● Progress on replacement housing construction and handover.</li> <li>● Progress on replacement land preparation and handover.</li> <li>● Progress of payment of compensation.</li> <li>● Number of households that have been relocated against predicted schedule.</li> </ul>	
<b>Compensation</b>	<ul style="list-style-type: none"> <li>● Number of signed compensation packages.</li> <li>● Actual versus Predicted Compensation Payment Schedule.</li> <li>● Number of households that have received and signed-off on compensation payments.</li> </ul>	Monthly
<b>Vulnerable Groups</b>	<ul style="list-style-type: none"> <li>● Number of vulnerable households supported during the transition period.</li> <li>● Type of support given to vulnerable households</li> </ul>	Monthly
<b>Livelihood Restoration</b>	<ul style="list-style-type: none"> <li>● Livelihood restoration and development programmes initiated.</li> <li>● Actual versus predicted project-spend on livelihoods restoration programmes.</li> <li>● Number of actual versus predicted project beneficiaries</li> <li>● Number of PAHs whose livelihoods are restored to pre-project level</li> </ul>	Quarterly
<b>Engagement</b>	<ul style="list-style-type: none"> <li>● Actual versus predicted committee / commissions meetings</li> <li>● Actual versus predicted community meetings</li> </ul>	Quarterly
<b>Grievance Tracking</b>	<ul style="list-style-type: none"> <li>● Number of grievances received (including type and urgency)</li> <li>● Number of grievances that were acknowledged within 7 days to date / this month.</li> <li>● Number of grievances that were acknowledge after 7 days to date / this month.</li> </ul>	Monthly

Category	Monitoring Parameter	Monitoring Interval
	<ul style="list-style-type: none"> <li>Number of grievances with agreed corrective action within 28 days to date / this month.</li> <li>Number of grievances with agreed corrective action beyond 28 days to date / this month.</li> <li>Number of grievances resolved within 42 days to date / this month</li> <li>Number of grievances resolved beyond 42 days to date / this month</li> </ul>	

### 13.3 External Monitoring

The IFC requires project sponsors to monitor and report on the effectiveness of RAP implementation, with external audits undertaken by an independent consultant or auditor on a bi-annual basis. According to the IFC, monitoring is required to include:

*'The physical progress of resettlement and rehabilitation activities, the disbursement of compensation, the effectiveness of public consultation and participation activities, and the sustainability of income restoration and development effort among affected communities.'* p.49, *Handbook for Preparing a Resettlement Action Plan.*

External monitoring will have the following objectives:

- Review and assess the current status of all aspects of RAP implementation;
- Verify internal performance monitoring;
- Provide the sponsor responsible for implementation with feedback on the progress and effects of resettlement; and
- Identify key recommendations for actions to ensure PAHs livelihoods are fully restored and for ongoing internal monitoring.

External monitoring will include the following key monitoring requirements (Table 43):

**Table 43: External Monitoring Parameters**

No.	Monitoring Requirement
<b>1</b>	Verify Internal RAP Implementation Reports (IRIR) including a field check of the following (1a – 1j).
<b>1a</b>	Payment of compensation, levels, timing.
<b>1b</b>	Settlement of land/resource access claims.
<b>1c</b>	Preparation and adequacy of resettlement sites.
<b>1d</b>	Housing construction/status.

No.	Monitoring Requirement
1e	Provision of employment, adequacy, and income levels.
1f	Adequacy of training and other developmental inputs.
1g	Status of vulnerable groups.
1h	Infrastructure repair, relocation, or replacement.
1i	Enterprise relocation, compensation, and adequacy.
1j	Transition allowances.
2	Interview a selection of PAPs on their knowledge and concerns of the resettlement process, their entitlements and rehabilitation measures.
3	Observe public consultations with affected people at village/town level.
4	Observe the function of the resettlement operation at all levels to assess effectiveness and compliance with RAP.
5	Check the type of grievance issues and functioning of redress mechanism by reviewing the process of appeals at all levels and interviewing aggrieved, affected people.
6	Survey the standards of living of the affected people before and after implementation of resettlement.
7	Advise project management on the necessary improvements for RAP implementation.

Monitoring will include impact monitoring (in line with part 6 of Table 44) to provide assessments of the effectiveness of the RAP strategies in meeting the affected populations needs. Sample socio-economic surveys based on indicators presented in Table 42 will be undertaken with PAHs from all categories (PAHs that are physically and economically displaced including loss of traditional fishing sites). Survey data will be used to compare the effects of the resettlement activities with the baseline conditions of the affected populations before and after the resettlement exercises. This survey will initially be deployed pre-implementation, to determine the current existing socio-economic status of PAHs and provide an accurate point of comparison going forwards to assess impacts and potential improvements to livelihoods through the livelihood restoration and improvement programmes. Surveys will be supplemented with key informant interviews and focus groups with affected households reporting on their satisfaction with the resettlement process and activities.

**Table 44: Impact Monitoring Indicators and Targets**

Indicator	Level	Target
<b>Education</b>		
<b>Education level</b>	Individual	Improved levels with equal gender balance
<b>Literacy level</b>	Individual	All adults of working age literate with equal gender balance
<b>School attendance (age 6-18)</b>	Individual	All children aged 6-18 in school
<b>Primary occupation</b>	Individual	-

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RESETTLEMENT ACTION PLAN

Indicator	Level	Target
<b>Access to Services</b>		
<b>Source of potable water</b>	Household	All households with improved source of water
<b>Source of sanitation</b>	Household	All households with improved source of sanitation
<b>Source of cooking energy</b>	Household	All households with improved stove
<b>Source of lighting energy</b>	Household	All households with solar / battery or electricity lighting
<b>Health</b>		
<b>Access to healthcare</b>	Household	All households accessing primary healthcare within 30minutes walk
<b>Illnesses</b>	Individual	Decrease in incidence of main diseases / illnesses (malaria, diarrhoea etc)
<b>Use of mosquito net</b>	Individual	All household members sleeping under net
<b>Access to Under 5s</b>	Individual	All under 5s screened and vaccinated
<b>Access to Pre-/Post-Natal Care</b>	Individual	All women received pre-and post-natal care
<b>Nutrition level</b>	Household	Increased consumption of proteins, number of daily meals
<b>Livelihoods</b>		
<b>Income sources (type and important)</b>	Individual	Improvement in variety / dependency of income sources
<b>Income levels</b>	Individual	Increased income levels
<b>Expenditure</b>	Household	Increased spending ability
<b>Homestead structures</b>	Household	Improved size, materials, tenure
<b>Asset ownership</b>	Household	Increased assets
<b>Size of total land owned</b>	Household	Equal or increased
<b>Size of total land cultivated</b>	Household	Equal or increased
<b>Distance to land</b>	Household	Equal or decreased
<b>Use of irrigation and type</b>	Household	Increased access
<b>Types of crops cultivated</b>	Household	Equal or improved
<b>Number of bags / kgs harvested</b>	Household	Equal or improved
<b>Proportion of crops sold</b>	Household	Equal or improved
<b>Number / type inputs used</b>	Household	Equal or improved
<b>Number / type of fruit trees</b>	Household	Equal or improved
<b>Number / type of fruit trees productive</b>	Household	Equal or improved
<b>Number / type of livestock</b>	Household	Equal or improved

Indicator	Level	Target
Access to grazing land	Household	Equal or improved
Fishing - type and frequency	Individual	-
Access to savings	Individual	Equal or improved
Access to credit	Individual	Equal or improved
<b>Resettlement Programme</b>		
Access to livelihood restoration programmes (current /previous according to type)	Individual	At least one male and one female household member received livelihood support
Access to CRC / RAC	Individual	Inclusion / feedback from committees
Access to CLA / CLO	Individual	Ability to access on weekly basis as needed
Access to grievance mechanism	Individual	Any grievances recorded and responded to in line with mechanism

### Completion Audit

The IFC requires companies to undertake an evaluation of resettlement implementation to assess whether the outcome of the RAP complies with the involuntary resettlement policy. According to the IFC:

*‘The key objective of this external evaluation, or completion audit, is to determine whether the sponsor’s efforts to restore the living standards of the affected population have been properly conceived and executed. The audit should verify that all physical inputs committed in the RAP have been delivered and all services provided. In addition, the audit should evaluate whether the mitigation actions prescribed in the RAP have had the desired effect. The socioeconomic status of the affected population, including the host population, should be measured against the baseline conditions of the population before displacement, (as established through the census and socioeconomic studies).’ p.49, Handbook for Preparing a Resettlement Action Plan.*

The resettlement completion audit typically brings to closure the sponsor’s liability for resettlement, compensation, livelihood restoration, and development support. A completion audit will be scheduled by the Proponent in consultation with external monitoring consultants upon completion of implementation activities.

The IFC notes the challenges of determining ‘completion’ of livelihood restoration activities, with the following factors impacting any assessment:

- Macro-economic factors, including currency fluctuation, inflation, local employment availability etc, which can impact the post-resettlement circumstances of households;
- Impacts of misfortune, such as the death of the household breadwinner or illness, which may result in changes in livelihoods outside of a household, or developers, control;



- Challenges in assessing income, especially in the case of subsistence agriculture, and in determining the value and role of subsistence agriculture in livelihoods. This is especially relevant in the case where households have shifted away from subsistence agriculture to alternative livelihood means; and
- Challenges with households moving away, losing contact with the developer, or opting not to enrol in livelihood restoration activities.

WPC will undertake as far as possible to restore and improve the living standards and livelihoods of PAHs. Ongoing monitoring throughout implementation will provide recommendations for additional requirements or adjustments to existing programmes. Should the completion audit identify significant gaps, additional assistance measures will be identified and a subsequent audit scheduled until a point that WPC and lenders are satisfied that resettlement conditions and international best practice have been met.

## 14 DECLARATION OF AUTHENTICITY OF REPORT CONTENTS

The information presented in this report presents an authentic and complete presentation of the proposed project and planning for resettlement, and reflects our commitment to implement the management measures outlined herein.

On Behalf of Western Power Company Limited	
Duly certified on (Date)	
Name	
Designation	
Signature	

# Appendix A-1

## Stakeholder Engagement Materials Round 1

# Appendix A-2

## Stakeholder Engagement Materials Round 2

# Appendix A-3

## Stakeholder Engagement Materials Round 3



# Appendix B-1

## Stakeholder Engagement Records Round 1

# Appendix B-2

## Stakeholder Engagement Records Round 2

# Appendix B-3

## Stakeholder Engagement Records Round 3

# Appendix C

## Census and Assets Survey Forms

# Appendix D

## Valuation Reports



# Appendix E

## Sample Household Agreement

# Appendix F

## Replacement Housing Designs

# Appendix G

## Resettlement Committee Membership and Mandate

# Appendix H

## Grievance Mechanism Forms

# Appendix I

## Provisional Resettlement Budget



# Appendix J

## Signed Household Agreements

# Appendix K

## Detailed Maps

# Appendix L

## Consent for Replacement Land

# Appendix M

## Fisheries Study



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