



**RESETTLEMENT ACTION PLAN FOR
RUMPHI WATER SUPPLY AND SANITATION SERVICES
IMPROVEMENT PROJECT**



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Country: MALAWI

Northern Region Water Board

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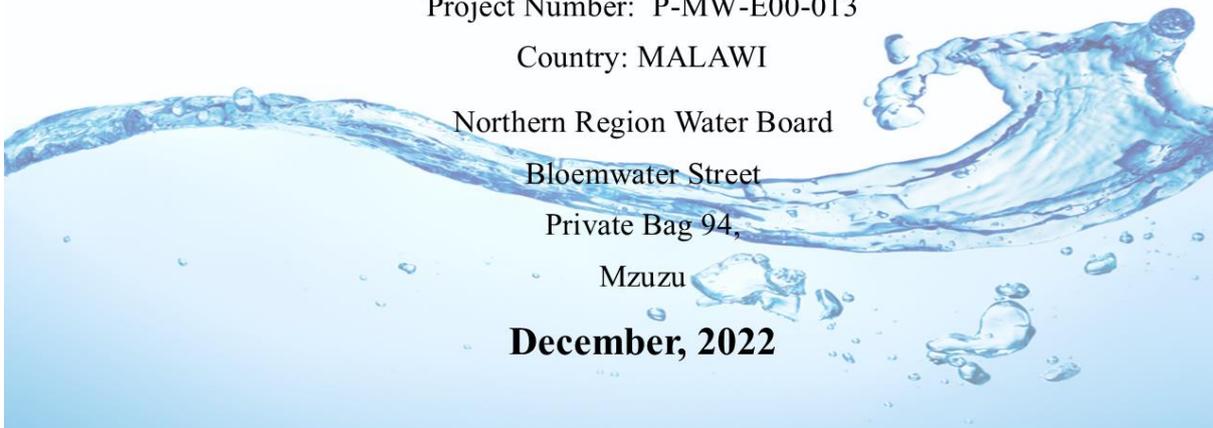


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ACRONYMS

ADC	Area Development Committee
AfDB	African Development Bank
CICT	Core Implementation Coordination Team
COI	Corridor of Impact
CSO	Civil Society Organisation
DESC	District Environmental and Social Committee
DPMT	District Project Monitoring Team
ESIA	Environmental and Social Impact Assessment
EP	Entitled person
GBV	Gender Based Violence
GR	Grievance Registry
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
GRMC	Grievance Redress Mechanism Committee
GPS	Geographical Position System
GVH	Group Village Headman
IVSC	International Valuation Standards Council
NGO	Non-Governmental Organization
NRWB	Northern Region Water Board
PAP	Project Affected Person
PAH	Project Affected Household
PDO	Project Development Objective
RAP	Resettlement Action Plan
RDC	Rumphi District Council
RRB	Road Reserve Boundary
RWSSIP	Rumphi Water Supply and Sanitation Services Improvement Project
RoW	Right of Way
SIM	Surveyors Institute of Malawi
SRH	Sexual and Reproductive Health
TA	Traditional Authority

DEFINITIONS

The following definitions will be applicable unless otherwise stated specifically:

- *Building or Structure*: refers to a dwelling unit/house or anything constructed for habitation or housing of a business enterprise;
- *Corridor of impact (COI)*: Refers to the minimum land width required for sewer or water supply pipelines;
- *Cut-off date*: Date that was established and on which the PAP or his asset must be located within a direct impact zone of the Corridor/Way leave when the census was completed;
- *Dwelling unit*: It may be defined as any structure – permanent, semi-permanent or traditional where people live and sleep. This is irrespective of the size of the household and building size. A household may contain one or several dwelling units.
 - *Permanent structure*: Dwelling units built with durable materials, a roof made of iron sheets, tiles, concrete or asbestos and walls made of burnt bricks, concrete or stones.
 - *Semi-permanent structure*: Dwelling units lacking materials of a permanent structure for wall or roof. These are built with non-permanent walls such as sun-dried bricks or non-permanent roofing materials such as grass thatch.
 - *Traditional structure*: Dwelling units built with both thatched roof and mud walls.
- *Dwelling (or Structure) owner*: The owner of a dwelling unit/house or anything constructed for habitation or housing of a business enterprise;
- *Encroacher*: A person who has extended their building, agricultural lands, business premises or work places into public/government land without authority;
- *Entitled person (EP)*: A person who is adversely impacted by the project and is eligible for assistance as per the project entitlement framework;
- *Improvement*: In relation to any land, means any work or product of work which materially adds value to the land and which is suitable to the land and consistent with the character thereof;
- *Income*: Income of the Project Affected Person (PAP) shall mean the amount prior to the cut-off date from all occupations/sources taken together calculated by an objective assessment;
- *Kraal*: a pen or other enclosure for livestock, especially cattle;
- *Kiosk*: A kiosk is a booth/stall/cabin/cubicle made of wood or iron or any other building material which could be shifted to another location as a single unit without much damage

and is used for carrying out petty business/ commercial activities and has been in operation/existence prior to cut-off date;

- *Land*: Means the material of the earth, whatever may be the ingredients of which it is composed, whether soil, rock or other substance, and includes the surface covered with water, all things growing on that surface, buildings, other things permanently affixed to land and free or occupied space for an indefinite distance upwards as well as downwards, subject to limitations upon the airspace imposed, and rights in the use of airspace granted, by international law.
 - *Private Land*: All land which is owned, held or occupied under a freehold title, or a leasehold title and is registered as such under the Registered Land Act;”
 - *Freehold land*: Land held absolutely privately in perpetuity on which no ground rent is paid.
 - *Leasehold land*: land held privately for a term of years
 - *Public land*: land held in trust for the people of Malawi and managed by government and includes any land held by the government or local authority and, land gazetted for national parks, forest reserves, recreation areas, historic or cultural sites.
- *Land Holder*: Means holder of a parcel of land or a proprietor of land, who is responsible for the payment of land revenue;
- *Person*: Includes an individual, a firm, a Company or an association or a body of individuals whether incorporated or not;
- *Project*: Refers to Rumphi Water and Sanitation Services Improvement Project;
- *Project Affected Area*: Refers to the area or locality under a project for which land will be acquired or for which land belonging to the Government/Project Proponent will be cleared of encumbrances;
- *Project Affected Person (PAP)*: Any tenure holder, tenant, Government lessee or owner of other property, or non-titleholder (unauthorized occupant) who on account of the project has been affected from such land or other property in the affected area will be considered as PAP;
- *Project Affected Household (PAH)*: A social unit consisting of a family and/or non-family members living together, and is affected by the project negatively and/or positively;
- *Replacement Cost*: Replacement Cost as a rate of compensation for lost assets must be calculated as market value plus transaction costs i.e., A replacement cost/value of any land

or other asset is the cost/value equivalent to or sufficient to replace/purchase the same land or other asset;

- *Squatter*: A person who has settled on public/government land, land belonging to institutions, trust, etc. and or someone else's land illegally for residential, business and or other purposes and/or has been occupying land and building/asset without authority;
- *Temporary Impact*: Impact expected during implementation of the project in the form of earth spoil, tremors and vibrations, etc. affecting land and structure or loss of access;
- *Tenant*: A person who holds/occupies land-/structure of another person and (but for a special contract) would be liable to pay rent for that land/structure. This arrangement includes the predecessor and successor-in-interest of the tenant but does not include mortgage of the rights of a landowner or a person to whom holding has been transferred; or an estate/holding has been let in farm for the recovery of an arrear of land revenue; or of a sum recoverable as such an arrear or a person who takes from Government a lease of unoccupied land for the purpose of subletting it;
- *Fruit trees and perennial crop*: Any tree which is planted for fruit purposes are referred to as Fruit Trees while perennial crops are plants/crops that live for more than two years;
- *Other trees*: Natural trees and exotic trees as contained in the Forestry Gazette, Government of Malawi;
- *Annual crops*: Any plant that completes its life cycle in a single growing season such as maize, ground nuts, soya beans, cotton, pigeon peas;

EXECUTIVE SUMMARY

Introduction

The Government of Malawi, through the Northern Region Water Board (NRWB) intends to implement the Rumphi Water Supply and Sanitation Services Improvement Project. The project seeks to improve access to potable water, improve waterborne sanitation and solid waste management services in Rumphi and parts of Mzimba District. This will be achieved by upgrading and expanding the existing Rumphi water supply scheme to unserved areas, constructing a sewage system and wastewater treatment plant, and a landfill for solid waste management. In addition, public commuter toilets facilities and improved pit latrines public schools and market centres will be constructed. The project, upon completion, is expected to serve population of 158,085 by year 2040 and it is projected to cost USD 29.8 million (MK 30.9 billion, USD 1 = MK 1,036.25).

The laying of pipelines for water supply and sewage and the construction of new facilities will affect some private land and property. The African Development Banks' (AfDB) Operational Safeguard No. 2 on Involuntary Resettlement requires preparation of a RAP to address concerns related to involuntary resettlement and or the loss of assets or livelihood incomes as a result of the execution of a project. This Resettlement Action Plan (RAP) has, therefore, been prepared to assess likely impacts, outline procedures of compensation for losses by Project Affected Persons (PAPs). The document also provides institutional arrangements for RAP implementation, implementation mechanisms and schedules as well as processes designed for grievance redress, monitoring and evaluation.

Project Overview and Description

The extents of the project will be Bwengu to the East; Thumbi, Luzi, Chinyolo, Mkombezi, Phwezi and Bula to the Northeast; Chikwawa, Bolero, Luviri, Mwazisi, Lusani, Bembe, Kamphenda, Chanyoli through Luhono, Nkhamanga to the West; Vongo including Lumemo to the South; and Kacheche and Erukweni to the Southeast of Rumphi Town.

The source for the water supply system will be the South Rumphi River where a concrete intake weir will be constructed. The existing water treatment plant at Rumphi Boma will be upgraded from 1,500 m³/day to 19,415 m³/day. The project will also involve the rehabilitating, upgrading, and expanding of 323 km of pipelines and construction of concrete reservoirs with a total capacity of 7,350 m³.

In addition, the project will improve sanitation services by constructing new sanitation facilities such as schools and public latrines, commuter drop-stop toilet facilities, sewerage conveyance pipe networks and liquid waste treatment plant with a capacity of 148 m³/day, solid waste landfill for solid waste management with a capacity of 52,798 m³ and purchasing of associated equipment such as waste collection vehicles.

Although the activities described above will not result in physical resettlement of people, the activities listed below will lead the economic resettlement of people to allow for installation of pipelines as well as construction of new facilities.

- i. Installation of a total of 344 km pipelines for conveyance of potable water and wastewater throughout the project area.
- ii. Construction of storage reservoirs, sumps, booster stations and associated auxiliary buildings such guard and staff houses at Bolero, Luviri, Mwazisi, Kacheche and Thumbi.
- iii. Construction of an office building at Rumphi town.
- iv. Construction of a sanitary landfill at Thulwe.
- v. Construction of wastewater treatment plant at Rumphi Town.
- vi. Construction of commuter toilet facility at Mzokoto.

Objective of the RAP

The Resettlement Action Plan (RAP) was prepared following AfDB Involuntary Resettlement Policy (2003), AfDB Integrated Safeguards Systems - Operational safeguard number 2, and Malawi government laws. The objectives of the RAP are as follows:

- i. To describe national and AfDB requirements for resettlement due to the project activities
- ii. To identify the Project Affected Persons and Households (PAH) and their potential losses.
- iii. To provide for an agreed plan for their compensation and resettlement due to the project activities.
- iv. To provide principles, policies, institutional framework schedules and funding mechanisms for any loss and resettlement needs that may occur as a result of implementing the project.

Scope and Aim of the RAP

The scope of work for the RAP is to prepare an inventory (register) of people likely to be affected by project activities, a register of the assets that are likely to be displaced by the project and the proposed compensation and resettlement packages and recommend mitigation measures:

- i. Identify the existing Right of Way and new Right of Way;
- ii. The zone of impact of activities;
- iii. Alternatives considered to avoid or minimize resettlement;
- iv. Mechanisms established to minimize resettlement, to the extent possible, during project implementation;
- v. Provision of appropriate maps (in various scales) to describe the project area, population settlements and location of PAPs.

Approach and Methodology

The RAP preparation activities comprised desk review of relevant literature, Community sensitization and consultation processes, Census and Asset Inventory Survey, Socio-Economic survey, collection and establishment of values for compensation of various types of assets. All these activities took place from 20th September - 2nd October 2022. Consultations were held with relevant agencies and government departments, district level stakeholders as well as local leaders and project beneficiary communities. Consultations involved highlighting project activities and soliciting their views through open discussion forum, interviews and open dialogues with key informants with relevant expertise, and village meetings with community members.

An Asset Inventory survey was undertaken to record details of the PAPs with respect to the property and land to be affected by pipeline laying activities and construction of new sites. Measuring tapes were used to take the dimensions of structures, visual checking of the building materials, and general description of the buildings. Coordinates for each structure was captured using a GPS. The data collected included:

- i. Property sizes, location, ownership, construction materials for structures, current use and condition etc.;
- ii. Number and sizes of trees to be affected by the project, including types (whether indigenous or exotic; or fruit or not) and stage of growth; and
- iii. Type of crops likely to be affected by the project.

Stakeholder Consultations

Stakeholder consultations that were carried across the project area included: Project Affected People (PAPs), Chiefs and block leaders, Rumphi and M’mbelwa Council Officials and Ward Councillors. The objectives were to: create general awareness amongst the potential PAPs about the project; to define and identify people affected by the project (PAPs), increase their knowledge about the project; explain the RAP process; increase project acceptability and PAP readiness to support the project. The exercise also explained the nature, extent, limit, and method of compensation as that would help PAPs understand the processes better. Major concerns expressed were with respect to how households will be connected to the network, timing of compensation and mode of payment. Other concerns included: institutions that would be responsible to handle grievances, provision of work opportunities during construction. In order to address these concerns, community sensitization and consultation would be a continuous process aimed to address awareness, knowledge and behaviour change during and after the implementation of the project by using personal communication, interviews, etc.

Socio-Economic Conditions

The social and economic baseline was undertaken for purposes of informing stakeholders on the current state of affairs in project areas. The foregoing has attempted at explain the key social and economic activities of the communities in question. It also went on to explain some of the major challenges that people in these areas face, particularly those that will have a

bearing on the implementation of the water supply and sanitation project. The key findings of the socio-economic baseline are summarised below:

Household Characteristics, Ethnicity and Religion

The total population affected by resettlement is 736 based on the census of the Project Affected Persons. A socio-economic survey of 287 households in the project area established that the average household size is 5.1. The average age of households is 25 and there was no child-headed household recorded. The number of female-headed households recorded was 30, representing 10.5% of the sampled households.

In terms of ethnicity, 273 (95%) of the respondents are Tumbuka, with 9 (3%) Chewa and 3 (1%) Ngoni and Ngonde respectively.

The dominant religion amongst the households is Christianity (99.3%) followed by Islam (0.7%).

Gender and Societal Roles

Of the sampled households, 303 individuals were male and 286 individuals were female, representing 51.4% and 48.6% respectively. Since the area is largely comprised of people of Tumbuka ethnicity, their culture is mainly patrilocal and patrilineal in the sense that women move to live in the husband's home area and inheritance is passed through the father's lineage. In this culture, although farming is done by both men and women, most domestic or household chores are mainly done by women, particularly drawing water, cooking and fetching firewood. In discussions with the community members, it was mostly the women who complained in detail about the challenges that they face in ensuring that they have water at the homestead.

Vulnerability and Living with Disability

The project census found 70 people out of 736 PAPs vulnerable people representing 9.51%. Out of vulnerable group, 4.85% of people had disabilities that ranged from speech impairment and physical disability. None of the people encountered had visual impairment. The project and RAP implementation need to be inclusive enough and provide necessary attention to this group of people.

Education

The survey results showed that 187 of the household members reported that they were still in primary school. Of the adults, 115 reported that they did not finish primary school whereas 44 reported that they did not finish secondary school. Only 10 of the individuals were reported to have attained higher education level. In terms of literacy, 106 individuals were reported not able to read. This included children under the age of 11 and very old persons. This represented 76% literacy rate.

Livelihoods and Land Use

The predominant livelihood of the households is agriculture followed informal employment such as piece/casual work. From the survey results, a large number of the individuals in the sample (207) are still going to school, which also speaks to the young population in

A large proportion of the respondents reported having at least one piece of land (44%) seconded by those with 2 pieces of land (32%). A further 16% reported that they had access to 3 pieces of land. Only 3 % of the respondents reported that they did not have access to land.

In terms of tenure, 70% reported that it was customary land whereas 17% reported that it was individual titled land. Others reported that they were renting and paid in cash (9%), rented and paid in kind (1%) and freehold (3%). The titled and freehold land was mostly reported in the townships. Land was reported to be used for farming all year round by only 12.2% compared to those who farmed seasonally reported by 87.1%. Land size/holdings ranged from 0.25 to 24 acres, with the majority (93.9%) holding between 0.25 and 3 acres.

According to the respondents, 89.9% use firewood for cooking, whereas 8.7% use charcoal for cooking. Only 1% reported that they use electricity for cooking. Combining charcoal and firewood for cooking shows that there is a high burden on the trees in the area.

Legal and Institutional Framework

Malawian Legislation

The key instruments for managing land acquisition in Malawi include:

- **The Constitution of the Republic of Malawi (1995):** Articles 28.1 to 28.2 deal with issue on individual property rights and article 44.4 which details the exceptions of the provisions of articles 28.1 to 28.2 and other related rights granted citizens of Malawi.
- **Malawi National Land Policy (2002):** Guides land management and administration in Malawi.
- **The National Gender Policy (2015):** Advocates the need for women to have control over agricultural productive services and resources such as land and income.
- **National Forestry policy (2016):** Prohibits land use changes or encroachments that may result in deforestation or degradation of areas of cultural importance and forests with catchment management importance.
- **The Land Act (2016):** Principal law in land matters. Section 7 classifies land into public and private land with subcategories whilst Section 18 provides for compensation to individuals for loss, damages or disturbances.
- **Land Acquisition and Compensation Act (2016):** Main legislation that addresses compensation issues. Section 4 of this act explicitly states cases in which expropriation can take place. Section 9 of the Land Acquisition (Amendment) Act 2016 defines “appropriate compensation”. Section 12 lays down grounds for compensation being loss of occupational rights, loss of land, loss of structure, loss of business, relocation costs, loss of good will, cost of professional advice, injurious affection, nuisance, loss or reduction of tenure and disturbances.

- **Physical Planning Act (2016):** Section 67 to 70 of the Act provides for acquisition of land and its compensation for planning actions. The Act requires that any acquisition of land and any payment of compensation should be in accordance with Land Acquisition Act.
- **Public Roads Act (2016):** Covers the management of road reserves and streets. The act make provision for legally occupier or owners of land in a road reserve who suffers damage as a result of works carried out on such land by to be entitled to compensation in respect of such damage in accordance with Part II.
- **The Monuments and Relics Act (1991):** Stipulates the proper management and conservation of monuments that are of importance both nationally and locally. Section 18 provides for the protection of monuments and relics through the provisions of the Land Act or the Lands Acquisition and Compensation Act.
- **Forestry Act (1997):** Affirms the role of Department of Forestry Provides in the control, protection and management of forest reserves and protected forest areas. Section 86 of Forestry Act has provided guidelines on values/rates for sale of both indigenous trees and exotic trees.
- **Water Works Act (1995):** Gives water boards the power to acquire land for constructing and maintaining water works for the purpose of creating, maintaining and extending waterworks for the supply of water. Section 13 requires Water Boards to pay compensation to the affected people for loss or damage.

AfDB Requirements

AfDB's integrated Safeguards System (2013), Operational Safeguard (OS) 2 on Involuntary Resettlement: Outlines the guidelines that need be followed in the implementation of AfDB financed projects relating to displacement and involuntary resettlement of people. It seeks to ensure that when people must be displaced, they are treated fairly, equitably, and in a socially and culturally sensitive manner; that they receive compensation and resettlement assistance so that their standards of living, income-earning capacity, production levels and overall means of livelihood are improved; and that they share in the benefits of the project that involves their Resettlement. The policy requires that all Project Affected Persons (PAPs) be compensated for all their losses at full replacement value before their land and related assets are taken or damaged. The policy also provides procedures for consultations, resettlement planning, compensation, implementation, monitoring and evaluation.

Implementation Framework

The implementing agency, NRW, has implemented similar water and sanitation projects financed by multilateral Banks. The projects have strengthened NRW's internal capacity that has enabled the institution meeting different requirements and ensuring compliance with national and financiers safeguard requirements.

To ensure smooth implementation of the RAP, the Project Implementation Unit (PIU) will have personnel trained in Environmental Management and Social Safeguards, Community Mobilisation and Engagement, Gender, and Monitoring and Evaluation. The personnel have

participated in different projects financed by different Banks, and shall ensure the RAP is implemented satisfactory, and all related complains are addressed.

The Environmental and Social Safeguards Expert shall be responsible for overall implementation and coordination of the RAP activities, and shall work hand in hand with Gender Officer, and Community Mobilisation and Engagement Expert where their expertise shall be required. The RAP implementation team shall therefore composed of the following experts;

- i. Environmental and Social Safeguard Experts
- ii. Environmental and Social Safeguard Officer
- iii. Community Mobilisation and Engagement Expert
- iv. Gender and Social Welfare Expert
- v. Monitoring and Evaluation Officer
- vi. District Lands Officer

Implementation Arrangement of RAP

The successful implementation of the project RAP shall require seamless interaction and coordination from different stakeholders involved in the project including AfDB, NRWB and Ministry of Lands, District Environmental Office, and District Councils among others.

NRWB as the implementing entity shall be responsible for implementation of the RAP, ensuring swift grievances redress, monitoring RAP implementation, and reporting to AfDB on monthly basis. The NRWB will perform the roles in collaboration with the Ministry of Lands and Project Monitoring Team (PMT).

All compensation payments will be made by NRWB in the presence of responsible officials from the Ministry of Lands and/or the District Council. Where possible and practical, the compensation cash or cheques will be deposited directly to the PAPs account.

The AfDB shall provide oversight to the implementing entity, NRWB, to ensure compliance with Bank's E & S safeguard standards on involuntary resettlement during implementation of the project.

Eligibility Criteria

All PAPs, including those who have no recognisable legal right or claim to the land they are occupying, are eligible for compensation or other assistance commensurate with the nature and extent of the impact involved. Eligibility to entitlements require the following;

- i. PAP must have been located within a direct impact zone of the Corridor before the cut-off date established when the census was completed.
- ii. Suffered a loss that is quantifiable i.e., loses an asset partially or fully, either permanently on or a temporary basis or can be quantified in monetary terms etc.

- iii. His/her ownership of the asset is either formally registered or at least recognized and his/her presence or association with the location is recognized or well known within the local community.

Cut-Off Date

The concept of a cut-off date was explained to PAPs and stakeholder during consultation and engagement meetings and it was agreed that the Census and Asset Inventory Survey end date would become the cut – off date. Any assets created or improvements done to existing assets, change in use or ownership, potential newcomers within the project areas after this date will not be eligible for compensation or resettlement assistance. The Census and Asset Inventory Survey ended on 2nd October, 2022 which became the cut-off date. However, PAPs and stakeholder reaction to Cut-Off date was that the concept would only be applicable if compensations were done in time followed by immediate implementation of the project. Delays in project implementation would not stop them from developing their land.

Valuation of Assets

The valuation of assets was based on the local Malawian provisions and the AfDB policy on Involuntary Resettlement.

Malawian Provisions: The Land Acquisition and compensation Act (2016) provides for what has to be considered in the process of valuation of assets for compensation purposes. First, the Act (section 10 sub section 2) stipulates the 11 grounds for compensation as loss of occupational rights, loss of land, loss of structure, loss of business, relocation costs, loss of good will, injurious affection, nuisance, loss or reduction of tenure and costs of professional advice, subject to the provision of a relevant Act, and when the grounds are established, a disturbance allowance is added.

In the assessment of compensation, the law requires that where there is an indication that a property shall be acquired compulsorily and that this has the effect of reducing the market value of the property, the valuation of the said property shall ignore the blighting effect.”

AfDB Policy on Involuntary Resettlement: The policy requires that affected persons be compensated on actual replacement costs of expropriated assets. The Policy describes replacement cost as the method of valuation of assets that help determine the amount sufficient to replace the lost asset and cover transaction costs. In applying this method depreciation is not taken into account. The principle of replacement costs is to ensure that the affected persons secure assets equivalent to those lost. These replacement costs address compensation for tangible assets like land, houses, trees and other improvements on land. The replacement costs include all administrative fees, provision for inflation if payments are delayed.

Valuation Methods Used

Based on the knowledge of the assets impacted by the project, the appropriate method used in the valuation of the affected asset are Cost approach, Investment approach and Comparison approach. The following categories of assets were affected:

- **Land (for booster, offices and tank sites):** Land values were derived by using one method of valuation – Comparable sales Method. The comparable sales approach is the most common method of property valuation. It relies on market information to value the property. The underlying concept is that a recent sale from a willing seller to a willing buyer of a property (the comparable property) can best reflect the value of a similar property (the subject property) in the vicinity.
- **Structures along the pipeline corridor:** Considering that the area of impact of the project is not urban in nature and that even at Rumphi Boma, the market evidence is scarce, the Cost and Comparison approaches (comparison approach for land valuation) have been considered relevant approach for this RAP.
- **Trees along the pipeline corridor:** For loss of trees along the corridor, the Government Forestry Gazette of 2010 offered a basis for calculation of values. Trees, during inventory, were categorized into three, namely:
 - Small with a circumference/girth of 6 cm to 10 cm around the trunk;
 - Medium with a circumference/girth of 11 cm to 20 cm around the trunk; and
 - Large with a circumference/girth of 21 cm and above.

The large category enjoyed the full rate of that species of trees, while the medium and the small were valued at half the value of the large tree and a third respectively.

- **Fruit trees along the pipeline corridor:** In the construction of rates for fruit trees, it was recognized that most of these fruits are not only for consumption but also for commercial purposes. The annual yield per fruit tree was obtained together with its market price per kg. This gave an annual income per fruit. An estimated annual expense in caring for such a fruit tree was deducted from the gross annual income to obtain a net income per tree. An estimated 15% All-Risks Yield was applied to obtain the value as used in this RAP

Impacts of Project Land Acquisition

The project is expected to have an overall positive impact of improving access to potable water supply and improved sanitation services in the project area. However, from the assessments the project will also have some adverse impacts as follows:

- i. **Total Number of PAPs affected:** Project will impact 736 PAPs (households). Out of 736 PAPs, 127 PAPs are females and 583 PAPs are males. This number includes 26 institutional PAPs. 53.45% of the PAPs are in Rumphi and the rest in Mzimba.
- ii. **Land:** A total of 32.45 ha of land will be affected by project with the following breakdown of land tenures;
 - 0.28 ha is leasehold land.
 - 6.23 ha of customary land purchased for different project infrastructure;
 - 2.49 ha of public land for reservoir tanks;

- 23.29 ha of farmland affected for pipe installation along Road Reserve public land.
- iii. Trees:** This project will affect 8501 trees. 34.76% of the trees are in Rumphu and the rest are in Mzimba. 91.71% of the trees are exotic and natural trees, while 8.28% are fruits trees.
- iv. Impacts on Resources serving the community and Institutional PAPs:** The institutional PAPs include two boreholes, churches and schools that serve the communities in the area
- v. Structures affected:** 51 (58.62 %) of the structures are shops, 10 (11.49%) pit latrines, 21 (24.14%) benches/temporary structures. No dwelling houses will be affected.
- vi. Loss of livelihood, if any:** It is expected that those losing shops and benches will temporarily lose income and thus affect their livelihood.

RAP Implementation Schedule

The RAP census started in September with cut off-date of 2nd October 2022. This process was followed by PAPs property valuation exercise, verification and error correction, and approval by Bank. Once the RAP is approved by Ministry of Lands who is the authority of land issues in Malawi, disbursement of compensation would start. The RAP implementation grievances shall be processed and redressed continuously during the disbursement process and after without dateline until the project completed. Below is the RAP implementation timeline schedule:

RAP Activities	Responsible Institution	Timeline
Planning phase		
Stakeholder and Community consultations	NRWB	June- August 2022
Affected land and pipeline Mapping	NRWB	August- September 2022
Formation of the GRM Committee	NRWB	August 2022
Consultation with the PAPs	NRWB & Ministry of Lands	August-October 2022
Census and RAP preparation	NRWB & Ministry of Lands	September-November 2022
PAP verification and error correction	NRWB & Ministry of Lands	November 2022

Disclosure of entitlement	NRWB	November 2022
AfDB RAP approval	AfDB	November-December 2022
Ministry of Lands RAP Approval (National Authority)	Ministry of Lands	November-March 2023
The Resettlement Implementation Phase		
Consultation with the PAPs	NRWB	March-June 2023
Disbursing payment to the PAPs and Land Acquisition	NRWB & Ministry of Lands	Sept 2023-May 2024
Documentation of the compensation activities	NRWB	July 2022-May 2022
Documentation of the Grievances recipients and responses	GRC & NRWB	July 2023-Dec 2024
Documentation, Reporting and efficiency assessment of the RAP	NRWB, Ministry of Lands, CSO	Sept 2023-May 2024
RAP internal/External Audit	NRWB	April 2023-April 2024
Evaluation activities mid-term evaluation final impact	NRWB	April 2023-April 2024
Vacation Notification	NRWB & Ministry of Lands	Feb-May 2024

Grievance Redressal

A grievance redress mechanism has been set up to resolve grievances at the community and technical levels. The grievance redress mechanism will allow the institutions engaged in grievance resolution to receive and address specific concerns about compensation raised by PAPs or any issues related to implementation of resettlement action plan in a timely fashion. For the purpose of handling grievances related to environmental and social concerns, the project will have to establish a grievance redress mechanism which will have to include a GRM committee at Project Level (NRWB), District level, Community Development Committee level and Area Development Committee level. These committees will have to be presented to the public through meetings and media. In these committees, grievances will have to be recorded in grievance reporting forms, sorted and assigned to appropriate party for resolution.

The Grievance redressal procedure shall comprise of time bound steps i.e., from lodging of the Grievance with the committee and then recording in the Grievance Form, to its redressal. If the affected person is not satisfied with the decision of the committee, s/he will be informed of

his/her rights to take the grievance to the court of law, as a last resort. However, the Complainant will also be informed that to do so will be at their own expense, unless the court awards damages to the Complainant. The decision of the court of law will be final.

To successfully implement the GRM, the project shall train and build capacity of GRC members from all 8 community level ADC GRCs, District council and NRW GRCs. It shall also sensitize the community on the availability of the redress mechanism through community meetings and local radio adverts. The GRC performance review meetings shall also be conducted bi-annually to assess how the GRCs have performed. The total budget requirement for GRM implementation is estimated at MK 52,500,000.00 for 4 year project period.

Monitoring and Evaluation

In order to track progress, highlight bottlenecks, and redress the issues effectively and in a timely manner and project milestones are met as per schedule, it is proposed that NRW will undertake Internal Monitoring on a monthly and quarterly basis. The monitoring shall cover aspects such as the number of households compensated appropriately and timely compensated, planned versus actual compensation and reasons for the discrepancy, total funds disbursed for compensation, the assistance to vulnerable groups/people, and complaints logged and resolved. Monitoring reports will be prepared on a monthly and quarterly basis until payment of compensation is completed. At the end of the compensation, a resettlement completion report will be prepared to explain the process, achievements and lessons learnt. Key parameters, timelines and frequency of monitoring are summarised below.

Indicator/Parameter	Timeline (Months)	Frequency
Undertaking of listed RAP activities with respect to proposed schedule: i. Operationalizing of GRM, ii. Number of PAPs compensated, iii. Time taken for compensation, iv. Total compensation disbursement, v. Total number of vulnerable groups assisted. vi. Total number of complaints logged, vii. Total number of complaints resolved.	1,2,3, 4,5 6	monthly
Variation in budget allocated in RAP estimate versus actual disbursed amount	2,3,4	quarterly
Variation in final number of PAPs vis a vis the numbers given in the final RAP	1	Once
Payment of compensation prior to issuing notice for vacation of lands and commencement of construction works	2,3,4,5	quarterly

In addition, NRW will engage an external audit firm annually to conduct annual RAP implementation audit. Furthermore, an exercise would be carried out at the end of RAP implementation period to ascertain if, indeed, the planned activities did enable achievement of the originally set objectives i.e., whether RAP objectives were met living standards of PAPs

were restored to pre-project status or enhanced. For this purpose, NRW will contract an External agency to conduct an Implementation Completion Audit for the RAP.

Budget Estimates

The budget has considered land to be affected, the trees, structures and the disturbances. The land values have been arrived at by comparison method. The compensation has also considered the loss of structures at full replacement cost. The damage to slabs and other structures will be compensated on case by case following the provisions of the matrix. The compensation for trees has considered the rates provided in the Forestry Gazette. The disturbance allowance has been set at 15%. This level of allowance has been considered the rates offered in other similar projects.

The total cost of RAP compensation is based on the cost of compensation of private and community assets, allowances and contingency is **Malawi Kwacha 492,240,900.00 (or USD 479,563.73) at MK 1026.4348 US Dollar as of 01st November, 2022.**

Conclusion

The implementation of the project will lead to some adverse impacts, these can be mitigated. To achieve this, there must be a prioritisation on community engagement in the RAP implementation phase, to ensure that the communities and especially the PAPs are supporting the project even during the construction phase. In general, there was no dissenting opinion about the proposed project from the affected communities. However, conducting effective engagement with the communities would inspire strong support from the people. It is also recommended that the Project should consider compensating the PAPs in a fair and timely manner, to avoid claims of undervaluation, due to delayed payment of compensation. PAPs will need to be prepared socially and economically (e.g. in financial literacy, skill and business development trainings livestock production, crop management and diversification and irrigation water management, for proper use of the compensation packages and improvement of livelihoods.

Compensation Summary Sheet

#	Variables	Data
A. General		
1	Region/Province/Department ...	Northern Region
2	Municipality/District...	Rumphi and Mzimba
3	Village/Suburb ...	Traditional Authorities Jalavikuba , Mtwalo in Mzimba and Chikulamayembe, Mwankhunikira and Mwahenga in Rumphi
4	Activity(ies) that trigger resettlement	Water Supply and sanitation service along the road reserves
5	Project overall cost	US\$29.8 million
6	Overall resettlement cost	US\$479,563.73
7	Applied cut-off date (s)	02 nd October, 2022
8	Dates of consultation with the people affected by the project (PAP)	20 th to 27 th September, 2022
9	Dates of the negotiations of the compensation rates / prices	Land acquisition agreements from 12 th August, 2022-14 th September, 2022. Pipeline RRBs Wayleave compensation before project signing
B. Specific information		
10	Number of people affected by the project (PAP)	3,680
11	Number of Physically displaced	0
12	Number of economically displaced	736
13	Number of affected households	736
14	Number of females affected	127
15	Number of vulnerable affected	70
16	Number of major PAP (\geq MK1,500,000)	46
17	Number of minor PAP (\leq MK1, 500,000)	690
18	Number of total right-owners and beneficiaries	736
19	Number of households losing their shelters	75
20	Total area of lost arable/productive lands (ha)	32.45
21	Number of households losing their crops and/or revenues	693
22	Total areas of farmlands lost (ha)	6.23
23	Estimation of agricultural revenue lost (USD)	US\$24,343
24	Number of building to demolish totally	75
25	Number of building to demolish totally at 50%	29
26	Number of building to demolish totally at 25%	46
27	Number of tree-crops lost	716
28	Number of commercial kiosks to demolish	44
29	Number of ambulant/street sailors affected	21
30	Number of community-level service infrastructures disrupted or dismantled	1
31	Number of households whose livelihood restoration is at risk	0

1 INTRODUCTION

1.1 Background

The Northern Region Water Board (NRWB) was established under the Water Works Act no.17 (1995) to provide potable water and waterborne sanitation services in all urban and peri-urban centres of the Northern Region of Malawi. Rumphi Water Supply scheme is one of the ten schemes which are within the mandate of the NRW. To fulfil this mandate, NRW is planning to implement Rumphi Water Supply and Sanitation Services Improvement Project to improve availability and access to potable water and sanitation services in Rumphi District and some areas in Mzimba District. This will be achieved by upgrading and expanding existing Rumphi water supply scheme to unserved areas, constructing a sewage system, wastewater treatment plant, and landfill for solid waste management. It will also construct a public commuter toilets facilities and improved pit latrines at selected public schools and market centres.

The main objective of the proposed project is to improve the health and livelihoods of the residents of Rumphi Town and surrounding areas through the provision of potable water supply and improved sanitation service facilities. The estimated total project cost is US\$29.8 million (30.9 billion Malawi Kwacha, USD 1 = MK 1036.25). The project is expected to start in August 2023 and to be completed in August 2027 (4 years implementation period).

1.2 Existing Water Infrastructure

1.2.1 The Water Source

The water supply source for Rumphi is South Rumphi River flowing from the north and joining South Rukuru River at the east entrance of the town. South Rumphi River originates in the southern slopes of Nyika Plateau and is perennial with a considerable dry season base flow. The Water Resources Development Plan (NIRAS – 2001) estimated the available minimum flow with a return period of 20 years as high as 77,700 m³/day, which can easily satisfy any future increase of the demand for Rumphi town. The present abstraction amount is about 1,500 m³/d and takes place through an intake structure situated 3 km upstream of Rumphi town. The intake elevation is 1129 masl and it is located at 595808 E and 8784262 N.

1.2.2 Water Treatment

The water treatment plant is located at a distance of about 2 km northeast of Rumphi Town centre in the Mayembe Hills. The elevation at the water treatment plant is 1118 masl. The treatment plant comprises one sedimentation basin with two chambers, three vertical pressure filters, backwash tank, dosing system for coagulant and another one for chlorine, air blowers, backwash water lift pump and clear water tank. Figure 1 shows the location of water abstraction, existing and proposed service reservoirs, and Water Treatment Plant site respectively.

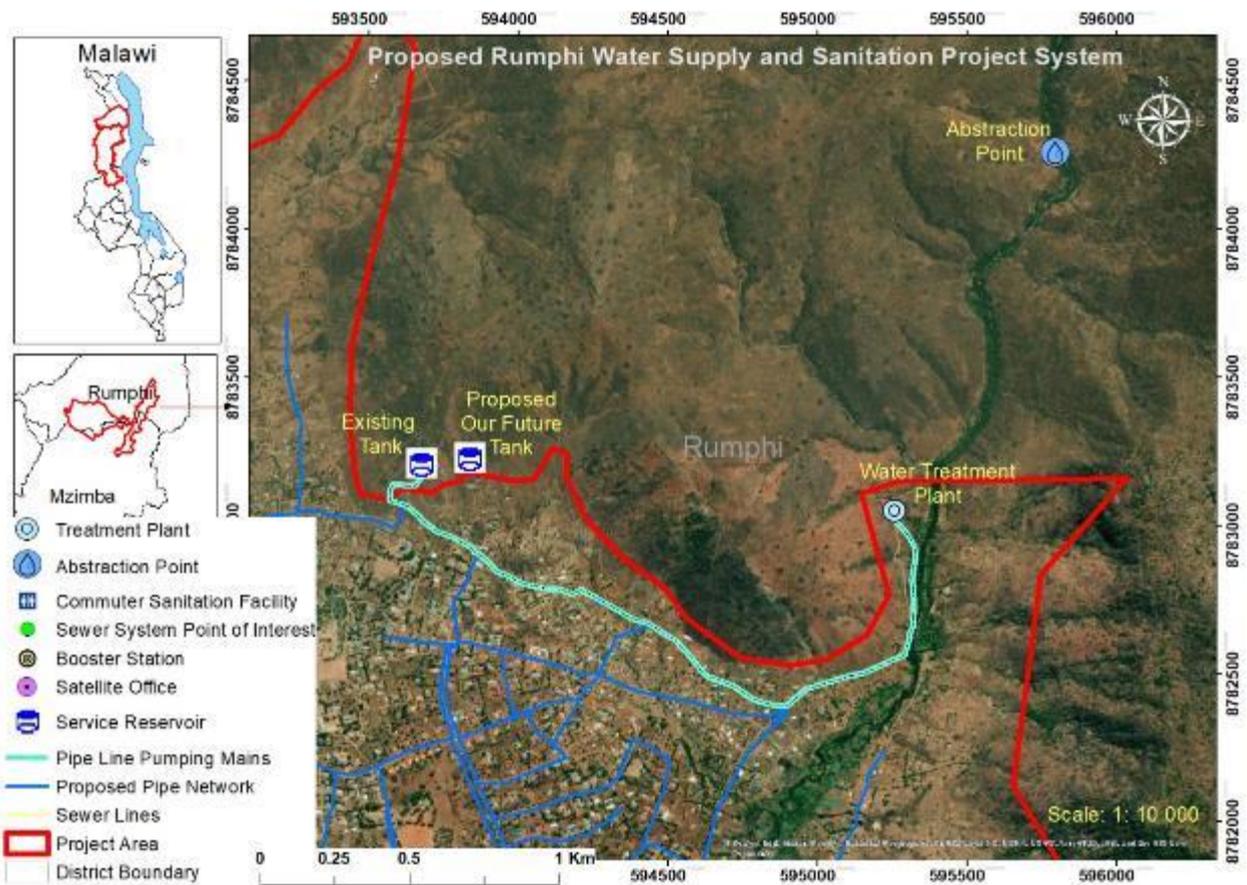


Figure 1: Location of Existing Infrastructure (Intake, Water Treatment Plant and Tank)

1.2.3 Existing Storage

There are two tanks servicing two pressure Zones for the existing Rumphi Water Supply Scheme. The first tank is located at the treatment plant. Clear water is transmitted from the pressure filters through a 200 mm pipeline to the clear water underground reinforced concrete tank which has a capacity of 500 m³. The clear water tank has three functions: to allow adequate chlorine contact time, supplying the town (80 % of current demand) and also functions as a wet well for the booster station located at the plant which feeds a 220 m³ capacity reinforced concrete ground tank located at Jaghala near Our Future School to the north which supplies water to Pressure Zone 2 of the town. The inlet and outlet elevation to the clear water tank are 1119 masl and 1115 masl whereas inlet and outlet elevations for Our Future tank are 1144 masl and 1140 masl.

1.2.4 The Distribution Pipeline Network

The water distribution network has a 42 km length of pipeline with diameters ranging from 50 mm to 200 mm pipes where majority of the pipelines are uPVC and only few are GI and asbestos pipes as summarized in Table 1. There are 2,505 individual connections, 21 communal water points, 97 commercials and 53 institutional connections. Majority of the customers are connected through 20 mm diameter pipelines resulting in very low pressures.

The lower zone is supplied through a 3.085 km 200mm uPVC pipeline which is reduced to 160 mm in Rumphi Town. On the other hand, the upper zone is supplied through a 6.7 km 160 mm uPVC pipeline which is reduced to 110mm and 90mm at Rumphi Town.

Table 1: Inventory of existing pipelines for Rumphi (in m)

Diameter(mm) and material	Transmission intake WTP (m)	Transmission Tank 1 – Tank 2 (m)	Distribution (m)	Total (m)
200 GI	1,600			1,600
200 uPVC			2,595	2,595
160 uPVC		2,550	4,840	7,390
110 uPVC			13,240	13,240
90 uPVC			4,720	4,720
63 uPVC			8,490	8,490
50 uPVC			3,883	3,883
Total	1,600	2,550	37,768	41,918

1.3 Location of the Project Area

Rumphi town is the commercial and administrative centre of Rumphi District located between latitude 623470E and 631711E; and longitudes 868465N and 8695143N in the Northern Region of Malawi. Rumphi is located in the South Rukuru Valley on the northern bank of South Rukuru River that borders with Mzimba District. Rumphi town is at a distance of 67km North of Mzuzu City, a commercial and administrative centre of the Northern Region of Malawi. The proposed project extents are Phwezi to the Northeast; Mwazisi to the West; Vongo, Eukweni, Bwengu and Thumbi to the South as shown in Figure 2.

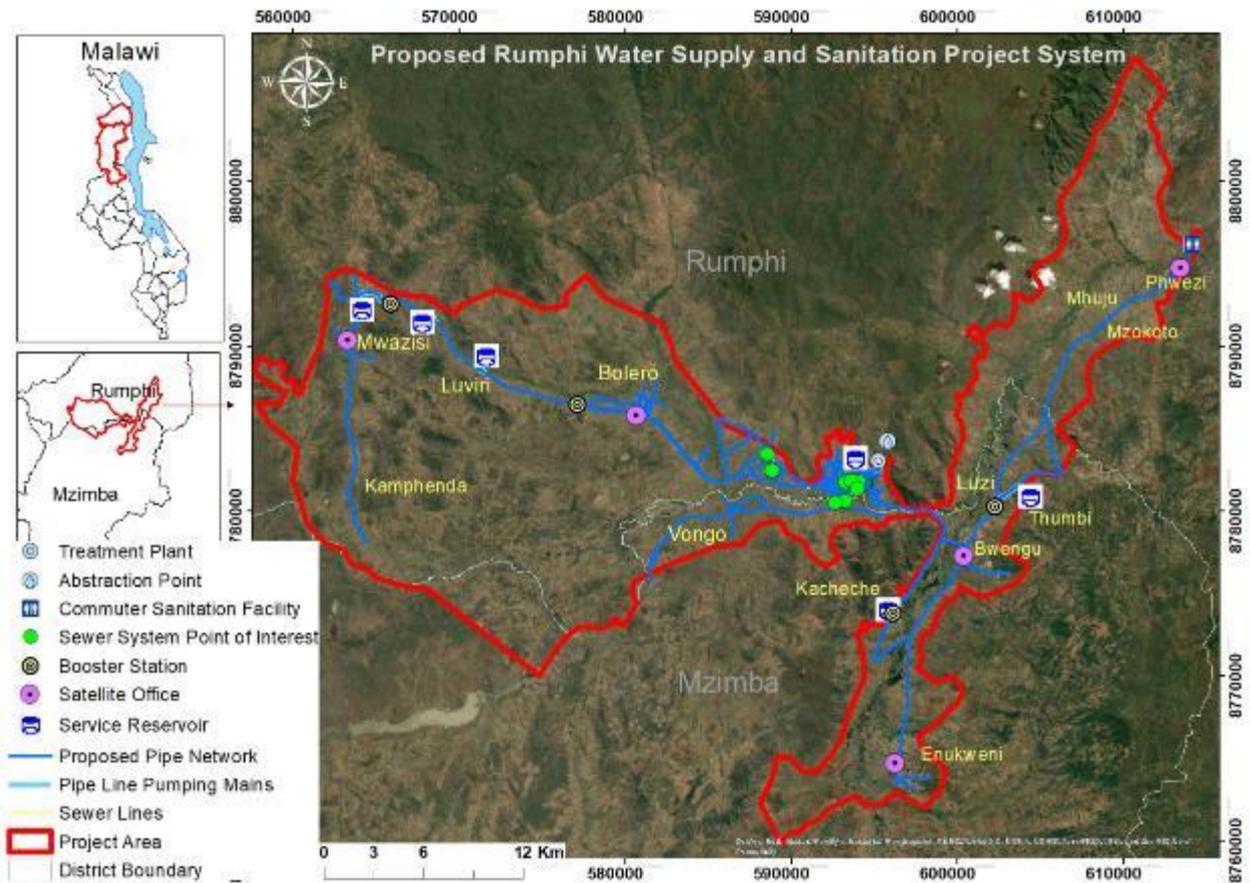


Figure 2 : Location of the proposed water supply and sanitation project areas

1.4 Project Description

1.4.1 Proposed Water Supply

To implement the proposed project, the following works among others will be carried in Mzimba North, Rumphi East and Rumphi West areas as shown in Figure 3;

- Construction of an intake weir on South Rumphi River and installation of gravity main raw water pipeline,
- Increase the capacity of the treatment plant for Rumphi from the current 1,500m³/day to 19,415m³/day,
- Construction of pumping stations and installation of clear water pumps to convey water to Jaghala, Bolero, Luviri, Mwazisi, Kacheche and Thumbi reservoirs,
- Installation of pumping mains and transmission mains to Jaghala, Bolero, Luviri, Mwazisi, Thumbi and Kacheche reservoirs,
- Increasing water storage capacity by construction of reservoirs at Rumphi Treatment Plant, Jaghala (Our future), Bolero, Luviri, Mwazisi, Kacheche and Thumbi,
- Upgrading and expansion of the distribution Pipe Network in proposed areas in Rumphi and Mzimba, and

- Implementation of climate change adaptation and mitigation activities especially in catchment areas.

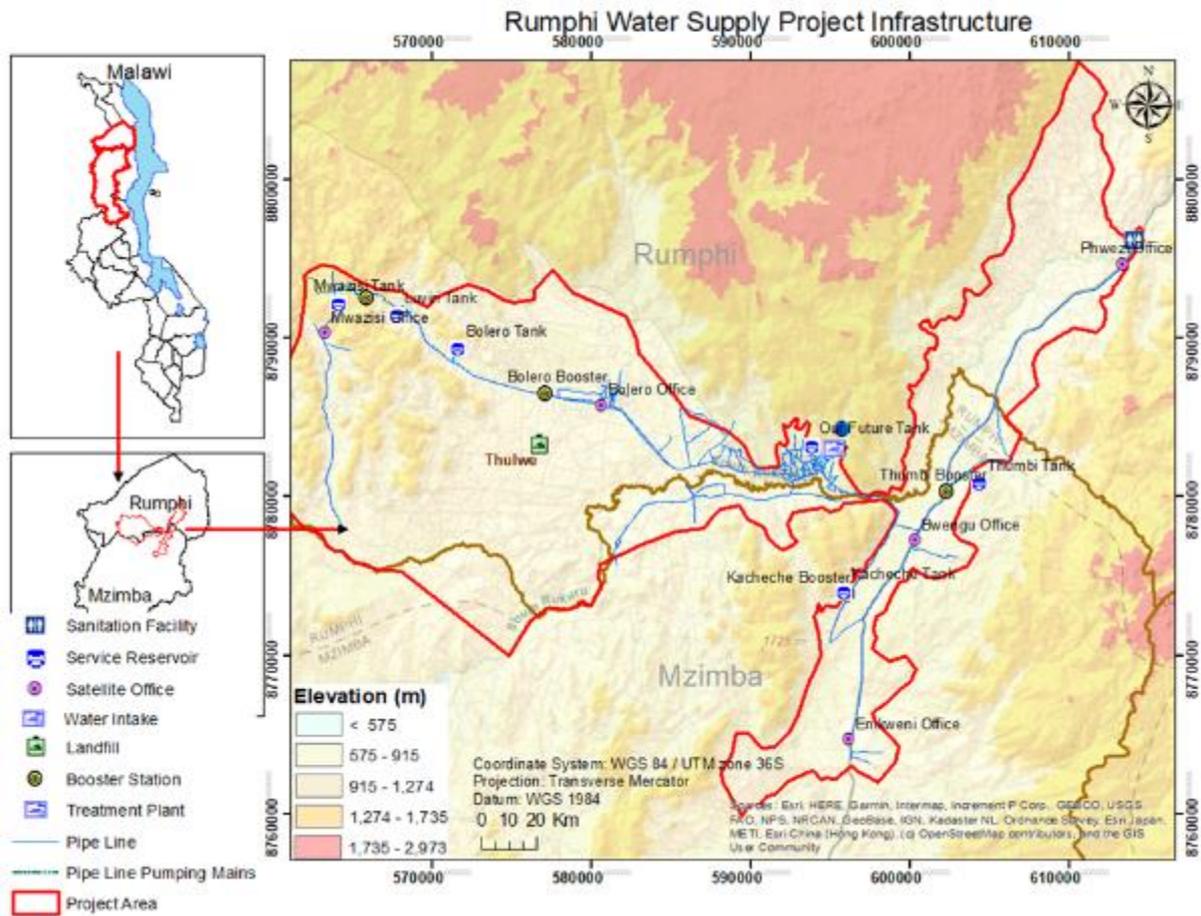


Figure 3: Location of water supply project in Rumphi and Mzimba districts

1.4.1 Sanitation Infrastructure

Furthermore, the project will construct liquid waste treatment and sewerage facilities for public institutions and surrounding households at Rumphi Boma, and a solid waste landfill planned to be placed at Thulwe in Sub Traditional Authority (STA) Kazamawe in Rumphi to service Rumphi and Bolero. Figure 4 shows proposed waste water treatment sites and sewer line at Rumphi town.

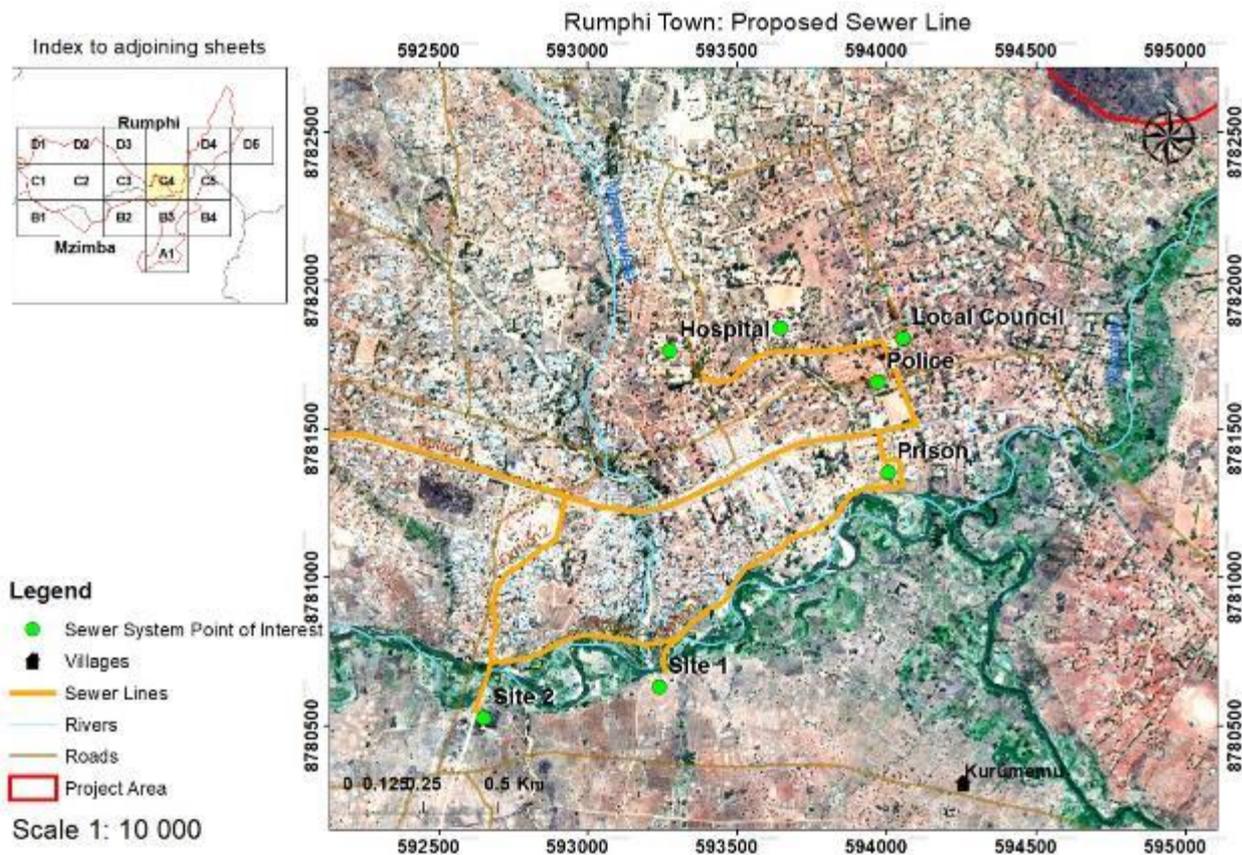


Figure 4: Proposed sewer line and location of public institutions at Rumphi town

1.4.3. Proposed Infrastructure Land Sources

The implementation of the project shall utilise both existing land owned by NRWB and identify new pieces of land. On water supply, the upgrading of treatment plant shall be done on land owned by NRWB, while all new reservoir tanks shall be constructed on hills which are public land. NRWB shall apply to acquire the land from the responsible District Council. However, the land identified for construction of pumping stations at Bolero, Luviri, Mwazisi, Kacheche and Thumbi is a customary land and used for farming purposes.

Similarly, on sanitation infrastructure, the project shall also use both existing land owned by schools/markets and identify new pieces of land. The school and market toilets shall be constructed on public lands to be provided by the schools and councils. While infrastructure such as landfill, wastewater treatment plant, and commuter toilet facility will be constructed on identified customary lands pieces used for farming purposes.

All customary pieces of land to be used for both water supply and sanitation infrastructure were negotiated and compensation was agreed with owners.

Lastly, installation of pipelines for water supply and sewerage shall follow wayleave spaces within Road Reserve Boundary (RRB) of different roads. Different Roads categories have different RRB and wayleave spaces assigned such as 5meters for 60meter RRBS, and 3 meters for 36 meters RRB. The majority of water supply and sewer lines shall be installed along Main

road with RRB of 60 meters, and with last 5m designated as wayleave except in few trading centres where infrastructure is within the RRBs. In places where pipes need to be installed outside services wayleave within RRB, the project shall apply to the Roads Authority approval to install the pipelines. The compensation of shall be assessed for property and crops within the 3-5 meter width wayleave for depending on RRB and method of excavation used.

1.5 Rationale of the Project

Currently, Rumphi Water Supply system has many challenges because no major rehabilitation nor upgrading works have been carried out since 2004. Some of the challenges include the following:

- i. The existing raw water pipeline can only transmit 69 m³/h which is less than current demand of 215 m³/hr as well as projected future demand, i.e., year 2040 maximum day demand of 882.5 m³/hr.
- ii. The designed capacity of the water treatment plant at 1,500 m³/day is not adequate for the current demand of 4,500 m³/day. However, the raw water source (South Rumphi) has an abundant quantity of water, which can supply the town of Rumphi for many years provided the intake structure and treatment plant are upgraded to the desired production capacity.
- iii. The system has very small diameter pipes and inadequate capacity facilities such that some consumers receive water only during some hours of the day.
- iv. The system has very old pipes which leak badly that non-revenue water is as high as 15.6%.
- v. Newly developed areas are not supplied with potable water as there is no water supply infrastructure. Communities in those areas use unsafe water.
- vi. The cost of maintenance of existing facilities is very high as the facilities are very old.
- vii. There is limited storage capacity for water such that water stops running at consumer taps immediately there is a pipe breakdown or power outage.
- viii. Most of the Gravity Fed Water Supply systems in the area are very old and experience many challenges.

In addition, Rumphi District Council does not have liquid waste emptying and collection vehicles hence residents have to hire from Mzuzu city that is at 67km distance from the city which results in increased costs especially for large institutions (with large volumes of wastewater) like Rumphi Hospital and Prison and Secondary school. In addition, Rumphi district has no wastewater treatment plant to treat the sludge emptied from on-site facilities. Most households, therefore, prefer to abandon a pit latrine when full and construct a new facility.

Similarly, the lack of a solid waste management facility in the district results in rubbish lying around especially in market centres during market days. Households with earth dug disposal pits abandon these pits when full.

It is anticipated that the demand for sanitation services in Rumphi Town will grow at high rates, in relation to the population growth. In addition, part of the urban population is considered to be squatting, due to inadequate low-cost houses and serviced plots. Hence demand for sanitation services is likely to be high in these squatter areas due to overcrowding and lack of sanitation services.

Therefore, there is a strong need to improve the health and livelihoods of the residents through access to potable and sustainable water supply and improved sanitation services.

1.6 Justification of the Project

1.6.1 Technical Justification

The proposed project is technically justified as the design has taken into account the current and future water demand for Rumphi Town and the surrounding areas (the current population in the supply area is 88,580 and by 2040 the population is expected to be 158,085). The selected source of water (Rumphi River) has an abundant quantity of water, which will satisfy the current and future water demand. The capacities, locations and elevations of the designed water supply facilities are such that all the people of Rumphi Town and the surrounding areas will be provided with adequate potable water throughout the project life i.e., up to year 2040.

Similarly, the design for the sanitation facilities has taken into account anticipated demand for sanitation services in Rumphi Town and surrounding areas.

1.6.2 Health Justification

Rumphi was one of the most affected districts with cholera in 2022 (Ministry of Health, 2022). This may probably be attributed to unsafe water and poor sanitation services such as poor liquid and solid waste management in the district. The project interventions will promote improved sanitation and hygiene practices such as ending open defecation and promoting hand washing. Furthermore, the sanitation facilities will contribute to reduction in prevalence of waterborne diseases especially in the previously unserved areas resulting in improved health and increased productivity for the residents. Thus, the Government would have a reduced expenditure on health-related costs which could be utilized in other economic activities.

1.6.3 Economic Justification

Currently, people travel long distances and spend hours fetching water and in return the water that they collect is not even potable. Therefore, the project is important because primarily it will ensure that people have access to adequate potable water until 2040. The existing water supply system supplies water to 23% of the population in the proposed project area (i.e., 20,736 people). However, there will be a need for more water to serve the increased population from growth rate and to the unserved areas of the town (estimated at 158,085 people by the year 2040). Water will also be made available for commercial and industrial activities for growth of the economy of the country. Figure 5 shows population in Enumeration Areas (EAs) and

projected population that will benefit (projected population covered) per each area by the proposed water supply project.

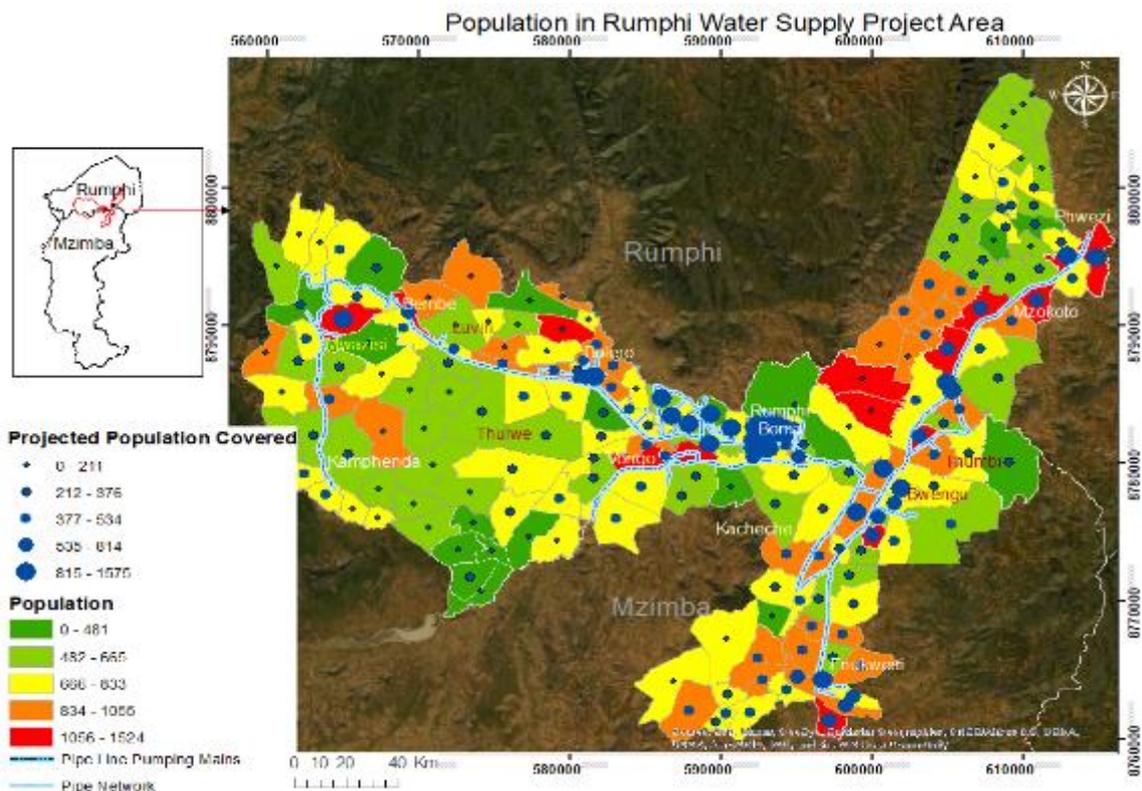


Figure 5: Projected population to be served by the proposed water supply project per Enumeration Area

Furthermore, the population which is not connected to the potable water supply system within the proposed project areas spend a lot of time fetching water for domestic purposes due to long distances and queues, especially women and children. Hence more productivity time is wasted in ensuring that the households have water in their homes. An expanded network water distribution would greatly reduce this time and the saved time could be used to engage in economic activities, generating revenue and ensure that girls are not disturbed from attending school due to the need to fetch water for their household.

Implementation of the project will also have positive impacts on local providers of equipment, works and services. The project will create about 320 jobs during the construction phase. Those to be employed will include at 50% youth and at least 40% women as most of the artisans and casual labourers will be sourced locally in Malawi and from areas surrounding the project site. As such, social wellbeing of the communities within the project areas will improve through direct employment by the project contractors and created business opportunities.

1.7 Rationale of the Resettlement Action Plan

This Resettlement Action Plan (RAP) has been prepared consistent with the applicable policy provisions of Malawi Government and the African Development Bank. The policies require

that a RAP be prepared for all projects that anticipate land acquisition and displacement affecting shelter, livelihood and associated impacts. The RWSSIP shall however, use existing infrastructure pieces of land owned by NRW for example water treatment plant, and acquire new pieces of land which are customary farming land that may result into productivity and economical losses. The impacts will be temporary and reversible through applying some mitigation measures. For example, the pipelines will be laid following designated road reserves where most of the developments are temporary hawkers. Therefore, a Resettlement Action Plan will be implemented in order to mitigate the damage and losses resulting from project activities, and guide in compensation for structures, agricultural crops and trees that may be affected by the project. Basically, the RAP presents an inventory (register) of people likely to be affected by project activities, a register of the assets that are likely to be displaced by the project and the proposed compensation and resettlement packages.

1.8 Objectives of the Resettlement Action Plan

The Resettlement Action Plan (RAP) was prepared following AfDB Involuntary Resettlement Policy (2003), AfDB Integrated Safeguards Systems - Operational safeguard number 2, and Malawi government laws. The RAP objectives include:

- i. To avoid involuntary resettlement where feasible, or minimize resettlement impacts where population displacement is unavoidable, exploring all viable project designs,
- ii. To ensure displaced or affected are consulted and given opportunities to participate in the planning and implementation of resettlement program,
- iii. To ensure that displaced people receive resettlement assistance, preferably under the project, so that their standards of living, income earning capacity, and production levels are improved,
- iv. Raise awareness of the project and its consequences among the general public and particularly among those people who will be directly affected by the project,
- v. Set out strategies to mitigate against adverse effects suffered by the PAPs including,
- vi. provision of channels and platforms for negotiations,
- vii. Identify different categories of Project Affected Persons (PAPs) who will require some form of assistance, compensation and rehabilitation,
- viii. Estimate the costs necessary for compensation.

1.9 Scope of RAP

The broad scope of the work is to prepare an inventory (register) of people likely to be affected by project activities, a register of the assets that are likely to be displaced by the project and the proposed compensation and resettlement packages and recommend mitigation measures.

1.10 Structure of the Report

The structure of the report is presented in Table 2.

Table 2: Structure of the RAP

Chapters	Brief Description of Contents
1.	Background, Description of the Project context, aim and scope of the RAP
2.	Approach to RAP preparation including surveys, disclosure and compensation agreement signing and report preparation
3.	Legal Framework applicable to the project that includes review and applicability of national legislations and practice
4.	Analysis of Project Stakeholders; outcomes of sensitization meeting held with communities; proposed methods for continued sensitization/ consultation during implementation/construction period of the project
5.	Presents the profile of the demographic profile of the PAHs and socio-economic survey findings for households in the project area
6.	Presents the eligibility criteria of PAPs
7.	Valuation approach to determine rates of different assets particularly replacement costs
8.	Magnitude of Impacts
9.	Entitlement Framework by type of impact and category of PAP; and methods adopted in computation of replacement costs for land, structures
10.	Types of likely grievances and the need for a grievance's redressal mechanism and grievance mechanism - processes and procedures in resolution and roles and responsibilities
11.	Budget Estimates
12.	Monitoring and Evaluation of the RAP
13.	Conclusion and recommendations

2 APPROACH AND METHODOLOGY

The preparation of the RAP broadly comprised three stages – Social Screening stage; Field Activities i.e., Surveys and Stakeholder consultations and finally Report preparation stage. Each of the stages is described below:

2.1 Stage I – Social Screening

Stage I comprised desk review of relevant literature and a Scoping exercise that involved visits to the existing and proposed project sites to ascertain features en-route and hold preliminary consultations with the primary and secondary stakeholders. Details are given below:

Preliminary Interactions with NRW and Key stakeholders: The project Kick Off meeting on 16th August, 2022 with NRW, and other preliminary interactions with these key stakeholders such as District Councils officials enabled the Consultant to get all relevant literature, gain a broad understanding of the project features and define the scope of work.

Scoping visits: The scoping visits to the intake at South Rumphu River and the proposed project sites at Enuweni, Kacheche, Phwezi, Mwazisi, and Bolero were done on 16th to 18th August, 2022. The activity enabled the team to gain understanding on the type of land tenure, use, structures, nature and type of impacts likely to be found in the project areas. It also helped towards early resettlement planning with respect to gathering rates for lands across different areas, structures, etc.

Desk Review: Key relevant documents and other already prepared documents on the project were reviewed which included the design report, Rumphu Socio-economic Profile and the relevant legislations were reviewed for appropriate usage in RAP preparation

2.2 Stage II – Field Activities

Field Surveys included Sensitization exercises, Census, Asset Inventory Survey, and Socio-Economic Surveys.

Table 3: Activities dates

Table 3 presents the dates for various activities

Table 3: Activities dates

Activity	Dates
Rumphu DESC, TAs, ADC	22nd Sept 2022
Mzimba, ADC	23rd September 2022
Rumphu ADC	24th September, 2022
Mzimba DESC	27th September, 2022
Mzimba TAs	20th September 2022

2.2.1 Stakeholder Consultation Process:

The consultations were held from 22nd to 30th September, 2022. The team organized several consultation meetings with Area Development Committees (ADC) after meeting District Environmental Social Committee (DESC) and Traditional Leaders. See figures 6 and 7 below.



Figure 6: Consultative meeting with Area Development Leaders at Mwankhunikira HQs



Figure 7: Consultative meeting with District Council Official in Rumphi

2.2.2 Project Affected Persons (PAPs) Census and Asset Inventory

The census was conducted to collect information about Project Affected Persons (PAPs), their crops, and properties to be affected by project activities. The census focused on PAPs basic demographic and social data such as of household name, their gender, physical conditions (handicap by birth/chronic sickness), income, vulnerability, land tenure, land use (agricultural, residential, commercial), land size measurement, tree counts, other immovable assets (shops, fences, sheds, latrines, and other structures) where quantities and relevant detailed measurements were also recorded. To accurately locate properties in wanted in wayleave space of interest, the census used prepared WebGIS map as shown in Figure 8 below to track all property in designated wayleaves for compensation valuations.

Furthermore, the Asset Inventory recorded details of the PAP with respect to the assets within the project sites and routes such as trees, crops, structures and land. Information on: i) trees and crops by type and stage of growth and ii) structures with all specifications for material used for construction were recorded. Finally, an inventory of land pieces purchased were reviewed, roads wayleaves for pipe routes confirmed and inspected. The data collection involved use of measuring tapes to take the dimensions of structures, visual verification of the building materials, and general description of the buildings. Coordinates for each structure were captured using a GPS and pictures of PAPs were taken.



Figure 8: Workflow for Geological wayleave mapping

The census was performed by 6 six teams comprised of a valuer and a GIS assistant were deployed for census and asset inventory, while research assistants were deployed for the socio-economic data collection. The exercise was conducted from 23rd September, 2022 to 2nd October, 2022 and socio-economic surveys were conducted as shown in Table 4 below.

Table 4: Asset census areas and date of sampling

Sn	Survey sampling area	Dates
1	Mwazisi, Waliro/Kayora and Kamphenda	24 th September, 2022
2	Luviri, Bembe, Luhono, Chirambo and Chikwawa	26 th September, 2022
3	Chozoli, Bolero and Nkhamanga	27 th September, 2022
4	Bwengu, Luzi, Mkombezi and Thumbi	28 th September, 2022
5	Kacheche, Chizawula, Chinyolo, Mzokoto and Phwezi	29 th September, 2022
6	Chisyombi, Jombo and Enukweni	2 nd October, 2022

2.2.3 Household survey sampling areas, sample size and sampling method

The sampling of the areas was on purpose and was chosen to cover most and larger settlements/areas that had been mapped by NRW to benefit from the project. The survey collected data from 300 households as shown in table 5 below. Sampling of households was done using interval systematic sampling with interval of 10 for survey sample areas with target of 20 households and 5 for areas with 10 and 15 households. In settlements along the road, sampling of households was done on either side by going to the very end while in circular or

nucleated settlements, it was done starting from the centre moving north, south, east and west directions.

Table 5: Survey sample areas, target number of households and achievements

Sn	Survey sampling area	Target # HHs	Achieved	Divergence
1	Mwazisi	20	20	0
2	Waliro/Kayora	15	15	0
3	Kamphenda	15	13	(2)
4	Bembe	10	10	0
5	Luviri	10	10	0
6	Luhono	10	10	0
7	Chirambo	10	5	(5)
8	Chikwawa	10	7	(3)
9	Chozoli	10	10	0
10	Bolero	20	20	0
11	Nkhamanga	10	10	0
12	Bwengu	20	20	0
13	Luzi	20	20	0
14	Mkombezi	10	10	0
15	Thumbi	10	10	0
16	Kacheche	20	20	0
17	Chizawula	10	10	0
18	Chinyolo	10	10	0
19	Mzokoto	10	10	0
20	Phwezi	10	10	0
21	Chisyombi	10	10	0
22	Jombo	10	10	0
23	Enukweni	20	20	0
	Total	300	290	(10)

2.2.4 Focus Group Discussions

The Consultant also held focus group discussions – one with women, and another with the youth in Rumphi, which is the main project site. This was done as these two constitute some of the groups that might be greatly affected by the upcoming project. Details of the meeting are presented in Appendix IV.

The Socio-Economic survey took a mixed methods and participatory approaches. It utilized multiple techniques for gathering the data – both review of secondary sources and primary data collection. For the latter, the study undertook key interviews, focus group discussions and household survey. The key interviews targeted leaders at various levels, while the focus groups

targeted local leaders and residents in targeted areas. But the census was purely for all households that are going to be resettled from Rumphi due to the upcoming project work.

The socio-economic impact baseline pursued primarily three objectives as follows:

- i. To undertake public awareness of the project in question so as to avail a chance to Interested and Affected stakeholders to understand what the project is about;
- ii. To conduct stakeholder consultations with a view to gathering people's issues and concerns regarding the upcoming project; and
- iii. To establish the baseline on the social and economic impacts that might arise from the project. In terms of limitation, the study was limited in the form of time resources.

2.2.5 Cut-off Dates Determination

A cut-off date is normally set by valuation process to establish displaced or affected persons who are eligible to receive compensation and resettlement assistance by a project. The aim is to control deliberate development in anticipation for compensation. Any assets created or improvements done to existing assets, change in use or ownership, potential newcomers within the project areas after this date will not be eligible for compensation or resettlement assistance. Fixed assets such as built structures, crops, fruit trees, and woodlots established after this date, or an alternative mutually agreed on date, will not be compensated.

The standard practice procedure requires census completion date used as Cut-Off date for determination of PAPs eligible for compensation, and therefore census completion date was adopted as cut-off date for this project. The concept of a cut-off date was explained during stakeholder engagement meetings.

2.3 Stage III – Disclosure and Draft Rap Preparation

Stage III involved the compilation of all data collected and its analysis and valuation of assets and finally report preparation

The exercise of Valuation of impacted assets – land, structures, trees, crops and other resources serving the community followed the proposed rates. The details from the asset inventory exercise recorded against each PAP were grouped by community with PAP ID and PAP. Approved rates were inserted against each of the recorded assets to help compute the compensation payable to each PAP. The exercise helped to come up with a Disclosure Sheet for all impacted assets, their applicable rates and amounts payable to each PAP. The details from these Disclosure Sheets were also copied onto Compensation Schedule.

Report Preparation: Data from Census, Socio-economic survey, were analysed along with minutes of all meetings with communities and institutional stakeholders and were appropriately documented for usage in the report.

3 LEGISLATIVE AND REGULATORY FRAMEWORK

This chapter covers review of key legislations – national as well of other international agencies particularly the African Development Bank Policy guidelines applicable to this project. In this chapter, legal provisions that affected this resettlement will be discussed.

3.1 National Legislations and Practice

Review of key legislations – national as well of other international agencies is presented below:

3.1.1 The Constitution of the Republic of Malawi (1995):

Clauses pertaining to property rights, ownership of land, and expropriations of land by agencies of the Government were originally drafted in two chapters of the Constitution of the Republic of Malawi: Chapter IV (Human Rights) and Chapter XXII (Transitional Issues). The Government’s power to confiscate, condemn, or otherwise expropriate property in Malawi is, according to the Constitution, limited and curtailed, being confined to the development of the public good or a national state of emergency, and even then, only through the result of due process. Concerning individual property rights, Article 28.1–28.2 states that “Every person shall be able to acquire property alone or in association with others,” and that “No person shall be arbitrarily deprived of property.” Article 44.4 of Chapter IV details the exception to these and other related rights granted to the citizens of Malawi. Limitations on rights, specifically the expropriation of property, “shall be permissible only when done for public utility and only when there has been adequate notification and appropriate compensation, provided that there shall always be a right to appeal to a court of law.”

3.1.2 Malawi National Land Policy (2002)

The policy guides land management and administration in Malawi. It introduces major reforms intended for land planning, use, management and tenure and provides clear definition of land ownership categories (Section 4); addressing issues of compensation payment for land (Section 4.6).

The National Land Policy has a few sections which briefly make reference to matters relating to land acquisition. It alludes to necessity of having provisions in the land law that would give the Government the opportunity to acquire any piece of land required for public services following guidelines such as:

- a) Clearly spelling out or specifying the purposes for which Government may require the land in order to prevent possible abuse of the power of eminent domain;
- b) Payment of compensation in the event of the repossession of a leasehold interest on Government land, to be limited to the negotiated value of improvements made by the leaseholder; and
- c) No compensation to be paid for the land, when the private user rights granted as a result of the lease are terminated.

The Land Policy recognizes Government's duty to protect the free enjoyment of legally acquired property rights on land and a landholder's entitlement to fair and adequate compensation where the Government acquires property for public use. It further stipulates that compensation valuation for customary land, at the time of acquisition by the Government, be based on the open market value of the land and all improvements carried out on the land.

The Policy notes that the inadequacy of compensation is always a direct result of excluding certain items or qualities from the factors considered when determining the value; and delays in payment of compensation.

While this remains a policy document only and therefore not as binding as the legislation, it is significant in that it reflects the approach of the state to land management. Besides, given that this policy is later in time to the Constitution, it is arguable that the policy takes into account constitutional dictates unlike the previous pieces of legislation. Project management therefore needs to have regard to the policy direction.

3.1.3 The National Gender Policy (2015)

Gender mainstreaming into socio economic development plans is one of the enablers for sustainable development worldwide. The Sustainable Development Goals (SDGs) II recognises the importance of gender and women empowerment in socio-economic development. The National Gender Policy provides guidelines for mainstreaming gender in various sectors of the economy to reduce gender inequalities and enhance participation of women, men and the youth for sustainable and equitable development, as well as poverty eradication in the country. The policy also advocates the need for women to have control over agricultural productive services and resources such as land and income.

3.1.4 National Forestry policy (2016)

The policy recognizes the importance of forest resources in the socio-economic development of the population, especially rural communities. The project recognizes the importance and desirability of forest conservation in catchment stability. As part of conservation efforts, the policy prohibits land use changes or encroachments that may result in deforestation or degradation of areas of cultural importance and forests with catchment management importance.

3.1.5 The Land Act (2016)

This is the principal law in land matters. Section 7 classifies land into public and private land with subcategories. The public land includes government land and unallocated public land while private land includes freehold land, leasehold land and the newly introduced customary land estate. Section 10 allows corporations authorised by license issued by the Minister of lands to hold land in Malawi. Section 7 sub section 2 designates unallocated customary land and

government land as public land and section 17 allows for its allocation to public utility bodies by the minister responsible. Section 18 provides for compensation to individuals for loss, damages or disturbances.

This implies, therefore that the Water Board, in the acquisition of private land for the project should be ready to pay compensation as required by law for loss, damages and disturbance.

3.1.6 Land Acquisition and Compensation Act (2016)

The Land Acquisition (Amendment) Act 2016 is the main legislation that addresses compensation issues. Section 4 of this act explicitly states that expropriation can only take place where the land is needed for public utility on the condition that a seven-day notice is served on the affected and compensation is paid under subsection 2 and 3.

Importantly, section 9 (2) of the Land Acquisition (Amendment) Act 2016 defines “appropriate compensation,” as the sum of: “(a) loss of occupation rights (b) loss of land (c) loss of structure (d) loss of business (e) relocation costs (f) loss of goodwill (g) cost of professional advice (h) nuisance (i) loss or reduction of tenure (j) disturbances that may naturally or reasonably arise as a result of the acquisition.” Furthermore, Section 12 subsection 2 lays down grounds for compensation being loss of occupational rights, loss of land, loss of structure, loss of business, relocation costs, loss of good will, cost of professional advice, injurious affection, nuisance, loss or reduction of tenure and disturbances. The Land Acquisition (Amendment) Act 2016 provides procedures for appeal in case those affected are dissatisfied with the land acquisition process or the compensation.

3.1.7 Physical Planning Act 2016

Part 7 of the Act provides for acquisition of land and its compensation. Section 67 (1) gives the minister responsible for physical planning to acquire any land either compulsorily or by agreement paying such compensation as may be agreed or determined in accordance with the law. Subsection 2 states that any acquisition of land and any payment of compensation therefor under this Act shall be in accordance with the Land Acquisition and Compensation Act.

3.1.3 Public Roads Act 2016

The public roads act covers the management of road reserves and streets. The act provides guidelines for classification for public roads, and designate widths for Road Reserve Boundaries (RRB). The act reserve widths of (a) for a main road, 60 metres; (b) for a secondary road, 36 metres; (c) for a district road, 36 metres; (d) for branch roads and estate roads, 18 metres. The act make provision for legally occupier or owners of land in a road reserve who suffers damage as a result of works carried out on such land by to be entitled to compensation in respect of such damage in accordance with Part II. Notwithstanding such consent, neither the person doing such act or thing nor any person who may acquire any interest in the land in question shall be entitled to compensation. Section 45 provides for compensation for

conversion of land into public use and the section states specifically that in case of customary land, compensation is in respect to disturbance to people, section 49 and its approach to compensation approach is very comprehensive. Section 50 provide opportunities for land owners or occupiers to appeal to the High Court on grievances related to resettlement and compensations provided for in this act.

3.1.8 The Monuments and Relics Act

The Act stipulates the proper management and conservation of monuments that are of importance both nationally and locally. It also provides for proper preservation of monuments in the event that there is a change in the use or development of land. This gives room for the authorities for monuments and relics to protect monuments under the provisions of the Land Act or the Lands Acquisition and Compensation Act. The project will have to be implemented in such a way that any acquisition, resettlement and compensation conform to section 18 of this Act.

3.1.9 Forestry Act 1997

The Forestry Act number 11 of 1997 affirms the role of Department of Forestry on control, protection and management of forest reserves and protected forest areas. In addition, the act recognizes the need to promote participatory social forestry and empowerment of communities for conservation and management of trees within the country. In this regard the act encourages community involvement in woodlots and management of forest reserves through co-management approaches. Section 86 of Forestry Act has provided guidelines on values/rates for sale of both indigenous trees and exotic trees. These rates are gazette, and are reviewed from time to time by senior government officials. The values are used so that those who are involved in forestry are paid reasonable compensations on their timber trees and fruit trees. Normally, the valuation of people's trees are done based on species of trees, measured diameter at breast height and market price in kwacha per cubic metre.

3.1.10 Local Government Act 1998

The Local Government Act was enacted to further democratic principles, accountability, transparency and participation of the Malawian people in the decision-making and development process. Section 6(c), of the Act mandates local councils to promote infrastructural and economic development, through the formulation, approval and execution of district development plans. The proposed works under the RWSSIP are in line with the nation's development plans and the plans of the Rumphi District Council where they will be implemented.

3.1.11 Water Works Act (1995)

Section 11 of the water works act (1995) gives water boards the power to acquire land for constructing and maintaining water works for the purpose of creating, maintaining and extending waterworks for the supply of water. However, under section 12, such powers to acquire land for water works purposes shall not interfere with existing buildings. In other

words, Water Boards are not authorized to acquire existing buildings in their application of expropriation powers. In exercise of such powers, section 13 requires Water Boards to pay compensation to the affected people for loss or damage.

3.1.12 Gender Equality Act 2013

The Gender Equality Act makes provisions for the Malawi Human Rights Commission (MHRC) to do the following among others:

- Promote gender equality and make recommendations that the Commission deems necessary;
- Carry out investigations and conduct searches in relation to any gender issues on receipt of complaints or on its own accord;
- Make recommendations to the Minister on any gender issues;
- Provide information to any party in a gender dispute on rights, remedies or obligations.

Gender related impacts might arise during project construction and operational phases, for example unequal distribution of land; hence, the project activities must include gender sensitization. In accordance with the Act, women are also to be supported to be able to take part in development activities.

3.1.13 Malawi Corrupt Practices Act 1995

In Malawi there is the Corrupt Practices Act which was enacted to establish the Anti – Corruption Bureau (ACB) and to create law for the prevention of corruption. The ACB has several functions under the Act, including: examining practices and procedures to discover corrupt practices; disseminating information on the evil of corruption; receiving complaints and reports of any alleged or suspected corruption; investigating any suspected corruption.

The Bureau through its officers has powers of arrest if authorized by a warrant of arrest issued by a Magistrate. A corrupt practice is defined as: the offering, giving, receiving, obtaining or soliciting of any advantage to influence the action of any public officer or any official or any other person in the discharge of the duties of that public officer, official or other person; influence peddling; the extortion of any advantage.

The law on corruption may become relevant on matters of compensation where some unscrupulous people in the hope of getting paid earlier or more than they deserve may tempt some officials with an inducement, such as offering a share from their compensation. The Act attempts a balancing act by protecting whistle blowers or reporters/informers of suspected corruption by allowing their names and other particulars to remain undisclosed, and at the same time making it an offence for any person to make false, frivolous or groundless complaints or allegations of corruption.

Table 6 below summarises how the legislations apply to resettlement planning.

Table 6: Legislations and application in the resettlement planning

Legislation	Application
Land Act (2016)	Land acquisition.
Land Acquisition & Compensation Act (2016)	Land acquisition, compensation processing
Physical Planning Act (2016)	Pipe networks installation, and land acquisition
Local Government (Amendment) Act (1998)	Resettlement
Public Roads Act (2015)	Compensation, Water supply network installation
Monuments and Relics Act	Conservation of historical, monuments and graveyard etc
Forest Act, 1997	Compensation of vegetation such as trees
Waterworks Act (1995)	Water supply network installation
Gender Act, 2013	Gender inclusivity in property compensation

3.1.14 AfDB's Integrated Safeguards System (2013):

3.1.14.1 OS 2- Involuntary resettlement: land acquisition, Population displacement and compensation

This policy outlines the guidelines that need be followed in the implementation of Africa Development Bank-financed projects relating displacement and involuntary resettlement of people. It seeks to ensure that when people must be displaced, they are treated fairly, equitably, and in a socially and culturally sensitive manner; that they receive compensation and resettlement assistance so that their standards of living, income-earning capacity, production levels and overall means of livelihood are improved; and that they share in the benefits of the project that involves their Resettlement. The policy requires that all Project Affected Persons (PAPs) be compensated for all their losses at full replacement value before their land and related assets are taken or damaged.

Specifically, the policy seeks to;

- Avoid involuntary resettlement where feasible, or minimize resettlement impacts where involuntary resettlement is deemed unavoidable after all alternative project designs have been explore.
- Ensure that displaced people are meaningfully consulted and given opportunities to participate in the planning and implementation of resettlement
- Ensure that displaced people receive significant resettlement assistance under the project, so that their standards of living, income-earning capacity, production levels and overall means of livelihood are improved beyond pre-project

- Provide explicit guidance to borrowers on the conditions that need to be met regarding involuntary resettlement issues in Bank operations to mitigate the negative impacts of displacement and resettlement, actively facilitate social development and establish a sustainable economy
- Guard against poorly prepared and implemented resettlement plans by setting up a mechanism for monitoring the performance of involuntary resettlement programmes in Bank operations and remedying problems as they arise.
- To ensure that displaced people receive resettlement assistance, preferably under the project, so that their standards of living, income earning capacity and production levels are improved.

Furthermore, the policy states that there are three groups of displaced people entitled to compensation or resettlement assistance for loss of land or other assets taken for the project purposes. These groups are:

- Those who have formal legal rights to land or other assets recognised under the laws of the country concerned. This category generally includes people who are physically residing at the project site and those who will be displaced or may lose access or suffer a loss in their livelihood as a result of project activities.
- Those who may not have formal legal rights to land or other assets at the time of the census/ evaluation but can prove that they have a claim that would be recognised under the customary laws of the country. This category may include people who may not be physically residing at the project site or persons who may not have any assets or direct sources of livelihood derived from the project site, but who have spiritual and/or ancestral ties with the land and are locally recognised by communities as customary inheritors.
- Those who have no recognizable legal right or claim to the land they are occupying in the project area of influence and who do not fall into either of the two categories described above, if they themselves or witnesses can demonstrate that they occupied the project area of influence for at least six months prior to a cut-off date established by the borrower or client and acceptable to the Bank. These groups may be entitled to resettlement assistance other than compensation for land to improve their former living standards (compensation for loss of livelihood activities, common property resources, structures and crops, etc.).

The policy also provides procedures for consultations, resettlement planning, compensation, implementation, monitoring and evaluation.

3.2 Comparison between AfDB and Government of Malawi Policies on Resettlement and Compensation

Table 7 compares AfDB policy on involuntary Resettlement with the Malawi provisions relating to resettlement. Having identified the gap between the two, the last column suggests a way of bridging the gap. The main discrepancy between the two policies involves the treatment

of a squatter. Under the laws of Malawi, a squatter is not entitled to compensation. But the AfDB policy requires that a squatter be compensated for the improvements developed on the land and such improvements be compensated at full replacement cost basis.

Table 7: Gap analysis

PAP	Government of Malawi provisions	African Development Bank Policy provisions	Appropriate measures for Addressing the gaps.
Land Owner	<p>Land for land compensation preferred</p> <p>Land Owners can be compensated for land to money if there is no alternative land or if the offered alternative land is not economically productive</p> <p>Land owners are entitled to reasonable compensation based on Market value (as provided for in Land Act 2016, Land Acquisition and Compensation Act (2016) and Customary Land Act (2016) offered by the government on customary land and agreed by parties</p> <p>The law provides that valuation of affected land be done by private valuers appointed by the Minister</p> <p>Payment of cash compensation based</p>	<p>Cash and in kind compensations.</p>	<p>Compensation of land for land of the same or better productive quality to PAPs will be the first priority</p> <p>In this project, land acquisition shall be done according to land laws using government rate, factoring in prevailing land market values.t</p> <p>Buildings will be compensated for at a full replacement cost without taking into consideration their depreciation,</p>

PAP	Government of Malawi provisions	African Development Bank Policy provisions	Appropriate measures for Addressing the gaps.
	on loss or damage or destruction of buildings		
<p>Road Encroachers/Land Users</p> <p>Structures in Road reserves partially affected</p>	<p>No compensation to improvements on land within road reserves in accordance with the Public Road Act (2016)</p> <p>No compensation to improvements on land within road reserves in accordance with the Public Road Act (2016)</p>	<p>Compensations in kind are recommended. Compensation should be based on full replacement costs (e.g. without depreciation on structure).</p> <p>Compensations in kind are recommended. Compensation should be based on full replacement costs (without depreciation for structures)</p>	<p>Compensation of structures at full replacement costs prior to displacement, without taking into consideration the depreciation. Compensation according to scale of damage as per valuer's restoration cost</p>
Squatters	No compensation to squatters on public land unless the land they occupy is private but also should do so continuously for a period of more than 12 years.	Entitled for compensation for their losses at full replacement cost and relocation assistance and compensation for loss of assets (other than land).	Compensation of structures at full replacement costs prior to displacement and alternative land will be provided.
Timber and fruit trees and crops	Crops and fruit are compensated based on the level of production Timber trees if proven that they	For perennial crops, compensation shall take into account the production delivery time. For annual crops, the land	Compensation should be at market value and labour input to look after the trees should equally be compensated.

PAP	Government of Malawi provisions	African Development Bank Policy provisions	Appropriate measures for Addressing the gaps.
	were planted by claimant can be compensated	offered as compensation allows the restoration of production	
Economic Impact	Silent	Resettlement program that allows the owner to gain full trade income flow	<p>Resettlement program that allows the owner to gain full trade income flow.</p> <p>Compensation offered for the recovery cost of commercial activities elsewhere, the loss of net income during the transition period, and transfer fees and relocation of the plant, machinery or other equipment, as applicable.</p> <p>Provide replacement property of equal or greater value, or cash compensation at full replacement cost to persons with legal rights or right to claim on the land which are recognized or recognizable under national laws.</p>
Tenants	silent	Are among the PAPs who are entitled to full, fair and prompt compensation and other relocation assistance	Compensation whatever the type of legal recognition of the land tenure, and support for the

PAP	Government of Malawi provisions	African Development Bank Policy provisions	Appropriate measures for Addressing the gaps.
			resumption of activities, if any.
Form of Payment	Cash, Cheque or Replacement of Property	Land to land compensation, Cash, Cheque, Replacement of Property, and compensation in kind for public or common facility	None; Where possible and practical, the compensation cash or cheques be directed to be deposited in a joint account held by husband and wife.
Time of Compensation	Before commencement	Before commencement of works	None
Livelihood Restoration and Assistance	A person that suffers any disturbance of, or loss or damage to any interest which he may have or, immediately prior to the occurrence of any of the events referred to in this section, may have had in such land, shall be paid such compensation for such disturbance, loss or damage as is reasonable	Displaced or resettled people receive significant resettlement assistance under the project, so that their standards of living, income-earning capacity, production levels and overall means of livelihood are improved beyond pre-project levels	None
Consultation and Disclosure	The Minister may make and execute grants, leases or other dispositions of public land classified as Government land for any such estates, interests or terms, and for such purposes and on such terms and conditions, as he may think fit.	Effective advance dissemination by the authorities of relevant information, including land records and proposed comprehensive resettlement plans specifically addressing efforts to protect vulnerable groups; Public hearings that provide affected persons and/or their legally	Public consultation and PAPs engagement where project shall affect public land encroachers. The RAP shall be disclosed to Public in good time for PAPs to appreciate how they will be assisted.

PAP	Government of Malawi provisions	African Development Bank Policy provisions	Appropriate measures for Addressing the gaps.
		designated representatives with opportunities to challenge the resettlement design and process, and/or to present and discuss alternative proposals and articulate their views and development priorities.	
Grievance and Dispute Resolution	Provision for customary land dispute committees and Tribunal to resolve and mediate land related disputes	Provision of Grievance Redress mechanism for dispute resolutions.	Establishment of GRM committee to resolve compensation related disputes
Resettlement Options and Alternatives	Compensation for value for money; or value of property including disturbance.	Resettlement of options such as land for land in case of relocation, house for house in case demolition of house. Sufficient compensation to enhance and restore livelihoods and income streams including disturbance consideration	Compensation at full replacement cost offered including 15% disturbance before displacement

3.3. Institution Capacity and RAP Implementation Arrangement

The implementing agency, NRW, has implemented similar water and sanitation projects financed by multilateral Banks. The most recent ones are Mzimba Water Supply and Sanitation Project and Nkhatabay Town Water and Sanitation Project which were both financed by AfDB and OPEC Fund, and Malawi NRW Water Supply Efficiency Project financed by the European Investment Bank (EIB). NRW also implemented the Chitipa Water Supply Project financed by the Arab Bank for Economic Development in Africa (BADEA) and Songwe Water Supply under National Water Program II financed by World Bank.

The successful implementation of the projects has strengthened NRWB's internal capacity which has enabled the institution to comply with national and financiers' safeguard requirements. To ensure smooth implementation of the project RAP, the Project Implementation Unit (PIU) will have personnel trained in Environmental Management and Social Safeguards, Community Mobilisation and Engagement, Gender, and Monitoring and Evaluation.

The Environmental and Social Expert shall be responsible for overall implementation and coordination of the RAP activities, and shall work hand in hand with Gender Officer, and Community Mobilisation and Engagement Expert where their expertise shall be required. The personnel have participated in different projects financed by different Banks, and shall ensure the RAP is implemented satisfactory, and all related complains have been addressed. The Resettlement Action Plan implementation team shall therefore composed of the following experts;

- i. Environmental and Social Safeguard Experts
- ii. Environmental and Social Safeguard Officer
- iii. Community Mobilisation and Engagement Expert
- iv. Gender and Social Welfare Officer
- v. Monitoring and Evaluation Officer
- vi. District Land Officer

3.3.1. Implementing Stakeholders and Roles

The smooth and successful implementation of the project RAP shall require seamless interaction and coordination from different stakeholders involved in the project including District Lands Office, District Social Welfare Office, Local Chiefs, Area and Village Development Committees, and local/ community organisations. These stakeholders shall have the following roles:

i. NRWB

The implementing agency shall ensure the following is done;

- Implementation of RAP activities,
- Public awareness and sensitization on project RAP,
- Facilitating formation and capacity building of Grievance Redress Committees,
- Review performance of GRC in dispute and complaints resolution,
- Payment of compensation,
- Monitoring and Evaluation,
- Reporting on RAP implementation progress to District Council, Ministry of Lands and AfDB.

ii. Ministry of Lands

The Ministry of Lands shall be responsible for monitoring RAP implementation by ensuring Project Affected Persons are compensated fairly and adequately following guiding Laws of Malawi as well as AfDB requirements. All compensations before shall be vetted and approved by responsible Lands Official.

iii. Project Monitoring Team (DPMT)

As a way of ensuring stakeholder participation, it is proposed that a Project Monitoring Team (PMT) be formed to take part in the monitoring of implementation of project activities including RAP. This is necessary for the stakeholders to be kept abreast of the project progress and appraise the RAP implementation. The PMT shall include members from M'mbwelwa District Council, Rumphu District Council: Directors of Planning and Development - Chairperson; Directors of Health and Social Services; Directors of Public Works/ Engineering; District Water Development Officers; District Environmental Health Officers; District Forestry Officers; Monitoring and Evaluation Officers; District Education Managers; District land officer, District Labour Officers and Gender Officers and representatives from CSOs and NGOs.

iv. Area Development Committees

Area development committees shall also play an active role in implementation of the project. These committees shall form the backbone of Grievance Redress Committees at community level where resettlement related among other E & S complaints shall be reported, heard and disposed of.

v. Local Chiefs

Local and area leadership is an entry point for PAPs engagement and consultation in RAP implementation. They have privileged means of mobilising gathering of communities where information can easily be passed on to PAPs

vi. African Development Bank (AfDB)

The AfDB shall provide oversight to the implementing entity, NRWB, to ensure NRWB complies with RAP and E & S safeguards standards during implementation of the project. It will also provide technical assistance and guidance where shall be needed.

4 PUBLIC PARTICIPATION, CONSULTATION AND COMMUNICATION

4.1 Introduction

Stakeholder consultations were conducted to get input from various stakeholders relevant to the project. The consultations focused on the scope of the project and expected roles from the stakeholders. The consultations were held with the relevant agencies and government departments. The consultation at District level were conducted at all levels; thus District Council level, Area Development Committees (ADC) and Village Development Committees (VDC) where local leaders, project beneficiary communities and Project Affected Persons were identified and consulted. Consultations involved highlighting project activities and soliciting their views through open discussion forum, interviews and open dialogues with key informants with relevant expertise, and village meetings with community members

4.2 Objectives

The objectives of the public consultations were as follows:

1. To inform targeted key stakeholders about the upcoming project,
2. To raise awareness to all project targeted localities in the district, including surrounding residents, and
3. To gather concerns/views, particularly from groups of people who would be directly affected by the project regarding resettlement alternatives and procedures for redress of grievances.

4.3 Consultation Methods

Stakeholders were consulted through introductory meetings, consultation meetings and household questionnaires. The details of stakeholder consultations are provided in appendix IV.

4.4 Consultation Outcomes from District Councils and Communities

During stakeholder consultations, a number of issues were discussed as follows:

4.4.1 Project background and details

The Project was conceived to improve water and sanitation in Rumphi district and surrounding areas. It will be implemented by Northern Region Water Board and is expected to commence in August 2023 for a period of 4 years. The Project will involve construction of new water treatment plant, storage reservoirs, new pipelines, sewage system and solid water dumpsite. The water supply will extend to Mwazisi, Erukweni, Kacheche and Phwezi.

4.4.2 Compensation for crops and other assets

All assets to be affected will be compensated for according to the laws of Malawi and before commencement of the project. The assets will be valued to determine how much they should be compensated for. The valuation will be based on replacement value of the assets.

4.4.3 Land acquisition and Resettlement

The project will try to be implemented within existing public land and road reserve boundary wayleave. However, some project infrastructure shall be implemented on identified customary pieces of land which were negotiated, and purchase agreement completed. For pipeline routes, the water supply and sewer pipes will be installed within road reserve boundary services wayleave. Where the wayleave is encroached, the project shall compensate for affected peoples' property should they not been compensated by current road construction and maintenance project currently under way in the project area. The project will therefore not trigger permanent physical displacement of people. However, the project shall lead economic resettlement where customary land used for farming is acquired for project activities.

4.4.4 Access to water

The project targets Rumphu and surrounding areas. As much as it is practicable, all the people within the project area are expected to benefit from the improved water supply services to support their livelihood requirements.

4.4.5 Employment issues

All contractors will ensure that some of the workers are employed from within the project area. All work-related disputes will be handled by the District Labour office

4.4.6 Free Water Connection

There will be no free water connection. However, the government has a policy to provide free water connection to those meeting the set criteria for free water connection

4.4.7 Sustainability of Toilet facilities at Mzokoto

NRWB will only construct the toilet facilities at Mzokoto, the operations of the facilities will be handled by the district council.

4.4.8 Operation of Communal water points

The communal water points will be operated by the communities themselves through communal water points committee or Water Users Association

4.4.9 Grievance Redress Mechanism

The grievance redress mechanism will be implemented through Grievance Redress Committees. Where there are existing GRM committees they will be strengthened through training. For areas where there are no established committees, these will be established and trained.

4.4.10 Project Commencement and duration

The project is expected to commence in August 2023 and is expected to be implemented in 4 years.

4.5 Consultation Outcomes from Government Departments and Agencies

Stakeholders from the Ministries of Lands, Housing & Urban Development and Labour, National Water Resources Authority, ESCOM and MEPA were informed about the project, ESIA study and consulted regarding their views about the project. The stakeholders were informed that the consultant is at draft reporting stage. Below is a summary of the outcome of the consultations.

Table 8: Outcome of Consultation Meetings

	Department/ Agency	Outcome
1	Timothy Mwale- Regional Lands Commissioner 0993947852	The Commissioner reviewed the project area through the map provided and indicated that the department will provide any support that will be required during project implementation.
2	Mr. Msukwa- Deputy Labour Commissioner 0999315139 Mrs. V. Linyama- Deputy Regional Labour Office (Northern Region) 0999391224	The deputy commissioner indicated that it is important that the Head office be kept in the loop since policy issues on occupational health and safety are formulated at the Ministry of Labour while district offices are the implementers. They look forward to receive more information on the project. The officer reviewed the project area through the map provided and indicated that the department will provide any support that will be required during project implementation.
3	Mr. P. Banda- National Water Resources Authority (NWRA) 0999333069	NWRA indicated that they need to be informed of the current and proposed water abstraction figures. The Authority also indicated that NRWB needs to apply for new licenses for the proposed water abstraction. The NWRA indicated that they are interested to know the results of the assessments done on the effect on the upstream and downstream communities. NRWB should obtain licenses if they are extracting using boreholes. It was explained to him that the intake is on a river, the same that is currently being used. The new intake will be at a higher elevation.

4	George Matukuta-ESCOM 0888721117	Indicated that they are in support of the project and committed to provide more feedback if there is further need.
5	Katambo-EAD/MEPA 0999346466	Acknowledged about the project information and approved the terms of reference for the ESIA study. MEPA through the Advisory Committee on Environment and Social Assessment (ACESA) will review the ESIA report.



Figure 9: Meeting with (a) Paramount Chikulamayembe (b) Inkosi Jaravikuba



Figure 10: Meeting with (a) Mtwalo ADC (b) Bwengu ADC (c) Mwazisi ADC and AEC (d) Bwengu Market Leaders (e) Bembe ADC and Market Leaders (d) Bolero ADC, AEC, Market Leaders and WUA

4.6 Stakeholder Analysis

During the process several stakeholders were identified and they can be grouped into the following categories:

4.6.1 Direct Beneficiaries:

These are the ones whom the project targets based on the justification as articulated in the project document. They include individual households and business persons in the project area who will benefit from the water supply and waste management services, local community members who will benefit from employment opportunities during the implementation of the project. It also includes institutions who will benefit from the water supply and waste management services, such as the hospital and prison at Rumphu town. These stakeholders should be engaged during the design and construction phases to ensure that there is buy in and cooperation on the project.

Women are a special sub-category in the sense that they are mostly the ones responsible for collecting water in the households. During public consultations, it was very clear from the women that they welcome the project because they are tired of having to fetch unsafe water which is far from their homesteads and also unreliable and erratic in supply when sourced from Water Users Association (WUAs) infrastructure. There is a lot of goodwill towards the project from the women because of this.

Another set of direct beneficiaries are the travellers who will be using the Stopover to be constructed at Phwezi/Mzokoto. They will benefit from clean ablution services.

During the construction phase of the project, there will be opportunities for employment for the local people, starting from the construction of the new intake, to digging of trenches for the water supply network and construction of water tanks, offices, booster pump housing and to the traveller's stopover. The local community members will therefore be an important stakeholder in this. During consultations, they expressed interest in gaining from employment and requested that locals should be employed rather than bringing in people from other areas.

4.6.2 Project Affected Persons (PAPs):

These include those people whose assets or properties will be affected by the project directly because they are located either in the route of the water supply or sewer pipelines or an office or booster pump housing will be constructed on their land. At the time of the study, NRWB had mapped out all routes for the water supply network and associated infrastructure including the sites for construction of offices and tanks. In some cases, the process of land acquisition had been initiated. In other cases, the processes had not yet been initiated, the sites had simply been identified.

During stakeholder meetings, it was apparent that there are some pipeline routes especially between Enukwani and Phwezi where road rehabilitation project is taking place and PAPs who encroached the road reserve boundary were compensated for their properties by the Roads Authority. The compensation assessment, therefore, focused on crops and trees planted and structures to be demolished in the RRB that had not already been compensated. This was also expectation of PAPs themselves based on remarks made by traditional leaders and community representatives during consultation meetings. In other cases where there no road rehabilitation

projects, and people encroached road reserves, the PAPs expectation is that they be compensated for their properties.

During consultation, it was apparent that Project Affected Persons were fully aware of possible compensation options for example cash or in kind from previous and existing project in the area. Following explanation of the project activities, and how they shall affect them, many people supported cash compensation as the most of them shall be temporarily affected by project. For instance, pipeline installation in road reserve, the PAPs are likely to reuse encroached spaces after installation of pipeline and these are people that constitute large percentage of PAPs.

The consultation revealed that communities are aware of Grievance Redress Mechanism courtesy of projects currently underway in the area. For instance, Chinyolo, had a fully existent and functional GRM because the ADC covers areas along the M1 road that have recently experienced asset valuation and compensation by the Roads Authority/Roads Fund who are working on the maintenance of the road. It was also noted that there existing GRM committees which this project can utilise and strengthen.

During consultations, communities also stressed on need to safeguard community and public infrastructure from damage by project. In this regard people wanted to understand on what shall be done in case the public infrastructure such as Bridges are damaged by construction machinery or overloaded vehicles. In an event that the common or public infrastructure is damaged project activity with proof, people requested that that facility must be repaired by contractor of the project.

Finally, the consultation established that the NRW needs to keep communities and PAPs closely informed and engaged throughout the process. It was established that there is high expectation for the project and communities welcomed the project. There are also possibilities of abnormally high expectations in terms of land valuation. The NRW should therefore ensure that the PAPs in this category are well managed. Construction on the sites should start only when all are in agreement on the said transactions, including the District Councils completed.

4.6.3 Partners to the implementing agency (NRWB):

The NRW will implement this project with the support of several partners including the financiers of the project and the district councils of M'belwa and Rumphu. The departments that will be partnering with the NRW at the district councils include: Water, Planning and Development, Lands, Education, Prisons and Health. In addition, various (Non-Governmental Organisations (NGOs) and Civil Society Organisations (CSOs) who are interested in water and sanitation in the two districts.

Another set of partners are the local level representatives who are in the various local governance structures such as the ADCs and Business and Market Leaders. These are important to keep engaged throughout the project because they represent the people.

Due to the fact that the water supply network will be within the road reserve, the Roads Authority and District Councils will be another set of partners that the NRWB need to work with.

4.7 PAPs and Stakeholder Summary Views

During PAPs and stakeholder engagement meeting a number of issues were raised and the following table present the issues and how are addressed in the RAP.

<i>Issues Raised by PAPs and Stakeholder</i>	<i>Measures Taken</i>
<i>Waiting time to receive compensation</i>	<i>The compensation payment shall be effected before the commencement of works</i>
<i>Method and processes of land acquisition by NRWB</i>	<i>NRWB negotiated and to compensate any PAPs voluntarily willing to sell to be used for project</i>
<i>Will the project compensate individuals who construct or put any structure in the road reserve in anticipation of a project?</i>	<i>The compensation cut-off date shall be declared beyond which no individual shall be compensated for anything that comes after cut-off-date</i>
<i>Method of pipeline trench excavation to be limited to machinery or people shall also be used to have employment opportunities.</i>	<i>The project shall use both machinery and manual labour to excavate trenches where possible.</i>
<i>Arrangement made to handle with issues between the contractors and workers.</i>	<i>Establishment of Grievance Redress Committees (GRC) to facilitate conflict or dispute resolution</i>
<i>How will payment issues of workers going to be handled? If workers are left unpaid</i>	<i>Worker payment complaints will be handled by the Ministry of Labour office as per Laws, and GRM committees. However, NRWB shall facilitate the resolution of such issues</i>
<i>Are all types of trees eligible for compensation?</i>	<i>All tree types including natural, exotic and fruit trees shall be compensated.</i>
<i>Methodology to use to do PAPs census, and How will PAPs be identified?</i>	<i>The. Census was conducted by physical walk along the designed pipeline, and collecting data on the property to be damaged. This was happening in presence of PAPs, and area local leader or VDC representative.</i>
<i>Does the project need to setup new GRC replacing existing ones where already available?</i>	<i>In areas where there are existing GRC committees, the project will work with the existing committees. In areas where there are no GRC, the committees will be set up</i>
<i>Are people allowed to farm once the assessment has been done?</i>	<i>Vacation notice shall be given before work commences. In addition, the project shall be expected to start in the year 2024, therefore people were advised to proceed with farming</i>
<i>In areas where offices will be built will people surrounding that area have to be resettled?</i>	<i>No resettlement requirement for people surrounding office buildings. In addition, land facilities that require to be away from people have been identified away from peoples settlement</i>

5 SOCIO-ECONOMIC CONDITIONS

5.1 Introduction

To establish the socio-economic conditions of the project area, several methods of data collection were used, including household socio-economic survey, observations and information from public consultations. This section largely provides information based on the socioeconomic household survey, supported by observations and information from Public Consultations.

The sampling of respondents for the household survey was spread across the project areas as presented in figure 11 below:

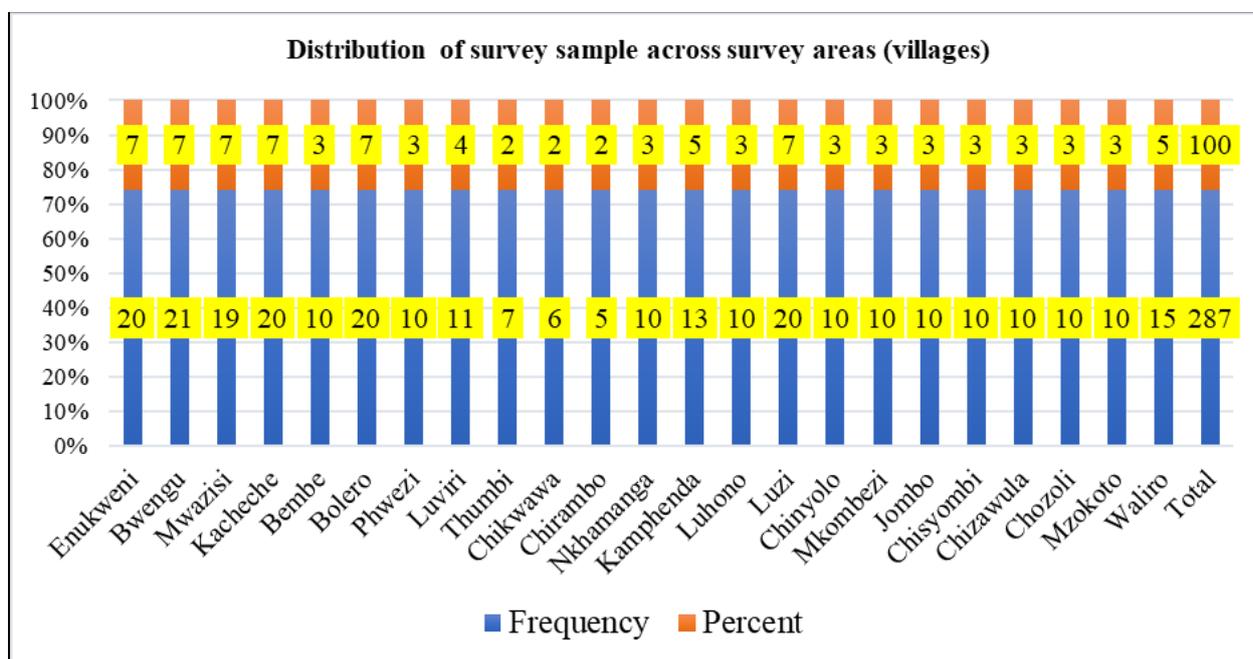


Figure 11: distribution of sampling in project areas

5.1.1 Objectives

The main objective of establishing the baseline socio-economic conditions of the area was to ensure that prior to implementing the project, the prevailing conditions are known in order to identify the potential positive and negative impacts of the project. This would assist in ensuring that the positive impacts are enhanced while the negative impacts are mitigated. The specific objectives therefore include:

- Identifying the impacts of the projects on vulnerable groupings like women and youth
- Establishing the water and sanitation access conditions in the area
- Establishing the status of economic activities in the area
- Understanding the gender roles and relations and how these may affect the project
- Gathering information on production systems, household organization, livelihoods and standards of living of the displaced population

5.2 Assumptions and Limitations

The study was conducted guided by the following assumptions:

1. There will be alienation of some assets from some PAPs, particularly land along the road reserve which may have been used for farming, land on which offices and booster pump housing will be located.
2. NRW will reach amicable resolution of all asset acquisition.

In terms of limitations, the study was limited in form of time resources.

5.3 Findings

5.3.1 Household Characteristics

The average household size of the sampled households is 5.1, with a maximum of 12 and a minimum of 1 household members. In terms of age, the average age is 25, with a range of 0.33 to 92 years. There was no child-headed household recorded. The number of female-headed households recorded was 30, representing 10.5% of the sampled households. Figure 12 depicts the age structure of the sampled households.

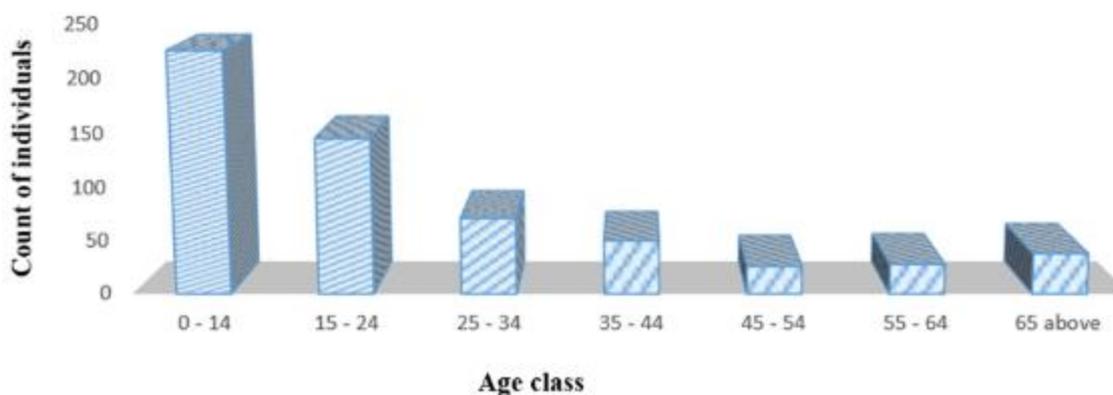


Figure 12: Age Structure (Years) of the sampled households in the Rumphi Water Supply and Sanitation Services Improvement Project area

The sampled households demonstrate that the longest length of stay (in years) in the village of residence is at 90 years in Rumphi and 84 years in Mzimba, with a mean of 26 and 27 respectively. This points to the youthfulness of the community as already shown through the average age above.

Table 9: Length of Stay in Area (Years) for the sampled households in the Rumphi Water Supply and Sanitation Services Improvement Project area

District	Minimum	Maximum	Mean
Mzimba	0	84	27

Rumphi	0.33	90	26
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5.3.2 Household Ethnicity and Language

The survey results show that 98% of the respondents are Malawian whereas 2% are Tanzanian Figure 13. This is not surprising because Tanzania is to the North of Rumphi and Mzimba and there are some cross-border movements that occur, which may lead to some settling in Malawi.

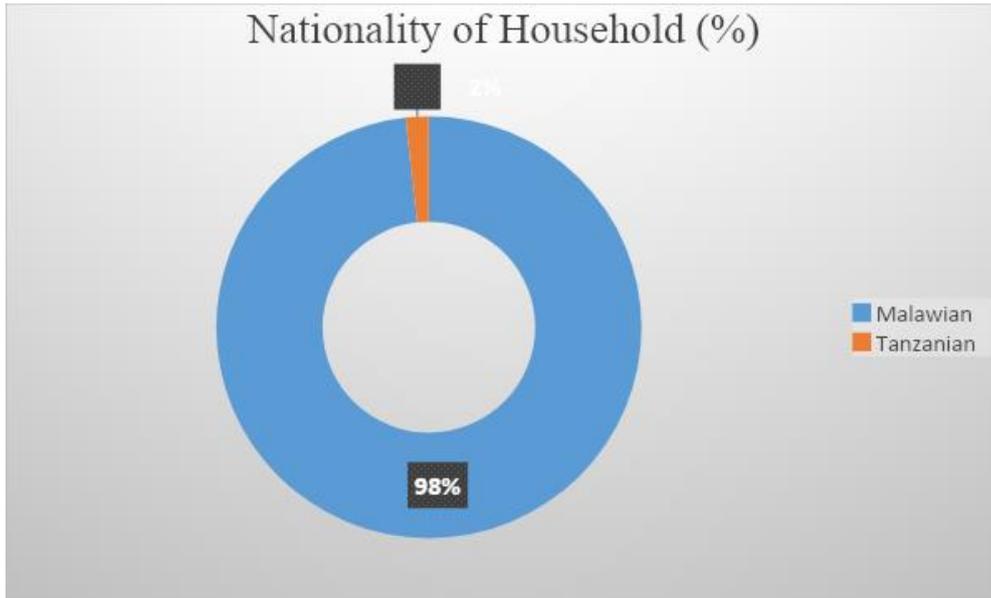


Figure 13: Nationalities in the in the Rumphi Water Supply and Sanitation Services Improvement Project area

Ethnically, 95% of the respondents are Tumbuka, with 3% Chewa and 1% Ngoni and Ngonde respectively.

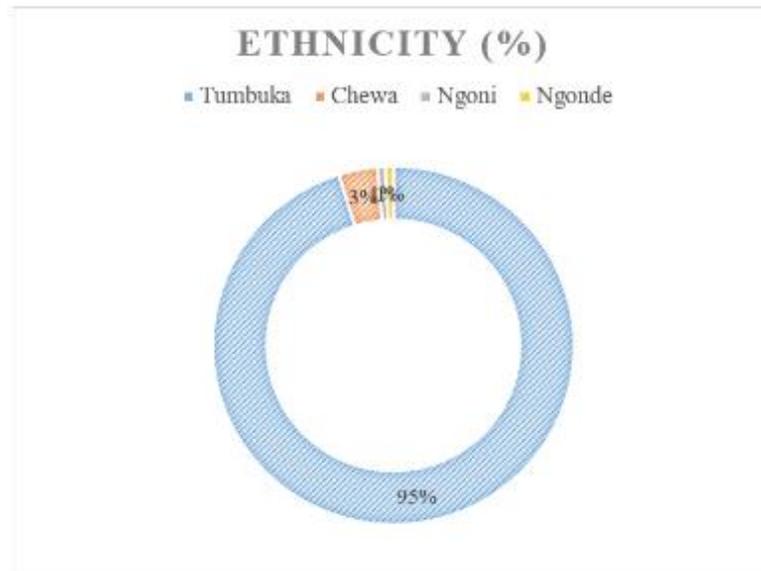


Figure 14: Ethnic groups in the Rumphi Water Supply and Sanitation Services Improvement Project area

In terms of language, the study results show that 97% of the respondents speak Tumbuka language whereas 2.5% speak Chichewa and 0.5% speak Ngonde. In our interactions with the community, we used both Tumbuka and Chewa which the community was able to understand but in responding, their main language was Tumbuka.



Figure 15: Common languages in the Rumphi Water Supply and Sanitation Services Improvement Project area

Although there are more than 4 major religions in the country (Christian, Islam, Hinduism and traditional), the study results showed that the respondents belonged to two religions Christianity (99.3%) and Islam (0.7%).

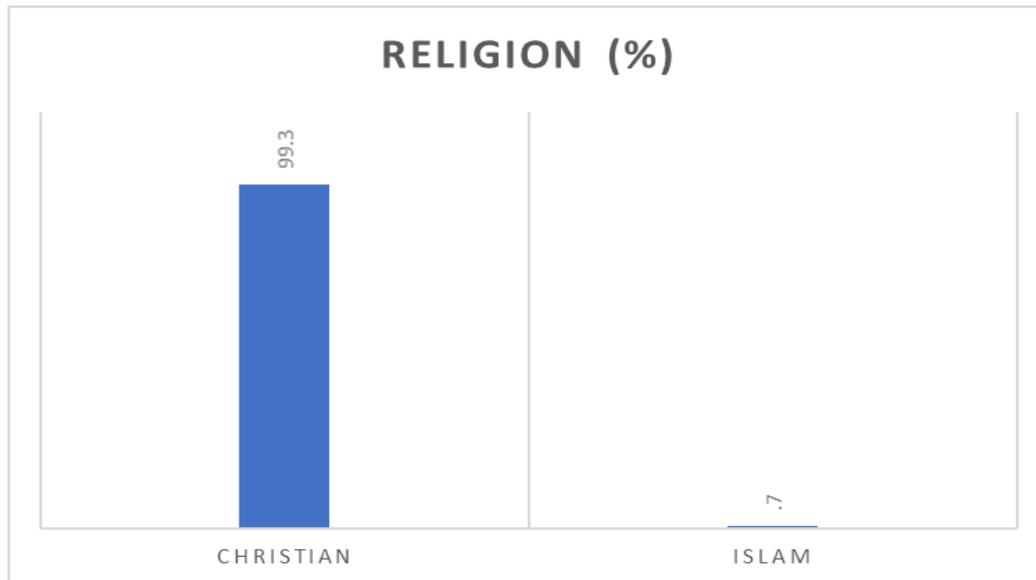


Figure 16: Religions in the Rumphu Water Supply and Sanitation Services Improvement Project area

5.3.3 Gender and Societal Roles

Of the sampled households, 303 individuals were male and 286 individuals were female, representing 51.4% and 48.6% respectively. Since the area is largely comprised of people of Tumbuka ethnicity, their culture is mainly patrilocal and patrilineal in the sense that women move to live in the husband’s home area and inheritance is passed through the father’s lineage. In this culture, although farming is done by both men and women, most domestic or household chores are mainly done by women, particularly drawing water, cooking and fetching firewood. In discussions with the community members, it was mostly the women who complained in detail about the challenges that they face in ensuring that they have water at the homestead.

They complained about having to wake up very early in the wee hours of the morning to walk long distances to collect water. This project therefore will be very beneficial to women in terms of saving them the time that they spend walking to fetch water and sometimes just waiting at the water source for the water to be available.

1.1.1.1 Community Authority Structures

The structures of authority at the community level follow the decentralization policy stipulations which were mainly designed to facilitate development. As such, there is the traditional arm and the administration arm. The traditional arm starts with the Paramount/Themba la Mathemba, who is Chikulamayembe for the Tumbuka and Inkosi ya Makosi M’mbelwa for the Ngoni of Mzimba. From the Themba la Mathemba, we have Traditional Authorities (TAs) and in Rumphu, the area in which the project will be implemented also falls under the Themba la Mathemba in his capacity as a TA. In Mzimba, from the Inkosi ya Makosi, we have the Inkosis and in this project, the relevant are Inkosi Mtwalo and Inkosi Jaravikuba. We paid a courtesy call to both of these Inkosis (see above under Public

Consultation Section) to inform them about the project. They are aware of the project and pledged to support its implementation. From the Traditional Authorities and Inkosis, we have Group Village Headmen (GVH) who are responsible for a group of villages. Under them, are the Village Headmen.

Administratively, at Traditional Authority level, there is an Area Development Committee (ADC) which is responsible for all development activities in the area. The ADC is made up of Chairpersons of Village Development Committees (VDCs) which are located at GVH level. All the ADCs in the project area were consulted during public consultations, thereby ensuring that all VDCs are aware of the project and information is shared to all.

5.3.4 Education and Literacy Levels

The survey results showed that 187 of the household members reported that they were still in primary school. Of the adults, 115 reported that they did not finish primary school whereas 44 reported that they did not finish secondary school. Only 10 of the individuals were reported to have attained higher education level (Figure 17). In terms of literacy, 106 individuals were reported not able to read. This included children under the age of 11 and very old persons. This represented 76% literacy rate. The District has education institutions of all levels from primary school (204), secondary schools both day and boarding (25), and tertiary education provided by technical colleges at Phwezi, Rumphi Teachers college and University of Livingstonia.

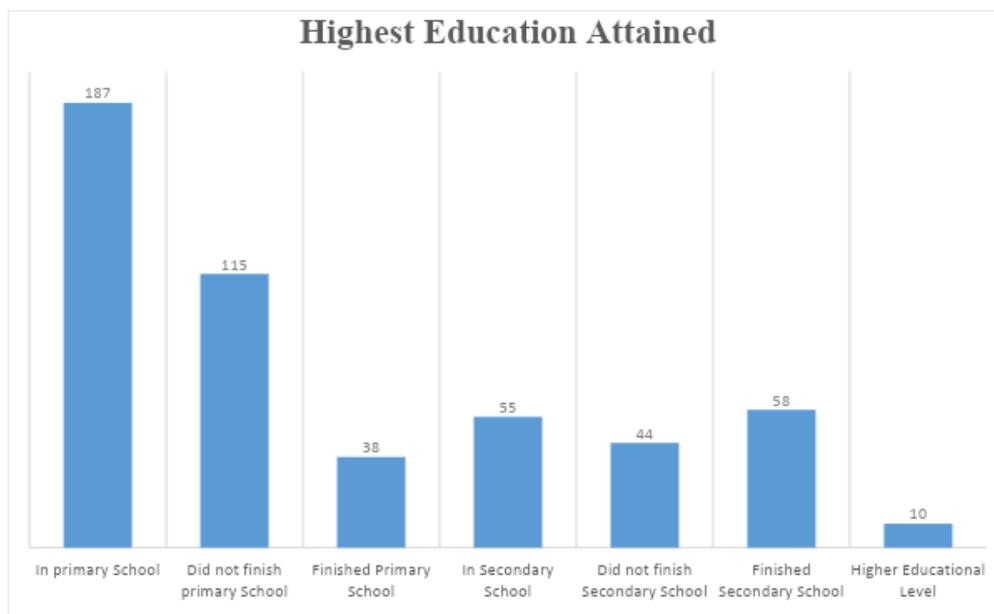


Figure 17: Education level in the Rumphi Water Supply and Sanitation Services Improvement Project area

5.3.5 Access to Health

There are several points to access health services for the people in the project area. The main health service access point is the district hospital at Rumphi town and Ekwendeni Hospital close to Mzuzu city. The other health facilities are Health Centres whose services are limited.

The respondents reported that they get most of their health services from the health centre (80%), District hospital (10%) and health facilities (10%). 83% of the respondents reported that they do get the medicines that they are prescribed. In terms of disease burden, the respondents reported the most common diseases suffered by household members, with cough (48%) and Malaria (33%) amongst the most prevalent (Figure 18).

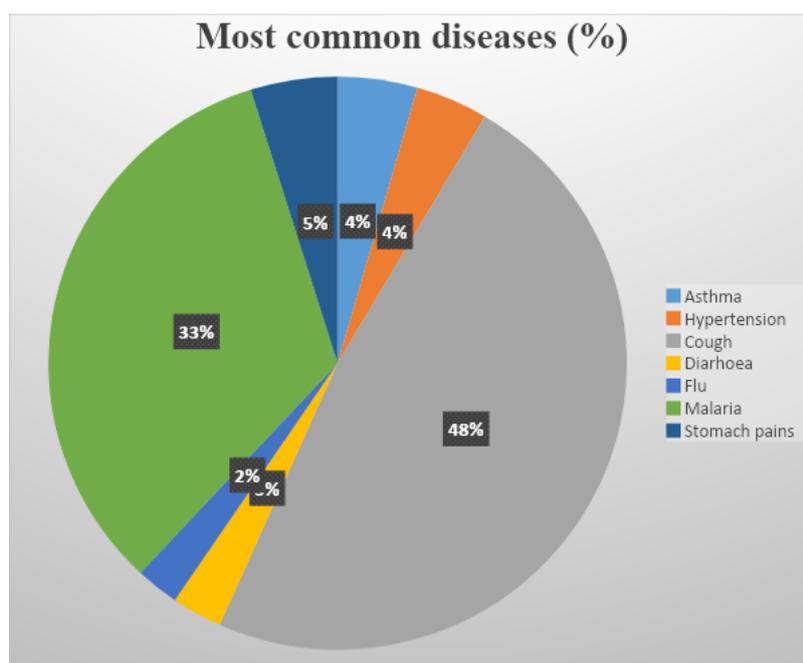


Figure 18: Common ailments in the Rumphi Water Supply and Sanitation Services Improvement Project area

The respondents were also asked about their knowledge of HIV and AIDS. In terms of general information about HIV and AIDS, 142 reported that they know that it kills whereas 199 reported that they know the manner in which it is contracted (Table 10).

Table 10: HIV and AIDS awareness in sampled sites of the Rumphi Water Supply and Sanitation Services Improvement Project area.

HIV and AIDS Information	Number of People Aware of It
It kills	142
Incurable	79
The manner in which it is contracted	199
Treatment or management of the condition	55

When asked on specifics of how HIV and AIDS is contracted, 92% of the respondents reported that it is contracted through irresponsible sexual behaviour and 30% said it is contracted through sharing of sharp instruments. Only 1% did not know (Figure 19). This information is useful in designing the training content for sexual and reproductive health that will be delivered to the stakeholders in order to mitigate against HIV and AIDS during project implementation.

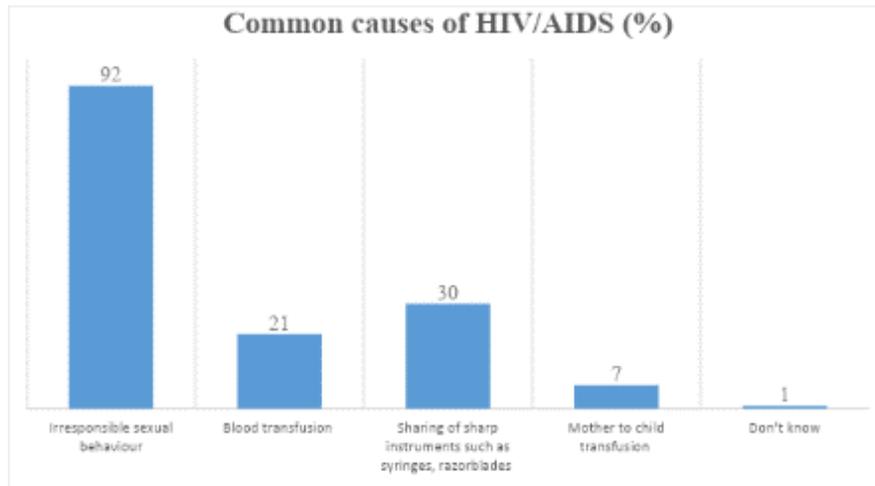


Figure 19: Common causes of HIV and AIDS as reported by people of the Rumphi Water Supply and Sanitation Services Improvement Project area

5.3.6 Transport and Communication

Rumphi District has both paved and unpaved road network which facilitates movement of goods and mobility in the area. The road network in Rumphi District Covers a total length of 1,192 Kilometres. Out of the total road network of 1,192km, 703.5km consists of Undesignated /community roads, 152.1km of Main roads, 128.6km of Secondary roads, 117.8km of Tertiary roads and 90 km of District roads. (WASH, DISP, 2021). The condition of most roads in the district is bad due to topography. The District has an M1 road that passes on eastern side tof the District through Thumbi, Phwezi, Chiweta and Chitimba to Karonga. The District also has an M24 road from Bwengu trading centre in Mzimba through Rumphi Boma, Bolero, Mwazisi and Hewe, and Nyika National park which is currently being upgraded to a paved road to connect these roads, the district has several gravel feeder roads connecting to the main roads. These roads enable goods and people to move from one place to another using vehicles, motorcycles and bicycles. The district has also water transport service especially for areas along Lake Malawi. On communication, the District has two mobile networks provided by Airtel and Telekom Networks Malawi that provide both voice call and internet services. Despite network challenges in some areas, the communication networks coverage is found in most trading centres of the District including the project area

5.3.7 Household Water and Sanitation Access

The study also sought to understand the current household water and sanitation situation. Almost all respondents reported using water for domestic uses and drinking (99%). Some reported using it for irrigation (9.4%) and others for livestock (18.5%) as per figure 20 below.

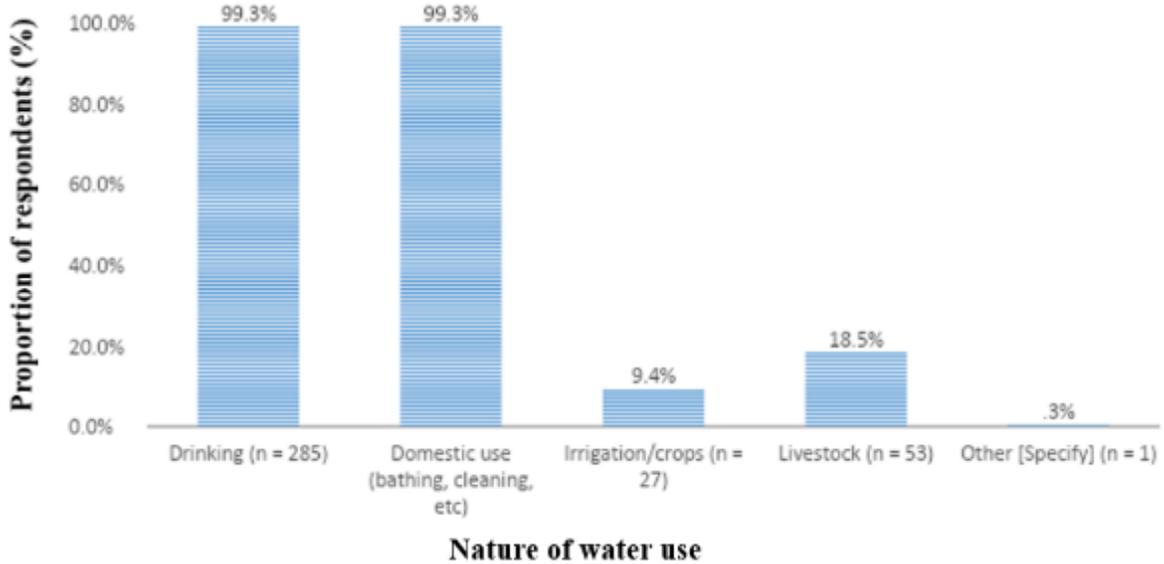


Figure 20: Common uses of water as reported by people of the Rumphi Water Supply and Sanitation Services Improvement Project area.

On sources of water, 77% of the respondents indicated that they draw water from a communal borehole whereas 16% reported that they draw water from government-provided communal water points (Figures 21 and 22). Government-provided communal water points were mainly reported in Rumphi where there has been a scheme for provision of water through gravity-fed piped water. During discussions with the communities, there were complaints regarding this system, which is currently being managed by the Water Users Association (WUA). The system is reportedly not working to the advantage of the communities because its water tanks were not constructed with strong materials and they have since started crumbling. In addition, the intakes were located at lower altitudes hence not taking in enough water to supply them.

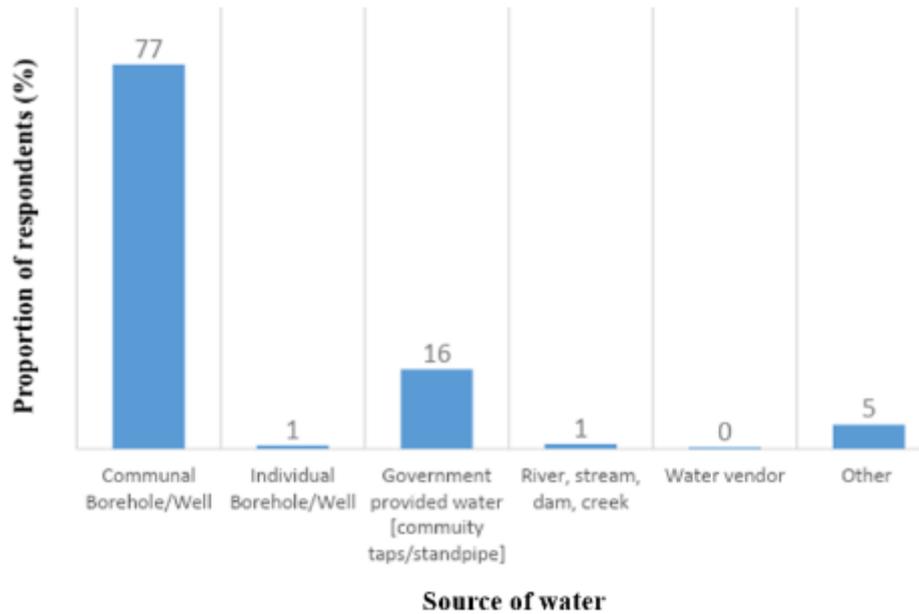


Figure 21: Common sources of water for the people of the Rumphi Water Supply and Sanitation Services Improvement Project area.

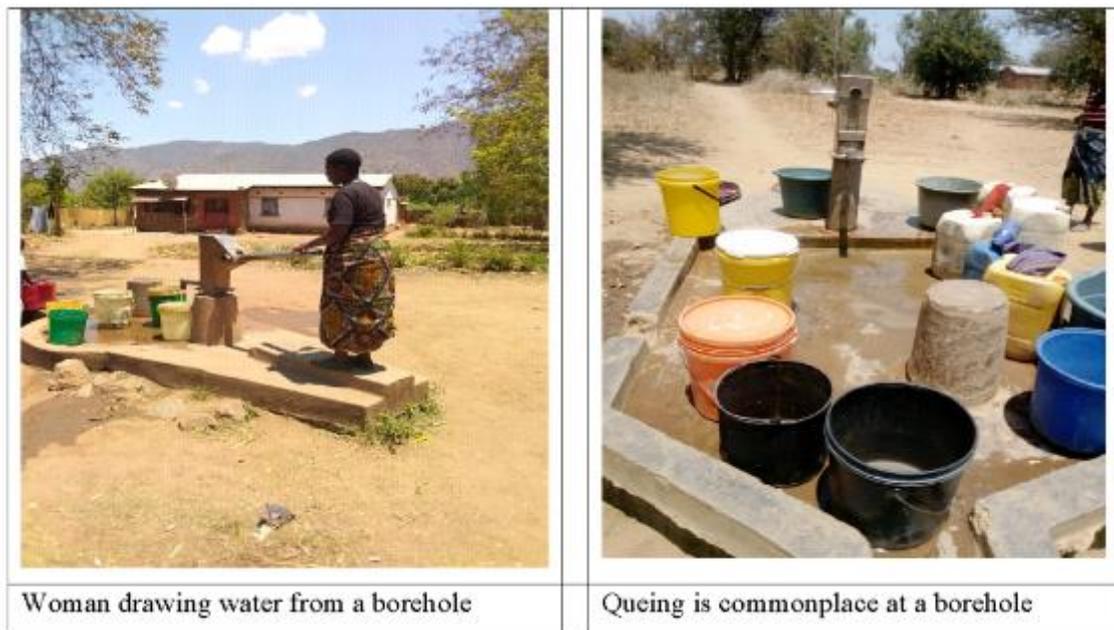


Figure 22: Common sources of water for the people of the Project area, the case of communal boreholes

When asked about distances that they travel to access water, the maximum time taken was reported to be one hour (60 minutes) as shown in figure 23 below.

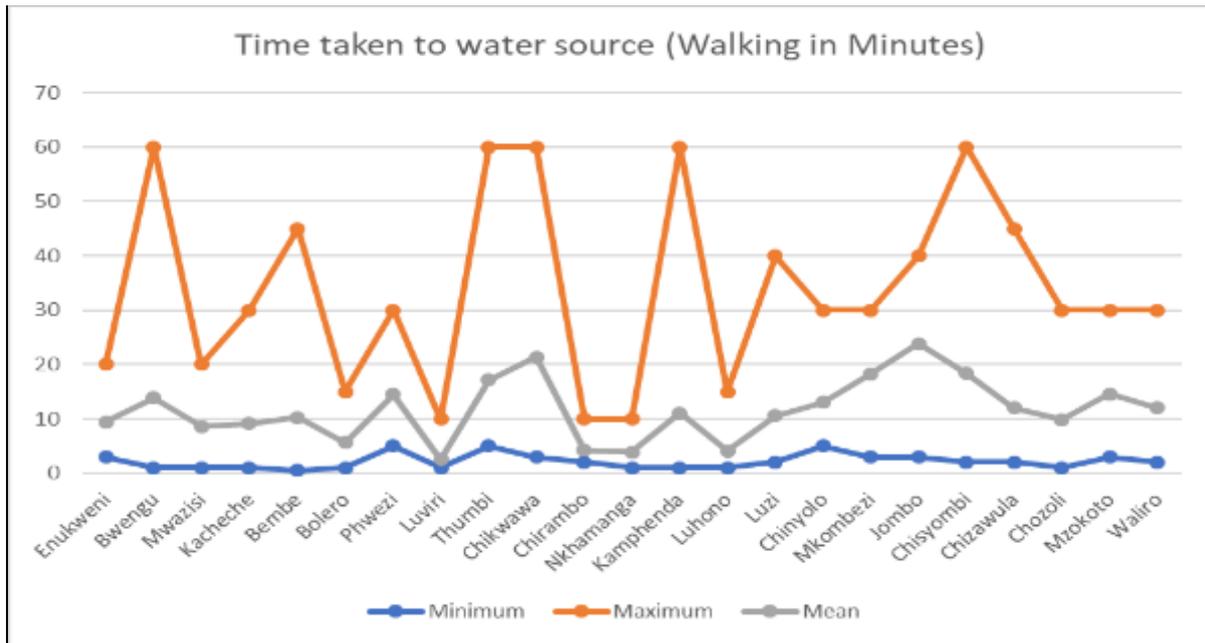


Figure 23: Time taken to travel (walk) to water source for the people of the project area

5.3.8 Treatment of water before use

Since the water sources provide untreated water which is not safe for drinking, we also sought to understand if they treat the water before drinking and how they treat it. 98% of the respondents indicated that they treat the water prior to drinking. The most common method of treatment letting it stand to settle (49%) followed by adding chlorine (47%). Only 2% reported that they boil the water prior to drinking (Figure 24).

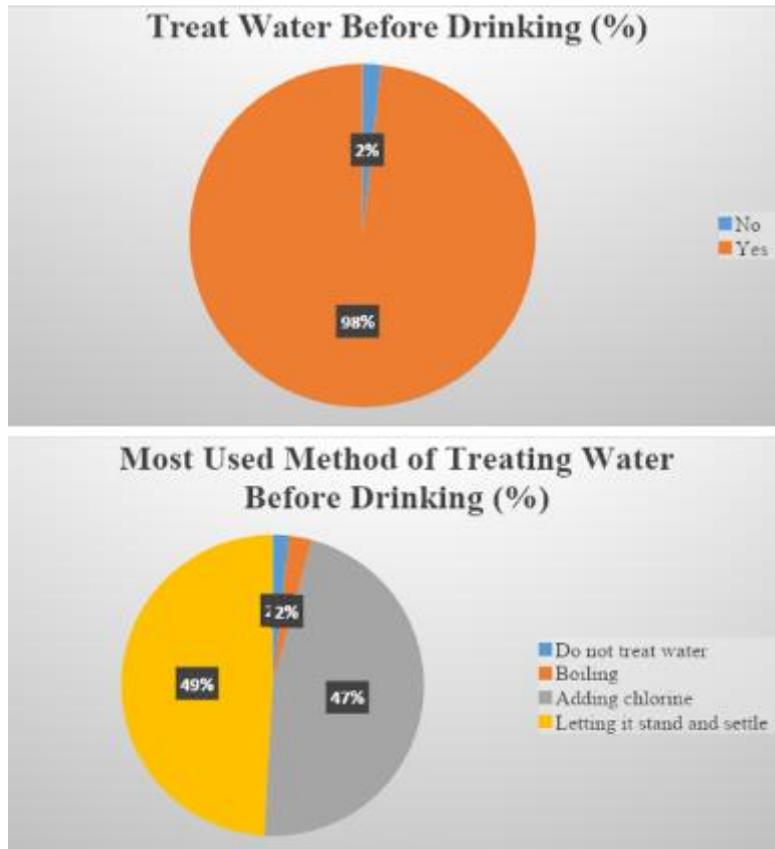


Figure 24: Treatment of water before use (top) and common methods of treating water before use (bottom) in the Rumphi Water Supply and Sanitation Services Improvement Project area

On sanitation facilities, 97% of the respondents reported that they have sanitation facilities. About 83% of respondents also reported that they do share sanitation facilities with other households. Therefore, the number of households sharing a sanitation facility are very high.

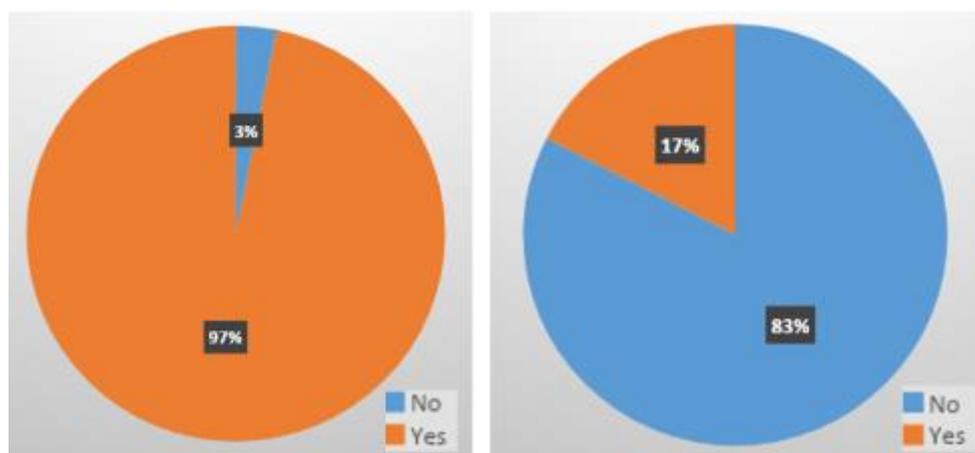


Figure 25: Sanitation in the Rumphi Water Supply and Sanitation Services Improvement Project area. The proportion of people with sanitation facilities (Left) and proportion of households that share a sanitation facility (Right)

The most common sanitation facility is the pit latrine reported by 96.5% of the respondents. Flush toilets were reported for 3.5 % of the households. Pit latrines are constructed using various materials as shown in figure 26 below. It is rare to find a hand washing facility outside a pit latrine as depicted below. The pit latrines are located outside the main house. In one of the meetings, the members encouraged each other to make plans to include toilet facilities within the main house in preparation for the upcoming project.



Figure 26: Nature of pit latrines in the Rumphi Water Supply and Sanitation Services Improvement Project area: one type made with grass material and no hand washing facility (Left) and another type constructed with bricks having a hand washing facility outside (R)

5.3.9 Land Ownership and Uses

A large proportion of the respondents reported having at least one piece of land (44%) seconded by those with 2 pieces of land (32%). A further 16% reported that they had access to 3 pieces of land. Only 3 % of the respondents reported that they did not have access to land.

Table 11: Land Ownership in the Rumphi Water Supply and Sanitation Services Improvement Project area.

Number of Pieces of Land Owned	% of respondents
0	3
1	44
2	32
3	16
4	4
5	1

In terms of tenure, 70% reported that it was customary land whereas 17% reported that it was individual titled land. Others reported that they were renting and paid in cash (9%), rented and paid in kind (1%) and freehold (3%). The titled and freehold land was mostly reported in the townships. Land was reported to be used for farming all year round by only 12.2% compared to those who farmed seasonally reported by 87.1%. Land size/holdings ranged from 0.25 to 24 acres, with the majority (93.9%) holding between 0.25 and 3 acres (Figure 27).

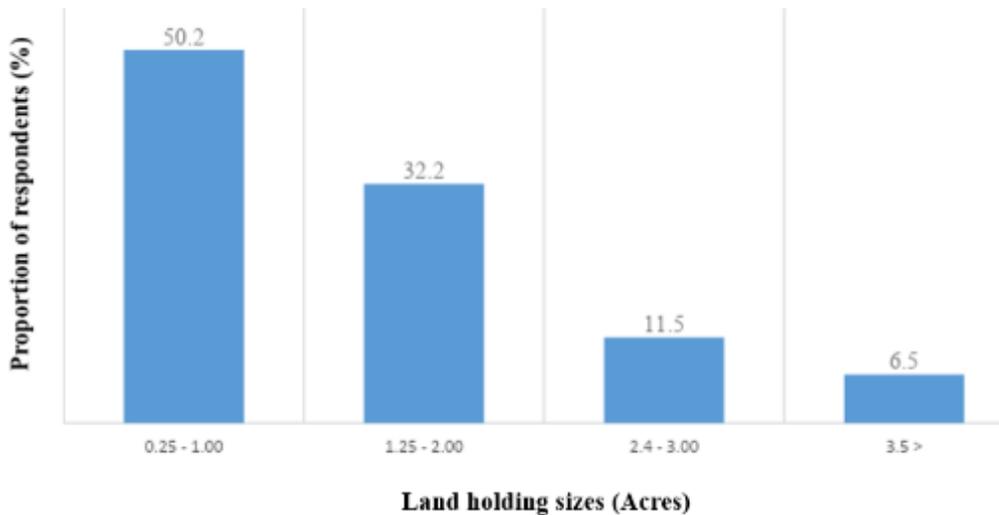


Figure 27: Land holding sizes (Acres) per household in the Rumphi Water Supply and Sanitation Services Improvement Project area

5.3.10 Sources of Income and Livelihoods

According to the survey results, a large number of the individuals in the sample (207) are still going to school, which also speaks to the young population as alluded to above. Therefore, farming is the main source of income for those who are not going to school, seconded by doing piece work/labourers. This is the pool of human resources that the project may have to employ because as shown below, the skills levels for any other kind of employment are very low in the community.

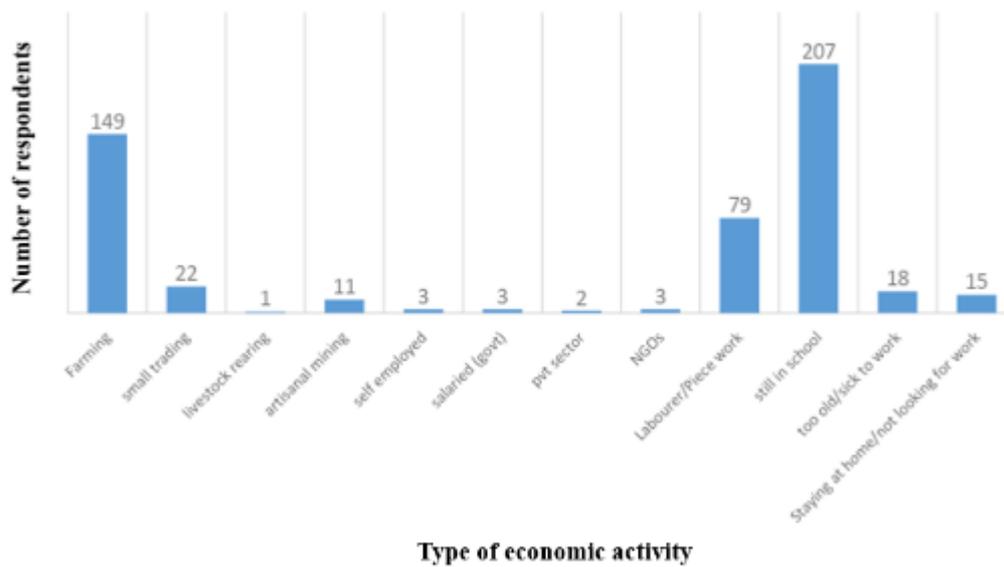


Figure 28: Main types of economic activities in the Rumphi Water Supply and Sanitation Services Improvement Project area

5.3.11 Bank Service

Banking services in Rumphi District are not widely accessible as compared to neighbouring Districts. The banking services are provided by two Banks namely New Building Society (NBS) and First Discount House (FDH) banks, both located at Rumphi Boma. The two banks provide both banking hall and Auto Teller Machines (ATM) banking services. There is no Bank at Bolero Rural Growth Centre and other major trading centres in the project area, and therefore people have travel to Rumphi town to access Banking Services. In addition to formal Bank services, there are mobile money banking services offered by Airtel Money, TNM Mpamba and Standard Bank Unayo which are available in all trading centres in the District. The mobile money bank services face challenge of inadequate cash availability by mobile money agents.

5.3.12 Employment and Labour Market

A number of skills were presented to the respondents to indicate who in their household holds any of those skills. A total of 417 individuals were reported to hold none of the skills as per below. 9 of the individuals reported having carpentry skills whereas 8 were reported to be computer literate. 7 of them reported that they have driving skills while 6 reported that they have building skills. In general, the labour pool for unskilled labour is large hence there will be need to manage the employment opportunities that the project can avail. Systems and structures need to be put in place by the contractor to ensure that there are no challenges with employment offers.

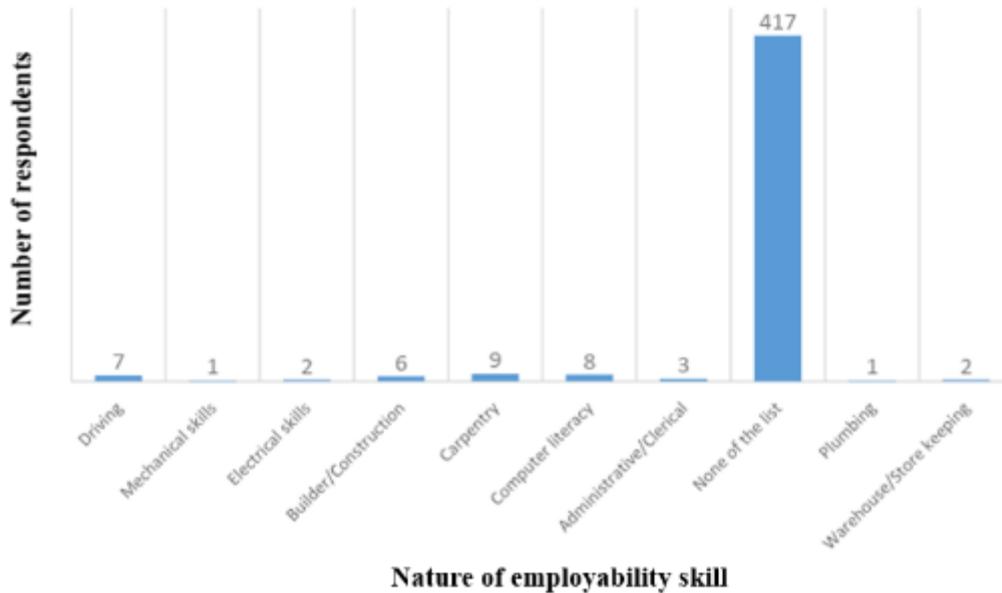


Figure 29: Main types of employability skills in the Rumphi Water Supply and Sanitation Services Improvement Project area

5.3.13 Census

The Project Affected Persons census was conducted from 24th September to 2nd October, 2022 for all proposed water supply and sewer line routes, and land identified for booster stations. The census established that 736 people shall be affected by project activities by damaging their crops, trees and structure with following categories

- i. **Vulnerable Groups:** The census found that 70 out of 736 were vulnerable people representing 9.51%. 4.85% of people had disabilities that ranged from speech impairment and physical disability. None of the people encountered had visual impairment. The project and RAP implementation need to be inclusive enough and provide necessary attention to this group of people.
- ii. **Housing Condition:** The project PAPs come from houses with diverse condition. Some people have burnt brick houses roofed with Iron sheets or grass thatched, while others have house with bud or unburnt houses with grass thatched roofed. The project area being one of vibrant agriculture districts, and also project connects many trading centres, majority of PAPs have burnt brick houses with iron sheet roofs.
- iii. **Household Income:** The majority of project PAPs (73%) are engaged in agricultural activities except at Rumphi Boma where there are governmental and non-governmental institutional offices, and trading centres where people do different business. This means their income is diverse ranging from annual proceeds from agricultural sells, artisanal mining, charcoal and firewood sales, salary incomes, business proceeds and social grants. Table 12 and figure 30 below present the sources and distribution of household income.

Table 12: Sources of Income

Month Income from	Mean	Minimum	Maximum
Salary/wage (N = 40)	105,534.02	5,000.00	380,000.00
Small-scale artisanal mining (N = 12)	47,583.33	1,000.00	150,000.00
Small trading (N = 68)	110,801.47	2,000.00	1,500,000.00
Crop sales (N = 166)	460,099.46	210.00	21,383,800.00
Livestock sales (including sale of livestock products) (N = 28)	156,571.43	3,000.00	2,100,000.00
Social grants/remittances (N = 24)	34,125.00	5,000.00	160,000.00
Tenants/property rentals (N = 8)	38,875.00	10,000.00	80,000.00
Firewood and/or charcoal (N = 8)	47,250.00	1,000.00	300,000.00
Building materials (N = 7)	85,714.29	5,000.00	300,000.00
Other sources (N = 27)	137,966.67	1,600.00	1,500,000.00

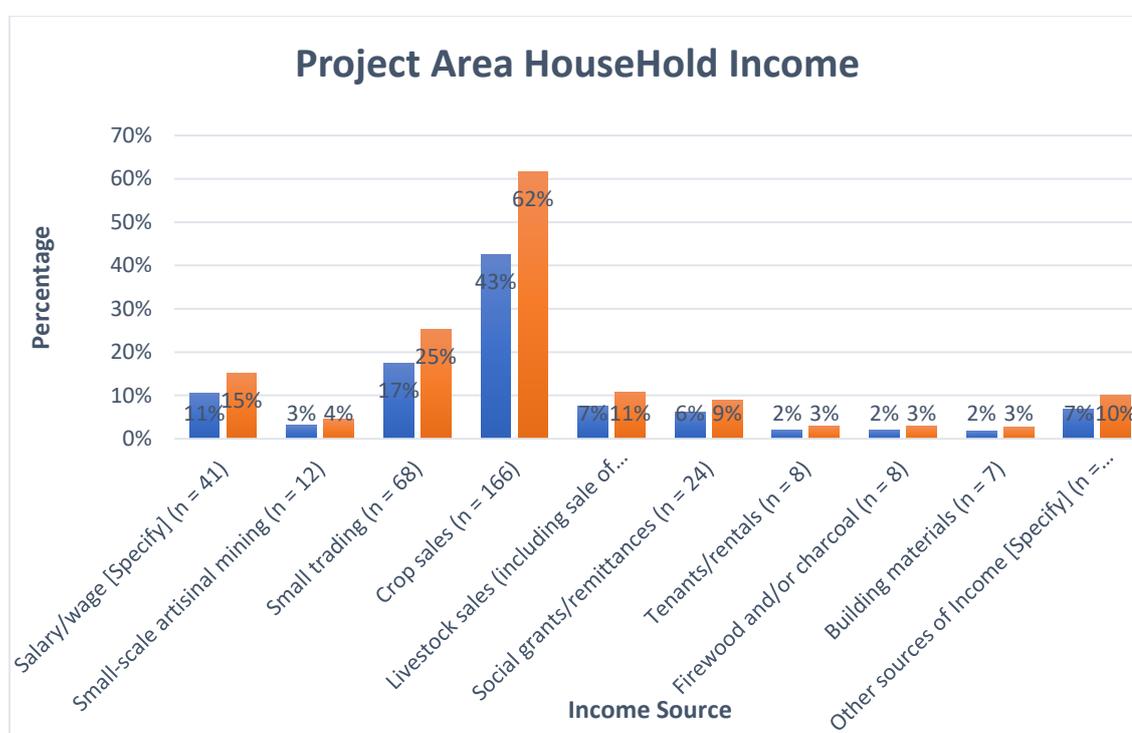


Figure 30: Household income

- iv. **Preferred Mode of Payment:** The Project Affected Persons preferred compensation options is cash over in kind.
- v. **Losses/Damages:** The project affected properties identified during census include crops, trees and commercial shops. The detailed PAP list and damaged properties are provided in compensation schedule.

5.3.14 Grievances and Redress Mechanisms (GRM)

During the study, it was established that the Grievance and Redress Mechanism (GRM) is located at the Area Development Committee (ADC) level. Only one ADC, at Chinyolo, had a fully existent and functional GRM. It was observed that this was because the ADC covers areas located along the M1 road which has recently experienced asset valuation and compensation by the Roads Authority/Roads Fund who are working on the maintenance of the road. They assessed and valued the assets and it was reported that there were some grievances in terms of amounts of compensation to some of the schools. Although the GRM Committee had advised the PAPs not to receive the cheques if there were any complaints, the complainants went ahead to encash the cheque thereby signifying that they accepted the compensation. They did this for fear of losing the amounts that had already been given to them. This was a demonstration that the GRM Committee is functional.

For those ADCs whose GRM Committees were non-existent and non-functional, they were urged to ensure that they form these committees prior to commencement of the project. Similarly, the representatives of the District Council also indicated that they have a GRM Committee at the Council level which collaborates with the ones at the ADC level in resolving disputes whenever they arise.

5.3.15 Corona Virus and Cholera Situation

Corona Virus (Covid19) situation in the country had generally improved since the first reports in March of 2020. According to the Ministry of Health (<https://covid19.health.gov.mw>), the situation as of 18th October 2022 was as follows:

Table 13: Corona Virus Situation in Malawi and in Mzimba North and Rumphu as of mid-October 2022

Nature of Covid-19 Case	Numbers recorded		
	National	Mzimba North	Rumphu
Total Confirmed Cases	88,061	5,134	1,023
Total Confirmed Deaths	2,682	128	46
Total Recovered	84,973	4,880	977
Lost during follow-up	232	0	0
Active Cases	174	126	0

The Ministry of Health declared a cholera outbreak in Malawi on 3rd March 2022, following laboratory confirmation of a case in the country. A second case was detected on 7 March. As of 26th April 2022, 78 cholera cases and four deaths had been reported, of which 97% (76 cases) were from Nsanje District. The Northern Region started reporting cases from 15th October 2022. Presently, twenty-five districts have reported cholera cases, including Rumphu (650 cases and 10 deaths) and Mzimba North (409 cases and 1 death), which were among some of the districts with highest cholera incidence. The major factors that lead to cholera include poor food hygiene, lack of access to safe water and low coverage and usage of latrines (i.e. practising open defecation).

5.4 Conclusion

In conclusion, the baseline conditions have established that except for the townships, most of the project areas are in rural settings, with poor access to water hence making the project highly desirable by the communities living in the project area. Women are the ones to benefit most because it is their role to fetch water and do most of the domestic chores. Their complaints about the current water supply system and the unavailability of safe and potable water provide a reason for the project to be implemented. Due to the level of skills among the population, there is a large youthful pool of labour that will have high expectations for employment from the project.

6 ELIGIBILITY CRITERIA

This Chapter describes the type of PAPs and their eligibility for compensation by this project. It also presents the entitlement matrix which will be used in compensating the affected people.

6.1 Types of PAPS

Based on the preconstruction impacts identified from the census, the types of PAPs are as follows:

- i. Individual Land user or owner (trees and structures within the 5-metre-wide corridor)
- ii. Community Properties (land and structure of Church and Schools)
- iii. Institutional PAP (private Leasehold land)

6.2 Eligibility Criteria

All PAPs, including those who have no recognisable legal right or claim to the land they are occupying, are eligible for compensation or other assistance commensurate with the nature and extent of the impact involved. Eligibility to entitlements require the following;

- i. PAP must have been located within a direct impact zone of the Corridor before the cut-off date established when the census was completed.
- ii. Suffered a loss that is quantifiable i.e., loses an asset partially or fully, either permanently on or a temporary basis or can be quantified in monetary terms etc.
- iii. His/her ownership of the asset is either formally registered or at least recognized and his/her presence or association with the location is recognized or well known within the local community.

Based on the above, affected persons shall be considered eligible for compensation in cases where the proposed project works encroach private or customary land, impact on existing structures and trees.

6.3 Entitlement Matrix for the Project

The Entitlement Matrix in the Table 14 provides measures for compensation for different categories of impacts and project affected persons. For other environment-related impacts caused during any stage of the project, refer to the Environment and Social Impact Management Plan (ESMP) of the project.

6.4 Cut-Off Date

A cut-off date is normally set by valuation process to establish displaced or affected persons who are eligible to receive compensation and resettlement assistance by a project. The aim is not to inflict losses on people and control deliberate development in anticipation for compensations. For this project, the Census and Asset Inventory ended on 2nd October, 2022, and this date became the cut –off date. Any assets created or improvements done to existing assets, change in use or ownership, potential newcomers within the project areas after this date will not be eligible for compensation or resettlement assistance. The concept of a cut-off date

was explained to PAPs and stakeholder during engagement meetings. However, PAPs and stakeholder reaction to Cut-Off date was that the concept would be applicable if compensations were done in time followed by immediate implementation of the project. Delays in project implementation would not stop them from developing their land.

Table 14: Entitlement Matrix

S. No.	Type of loss	Category of PAP	Eligibility	Entitlement	Entitlement details
PRE-CONSTRUCTION STAGE					
Loss of land					
1	Commercial, residential Private (freehold/ leasehold) Public	Land owner	Owner PAP	a) Land for land, if available. Or, Cash compensation for the land at replacement cost b) Disturbance allowance of 20% of the value of land lost will be provided, irrespective of the size of land. c) Transaction costs, including transfer or registration of titles and taxes to be borne by the project within one year from the time compensation is paid d) Supported in cadastral survey and new titling process for PAPs changed landholding.	In case of provision of alternative land, <ul style="list-style-type: none"> • cost of registration/ transaction costs will be added; and • support will be provided in identification of alternate land
	Land Under the corridor	Land owner	Owner PAP	a) the value of land under the corridor will be compensated at 100% of the replacement value of the land	<ul style="list-style-type: none"> • No trees and structures will be allowed. • 20% of the replacement value of the land will be paid as compensation for the use restriction
		Tenant	tenants/ renters	Adequate notice would be given before commencement of construction to get another house	
2. Loss of structure					

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	Residential	Dwelling owner, Squatter	PAP / Household	<ul style="list-style-type: none"> a) Replacement cost of structure without depreciation b) Disturbance Allowance: Lump sum amount 15% of compensation amount to cover the period of transition c) Right to salvage materials from the existing structure (except those identified as hazardous such as Asbestos) d) Transaction costs, including transfer or registration of titles and taxes to be borne by the project within one year from the time compensation is paid for owners of dwelling houses affected. 	<p>Squatters are also entitled to full compensation of the value of the structure</p> <p>Squatters: Cost recovery incurred for purchasing the land (from the unscrupulous fake landowners)</p>
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S. No.	Type of loss	Category of PAP	Eligibility	Entitlement	Entitlement details
		Renter	PAP / Household	Reimbursement for unexpired tenancy/ lease period or The amount of deposit or advance paid by the tenant to the landlord or the remaining amount at the time of expropriation	<ul style="list-style-type: none"> • Proof of a formal tenancy agreement has to be provided. In the absence of a formal agreement, a monthly rent will have to be provided.
	Any other structure on affected plot Granaries, Toilets, Kraal, Bathrooms, storages (including any irrigation structure)	Structure Owner/ Unauthorized Occupant, Encroacher or Squatter	PAP/ Affected Entity	a) Replacement cost of structure without depreciation b) Right to salvage materials from the existing structure (except those identified as hazardous e.g. asbestos, etc.)	
	Commercial (Loss of Business Structure)	Business Owner /Structure Owner	PAP/ Business Entity	a) Replacement cost of structure without depreciation b) Right to salvage materials from the existing structure (except those identified as hazardous e.g. asbestos, etc.)	
Crops and Trees					

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S. No.	Type of loss	Category of PAP	Eligibility	Entitlement	Entitlement details
3.	fruit trees and perennial crop	Crop Owner	Owner PAP	a) The valuation of perennial crops will be based on the investment approach b) The valuation of fruit trees will consider the annual income and likely market yield	The prevailing average market price/kg will be considered
	Other trees			i. Compensation will be based on the provision of the Forestry Gazette, Government of Malawi (2010).	<ul style="list-style-type: none"> size of trees being lost will be considered in the valuation as the bigger trees will attract high rates
4	Loss of Resources serving the community (Churches, Schools, Hand pumps, dug wells, Structures, etc.),	Affected Community or Host Community Location Area	Affected area	Replacement of such impacted assets as required or an improved one	Full Replacement Cost of the infrastructure

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S. No.	Type of loss	Category of PAP	Eligibility	Entitlement	Entitlement details
5	Temporary and unforeseen impacts.	Affected Person	PAP/ Household/ Community	Mitigation in line with principles in resettlement outlined above	Unforeseen and temporary impacts during construction will be documented and dealt with on case by case basis using contingency funds provided under the RAP budget or through the GRM in accordance with the principles above.

7 VALUATION OF ASSETS

The chapter describes the valuation approach and methodology used in the valuation of project affected assets.

7.1 Basis of Valuation Methods

The bases of valuation of assets in this project have basically been two, namely, the local laws and the AfDB policy on Involuntary Resettlement.

Local Provisions: There are a number of legal provisions in Malawi which govern compensations in the event that one's assets are affected. These are explained in Chapter 3 above. However, the Land Acquisition and compensation Act (2016) further provides for what has to be considered in the process of valuation of assets for compensation purposes. First, the Act (section 10 sub section 2) stipulates the 11 grounds for compensation as loss of occupational rights, loss of land, loss of structure, loss of business, relocation costs, loss of good will, injurious affection, nuisance, loss or reduction of tenure and costs of professional advice, subject to the provision of a relevant Act, and when the grounds are established, a disturbance allowance is added.

In the assessment of compensation, the law requires that where there is an indication that a property shall be acquired compulsorily and that this has the effect of reducing the market value of the property, the valuation of the said property shall ignore the blighting effect.”

AfDB Policy on Involuntary Resettlement: The policy requires that affected persons be compensated on actual replacement costs of expropriated assets. The Policy describes replacement cost as the method of valuation of assets that help determine the amount sufficient to replace the lost asset and cover transaction costs. In applying this method depreciation is not taken into account. The principle of replacement costs is to ensure that the affected persons secure assets equivalent to those lost. These replacement costs address compensation for tangible assets like land, houses, trees and other improvements on land. The replacement costs include all administrative fees, provision for inflation if payments are delayed.

The policy describes replacement cost for land as fair market value plus transaction costs and, in rural areas, any preparation costs. Replacement cost for houses and other structures is defined as the market cost of the material to build a replacement structure with an area and quality similar or better than those affected. For other assets like public infrastructure, which includes roads, telephone lines, electric lines, water mains, telephone lines, police stations, schools and clinics, a full compensation to the agency replacing the services is required.

Valuation Practice in Malawi: Valuation in Malawi is undertaken by Real Estate professionals registered under the Land Economy Surveyors, Valuers, Estate Agents and Auctioneers' Act of 1989 (CAP:53.08) of the laws of Malawi who are Members of the Surveyors Institute of Malawi (SIM). SIM subscribes to the International Valuation Standards of the International Valuation Standards Council as a member. As such valuation of assets is

done in accordance with Practice Statements and Guidance Notes published by the International Valuation Standards Council (IVSC).

7.2 Valuation Methods Used

The Method used in valuing the assets affected is dependent on the use, type and market conditions of the asset. Based on the knowledge of the assets impacted by the project, the appropriate method used in the valuation of the affected asset are Cost approach, Investment approach and Comparison approach. The following categories of assets were affected:

- Land (for booster, offices and tank sites)
- Structures along the pipeline corridor
- Natural and exotic trees along the pipeline corridor
- Fruit trees along the pipeline corridor

Valuation of Structures: Considering that the area of impact of the project is not urban in nature and that even at Rumphu Boma, the market evidence is scarce, the Cost and Comparison approaches (comparison approach for land valuation) have been considered relevant approach for this RAP. The first step in this approach was to conduct inspections as part of asset survey, then collect market fundamentals and unit costs for construction of structures.

Rates of construction for structures were developed by considering a hypothetical house of 7 metres long and 5 metres wide. Quantity and cost of materials, labour and transport for materials for a construction of a house of 35 square metres were calculated. This gave out a gross replacement cost of a new building. This gross replacement cost was divided by the total floor area of the house to obtain a unit cost of construction. Different types of houses of different finishing were considered. This also required different amounts and nature of materials which resulted in different unit costs.

These unit costs were applied to structures of similar construction already collected during asset inventory to find the gross replacement costs of the PAPs structures.

Valuation of Land: Land values were derived by using one method of valuation – Comparable sales Method. The comparable sales approach is the most common method of property valuation. It relies on market information to value the property. The underlying concept is that a recent sale from a willing seller to a willing buyer of a property (the comparable property) can best reflect the value of a similar property (the subject property) in the vicinity. This method models the behaviour of the market by comparing the subject property under valuation with similar property or properties that have recently sold or for which offers to purchase have been made. It assumes that a rational and prudent buyer will not pay more for the comparable property, while a seller in the same situation will not accept less for the same property. The sales price finally reached reflects the equilibrium of supply and demand for land in a given market. Therefore, if the subject property under valuation were offered for sale in the same market about the same time, the transaction would be completed at approximately the same price.

Loss of trees: For loss of trees along the corridor, the Government Forestry Gazette of 2010 offered a basis for calculation of values. Trees, during inventory, were categorized into three, namely:

- small with a circumference/girth of 6 cm to 10 cm around the trunk;
- medium with a circumference/girth of 11 cm to 20 cm around the trunk; and
- Large with a circumference/girth of 21 cm and above.

The large category enjoyed the full rate of that species of trees, while the medium and the small were valued at half the value of the large tree and a third respectively.

Loss of fruit trees: In the construction of rates for fruit trees, it was recognized that most of these fruits are not only for consumption but also for commercial purposes. The annual yield per fruit tree was obtained together with its market price per kg. This gave an annual income per fruit. An estimated annual expense in caring for such a fruit tree was deducted from the gross annual income to obtain a net income per tree. An estimated 15% All-Risks Yield was applied to obtain the value as used in this RAP

Compensation Allowance: The local laws provide that disturbance allowance be paid to project affected persons. Therefore, a percentage of total compensable value was decided and applied accordingly. So, in addition, monetary compensation has to be paid to reimburse the claimant for ‘disturbance’ or any other matter not directly based on the loss considered above. Based on the rates used in other projects, 15% was deemed appropriate.

Loss of Resources Serving the Community: Resources serving the community impacted will be replaced or reconstructed including addition of structure meant to facilitate access, while other assets such as land belonging to School, Church or other public agencies would be compensated only for the assets on the land and not for the land itself. The process for valuation remains as stated above.

7.3 Verification and Disclosure

The compensation verification and disclosure shall have conducted before compensation payments are made to PAPs. The verification process provides room for the project to confirm with the PAPs properties to be affected to ensure nothing was missed during census and data entry, and also PAPs agree with the list of affected properties and rates used in disclosure sheet. This process will involve the valuation team going back in the field to cross check with PAPs by conducting area focus group meetings where assets and PAP names will be called out in presence of local leaders to ensure that the rightful owner of the affected properties are recorded. Where there is a misunderstanding of ownership of the property between PAPs, the local leadership will be engaged to help should PAPs fail to produce ownership evidence. Thereafter the PAPs will invited to check the valuation amount and sign in disclosure sheet (consent form).

7.4 Valuation Process

During verification process, the valuation experts shall explain the valuation process, formula and standard procedures used in the valuation process. Since property valuation is a process that start from census, the valuation process ensured that PAPs were engaged and present at their premises during census and data collection exercise, and are aware of property to be affected or damaged by project. In case of land acquisition where PAPs negotiation took place, the PAPs signed agreement forms, the amounts were confirmed by valuation experts.

7.5 Total compensation by type of asset

The total project RAP amounts to MWK 492,240,900.00 which includes MWK 56,900,000.00, for compensation for land acquisition and whist the rest is for PAPs properties compensations (including a 15% contingency). The properties recorded during census and to be compensated included crops on 23.28 ha of farmland, natural and exotic trees, permanent structures such as shops, kitchen and bathrooms, and temporary vending benches. The table below summaries assets to be damaged by implementation of project. The breakdown of compensation is provided in the compensation schedules in Appendix IX.

Table 15: Assets Breakdown to be damaged by Implementation of Project

Category	Assets Type	Quantity	Cost (MWK)
Biological Assets	Natural/Indigenous	3,559	11,686,959.74
	Exotic Trees	4,238	19,801,282.68
	Fruits tree	704	68,409,962.58
	Crops on Wayleave land (Ha) ¹	23	
Structure and Commercial Assets	Shop	51	113,596,470.00
	Kitchen	4	3,830,360.00
	Bathroom	1	250,000.00
	Toilet	10	10,014,244.00
	Bench (Temporary)	21	11,174,480.00

¹ Valuation was done during farming off season hence no crops were found

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Land Assets	Customary Land Purchased (Ha)	6.23	56,900,000.00
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8 MAGNITUDE OF IMPACTS

Implementation of the project would cause different impacts on people in the project area majority of them from pipe network installation. This chapter identifies those impacts, weighs the magnitude of such impacts and alternative routes of the pipe network which would reduce such impacts

8.1 Project Components Inducing Resettlement Impacts

The proposed project activities with potential impacts on people's property are a linear project by nature with the following key components:

- i. Excavation of the earth for pipelines and laying of pipes requiring a 3-5 meters right of way corridor
- ii. Construction of boosters, offices and tanks

The above project components and construction activities entail permanent expropriation of farmland at the locations where pipelines, boosters, tanks and offices are to be located.

8.2 Zone of Impact of Such Component or Activities

The project's zone of impact will be essentially the 5-meter corridor of the proposed pipelines. During construction stage, there could be impacts on parcels adjacent to the corridor and other parcels of land or access routes to the corridor which might experience impact. Zone of impact for the booster station, tanks and treatment will be controlled since the works will be implemented on designated and specific land space.

8.3 Adverse Impacts at Project Planning Phase Stage

The project components shall lead to following adverse impacts as given in (Table 16). The impacts mainly emanated from project land sites acquisition.

Table 16: Land Acquisition

No.	Site Name & Land Use	Hectare	Amount (MK)
1	Phwezi Office land & Staff House	0.4365	6,600,000.00
2	Thumbi Booster & Staff House	0.56	5,000,000.00
3	Bwengu Office	0.1344	5,700,000.00
4	Enukweni Office	0.095	3,800,000.00
5	Kacheche Booster and Staff House	0.5	4,800,000.00
6	Booster & staff house	0.2475	3,500,000.00
7	Bembe land Booster & Staff House	0.5355	6,500,000.00
8	Mwazisi Booster and Staff House	0.391	5,500,000.00
9	Mwazisi Booster and Staff House	0.36	5,500,000.00
10	Landfill	2.76	4,000,000.00

No.	Site Name & Land Use	Hectare	Amount (MK)
11	Wastewater treatment site		
12	Mzokoto Commuter Drop Toilet Facility	0.208	6,000,000.00
	TOTAL		56,900,000.00

8.3.1 Mitigation/ Minimisation Measures

The project shall employ the following measures to mitigate the impacts;

- Provide adequate information on compensation procedures and laws;
- Provide appropriate compensation according to the Laws of Malawi and AfDB guidelines;
- Sensitise and train PAPs especially those to lose land permanently to put the land sale proceeds into good use;
- Installation of pipeline in road reserve wayleave; and
- Provision of disturbance allowance compensation valuation.

8.4 Adverse Impacts at Project Construction Stage

During construction of phase of the project, people's property specifically crops, trees and structures will be affected as detailed below.

- vii. Total Number of PAPs affected:** Project will impact 736 PAPs (households). Out of 736 PAPs, 127 PAPs are females and 583 PAPs are males. This number includes 26 institutional PAPs. 53.45% of the PAPs are in Rumphu and the rest in Mzimba.
- viii. Land:** A total of 32.45 ha of land will be affected by project with the following breakdown of land tenures;
- 0.28 ha is leasehold land.
 - 6.23 ha of customary land for different project infrastructure;
 - 2.49 ha of public land for reservoir tanks;
 - 23.29 ha of farmland affected for pipe installation along Road Reserve public land.
- ix. Trees:** This project will affect 8501 trees. 34.76% of the trees are in Rumphu and the rest are in Mzimba. 91.71% of the trees are exotic and natural trees, while 8.28% are fruits trees.
- x. Impacts on Resources serving the community and Institutional PAPs:** The institutional PAPs in the table below include two boreholes, churches and schools that serve the communities in the area

The following table presents PAPs summary to be affected during project implementation stage.

Table 17: Summary of PAPs to be affected

RUMPHI WATER SUPPLY AND SANITATION IMPROVEMENT PROJECT							
Summary of affected Property							
	Mwazisi- Rumphu Line	Rumphu Town Line	Rumphu Bwengu Line	Njakwa Line	Kacheche Line	Enukweni -Phwezi Line	Total
Project Affected Persons							
Male	104	77	19	0	22	371	593
Female	21	0	0	3	7	69	100
Total	125	77	19	3	29	440	693
Affected Institutions	12	9	0	17	1	4	43
Affected Structures							0
Permanent	9	3			2	42	56
Semi-Permanent	6	1			1	2	10
Temporary	9	5		1	1	5	21
Total	24	9	0	1	4	49	87
Trees							0
Natural/Indigenous	134.00	40.00	706.00	74.00	38.00	2,567.00	3,559.00
Exotic trees	648.00	1,196.00	39.00	80.00	106.00	2,169.00	4,238.00
Total	782.00	1,236.00	745.00	154.00	144.00	4,736.00	7,797.00
Fruits Trees	97	19	-	13	-	575	704
Land Usage							
Public Land under pipeline RoW / Wayleave (Ha)	4.096	2.97	2.88	0.5	1.934	10.9	23.28
Public land for Reservoir Tanks Land (Ha)							2.49
Customary Land Purchased (Ha)							6.23
Total Land							32
	MWK 58,977,213.51	MWK 20,339,549.00	MWK 2,441,732.76	MWK 3,174,198.09	MK3,469,474.30	MK233,105,113.95	MWK 321,507,281.61

i. Structures Affected

Table 18 below shows number of structures affected in each TA and their corresponding Percentages. 58.62 % of the structures are shops, 11.49% pit latrines, 24.14% benches. No dwelling houses will be affected. The majority structures to be affected are along the Enukweni Phwezi pipeline route which were already compensated by road rehabilitation project currently underway.

Table 18: Summary of Structures to be affected

Structure Type	LINE Names						TOTAL
	Mwazisi-Rumphu Line	Rumphu Town Line	Rumphu Bwengu Line	Njakwa Line	Kacheche Line	Enukweni -Phwezi Line	
Shop	7	2			2	40	51
Dwelling House							0
Kitchen	1	1				2	4
Bathroom	1						1
Toilet	6	1			1	2	10
Krah/Khola							0

Structure Type	LINE Names						TOTAL
	Mwazisi-Rumphi Line	Rumphi Town Line	Rumphi Bwengu Line	Njakwa Line	Kacheche Line	Enukweni-Phwezi Line	
Warehouse							0
Fence							
Bench (Temporary)	9	5		1	1	5	21
Total Structures Affected	24	9	-	1	4	49	87

- ii. **Loss of livelihood, if any:** It is expected that those losing shops and benches will temporarily lose income and thus affect their livelihood. The number of shops to be affected are shown in Table 18 above.

8.4.1 Mitigation/ Minimisation Measures

The project shall employ the following measures to mitigate the impacts;

- Provide and announce 2 month vacation notice for PAPs to remove their properties in the wayleave and acquired land;
- Prioritise local people including PAPs on non-skilled labour opportunities;
- Purchase some construction materials such as quarry stones, cement and others from local suppliers;
- Where a structure can be avoided, use manual excavation;
- Backfilling of the pits and trenches;
- Use excavated earth materials in backfilling trenches; and
- Minimise land clearing and tree cutting only to trench routes and structure location.

9 GRIEVANCE REDRESSAL MECHANISMS AND PROCESSES

Regardless of minimal scale of damages, absence of resettlement, the implementation of works will affect people's property that would inevitably give rise to grievances among the affected population over issues ranging from rates of compensation and eligibility criteria to other disturbances during construction stage. In view of this, a grievance redress mechanism was set up to resolve grievances at the community and technical levels. The grievance redress mechanism allows the institutions engaged in grievance resolution to receive and address specific concerns about compensation raised by PAPs or any issues related to implementation of resettlement action plan in a timely fashion. The GRM provides a resource mechanism designed to resolve disputes in an impartial manner to cut down on lengthy litigation. Therefore, this GRM permit a peaceful and timely resolution of problems, assuring stakeholders that their concerns have been heard and that the institutionalized mechanism will yield a fair and impartial outcome

Sections below present the likely grievances, objectives of the GRM, the principles that need to be adhered to and the process of receiving and addressing grievances from complainants.

9.1 Objectives of the Grievance Redress Mechanism (GRM)

The primary objective of a GRM is to address amicably all complaints and grievances concerning the project. The specific objectives of a GRM are:

- i. To prioritize and resolve any disputes related to preparation and implementation of Resettlement Action Plan of this project;
- ii. To help project proponents ensure that project implementation timelines and overall schedule are not compromised due to delays in resolving grievance;
- iii. To address emerging concerns before they reach a level that may warrant judicial or administrative proceedings;
- iv. To provide an accessible, transparent and efficient complaint procedure for project stakeholders; and
- vi. To help cut down on lengthy and expensive litigation that PAPs might have to indulge in otherwise.

9.2 Principles to Effective Grievance Redressal

Principles in formulation of effective grievance redressal process are as follows:

- i. Institutions and procedures laid down are consistent with the anticipated grievances;
- ii. Takes cognizance of the existing socio-cultural setting such as making use of existing village/block structure in resolution of disputes;
- iii. Is housed within existing formal institutional structures thereby ensuring continuity;
- iv. Should be well represented in its composition particularly aimed to resolve the types of grievances that are likely;
- v. Is accessible i.e., close to the source of grievance so as to not make reporting of grievance difficult in the first place;
- vi. Takes cognizance of the need to resolve grievances as they are better resolved at the level at which they occur rather than the next higher level;

- vii. Provides appropriate orientation and training to all stakeholders involved in redressal of grievances;
- viii. Is well-supported by an effective information dissemination mechanism to prevent occurrence of a grievance in the first place due to lack of information;
- ix. Fixes a time frame for resolution of grievance and communicates the same to communities;
- x. Is timely and responsive i.e., its recommendation and decisions are implemented by the project implementers;
- xi. Is adequately resourced to ensure desired effectiveness; and
- xii. No financial payments required for PAPs to have their grievances addressed

9.3 Likely Grievances

Types of grievances that could occur or might have already occurred during the preconstruction i.e., survey stage and those likely to occur during the RAP implementation followed by construction stage are as follows:

- i. Lack of awareness of the project corridor;
- ii. Missing of parcel, error in identification and/or incorrect measurement (or perceptions over incorrect measurement) of affected assets;
- iii. Disagreement regarding inheritance or ownership of assets and fearing loss of compensation;
- iv. Lack of adequate communication on the project developments, not enough consultation/sensitisation;
- v. Disagreement over the rates utilized for valuation of affected assets; and mistakes in the formulation of compensation agreement documents;
- vi. Non-payment for improvements carried out to structures post survey and valuation but prior to compensation payments;
- vii. Mode of payment of compensation and time delays; and
- viii. Not enough work during construction stage / dissatisfaction over wages given.

9.4 Grievance Redress Mechanism for Rumphi Water Supply and Sanitation Services Improvement Project (RWSSIP)

For the purpose of handling grievances related to environmental and social concerns, RWSSIP will have to establish a grievance redress mechanism which will have to include a GRM committee at a District level, dedicated mobile phone, WhatsApp line, Toll free phone number and Email address. A grievance redress sub-committees will have to be established at Village Development Committee level and Area Development Committee level. These committees will have to be presented to the public through meetings and media. In these committees, grievances will have to be recorded in grievance reporting forms, sorted and assigned to appropriate party for resolution. The final resolution will have to be recorded in the grievance resolution form (Appendix XI) and complainant form (Appendix XII) forms.

The following are compositions of GRCs at all levels to ensure efficient and exhaustive hearing and arbitration of grievances. All GRCs shall have not less than 2 female committee members.

9.4.1 Community Level Grievance Committee

The community level GRC, the chairperson shall be responsible for communicating resolutions in writing, while the committee secretary shall be responsible for recording grievances reported, filling, keeping and updating records books. The GRC shall comprise of the following members;

- i. The Area Development Committee Chairperson – Chairperson;
- ii. The ADC secretary- Secretary;
- iii. ADC committee members;
- iv. Faith Based Leader;
- v. Women Representative;
- vi. Youth Network member;
- vii. Community Police Representative;
- viii. Civil servant working in the area such as school teacher, health officer etc.;
- ix. One civil society member working in the area;

The Community Level Grievance Redress Committee shall have the following duties and responsibilities;

- Represents the interests of PAPs and communities in the project's zone of influence;
- Acts as an entry and exit point for all grievances arising from resettlement and compensation activities;
- Publicize the grievance reporting channels, redress and management system established;
- Organize the receipt, review, investigation and follow-up of grievances;
- Adjudicate grievances at community level;
- Communicate to project client in writing grievance resolution made;
- Monitor and evaluate the implementation of agreements reached through the grievance mechanism;
- Refer non disposed of or unresolved cases to the District level GRC.

9.4.2 District Level Committee.

At District level, the chairperson shall be responsible for recording and communicating decision made in writing. The shall comprise of the following members;

- i. The District Commissioner – Chairperson
- ii. The Environmental and Social Safeguard Expert - Secretary
- iii. District Environmental Officer;
- iv. District Lands Officer;
- v. The Community Mobilisation and Training Manager;
- vi. District Gender and Social Welfare Officer;
- vii. The District Water Development Officer;
- viii. NGO representative (WASH NGO preferred)

The committee will be meeting twice a month to propose corrective or precautionary actions. If required, the committee may also invite the applicants, relevant governmental authorities and/or third parties to these meetings. Specifically, the Committee shall have the following duties and responsibilities;

- i. Receive and investigate referral complaints from community level;
- ii. Building capacity of CGRMC on GRM;
- iii. Represents the interests of PAPs and communities in the project's zone of influence;
- iv. Acts as an entry and exit point for all grievances arising from resettlement and compensation activities;
- v. Adjudicate grievances;
- vi. Monitor and evaluate the implementation of agreements reached through the grievance mechanism;
- vii. Documenting status of the complaint and its resolution
- viii. Refer unresolved cases to the NRWB GRC;
- ix. Through the community level GRC representative, provides support in rolling out the GRM community sensitization meetings, receiving and channelling grievances to the PIU and feedback to the PAPs.

9.4.3 NRWB Grievance Redress Committee

A committee of well-informed persons and experienced in the subject area, shall be constituted at the NRWB level to handle complaints that have been referred, or have not been addressed or resolved at the project level in the impact area. The NRWB level GRM shall be comprised of the following members:

- Infrastructure Development Director, Chairperson
- Director of Human Resource and Administration- secretary;
- Water Quality and Environmental Manager;
- Infrastructure Development Manager; and
- Internal Audit Manager;

The NRWB Grievance Redress Mechanism committee shall do everything possible to resolve issues within fourteen (14) days from the date the case has been transferred to it from the Project District level GRM committee. The chairperson of the committee shall communicate the committee's decision to the aggrieved PAP(s) in writing. The decision reached at the NRWB committee level will be the final decision. The committee shall keep record of all decisions related to each case. When disputes are not resolved at one of the above level, the case will be directed to the Minister for Water to forward to the related ministry of the nature of grievance for example land issues to minister responsible for Land acquisition, labour issue to Ministry of Labour for action

9.4.4. Court Mechanism

The level NRWB Grievance redress committee shall be the last non-legal mechanism of addressing at Project implementation level. After NRWB report the grievance to responsible ministry of the nature of grievance in which the aggrieved person is copied, the aggrieved person, if not satisfied with resolution, can also explore legal option for court arbitration or adjudication of dispute should the responsible Ministry not hear the aggrieved 30 days after notification.

9.5 Grievance Uptake Channel and Location

Grievance uptake refers to the methods by which grievances are collected. An effective GRM should have effective reception channels and multiple uptake locations. The project shall provide multiple channels such as dedicated mobile phone, WhatsApp line, Toll free phone number, mail, email, face to face, phone call, SMS text, website, or complaint box means at which grievance are registered. The grievance channels shall be available in all uptake locations located at community levels; ADC/VDC, District Council Secretariat, Project Client; NRWB PIU office in Rumphu and Head office in Mzuzu

The uptake channels will be publicised and advertised through local media, community sensitization meeting among other mass communication methods. The grievances submitted verbally will be put in writing for them to be considered, and the complainant shall be asked to sign for or endorse it. In situations where grievances were received and resolved ‘on the spot’ by project staff, there are opportunities to encourage these informal resolutions to be recorded to encourage responsiveness, and ensure that repeated or low-level grievances are being noted in the system.

9.6 Procedure for Receiving and Responding to Complaints, Grievances, Appeal and Claiming Process.

Table 19 summarises the process which is being followed in the redress of the grievances.

Table 19: Grievance Redress Process

Process	Description	Time Frame	Other information
Grievance reception/Uptake	Face to face; phone; letter, e-mail; WhatsApp line face to face; SMS text, website; complaint box means; public/community interaction; others	1 Day	Email address; hotline number
Grievance assessed and logged	Significance assessed and grievance recorded or logged (i.e. in a reporting book)	4-7 Days	Significance criteria: Level 1 –one off event; Level 2 – complaint is widespread or

Process	Description	Time Frame	Other information
			repeated; Level 3- any complaint (one off or repeated) that indicates breach of law or policy or this ESMP provisions
Grievance is acknowledged	Acknowledgement of grievance through appropriate medium	7-14 Days	NA
Development of response	-Grievance assigned to appropriate party for resolution -Response development with input from management/ relevant stakeholders	4-7 Days 7-14 Days	NA
Response signed off	Redress action approved at appropriate levels	4-7 Days	Project staff to sign off
Implementation and communication of response	Redress action implemented and update of progress on resolution communicated to complainant	10-14 Days	NA
Complaints Response	Redress action recorded in grievance resolution book Confirm with complainant that grievance can be closed or determine what follow up is necessary	4-7 Days	NA
Close grievance	Record final sign off of grievance If grievance cannot be closed, return to step 2 or refer to recommend third-party for arbitration or resort to court of law.	4-7 Days	Final sign off by NRW Project Management Unit Manager in liaison with Rumphu District Council

9.7 GRM Implementation Budget

The Grievance Redress Committees must within 14 days of receiving a complaint meet to hear, investigate and adjudicate the grievance. This requirement means that each level of GRC must be meeting twice in a month when there are complaints to handle. In absence of grievance cases reported to committees, the GRC can meet once in a month to strategize and evaluate the grievance reception method put in place among others to improve performance of the committees. To successfully implement GRM, the project shall train and build capacity of GRC members from all 8 community level ADC GRCs, District council and NRW GRCs. It shall also sensitize the community on the availability of the redress mechanism through community meetings and local radio adverts. The GRC performance review meetings shall also be conducted bi-annually to assess how the GRCs have performed. The total budget requirement for GRM implementation is estimated at MK 52,500,000.00 for 4 year project period.

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GRM IMPLEMENTATION BUDGET									
		Total Cost (Malawi Kwacha)							
	Item	QTY/Per Month	Unit Price (MK)/	Number Year	YR1	YR2	YR3	YR4	End Project
1	Capacity Building of GRCs Membership-85 people		1,500,000	1	1,500,000		1,500,000		3,000,000
2	Awareness campaigns		120,000	20	2,400,000	2,400,000	2,400,000	2,400,000	9,600,000
3	Local Radio Station advert	2	100,000	24	2,400,000	2,400,000	2,400,000	2,400,000	9,600,000
4	GRC Record Register	11	55,000	1	55,000	55,000	55,000	55,000	220,000
5	Community GRC meeting (8 ADC)	16	20,000	192	3,840,000	3,840,000	3,840,000	3,840,000	15,360,000
6	District Level GRC	2	40000	24	960,000	960,000	960,000	960,000	3,840,000
7	NRWN GRC	2	30,000	24	720,000	720,000	720,000	720,000	2,880,000
6	Bi-annual Review Meeting	1	1,000,000	2	2,000,000	2,000,000	2,000,000	2,000,000	8,000,000
	Grand Total								MK 52,500,000.00

10 BUDGET ESTIMATES FOR RAP IMPLEMENTATION

The Budget estimate for RAP Asset loss Compensation is presented in Table 20. The RAP activities and compensation shall be funded by Northern Region Water Board and Government of Malawi.

Table 20: Budget estimate for RAP Asset loss Compensation

RUMPHI WATER SUPPLY AND SANITATION IMPROVEMENT PROJECT								
COMPENSATION								
No.	ITEM	RUMPHI			MZIMBA			TOTAL
		MWAZISI-RUMPHI LINE	RUMPHI TOWN	RUMPHI BWENGU	NJAKWA	KACHECHE	ENUKWENI-PHWEZI	
		MK	MK	MK	MK	MK	MK	MK
A	PAP Payments							
1	Land to be Acquired							56,900,000.00
2	Structures	31,402,520.00	10,411,720.00	-	1,452,000.00	802,000.00	167,527,704.00	211,595,944.00
3	Homestead	1,115,900.00	13,800.00	-	-	-	52,800.00	1,182,500.00
4	Exotic Trees	3,299,960.67	6,734,812.00	189,990.00	361,666.67	403,640.68	8,811,212.67	19,801,282.68
5	Fruit Trees	10,036,155.46	292,899.00	31,920.24	657,172.25	1,545,960.16	55,845,855.47	68,409,962.58
6	Natural Trees	429,997.35	233,333.35	1,901,335.64	289,333.33	265,333.33	8,727,626.73	11,846,959.74
7	Disturbance Allowance	7,692,680.02	2,652,984.65	318,486.88	414,025.84	452,540.13	32,485,569.81	44,016,287.33
	Subtotal	53,977,213.51	20,339,549.00	2,441,732.76	3,174,198.09	3,469,474.30	273,450,768.68	413,752,936.34
B	Administrative Costs							
1	Disclosure							10,000,000.00
2	Compensation Administration Costs							12,000,000.00
3	Community Outreach							25,000,000.00
4	Internal Monitoring							10,000,000.00
5	GRM Implementation							52,500,000.00
	Sub-Total							109,500,000.00
	Contingency (15%)	8,096,582.03	3,050,932.35	366,259.91	476,129.71	520,421.14	41,017,615.30	78,487,940.45
	Total	62,073,795.53	23,390,481.35	2,807,992.67	3,650,327.81	3,989,895.44	314,468,383.98	492,240,876.79
	Grand Total	62,073,800.00	23,390,500.00	2,808,000.00	3,650,300.00	3,989,900.00	314,468,400.00	492,240,900.00

The budget has considered land to be affected, the trees, structures and the disturbances. The land values have been arrived at by comparison method. The unit rates for structures were constructed using the cost method and the trees values are based on 2010 Forestry Gazette rates. The Public land, wherever it was, has not been valued but the improvement thereon has been considered for compensation except where the M1 Road Widening Project had already compensated for such assets. However, we cannot rule out duplication in the current project. As such comparison with the payment list for that project with the PAP list as attached is recommended.

The compensation rates for assets except trees has been at full replacement Cost.

Disturbance allowance has been pegged at 15%. This disturbance is related to diminution of assets due to movements. A contingency of 15% is intended to cover unforeseen changes in the economy such as inflation. This may be revised upwards depending on the period it may take to compensate the PAPS and general economic turn outs.

Based on these and other points raised in the report in general, the total cost of RAP compensation is **Malawi Kwacha 492,240,900.00 (or USD 479,563.73) at MK 1026.4348 US Dollar as of 01st November, 2022**

For details of PAP's and their entitlements refer to the Payment Schedule in Appendix XII.

10.1 RAP Implementation Schedule

The Rap census started in September with cut off-date of 2nd October 2022. This process was followed by PAPs property valuation exercise, verification and error correction, and approval by Bank and Department of Lands who are regulatory authority for RAP implementation. Once the RAP is approved by Ministry of Lands who are regulatory authority of land issues in Malawi, disbursement of compensation would start. The RAP implementation grievances shall be processed and redressed continuously during the disbursement process and after without dateline until the project completed. Table 21 below present the RAP implementation time plan.

Table 21: Tentative RAP implementation Time Plan

RAP Activities	2022						2023												2024							
	1-30	1-31	1-31	1-30	1-31	1-30	1-31	1-31	1-28	1-31	1-30	1-31	1-30	1-31	1-31	1-30	1-31	1-30	1-31	1-31	1-38	1-31	1-30	1-31	1-30	
	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
Planning phase																										
Stakeholder and Community consultations																										
Affected land and pipeline Mapping																										
Formation of the GRM Committee																										
Consultation with the PAPs																										
Census and RAP preparation																										
PAP verification and error correction																										
AfDB RAP approval																										
Ministry of Lands RAP Approval (National Authority)																										
The Resettlement Implementation Phase																										
Consultation with the PAPs																										
Disbursing payment to the PAPs and Land Acquisition																										
Documentation of the compensation activities																										
Documentation of the Grievances recipients and responses																										
Documentation, Reporting and efficiency assessment of the RAP																										
RAP internal/External Audit																										
Evaluation activities mid-term evaluation final impact																										
Vacation Notification																										

11 MONITORING AND EVALUATION OF THE RAP

11.1 Need For Monitoring and Completion Audit

Implementation of RAP activities for a linear project of this nature necessitates the need for a robust mechanism to track progress, help highlight bottlenecks, and redress the issues effectively and in a timely manner. It also requires that an exercise be carried out at the end of RAP implementation period to ascertain if, indeed, the planned activities enabled achievement of the originally set objectives i.e., living standards of PAPs were restored to pre-project status or enhanced.

For this purpose, NRWB will undertake Internal Concurrent Monitoring and Implementation Completion Audit for this RAP.

11.2 Internal Monitoring By M&E

Internal Concurrent Monitoring would comprise Process and Performance Monitoring and be able to provide information on the progress on RAP implementation on a regular basis. While Process monitoring would enable the project authority to assess whether the due process is being followed or not, Performance monitoring would mainly relate to achievement in measurable terms against the set targets. Details are provided below:

Purpose and contents: Performance Monitoring shall cover aspects such as continuity of staff involved in RAP implementation, timeliness of implementation of proposed activities. Monitoring reports will be prepared on a monthly and quarterly basis until payment of compensation is completed. Key parameters, timelines and frequency of monitoring are as indicated in Table 22.

Table 22: Performance indicators for RAP Implementation

Indicator/Parameter	Timeline (Months)	Frequency
Variation in final number of PAPs vis a vis the numbers given in the final RAP	1	Once
Undertaking of listed RAP activities with respect to proposed schedule: <ul style="list-style-type: none"> i. Operationalizing of GRM; ii. payment of compensation; iii. Number of resettlements or physical displacement made; iv. PAPs benefits 	1,2 1, 2, 3...,10 1,2, 3.....,10 Throughout	monthly
Variation in budget allocated in RAP estimate versus actual disbursed amount	2,3,4	quarterly
Payment of compensation prior to issuing notice for vacation of lands and commencement of construction works	2,3,4,5	quarterly
RAP Grievances Recorded and resolved	Throughout	Monthly

Continuity of Personnel in RAP as per institutional arrangement	2	Monthly
---	---	---------

Process Monitoring would involve the concurrent checking of implementation activities to ascertain whether these are being implemented in accordance with the RAP and thereby enable NRWB authorities to take appropriate action to address any gaps, deviations, etc. It would be one continuous and routine process of tracking and reporting on activities and outputs associated with use of project resources. It would include collection, analysis, reporting and use of information about the progress of activities against a time-bound implementation schedule indicated in the RAP. Quantitative indicators that focus on physical and financial targets and delivery of entitlements to PAPs will provide an efficient tool to supplement qualitative assessment that shall be carried out in the case of socio-economic impacts.

Process Monitoring indicators: These (refer to Appendix X for indicators) have been devised following parameters to measure progress of various activities:

- Physical
- Financial (compensation/establishment)
- Social (Education and Health)
- Implementation Processes
- Institutional (including Grievance redressal)

Activities to be undertaken: NRWB will undertake the following activities:

- **Hold monthly meetings** on a specified date **with all stakeholders (RAP Payment Agent, RAP Implementation Unit and Construction Contractor)** to review progress and other issues. It shall be attended by the Team Leader and/or Senior Representative of the Unit;
- It will also hold fortnightly meetings with community leaders on the issues to be addressed to enable timely completion of planned activities; and undertake joint visits to project sites to enable on-site assessment of progress achieved.

Composition of Concurrent Monitoring Team at NRWB: These activities will be undertaken by NRWB Project Implementation Unit.

Documentation: Minutes of the meeting will be taken and kept as part of the project files. Any decisions taken will be communicated to the concerned stakeholder such as RAP Payment Agent in written form with a specified date by when the action needs to be completed.

11.3 RAP Implementation Audit

11.3.1 Annual RAP Implementation Audit

This will be conducted as per AfDB procedures, to assess overall implementation progress, functionality of GRM, challenges encountered and proposed actions to address the gaps.

NRWB shall engage external audit firm annually to conduct annual RAP implementation audit. The audit report shall be shared to AfDB as part of Bank procedure requirements.

11.4 Implementation Completion Audit of Rap Implementation

An Implementation Completion Audit of RAP will be carried out at the end to:

- i. Identify any gaps or outstanding issues;
- ii. If identified, then propose a time bound Corrective Action Plan with Key Actions, dedicated Human Resources, propose Timeline for close-out and Budget.
- iii. Assess the functionality of the GRM
- iv. Confirm the expected outcomes of resettlement have been achieved; and
- v. Assess whether outcomes of resettlement are positive or not

It will draw upon information gathered from routine monitoring, supplemented by information from surveys/studies, including baseline and follow-up studies and other sources. The exercise will help gain a deeper understanding and perspective of project outcomes and impacts. The exercise will be carried out by an External agency at the end of one year from date of start of RAP implementation. However, in case there are any outstanding issues that require attention, administering of additional measures for resolution, the exercise will continue till the time:

- either the RAP objectives are fully achieved; or
- Until they are deemed to be substantially achieved with systems and processes in place that are adequate to complete pending actions.

As the number of PAPs is significant the Audit exercise will be undertaken on a sample basis drawn from the total. Key considerations would include:

- The drawn Sample (maximum 15%) will be drawn proportionately from each Area based on number of PAPs;
- It shall be representative of types of PAPs, nature of impacts and mitigation measures administered;
- Rate of annual inflation will be considered to ascertain percentage of change (-ve/+ve) in absolute and real terms in respect to income and expenditure figure.
- It will prepare specific case studies to enable deeper appreciation of the mitigation measures;
- It shall measure the levels of satisfaction towards implementation arrangements, grievances resolution and performance of stakeholder/partner institutions.

11.5 Documentation and Records Keeping

Successful RAP implementation will require proper documentation and records keeping. All RAP implementation related records will be kept in both softcopies (a dedicated computer to be provide) and hardcopies in files at NRW. PAP will have a compensation dossier recording his or her initial situation, all assets/improvements lost, and compensation agreed upon and

received. Different records will therefore need to be kept for the project including the following;

- PAPs Records: these are records with information of the PAPs, their location, project activity to affect them, and status of compensation payment among others. An example of this record is compensation disclosure sheet
- Grievance Registry: these are records in which project grievances shall be recorded. All levels of GRCs shall ensure they have proper Grievance Registry (GR) books for documentation of complaints as they come. The GR book shall indicate the date of receiving complaint, the complainant's details, resolution made, and date of referral in case the complaint has failed to be resolved by particular committee;
- Financial Records

11.6 Quarterly Monitoring

The RAP implementation shall be done by NRW as the project implementing entity. To enhance transparency and ensure efficiency, the RAP implementation shall be monitored by both Mzimba and Rumphu District councils and Ministry of Lands. The Project Monitoring Team (PMT) whose membership includes local CSOs and NGOs will meet quarterly to discuss progress on project implementation including RAP.

11.7 Reporting

Rumphu Water Supply and Sanitation Service Improvement Project (RWSSIP) falls under category 1 of AfDB. This means that the implementation of the project will attract different reports at different reporting periods. As part of the RAP implementation, the following reports shall be prepared monthly;

- RAP progress report: This report shall be providing overall RAP performance, progress made and activities implemented on a monthly basis;
- Compensation Disbursement Report: this report shall account and provide compensation payment progress details; and
- Grievance Redress Reports: This report shall account and provide grievances that have been recorded, resolution made, referral and no disposed cases.

12 CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the key conclusions and recommendations relating to approach for RAP implementation. Besides, it recommends certain activity specific recommendations.

The RAP implementation of proposed water supply pipeline presents an implementation challenge for the following reasons:

- i. Comprises multiple stakeholders – a sizable number of PAPs in urban (residential) and rural areas,
- ii. GRM to enable resolve grievances in a time-bound manner;
- iii. Finally, a time-bound implementation schedule for all RAP activities to enable: i) timely access to site for the Contractor; and ii) completion of RAP activities as agreed to achieve the intended outcome.

The above necessitates the following:

- i. Immediate full operationalization of the GRM by providing all requisite training and informing the project communities of the same. Specifically, the training should involve
 - a. key topics such as Entitlement provisions to various categories of PAPs;
 - b. approach to mitigation of other construction impacts; and
 - c. Stakeholders' involved in RAP implementation along with their roles and responsibilities.
- ii. Effective coordination by NRWB of all agencies involved with their roles clearly defined and understood roles and responsibilities;
- iii. Week-wise schedule of activities and targets for each Agency to be achieved along with fortnightly updating of status;
- iv. Timely alerts to NRWB of issues that are leading to difficulties in achievement of specified targets – constraints, challenges by all Agencies;
- v. Continuous and robust monitoring of activities and coordination by NRWB with timely decisions and resolution of issues.

In light of the above, the following actions are recommended:

- i. *Constituting a Core Team:* A Core Implementation Coordination Team (CICT) comprising of representatives from within NRWB and implementation partners would need to be constituted that would be responsible for effective coordination of the project activities, holding of regular meetings and timely reporting thereby enabling effective monitoring;
- ii. *Orientation:* Orientation to all partners on the messages previously given to communities and are to be subsequently given during implementation. This would include a clear written communication – A Project Dissemination Brief that needs to be used for all subsequent communication by all involved implementation partners/agencies.

APPENDICES

APPENDIX I: MINUTES OF INTRODUCTORY AND KICK-OFF MEETING

MINUTES OF PREPARATION OF ESIA AND ESMP FOR PROPOSED RUMPHI WATER SUPPLY AND SANITATION IMPROVEMENT PROJECT KICK-OFF MEETING HELD ON 16th AUGUST 2022 AT KAWILUWILU HOUSE, BOARDROOM FROM 10:00 HOURS

Members present

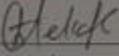


NORTHERN REGION WATER BOARD
KICK OFF MEETING FOR RUMPHI PROJECT ESIA
16TH AUGUST, 2022 AT KAWILUWILU BOARDROOM

NO.	NAME	ORGANIZATION	EMAIL ADDRESS	CELLPHONE NO	SIGNATURE
1.	C. Mwafulina	NRWB	mbeu08@rhwod.com	0994060591	
2.	C. Mtege	NRWB	chifurda.mtege@gmail.com	099909253	
3.	H. Chiswale	NRWB	hamahchiswale@haram.com	0992952610	
4.	P. Mbisah	NRWB	mbisah@gmail.com	0999733526	
5.	L. Banda	NRWB	lp.banda@rhwod.com	0999261930	
6.	S. Gondwe	ENVIRONMENTAL	vitawegondwe@gmail.com	088196460	
7.	Wilbert Chitaukan	ENVIRONMENTAL	wchitaukan@unima.ac.mw	0881516767	



NORTHERN REGION WATER BOARD
KICK OFF MEETING FOR RUMPHI PROJECT ESIA
16TH AUGUST, 2022 AT KAWILUWILU BOARDROOM

NO.	NAME	ORGANIZATION	EMAIL ADDRESS	CELLPHONE NO	SIGNATURE
8	TUSANYIWE SUKWESI	ENVIROCONSULT	tusanyiwese@gmail.com	998152127	
9	Mabwa Phulo	"	mphulo@nubcs.ac.mw	0994252103	
10	Leonard Kalindekaka	ENVIROCONSULT	lkalindekaka@yahoo.com	09558201324	
11	Mega Kalindekaka	ENVIROCONSULT	megalindekaka@yahoo.com	0915673238	
12	Dr Margaret Sibwe	"	msibwe@nrc.mw	0995424927	
13	Mwami Kumbi	NRWB	mikumwenda@nrc.mw	0999755162	



Northern Region Water Board (NRWB) and ENVIROCONSULT discussing project activities during kick-off meeting

The meeting chair, C. Mwafulirwa from NRW, called the meeting to order and outlined the meeting agenda.

Agenda for this kick-off meeting was:

1. Review and Adoption of the Agenda
2. Introduction and Apologies
3. Opening Remarks
4. Issues from Client
 - a. Project Overview
 - b. Key Personnel availability
 - c. Project mobilization and planning
 - d. RAP
 - e. Information required from Client
5. Issues from the Consultant
6. Closing Remarks

001/01/2022 Review and Adoption of the Agenda

There were no changes and further comments on the agenda therefore the agenda was adopted.

002/01/2022 Introduction and Apologies

- Dr V. Msadala (Water Engineer) and Dr. K. Kalulu (Sanitation Expert) from ENVIROCONSULT were not available because of other commitments but they are fully committed to the project activities.
- Mr. Chifundo Mtenga- NRWB issued an apology for joining the meeting late.
- The meeting chair requested the consultant to write a letter of commitment for all experts who were not available during the meeting.

003/01/2022 Opening Remarks

The chair of the meeting welcomed all to the kick-off meeting and gave a briefing about the project. She highlighted that the project is financed by African Development Bank. She further indicated that Environmental and Social Impact Assessment; Environmental and Social Management Plan and Monitoring Plans (ESMPs) and Resettlement Action Plans (FRAP/ARAP) are required before the commencement of project activities. The chair handed the floor to Mr. Mwawi Kumwenda to present an overview of the project components.

004/01/2022 Issues from Client

a. Project Overview

Mr. M. Kumwenda indicated that there are no changes to the Terms of References (ToRs) that were shared with the consultant. He described the existing system and indicated that there is no weir constructed across the river bed at the current intake structure. He further presented two key components of the project:

1. Water supply

- Constructing a weir, upgrading the intake and transmission pipelines
- Upgrading water treatment plant
- Constructing additional service reservoirs at Rumphi treatment plant and Our Future-Rumphi site
- Constructing new service reservoirs at Bolero, Luviri, Mwazisi and Kacheche
- Constructing pumping stations with reinforced concrete sumps at Bolero, Luviri, Kacheche, Thumbi and Mwazisi

He further presented preliminary maps of project extent highlighting existing infrastructure and proposed extension.

2. Sanitation

- On sanitation, Mr. Kumwenda indicated that the Board would like to focus on preparation of the District Sanitation and Hygiene Plan and Investment Strategy and establish solid waste facilities including waste holding, transporting station, liquid waste sludge treatment and sewerage facilities for public institutions and surrounding households.
- In line with sanitation issues, Mr. L Banda-NRWB was invited to describe the Board's plan on catchment management activities. He pointed out that the Board has noticed degradation of the Rumphi River catchment area due to charcoal burning and cutting down of trees. He outlined that the Board is planning to introduce programs to improve community resilience as a measure to curb the environmental interference from the surrounding communities.

005/01/2022 Stakeholder Consultation

- Dr Margaret Sikwese(Social expert)- ENVIROCONSULT asked the meeting chair to clarify on who are the main stakeholders to be considered during consultation meetings between Rumphi and Mbelwa District Councils.
- The chair indicated that initially Rumphi district council was the target stakeholder. However, the project also includes areas belonging to Mbelwa district council. Therefore, Inkosi Jaravikuwa and other officials including the District Commissioner from Mbelwa district council were invited to a project briefing meeting and are aware about the project.
- Mr. kumwenda and Mr Chifundo Mtenga concurred with the chair and stated that officials from both district councils will be available during project presentation.

006/01/2022 Proposed Pipeline extent

- Mr. M. Phula(RAP)-ENVIROCONSULT wanted to know the length of proposed pipeline and corridor buffer.
- Mr. Peter Mbisa-GIS-NRWB responded that they total length of the pipeline will be provided by the Board and the project will consider a 5 meters corridor.

007/01/2022 Plan on Sewerage Service connection

- Mr. W. Chitaukali(Biodiversity) wanted to know the Board's plans on the coverage of the planned sewerage services.
- In response, the client indicated that the extent of service provision will depend on the survey results. However, the Board indicated that only public institutions including Rumphu District Hospital, Rumphu Secondary School and houses surrounding the institutions will be considered. Further, the Board also indicated that such arrangement was done to ensure low costs by eliminating the need for pumping.
- In addition, the plan is to acquire collection vehicles and introduce skips, disposal areas with a central collection point near Rumphu Market and Bolero.

008/01/2022 Impact Boundary and Resettlement

- Mrs Kalidekafe(ESIA)-ENVIROCONSULT wanted confirmation on where the assessment will be focused and enquired if there are any considerations on physical resettlement.
- Mr. Chifundo Mtenga explained that only areas with planned facilities are going to be assessed and the Board does not expect any physical resettlement or involuntary resettlement.
- Mr. P.Mbisah(GIS)-NRWB assured the consultant that updated project data and maps will be provided to the client soon after the meeting.

009/01/2022 Project Awareness Messages

Dr. Margaret Sikwese-ENVIROCONSULT asked if the project steering team has visited project areas and made agreements on land acquisition.

The meeting chair indicated that the team has surveyed and most people are aware of the project. However, the message was not conveyed at household level but up to Village Development Committee (VDC) level.

010/01/2022 Waste Disposal Facilities Site Suitability analysis

Mr. S. Gondwe(GIS)-ENVIROCONSULT- needed clarification on whether the Board has already identified suitable sites for waste disposal or the consultant has to establish suitable areas.

Mr. M. Kumwenda-NRWB clarified that site suitability analysis will be done by the Board. However, he indicated that Rumphi District Council identified a possible site but the Board is reviewing the criteria used in the site identification process. The Board will identify two more areas and share with the consultants to advise on the most suitable site.

The meeting chair, C. Mwafurirwa, also clarified that sanitation facilities will be handed over to Rumphi District Council such that service access fees issues including waste emptying truck fees will be discussed at council level.

b. Key Personnel availability

All key project personnel were present in the inception meeting except Dr. V. Msadala and Dr. K. Kalulu from ENVIROCONSULT due to other commitments. However, ENVIROCONSULT assured the client that the experts are fully committed to the task assigned and a commitment letter will be issued to the client.

c. Project mobilization and planning

On planned activities, Mrs. Kalindekafe-ENVIROCONSULT stated that the project schedule can be re-adjusted to accommodate any initial oversight after project negotiations. However, the current plan remains intact as it was discussed before with the client. The following were proposed flow of activities:

- Initial field visits with the client and reconnaissance survey from 16th August 2022 to 18th August 2022.
- Inception report to be submitted to client by 26th August 2022.
- Client to review inception report in 5 days from submission date and provide feedback to the consultant by 30th August, 2022.
- Baseline study will commence on 31st August 2022 and submit a draft ESIA report to clients by 23rd September 2022.
- The consultant will expect to get feedback on draft ESIA report Feedback by 30th September 2022
- ENVIROCONSULT expects to incorporate comments on the draft ESIA report and update the report by 7th October 2022.
- Upon submitting the report to Malawi Environment Protection Authority (MEPA), the consultant expects to incorporate comments and suggestions by 30th October 2022 and the final report will be submitted by 7th November 2022.
- However, the Board suggested that activities need to be speeded up to meet the project timeline and suggested that there might be a joint report review with MEPA.

d. Resettlement Action Plan(RAP)

Mr. M. Phula-ENVIROCONSULT sought clarification on infrastructures that require land acquisition to be considered for RAP assessment.

Mr. Chifundo Mtenga-NRWB pointed out that booster stations, planned tanks, access roads, other auxiliary structures and pipelines will require land acquisition. He further added that land for proposed tanks has been identified and negotiation on acquisition has already started. However, further negotiation with other landowners in approximately four sites need to be done before commencement of the assessment.

Mr. Mtenga further described areas around Rumphu boma and Bolero as hot spots where many people are likely to be affected and agreed to a recommendation by ENVIROCONSULT that some NRW officials should accompany the consultant during initial site visits.

011/01/2022 Information required from Client

The client requested the consultant to prepare a list of data required and request for provision through email and M. Kumwenda, P. Mbisah and H. Chiwanda of NRW are key personnel to provide project data.

012/01/2022 Issues from the Consultant

On project areas terrain and land acquisition, the consultant wanted to know general information on accessibility and land acquisition plans.

The Board assured the consultant that proposed pipelines are planned to be placed in relatively easily accessible terrain while tanks are mostly in higher elevation areas. Furthermore, tanks and pipelines are planned to be mostly placed in public land especially following existing roads for pipeline placement.

013/01/2022 Field visit

The client and consultant planned to start visiting the intake infrastructure at Rumphu boma by on 17th August 2022 and later hold a meeting with Rumphu district council at 9:00AM before proceeding to Bolero, Luviri and Mwazisi project sites. On the following day, 18th August 2022, both teams agreed to visit Erukweni, Kacheche, Bwengu, Thumbi and Luzi project sites. Traditional Authority (TAs) areas within the project extent are Chikulamayembe, Jaravikuwa and Mwahenga. Finally, the client emphasized that the consultant should use the meetings with district council officials as a platform to request any relevant data that might be needed for the project.

014/01/2022 Closing Remarks

The meeting chair thanked all for positive contributions to the kick-off meeting and closed the meeting.

Conclusion and Recommendation

The Inception meeting was a success, with comments and recommendations being incorporated into the assessment plan to ensure better coordination and implementation of the project activities. It is recommended that the client and consultant work closely together to ensure that identified project activities are executed in a timely manner to meet the project time.

APPENDIX II: STUDY TEAM

In order to address the objectives of the assignment and respond to the terms of reference, the Consultant engaged a highly qualified and experienced team of experts. The key staff are grouped into three working teams (Physical & Chemical Assessment Team, Biological Assessment Team and Social Assessment Team) as shown below. A GIS expert was engaged to liaise with all experts in producing maps for the report. The executive director of ENVIROCONSULT in conjunction with the Team Leader were responsible for general project management and quality control

Table 23: Study Team

Name	Area of Expertise	Position	Tasks Assigned
Mrs M.P. Kalindekafe	ESIA Expert and Ecologist	Team Leader	Technical supervision and leadership of the assignment
Assoc. Prof Bosco Rusuwa	Biodiversity Expert	Consultant	Aquatic Fauna & Invertebrates
Dr Vincent Msadala	Water Supply Engineer	Consultant	Water Supply assessment
Dr Margaret Sikwese	Social Expert	Consultant	Social Impact Assessment
Mr Steven Gondwe	GIS & Geology Expert	Consultant	Map production for the project & description of the geology and soils of the area
Mr Wilbert Chitaukali	Biologist	Consultant	Terrestrial Fauna & Flora
Mr Mavuto Phula	RAP Expert	Consultant	Resettlement Issues and Property Valuation
Assoc. Prof Leonard Kalindekafe	Geology, Policy and DRM	Executive Director	Quality Control and Overall office project management & administration

APPENDIX III: ATTENDANCE REGISTER

Rumphu DESC Attendance

NAME	DEPARTMENT	CONTACT
1. Simbarathe Chirwa	ENVIROCONS	0993971007
2. Mabvuto Plumb	"	0994292105
3. Bessie Kunge	Disaster-Rusc	0991571355
4. Mathias Kawonga	Agri (LACO)	0882971235
5. Happy Nyiranda	Agribusiness	088146976
6. Byd Msinyo	Agriculture	099447605
7. Kelvin Banda	Forestry	0999755466
8. Robert Chidothe	COMMUNITY DEPT	0999956331
9. Abraham Mhango	Agriculture	0991452891
10. Mphaloo Kayora	Irrigation	0991285130
Vincent Luhanga	Gender	0884280845
11. Chirwa Mhango	Water board	0997072963
12. Hamzah Chirwa		
13. Hamzah Chirwa	NRWB	0992952610
14. Agness Kumwanda	Environment	0888080928
15. Dr Margaret Sitwece	EnviroConsult	0995424927
16. Phillip Kondowe	Water Resources	0884253151
17. Collins Mulchale	EnviroConsult	0994816200
18. JOHN MPOHA	HEALTH	08812578

Bembe Market Leaders Attendance Register

DZINA		BEAMBE TC MEETING 24-09-2022	
		UDINDO/BUSINESS	PHONE
1	Benson Jumbo	VDC Secretary (HSA)	0991896340
2	Joseph Luhanga	C.B.O	098002820
3	Benson Simwa Ka	Chair C.B.O (Gibery)	099778874
4	Audly Gondwe	CBO Secretary Gwary's store	0992009139
5	Owen Chawinga	member carpentry	09940480
6	Moses Mughogho	Carpentry	08863282
7	PETER HUPENTU HUNO	Gondwe GANYU	099284706
8	Timothy Luhanga	Kabaza	
9	Malini Chawinga	MASESE (beer)	
10	Simon K. Gondwe	VDC treasurer team member	0888430270
11	Kelvin Kanyerere	Act. Vt. Business	099813690
12	Kondwari Luhanga	Member Butcher (Mphasa)	0993291110
13	Godfrey KASIMBA	member ganga	0991655000
14	Cheluzgo Kasimba	member ganga	0999037270
15	Wisdom Gondwe	Police committee	0995 994725
16	Emmanuel Kanyika	Environment	0992631681
12	Haswell Mwandira	VDC Chair selling maize	0995143158
13	Grays Gondwe	Member Council	0993320200

Bolero ADC AEC Market Leaders WUA Attendance

BOLERO ADC/AEC MEETING			24-09-2023
WUA & MARKET COMMITTEE			
HEAD TEACHERS			
UDINDO / BUSINESS			PHONE
1	DZINA MLEZA	VICE BOT CHAIR WUA	0884624067
2	Mary Chirambo	BOT member WUA	0886953197
3	Maria Njimbiri	Head teacher	0884628384
4	Noel NUNDUWE	Scheme Manager	0880482444
5	Kondwini Mhandawire	BOT Chair WUA	0998493170
6	Lucky Chirambo	BOT Treasure	0888057154
7	Watness Nbowit	Secretary	0990863790
8	George Kuyemereka	VDC Bolero	088235929
9	Matan Makame	BOT Secretary (WUA)	0998661961
9	Moses Mfinde	BOT member	0884260865
10	Kette Nyirongo	VDC chair Lunili	0886724694
11	Luna Luhanga	VDC Chair Chankhomi	0884367929
12	Melton Ngoma	VDC Chair Taulayjomba	0882092680
13	Luko Nyirush	Bolero Market Vice Secretary	0999030570
14	Philip Ketyah	VDC Chair Bolero	0880320074
15	Emanuel Sichinga	VDC Chair Mvama	0881627258
16	Aaron Chidimba	VDC Chair Chikwawe	0881998778
17	Hensley Kunweera	VDC Chair Bole	0886155714
18	Peter Banda	VDC Sec Kasongwe	0881366852
19	Chanty Mbandawira	VDC Chair Kamwaga	0888612667
20	Moses M. Chiriro	VDC Chair Chikwawe Bolero	0884327171
21	Anthony Nkalo	VDC Chair Chanyoli	0992458449
22	William Simjira	Chair Bolero market	0994130024
23	Robert Gondwe	CHAIR WUA VDC	0888254237
24	Season Chavula	HT Bolero Sec. Sch.	0999449945
25	Alfred Bantso	Chairman	0994400643
26	Phillip Kapira	Acting Bolero	0884901076
27	Lamelk Chipofya	ADC Chair	0884621089
28	Rhodgers Nyumbani	VDC Chair Lunili	0883768363
29	Emmanuel Kanyila	Environment	0992431081

Bumba Head Teachers Attendance

BUMBA HEAD TEACHERS & MARKET 26-01-22

<u>NAME</u>	<u>WANDO</u>	<u>PHONE</u>
Andrew Donal. Kileme	COA	0995231155
Henry Gleeu	PEA	0992658100
NICHOLAS Mfukwa	HEADTEACHER	088871536
WANGWANGI Mughantira	Headteacher	088823658
DENIS NYIRONGO	Head teacher	0996623256

Bwengu ADC Attendance

BWENGU ADC MEETING 26/09/22			
DEINA	UDINDO	PHONE	
1) ISA Mhang'o	Sec	0884142868	868
2) Elwin Vinkhumb'o	Treasurer (ADC)	0880180671	
3) Obvious Atcamanga	ADC Member	0888405535	
4) Godfrey Chavula	Chair Robertson vdc	088842666	
5) Elias Cinyasulu	V Chair sukuzwayo VDC	0871279835	
6) Hyster Chirwa	ADC member	0985077472	
7) Jessie Ndaub	VDC Secretary	0991716440	
8) Bettie Mhang'o	VDC Treasure	0980106236	
9) Klesster Mhang'o	VDC Chair	0884061522	
10) Obvious Mbandawire	VDC chairperson	0884305102	
11) Charles Simesa	VDC chair	0884351763	
12) Mathews Ngubhu	VDC chair	0992428348	
13) Edwin Nyirenda	VDC chair	0984195711	
14) MOSES Mzumala	VDC Chair	0884584904	
15) Chumeme Ngoka	VDC Chair	0994107663	
16) Kennedy Mbandawire	VDC Chair	0998771989	
17) Winford Gumpofya	VDC Chair	0994540677	
18) Ulemu Mbandawire	VDC Chair	0986194178	
19) Nyuma Mbandawire	VDC Chair	0990447773	
20) Jean Mbandawire	VDC Chair	0888767430	
21) Mumbumba	Matomola Chirwa		
22) Lawrence K. Mbandawire	VDC Kankila	0880164337	
23) Santos Chirambo	VDC Muvulita	0886557666	
24) Rightwell Mbowdy	VDC Magaga	0882493269	
25) INNOCENT Mhang'o	Mukumbani Mbandawire	088299024	
26) Carlo I. Chirambo	ADC Chandra	0881094760	
27) Kenani wasiri	ADC member Katabulu	088796613	
28) Rida Longwe	ADC member Mbandawire	088221930	

<u>YLINA</u>	<u>U-DINDO</u>	<u>BINTASU</u>	<u>ADC MEETING</u>	<u>PHONE</u>
29. Marlean mtete	G.V.H.N			0990908315
30 McDonald Mkwawire	G.V.H			0996153155
31 Joseph Mkwawire	ADC			0995266533
32 Joseph Singui	Mukumuzana Mwayya			0981100028
33 Chiza Chavula	ADC			0984477121
34 NTHANBWANIKA	G.V.H			0881916391
35 STEPHEN Mbowoya	Urair			
36 MUMUZANA GOLOZERA				0993716888
37 MWACHOLOLO KANYGWA				
38 Osman Tembo	G.V.H Timot, Tembo			0888150537
39 SAKASAKA MHAPEO	G.V.H			0884246632
40 - THOMAS KACUPIT	ADC			0996577186
41 - Mukumuzana Angulira Singiri				0992477656
42 JAKETO MWAHA	G.V.H			0998788390
43 Manjwila Msonyo	G.V.H.			0884974336
44 Aaron Chumweya	Muzana ulab			0888050411
45 Phillimon Gama	inkosane			0884145688
46 STEPHEN NTIRABA	Mukumuzana			0884535075
47 MWALURA MWAHAU	INKOSANA			0997778885
48 Mukumuzana	Kacheche Mtango			
49 Mumuzana	Mara Lyvenda.			0995711022
50 Edrin	Mbowoya			0998633161
51 Paulos	Sakata Bon Aev			0993610268
				0888373678

Bwengu Market Leaders Attendance

<u>DZINA</u>	<u>UWINDO/BUSINESS</u>	<u>PHONE</u>
Glory Mhangu	Groceries Shop U. Chair	0882053719
Dolophy Nguila		
Leah Lehangwa	SECRETARY	0887054088
JOHN BOSCO SINGINI	TREASURER CHAIRMAN	0888668820

Phwezi Market Leaders Attendance

<u>DZINA</u>	<u>UWINDO/BUSINESS</u>	<u>PHONE</u>
Happy Nyasul	Treasurer	0888413319
Elizabeth Gondwe	Chair	0881525679
Ethel Pahango	V-Chair	0993062054
Ireen Mutwali	V. Secretary	0997543310

Mwazisi Market Leaders Attendance

<u>DZINA</u>	<u>UDINDO</u>	<u>PHONE</u>
Estas Mkwandawire	Vice Chair	088 6490 980
Thocozani Nyasulu	chair	0994641 222
Lukas Mkwandawire	Chair	0997777239
Moses Mtebe	chair	0997777239
Emmanuel Kanyika	Environment	0997431681

Thumbi CBO and Market Leaders Attendance

<u>DZINA</u>	<u>UDINDO/BUSINESS</u>	<u>PHONE</u>
Jane Gama	Sec.	0994803877
Faney Mkwandawire	Chair	099863658 0224280709
Jean Mumbwa	Member	099145009
Monica Chiramba	TREASURER TRADE	0884415248
Rhoda Msoyaya	member	0881177121
Pigekel Nyiranda	member	
Unice Mhango	member	
Martha Miska	member	
Medson Nyiranda	SECT TRADE	0881786923
Behans Mbeyo	TRADE chair person	0884312553

Chinyolo ADC Attendance

<u>DZINA</u>	<u>CHINYOLO ADC</u> <u>UDINDO</u>	<u>23/04/2022</u>	<u>PHONE</u>
1 Robertus Muntwa	CDA		0999737956
2 Gerald Muntthali	ADC Member (Chinyolo)		0995559200
3 Daniel Msiska	ADC Member (Lusaka)		0888142168
4 John Lotwani	ADC Member Kapitelaha		0884648850
5 Chrissy Mkondawire	CPWI	Mzokoto	0888778437
6 Waningwa Utah	ADC	Mzokoto	0997300705
7 Benedicto Mpirongo	ADC Member	Mlyezi	0880349703
8 Chance Nyirenda	ADC member	BTL chair	0880937032
9 Rowland Bole	ADC member	Mkombezi	0881288463
10 Goodluck Mhango	ADC Member	Mwale	0882524205
11 Zex mbale	ADC member	lungazi	0884884698
12 Arrow Mbuleni	ADC Member	Chinyolo	0882337722
13 Richard Mfune	ADC member	Mzungutani	099992578
14 Charles Mpiremba	ADC Member	Mzokoto	0885501455
15 Sabina Muntthali	AEC Member	Mkombezi	0884497196
16 Joyce G Banda	AEC member (PAM)	Mzokoto	088172865
17 Leah Mwaniswe	ADC member	Mzokoto	0881812350
18 Kenneth Simbu	AEC V. Secretary	Chinyolo	0995541163
19 Maclean Mhango	AEC member	Mzokoto	0881298622
20 Jane Mwanasa	AEC Secretary	Chinyolo	0884069755
21 Charles JC Gondwe	AEC member	Mzokoto	0884056545
22 Festus A Mhango	AEDO (AEC)	Chinyolo	099144877
23 Jackson Simbu	ASHP chair	Chinyolo	0885877561
24 Christopher Phiri	AEC Member	Chinyolo	
25 Christopher M. Muntthali	ADC Member	Chinyolo	096842223

CHINYOLO ADC 23/09/2022

No	NAME	TITLE	PHONE #
26	Christen Mlangi	ADC Secretary	0884033994
27	Manasseh Ngwira	ADC Chair	0999476853
28	Robert Chidothe	DCDO	0999956331
29	Kelvin Banda	EDO	0999755466

Kanyerere ADC Attendance

KANYERERE
23/09/2022

NO	NAME	TITLE	LOCATION	PHONE
1	Harvey Nyizenda	Member	Kanyerere	0881067799
2	Madsen Chawinga	VDC Chair	Kuchelo	0887207005
3	Bright Nkhata	F.G	Chozoli Kanyerere ADC	0995681059
4	Chrissy Mawanga	Vice Chair	Kaheru	0880750646
5	Martha Gondwe	V. Chair	Kasasa	0884238640
6	Mariet Gondwe	VDC Chair	Chozoli	08811109742
7	Yalonda Kumwenda	VDC Chair	Kanyerere	0886049871
8	William Chavuta	AEC Chair	Chozoli-Kanyerere	0884273612
9	Simen Mhone	VDC Chair	Mphande	0884270248
10	Marlon Sichinga	Member	Lupalamizi	0884031193
11	Tayari Ntambu	V.D.C Chair	Kanyerere	0888629008
12	Henry Zgamba	VDC Chair	Kasasa	0884255217
13	Gilbert Gondwe	VDC Chair	Lupalamizi	0881117550
14	Owen Gondwe	VDC Chair	Buwira	0884200060
15	Nelson Moyo	Vice ADC Chair	Chozoli	0999490405

Mwazisi ADC Attendance

DEINA	MWAZISI	UDINDO	23/04/2022	PHONE
1. Solomon Mbandawine		VDC Chairperson		0991658266
2. Julius Getta		VDC Chairperson		0981849849
3. Albert Mbandawine		VDC Chairperson		0885056706
4. Laurens Kazembe		CDA		0588188248
5. Rose Ngwira		VDC member		0990121093
6. Charles Singini		VDC Chair		0886499880
7. Stephen Munguogho		VDC Chair		0884907262
8. DANIEL CHIRWA		VDC MEMBER		0982623450
9. ARENS LUHANGA		VDC MEMBER		0881953602
10. CRIFT MGHOGHO		VDC CHAIR		0882582999
11. CHARRESS MUNTAKI		VDC CHAIR		0882620431
12. Arnold K Mthembu		VDC Chair Baza		0884271973
13. Gerald Luhanga		ADC MEMBER		0996011108
14. Newton Nyawu		Patron		0995082559
15. Madonna Nyasulu		Youth Network		0995022232
16. Maria Nundue		member		0996403857
17. Alfred Nyirenda		VDC Chair		0991347053
18. Sellah Chiputya		VDC Chair		0991089327
19. Annie Chiputya		Women repre sanitary		0995143955
20. James Chirwa		VDC Chair		0881416634
21. Peter Singini		ABC Chair		0991458458
22. Malvuto Phulu		EnvironConsult		0994252100
23. Dr Margaret Sewce		"		0995424927
24. Imbarathe Chirwa		"		0993971007
25. Kelvin Banda		EDO		0999731466
26. Robert Chidzhe		DCDO		099956331

Mtwalo Attendance

MTWALO ADC MEETING		30/09/2022
OBINA	UDINDO	PHONES
1 Gohie Rembo	ADC	0981919385
2 Symon elutaye	ET member	088313807
3 Mackienty w/olha	EX member	2
4 FISUKU JERE	Mtwaizi	986326184
5 Charles Juggwa	CLERK FOR STA	0998474255
6 Anderson Mwigombi	ET member	099162510
7 John Chumua	Mtwalo Police	0993007501
8 - Bodawell Moyo	ADC Member	0995634558
9 - Agness Jungu	Probationary ADC	0999429525
10 - Nicholas Muserebanda	ADC Member	0991772042
11 - Iushuwaeri Samatwani	ADC Secretary	0996977250
12 - Imbarakhe Chirwa	P.P.O (DPO)	088074469
13. Collins Tutchala	ENVIROCONSULT	0995991007
	EnvironConsult	0994876266

Mzimba DESC Attendance

Name	Organisation	Position	E-mail	Telephone
MISHECK CHAWALA	AGRIC	CEO	misheckchawala@gmail.com	0872102966
ESTHER MWAFULU BWA	IRRIGATION	CEO	esthermwafulu@gmail.com	0995914197
JAMES PELAMU	Environment	CEO	esthermwafulu@gmail.com	0995914197
LUCY KANDUKWE	PHYSICAL PLANNING	CEO	lucykandukwe@gmail.com	0881359949
MATHEW THEU	Environment	CEO	matthewtheu@gmail.com	0995123085
Rodgers Nkhoma	Land Resource Officer	CEO	rodgersnkhoma@gmail.com	0881117745
Robert Kanyesi	Mzimba DC	CEO	robertkanyesi@gmail.com	0995898978
Lucy Muyambi	MDC	CEO	lucymuyambi@gmail.com	0995505455
Anna Nyirenda	Belifa	CEO	annanyirenda1862@gmail.com	0999074020
Ugwe Adini	MDC	CEO	ugweadini@gmail.com	0888399400
Andreas Jankani	MDC	CEO	andreasjankani@gmail.com	0993226028
Topsy Kachere	MDC	CEO	topsykachere@gmail.com	0993591864
Petros Kamanga	MZDHO	CEO	petroskamanga@gmail.com	0886676167
Jacob Mwandawire	MDC	CEO	jacobmwandawire@gmail.com	088324192
Innocent Sematenga	MDC	CEO	innocentsematenga@gmail.com	099418003
Blessings Katete	Labour office	CEO	blessingskatete@gmail.com	0991591956
Faith Longwe	MDC	CEO	faithlongwe@gmail.com	088862688
Chifundo Mtere	NEWS	CEO	chifundomtere@gmail.com	0995029653
Hamah Chiwanda	NEWS	CEO	hamahchiwanda@gmail.com	09929526
Dan Phiri	Labour	CEO	danphiri@gmail.com	088411309

APPENDIX IV: MINUTES OF MEETING

Rumphi DESC stakeholder consultation meeting

Team members present:

Dr M. Sikwese

Mr. M. Phula

Mr. C. Mukhala

Mr. S. Chirwa

Meeting Date and time: 22nd September, 2022. 9 a.m.

Chair of meeting: Kelvin Banda -Forestry Department

The chair opened the meeting and welcomed all present at the meeting. Then a prayer.

Introduction and apologies:

The chair opened the floor for all members present to introduce themselves. The whole meeting comprised of 12 members from the District council, 2 members from Northern Region Waterboard and 4 members from ENVIRONCOSULT.

Apologies that other members of the DESC were out.

Review and adoption of agenda

The chair of the meeting delegated to C. Mtenga to review the agenda of the meeting

Opening Remarks by Northern Region Waterboard, Mr. C. Mtenga

A brief background of the project was given highlighting the main components of the project. The 2 main components are sanitation and water supply. The project reach was also highlighted explaining where it will begin and end. Mwazisi to the West, Phwezi to the North, Bwengu,, Thumbi and Erukweni to the West.

For the sanitation component waste water treatment plant is being proposed and an engineered landfill for the DC.

Sewer lines will be installed for different institutions in the DC. Sanitation facilities for institutions for example schools and public places.

There is a proposal for vehicles for collection of liquid waste and solid waste.

A map was presented to outline all areas that the project will be implemented. There will be NRW offices in Mwazisi, Bolero, Bwengu and Chiwato Jere.

There will be catchment management measures implemented for the area of water intake.

Water treatment facility will be upgraded to treat 19,000 m3 from 1000 m3 a day.

Remarks by ENVIRONCONSULT by Dr. M. Sikwese

ENVIRONCONSULT is here to conduct baseline studies after a reconnaissance has been done.

There are 3 teams mainly working on Ecological study (flora and fauna, rivers and geology), Social impact assessment and stakeholder consultation and resettlement action plan.

Other teams have already started operating because of the difficulties in scheduling. Consultation meetings were start then the teams to go out and start their operations.

It will be helpful for the DC to help us notify communities affected with the study that the Northern Region Water board has tasked the consulting firm to go around in their areas.

ENVIRONCONSULT is seeking views, issues and inputs of the DESC to the ESIA and how the NRWB can implement the project. How do you see the project positively and negatively affecting the communities? What mitigation measures can be utilized towards the impacts of the project. And how the benefits of the project can be enhanced. Suggestions on alternatives on design of the project.

QUESTIONS and ANSWERS

Table below shows questions and responses

<p>In the Bolero area there is already an operating structure providing water to communities. How will waterboard integrate with these structures when they start operations?</p>	<p>NRWB is working on a framework to supplement water supply to the operating structures. This is because the operating structures have intermittent water supply and low water quality (sanitation)</p>
<p>Is Waterboard buying land?</p>	<p>For customary and private land there will be compensation</p> <p>For public land NRWB will acquire from the government</p> <p>For people within the Road reserve they will be compensated</p>
<p>How long will people have to move after they have been compensated?</p>	<p>Project start next year in the 1st quarter therefore there is ample time for people to be on the land. They can utilize it for this growing season.</p>

Will there be a main office as in Nkhatabay?	A site has not yet been identified for the office
Where is the solid waste management site?	Site has been identified but not visible on the present map. Has been located on Mzimba side
Is the project targeting the entire Mwazisi area?	Only part of Mwazisi, other areas of mwazisi will be targeted later
How long will the project be implemented?	1st quarter begins next year
How long will data be collected?	The exact date cannot be given but planning to finish in November.
Are you going to engage DC staff in the data collection?	No but do require DC to provide people to escort the teams to meet communities and local governance structures. Assist us setting up meetings.
What is the mitigation plan on social issues such as GBV, OHS, HIV etc.?	Stakeholder consultations The management plan has mitigation measures and recommendations to address these issues
Is the pipeline going to be dug by machines or people?	Use of machinery will depend on the size of the pipes. similarly use of people will depend on the size of the pipes.
What is the security measure been placed on waste treatment plant?	Perimeter fence with concrete blocks and guard houses will be erected
What power is going to be used on the booster stations?	Other areas will use gravity and there will be a feasibility study on other alternative sources of power that can be used. Solar or wind power.
How will you deal with the issue of vandalism of pipes?	Ductile iron pipes will be used. They have a concrete cast that makes the pipes very heavy. It makes the pipes very hard to be tampered with.
What happens after treatment of solid waste?	The DC will decide what to do with the products after treatment

What are the views from the DESC about GBV and social issues that occur due to projects?	Mitigation measures recommended by project implementers should be integrated with already existing government structures to ensure sustainability.
How to deal with compensation issues	The Land acquisition act of Malawi If an individual build in anticipation of a project, we are not liable to compensate
How is air pollution going to be addressed?	Settlement is far from the proposed site and wind direction of the proposed site is against any settlement
What is the approach on the catchment management?	Management has already started with the forestry department. Tree planting, 50 thousand trees to be planted yearly Meetings have been done with ADCs and VDCs Finding alternate sources of energy
How will water be priced?	Pricing is regulated by the Ministry of water and there is a tariff structure
What is the corporate social responsibility of NRW on this project? Suggest building schools and bridges	On the project the NRW has no plans of corporate social responsibility works due to the nature of the project. Building of bridges can be considered as catchment works and can be justified.

Final Remarks

ENVIRONCONSULT

The consulting firm wants to work with the district council and by assigning people to us will be very helpful. Help in organizing meetings.

NRWB

Grateful for cooperation from DC and departments

Give feedback where necessary to ENVIRONCONSULT

Closing Prayer

NAME	DEPARTMENT	CONTACT
Simbarashe Chirwa	ENVIRONCONSULT	0993971007
Mabvuto Phula	ENVIRONCONSULT	0994192105
Bessie Kunje	Disaster-RUDC	0991571359
Mathias Kawonga	AGR-LRGO	0882971235
Happy Nyirenda	Agribusiness	0881469761
Boyd Msowoya	Agriculture	0991147605
Kelvin Banda	Forestry	0999755466
Robert Chidothi	Community Dept	0999956331
Abraham Mhango	Agriculture	0991452891
Mphatso Kayoza	Irrigation	0991285130
Vincent Luhanga	Gender	0884280845
Chifundo Mtenga	NRWB	0999029653
Hannah Chiwanda	NRWB	0992952610
Agness Kumwenda	Environment	0888080928
Dr Margret Sikwese	ENVIRONCONSULT	0995424927
Phillip Kondowe	Water Resources	0884253151
Collins Mukhala	ENVIRONCONSULT	0994816266
John Mpoha	Health	0881257890

Bumba ADC and AEC Meeting

Team members present:

Dr M. Sikwese

Mr. M. Phula

Mr. C. Mukhala

Mr. S. Chirwa

Mr. K. Banda

Mr. R. Chidothi

Meeting Date and time: 23rd September, 2022. 1:30 p.m.

Chair of meeting: Mr. Happy Nyasulu- ADC Chairman

The chair opened the meeting and welcomed all present at the meeting. Then a prayer.

Introduction and apologies:

The chair opened the floor for all members present to introduce themselves. The whole meeting comprised of 2 members from the District council, 19 members from ADC and 3 members from ENVIRONCONSULT.

Apologies that the team arrived late.

Review and adoption of agenda

The chair of the meeting delegated to K. Banda to review the agenda of the meeting

Opening Remarks by K. Banda

A brief background of the project was given. Highlighting the benefits, the project will have on the communities.

He further addressed the role of ENVIRONCONSULT has come in to play on behalf of NRW.

Remarks by Dr. Sikwese

Briefing of the forum that ENVIRONCONSULT is here to do assessments. An ESIA. She further explained what is entailed in an ESIA. From household surveys to resettlement action plan.

It was further highlighted that with development such as this comes positive and negative impacts to communities. Communities will benefit from these positive things but must also be vigilant of the negative consequences of the project. One of the positive things being creation of job. These jobs must be made available to both women and youth.

One of the negatives being taking advantage of women's rights by asking for sex in exchange for work.

There is a component of sanitation, that is liquid and solid waste management apart from water supply.

Communities in their respective areas must be made aware that enumerators will come into their communities and ask various questions about their household. Cooperation will be appreciated because this is being done because of the proposed project.

Members were made aware of where the pipes for water will pass, emphasising that they will pass in the road reserve. Those that will be affected are only those having trees and other structures within the road reserve and will be compensated.

NRWB structures such as tanks and boosters that may be placed on an individual's property can be compensated.

Once the project starts water will be distributed to many areas and it will be able to reach the communities through community water points (200) and individual water taps.

Issues of GBV should be reported to the rightful authorities once the project starts. Young girls should be sensitised to remain in school.

A Grievance redress mechanism should be placed

Remarks by M. Phula

The road reserve has a radius of 3 to 5 meters.

Many of the roads in this area are D and the project will mainly work within 5 meters of the road reserve.

The law in Malawi (Public roads act) says that no one should build in the road reserve and no one to be compensated if they have. But the policy being used by AFRICA DEVELOPMENT Bank (funders) is that people should be compensated if in the road reserve.

Remarks by K. Banda

The project has negative impacts but mitigation measures have been placed. These are either social or environmental impacts.

The project is there to improve the lives of the communities.

People should not build in anticipation of the project.

QUESTIONS and ANSWERS

Table below shows questions and responses

How are issues between the contractors and workers going to be handled?	Complaints must be recorded and taken to the rightful authorities GRM
How will payment issues of workers going to be handled? Workers are left unpaid	Address issues to labour office and GRM committees
Are all types of trees eligible for compensation	Yes

How are you going to deal with nature of aesthetic value along the project pathway?	Ecology team will make assessments and the right recommendations
Is the water going to be free or paid?	It is paid
How will the survey be conducted? How will they be identified?	VDC representatives will be called once in the community to identify themselves and assist the enumerators
Is NRWB working with WUA?	They are working on a framework and ENVIROCONSULT is also meeting with WUA's

Comments

Contractors hired should be fair (in treatment) because we have had other contractors who did not handle community members well especially women.

Contractors should build durable things

When project is starting all ADC's should be notified

Final Remarks

ENVIRONCOSULT

The consulting firm wants to work with the ADC and AEC.

ADC CHAIR

Grateful for the project and increase in supply of clean water.

Closing Prayer

Chinyolo ADC and AEC Meeting

Team members present:

Dr M. Sikwese

Mr. M. Phula

Mr. C. Mukhala

Mr. S. Chirwa

Mr. K. Banda

Mr. R. Chidothi

Meeting Date and time: 23rd September, 2022. 4:00 p.m.

Chair of meeting: Mr. Manasseh Ngwira- ADC Chairman

The chair opened the meeting and welcomed all present at the meeting. Then a prayer.

Introduction and apologies:

The chair opened the floor for all members present to introduce themselves. The whole meeting comprised of 2 members from the District council, 27 members from ADC and 3 members from ENVIRONCONSULT.

Apologies that the team arrived late.

Review and adoption of agenda

The chair of the meeting delegated to K. Banda to review the agenda of the meeting

Opening Remarks by R. Chidothi

A brief background of the project was given. Highlighting the benefits, the project will have on the communities.

He further addressed the role of ENVIRONCONSULT has come in to play on behalf of NRWB.

Remarks by Dr. Sikwese

Briefing of the forum that ENVIRONCONSULT is here to do assessments. An ESIA. She further explained what is entailed in an ESIA. From household surveys to resettlement action plan.

It was further highlighted that with development such as this comes positive and negative impacts to communities. Communities will benefit from these positive things but must also be vigilant of the negative consequences of the project. One of the positive things being creation of job. These jobs must be made available to both women and youth.

One of the negatives being taking advantage of women's rights by asking for sex in exchange for work.

There is a component of sanitation that is liquid and solid waste management apart from water supply.

Communities in their respective areas must be made aware that enumerators will come into their communities and ask various questions about their household. Cooperation will be appreciated because this is being done because of the proposed project.

Members were made aware of where the pipes for water will pass, emphasising that they will pass in the road reserve. Those that will be affected are only those having trees and other structures within the road reserve and will be compensated.

NRWB structures such as tanks and boosters that may be placed on an individual's property can be compensated.

Once the project starts water will be distributed to many areas and it will be able to reach the communities through community water points (200) and individual water taps.

Issues of GBV should be reported to the rightful authorities once the project starts. Young girls should be sensitised to remain in school.

A Grievance redress mechanism should be placed

Remarks by M. Phula

The road reserve has a radius of 3 to 5 meters.

Many of the roads in this area are D and the project will mainly work within 5 meters of the road reserve.

The law in Malawi (Public roads act) says that no one should build in the road reserve and no one to be compensated if they have. But the policy being used by AFRICA DEVELOPMENT Bank (funders) is that people should be compensated if in the road reserve.

Remarks by K. Banda

The project has negative impacts but mitigation measures have been placed. These are either social or environmental impacts.

The project is there to improve the lives of the communities.

People should not build in anticipation of the project.

QUESTIONS and ANSWERS

Table below shows questions and responses

Is the water going to reach high elevated areas in our ADC's	NRWB has to be consulted Application for water points has to be made
How will compensation work with the project	Procedure is to follow the laws of the country (Land acquisition and resettlement act 2016). There various things that are considered when it comes to compensation. That is trees, structures, disturbance allowance, shifting allowance etc.

Are all types of trees eligible for compensation	Yes
For this project do we need to setup new GRM committees?	This is up to the ADC to decide
Is the water going to be free or paid?	It is paid
When will the project start?	June 2023 and ends in 2026
Is money already available for the project	NRWB is getting a loan from AFDB but the loan awaits reports that will be made from the ESIA. The project is very likely to happen because it has already been done in Nkhatabay and Mzimba and this is more of a continuation with Rumphu district.

Final Remarks

ADC CHAIR

Grateful for the project and increase in supply of clean water. He emphasized the issue of compensation so that the right information will be taken to the communities.

Closing Prayer

Kanyerere ADC and AEC Meeting

Team members present:

Dr M. Sikwese

Mr. M. Phula

Mr. C. Mukhala

Mr. S. Chirwa

Mr. K. Banda

Mr. R. Chidothi

Meeting Date and time: 23rd September, 2022. 12:23 p.m.

Chair of meeting: Owen Gondwe- ADC Chairman

The chair opened the meeting and welcomed all present at the meeting. Then a prayer.

Introduction and apologies:

The chair opened the floor for all members present to introduce themselves. The whole meeting comprised of 2 members from the District council, 15 members from ADC and 3 members from ENVIRONCONSULT.

Apologies that the team arrived late.

Review and adoption of agenda

The chair of the meeting delegated to R. Chidothi to review the agenda of the meeting

Opening Remarks by R. Chidothi

A brief background of the project was given. Highlighting the benefits, the project will have on the communities.

He further addressed the role of ENVIRONCONSULT has come in to play on behalf of NRWB.

Remarks by Dr. Sikwese

Briefing of the forum that ENVIRONCONSULT is here to do assessments. An ESIA. She further explained what is entailed in an ESIA. From household surveys to resettlement action plan.

It was further highlighted that with development such as this comes positive and negative impacts to communities. Communities will benefit from these positive things but must also be vigilant of the negative consequences of the project. One of the positive things being creation of job. These jobs must be made available to both women and youth.

One of the negatives being taking advantage of women's rights by asking for sex in exchange for work.

Communities in their respective areas must be made aware that enumerators will come into their communities and ask various questions about their household. Cooperation will be appreciated because this is being done because of the proposed project.

Members were made aware of where the pipes for water will pass, emphasising that they will pass in the road reserve. Those that will be affected are only those having tress and other structures within the road reserve and will be compensated.

NRWB structures such as tanks and boosters that may be placed on an individual's property can be compensated.

Once the project starts water will be distributed to many areas and it will be able to reach the communities through community water points (200) and individual water taps.

Issues of GBV should be reported to the rightful authorities once the project starts. Young girls should be sensitised to remain in school.

Remarks by M. Phula

The road reserve has a radius of 3 to 5 meters.

Many of the roads in this area are D and the project will mainly work within 5 meters of the road reserve.

The law in Malawi (Public roads act) says that no one should build in the road reserve and no one to be compensated if they have. But the policy being used by AFRICA DEVELOPMENT Bank (funders) is that people should be compensated if in the road reserve.

Remarks by K. Banda

The project has negative impacts but mitigation measures have been placed. These are either social or environmental impacts.

The project is there to improve the lives of the communities.

People should not build in anticipation of the project.

QUESTIONS and ANSWERS

Table below shows questions and responses

Is the water going to be distributed to the further parts of kanyelele	NRWB has to be consulted
Will WUA and NRW work together?	The two parties will meet and find a way forward ENVIRONCONSULT will also meet WUA
Will the water be metered or not	It will be metered

Comments

WUA is failing to supply water to the areas and people still get charged monthly for water

Final Remarks

The Chief

Chief-There is untreated water and are waiting with anticipation for the NRW clean water.

Grateful for the job opportunities that will be created because of the project

Closing Prayer

Mwazisi ADC and AEC Meeting

Team members present:

Dr M. Sikwese

Mr. M. Phula

Mr. C. Mukhala

Mr. S. Chirwa

Mr. K. Banda

Mr. R. Chidothi

Meeting Date and time: 23rd September, 2022. 9 a.m.

Chair of meeting: Peter Singini- ADC Chairman

The chair opened the meeting and welcomed all present at the meeting. Then a prayer.

Introduction and apologies:

The chair opened the floor for all members present to introduce themselves. The whole meeting comprised of 2 members from the District council, 21 members from ADC and 3 members from ENVIRONCONSULT.

Apologies that other members of the ADC did not make it due to communication difficulties.

Review and adoption of agenda

The chair of the meeting delegated to R. Chidothi to review the agenda of the meeting

Opening Remarks by R. Chidothi

A brief background of the project was given. Highlighting the benefits, the project will have on the communities.

He further addressed the role of ENVIRONCONSULT has come in to play on behalf of NRWB.

Remarks by Dr. Sikwese

Briefing of the forum that ENVIRONCONSULT is here to do assessments. An ESIA. She further explained what is entailed in an ESIA. From household surveys to resettlement action plan.

It was further highlighted that with development such as this comes positive and negative impacts to communities. Communities will benefit from these positive things but must also be

vigilant of the negative consequences of the project. One of the positive things being creation of job. These jobs must be made available to both women and youth.

One of the negatives being taking advantage of women's rights by asking for sex in exchange for work.

Communities in their respective areas must be made aware that enumerators will come into their communities and ask various questions about their household. Cooperation will be appreciated because this is being done because of the proposed project.

Members were made aware of where the pipes for water will pass, emphasising that they will pass in the road reserve. Those that will be affected are only those having tress and other structures within the road reserve and will be compensated.

NRWB structures such as tanks and boosters that may be placed on an individual's property can be compensated.

Once the project starts water will be distributed to many areas and it will be able to reach the communities through community water points (200) and individual water taps.

Issues of GBV should be reported to the rightful authorities once the project starts. Young girls should be sensitised to remain in school.

Remarks by M. Phula

The road reserve has a radius of 3 to 5 meters.

Many of the roads in this area are D and the project will mainly work within 5 meters of the road reserve.

The law in Malawi (Public roads act) says that no one should build in the road reserve and no one to be compensated if they have. But the policy being used by AFRICA DEVELOPMENT Bank (funders) is that people should be compensated if in the road reserve.

Remarks by K. Banda

The project has negative impacts but mitigation measures have been placed. These are either social or environmental impacts.

The project is there to improve the lives of the communities.

People should not build in anticipation of the project.

QUESTIONS and ANSWERS

Table below shows questions and responses

Are contractors going to come in with their own work force?	ADC and other local governance structures will liaise about complaints and grievance
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	redress mechanism should be placed with the DC. Contractors decide where to get their skilled and unskilled labour
Will the water be distributed throughout the whole ADC	Not sure, but a map will be provided so that this can be cleared
For those living in the higher elevation areas, how will they be assisted with water distribution?	NRWB can address this issue better
We want to know the actual plan of the water project because some VDCs are far from where the pipes are passing?	The very high areas in Mwazisi will not be reached due to the design.
Does compensation of trees include all trees?	Yes, all trees
What power will the boosters use?	It must be understood that the engineers designed that water will be pumped and there will be enough power to reach the designated areas.
How long will the project be implemented?	1st quarter begins next year

Comments

There are some VDCs that have acute water problems namely; Thazima, Kasasa, Bawa, Kapiri, Chakaramo

ADCS have to apply to NRW for water points to be installed

Final Remarks

ENVIRONCOSULT

The consulting firm wants to work with the ADC and AEC.

The Chief

Grateful for the project that is coming in. Grateful for the job opportunities that will be created because of the project

Closing Prayer

Bembe Market Committee Meeting

Team members present:

Dr M. Sikwese

Mr. S. Chirwa

Mr. E. Kanyika

Meeting Date and time: 24th September, 2022. 10:40 a.m.

Chair of meeting: Mr. Haswel Mwandira- VDC Chairman

The chair opened the meeting and welcomed all present at the meeting. Then a prayer.

Introduction and apologies:

The chair opened the floor for all members present to introduce themselves. The whole meeting comprised of 1 member from the District council, 17 members from Market, VDC, CBO and 2 members from ENVIRONCOSULT.

Apologies that the team arrived late.

Review and adoption of agenda

The chair of the meeting delegated to H. Mwandira to review the agenda of the meeting

Opening Remarks by E. Kanyika

A brief background of the project was given. Highlighting the benefits, the project will have on the communities.

He further addressed the role of ENVIRONCONSULT has come in to play on behalf of NRW.

Remarks by Dr. Sikwese

Briefing of the forum that ENVIRONCONSULT is here to do assessments. An ESIA. She further explained what is entailed in an ESIA. From household surveys to resettlement action plan.

It was further highlighted that with development such as this comes positive and negative impacts to communities. Communities will benefit from these positive things but must also be vigilant of the negative consequences of the project. One of the positive things being creation of job. These jobs must be made available to both women and youth.

One of the negatives being taking advantage of women's rights by asking for sex in exchange for work.

There is a component of sanitation, that is liquid and solid waste management apart from water supply.

Communities in their respective areas must be made aware that enumerators will come into their communities and ask various questions about their household. Cooperation will be appreciated because this is being done because of the proposed project.

Members were made aware of where the pipes for water will pass, emphasising that they will pass in the road reserve. Those that will be affected are only those having trees and other structures within the road reserve and will be compensated.

NRWB structures such as tanks and boosters that may be placed on an individual's property can be compensated.

Once the project starts water will be distributed to many areas and it will be able to reach the communities through community water points (200) and individual water taps.

Issues of GBV should be reported to the rightful authorities once the project starts. Young girls should be sensitised to remain in school.

A Grievance redress mechanism should be placed

Compensation will be done for those individuals who may have trees and structures within the road reserve boundary. If pipes and other structures will be installed outside the boundary then individuals are eligible for compensation.

There are 4 types of roads; M being the road, S being the secondary, T being the tertiary and D being the District. Many of the roads in this area are D and the project will mainly work within the last 5 meters of the road reserve.

QUESTIONS and ANSWERS

Table below shows questions and responses

Are people allowed to farm once the assessment has been done	Yes, people are allowed
Is there any corporate social responsibility by NRW	No according to the project they are not able to but communities are allowed to write NRW for such programs but outside this project.
Is water just passing through our area	No, the project aims to supply water to communities but main pipes are passing through to reach other areas as well.

With NRWB does the community have to do everything for themselves as with WUA? Digging trenches and buying pipes	There are specific conditions that NRWB may require you to get materials and dig trenches. NRWB will give a quote of the materials required for you to access water at your site. But this is after water has been diverted from the main pipes to smaller pipes that are meant for distribution.
Is NRWB working with WUA?	They are working on a framework and ENVIROCONSULT is also meeting with WUA's

Final Remarks

ENVIRONCOSULT

The consulting firm is grateful for the time of all who attended the meeting.

ADC CHAIR

Grateful for the project and increase in supply of clean water.

Grateful for all who were able to attend the meeting leaving their businesses.

Closing Prayer

Bolero ADC, WUA and Market Committee Meeting

Team members present:

Dr M. Sikwese

Mr. S. Chirwa

Mr. E. Kanyika

Meeting Date and time: 24th September, 2022. 1:30 p.m.

Chair of meeting: Mr. Haswel Mwandira- VDC Chairman

The chair opened the meeting and welcomed all present at the meeting. Then a prayer.

Introduction and apologies:

The chair opened the floor for all members present to introduce themselves. The whole meeting comprised of 1 member from the District council, 21 members from ADC, Market, VDC, 7 members from WUA and 2 members from ENVIRONCOSULT.

‘Review and adoption of agenda

The chair of the meeting delegated to L. Chipofya to review the agenda of the meeting

Opening Remarks by E. Kanyika

A brief background of the project was given. Highlighting the benefits, the project will have on the communities.

He further addressed the role of ENVIRONCONSULT has come in to play on behalf of NRW.

Remarks by Dr. Sikwese

Briefing of the forum that ENVIRONCONSULT is here to do assessments. An ESIA. She further explained what is entailed in an ESIA. From household surveys to resettlement action plan.

It was further highlighted that with development such as this comes positive and negative impacts to communities. Communities will benefit from these positive things but must also be vigilant of the negative consequences of the project. One of the positive things being creation of job. These jobs must be made available to both women and youth.

One of the negatives being taking advantage of women's rights by asking for sex in exchange for work.

There is a component of sanitation, that is liquid and solid waste management apart from water supply.

Communities in their respective areas must be made aware that enumerators will come into their communities and ask various questions about their household. Cooperation will be appreciated because this is being done because of the proposed project.

Members were made aware of where the pipes for water will pass, emphasising that they will pass in the road reserve. Those that will be affected are only those having trees and other structures within the road reserve and will be compensated.

NRWB structures such as tanks and boosters that may be placed on an individual's property can be compensated.

Once the project starts water will be distributed to many areas and it will be able to reach the communities through community water points (200) and individual water taps.

Issues of GBV should be reported to the rightful authorities once the project starts. Young girls should be sensitised to remain in school.

A Grievance redress mechanism should be placed

Compensation will be done for those individuals who may have trees and structures within the road reserve boundary. If pipes and other structures will be installed outside the boundary then individuals are eligible for compensation.

QUESTIONS and ANSWERS

Table below shows questions and responses

Are schools the only things being targeted by the project	No, water is for all and it just has to be applied for.
How long is the project for, who is it being funded by and how much money?	Project starts in June 2023 and ends in 2026. It is being funded by African Development Bank. It is a 32 billion dollar project
Give the ADC a brief background of the whole project as many do not know the details	A brief background of the project was given. Stating where it starts and ends. Key structures to be installed and where to be installed.
How will WUA and NRW work?	This meeting is there to find out the views of WUA of this project. If there are suggestions on how they can work together. WUA and NRW are yet to meet and discuss on how they can work together.
Is NRW working with WUA?	They are working on a framework and ENVIROCONSULT is also meeting with WUA's
Is there free water connection as the government promised?	Per government communication it was said that free water connection will depend on the distance from the distribution pipe to where water is required. If the point of connection is further than their requirements then a client will have to pay.

Comments:

Councilor-NRWB informed the council that they will appear before the ADC and WUA to discuss on how to work together. They need to come and address these issues.

Bolero trading center is also asking for solid waste management component of the project. It should be noted that the market has already designated land for a landfill.

WUA scheme manager- khamanga area has plenty of water and when they are to deal with their issues with the intakes then they can supply water to a very large area without a problem.

There are acute water problems in Bowe, Matukha, Mkama and Songwe. These areas WUA cannot reach but maybe NRW can.

There is an area that did have an old scheme but has been sold by the government and has run down. Water can no longer be accessed by this scheme.

The water project should also target the furthest areas not just the areas close to the main pipes passing at the road.

WUA Chair- Water problem is there and we are ready to work with NRWB as long as we can discuss favourable conditions, procedures and sign MOU's.

WUA and all members must have a mindset that NRWB shouldn't be a competitor but should be a partner in dealing with the problem of water. There should be clean and portable water in the communities.

There is a need for impact assessments to be done after the project has been implemented. To have these stakeholder meetings again so that you can hear from the communities again.

Final Remarks

ENVIRONCONSULT

The consulting firm is grateful for the time of all who attended the meeting.

ADC CHAIR

Grateful for the project and increase in supply of clean water.

Closing Prayer

Bumba Head teachers and Market Committee Meeting

Team members present:

Mr. S. Chirwa

Mr. R. Chidothi

Meeting Date and time: 26th September, 2022.

Chair of meeting: Mr. A. Kilembe- CDA

The chair opened the meeting and welcomed all present at the meeting. Then a prayer.

Introduction and apologies:

The chair opened the floor for all members present to introduce themselves. The whole meeting comprised of 2 members from the District council, 5 members from Education and 1 member from ENVIROCONSULT.

Review and adoption of agenda

The chair of the meeting delegated to R. Chidothi to review the agenda of the meeting.

Opening Remarks by R. Chidothi

A brief background of the project was given. Highlighting the benefits, the project will have on the communities.

He further addressed the role of ENVIRONCONSULT has come in to play on behalf of NRW.

Remarks by S. Chirwa

Briefing of the forum that ENVIROCONSULT is here to do assessments. An ESIA. She further explained what is entailed in an ESIA. From household surveys to resettlement action plan.

The project will begin in June 2023 and end in 2026. The project is for paid water not free water.

It was further highlighted that with development such as this comes positive and negative impacts to communities. Communities will benefit from these positive things but must also be vigilant of the negative consequences of the project. One of the positive things being creation of job. These jobs must be made available to both women and youth. There will be an increase in business opportunities for those doing business in the market.

One of the negatives being taking advantage of women's rights by asking for sex in exchange for work.

Young girls and boys may drop out of school to get jobs, early pregnancies and/or to marry. Boys are more prone to drug and substance abuse.

There is a component of sanitation, that is liquid and solid waste management apart from water supply.

Waste management will be at institutions such as the hospital and schools in the surrounding area.

Communities in their respective areas must be made aware that enumerators will come into their communities and ask various questions about their household. Cooperation will be appreciated because this is being done because of the proposed project.

Members were made aware of where the pipes for water will pass, emphasising that they will pass in the road reserve. Those that will be affected are only those having tress and other structures within the road reserve and will be compensated.

NRWB structures such as tanks and boosters that may be placed on an individual's property can be compensated. It should be noted that tanks will be placed on public land and therefore there will be no compensation.

Once the project starts water will be distributed to many areas and it will be able to reach the communities through community water points (200) and individual water taps.

Issues of GBV should be reported to the rightful authorities once the project starts. Young girls should be sensitised to remain in school.

A Grievance redress mechanism should be placed

Compensation will be done for those individuals who may have trees and structures within the road reserve boundary. If pipes and other structures will be installed outside the boundary then individuals are eligible for compensation.

QUESTIONS and ANSWERS

Table below shows questions and responses

Will installation of water for government institutions be subsidized?	It is possible that it may be subsidized based on arrangements they may have so that they will increase access to clean and potable water.
How will schools benefit from waste management?	Schools will access services of waste disposal. Institutions can discuss on how they can create a profitable business from waste.
Was a survey done to reach all areas where there are water problems	Yes, there must have been a survey to come up with this design for the project.
What are the mitigation measures placed for the negative impacts of the project?	One of the mitigation measures is GRM

Comments:

We are looking forward to this project because there is a very big water problem. The coming in of this project will improve sanitation conditions in the schools and we are grateful.

Final Remarks

ENVIRONCONSULT

The consulting firm is grateful for all who attended the meeting.

Closing Prayer

Bwengu Market Committee Meeting

Team members present:

Mr. S. Chirwa

Mr. R. Chidothi

Meeting Date and time: 26th September, 2022.

Introduction and apologies:

The chair opened the floor for all members present to introduce themselves. The whole meeting comprised of 1 member from the District council, 4 members from market committee and 1 member from ENVIROCONSULT.

Opening Remarks by R. Chidothi

A brief background of the project was given. Highlighting the benefits, the project will have on the communities.

He further addressed the role of ENVIRONCONSULT has come in to play on behalf of NRW.

Remarks by S. Chirwa

Briefing of the forum that ENVIRONCONSULT is here to do assessments. An ESIA. She further explained what is entailed in an ESIA. From household surveys to resettlement action plan.

The project will begin in June 2023 and end in 2026. The project is for paid water not free water.

It was further highlighted that with development such as this comes positive and negative impacts to communities. Communities will benefit from these positive things but must also be vigilant of the negative consequences of the project. One of the positive things being creation of job. These jobs must be made available to both women and youth. There will be an increase in business opportunities for those doing business in the market.

One of the negatives being taking advantage of women's rights by asking for sex in exchange for work.

Young girls and boys may drop out of school to get jobs, early pregnancies and/or to marry. Boys are more prone to drug and substance abuse.

Communities in their respective areas must be made aware that enumerators will come into their communities and ask various questions about their household. Cooperation will be appreciated because this is being done because of the proposed project.

Members were made aware of where the pipes for water will pass, emphasising that they will pass in the road reserve. Those that will be affected are only those having tress and other structures within the road reserve and will be compensated.

NRWB structures such as tanks and boosters that may be placed on an individual's property can be compensated. It should be noted that tanks will be placed on public land and therefore there will be no compensation.

Once the project starts water will be distributed to many areas and it will be able to reach the communities through community water points (200) and individual water taps.

Issues of GBV should be reported to the rightful authorities once the project starts. Young girls should be sensitised to remain in school.

A Grievance redress mechanism should be placed

Compensation will be done for those individuals who may have trees and structures within the road reserve boundary. If pipes and other structures will be installed outside the boundary then individuals are eligible for compensation.

QUESTIONS and ANSWERS

Table below shows questions and responses

Will there be free installation	No, there won't be free installation
How can we get water in our market	Apply to water board
What are the charges for water	NRWB has their own tariffs they go by

Comments:

We are afraid to draw water from the river because of cholera. We hope the project starts soon.

Final Remarks

ENVIROCONSULT

The consulting firm is grateful for all who attended the meeting.

Chikwawa Chief (Representing Chikwawa market committee) Meeting

Team members present:

Mr. S. Chirwa

Mr. R. Chidothi

Meeting Date and time: 26th September, 2022. 9:30 p.m.

Introduction and apologies:

The chair opened the floor for all members present to introduce themselves. The whole meeting comprised 1 member from the District council, 1 member from Chikwawa market and 1 member from ENVIROCOSULT.

Opening Remarks by R. Chidothi

A brief background of the project was given. Highlighting the benefits, the project will have on the communities.

He further addressed the role of ENVIROCONSULT has come into play on behalf of NRWB.

Remarks by Mr. S. Chirwa

Briefing the chief that ENVIROCONSULT is here to do assessments. An ESIA. It was further explained what is entailed in an ESIA. From household surveys to resettlement action plans.

It was further highlighted that with development such as this comes positive and negative impacts to communities. Communities will benefit from these positive things but must also be vigilant of the negative consequences of the project. One of the positive things is the creation of jobs. These jobs must be made available to both women and youth.

One of the negatives being taking advantage of women's rights by asking for sex in exchange for work.

Communities in their respective areas must be made aware that enumerators will come into their communities and ask various questions about their household. Cooperation will be appreciated because this is being done because of the proposed project.

Members were made aware of where the pipes for water will pass, emphasising that they will pass in the road reserve. Those that will be affected are only those having trees and other structures within the road reserve and will be compensated.

NRWB structures such as tanks and boosters that may be placed on an individual's property can be compensated.

Once the project starts water will be distributed to many areas and it will be able to reach the communities through community water points (200) and individual water taps.

Issues of GBV should be reported to the rightful authorities once the project starts. Young girls should be sensitised to remain in school.

Remarks by R. Chidothi

The project has negative impacts but mitigation measures have been placed. These are either social or environmental impacts.

The project is there to improve the lives of the communities.

Water supply project is not providing free water to people.

QUESTIONS and ANSWERS

Table below shows questions and responses

Is the water for free	No, it is paid water.
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Final Remarks

ENVIRONCONSULT

The consulting firm and NRW wants to work with the market and their surrounding committees hence their cooperation would be appreciated.

The Chief

Chief-There is untreated water and are waiting with anticipation for the NRW clean water.

Grateful for the job opportunities that will be created because of the project

NB: There is no market committee at Chikwawa market and was referred to the chief. We had to meet the Chief at Rumphu hospital where he was handling proceedings of a funeral.

Phwezi Market Committee

Team members present:

Mr. S. Chirwa

Mr. R. Chidothi

Meeting Date and time: 26th September, 2022.

Introduction and apologies:

The chair opened the floor for all members present to introduce themselves. The whole meeting comprised of 1 member from the District council, 4 members from market committee and 1 member from ENVIROCONSULT.

Opening Remarks by R. Chidothi

A brief background of the project was given. Highlighting the benefits, the project will have on the communities.

He further addressed the role of ENVIRONCONSULT has come in to play on behalf of NRW.

Remarks by S. Chirwa

Briefing of the forum that ENVIRONCONSULT is here to do assessments. She further explained what is entailed in an ESIA. From household surveys to resettlement action plan.

The project will begin in June 2023 and end in 2026. The project is for paid water not free water.

It was further highlighted that with development such as this comes positive and negative impacts to communities. Communities will benefit from these positive things but must also be vigilant of the negative consequences of the project. One of the positive things being creation of job. These jobs must be made available to both women and youth. There will be an increase in business opportunities for those doing business in the market.

One of the negatives being taking advantage of women's rights by asking for sex in exchange for work.

Young girls and boys may drop out of school to get jobs, early pregnancies and/or to marry. Boys are more prone to drug and substance abuse.

Communities in their respective areas must be made aware that enumerators will come into their communities and ask various questions about their household. Cooperation will be appreciated because this is being done because of the proposed project.

Members were made aware of where the pipes for water will pass, emphasising that they will pass in the road reserve. Those that will be affected are only those having trees and other structures within the road reserve and will be compensated.

NRWB structures such as tanks and boosters that may be placed on an individual's property can be compensated. It should be noted that tanks will be placed on public land and therefore there will be no compensation.

Once the project starts water will be distributed to many areas and it will be able to reach the communities through community water points (200) and individual water taps.

Issues of GBV should be reported to the rightful authorities once the project starts. Young girls should be sensitised to remain in school.

A Grievance redress mechanism should be placed

Compensation will be done for those individuals who may have trees and structures within the road reserve boundary. If pipes and other structures will be installed outside the boundary then individuals are eligible for compensation.

QUESTIONS and ANSWERS

Table below shows questions and responses

Will there be free water connections	No, there will be charges
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When will compensation be finished for the road since there won't be compensation twice?	We cannot say an exact date but issues of compensation with the road project have to be referred to the DC.
What are the charges for water	NRWB has their own tariffs they go by

Final Remarks

ENVIROCONSULT

The consulting firm is grateful for all who attended the meeting.

Thumbi CBO and Market Committee Meeting

Team members present:

Mr. S. Chirwa

Mr. P. Sakala

Meeting Date and time: 27th September, 2022.

Introduction and apologies:

The chair opened the floor for all members present to introduce themselves. The whole meeting comprised of 1 member from the District council, 2 members from market committee, 8 members from CBO and 1 member from ENVIROCONSULT.

Opening Remarks by P. Sakala

A brief background of the project was given. Highlighting the benefits, the project will have on the communities.

He further addressed the role of ENVIRONCONSULT has come in to play on behalf of NRW.

Remarks by S. Chirwa

Briefing of the forum that ENVIRONCONSULT is here to do assessments. An ESIA. She further explained what is entailed in an ESIA. From household surveys to resettlement action plans.

The project will begin in June 2023 and end in 2026. The project is for paid water not free water.

It was further highlighted that with development such as this comes positive and negative impacts to communities. Communities will benefit from these positive things but must also be vigilant of the negative consequences of the project. One of the positive things being creation

of job. These jobs must be made available to both women and youth. There will be an increase in business opportunities for those doing business in the market.

One of the negatives being taking advantage of women's rights by asking for sex in exchange for work.

Young girls and boys may drop out of school to get jobs, early pregnancies and/or to marry. Boys are more prone to drug and substance abuse.

Communities in their respective areas must be made aware that enumerators will come into their communities and ask various questions about their household. Cooperation will be appreciated because this is being done because of the proposed project.

Members were made aware of where the pipes for water will pass, emphasising that they will pass in the road reserve. Those that will be affected are only those having trees and other structures within the road reserve and will be compensated.

NRWB structures such as tanks and boosters that may be placed on an individual's property can be compensated. It should be noted that tanks will be placed on public land and therefore there will be no compensation.

Once the project starts water will be distributed to many areas and it will be able to reach the communities through community water points (200) and individual water taps.

Issues of GBV should be reported to the rightful authorities once the project starts. Young girls should be sensitised to remain in school.

A Grievance redress mechanism should be placed

Compensation will be done for those individuals who may have trees and structures within the road reserve boundary. If pipes and other structures will be installed outside the boundary then individuals are eligible for compensation.

QUESTIONS and ANSWERS

Table below shows questions and responses

Is the water free	No, it is not.
Who will run the communal water taps?	Community can run the taps by buying water from NRW and then charge a fee to for people to access water
In areas where offices will be built will people surrounding that area have to be resettled?	No this will not be necessary

Comments:

200 communal water taps is not enough and communal taps should be available in every chiefs area.

Final Remarks

ENVIROCONSULT

The consulting firm is grateful for all who attended the meeting.

PARAMOUNT CHIKULAMAYEMBE THE 13th Meeting

22nd September,2022

Members present:

Dr M. Sikwese

Mr. M. Phula

Mr. C. Mukhala

Mr. S. Chirwa

Mr. C. Mtenga

Ms. H. Chiwanda

Mr. R. Chidothi

Members were well received by the paramount.

Mr. C. Mtenga introduced ENVIRONCONSULT to the paramount and introductions were made.

Dr. M. Sikwese outlined what ENVIRONCONSULT will be doing in the surrounding communities and asked the paramount to help with dispersing the message to its chiefs.

Meeting with INKOSI JALAVIKUBA EKWALIWENI 2

Members present:

Dr M. Sikwese

Mr. M. Phula

Mr. C. Mukhala

Mr. S. Chirwa

Mr. C. Mtenga

Ms. H. Chiwanda

Members were well received by the Inkosi.

Mr. C. Mtenga introduced ENVIRONCONSULT to the Inkosi and introductions were made.

Dr. M. Sikwese outlined what ENVIRONCONSULT will be doing in the surrounding communities and asked the Inkosi to help with dispersing the message to its chiefs.

Remarks by the Inkosi

He is grateful for the coming in of the project.

The water project will help to reduce cholera infections in the area because of the access to clean water.

He will inform all chiefs of activities that will take place because of the ESIA

Information about the project has been disseminated already once he was made aware of the project.

Where are the pipes passing at the main road? Because people have already been compensated in most of the road reserve areas.

Response: For people who have been compensated by Roads authority, they will not be compensated again. But if pipes are out of the reserve then they will be compensated

M'mbelwa DESC Meeting

Date: 27th September 2022

Team Members Present:

Dr Margaret Sikwese – EnviroConsult

Mr Chifundo Mtenga - NRW

Ms Hanna Chiwanda – NRW

Introductions

Everyone introduced themselves.

Proceedings

Welcome Remarks were made by Representative of the DPD in M'mbelwa District Council.

Mr Chifundo Mtenga introduced the project. Ms Hanna Chiwanda made a presentation on the project.

Dr Margaret Sikwese explained the process of Environmental Impact Assessment and Resettlement Action Plan, emphasising the need for collaboration with the District Council Staff in getting in touch with the communities. In addition, the valuation of assets of the potential Project Affected Persons (PAPs).

Questions and Answers

Questions	Answers
The project looks like it is mainly in Rumphi, what is there for us in Mzimba?	A large part of the project is in Rumphi, this is because Mzimba was already covered by another project. So this project is about replicating it in Rumphi
Are you going to build any offices in Mzimba?	An office will be built at Bwengu and Enukweni in Mzimba, while other offices will be built in Rumphi
Is Mzimba going to have a vehicle for waste management?	The vehicle for waste collection will most likely be located at Rumphi District Council but covering both Mzimba and Rumphi Districts
We have noticed that the liquid waste treatment will be located in Mzimba, how will this work?	Indeed the liquid waste treatment plant will be in Mzimba but servicing Rumphi. People in Mzimba can benefit after the waste has been treated. These are issues to be discussed by the two councils
Will there be a Traveller's Stopover in Mzimba, say at Enukweni?	The Traveller's stopover is for Rumphi. Rumphi District Council will be managing it. We have located it at Phwezi because we felt that there is a higher likelihood of travellers to stop there.

The meeting was closed with a word of prayer.

APPENDIX V: ESTIMATED REPLACEMENT COSTS FOR PERMANENT AND SEMI-PERMANENT STRUCTURES

ESTIMATED REPLACEMENT COSTS FOR PERMANENT AND SEMI-PERMANENT STRUCTURES

Dwelling house	(MK)/sq.m
Type A - mud_wattle	20,000.00
Type B - Sundried brick -Grass thatched-Mud mortar/floor	40,000.00
Type C - Burnt brick -grass thatched- Mud mortar/floor	50,000.00
Type D - Sundried-Corrugated iron sheets-mud mortar/floor	65,000.00
Type E - Burnt brick- Corrugated Iron sheets- mud mortar/floor	80,000.00
Type F - Burnt brick+cement mortar/floor-Corrugated iron sheets	150,000.00
Type G - Burnt brick+cement mortar/floor-Corrugated iron sheets- Cement Plastered	180,000.00
Type H - Burnt brick+cement mortar/floor-Corrugated iron sheets- Cement Plastered- Painted	200,000.00
Type I- IBR, burnt brick, tile, plastered , painted	300,000.00
KITCHEN	
Reed/grass	5,000.00
Mud/ wattle	10,000.00
sun brick/ grass	20,000.00
Brick/ grass	25,000.00
Brick/ iron sheet	40,000.00
BATH SHELTER	
Reed/grass	4,000.00
sun brick	15,000.00
burnt brick	20,000.00
Brick/ iron sheet	30,000.00
CHICKEN PEN	

pole + barbed wire	10,000.00
Brick/ grass	10,000.00
GRANARY	
bamboo and grass thatched	20,000.00
PIGEONRY	
bamboo and grass thatched	20,000.00
FENCE	
Reed	5,000.00
brick	50,000.00
LATRINE	
Reed/Grass	10,000.00
sun brick/ grass	25,000.00
Burnt/ brick	40,000.00
Brick/ iron sheet	60,000.00
KRAAL	
pole	5,000.00
Reed	3,500.00
Trunks	6,000.00
bricks	10,000.00
PIGSTY	
Trunks	6,000.00
sun brick/ grass	25,000.00

APPENDIX VI: FRUIT TREE COMPENSATION

Fruit tree	Amount/tree
Apple	84,956.71
Avocado pear	133,503.41
Banana	125,468.52
Cashew nuts	169,913.42
Citrus (orange, tangerine & lemon)	67,130.76
Grape vines	48,546.69
Guava	40,685.31
Loquat	28,318.90
Macadamia	230,596.79
Mango (Boloma)	48,546.69
Mango	48,546.69
masuku	24,411.18
Pawpaw	31,920.24
Peach	28,318.90
Pineapple	8,847.14
Plum	8,091.12
Quince	24,136.29
Sugarcane	1,322.50

APPENDIX VII: NATURAL TREE RATES

CLASSES OF TREES			
1. INDIGENOUS TREES			
CLASS	Botanical Name	Vernacular Name	Price per cubic metre
			K
Class I	Khaya anthotheca	Mbawa, Muwawa, Bulamwiko	15,000
	Entandrophagma excelsum	Mukarikari, Mululu	15,000
	Adima microcephala	Mwenya, Chonya, Mwina, Mungwina, Mung`ona, Mgwenya, Mluona	15,000
	Chlorofhora excelsa	Ngunda, Mvule	15,000
	Combretum imberbe	Msimbiti	15,000
	Tricilia enetica	Mzikidzi, Msynguti	15,000
	Colophospermum mopane	Tsanya, Sanya, Ntsano, Mopani, Mpani	15,000
	Dalbergia melanxylon	Pingo, Kasalusalu, Nanyula, Kasarusaru	15,000
	Pterocarpus angolensis	Mlombwa, Mtumbati, Mtumbali, Mbira, Nawazi	15,000
	Pericopsis angelensis	Muwanga, Mubanga, Mabanga, Mwanga	15,000
Class II	Ocotea usambarensis	Bokoto	8,000
	Strombosia scheffleri	Mvivi	8,000

CLASSES OF TREES			
1. INDIGENOUS TREES			
CLASS	Botanical Name	Vernacular Name	Price per cubic metre
	Entandrophargram caudatum	Nayalai, Naplalali, Gundang`oma	8,000
	Apodytes dimidiata	Mzaza, Katole, Mchima, Msuwi, Mtibolo, Mnyembebwe	8,000
	Burttavya nyasica	Mbule	8,000
	Albizia gummifera	Mtangatanga, Bua, Chikwani, Chicololo, Mpepe, Msenjere, Mkalankhanga, Skapya	8,000
	Azelia quanzensis	Mkongomwa, Msambamfumu, Mpapa, Ipapa, Mpapadende, Msokosa, Chikunda, Mnangaliondo, Mkogwa	8,000
	Newtonia buchannii	Mkweranyani	8,000
	Podocarpus species	Nanjula, Mwenye, Mkachi, Mkanguni, Mkute	8,000
	Burkea africana	Mkalati, Kalinguti, Kawidzi, Kawidzu, Kapanga	8,000
	Bombax stolzii	Mtojeranga, Thonjemanga	8,000
	Swartzia madagascarensis	Chinyenye, Kampango	8,000

CLASSES OF TREES			
1. INDIGENOUS TREES			
CLASS	Botanical Name	Vernacular Name	Price per cubic metre
Classe III	Chrysophyllum species	Mutu, Chifira, Mufu, Njundo, Njale, Namazuwa, Mlombeya	8,000
	Sterculia specias	Msetanyani, Njale, Mgoza, Mucheska, Mpepe, Chitondo, Muyamba	8,000
	Diosypyros mesopiliforms	Msumwa, Mchenje, Mchena, Njelenje	8,000
	Dialiopsis africana	Mtalala, Mlimbauta, Masakala, Mtutumuko, Chiwangalanya	8,000
	Faurea species	Musese, Chinsese, Chiere	8,000
	Mitragyna rubrostipulata	Mufwafwada	8,000
	Cordyla africa	Mtondo	8,000
	Polyscias fulva	Mpembati, Mukwajo, Mwaja, Mwaza	8,000
	Terminalia, sericea	Naphini, Mpululu, Njoyi, Nalinsi, Gonondo	8,000
	Facolhoa larifolia	Ndopa, Mlunganya Muuse	8,000
	Bridelia micrantha	Mpasa, Msopa, Mlewezi, Mwisya, Chisopa, Msongamiso	8,000

CLASSES OF TREES			
1. INDIGENOUS TREES			
CLASS	Botanical Name	Vernacular Name	Price per cubic metre
	mitragyna rubrostipulata	Mkwerete, Mkhwale, Mthethe, Chingogolo	8,000
	Acacia Polycantha	Mgobe	8,000
	Rauvolvia caffra	Mwembi, Mvumbamvula, Nanyungu, Muimbi, Munyezani, Nyesani	8,000
Classe IV	Parkia filicoida	Mkundi, Musyepwa, Mgundi	8,000
	Xymalos nomospora	Mulaka, Mpelekeso, Mpekeso, Nakaswaga, Chikakalaka	8,000
	Fargara species	Pupwe, Mkurungu, Mlunguchulu	8,000
	Vitex doniana	Mpindimbi, Mfuru, Msimpysa, Mpyambya, Mpsyimpsya	8,000
Classe V	All other non-planted species		8,000
Classe VI	Widdringtonia cuppresoides	Mkungudza, Mulanje Cedar	20,000
	Juniperus procera	Changalume	20,000

CLASSES OF TREES			
1. INDIGENOUS TREES			
CLASS	Botanical Name	Vernacular Name	Price per cubic metre
2.EXOTIC TREES			
	Botanical Name	Vernacular Name	Price per cubic metre
			K
	Cypress species	Mkungudza	10,000
	Eucalyptus species	Bulugamu	10,000
	Gmelina arborea	Malayina	10,000
	Pinus species	Payini	10,000
3.POLES			
	Species	Butt diameter over bark	Price per cubic metre
		(in centimeters)	K
	Eucalyptus and other exotic species not specified elsewhere in this Schedule	Less than 6	80
		6 but less than 8	100

CLASSES OF TREES			
1. INDIGENOUS TREES			
CLASS	Botanical Name	Vernacular Name	Price per cubic metre
		8 but less than 10	160
		10 but less than 12	200
		12 but less than 14	240
		14 but less than 16	300
		16 but less than 18	320
		18 but less than 20	340
		20 and over	by volume
	Indigenous species	Less than 6	100
		6 but less than 8	160
		8 but less than 10	200
		10 but less than 12	240
		12 but less than 14	320
		14 but less than 16	340
		16 but less than 18	360
		18 but less than 20	380
		20 and over	by volume

CLASSES OF TREES			
1. INDIGENOUS TREES			
CLASS	Botanical Name	Vernacular Name	Price per cubic metre
4.FUELWOOD			Price per cubic metre
	type		K
	Exotic fuelwood, cut and stacked by purchaser	(a) domestic use	700
		(b) industrial use	1,000
	indigenous fuelwood, cut and stacked by purchaser	(a) domestic use	700
		(b) industrial use	2,500
	Exotic fuelwood, per headload		20
	Indigenous fuelwood, per headload		150
	Indigenous fuelwood, per bicycle load		200

CLASSES OF TREES			
1. INDIGENOUS TREES			
CLASS	Botanical Name	Vernacular Name	Price per cubic metre
5. BAMBOO			
		Butt diameter (in centimeters)	Price per bamboo
			K
		Less than 5	10
		5 but less than 10	30
		10 and over	50
6. PALMS			
	Botanical Name	Vernacular Name	Price per cubic metre
			K
	Phoenix reclinata	Kanjedza, Kanchinga, Kanjesa	3,000
	Hyphanena crinata	Mgwalangwa, Makoma	3,000
	Borassus aethiopium	Mvumo, Makoma	3,000
7. PLANTS			
	Type		Price per cubic metre

CLASSES OF TREES			
1. INDIGENOUS TREES			
CLASS	Botanical Name	Vernacular Name	Price per cubic metre
			K
	Wild Cycadas and succulents		3,000
8. NON-WOOD FLOREST PRODUCTS(NWFP)			
	Type	Use/Purpose	Price
	Fruits, vegetables, mushrooms, caterpillars, insect, tubes, tubers, thatch grass	(a) domestic	Free
		(b) commercial	By agreement
9. OTHER FOREST PRODUCE			
	Royalties in respective other forest produce may be determine by agreement between the Director of Forestry and the buyer		
10. DESCRIPTION			

CLASSES OF TREES			
1. INDIGENOUS TREES			
CLASS	Botanical Name	Vernacular Name	Price per cubic metre
	The director of Forestry may sell produce in this Schedule by Competitive Bidding		

APPENDIX VIII: LAND VALUES IN PROJECT AREAS

Land Values in Rumphi & Mzimba	
Area	Land Value/ha (MK)
Along M1 and in Rumphi	3,000,000.00
In Trading Centres	5, 000,000.00
At Rumphi Boma	30,000,000.00

APPENDIX IX: PAP LIST GENERAL

A. Mwazisi-Rumphu Pipeline route

LINE: Mwazisi-Rumphu Pipeline Route	Village	y_proj	x_proj	altitude	Name/Code
	Mwazisi-Rumphu	8,785,691.30	563,148.15	1,228.83	MR1
	Mwazisi-Rumphu	8,785,767.98	563,176.70	1,229.37	MR2
	Mwazisi-Rumphu	8,786,052.12	563,195.60	1,231.46	MR3
	Mwazisi-Rumphu	8,786,202.60	563,265.05	1,231.24	MR4
	Mwazisi-Rumphu	8,786,241.58	563,291.35	1,230.38	MR5
	Mwazisi-Rumphu	8,786,415.80	563,430.33	1,231.33	MR6
	Mwazisi-Rumphu	8,786,624.17	563,407.35	1,234.57	MR7
	Mwazisi-Rumphu	8,787,254.73	563,375.79	1,243.65	MR8
	Mwazisi-Rumphu	8,787,331.93	563,369.93	1,244.42	MR9
	Mwazisi-Rumphu	8,787,391.54	563,365.45	1,244.55	MR9
	Mwazisi-Rumphu	8,792,597.31	565,809.74	1,309.62	MR10
	Manganani	8,792,718.99	565,620.61	1,313.33	MR11
	Manganani	8,792,818.66	565,264.23	1,332.47	MR12
	Manganani	8,792,869.29	565,214.71	1,335.48	MR13
	Manganani	8,789,608.83	569,864.01	1,255.05	MR14

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

Manganani	8,790,081.02	569,482.89	1,210.85	MR15
Manganani	8,790,223.34	569,427.35	1,204.20	MR16
Manganani	8,790,443.45	569,346.95	1,206.90	MR17
Manganani	8,790,485.38	569,336.22	1,206.88	MR18
Manganani	8,790,539.06	569,313.93	1,206.02	MR19
Manganani	8,790,597.05	569,290.23	1,206.64	MR20
Manganani	8,790,788.83	569,218.52	1,207.16	MR21
Manganani	8,790,821.27	569,200.55	1,204.44	MR21
Manganani	8,791,058.19	569,009.06	1,216.64	MR22
Manganani	8,791,154.70	568,916.16	1,214.55	MR22
Manganani	8,791,210.55	568,857.04	1,213.07	MR22
Manganani	8,787,454.83	573,201.45	1,168.24	MR23
Manganani	8,787,413.18	573,333.68	1,164.33	MR24
Manganani	8,787,401.13	573,381.18	1,160.93	MR25
Manganani	8,787,365.84	573,485.78	1,162.08	MR26
Manganani	8,786,931.00	573,945.00	1,151.67	MR27
Manganani	8,785,846.30	580,824.01	1,108.42	MR28
Manganani	8,785,834.93	580,860.80	1,109.24	MR29
Manganani	8,785,827.44	580,892.03	1,108.38	MR30

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

	Manganani	8,785,771.56	581,088.45	1,105.25	MR31
	Manganani	8,781,435.26	591,181.13	1,077.88	MR32
	Manganani	8,781,441.01	591,023.07	1,077.61	MR33
	Manganani	8,781,446.70	590,887.61	1,083.42	MR34
	Manganani	8,781,454.19	590,818.37	1,083.58	MR35
	Zingalume	8,781,468.52	590,713.97	1,080.70	MR36
	Zingalume	8,785,288.00	582,066.21	1,100.15	MR37
	Zingalume	8,791,737.49	568,411.86	1,234.62	MR38
	Zingalume	8,791,734.95	568,411.53	1,234.60	MR39
	Zingalume	8,791,721.23	568,415.54	1,228.41	MR40
	Zingalume	8,786,330.07	577,757.05	1,119.66	MR41
	Zingalume	8,781,429.95	591,460.79	1,078.43	MR42
	Zingalume	8,781,422.84	591,589.79	1,091.06	MR23
	Zingalume	8,781,427.30	591,734.56	1,090.96	MR44
	Zingalume	8,781,294.26	593,380.87	1,076.85	MR44
MWAZISI-BEMBE-BOLERO RUMPHI BOMA	Mwazisi	8,789,171.00	563,499.00	1,253.00	MR45
	Mwazisi	8,789,306.00	563,438.00	1,257.00	MR46
	Mwazisi	8,789,406.00	563,393.00	1,260.00	MR47
	Mwazisi	8,789,541.20	563,330.25	1,245.66	MR48

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

Mwazisi	8,789,735.88	563,238.19	1,254.69	MR49
Mwazisi	8,789,754.03	563,228.72	1,255.67	MR50
Mwazisi	8,789,764.99	563,224.80	1,258.54	MR51
Mwazisi	8,789,771.19	563,220.12	1,258.39	MR52
Mwazisi	8,789,784.46	563,216.21	1,261.17	MR53
Mwazisi	8,789,792.10	563,213.05	1,261.36	MR54
Mwazisi	8,789,816.89	563,200.97	1,263.62	MR55
Mwazisi	8,789,881.95	563,177.60	1,265.73	MR56
Mwazisi	8,790,105.02	563,274.30	1,271.17	MR57
Mwazisi	8,790,376.35	563,342.57	1,283.35	MR58
Mwazisi	8,790,445.45	563,347.94	1,284.02	MR59
Mwazisi	8,790,475.86	563,348.00	1,283.98	MR60
Mwazisi	8,790,721.95	563,376.89	1,286.94	MR61
Mwazisi	8,791,017.23	563,468.48	1,293.01	MR62
Mwazisi	8,792,671.84	566,029.76	1,320.49	MR63
Mwazisi	8,792,768.49	566,247.42	1,317.59	MR64
Mwazisi	8,792,652.15	566,861.01	1,302.87	MR65
Mwazisi	8,792,420.21	566,945.12	1,305.12	MR66
Mwazisi	8,792,327.79	567,152.78	1,302.09	MR67

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

Bembe	8,791,122.91	568,142.75	1,221.43	MR68
Bembe	8,791,227.59	568,211.16	1,220.22	MR69
Bembe	8,791,317.34	568,283.25	1,226.28	MR70
Bembe	8,791,431.40	568,416.69	1,219.48	MR71
Chirambo	8,786,905.28	575,101.60	1,148.26	MR72
Chirambo	8,786,966.00	574,902.77	1,150.96	MR73
Chirambo	8,787,042.57	574,637.66	1,153.34	MR74
Chirambo	8,787,060.37	574,590.50	1,154.13	MR75
Chirambo	8,787,123.37	574,358.79	1,155.19	MR76
Chirambo	8,787,155.91	574,250.14	1,156.34	MR77
Chirambo	8,786,186.52	578,743.11	1,118.93	MR78
Chirambo	8,786,161.82	578,989.65	1,117.59	MR79
Chirambo	8,786,153.62	579,133.20	1,116.99	MR80
Chirambo	8,786,137.10	579,337.26	1,114.12	MR81
Chirambo	8,786,118.54	579,603.04	1,113.75	MR82
Bolero	8,786,111.51	579,720.26	1,113.80	MR83
Bolero	8,786,064.12	579,973.63	1,113.17	MR84
Bolero	8,785,922.84	580,545.15	1,110.45	MR85
Bolero	8,785,907.44	580,603.02	1,109.24	MR86

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

Chikazinga	8,781,656.07	589,183.71	1,083.32	MR87
Chikazinga	8,781,638.20	589,288.65	1,075.83	MR88
Chikazinga	8,781,598.93	589,495.46	1,077.63	MR89
Chikazinga	8,781,589.00	589,567.53	1,078.15	MR90
Chikazinga	8,781,588.32	589,615.16	1,076.06	MR91
Chikazinga	8,781,562.18	589,790.65	1,074.81	MR92
Chikazinga	8,781,555.27	589,933.97	1,076.82	MR93
Chikazinga	8,781,547.63	590,056.74	1,075.83	MR94
Chikazinga	8,781,518.31	590,303.34	1,084.06	MR95
Chikazinga	8,781,387.50	592,558.06	1,060.25	MR96
Chikazinga	8,781,373.84	592,617.12	1,063.47	MR97
Chikazinga	8,781,344.17	592,707.50	1,071.39	MR98
Chikazinga	8,781,270.06	592,948.29	1,074.71	MR99
Chikazinga	8,781,513.14	594,102.09	1,073.21	MR100
Chikazinga	8,781,495.81	594,013.66	1,075.29	MR101
Chikazinga	8,781,464.75	593,815.72	1,064.75	MR102
Chikazinga	8,781,458.05	593,761.63	1,068.76	MR103
Chikazinga	8,780,474.55	595,623.51	1,085.50	MR104
Chikazinga	8,780,450.24	595,655.23	1,085.55	MR105

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

Chikazinga	8,780,392.58	595,747.92	1,085.40	MR106
Chikazinga	8,780,375.59	595,772.12	1,084.98	MR107
Chikazinga	8,780,323.74	595,878.59	1,080.65	MR108
Chikazinga	8,780,184.84	596,783.61	1,052.60	MR108
Chikazinga	8,781,395.23	591,379.52	1,079.06	MR109
Chikazinga	8,781,391.11	591,471.28	1,082.44	MR110
Chikazinga	8,781,390.41	591,522.29	1,083.32	MR111
Chikazinga	8,781,391.12	591,545.24	1,085.63	MR112
Chikazinga	8,781,391.13	591,580.42	1,086.23	MR113
Chikazinga	8,781,399.98	591,777.96	1,090.37	MR114
Chikazinga	8,781,407.42	591,843.97	1,090.36	MR115
Chikazinga	8,781,416.66	591,900.25	1,090.70	MR116
Chikazinga	8,781,443.11	592,053.60	1,089.11	MR117
Chikazinga	8,781,458.86	592,154.59	1,090.37	MR118
Chikazinga	8,781,460.63	592,232.38	1,092.34	MR119
Chikazinga	8,781,427.88	592,355.74	1,092.54	MR120
Chikazinga	8,781,410.80	592,412.28	1,091.33	MR121
Chikazinga	8,781,393.94	592,469.26	1,091.85	MR122
Chikazinga	8,781,370.75	592,535.84	1,092.87	MR123

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

	Chikazinga	8,781,341.04	592,639.54	1,089.97	MR124
	Chikazinga	8,781,324.69	592,672.92	1,088.03	MR125
	Chikazinga	8,781,215.38	593,081.85	1,068.20	MR126
	Chikazinga	8,781,210.74	593,119.09	1,067.88	MR127
	Chikazinga	8,781,255.22	592,915.47	1,077.65	MR128
	Chikazinga	8,781,104.13	592,889.81	1,076.06	MR129
	Chikazinga	8,781,102.45	592,858.12	1,077.46	MR130
	Chikazinga	8,781,084.28	592,832.07	1,077.27	MR131
	Chikazinga	8,781,048.88	592,796.68	1,077.13	MR132
	Chikazinga	8,781,036.78	592,774.36	1,074.11	MR133
	Chikazinga	8,781,024.69	592,747.34	1,076.58	MR134
	Chikazinga	8,780,984.11	592,707.35	1,076.09	MR135
	Chikazinga	8,780,958.25	592,700.94	1,074.97	MR136
	Chikazinga	8,780,914.72	592,687.71	1,071.49	MR137
PAP NO./Line Grand Total					137

B. Rumphi Town Pipeline

LINE :Rumphi Town	y_proj	x_proj	altitude	Name
	8,781,382.43	593,563.67	1,071.01	RT1
	8,781,759.13	593,621.45	1,077.70	RT1
	8,781,780.33	593,902.82	1,078.63	RT1
	8,781,487.67	594,076.45	1,071.59	RT2
	8,781,485.07	594,019.53	1,074.65	RT3
	8,781,404.22	593,986.85	1,072.97	RT4
	8,781,174.93	593,770.76	1,058.94	RT5
	8,781,094.74	593,622.17	1,062.19	RT6
	8,781,035.84	593,532.42	1,063.68	RT7
	8,781,015.66	593,510.84	1,062.83	RT8
	8,781,005.63	593,501.20	1,064.11	RT9
	8,780,992.27	593,494.06	1,062.66	RT10
	8,780,982.98	593,491.85	1,063.09	RT11
	8,780,964.33	593,479.12	1,063.04	RT12
	8,780,931.97	593,465.48	1,061.53	RT13

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

8,780,923.05	593,451.25	1,061.43	RT13
8,780,907.03	593,447.60	1,059.47	RT14
8,780,870.73	593,419.42	1,059.36	RT15
8,780,805.26	593,303.11	1,061.52	RT16
8,780,786.23	593,268.53	1,060.90	RT17
8,780,792.80	593,098.24	1,062.89	RT18
8,780,808.36	592,993.95	1,064.44	RT19
8,780,814.92	592,979.99	1,063.26	RT20
8,780,814.64	592,962.07	1,063.86	RT21
8,780,766.31	592,923.81	1,061.65	RT22
8,780,760.23	592,922.59	1,061.53	RT23
8,780,729.98	592,906.44	1,061.61	RT24
8,780,719.51	592,738.06	1,061.99	RT25
8,782,492.69	595,248.88	1,089.35	RT26
8,782,486.85	595,051.56	1,085.80	RT27
8,782,483.22	595,005.88	1,081.73	RT28
8,782,458.00	594,969.42	1,080.80	RT29

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

8,782,393.33	594,885.88	1,072.88	RT30
8,782,320.46	594,809.85	1,068.21	RT31
8,782,238.37	594,745.15	1,071.59	RT32
8,782,204.05	594,721.13	1,066.60	RT33
8,782,155.45	594,700.45	1,064.45	RT34
8,781,900.52	594,599.96	1,067.14	RT35
8,781,851.90	594,586.06	1,060.61	RT36
8,781,838.53	594,582.96	1,062.26	RT37
8,781,798.21	594,568.42	1,063.07	RT38
8,781,710.46	594,550.47	1,057.09	RT39
8,781,600.51	594,521.31	1,052.66	RT40
8,782,315.48	594,812.02	1,076.98	RT41
8,782,333.71	594,777.11	1,073.82	RT42
8,782,348.37	594,756.50	1,077.03	RT43
8,782,355.63	594,731.72	1,077.65	RT44
8,782,359.09	594,718.62	1,078.34	RT45
8,782,371.39	594,673.76	1,079.50	RT46

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

8,782,399.68	594,565.13	1,081.21	RT47
8,782,409.06	594,533.59	1,082.83	RT48
8,782,435.68	594,466.26	1,077.24	RT49
8,782,478.32	594,292.34	1,094.87	RT50
8,782,471.50	594,277.79	1,089.78	RT51
8,782,486.29	594,250.08	1,090.33	RT52
8,782,437.42	594,208.65	1,090.72	RT53
8,782,421.64	594,197.13	1,093.86	RT54
8,782,471.45	594,182.30	1,092.49	RT55
8,782,497.33	594,178.99	1,095.95	RT56
8,782,524.35	594,165.30	1,095.66	RT57
8,782,542.48	594,089.75	1,099.53	RT58
8,782,557.73	594,019.11	1,101.00	RT59
8,782,602.23	593,848.48	1,107.01	RT60
8,782,601.16	593,798.11	1,106.40	RT61
8,781,597.45	594,085.40	1,073.50	RT62
8,781,677.72	594,051.87	1,075.42	RT63

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

8,781,739.49	594,031.29	1,080.63	RT64
8,781,802.28	594,000.01	1,078.10	RT65
8,781,913.86	593,959.58	1,076.89	RT66
8,781,959.05	593,933.27	1,083.39	RT67
8,782,018.27	593,914.32	1,084.90	RT68
8,782,082.48	593,887.96	1,085.40	RT69
8,782,221.55	593,827.29	1,087.67	RT70
8,782,895.59	593,855.00	1,122.45	RT71
8,782,923.85	593,871.03	1,123.44	RT72
8,782,933.49	593,903.62	1,129.21	RT73
8,780,837.50	592,698.52	1,065.50	RT74
8,780,815.17	592,695.18	1,065.11	RT75
8,780,728.34	592,665.99	1,059.61	RT76
8,780,774.20	592,676.39	1,062.09	RT77
8,780,798.17	592,687.71	1,063.82	RT78
8,780,854.55	592,693.87	1,067.08	RT79
8,780,903.78	592,684.29	1,070.83	RT80

RAP for Rumphi Water Supply and Sanitation Service Improvement Project

	8,780,999.80	592,710.89	1,072.30	RT81	
	8,781,007.41	592,718.34	1,074.58	RT82	
	8,781,013.58	592,727.10	1,074.43	RT83	
	8,781,026.68	592,749.20	1,073.29	RT84	
	8,781,050.13	592,784.45	1,072.91	RT85	
	8,781,093.43	592,842.47	1,073.44	RT86	
PAP NO./Line Grand Total					86

C. Rumphi –Bwengu Pipeline Route

LINE: Rumphi-Bwengu		y_proj	x_proj	altitude	Name
	Rumphi –Bwengu	8,779,848.44	598,526.14	1,047.26	RB1
	Rumphi –Bwengu	8,779,867.74	598,504.79	1,054.38	RB2
	Rumphi –Bwengu	8,779,906.52	598,479.34	1,057.37	RB3
	Rumphi –Bwengu	8,779,970.41	598,415.52	1,053.40	RB4
	Rumphi –Bwengu	8,779,974.22	598,398.81	1,053.20	RB5
	Rumphi –Bwengu	8,779,985.26	598,367.60	1,048.14	RB6
	Rumphi –Bwengu	8,780,018.43	598,297.13	1,044.86	RB7
	Rumphi –Bwengu	8,780,108.29	598,163.90	1,043.39	RB8

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

Rumphu –Bwengu	8,779,549.27	598,902.56	1,042.68	RB9
Rumphu –Bwengu	8,779,507.29	598,927.78	1,039.93	RB10
Rumphu –Bwengu	8,779,469.71	598,956.18	1,040.09	RB11
Rumphu –Bwengu	8,779,444.98	598,979.92	1,041.51	RB12
Rumphu –Bwengu	8,779,323.68	599,083.88	1,036.00	RB13
Rumphu –Bwengu	8,779,307.94	599,096.83	1,036.90	RB14
Rumphu –Bwengu	8,779,295.07	599,110.45	1,040.66	RB15
Rumphu –Bwengu	8,779,288.75	599,115.13	1,041.35	RB15
Rumphu –Bwengu	8,779,283.11	599,117.95	1,041.09	RB16
Rumphu –Bwengu	8,779,273.35	599,127.10	1,037.20	RB17
Rumphu –Bwengu	8,779,256.04	599,144.63	1,036.30	RB18
Rumphu –Bwengu	8,779,222.00	599,174.02	1,039.63	RB19
PAPNO./Line Grand Total				I9

D. Njakwa Pipeline

LINE: Njakwa	Village	ident	y_proj	x_proj	altitude	Name
VONGO	VONGO		8,778,394.54	586,480.29	1,117.79	NK1
VONGO	VONGO		8,778,524.78	586,487.62	1,116.44	NK2

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

VONGO		8,778,655.29	586,480.65	1,115.17	NK3
VONGO		8,778,785.13	586,473.89	1,113.93	NK4
VONGO		8,779,224.55	586,484.56	1,108.63	NK5
VONGO		8,779,315.90	586,480.10	1,107.39	NK6
VONGO		8,779,566.51	586,426.36	1,106.61	NK7
VONGO		8,779,593.51	586,419.55	1,105.56	NK8
VONGO		8,779,617.41	586,415.90	1,105.36	NK9
VONGO		8,779,724.92	586,404.17	1,103.66	NK10
VONGO		8,779,807.44	586,394.99	1,103.49	NK11
VONGO		8,779,859.52	586,398.08	1,103.37	NK12
VONGO		8,779,881.08	586,399.12	1,102.71	NK13
NJAKWA		8,779,117.03	599,255.64	1,057.53	NK14
NJAKWA		8,779,075.27	599,280.42	1,058.06	NK15
NJAKWA		8,778,894.34	599,247.97	1,050.45	NK16
NJAKWA		8,778,880.87	599,241.70	1,050.53	NK17
NJAKWA		8,778,527.35	599,125.60	1,044.53	NK18
NJAKWA		8,778,374.83	599,060.25	1,045.78	NK19
NJAKWA		8,778,291.67	599,022.74	1,045.25	NK20

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

PAPNO./Line Grand Total						20

E. Kacheche Pipeline

LINE: Kacheche Pipeline	Village	y_proj	x_proj	altitude	Name
	Phangazila	8,775,421.23	597,296.51	1,041.45	KC1
	Phangazila	8,775,393.40	597,281.68	1,042.27	KC2
	Phangazila	8,775,337.86	597,254.21	1,044.13	KC3
	Phangazila	8,775,275.36	597,224.75	1,045.01	KC4
	Makanjila	8,775,237.38	597,202.68	1,045.73	KC5
	Makanjila	8,775,196.31	597,181.26	1,046.77	KC6
	Makanjila	8,775,066.26	597,108.67	1,047.18	KC7
	Makanjila	8,774,849.19	596,882.36	1,050.49	KC8
	Makanjila	8,774,801.46	596,829.57	1,049.98	KC9
	Makanjila	8,774,776.56	596,801.21	1,048.35	KC10
	Makanjila	8,774,694.51	596,723.96	1,048.45	KC11
	Makanjila	8,774,674.97	596,713.19	1,048.50	KC12

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

	Makanjila	8,774,652.12	596,698.27	1,048.81	KCI3
	Makanjila	8,774,485.98	596,602.10	1,047.83	KCI4
	Makanjila	8,774,223.42	596,426.89	1,048.82	KCI5
	Makanjila	8,770,740.18	594,945.56	1,079.84	KCI6
	Makanjila	8,770,825.58	594,973.55	1,078.94	KCI7
	Makanjila	8,770,928.16	595,023.65	1,078.23	KCI8
	Makanjila	8,771,031.79	595,095.06	1,082.20	KCI9
	Makanjila	8,771,047.36	595,103.07	1,081.89	KC20
	Makanjila	8,771,068.65	595,122.36	1,083.52	KC21
	Makanjila	8,771,273.81	595,376.01	1,069.58	KC22
	Makanjila	8,771,409.59	595,644.64	1,054.36	KC23
	Makanjila	8,771,512.34	595,787.90	1,052.29	KC24
KACHECHE	Kacheche	8,771,673.62	595,959.30	1,073.54	KC25
	Kacheche	8,771,805.88	596,071.64	1,075.18	KC26
	Kacheche	8,771,995.18	596,416.02	1,067.04	KC27
	Kacheche	8,772,010.28	596,505.18	1,064.33	KC28
	Kacheche	8,772,121.56	596,868.12	1,055.01	KC29

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

	Kacheche	8,772,233.48	596,974.83	1,054.88	KC30
PAPNO./Line Grand Total					30

F. Enukweni –Phwezi Route

LINE: Enukweni-Phwenzi Line	Village	y_proj	x_proj	altitude	Name
THUMBI-PHWEZI	Thumbi-Phwezi	8,786,170.45	605,364.55	1,057.56	EPI
	Thumbi-Phwezi	8,786,287.99	605,404.59	1,050.47	EPI
	Thumbi-Phwezi	8,786,548.91	605,457.66	1,060.60	EP2
	Thumbi-Phwezi	8,786,642.85	605,474.68	1,066.02	EP3
	Mzumbwa	8,786,744.20	605,493.03	1,067.62	EP4
	Mzumbwa	8,786,914.41	605,523.41	1,071.53	EP5
	Mzumbwa	8,786,947.01	605,528.32	1,071.71	EP6

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

Mzumbwa	8,786,972.86	605,537.04	1,072.94	EP7
Mzumbwa	8,787,100.83	605,599.30	1,076.81	EP8
Chavunda	8,787,258.79	605,688.31	1,072.49	EP9
Chavunda	8,787,309.69	605,715.58	1,072.76	EP10
Chavunda	8,787,369.31	605,744.18	1,072.92	EP11
Chavunda	8,787,414.49	605,761.37	1,072.54	EP12
Chavunda	8,787,698.30	605,848.39	1,066.36	EP13
Chavunda	8,788,049.69	605,967.32	1,063.53	EP14
Mzokoto	8,793,863.52	612,566.57	1,032.23	EP14
Mzokoto	8,793,992.14	612,694.12	1,033.20	EP15
Mzokoto	8,794,017.53	612,707.97	1,033.30	EP16

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

Mzokoto	8,794,020.42	612,702.63	1,033.81	EP17
Mzokoto	8,794,023.62	612,704.72	1,034.06	EP18
Mzokoto	8,794,081.72	612,788.85	1,030.62	EP18
Mzokoto	8,794,084.36	612,793.02	1,029.90	EP18
Phwezi	8,796,493.34	614,299.45	1,010.30	EP18
Phwezi	8,796,498.56	614,258.91	1,009.89	EP19
Phwezi	8,796,410.54	614,130.07	1,009.88	EP20
Phwezi	8,796,415.75	614,028.00	1,009.10	EP20
Phwezi	8,796,414.72	614,005.37	1,009.14	EP20
Phwezi	8,796,391.59	613,980.26	1,009.93	EP20
Phwezi	8,796,303.69	613,910.22	1,008.88	EP20

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

Phwezi	8,796,283.27	613,867.74	1,008.83	EP20
Phwezi	8,796,289.26	613,797.37	1,011.85	EP20
Phwezi	8,796,292.64	613,745.68	1,011.20	EP21
GoyiGoyi	8,794,085.47	612,793.24	1,027.61	EP21
GoyiGoyi	8,794,102.84	612,821.93	1,027.67	EP22
GoyiGoyi	8,794,163.06	612,902.80	1,027.97	EP22
GoyiGoyi	8,794,163.06	612,902.80	1,027.97	EP23
GoyiGoyi	8,794,235.51	612,996.27	1,033.04	EP24
GoyiGoyi	8,780,741.96	602,521.94	1,058.78	EP25
GoyiGoyi	8,780,782.46	602,582.48	1,059.81	EP26
GoyiGoyi	8,780,944.44	602,802.69	1,058.18	EP27

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

GoyiGoyi	8,781,016.56	602,902.44	1,063.23	EP28
GoyiGoyi	8,781,062.81	602,964.31	1,066.81	EP29
GoyiGoyi	8,781,095.72	603,013.80	1,069.41	EP30
GoyiGoyi	8,781,134.60	603,064.18	1,071.27	EP31
GoyiGoyi	8,783,066.51	605,883.06	1,109.23	EP32
GoyiGoyi	8,783,215.05	605,840.61	1,105.89	EP33
GoyiGoyi	8,783,280.91	605,822.35	1,104.59	EP34
GoyiGoyi	8,783,521.89	605,748.62	1,097.17	EP35
GoyiGoyi	8,783,663.07	605,691.06	1,098.62	EP36
GoyiGoyi	8,783,711.47	605,670.24	1,099.92	EP37
GoyiGoyi	8,783,763.96	605,648.55	1,098.75	EP38

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

	GoyiGoyi	8,783,888.10	605,595.09	1,096.38	EP39
	GoyiGoyi	8,783,997.57	605,563.32	1,092.91	EP40
	GoyiGoyi	8,784,062.76	605,578.71	1,092.02	EP41
	GoyiGoyi	8,784,133.44	605,609.75	1,092.27	EP42
	GoyiGoyi	8,784,428.77	605,553.56	1,089.11	EP43
	GoyiGoyi	8,784,771.94	605,548.22	1,087.01	EP43
	GoyiGoyi	8,776,642.33	600,386.76	1,052.51	EP44
	GoyiGoyi	8,776,643.31	600,426.31	1,053.67	EP45
	GoyiGoyi	8,776,651.13	600,473.41	1,054.35	EP46
	GoyiGoyi	8,776,671.99	600,521.87	1,054.41	EP47
	MZIMBA	597,059.73	8,772,319.26	1,049.10	EP48

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

	MZIMBA	597,150.43	8,771,970.32	1,047.69	EP49
	MZIMBA	597,151.91	8,771,956.16	1,048.83	EP50
	MZIMBA	597,154.29	8,771,799.34	1,053.27	EP51
	MZIMBA	597,154.04	8,771,790.72	1,054.75	EP52
	MZIMBA	598,275.01	8,774,310.45	1,036.82	EP53
	MZIMBA	598,302.20	8,774,341.11	1,039.87	EP54
	MZIMBA	598,336.85	8,774,387.89	1,035.36	EP55
	MZIMBA	598,445.75	8,774,533.09	1,037.96	EP56
	MZIMBA	598,454.84	8,774,541.91	1,036.80	EP57
	MZIMBA	598,467.35	8,774,560.56	1,036.09	EP58
	MZIMBA	598,487.58	8,774,565.59	1,037.91	EP59

RAP for Rumpfi Water Supply and Sanitation Service Improvement Project

MZIMBA	598,521.11	8,774,602.64	1,036.58	EP60
MZIMBA	598,565.18	8,774,655.81	1,035.70	EP61
MZIMBA	598,601.21	8,774,687.88	1,036.49	EP62
MZIMBA	598,633.74	8,774,717.53	1,037.84	EP63
MZIMBA	598,658.07	8,774,744.44	1,037.48	EP64
MZIMBA	598,701.35	8,774,789.32	1,038.69	EP65
MZIMBA	598,731.62	8,774,826.94	1,040.77	EP66
MZIMBA	598,788.44	8,774,872.44	1,039.99	EP67
MZIMBA	598,861.53	8,774,950.29	1,039.15	EP68
MZIMBA	598,938.71	8,775,042.39	1,043.17	EP69
MZIMBA	598,988.12	8,775,092.67	1,040.10	EP70

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

MZIMBA	599,217.43	8,775,283.28	1,035.19	EP71
MZIMBA	599,410.30	8,775,417.83	1,044.36	EP72
MZIMBA	599,445.36	8,775,489.60	1,036.65	EP73
MZIMBA	599,463.81	8,775,520.07	1,037.97	EP74
RUMPHI	606,211.73	8,788,513.04	1,049.75	EP75
RUMPHI	606,233.94	8,788,557.75	1,048.48	EP76
RUMPHI	606,341.76	8,788,750.60	1,046.10	EP77
RUMPHI	606,388.73	8,788,843.89	1,049.95	EP78
RUMPHI	606,470.48	8,789,050.53	1,046.10	EP79
RUMPHI	606,510.78	8,789,212.63	1,044.44	EP80
RUMPHI	606,790.50	8,789,845.50	1,040.82	EP81

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

RUMPHI	606,827.08	8,789,902.55	1,041.10	EP82
RUMPHI	611,693.58	8,793,136.38	1,044.51	EP83
RUMPHI	611,835.47	8,793,241.84	1,042.20	EP84
RUMPHI	612,002.61	8,793,378.96	1,039.69	EP85
RUMPHI	612,054.03	8,793,427.22	1,040.95	EP86
RUMPHI	612,131.30	8,793,492.31	1,044.58	EP87
RUMPHI	612,173.05	8,793,523.03	1,044.02	EP88
RUMPHI	612,268.77	8,793,614.16	1,038.43	EP89
RUMPHI	612,327.65	8,793,669.58	1,040.24	EP90
RUMPHI	612,367.65	8,793,703.51	1,035.53	EP91
RUMPHI	612,392.53	8,793,721.56	1,041.58	EP92

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

RUMPHI	612,439.63	8,793,754.69	1,035.85	EP93
RUMPHI	612,493.78	8,793,801.06	1,029.18	EP94
RUMPHI	612,563.29	8,793,864.74	1,030.84	EP95
RUMPHI	612,367.65	8,793,703.51	1,035.53	EP96
RUMPHI	612,392.53	8,793,721.56	1,041.58	EP97
RUMPHI	612,439.63	8,793,754.69	1,035.85	EP98
RUMPHI	563,577.76	8,779,959.41	1,181.50	EP99
RUMPHI	563,569.85	8,780,046.45	1,181.58	EPI00
RUMPHI	563,563.01	8,780,126.52	1,179.04	EPI01
RUMPHI	563,559.38	8,780,169.98	1,180.19	EPI02
RUMPHI	563,750.33	8,783,707.17	1,210.79	EPI03

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

RUMPHI	563,740.80	8,783,805.93	1,211.17	EPI04
RUMPHI	563,731.03	8,783,952.80	1,213.29	EPI05
RUMPHI	563,728.98	8,783,965.85	1,213.05	EPI06
RUMPHI	563,680.03	8,784,130.15	1,219.18	EPI06
RUMPHI	563,641.27	8,784,196.24	1,217.11	EPI07
RUMPHI	563,580.05	8,784,292.56	1,220.37	EPI08
RUMPHI	563,456.20	8,784,595.89	1,224.99	EPI09
RUMPHI	563,434.74	8,784,738.90	1,221.87	EPI10
RUMPHI	563,431.10	8,784,778.28	1,220.65	EPI11
RUMPHI	563,423.18	8,784,861.00	1,219.92	EPI12
RUMPHI	563,414.45	8,784,924.60	1,217.48	EPI13

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

RUMPHI	563,333.15	8,785,197.88	1,226.04	EPI14
RUMPHI	563,331.36	8,785,233.05	1,223.63	EPI15
RUMPHI	563,322.08	8,785,292.44	1,226.44	EPI16
RUMPHI	563,289.85	8,785,351.44	1,231.13	EPI17
RUMPHI	563,798.08	8,793,013.48	1,389.39	EPI18
RUMPHI	563,805.72	8,793,292.23	1,388.08	EPI19
RUMPHI	563,783.14	8,793,428.94	1,380.64	EPI20
RUMPHI	563,764.57	8,793,544.09	1,382.56	EPI21
RUMPHI	563,724.23	8,793,709.59	1,385.97	EPI22
RUMPHI	563,770.40	8,794,134.66	1,395.62	EPI23
RUMPHI	563,759.63	8,794,384.47	1,391.36	EPI24

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

RUMPHI	571,327.27	8,788,514.30	1,171.17	EPI25
RUMPHI	571,351.55	8,788,575.39	1,164.92	EPI26
RUMPHI	571,383.85	8,788,655.05	1,165.63	EPI27
RUMPHI	571,379.57	8,788,799.58	1,163.00	EPI28
RUMPHI	571,446.19	8,788,934.23	1,161.18	EPI29
RUMPHI	571,517.34	8,788,994.56	1,163.00	EPI30
RUMPHI	571,796.59	8,789,376.00	1,313.95	EPI31
RUMPHI	570,132.98	8,789,381.46	1,183.85	EPI32
RUMPHI	570,164.43	8,789,372.55	1,180.88	EPI33
RUMPHI	570,191.81	8,789,350.49	1,179.89	EPI34
RUMPHI	570,266.42	8,789,291.06	1,178.22	EPI35

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

RUMPHI	570,279.40	8,789,278.98	1,177.57	EPI36
RUMPHI	570,260.21	8,789,296.71	1,180.25	EPI37
RUMPHI	570,342.15	8,789,241.03	1,177.92	EPI38
RUMPHI	570,394.94	8,789,196.46	1,177.64	EPI39
RUMPHI	570,413.49	8,789,184.37	1,175.36	EPI40
RUMPHI	570,434.43	8,789,164.86	1,173.86	EPI41
RUMPHI	570,502.63	8,789,120.93	1,176.79	EPI42
RUMPHI	570,616.96	8,789,035.76	1,174.50	EPI43
RUMPHI	570,683.16	8,788,978.56	1,173.84	EPI44
RUMPHI	570,730.93	8,788,936.11	1,173.95	EPI45
RUMPHI	570,782.17	8,788,884.03	1,172.62	EPI46

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

RUMPHI	570,817.83	8,788,851.33	1,173.98	EPI47
RUMPHI	570,857.65	8,788,820.28	1,172.73	EPI48
RUMPHI	570,893.19	8,788,784.05	1,171.68	EPI49
RUMPHI	570,987.97	8,788,705.89	1,174.64	EPI50
RUMPHI	571,246.06	8,788,552.62	1,179.56	EPI51
RUMPHI	571,285.13	8,788,532.41	1,177.59	EPI52
RUMPHI	571,325.20	8,788,516.84	1,177.08	EPI53
RUMPHI	571,378.38	8,788,503.02	1,175.45	EPI54
RUMPHI	571,405.67	8,788,491.79	1,171.02	EPI55
RUMPHI	571,445.75	8,788,480.20	1,172.84	EPI56
RUMPHI	583,396.48	8,783,718.61	1,082.73	EPI57

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

RUMPHI	583,460.78	8,783,655.63	1,083.78	EPI58
RUMPHI	583,474.83	8,783,638.57	1,083.40	EPI59
RUMPHI	583,510.34	8,783,596.35	1,080.05	EPI60
RUMPHI	583,521.54	8,783,578.41	1,081.33	EPI61
RUMPHI	583,605.87	8,783,487.18	1,077.86	EPI62
RUMPHI	583,670.80	8,783,411.93	1,080.28	EPI63
RUMPHI	583,772.32	8,783,294.68	1,082.44	EPI64
RUMPHI	593,135.11	8,781,234.58	1,065.11	EPI65
RUMPHI	593,115.66	8,781,234.31	1,063.45	EPI66
RUMPHI	593,005.37	8,781,249.77	1,068.02	EPI67
RUMPHI	594,475.39	8,781,586.27	1,069.58	EPI68

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

RUMPHI	594,242.12	8,781,539.72	1,076.75	EPI69
RUMPHI	594,521.20	8,781,563.47	1,069.19	EPI70
RUMPHI	594,536.05	8,781,557.56	1,066.49	EPI71
RUMPHI	594,503.26	8,781,553.12	1,064.00	EPI72
RUMPHI	594,534.66	8,781,530.58	1,059.29	EPI73
RUMPHI	594,543.15	8,781,519.83	1,054.38	EPI74
RUMPHI	594,566.08	8,781,480.29	1,061.36	EPI75
RUMPHI	594,736.48	8,781,203.56	1,074.76	EPI76
RUMPHI	589,492.85	8,781,564.00	1,072.58	EPI77
RUMPHI	589,792.44	8,781,536.86	1,067.53	EPI78
RUMPHI	589,869.33	8,781,528.13	1,071.79	EPI79

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

RUMPHI	590,107.87	8,781,510.33	1,072.14	EPI80
RUMPHI	590,147.52	8,781,507.79	1,073.26	EPI81
RUMPHI	590,133.87	8,781,509.71	1,077.93	EPI82
RUMPHI	590,302.30	8,781,495.98	1,078.90	EPI83
RUMPHI	591,249.45	8,781,411.30	1,075.70	EPI84
RUMPHI	593,164.96	8,781,207.41	1,071.36	EPI85
RUMPHI	593,242.21	8,781,210.61	1,070.74	EPI86
RUMPHI	593,245.94	8,781,214.47	1,068.33	EPI87
RUMPHI	593,272.83	8,781,221.69	1,074.91	EPI88
RUMPHI	593,374.45	8,781,266.19	1,071.08	EPI89
RUMPHI	593,446.54	8,781,301.70	1,078.70	EPI90

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

RUMPHI	593,487.76	8,781,312.98	1,080.34	EP191
MZIMBA	588,786.01	8,780,151.47	1,076.19	EP192
MZIMBA	589,050.37	8,780,107.51	1,076.21	EP193
MZIMBA	589,464.17	8,780,063.81	1,077.33	EP194
MZIMBA	589,814.26	8,779,892.66	1,076.62	EP195
MZIMBA	589,904.34	8,779,877.71	1,077.74	EP196
MZIMBA	590,102.31	8,779,847.64	1,075.59	EP197
MZIMBA	599,016.48	8,778,280.08	1,030.11	EP198
MZIMBA	599,003.04	8,778,241.30	1,046.86	EP199
MZIMBA	598,985.47	8,778,211.39	1,044.51	EP200
MZIMBA	598,961.67	8,778,179.50	1,044.61	EP201

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

MZIMBA	598,939.27	8,778,143.19	1,043.30	EP202
MZIMBA	598,866.98	8,778,043.77	1,039.79	EP203
MZIMBA	598,849.32	8,778,018.83	1,041.26	EP204
MZIMBA	598,825.50	8,777,981.42	1,040.57	EP204
MZIMBA	598,795.47	8,777,911.95	1,040.54	EP205
MZIMBA	598,745.32	8,777,800.52	1,043.07	EP206
MZIMBA	598,715.52	8,777,735.48	1,041.38	EP207
MZIMBA	598,707.77	8,777,702.32	1,045.13	EP208
MZIMBA	598,615.62	8,777,464.29	1,049.57	EP209
MZIMBA	598,591.75	8,777,408.85	1,049.28	EP210
MZIMBA	598,569.89	8,777,367.67	1,048.87	EP211

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

MZIMBA	598,561.87	8,777,351.88	1,046.71	EP212
MZIMBA	598,532.42	8,777,296.34	1,044.37	EP213
MZIMBA	598,482.01	8,777,205.26	1,046.56	EP214
MZIMBA	598,359.50	8,777,040.53	1,046.81	EP215
MZIMBA	598,319.17	8,776,997.75	1,047.65	EP216
MZIMBA	598,238.21	8,776,883.20	1,047.68	EP217
MZIMBA	598,238.21	8,776,883.20	1,047.68	EP218
MZIMBA	598,105.91	8,776,732.99	1,045.47	EP219
MZIMBA	595,760.54	8,773,046.12	1,058.76	EP220
MZIMBA	595,724.31	8,772,983.19	1,060.90	EP221
MZIMBA	595,714.84	8,772,959.44	1,064.00	EP222

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

MZIMBA	595,701.33	8,772,932.06	1,063.25	EP223
MZIMBA	595,645.51	8,772,817.88	1,069.41	EP224
MZIMBA	595,623.32	8,772,775.92	1,068.20	EP225
MZIMBA	595,531.58	8,772,590.85	1,059.54	EP226
MZIMBA	595,504.08	8,772,524.91	1,060.25	EP227
MZIMBA	595,432.26	8,772,352.06	1,060.27	EP228
MZIMBA	595,379.64	8,772,212.33	1,058.25	EP229
MZIMBA	595,313.65	8,772,056.15	1,059.03	EP230
MZIMBA	595,311.10	8,772,043.45	1,061.57	EP231
MZIMBA	595,301.31	8,772,018.26	1,061.43	EP232
MZIMBA	595,253.31	8,771,890.57	1,067.76	EP233

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

MZIMBA	595,248.87	8,771,866.47	1,068.67	EP234
MZIMBA	595,245.14	8,771,857.64	1,068.09	EP235
MZIMBA	595,225.15	8,771,820.32	1,069.27	EP236
RUMPHI	595,210.99	8,771,759.54	1,071.37	EP236
RUMPHI	614,370.00	8,796,595.00	1,014.00	EP237
RUMPHI	614,375.00	8,796,600.00	1,014.00	EP238
RUMPHI	614,402.00	8,796,641.00	1,015.00	EP239
MZIMBA	590,382.58	8,781,490.23	1,079.01	EP240
MZIMBA	590,869.98	8,781,429.05	1,080.15	EP241
MZIMBA	595,311.10	8,772,043.45	1,061.57	EP242
MZIMBA	595,225.15	8,771,820.32	1,069.27	EP243

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

MZIMBA	595,210.99	8,771,759.54	1,071.37	EP244
MZIMBA	595,195.61	8,771,727.18	1,068.36	EP245
MZIMBA	602,263.18	8,780,303.63	1,045.79	EP246
MZIMBA	602,291.27	8,780,413.02	1,046.52	EP247
MZIMBA	602,303.14	8,780,433.22	1,047.79	EP248
MZIMBA	602,309.99	8,780,459.41	1,048.80	EP249
MZIMBA	602,347.91	8,780,672.17	1,049.87	EP250
MZIMBA	602,356.71	8,780,727.21	1,047.78	EP251
MZIMBA	602,368.30	8,780,797.95	1,045.62	EP252
MZIMBA	602,370.49	8,780,834.77	1,046.51	EP253
MZIMBA	602,377.99	8,780,894.46	1,046.74	EP254

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

	MZIMBA	602,383.25	8,780,934.48	1,045.11	EP254
	MZIMBA	602,384.78	8,780,968.86	1,045.72	EP255
	MZIMBA	602,392.73	8,781,029.77	1,043.81	EP255
	JOMBO	8,767,944.66	596,905.00	1,092.39	EP256
	JOMBO	8,767,975.50	596,910.44	1,094.35	EP257
	JOMBO	8,768,021.25	596,919.10	1,091.47	EP258
	JOMBO	8,768,035.17	596,925.47	1,094.53	EP259
	JOMBO	8,768,069.31	596,935.40	1,095.07	EP260
	JOMBO	8,768,104.55	596,948.61	1,095.22	EP261
	JOMBO	8,768,119.03	596,948.55	1,093.83	EP262
	JOMBO	8,768,190.43	596,960.88	1,097.02	EP263

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

	JOMBO	8,768,289.71	596,971.44	1,101.42	EP264
	JOMBO	8,768,310.71	596,975.77	1,102.76	EP265
	JOMBO	8,768,318.66	596,976.99	1,100.21	EP266
	JOMBO	8,768,332.14	596,981.18	1,101.09	EP267
	ZANDA MZIYA	8,770,781.46	596,988.62	1,056.17	EP268
	ZANDA MZIYA	8,770,869.58	596,993.91	1,052.85	EP269
	ZANDA MZIYA	8,771,000.54	596,986.65	1,050.83	EP270
	ZANDA MZIYA	8,771,177.02	596,990.02	1,053.55	EP271
	ZANDA MZIYA	8,771,232.86	596,993.46	1,055.38	EP272
	ZANDA MZIYA	8,771,293.98	597,002.06	1,050.79	EP273
	ZANDA MZIYA	8,777,631.34	600,477.96	1,033.53	EP274

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

	ZANDA MZIYA	8,777,664.36	600,494.99	1,035.51	EP275
	ZANDA MZIYA	8,777,720.56	600,522.48	1,035.34	EP276
	ZANDA MZIYA	8,777,756.99	600,541.60	1,036.54	EP277
	ZANDA MZIYA	8,777,929.48	600,622.64	1,037.72	EP278
	ZANDA MZIYA	8,778,030.84	600,671.89	1,039.45	EP279
	ZANDA MZIYA	8,778,390.90	600,852.70	1,033.92	EP280
	ZANDA MZIYA	8,778,603.65	600,965.76	1,034.52	EP281
	ZANDA MZIYA	8,778,814.43	601,071.18	1,039.01	EP282
	ZANDA MZIYA	8,778,947.37	601,138.01	1,041.31	EP283
	ZANDA MZIYA	8,779,027.53	601,180.42	1,038.46	EP284
	ZANDA MZIYA	8,779,086.35	601,217.86	1,038.17	EP285

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

	ZANDA MZIYA	8,779,107.32	601,231.58	1,040.51	EP286
	ZANDA MZIYA	8,779,189.29	601,295.52	1,041.52	EP287
	ZANDA MZIYA	8,779,205.61	601,310.43	1,042.92	EP288
	ZANDA MZIYA	8,784,450.60	604,468.77	1,059.86	EP289
	ZANDA MZIYA	8,784,463.92	604,487.83	1,058.77	EP290
	ZANDA MZIYA	8,784,698.19	604,784.24	1,065.86	EP291
	ZANDA MZIYA	8,784,724.53	604,812.73	1,069.10	EP292
	ZANDA MZIYA	8,784,786.06	604,868.98	1,069.02	EP293
	ZANDA MZIYA	8,785,030.63	605,021.96	1,075.12	EP294
	ZANDA MZIYA	8,785,063.52	605,041.95	1,076.47	EP295
	ZANDA MZIYA	8,785,105.27	605,059.02	1,075.86	EP296

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

	ZANDA MZIYA	8,785,334.50	605,167.05	1,074.90	EP297
	ZANDA MZIYA	8,785,362.11	605,178.51	1,078.12	EP298
	ZANDA MZIYA	8,785,425.16	605,209.08	1,081.92	EP299
	ZANDA MZIYA	8,785,451.44	605,218.78	1,082.58	EP300
	ZANDA MZIYA	8,785,667.95	605,294.76	1,078.80	EP301
	ZANDA MZIYA	8,785,721.66	605,306.19	1,077.58	EP302
	ZANDA MZIYA	8,785,856.04	605,334.59	1,069.84	EP303
	ZANDA MZIYA	8,785,983.02	605,359.25	1,062.72	EP304
	ENUKWENI -BWENGU	ENUKWENI - BWENGU	8,768,651.94	596,985.20	1,094.81
ENUKWENI - BWENGU		8,768,851.87	596,987.43	1,092.12	EP306
ENUKWENI - BWENGU		8,768,893.00	596,988.00	1,091.00	EP307

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

	ENUKWENI - BWENGU	8,768,982.03	596,986.51	1,089.61	EP308
	ENUKWENI - BWENGU	8,769,045.28	596,988.01	1,087.34	EP309
	ENUKWENI - BWENGU	8,769,470.47	596,993.76	1,073.89	EP310
	ENUKWENI - BWENGU	8,769,509.41	596,988.09	1,074.58	EP311
	ENUKWENI - BWENGU	8,769,590.80	596,986.81	1,076.20	EP312
	ENUKWENI - BWENGU	8,769,680.03	596,992.86	1,070.35	EP313
	ENUKWENI - BWENGU	8,769,747.38	596,990.55	1,070.79	EP314
	ENUKWENI - BWENGU	8,769,825.12	596,989.80	1,068.52	EP315
	ENUKWENI - BWENGU	8,769,894.36	596,984.88	1,066.48	EP316
	ENUKWENI - BWENGU	8,769,966.25	596,983.12	1,063.45	EP317
	ENUKWENI - BWENGU	8,771,291.88	597,002.49	1,049.40	EP318

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

	ENUKWENI - BWENGU	8,771,394.54	597,028.79	1,053.36	EP319
	ENUKWENI - BWENGU	8,771,412.54	597,033.97	1,053.76	EP320
	ENUKWENI - BWENGU	8,771,431.22	597,039.38	1,052.80	EP321
	ENUKWENI - BWENGU	8,771,438.95	597,041.59	1,053.35	EP322
	ENUKWENI - BWENGU	8,771,454.75	597,047.53	1,056.63	EP323
	ENUKWENI - BWENGU	8,767,567.17	596,853.09	1,074.34	EP324
	ENUKWENI - BWENGU	8,767,417.63	596,826.32	1,066.73	EP325
	ENUKWENI - BWENGU	8,767,356.07	596,814.35	1,069.10	EP326
	BWENGU- THUMBI	8,779,245.66	601,373.80	961.14	EP327
BWENGU- THUMBI	BWENGU- THUMBI	8,779,324.86	601,403.11	1,034.37	EP328
	BWENGU- THUMBI	8,779,327.73	601,405.41	1,035.96	EP329

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

BWENGU-THUMBI	8,779,401.05	601,475.99	1,037.71	EP330
BWENGU-THUMBI	8,779,658.24	601,878.48	1,032.07	EP331
BWENGU-THUMBI	8,779,821.32	602,030.08	1,045.61	EP332
BWENGU-THUMBI	8,779,907.05	602,091.85	1,048.83	EP333
BWENGU-THUMBI	8,779,913.67	602,096.89	1,048.13	EP334
BWENGU-THUMBI	8,780,007.76	602,138.37	1,038.34	EP335
BWENGU-THUMBI	8,780,030.04	602,156.25	1,043.94	EP336
BWENGU-THUMBI	8,780,073.34	602,172.12	1,054.09	EP337
BWENGU-THUMBI	8,780,152.80	602,189.73	1,052.49	EP338
BWENGU-THUMBI	8,780,203.19	602,202.56	1,049.71	EP339
BWENGU-THUMBI	8,780,204.95	602,204.54	1,050.39	EP340

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

	BWENGU-THUMBI	8,780,269.82	602,217.63	1,046.34	EP341
	BWENGU-THUMBI	8,780,309.95	602,222.56	1,046.66	EP342
	BWENGU-THUMBI	8,780,339.57	602,228.55	1,049.78	EP343
	BWENGU-THUMBI	8,780,385.74	602,245.74	1,041.95	EP344
	BWENGU-THUMBI	8,780,418.42	602,262.89	1,047.39	EP345
	BWENGU-THUMBI	8,780,452.82	602,260.48	1,043.01	EP346
	BWENGU-THUMBI	8,783,661.16	603,553.52	1,048.11	EP347
	BWENGU-THUMBI	8,783,607.73	603,487.90	1,045.65	EP348
	BWENGU-THUMBI	8,783,574.76	603,456.66	1,044.43	EP349
THUMBI-PHWEZI	THUMBI-PHWEZI	8,783,759.72	603,719.14	1,048.69	EP350
	THUMBI-PHWEZI	8,783,769.20	603,729.55	1,050.86	EP351

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

THUMBI-PHWEZI	8,783,868.06	603,870.36	1,049.29	EP352
THUMBI-PHWEZI	8,783,961.39	603,976.31	1,048.69	EP353
THUMBI-PHWEZI	8,784,070.37	604,064.29	1,050.11	EP256
THUMBI-PHWEZI	8,784,162.01	604,145.65	1,048.40	EP354
THUMBI-PHWEZI	8,784,164.43	604,147.51	1,051.05	EP355
THUMBI-PHWEZI	8,784,251.68	604,252.57	1,058.26	EP356
THUMBI-PHWEZI	8,784,291.02	604,298.04	1,065.25	EP357
THUMBI-PHWEZI	8,784,326.06	604,337.16	1,064.20	EP358
THUMBI-PHWEZI	8,793,031.59	611,285.13	1,048.97	EP359
THUMBI-PHWEZI	8,793,039.59	611,307.67	1,046.12	EP360
THUMBI-PHWEZI	8,793,044.04	611,330.42	1,043.34	EP361

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

	THUMBI-PHWEZI	8,793,046.71	611,359.28	1,044.83	EP362
	THUMBI-PHWEZI	8,793,049.31	611,374.81	1,035.35	EP363
	THUMBI-PHWEZI	8,793,057.32	611,427.95	1,043.13	EP364
	THUMBI-PHWEZI	8,793,069.10	611,475.64	1,044.64	EP365
	THUMBI-PHWEZI	8,793,080.22	611,523.22	1,046.88	EP366
	THUMBI-PHWEZI	8,796,298.41	613,740.02	1,008.37	EP367
	THUMBI-PHWEZI	8,796,215.13	613,581.46	1,003.61	EP368
THUMBI TANK LINE	THUMBI TANK LINE	8,781,601.99	603,710.78	1,061.40	EP369
	THUMBI TANK LINE	8,781,692.19	603,827.85	1,069.05	EP370
	THUMBI TANK LINE	8,781,759.42	603,900.39	1,068.57	EP371
	THUMBI TANK LINE	8,781,949.36	604,056.13	1,075.84	EP372

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

THUMBI TANK LINE	8,782,038.03	604,129.18	1,077.01	EP373
THUMBI TANK LINE	8,782,152.89	604,283.04	1,080.39	EP374
THUMBI TANK LINE	8,782,186.61	604,355.26	1,078.50	EP375
THUMBI TANK LINE	8,782,232.91	604,468.59	1,083.28	EP376
THUMBI TANK LINE	8,782,268.61	604,578.61	1,079.73	EP377
THUMBI TANK LINE	8,782,270.82	604,649.53	1,082.94	EP378
THUMBI TANK LINE	8,782,274.18	604,671.83	1,084.00	EP379
THUMBI TANK LINE	8,782,272.17	604,885.08	1,090.47	EP380
THUMBI TANK LINE	8,784,444.02	605,558.85	1,080.38	EP381
THUMBI TANK LINE	8,785,165.27	605,520.85	1,078.68	EP382
THUMBI TANK LINE	8,785,232.09	605,514.84	1,078.34	EP383

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

	THUMBI TANK LINE	8,785,428.76	605,497.88	1,078.86	EP384
	THUMBI TANK LINE	8,785,669.49	605,435.83	1,081.44	EP385
	THUMBI TANK LINE	8,785,702.17	605,415.83	1,079.75	EP386
	THUMBI TANK LINE	8,785,721.50	605,391.41	1,076.97	EP387
	THUMBI TANK LINE	8,785,740.83	605,326.79	1,074.07	EP388
	THUMBI TANK LINE	8,785,750.31	605,303.00	1,075.39	EP389
	THUMBI TANK LINE	8,776,483.19	601,141.62	1,069.71	EP390
	THUMBI TANK LINE	8,776,476.28	601,157.44	1,066.10	EP391
	THUMBI TANK LINE	8,776,433.28	601,258.67	1,070.38	EP392
	THUMBI TANK LINE	8,776,398.89	601,365.84	1,071.17	EP393
	THUMBI TANK LINE	8,776,372.64	601,450.08	1,071.27	EP394

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

LUZI-THUMBI-THUMBI	LUZI	8,782,787.67	602,948.76	1,042.35	EP395
	LUZI	8,782,777.30	602,939.00	1,041.52	EP396
	LUZI	8,782,730.99	602,897.23	1,041.47	EP397
	LUZI	8,782,630.48	602,823.39	1,043.22	EP398
	LUZI	8,782,527.41	602,753.91	1,043.13	EP399
	LUZI	8,782,461.84	602,715.57	1,042.04	EP400
	THUMBI	8,782,347.38	602,645.29	1,041.16	EP401
	THUMBI	8,782,274.29	602,608.24	1,042.50	EP402
	THUMBI	8,782,220.61	602,588.85	1,043.56	EP403
	THUMBI	8,782,039.50	602,543.70	1,040.51	EP404
	THUMBI	8,781,945.14	602,516.97	1,041.87	EP405

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

	THUMBI	8,781,341.78	602,414.57	1,040.53	EP406
	LUZI NDOMO	8,783,013.86	605,919.71	1,106.93	EP407
	LUZI NDOMO	8,782,850.81	605,966.06	1,106.82	EP408
	LUZI NDOMO	8,782,661.40	606,096.33	1,115.96	EP409
	LUZI NDOMO	8,782,636.21	606,123.89	1,116.89	EP410
	LUZI NDOMO	8,782,489.76	606,269.82	1,118.48	EP411
	BWENGU	8,782,354.95	606,375.36	1,060.82	EP412
	BWENGU	8,776,709.91	600,632.31	1,061.14	EP413
	BWENGU	8,776,613.30	600,833.66	1,064.31	EP414
	BWENGU	8,776,607.49	600,854.29	1,064.86	EP415
	BWENGU	8,776,583.75	600,913.20	1,064.21	EP416

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

	BWENGU	8,776,568.84	600,943.63	1,062.72	EP417
	BWENGU	8,776,548.09	601,002.44	1,065.43	EP418
	BWENGU	8,776,518.37	601,063.96	1,064.05	EP419
	THUMBI	8,783,005.90	603,039.58	987.45	EP420
	THUMBI	8,782,817.77	602,974.97	1,049.18	EP421
	THUMBI	8,782,837.29	602,992.62	1,047.19	EP422
	THUMBI	8,782,899.96	603,037.50	1,043.41	EP423
	THUMBI	8,783,044.32	603,129.51	1,036.17	EP424
	THUMBI	8,783,350.60	603,319.27	1,037.86	EP425
	THUMBI	8,783,414.85	603,353.56	1,041.39	EP426
	THUMBI	8,783,495.88	603,397.52	1,046.58	EP427

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

CHINYOLO-CHIVUNGULULU-PHWEZI-MZOKOTO-	CHINYOLO	8,790,923.07	608,411.17	1,055.42	EP428
	CHINYOLO	8,791,095.09	608,529.87	1,058.46	EP429
	CHINYOLO	8,791,201.46	608,635.35	1,058.13	EP430
	CHINYOLO	8,791,291.18	608,724.83	1,057.62	EP431
	CHINYOLO	8,791,443.27	608,884.45	1,058.64	EP432
	CHINYOLO	8,791,498.57	608,946.92	1,060.23	EP433
	CHINYOLO	8,791,562.52	609,006.15	1,057.91	EP434
	CHINYOLO	8,791,626.74	609,081.44	1,056.58	EP435
	CHINYOLO	8,791,828.31	609,325.49	1,051.11	EP436
	CHINYOLO	8,791,915.69	609,420.75	1,058.48	EP437
	CHINYOLO	8,791,967.84	609,469.23	1,060.37	EP438

RAP for Rumphu Water Supply and Sanitation Service Improvement Project

	CHINYOLO	8,792,326.63	609,852.71	1,051.34	EP439
	CHIVUNGULU LU -PHWEZI	8,796,514.66	612,786.65	1,019.89	EP440
	CHIVUNGULU LU -PHWEZI	8,796,499.85	612,816.33	1,019.63	EP441
	Mzokoto	8,794,354.79	613,138.00	1,030.51	EP442
	Mzokoto	8,794,373.65	613,152.17	1,031.79	EP443
	Mzokoto	8,794,421.12	613,177.14	1,035.45	EP444
PAPNO./Line Grand Total					444

APPENDIX X INDICATORS FOR INTERNAL MONITORING.

Parameters	Indicators
Physical	Total number of PAPs affected
	No. of privately owned structures acquired by type of structures (residential, kitchens, storages, toilets, cattle-shed) by VH, GVH,
	No. of community infrastructures affected totally by the project segregated by type
	Number of trees by type
Financial (compensation/ establishment)	Amount of total compensation disbursed
	Number of PAPs who were paid compensation in cash/cheque/bank account
	Number of PAPs already having bank accounts and those yet to open
	Number of PAPs not paid/received compensation (disaggregated by gender) by type of reason – unwilling to open bank account
	Number of PAPs unwilling to accept compensation because of disagreement or other reasons.
	Amount of ‘One time’ compensation paid for land, structures, crops, trees and other assets
	Number of PAPs who could not be paid during compensation as they were out of Malawi
	Number of “joint” (husband and wife) bank accounts for payment of compensation amount
	Date of payments of compensation amounts into accounts by PA
	Total amount spent on Implementing Agencies (PA, RAP IA, Construction Contractor)
	Amount spent towards cost of Agency contracted for carrying Annual Audit
	Total cost on development of alternate site (leveling, cutting of shrubs, bushes, trees)

Parameters	Indicators
	Total cost of replacement slabs etc.
	Amount spent towards preparation of mass dissemination materials i.e. brochures, fact sheets radio programs
	Amount of cost for RAP implementation cost totally
	Number of meetings and FGDs held with communities
	Dates of payment of compensation payments
	Dates of issuance of expropriation order and date of vacating the land
	Type of issues raised, discussion points of each meeting and FGD
	Number of participants in such meetings by category (general and vulnerable)
	Number of FGDs held with female PAPs
	Number of participants by category of stakeholder at the RAP launch workshop
Institutional	Number of trainings provided to the committees (GRCs)
	Number of grievance committees with full staffing and functioning
	Number of members of each grievance committee disaggregated by gender
	Number of grievances received by type (verbal and written)
	Number of meetings held with the affected communities following receipt of grievances
	Number of visits by PAPs for redressal of grievances
	Number of visits by female PAPs for redressal of grievances
	Number of grievances resolved by number of attempts (first attempt/second attempt)
	Number of grievances resolved by 'level' (first level, second level and third level) of resolution

Parameters	Indicators
	Number of cases that have been referred to courts
Gender Specific Monitoring Indicators	
Process Indicators	<ul style="list-style-type: none"> • Number of women and men PAPs attended in the community consultation meetings • Number of men and women participated in Focus Group Discussions • Number of women and men attended in the disclosure consultation meetings and signed compensation agreements • Number of women members in the Grievance Redressal committees • Number of the Grievances redress committee members that attended gender sensitization trainings disaggregated by gender • Number of women and men issues reported in the grievances redress committees • Number of issues related to women reported to VSUs, WOLREC • Number of women issues resolved out of court procedures
Impact Indicators	<ul style="list-style-type: none"> • Number of women and men affected by the project • Number of women and men covered by social economic baseline survey • Number of women and men accessing education, • Number of women involved in different activities; • Number of men, women and children that will lose shelter, asset • Number of women and men lose access to social amenities water/ school, / health, /playground or markets.

Parameters	Indicators
	<ul style="list-style-type: none"> • Number of men and women affected negatively by the compensation money (how many marriage breaks ups, abandoned women/men/children, cases of GBV)? As reported to the VRGMC and DRGMC
Output Indicators	<ul style="list-style-type: none"> • Number of women and men compensated disaggregated by type of payment. • Number and types² of women and men compensated in cash / in kind • Number of women and men owning the compensation jointly and individually • Number of men and women opted and paid compensation through bank accounts. • Number of women and men owning bank accounts • Types of work opportunities availed to men as different from women • Number and types of employment for women and men in construction • Number of people employed disaggregated by gender”

APPENDIX XI: GRM RESOLUTION FORM



RWASSIP GRIEVANCE REDRESS MECHANISM



Name of the Subproject:
Contact Number

GRIEVANCE RESOLUTION AGREEMENT

RESPONDENT DETAILS	1. COMPLAINANT DETAILS
Full name	Full name
Address	Address
Phone No.	Phone No.
Email:	Email:
Date of complaint resolution	Location:
SUMMARY OF RESOLUTION	
<i>a) Brief description of the complaint</i>	
<i>b) Brief description of the resolution</i>	
SIGNATIURES	
Respondent signature	Complainant Signature
Name of respondent	Name of complainant
Date	Date
Designation	
Witness Signature	Witness Signature
Name of Respondent's witness	Name of complainant's witness
Date	Date

APPENDIX XII: GRM COMPLAINT FORM



RWASSIP GRIEVANCE REDRESS MECHANISM



Name of the Subproject:
Contact Number:

GRIEVANCE REPORTING

2. Complainant's information	3.	4.
Name and Titles (Dr/Mr/Ms/Mrs)	Address Contact Phone	Email: Location:
Please indicate how you prefer to be contact (email, mobile etc)		
2. Description of the problem:		
3. How Are you affected:		
a) What harm do you believe the project caused is likely to cause to you?		
b) Why do you believe that the alleged problem resulted from the project activities?		
c) Do you have any other supporting documents that you would like to share as proof of the alleged problem?		
4. Previous efforts to resolve the complaint		
Please relevant box.		
a) Have you raised your complaint with any other authorities? No. Yes.		
i. If YES (please, provide the following details: When?		
ii. How and with whom was it raised?		
iii. Please describe any response received from and /or any action was taken by the project-level grievance mechanism committee. Please also explain why the response or actions taken are not satisfactory.		
If No, why?		
i. How do you wish to see the complaint resolved?		
Name of the person recording the complaint:	Signature	Date

APPENDIX XIII: COMPENSATION SCHEDULE