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ABBREVIATED RESETTLEMENT ACTION PLAN REPORT

FOR

PROPOSED MAKOMBOKI, KIRURI & ICHICHI WATER SUPPLY PROJECT

FINAL REPORT

MAY 2018

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FACT SHEET

Project Name	Water and Sanitation Services Improvement Project Additional Financing (WaSSIP-AF) - Construction of community water supply projects neighbouring the northern collector water scheme.
Assignment Name	Abbreviated Resettlement Action Plan for the proposed water supply project.
Project description	The proposed water supply project entails the construction of a water distribution pipeline and storage tanks.
Client	Athi Water Services Board
Coverage	The project coverage involves the locations of Makomboki, Kangari, Kiruri and Ichichi.
Funding Agency	World Bank
Consultants	Kenface Enconsults (Africa) Ltd Box 14219-00100, Nairobi.
Start Date	October, 2017
Completion Date	December, 2018

ACKNOWLEDGEMENT

The consultant is grateful to the project proponent for commissioning us to conduct this Resettlement Action Plan (RAP) in respect of the proposed project. We would like to further acknowledge with great appreciation the people of Makomboki, Kiruri and Ichichi who participated in the public consultation process for their cooperation throughout the exercise.

The team further acknowledges the support from the Athi Water Services Board project officers who assisted the consultant with project information and their involvement in public consultation.

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ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
A-RAP	Abbreviated Resettlement Action Plan
EMCA	Environmental Management and Coordination Act
ESIA	Environmental and Social Impact Assessment
HHs	Households
HIV	Human Immunodeficiency Virus
IFC	International Finance Corporation
M&E	Monitoring and Evaluation
NCT	Northern Collector Tunnel
NEMA	National Environment Management Authority
NLC	National Land Commission
OP	(World Bank's) Operational Policy
PAPs	Project Affected People
RAP	Resettlement Action Plan
RLA	Registered Land Act
ToR	Terms of Reference
WB	World Bank

GLOSSARY OF TERMS

Affected Person (AP): includes any person, affected households (AHs), firms or private institutions who, on account of changes that result from the project will have their (i) standard of living adversely affected; (ii) right, title, or interest in any house, land (including residential, commercial, agricultural, forest, and/or grazing land), water resources, or any other moveable or fixed assets acquired, possessed, restricted, or otherwise adversely affected, in full or in part, permanently or temporarily; and/or (iii) business, occupation, place of work or residence, or habitat adversely affected, with physical or economic displacement.

Assistance: means support, rehabilitation and restoration measures extended in cash and/or kind over and above the compensation for lost assets.

Compensation: means payment in cash or kind for an asset to be acquired or affected by a project at replacement cost or at current market value.

Cut-off date: means the date of starting the census and assets inventory of persons affected by the project. Persons occupying the project area after the cut-off date are not eligible for compensation and/or resettlement assistance. Similarly, fixed assets (such as built structures, crops, fruit trees, and woodlots) established after the date of completion of the assets inventory, or an alternative mutually agreed on date, will not be compensated.

Displaced Person (DP): Displaced persons are those who are physically displaced (relocation, loss of residential land, or loss of shelter) and or economically displaced (loss of land, assets, access to assets, income sources, or means of livelihoods) as a result of (i) involuntary acquisition of land, or (ii) involuntary restrictions on land use or on access to legally designated parks and protected areas.

Encroachers: mean those people who move into the project area after the cut-off date and are therefore not eligible for compensation or other rehabilitation measures provided by the

project. The term also refers to those extending attached private land into public land or constructed structure on public land for only renting out.

Entitlement: means the range of measures comprising cash or kind compensation, relocation cost, income restoration assistance, transfer assistance, income substitution, and business restoration which are due to PAPs, depending on the type and degree /nature of their losses, to restore their social and economic base.

Household: A household includes all persons living and eating together (sharing the same kitchen and cooking food together as a single-family unit).

Inventory of losses: means the pre-appraisal inventory of assets as a preliminary record of affected or lost assets.

Non-titled/squatters: means those who have no recognizable rights or claims to the land that they are occupying and includes people using private or public land without permission, permit or grant i.e. those people without legal title to land and/or structures occupied or used by them.

Relocation: means displacement or physical moving of the displaced persons from the affected area to a new area/site and rebuilding homes, infrastructure, provision of assets, including productive land/employment and re-establishing income, livelihoods, living and social systems

Replacement cost: means the value of assets to replace the loss at current market price, or its nearest equivalent, and is the amount of cash or kind needed to replace an asset in its existing condition, without deduction of transaction costs or for any material salvaged.

Resettlement: means mitigation of all the impacts associated with land acquisition including restriction of access to, or use of land, acquisition of assets, or impacts on income generation as a result of land acquisition.

Structures: mean all buildings including primary and secondary structures including houses and ancillary buildings, commercial enterprises, living quarters, community facilities and infrastructures, shops, businesses, fences, and walls, tube wells, latrines etc.

Vulnerable Households: means households that are (i) headed by single women or women with dependents and low incomes; (ii) headed by elderly/ disabled people without means of support; (iii) headed by minors.

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EXECUTIVE SUMMARY

E1. Purpose

Athi Water Services Board (AWSB) contracted Kenface Enconsults (Africa) Ltd to undertake Abbreviated Resettlement Action Plan (A-RAP) for the proposed Makomboki, Kiruri & Ichichi water supply project. This A-RAP presents an inventory of PAPs, a register of the assets that are likely to be affected by the project and the proposed compensation package.

E2. Approach and Methodology

The Consultants adopted a systematic, integrated, participatory and collaborative approach to achieve the objectives of the study. Document reviews, field investigations, focus group discussions and key informant interviews were conducted, in addition to consultations with administrators (Chiefs and their Assistants) and community leaders.

The A-RAP examines all legal and regulatory frameworks and grievance redress procedures for the PAPs, socio-economic profiles in the project area, identified areas that would require resettlement and proposed relevant compensations and entitlements. The report also provides implementation framework, accountability, monitoring and evaluation mechanisms.

Some of the key components in the A-RAP included:

i) *Population*: this will give an indication of the people/populations affected during project implementation.

ii) *Public Consultations*: Consultations were conducted with the affected persons/communities where issues that arise during the project life cycle were discussed.

iii) *Project Impacts*: The project traversed a long stretch of land with considerable levels of mitigable impacts to the flora and fauna. Some impacts were socio-economic in nature especially during the construction phase. This would be addressed by interventions suggested in the ESIA report developed separately for the project.

iv) *Monitoring and Evaluation*: There will be need for continued monitoring and evaluation. This will ensure that issues that arise before and after project implementation are properly addressed.

v) *Community expectations*: All the community expectations and concerns as obtained during the public participation were documented and addressed.

E3. Project description

The proposed water projects are located in Murang'a County and consist of two independent projects: (1) Kiruri & Ichichi and (2) Makomboki water supply projects. The two projects are located in Kangema and Kigumo sub-counties of Murang'a County. The intake works are located upstream of the proposed Northern Collector Tunnel (NCT) Phase 1 project and are meant to serve residents living along the NCT1 project. This is part of AWSB strategy to address the water needs of the communities living along and downstream of the NCT Phase 1 project.

The Kiruri & Ichichi water supply project is meant to abstract water from a tributary of South Mathioya River (Manguyo stream) by construction of a diversion weir about 8.5 km inside Aberdare forest. The source of water for the small existing community water systems at Ichichi and Kiruri is not sufficient and sustainable for the target population of 25,789 in Kiruri, Ichichi and Kanyenyaini locations. The current situation informed the need to have a new water source which would provide sufficient pressure to command the highest point in the area. The Kiruri and Ichichi water system will have the following key components:

i. 1No. diversion weir and 2 No. intake chambers.
ii. DN 280 mm - 8.6 km long conveyance line inside the forest.
iii. DN 90- 200mm - 15.9 km long main pipelines.
iv. DN 63- 90mm - 15.2 km distribution pipelines.
v. 2No.-225m^3 masonry storage tanks.
vi. 8No. -10m^3 break pressure tanks.

The Makomboki water supply project involves the rehabilitation of the existing Gikakima Self Help Group Community Water Supply system which covers most parts of Makomboki location. The following works have been proposed;

i. Re construction of the existing intake – diversion weir and intake chamber i.e. demolishing the existing intake works and constructing another intake with minimal

interruption to the current water supply. The current intake is dilapidated and repairing the intake is economically and technically unfeasible.

ii. DN 90- 200mm – 9.4 km long main pipelines.

iii. DN 90- 110mm – 4.2 km long sub main pipelines.

iv. 2 No. -225 m^3 masonry storage tanks.

v. 1No. 150m^3 masonry storage tank.

vi. 1 No. -10m^3 break pressure tanks.

E4. Legal Framework of the A-RAP

This A-RAP and its entitlement matrix has been prepared in compliance with the applicable policy provisions of Kenyan Government and requirements of the World Bank's Safeguard Policy on Involuntary Resettlement. Relevant Kenya laws considered include: -

- Land Act, 2012
- Valuers' Act
- The New Constitution of Kenya
- The Land Acquisition Act Chapter 295

OP 4.12 of the World Bank requires that an A-RAP be prepared for all projects that anticipate land acquisition and displacement affecting shelter, livelihood and associated impacts for less than 200 persons.

E5. The Census, Cut-off date and Socio-Economic study

The valuation census and the socio-economic survey, including consultative meetings, of PAPs were undertaken in December 2017

The entitlement cut-off date was **20 December 2017** when census began and the time when the assessment of persons and their property in the area was carried out for the preparation of this RAP.

The socio-economic survey was done using a semi-structured household questionnaire structures to gather the baseline data of the PAPs on;

- ✓ Incomes and Expenditures,
- ✓ Occupational and Livelihood pattern
- ✓ water and sanitation,
- ✓ Education
- ✓ Health

The socio-economic characteristics of the PAPs that were interviewed is presented in chapter four of this report.

E6. Identification of Project Impacts

The RAP identified the project impacts as loss of land, loss of structure, loss of trees and loss of crops. A total of 15 PAPs were therefore identified. These impacts are defined briefly below and represent the findings obtained in the field.

Impact	Aspect
Loss of land	Loss of land use attributed to acquisition of land for water storage tanks and a small section of the pipeline. The total size of land to be acquired is 0.515Ha.
Loss of crops and trees	- Farm crops (maize, beans, Nappier grass) - Trees (Eucalyptus, cypress, wattle) - subsistence crops (nappier grass, beans and potatoes)
Loss of structures	Fodder structures, pit latrines, a shop and fences.

The Asset Register: An Asset register detailing the farms likely to be affected and the likely damage has been prepared as part of this A-RAP (See Appendix I). The project entitlements have been designed to cover compensation for lost assets and restoration or enhancement of the livelihoods of all categories of affected people.

E7. Public Consultation and Participation

The public consultations and participation was carried out during all stages of the project development, that is, feasibility study, project design, ESIA and RAP stages. Multiple groups of stakeholders were consulted i.e. the PAPs, KWS, KFS, WRMA, County government and entire community. Below are the major issues raised by the PAPs during the RAP consultation process.

Compensation: the PAPs requested to know if the compensation was one off payment or paid annually or monthly. (*Response*: Compensation is one off payment)

Land: Some PAPs indicated that land owner as per the title deed are grandparents who have passed away and wanted to know how succession issues will be handled. Also, PAPs wanted to know if the remaining land will be issued with a new title deed.

Response

- AWSB will facilitate land search and that will be the basis of compensation.
- The family members are encouraged to agree as a family and whoever they front as a PAP for compensation (agreement in written), he/she will be compensated and easement will be registered.
- New new title deed will be issued incase of land purchase

E8. Valuation and Compensation Methodology

Valuation for assets as outlined in this RAP involved field survey to collect data on the PAPs, land to be acquired/easement rights, structures, trees and crops affected, full replacement cost approach was used.

All affected persons irrespective of their status or whether they have formal titles, legal rights or not, will be eligible for some kind of assistance if they occupied the land before the entitlement cut-off date.

E9. RAP Implementation

The RAP implementation will be undertaken before commencement of works. The RAP anticipates that the project implementation will consist of three phases namely:

- constitution of the RAP implementation committee;
- A grievance resolution mechanism;
- A monitoring and evaluation mechanism.

E10. RAP implementation cost

The total cost for the implementation of the RAP is Kenya Shillings **Eight Million One Thirty-Three Thousand Four Hundred and Forty-Five Only (KES. 8,133,445.00**). The breakdown is provided in the table below.

Table I: Estimated Costs for RAP Implementation

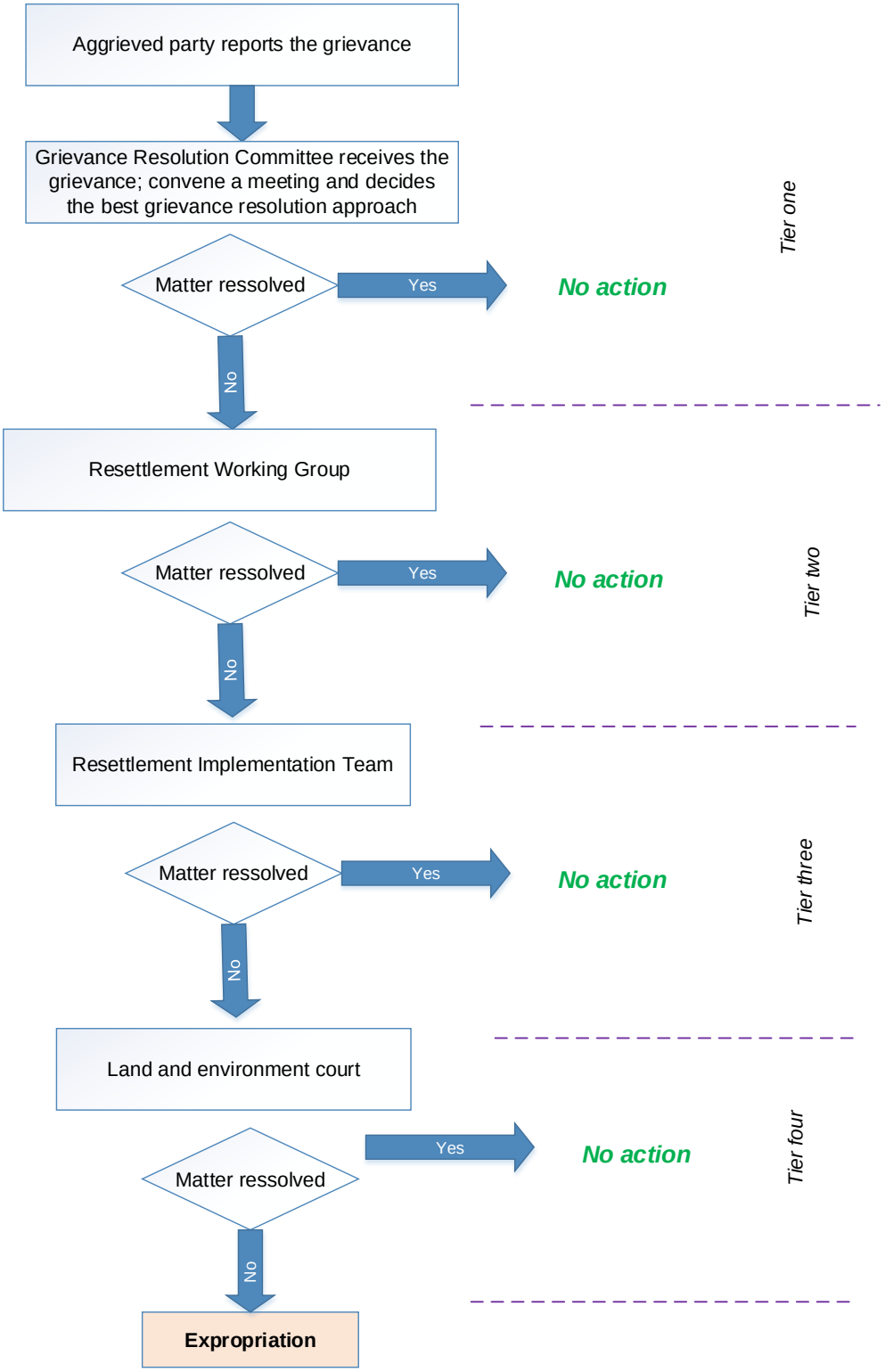
Description	Amount in KES
Compensation for loss of land, structures, trees and crops inclusive of 15% disturbance allowance.	5,096,138.00
Provisional cost for administrative and other Costs	2,650,000.00
Sub Total	**7,746,138.00**
Contingency 5% of total budget	387,307.00
Grand Total	**8,133,445.00**

E11. Grievance Redress Mechanism

Grievance management forms a critical part of any resettlement and compensation program. In this project, grievance management will be handled by a redress committee which includes representatives of the community members and local administration and government institutions representatives.

RAP also provides for a formalized grievance redress mechanism to help reduce any complaints and grievances of the PAPs and to enhance the acceptance of resettlement program through people participation and support.

This RAP will use the grievance resolution mechanisms as shown in the flow chart below.


Aggrieved party reports the grievance
Grievance Resolution Committee receives the grievance; convene a meeting and decides the best grievance resolution approach
Matter ressolved
Yes
No action
No
Tier one
Resettlement Working Group
Matter ressolved
Yes
No action
No
Tier two
Resettlement Implementation Team
Matter ressolved
Yes
No action
No
Tier three
Land and environment court
Matter ressolved
Yes
No action
No
Tier four
Expropriation

E12. RAP Monitoring

In order to guarantee that the compensation plan is smoothly performed and the interests of the affected persons are well taken care of, the implementation of the resettlement action plan will be under monitoring throughout the whole process. Monitoring will be divided into two parts, i.e. internal and external monitoring.

The internal monitoring will be performed by AWSB. The target of internal monitoring is to ensure that there is overall fairness and transparency while compensation process takes place and Resettlement Action Plan is performed based on legal rights. The main monitoring parameters would be compensation allocation schedule, payment and use of compensation fee, implementation of the policies and regulation specified in the resettlement plan and the whole course of implementation of the compensation.

External monitoring will be conducted through a contracted independent and qualified consultant. The consultant will visit the project area at least quarterly. The consultant will ensure that:

- Monies paid to households who have lost crops and other forms of livelihood production have received fair compensation
- Where land has been permanently acquired for the project, households affected have been afforded fair compensation.
- The grievances raised by stakeholders, notably PAPs, have been settled within the stipulated timeframe without delay including the effectiveness of the compensation delivery system.
- Review the results of internal monitoring and review overall compliance of RAP

The consultant must write its reports before the end of each visit and submit them to AWSB and the RAP committee.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Project

The Government of Kenya through Athi Water Services Board (AWSB) has initiated some water supply projects in Murang'a County. In particular, AWSB has initiated the **Proposed Makomboki, Kiruri and Ichichi Water Supply Project** to serve approximately 50,000 people in Gitwe-Kanderendu and Makomboki in Kigumo sub-county upstream of Thika Dam and in Ichichi, Karurumo and Kiruri communities in Kangema Sub-county along the tunnel in order to increase water supply in the area. The project is financed by the World Bank.

This project was conceived as a result of the Northern Collector Tunnel Phase 1 project which seeks to improve the living standards and increase water supply to communities living along the tunnel and its surrounding. The Northern Collector Tunnel (NCT) Phase 1 project involves construction of a new raw water transfer tunnel along the eastern fringe of the Aberdare forest. The tunnel project will transfer raw water from intakes at the Maragua, Gikigie and Irati to an outlet at the Githika River near Makomboki, upstream of the existing Thika reservoir. The works are aimed at supplying portable water to Nairobi City and its environs in line with the National Development Plan, Vision 2030 which prioritizes improvement of water services to Nairobi City and the surrounding areas.

1.2 Project location

The project coverage involves the locations of Makomboki, Kangari, Kiruri and Ichichi in Murang'a County.

1.3 Scope of the A-RAP

The project scope of the A-RAP study include:

- Identification of Project Affected Persons (PAPs);

- Identification of land parcels to be acquired for development of project infrastructure;
- Collection of qualitative and quantitative baseline socio-economic data of PAPs;
- Establishment of entitlements to PAPs;
- Collection of preferences for compensation;
- Development of the ARAP.

1.4 Justification for Abbreviated Resettlement Action Plan

The scope and level of detail of resettlement planning varies with circumstances, depending on the project's complexity and the magnitude of its effects. This project is envisaged to have minimal impact on the PAPs. This because only 15 PAPs will be affected where small sections of their land (0.04 ha) will be hived off for the construction of storage tanks. No physical relocation will be done.

As a minimum requirement, abbreviated resettlement action plan must ensure that the livelihoods of people affected by the project are restored to levels prevailing before inception of the project or to a better standard, thus OP 4.12 calls for the preparation of individual Resettlement Plan that must be consistent with the relevant Policy and Safeguard documents for this project.

1.5. Project justification

The water sector in Kenya has been undergoing radical transformation driven by the new national policy, which separates water resources management and development from water services delivery. This conforms to the Poverty Reduction Strategy Paper (PRSP), the Economic Strategy for Wealth and Employment Creation and it is backed up by the Water Act of 2002 now Water Act of 2016. The Poverty Reduction Strategy Paper (PRSP) recognizes that water is a basic need and an important catalyst for both economic and social development of the country. It states that "access to water for human consumption, agriculture, and livestock use is a major problem in rural areas.

The water supply situation in rural areas has deteriorated over the years to a point where demand cannot be sustained with current systems. Access to piped water has not increased since 1989 and those accessing other water sources have increased during the same period." The PRSP seeks to provide affordable safe water and sanitation to majority of the poor at reasonable distances.

This is expected to enhance efforts to meet the Sustainable Development Goals and realize the objectives of the Vision 2030. The country needs to provide water to an estimated 60% of the population (about 16 million people) who have no access to improved water sources, reduce uncounted for water that currently stands at over 50% and manage water provision in sustainable, business-like approach.

Provision of safe and adequate water is an effective and efficient intervention for fighting poverty, disease and social disparities. This intervention alone has positive impacts on all other Sustainable Development Goals (SDGs) and the attainment of the Vision 2030. Makomboki, Kiruri and Ichichi communities suffer from shortage of clean safe water for domestic use and the project will alleviate this.

In the project area, provision of clean safe water will reduce costs of health care and child - mortality by reducing water - related infections which will ultimately contribute to attainment of SDGs: Universal Primary Education by freeing time for children, especially the girls, and by improving their nutritional status. The project will promote gender equity and empower women by releasing the time they now spend fetching water and seeking medication. Young people will have more time for formal and informal education and this will contribute to combating HIV / AIDS, and in line with the Kenyan constitution and the vision 2030.

It is against this background that Athi Water Services Board has proposed the development of the water supply system to meet the water requirements for the entire area to enhance social-economic improvement leading to poverty reduction.

1.6 Approach and methodology

Our approach was characterized by careful and meaningful blending of time-tested international best practice as well as advice based on practical experiences, local realities and clients' needs. Throughout the consulting process, consultants emphasized and ensured ownership of processes and final outcomes by our client.

Given the sensitive nature of land transactions and in particular the compensation exercise, the Consultants involved and sought the help of community leaders during their field work. The social assessment team used both qualitative and quantitative techniques to collect data and information on the social and economic status of the communities within the proposed area. These included:

- A detailed desk study to establish and describe the socio-economic conditions;
- Key Informant Interviews and Semi-Structured Interviews were conducted with the Chiefs, Assistant Chiefs, opinion leaders and Village Elders;
- Open-ended questionnaires were administered to obtain views about the proposed project and its perceived impacts from households;
- Public Barazas which were organised and chaired by the Chiefs and Assistant Chiefs;
- Transect walk, was done to establish the biophysical nature of the project area and to meet the stakeholders;
- A check list of the information to collect from each category of the persons to be interviewed guided the collection of data throughout the field exercise; and,
- Photography- cameras were used to take photographs of public participation meetings, PAPs and affected assets (trees, crops, houses etc.).

The data was analyzed both manually and electronically, both at the field work stage as it was collected and at the end of the field work.

CHAPTER TWO: LEGAL AND INSTITUTIONAL FRAMEWORK

This chapter looks at the various legislations that relate to land acquisition and resettlement in Kenya. This A-RAP will apply the laws, legislation, regulations, and local rules governing the use of land and other assets in Kenya, as well as the standards of the World Bank's operational policy OP4.12 on Involuntary Resettlement (and, in case of any discrepancy between the two sets of standards, those most advantageous to the PAPs will prevail). Kenya's relevant legal and institutional framework is presented in four sections:

I. Laws on Property and land rights, as defined by Kenyan law and customary practice;
II. Expropriation/acquisition of land and compensation of land and other assets,
III. Grievance Resolution Mechanism, specifically the legal and institutional arrangements for filing grievances or complaints and how those grievances are addressed through formal and informal systems of dispute resolution; and
IV. Comparison between national legislation and World Bank OP4.12, using equivalence and acceptability standards.

2.1. Laws of Kenya

2.1.1. Overview

The **Constitution of Kenya (CoK), 2010** currently in force, replaced the 1969 constitution. The new Kenya Constitution has a comprehensive Bill of Rights in **Chapter Four (4)** and a well elaborated **Chapter Five (5)** on Land and Environment. These two chapters provide constitutional basis for land ownership, expropriation and protection of rights to land. Land in Kenya is classified as public, community or private. Prior to the new Constitution, there were over 70 pieces of legislations, Acts and subsidiary law governing land and land matters. Under the new Constitution they are being consolidated and rationalised to four pieces of legislation as follows: -

- National Land Act, – discusses Land issues in general and establishes mechanisms for Land acquisition;
- Land and Environmental Court – this establishes a court to deal with all disputes;
- Land Registration Act; and
- The Community Land Act.

Article 60 (1) states that "*Land in Kenya shall be held, used and managed in a manner that is equitable, efficient, productive and sustainable, and in accordance to the following principles:*

a) Equitable access to land;
b) Security of land rights;
c) Sustainable and productive management of land resources;
d) Transparent and cost effective administration of land;
e) Sound conservation and protection of ecological sensitive areas;
f) Elimination of gender discrimination in law, customs and practices related to land and property in land; and
g) Encouragement of communities to settle land disputes through the recognized local community initiatives consistent with this Constitution.

The State is permitted to regulate the use of any land, or any interest in or right over any land in the interest of defence, public safety, public order, public morality, public health, or land use planning.

According to **Article 61 (1),** all land in Kenya belongs to the people of Kenya collectively as a nation, as communities and as individuals.

Land is classified as public land, community land or private land and each category is defined in the subsequent articles. Public land is defined to include all minerals and mineral oils; government forests, government game reserves, water catchment areas, national parks, government animal sanctuaries and specially protected areas, gazetted roads and thoroughfares, all rivers, lakes and other water bodies as defined by law; the territorial sea, continental shelf, exclusive economic zone and the sea bed, all land between the high and low water marks, any land not classified as community or private land under the Constitution- such public land shall vest and be held in trust by the national government in trust for the people of Kenya and shall be administered by the National Land Commission.

Community land includes land that is "*lawfully held, managed or used by specific communities as community forest, grazing areas or shrines*," and *"ancestral lands and lands traditionally occupied by hunter-gatherer communities."* Rights are also held through traditional African systems, and rights that derive from the English system introduced and maintained through

laws enacted by colonial and then the national parliament. The former is loosely known as customary tenure bound through traditional rules (customary law). The latter body of law is referred to as statutory tenure, secured and expressed through national law, in various Act of parliament e.g. **Land Act 2012, Land Registration Act, 2012, Trust Land Act (cap 288)** of the Laws of Kenya.

The right to property is protected in **Article 40 (1)** Subject to Article 65; "*every person has the right, either individually or in association with others, to acquire and own property of any description; and in any part of Kenya".*

The following land tenure systems exist in Kenya.

Customary Land Tenure

This refers to unwritten land ownership practices by certain communities under customary law. Kenya being a diverse country in terms of its ethnic composition has multiple customary tenure systems, which vary mainly due to different agricultural practices, climatic conditions and cultural practices. However most customary tenure systems exhibit a number of similar characteristics as follows: First, individuals or groups by virtue of their membership in some social unit of production or political community have guaranteed rights of access to land and other natural resources. Individuals or families thus claim property rights by virtue of their affiliation to the group.

Freehold Tenure

This tenure confers the greatest interest in land called absolute right of ownership or possession of land for an indefinite period of time, or in perpetuity. Freehold land is governed by the **Land Registration Act, 2012**. The Act provides that the registration of a person as the proprietor of the land vests in that person the absolute ownership of that land together with all rights, privileges relating thereto. A freehold title generally has no restriction as to the use and occupation but in practice there are conditional freeholds, which restrict the use for say agricultural or ranching purposes only. Land individualization was demanded by the colonial settlers who required legal guarantee for the private ownership of land without which they were reluctant to invest.

Leasehold Tenure

Leasehold is an interest in land for a definite term of years and is granted by a freeholder usually subject to the payment of a fee or rent and is subject also to certain conditions which must be observed e.g. relating to developments and usage. Leases are also granted by the government for government land, the local authorities for trust land and by individuals or organizations owning freehold land. The maximum term of government leases granted in Kenya is 99 years for agricultural land and urban plots. There are few cases of 33 years leases granted by government in respect of urban trust lands. The local authorities have granted leases for 50 and 30 years as appropriate.

Public Tenure

This is where land owned by the Government for its own purpose and which includes unutilized or un-alienated government land reserved for future use by the Government itself or available to the general public for various uses. The land is administered under the **Land Act 2012**. These lands were vested in the president and who has, normally exercised this power through the Commissioner of Lands, to allocate or make grants of any estates, interests or rights in or over un-alienated government land. However the new constitution grants those rights to the **National Land Commission (NLC)** which is governed by the National Land Commission Act, 2012 that specifies the role of NLC.

The **Land Act 2012**, Part III, Section 27 recognizes the capacity of a child as being capable of holding title to land. However, this can only happen through a trustee and such a child shall be in the same position as an adult with regard to child's liability and obligation to the land.

2.2.2. The Matrimonial Property Act 2013

The Matrimonial Property Act 2013 sets out the law and procedures for creation and division of a marital estate. It also stipulates how and by whom matrimonial property should be managed as well as how it should be divided at the end of a marriage.

Under section 6 of the Act, Matrimonial Property is described as the matrimonial home, household goods and effects in the matrimonial home, immovable property owned by either spouse, which provides basic sustenance for the family and any other property acquired

during the subsistence of the marriage which the spouses expressly or impliedly agree to be matrimonial property.

Under section 3 (2) of the act, the parties to a marriage have equal rights and obligations at the time of the marriage and at the dissolution of it. Matrimonial property shall be deemed to vest in the spouses in equal shares regardless of the contribution of either of them towards the acquisition thereof.

Section 12(1) provides that no estate or interest in any matrimonial property shall be alienated in any manner without the prior consent of both spouses and that neither spouse shall be liable to be evicted from' the matrimonial homes except in accordance with a court order.

The provisions of this Act are relevant to the recognition of the role of both spouses in the decisions connected to matrimonial property to be affected by the project, and especially compensation payment on the same.

Relevance

The Act is triggered and relevant because the information gathered from the socioeconomic survey and census shows that majority of the PAPs are male-headed families with the title deeds in the name of the husband yet women do the farming and own the crops. There is thus a great potential for household conflict in relation to who is entitled to receive the compensation offered by the project for land, crops trees or both. This Act offers legal and institutional guidance on handling these matters in case of any conflicts.

It is worth noting that during disclosure of valuation report, the families had no conflict emanating from compensation entitlement.

2.2.3 The Constitution of Kenya, 2010

GoK protects the sanctity of private property rights and affirms that the Government cannot compulsorily acquire any property except in accordance with law. Article 40(3) states:

"The State shall not deprive a person of property of any description, or of any interest in, or right over, property of any description, unless the deprivation results from an acquisition of

land or an interest in land or a conversion of an interest in land, or title to land, in accordance with Chapter Five; or is for a public purpose or in the public interest and is carried out in accordance with this Constitution and any Act of Parliament that –

(i) Requires prompt payment in full, of just compensation to the person; and

(ii) Allows any person who has an interest in or right over, that property a right of access to a court of law.

The Constitution empowers the state to exercise the authority of compulsory acquisition. **Land Act 2012** (LA) designates the **National Land Commission (NLC)** as the agency empowered to compulsorily acquire land. Article 40 of the Constitution provides that the state may deprive owners of property only if the deprivation is *"for a public purpose or in the public interest*," which includes public buildings, roads, wayleaves, drainage, irrigation canals among others. The state's exercise of this power is left at the discretion of National Land Commission, and requires the state to make full and prompt payment of *"just compensation*" and an opportunity for appeal to court.

Article 40 (3) (a) refers to acquisition and conversion of all kinds of land in Kenya (private, public, community land and foreign interests in land). The Constitution further provides that payment of compensation shall be made to "*occupants in good faith*" of land acquired by the state who do not hold title for such land [Article 40 (4)]. An occupant in good faith is a "*bona fide"* occupant. On the other hand, under the Constitution, those who have acquired land illegally are not regarded as deserving any compensation [Article 40 (6)].

2.2.4 The Land Act, 2012

The Land Act is the Kenya's framework legislation regulating compulsory acquisition of land (i.e. land, houses, easements etc.). The Land Act was adopted on 2nd May 2012 and provides for sustainable administration and management of land and land based resources including compulsory acquisition.

Section 107 (1) provides for the power of entry to inspect land**. Sub-section (1)** states that whenever the national or county government is satisfied that it may be necessary to acquire some particular land under section 110, the respective Cabinet Secretary or the County

Executive Committee Member shall submit a request for acquisition of public land to the Commission to acquire the land on its behalf. **Sub-section (2)** requires that the Commission prescribe a criteria and guidelines to be adhered to by the acquiring authorities in the acquisition of land.

Sub-section(5) stipulates that upon approval of a request under sub-section (1), the Commission shall publish a notice to that effect in the Gazette and the county Gazette, and shall deliver a copy of the notice to the Registrar and every person who appears to the Commission to be interested in the land.

Sub-section (8) states that all land to be compulsorily acquired shall be geo-referenced and authenticated by the office or authority responsible for survey at both the national and county government

Under **Section 108 (1)** The Commission may authorize, in writing, any person, to enter upon any land specified in a notice published under section 107 and inspect the land and to do all things that may be reasonably necessary to ascertain whether the land is suitable for the intended purpose.

Section 109 provides payment for damage for inspection. As soon as practicable after entry has been made under section 108, the Commission shall promptly pay in full, just compensation for any damage resulting from the entry.

Section 110 (1) stipulates that land may be acquired compulsorily under this Part if the Commission certifies, in writing, that the land is required for public purposes or in the public interest as related to and necessary for fulfillment of the stated public purpose.

Section 111 (1) states that if land is acquired compulsorily under this Act, just compensation shall be paid promptly in full to all persons whose interests in the land have been determined. Under Subsection (2), The Commission shall make rules to regulate the assessment of just compensation.

Section 112 (1) requires that at least thirty days after publishing the notice of intention to acquire land, the Commission shall appoint a date for an inquiry to hear issues of propriety

and claims for compensation by persons interested in the land, and shall

(a) Cause notice of the inquiry to be published in the Gazette or county Gazette at least fifteen days before the inquiry; and

(b) Serve a copy of the notice on every person who appears to the Commission to be interested or who claims to be interested in the land.

Section 113 (1) requires that upon the conclusion of the inquiry, the Commission shall prepare a written award, in which the Commission shall make a separate award of compensation for every person whom the Commission has determined to have an interest in the land. Every award shall be filed in the office of the Commission (Subsection 4).

Part III of the Land Act 2012, section 113 (2a) states that "*the Commission shall determine the value of land with conclusive evidence of (i) the size of land to be acquired; (ii) the value, in the opinion of the Commission, of the land; (iii) the amount of compensation payable, whether the owners of land have or have not appeared at the inquiry.*"

Market value of the property, which is determined at the date of the publication of the acquisition notice must be taken into account when determining compensation. Determination of the value has to take into consideration the conditions of the title and the regulations that classify the land use e.g. agricultural, residential, commercial or industrial. Increased market value is disregarded when:

- It is accrued by improvements made within two years before the date of the publication of the acquisition notice, unless it is proved that such improvement was made in good faith and not in contemplation of the proceedings for compulsory acquisition. It is accrued by land use contrary to the law or detrimental to the health of the occupiers of the premises or public health.

- Any damages sustained or likely to be sustained by reason of severing such land from other land owned by the claimant.

- Any damage sustained or likely to be sustained if the acquisition of the land had negative effects on other property owned by the claimant.

- Reasonable expenses, if as a consequence of the acquisition, the claimant was compelled to change his residence or place of business (i.e., compensation for disruption to the claimant's life).
- Any damage from loss of profits over the land occurring between the date of the publication of the acquisition notice and the date the NLC takes possession of the land.

Section 114 (2) stipulates that upon acquisition of land, and prior to taking possession of the land, the Commission may agree with the person who owned that land that instead of receiving an award, the person shall receive a grant of land, not exceeding in value the amount of compensation which the Commission considers would have been awarded, and upon the conclusion of the agreement that person shall be deemed to have conclusively been awarded and to have received all the compensation to which that person is entitled in respect of the interest in that land.

Section 115 stipulates that upon the conclusion of the inquiry, and once the NLC has determined the amount of compensation, NLC will prepare and serve a written award of compensation to each legitimate claimant. NLC will publish these awards which will be considered "final and conclusive evidence" of the area of the land to be acquired, the value of the land and the amount payable as compensation. Land Act, Section 115 further stipulates that an award shall not be invalidated by reason only of a discrepancy between the area specified in the award and the actual area of the land. Compensation cannot include attorney's fees, costs of obtaining advice, and costs incurred in preparing and submitting written claims.

A notice of award and offer of compensation shall be served to each person by the Commission. **Section 120** provides that "*first offer compensation shall be paid promptly*" to all persons interested in land. Section 119 provides a different condition and states that the NLC "as soon as practicable" will pay such compensation. Where such amount is not paid on or before the taking of the land, the NLC must pay interest on the awarded amount at the market rate yearly, calculated from the date the State takes possession until the date of the payment.

In cases of dispute, the Commission may at any time pay the amount of the compensation into a special compensation account held by the Commission, notifying the owner of the land accordingly. If the amount of any compensation awarded is not paid, the Commission shall on or before the taking of possession of the land, open a special account into which the Commission shall pay interest on the amount awarded at the rate prevailing bank rates from the time of taking possession until the time of payment.

Once the first offer payment has been awarded, the NLC will serve notice to landowners on the property indicating the date the Government will take possession. Upon taking possession of land, the commission shall ensure payment of just compensation in full. When this has been done, NLC removes the ownership of private land from the register of private ownership and the land is vested in the national or county Government as public land free from any encumbrances (Section 115 & 116).

On the other side, the Commission also has the power to obtain temporary occupation of land. However, the commission shall as soon as is practicable, before taking possession, pay full and just compensation to all persons interested in the land.

In cases of where there is an urgent necessity for the acquisition of land, and it would be contrary to the public interest for the acquisition to be delayed by following the normal procedures of compulsory acquisition under this Act, the Commission may take possession of uncultivated or pasture or arable land upon the expiration of fifteen days from the date of publication of the notice of intention to acquire. On the expiration of that time NLC shall, notwithstanding that no award has been made, take possession of that land. If the documents evidencing title to the land acquired have not been previously delivered, the Commission shall, in writing, require the person having possession of the documents of title to deliver them to the Registrar, and thereupon that person shall forthwith deliver the documents to the Registrar. On receipt of the documents of title, the Registrar shall — cancel the title documents if the whole of the land comprised in the documents has been acquired; if only part of the land comprised in the documents has been acquired, the Registrar shall register the resultant parcels and cause to be issued, to the parties, title documents in respect of the

resultant parcels. If the documents are not forthcoming, the Registrar will cause an entry to be made in the register recording the acquisition of the land under this Act.

Part IX of the Land Act provides for settlement programs. Under **Section 134 (1),** The Commission shall, on behalf of the national and county governments, implement settlement programmes to provide access to land for shelter and livelihood.

Subsection (2) stipulates that settlement programmes shall, include, but not be limited to provision of access to land to squatters, persons displaced by natural causes, development projects, conservation, internal conflicts or other such causes that may lead to movement and displacement.

2.2.5. Land Laws (Amendment) Act, 2016

Section 44(b) (2) (b) of this act states that:

(2) The Commission shall establish and maintain a register containing-…….

(b) the names and addresses of all persons whose land has converted to public through compulsory acquisition or reversion of leasehold…….

These provisions once enacted will be critical in management of public land acquired for establishment of infrastructure as they would provide a record of publicly acquired land.

2.2.6. Valuers' Act, Chapter 532

Under The Valuers' Act, Chapter 532, Compensation awards will be made by the National Land Commission based on land valuation determined by registered Valuers. Besides, the Valuers Act establishes the Valuers Registration Board, which regulates the activities and practice of registered Valuers. All Valuers must be registered with the Board to practice in Kenya. The Board shall keep and maintain the names of registered Valuers which shall include the date of entry in the register, the address of the person registered the qualification of the person and any other relevant particular that the Board may find necessary.

Relevance

Valuation of the affected assets was done by a registered valuer. This Act regulates the activities and practice of all registered Valuers.

2.2.7. Physical Planning Act

The Physical Planning Act deals with matters relating to preparation of all land use plans, physical development plans and subdivisions. The powers of expropriation of land are vested in the Minister for Lands while the planning and surveys are vested in the Director of Lands and the Surveyor General respectively. The introduction of a devolved system of Government gives the function of county planning to the County while "General principles of land planning and the coordination of planning by counties" remains a national function.

2.2.8. The Prevention, Protection and Assistance to Internally Displaced Persons and Affected Communities Act, 2012

An Act of Parliament to make provision for the prevention, protection and provision of assistance to internally displaced persons and affected communities and give effect to the Great Lakes Protocol on the Protection and Assistance to Internally Displaced Persons, and the United Nations Guiding Principles on Internal Displacement and for connected purpose.

Section 3 of the Act state that 'displacement and relocation due to development projects shall only be lawful if justified by compelling and overriding public interests and in accordance with the conditions and procedures in Article 5 of the Protocol, Principles 7-9 of the Guiding Principles and as specified in sections 21-22 of this Act.

Displacement and relocation which come about due to development projects or projects to preserve the environment should be:

- Authorized and carried out in accordance with the applicable law;
- Justified by compelling and overriding public interests in the particular case; and
- Conducted when no feasible alternatives exist.

Relevance

This Act will provide direction should the project in the any unlikely event begin to consider

expropriation. The Act protect PAPs against displacement and relocation which come about due to development projects.

2.2.9. The Land and Environment Court Act 2011

This is an Act of Parliament to give effect to Article 162 (2) (b) of the Constitution; to establish a superior court to hear and determine disputes relating to the environment and the use and occupation of, and title to, land, and to make provision for its jurisdiction functions and powers, and for connected purposes.

The principal objective of this Act is to enable the Court to facilitate the just, expeditious, proportionate and accessible resolution of disputes governed by this Act.

Section 13 (2) (b) of the Act outlines that in exercise of its jurisdiction under Article 162 (2) (b) of the Constitution, the Court shall have power to hear and determine disputes relating to environment and land, including disputes:

- Relating to environmental planning and protection, trade, climate issues, land use planning, title, tenure, boundaries, rates, rents, valuations, mining, minerals and other natural resources;
- Relating to compulsory acquisition of land;
- Relating to land administration and management;
- Relating to public, private and community land and contracts, chooses in action or other instruments granting any enforceable interests in land; and
- Any other dispute relating to environment and land.

Section 24 (2) also states that the Chief Justice shall make rules to regulate the practice and procedure, in tribunals and subordinate courts, for matters relating to land and environment.

Relevance:

The grievance mechanism developed in this RAP has the Land and Environment Court as a last resort dispute resolution institution. In case of any disputes relating to compensation if not resolved at the project level can be forwarded to the Land and Environment Court.

2.2.10. The National Land Commissions Act 2012

This is an Act of Parliament to make further provision as to the functions and powers of the National Land Commission, qualifications, and procedures for appointments to the commission; to give effect to the objects and principles of devolved government in land management and administration, and for connected purposes.

Compulsory Acquisition in Kenya is also to be handled by the National Lands Commission.

Other mandates of the Commission include management of public land on behalf of the national and county governments.

The Act also mandates the Commission to ensure that public land and land under the management of designated state agencies are sustainably managed for their intended purpose and for future generations.

Thirdly, the Act empowers the Commission to administer all unregistered trust land and unregistered community land on behalf of the county government.

Relevance

This Act will be triggered since it gives mandate the national lands commission to acquire land on behalf of the government of Kenya or its agencies for construction of public projects.

2.1.11. The Children Act, 2001 and the revisions of 2010 and 2012

Part II of this Act contains the safeguards for the rights and welfare of the child. Section 4 states that any party shall treat the interests of the child as the first and paramount consideration to the extent that this is consistent with adopting a course of action calculated to—

(a) safeguard and promote the rights and welfare of the child;

(b) conserve and promote the welfare of the child;

(c) secure for the child such guidance and correction as is necessary for the welfare of the child and in the public interest.

(4) In any matters of procedure affecting a child, the child shall be accorded an opportunity to express his opinion, and that opinion shall be taken into account as may be appropriate taking into account the child's age and the degree of maturity.

Section 10. Protection from child labour and armed conflict: Every child shall be protected from economic exploitation and any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development.

Relevance

This Act will be triggered especially when the RAP process affect the wellbeing of the children. During socio-economic study, there was 1 PAP who had children below 18yrs. The rights of these children will be observed throughout the RAP process as per the Act.

2.2 World Bank Policy OP 4.12 (Involuntary Resettlement)

The World Bank policy on involuntary resettlement emphasizes that any development project should avoid or minimize involuntary resettlement and where this is not feasible, it should compensate for lost assets at full replacement cost and assist the displaced persons in improving or at least restoring their livelihoods and standards of living in real terms relative to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.

The **World Bank OP 4.12, Annex A (Paragraphs 17-31),** describes the scope (level of detail) and the elements that a resettlement plan should include.

WB OP 4.12.(6a) demands that the resettlement plan includes measures to ensure that displaced persons are (i) informed about their options and rights, (ii) consulted on, offered choices among others and provided with technically and economically feasible resettlement alternatives, and (iii) provided prompt and effective compensation at full replacement costs.

WB OP 4.12 (8) requires that particular attention should be paid to the needs of vulnerable groups among those displaced such as those below the poverty line, landless, elderly; women and children and indigenous peoples and ethnic minorities.

WB OP4.12 (12a) states that for households depending on land for their livelihoods preference should be given to land based solutions; however, payment of cash compensation for lost assets may be appropriate where livelihoods are land-based but the land taken for the project is a small fraction (less than 20%) of the affected asset and the residual is economically viable.

WB OP4.12 Para (6 b & c) state that in case of physical relocation, displaced persons should be (i) provided with assistance (such as moving allowances) during relocation; and (ii) provided with residential housing, or housing sites, or, as required, agricultural sites for which a combination of productive potential, location advantages, and other factors is at least equivalent to the advantages of the old site.

WB.OP 4.12 (13 a) stipulates that any displaced persons and their communities and any host communities receiving them should be provided with timely and relevant information, consulted on resettlement options and offered opportunities to participate in planning, implementing and monitoring resettlement.

In addition displaced persons should be offered support after displacement, for a transition period, based on a reasonable estimate of the time likely to be needed to restore their livelihood and standards of living; and provided with development assistance in addition to compensation measures such as land preparation, credit facilities, training, or job opportunities.

WB OP 4.12 Para 13 (a) requires that appropriate and accessible grievance mechanisms are established to sort out any issues arising.

2.4 Comparison between the Kenyan Legislations and World Bank OP 4.12

There are a number of differences between the Kenyan laws and World Bank Safeguard policies, such as:

- The World Bank OP 4.12 favors avoidance or minimization of involuntary resettlement while the Kenyan laws say that, as long as a project is for public interest, involuntary resettlement is considered to be inevitable.

- WB OP 4.12 stipulates that Displaced persons should be assisted in improving livelihoods or at least restoring them to previous levels. Kenyan legislation (Land Act) provides for 'just and fair compensation. However, 'just and fair compensation' is not clear and can only be determined by NLC which can be subjective. It is does not talk about improving livelihood or restoring them to pre-project status.

A comparison of the Kenyan laws and WB requirements regarding compensation is given in Table 2.1.

Table 2.1: Comparison of Kenyan and World Bank Policies on Resettlement and Compensation

Category of PAPs/ Type of Lost Assets	Kenyan Law	World Bank OP4.12	Comment
Land Owners (loss of land)	The Land Act 2012 provides that written and unwritten official or customary land rights are recognized as valid land right. The Law provides that people eligible for compensation are those holding land tenure rights Land Act 2012 provides for census through NLC inspection and valuation process Fair and just compensation which could be in form of cash compensation or Land for Land.	Identification of PAPs is done through census and socio-economic surveys of the affected population, PAPs with title as well as PAPs who do not have a formal title but have customary and traditional right are recognized or who have a recognized claim to the land at the time the census begins – are entitled to compensation for land that they lose (besides other assistance – see below) Land-for-land exchange is the preferred option; compensation is to be based on replacement cost.	Although the Kenyan law provides for land for land compensation, it does not state explicitly whether preference should be granted to land for land compensation.
Land Squatters (i.e. those who have no recognizable legal right or claim to the land that they are occupying)	The constitution recognizes 'occupants of land even if they do not have titles' and payment made in good faith to those occupants of land. However, this does not include those who illegally acquired land	Must be compensated for houses and other structures whatever the legal recognition of their occupancy (see below). Entitled to compensation for loss of crops and assistance for relocation as the case may be, and assistance for restoration of livelihood (see below)	WB OP.4.12 prevails
Land Users/ Land Sharecroppers	The Land Act is not clear on Land Users although in some cases they can receive some form of compensation depending on the determination by NLC	No specific provisions to land compensation. Entitled to compensation for crops, entitled to relocation assistance as the case may be, and income	WB OP.4.12 prevails

Category of PAPs/ Type of Lost Assets	Kenyan Law	World Bank OP4.12	Comment
		must be restored to at least pre-project levels (see below).	
Owners of non-permanent buildings	The constitution of Kenyan respects the right to private property and in case of compulsory acquisition, just compensation must be granted to the owner for the loss temporary buildings.	Recommends in-kind compensation or cash compensation at full replacement cost including labor. Recommends resettlement assistance	WB OP.4.12 prevails
Owners of permanent buildings	The constitution of Kenyan respects the right to private property and in case of compulsory acquisition, just compensation must be granted to the owner for the permanent building	Entitled to in-kind compensation or cash compensation at full replacement cost including labor and relocation expenses, prior to displacement	WB OP.4.12 prevails
Perennial and annual Crops	Cash compensation for the loss of crops	Market value for lost crops. Income restoration assistance (such as land preparation, credit facilities, training etc). Land for land compensation allows people to re-establish annual crops immediately.	WB OP.4.12 prevails
Seasonal crops	Cash compensation for the loss of crops	Market value for lost crops wherever arrangements cannot be made to harvest.	WB OP.4.12 prevails
Livelihood restoration and development assistance	Not specific on livelihood. The constitution says some pay maybe made in good faith	Livelihoods and living standards are to be restored in real terms to pre-displacement levels or better. Offer support after displacement, for a transition period, based on a reasonable estimate of the time	WB OP.4.12 prevails

Category of PAPs/ Type of Lost Assets	Kenyan Law	World Bank OP4.12	Comment
		likely to be needed to restore livelihoods and standards of living (for ex. land preparation, jobs, credit facilities)	
Timing of compensation payments	The Land Act provides for prompt, just compensation before the acquisition of land.	Implement all relevant resettlement plans before project completion and provide resettlement entitlements before displacement or restriction of access. For projects involving restrictions of access, impose the restrictions in accordance with the timetable in the plan of actions.	Follow the principles of OP.4.12
Consultation and disclosure	The Land Act outlines procedures for consultation with affected population by the NLC and grievance management procedures.	Consult project-affected persons, host communities and local NGOs, as appropriate. Provide them opportunities to participate in the planning, implementation, and monitoring of the resettlement program, especially in the process of developing and implementing the procedures for determining eligibility for compensation benefits and development assistance (as documented in a resettlement plan), and for establishing appropriate and accessible grievance mechanisms.	Implement consultation procedures as outlined in both Kenyan legislation and World Bank.
Relocation assistance and resettlement assistance	The Land Act does not out rightly stipulate assistance for relocation	Avoid or minimize involuntary resettlement and, where this is not feasible, assist displaced persons in improving or at least restoring their livelihoods and standards of living in real terms relative to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher	WB OP4.12 takes precedence

Category of PAPs/ Type of Lost Assets	Kenyan Law	World Bank OP4.12	Comment
		Moving allowances	
Grievance mechanism and dispute resolution	Land Act 2012 clearly outlines the steps and process for grievance redress that includes alternative dispute resolution, re-negotiation with NLC and is backed by the judicial system through the Environmental and Land Court	Establish appropriate and accessible grievance mechanisms	No gap

CHAPTER THREE: PROJECT DESCRIPTION

3.1. Overview

The projects are located in Murang'a County with two independent project areas (1) Kiruri & Ichichi and (2) Makomboki water supply projects as shown in Figure 3.3 and 3.6. The two projects are located in Kangema and Kigumo sub-counties of Murang'a County. The intake works are located upstream of the proposed Northern Collector Tunnel (NCT) Phase 1 project and are meant to serve residents living along the NCT1 project. This is part of AWSB strategy to address the water needs of the communities living along and downstream of the NCT Phase 1 project.

The communities living downstream of the NCT will be served by various projects being undertaken by AWSB. They include:

i. Murang'a Community Water Project;
ii. Gatanga Community Water Project;
iii. Gatango Community Water Project;
iv. Ichichi, Kiruri and Makomboki Water project;
v. Gataguaguga Community Water tank;
vi. Ithanga Community Water Project; and
vii. Extension of water supply line to Kambiti and Kambirwa.

All these projects are in different stages of implementation with some including Murang'a Community Water Project and Gataguaguga Community Water tank being operational. Figure 3.1 below is a map showing the proposed project, the NCT1 project and the downstream water supply projects.

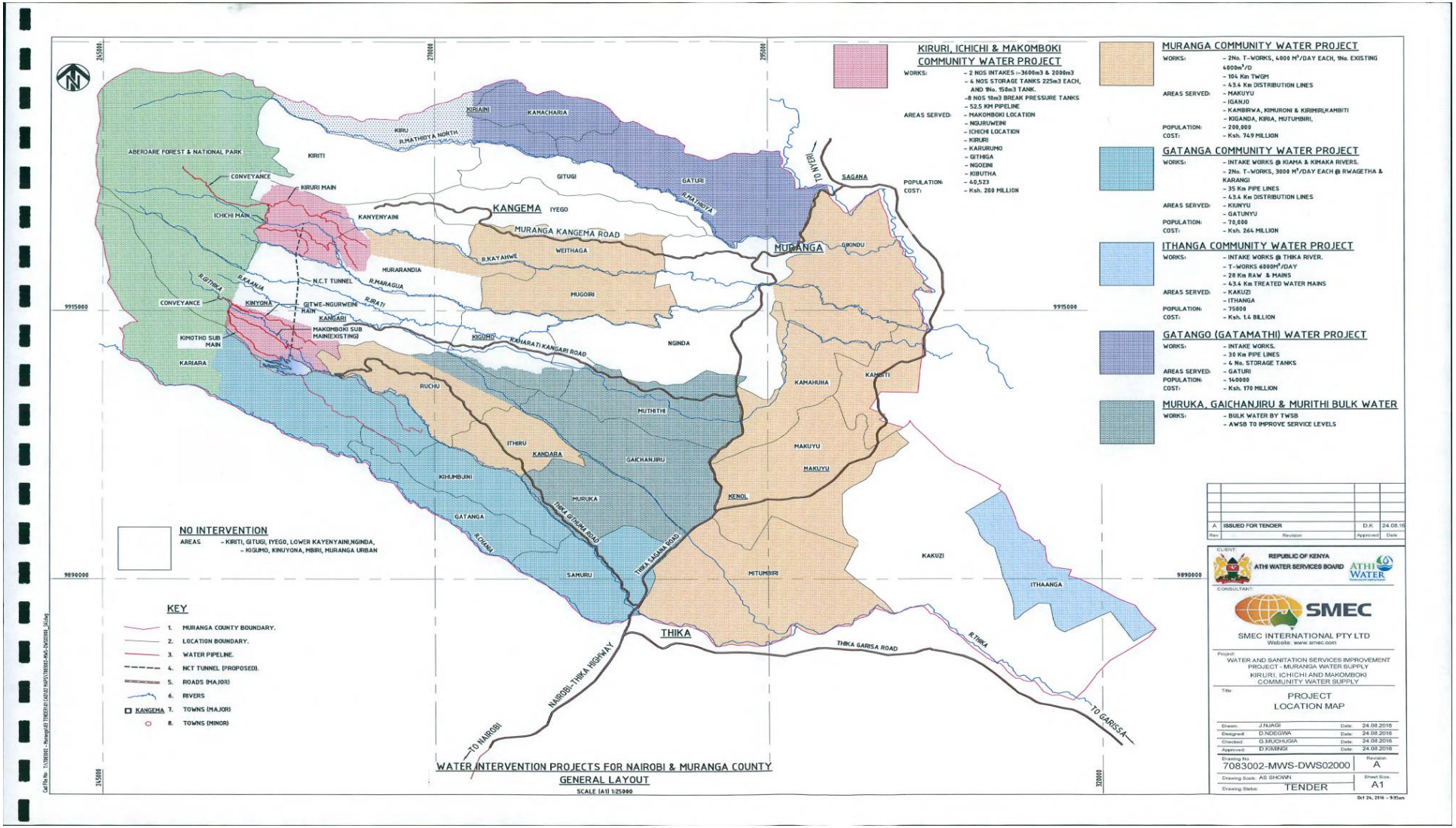


Figure 3.1: Map showing the proposed project, the NCT1 project and the downstream water supply projects.

3.2. Kiruri & Ichichi Community Water Supply

3.2.1 Project design

The proposed project is meant to abstract water from a tributary of South Mathioya River (Manguyo stream) by construction of a diversion weir about 8.5 km inside Aberdare forest. The source of water for the small existing community water systems at Ichichi and Kiruri is not sufficient and sustainable for the target population of 25,789 in Kiruri, Ichichi and Kanyenyaini locations. The current situation informed the need to have a new water source which would provide sufficient pressure to command the highest point in the area. The Kiruri and Ichichi water system will have the following key components:

i. 1No. diversion weir and 2 No. intake chambers.
ii. DN 280 mm - 8.6 km long conveyance line inside the forest.
iii. DN 90- 200mm - 15.9 km long main pipelines.
iv. DN 63- 90mm - 15.2 km distribution pipelines.
v. 2No.-225m^3 masonry storage tanks.
vi. 8No. -10m^3 break pressure tanks.

Analysis of water samples within the intake area was undertaken by Water Resources Management Authority (WRMA) on 21st March 2017. The PH was found to be slightly lower than the recommended levels of 6.5 to 8.5 with readings of 6.26 at the intake and 6.35 at consumer connections. However, the water is considered fit for human consumption. Therefore, a treatment plant has not been proposed for this project.

3.2.2. Intake

An intake comprising of a weir across the river and the intake chamber have been proposed with a capacity of 3600m^3 per day to serve a population of about 25,789 persons. From the hydrological assessment report, the water available for allocation from the normal flow of Mathioya South River is 35,510.4m^3/day. Assuming the allocated 9,008.5032 m^3/day was from Mathioya South River, the balance would be 26,501.8968 m3/day. However, analysis of discharge available in Mathioya North River indicates that 89,856.00 m^3/day of water is

available from the normal flow of Mathioya North River. This indicates adequate water resources in Mathioya South and Mathioya North Rivers. For Manguyo Stream, the normal flow for allocation is the difference between Q_{80} and Q_{95} equivalent to 4,155.84m^3/day. This amount is not allocated and will be available for this project.

The project has already applied and obtained a public water use permit to abstract 3,600m^3/day of the available normal flow from Manguyo Stream. With the approval of the request to abstract the 3,600.00m^3/day which is 86% of normal flow of Manguyo Stream. The balance will be 555.84 m^3/day. This stream joins of Mathioya South River a few meters downstream which has 35,510.4m^3/day normal flow available for allocation. The intake was designed to have the following main components;

- **Diversion weir body**: A reinforced concrete weir across the river has been proposed to dam the water, set and raise the static head of the water and direct the water into the intake chamber. The dimensions of the weir are as follows;
  - Ø Length across the river – 6m.
  - Height – 1m.
  - Bottom width – 1.9m and
  - Ø Top width – 0.5m.

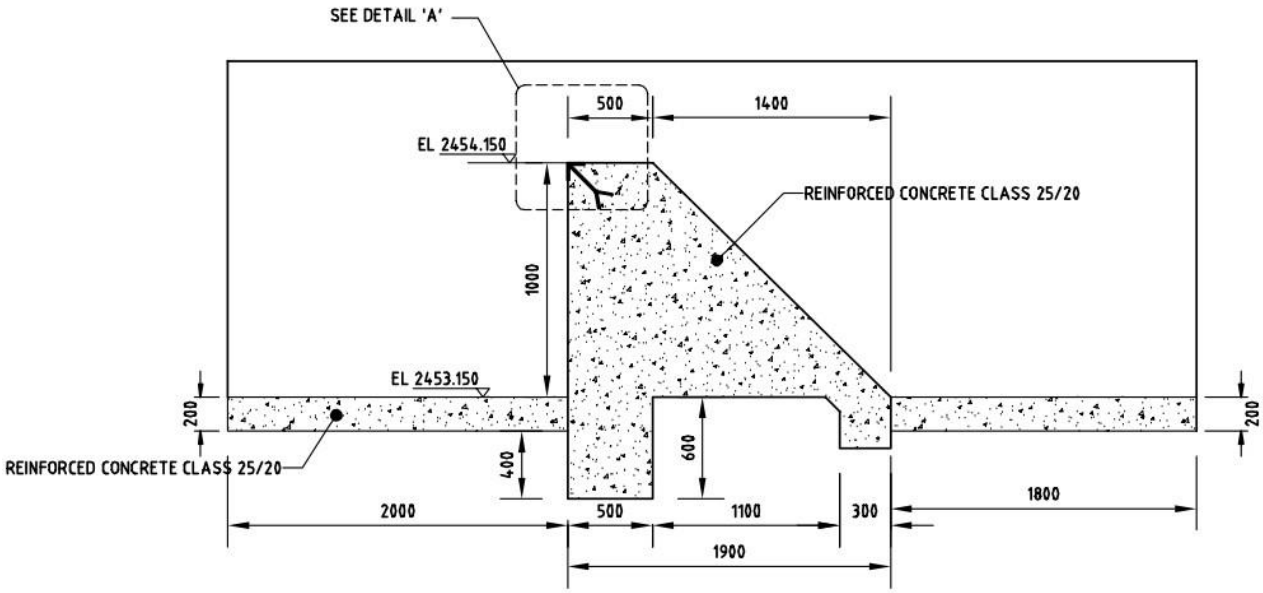


Figure 3.2: Kiruri & Ichichi diversion weir body

- **Intake chamber for collecting water into the inlet pipe.** A reinforced concrete intake chamber has been proposed with two chambers i.e. collecting chamber and gate valve chamber. The intake chamber has been equipped with the following main components;
  - Fine screen – To prevent floating leaves and other course materials that are more than 5mm diameter from entering the intake chamber.
  - DN 300mm steel bell mouth. - To allow smooth entry (with little frictional resistance) of water into the inlet pipe.
  - DN 300mm gate valve and gate valve chamber – To control entry of the water into the inlet pipe.
  - DN 300mm bulk water meter - This has been located a few meters away from the intake chamber.
  - DN 150mm bell mouth, compensation /scour pipe and a gate valve: This system serves to flush off sediments at the bottom of the intake chamber and also allows continuous flow of water along the river channel downstream (environmental flow). Flushing of sediments has been designed to be continuous.

The intake site is rocky which will provide a good foundation for the intake. The elevation of the top of the weir is 2445.15 masl which is sufficient to move the water by gravity to a storage tank at the edge of the forest 2425.21 masl.

- **Sluice way and sluice gate** - A path has been designed between the intake chamber and the weir body which remains closed by a sluice gate during the normal running of the system. The gate is opened occasionally to flush sediments that settle behind the sluice gate at the entry to the intake chamber. Other design considerations have been adopted to facilitate flushing of the system.
- **Wing walls** - Reinforced wing/ retaining walls have been designed 5.7m long to divert water into the main channel and also prevents undermining the intake.

3.2.3. Conveyance Pipeline

An 8.6 km conveyance line has been designed to convey a discharge of 3600m^3 per day up to the Karurumo water tank. The conveyance line runs across an undulating terrain with steep slopes and rocky grounds. In this regard, steel pipes have been considered in such areas and appropriate number of air valves, washout and anchor blocks have been factored. The table below describes the components of the conveyance line;

Table 3.1: Kiruri - Ichichi Conveyance line.

Design Discharge (m^3/hour)	Pipe Diameter(mm)	Material	Length (m)
150	280	uPVC	6,366
	250	Steel	2,130

3.2.4. Mainlines and Distribution lines

Table 3.2: Mainlines and Distribution lines

Name of Pipeline	Total Length(m)	Maximum Design Discharge (m^3/hr)	Area Served/ Termination point	Pipe Size and Material
Kiruri Main line	5320	117.5	Kawariua & Magomano junction	200mm uPVC
Ichichi main line	6055	32.3	Ichichi Storage Tank	160mm uPvc 150mm steel 110mm uPvc
Kawariua Mainline	1950	80.8	Kibutha, Ngoeini and Githiga (the mainline connects to KAWASCO system at Kawariua)	160mm uPvc
Magomano Mainline	2660	16.1	Gatara & Githambo junction	90mm uPvc
Gatara Distribution Line	3980	8.1	Gatara area and surrounding	75 mm uPvc
Githambo Distribution Line	2370	8.1	Githambo area and surrounding	63 mm uPvc
Ichichi Distribution Line	5240	13.8	Downstream of Ichichi shopping centre	90mm uPvc 75 mm uPvc
Gikigie Distribution Line	3501	7	Gikigie area	75 mm uPvc

The Kawariua mainline is designed to connect to Kahuti Water and Sanitation Company (KAWASCO) system that has a pipe network to supply water to parts of Githiga, Ngoeini and Kibutha location. Other pipe appurtenances such as air valves, washouts marker post have been included in the proposed projects.

3.2.5. Water Tanks

Two storage tanks with a capacity of 225m^3 have been designed for the Kiruri & Ichichi area. The Karurumo storage tank is at the end of the conveyance (Forest guard house) and the Ichichi Tank is at Nduini area in Ichichi location at chainage 3+050. The tanks acts as balancing tanks, emergency storage and as break pressure tanks.

3.2.6. Break Pressure Tanks

Eight 10m^3 break pressure tanks have been proposed for the following pipelines; Kiruri mainline, Kawariua, Magomano, Ichichi, Gatara distribution, Githambo, Ichichi distribution and Gikigie. The design prefers the break pressure tanks over the pressure reducing valves for pressure reduction.

The break pressure tanks do not require special techniques for operation and maintenance are more durable and shall also function as water storage and balancing facility. The preferred BPT over PRV'S is on the assumption that the system shall be operated by the community hence the above considerations are paramount.

The break pressure tanks have been located in such a way that the pressure is reduced as required and the terrain downstream provides sufficient pressure to drive water to the desired points downstream. A similar design criterion has been applied for the BPTs in Makomboki project. The BPTs have been designed to reduce pressure ranging from 32m to 128m depending on the pipeline profile.

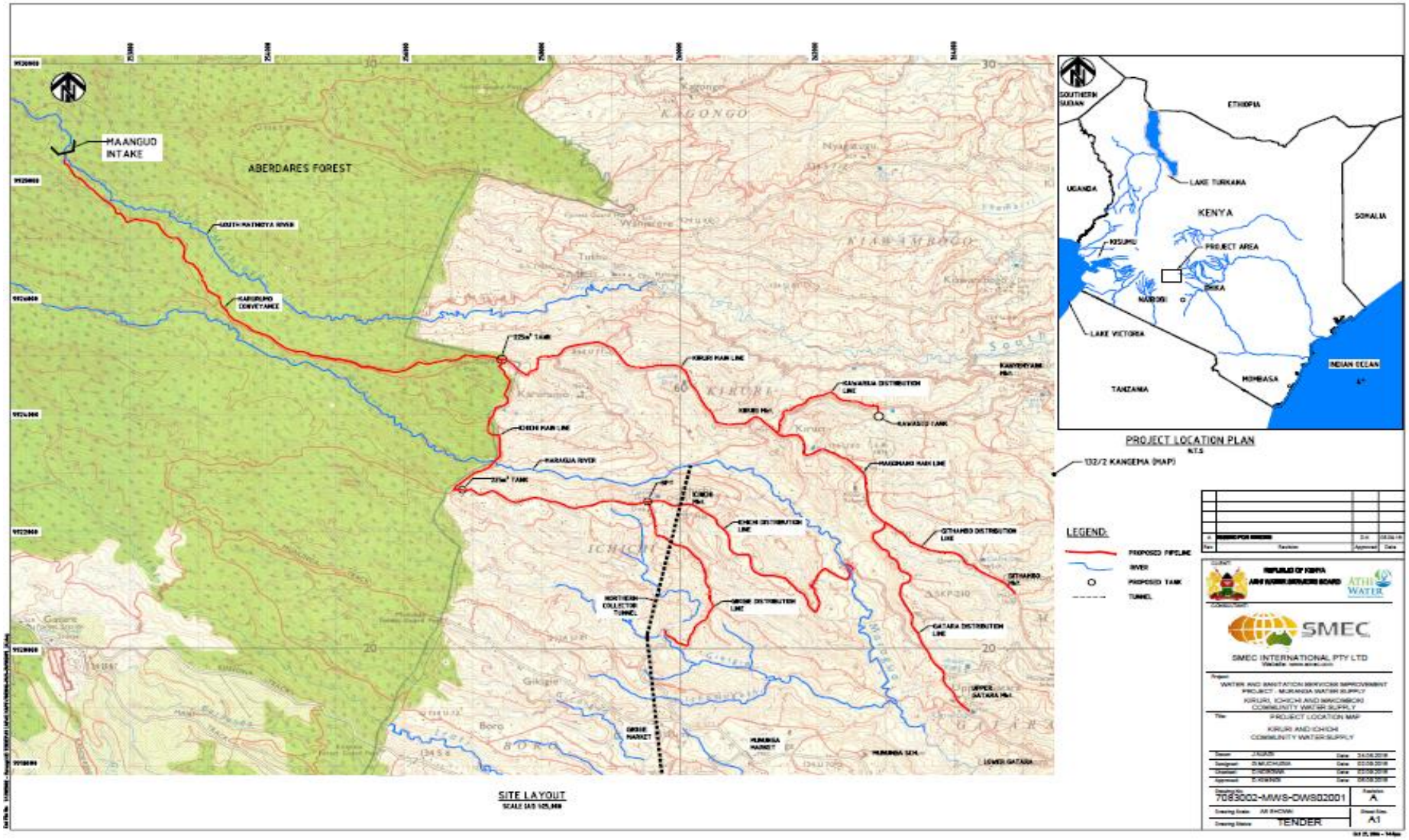


Figure 3.3: Layout of Kiruri and Ichichi water supply project

3.3. Makomboki Community Water Supply

3.3.1. Project design

The proposed project involves the rehabilitation of the existing Gikakima Self Help Group Community Water Supply system which covers most parts of Makomboki location. This was found to be the most economical and less controversial approach to improve the access to drinking water for the Makomboki population. Consultations with the Gikakima Self Help Group leaders and other Makomboki community leader was conducted before this decision was made. *Minutes of meeting by Gikakima Self Help Group endorsing the project is attached as Appendix II.*

The approach of rehabilitating the Gikakima project is more economical and less controversial in view of the following;

i. There is already an existing infrastructure that covers a considerable large population of the Makomboki location.
ii. The source has proved reliable over the period that the project has been in use and the main challenge has been the water seepage under the weir body which the design seeks to rectify.
iii. The works would require minimal way leave land acquisition.

The aim of the rehabilitation works is to improve the capacity and efficiency of the system and to increase the current project's population coverage. The project is designed to cover additional population in areas such as; Gatiaini, Makomboki shopping centre and surrounding, Ngurweini and possibly Gituru area. The following works have been proposed;

vii. Re construction of the existing intake – diversion weir and intake chamber i.e. demolishing the existing intake works and constructing another intake with minimal interruption to the current water supply. The current intake is dilapidated and repairing the intake is economically and technically unfeasible.
viii. DN 90- 200mm – 9.4 km long main pipelines.
ix. DN 90- 110mm – 4.2 km long sub main pipelines.

x. 2 No. -225 m^3 masonry storage tanks.

xi. 1No. 150m^3 masonry storage tank.

xii. 1 No. -10m^3 break pressure tanks.

The proposed works once adopted will have increase the coverage area but future interventions are required such as additional distribution networks and augmentation of the existing sub mains and distribution lines.

Figure 3.4: Dilapidated weir body at Gikakima intake in Makomboki

The proposed works is not expected to have significant impacts on the environment and more so on the environmental flows since the works involves rehabilitation of an existing system. The Gikakima Self Help Group built the system in 2007 and they have an existing permit from WRMA. The proposed project will therefore abstract a total of 2,000m^3/day from Githika River.

3.3.2. Intake

The information gathered from the technical team that was involved in the construction of the intake and from observation is that the intake sits on deep loamy soil. Such nature of underlying material provides poor foundation for the structures and also leads to water piping below the intake structure. The design was made with that in perspective. Some of the design consideration for the intake structure to reduce water seepage includes;

i. Provision of an impermeable reinforced concrete cut off wall downstream and upstream of the weir to increase the water seepage distance. The depth of the cut off wall may vary depending on the results of further investigations.

ii. Provision of an impermeable reinforced concrete apron downstream and upstream of the weir to increase the seepage distance.

iii. Provision of deeper wing walls to increase the water seepage distance.

iv. Provision of water proof concrete on all the intake structures.

The intake was designed to have the following main components;

i. Diversion weir body: A reinforced concrete weir across the river with similar dimensions as the existing structure. The dimensions of the weir are as follows;

- Length across the river – 8m.
- Height – 1m.
- Bottom width – 1.9m and
- Top width – 0.5m.

ii. Intake chamber for collecting water into the inlet pipe. A reinforced concrete intake chamber has been proposed with two chambers i.e. collecting chamber and gate valve chamber. The intake chamber has been equipped with the following main components;

- Fine screen – To prevent floating leaves and other course materials that are more than 5mm diameter from entering the intake chamber.
- DN 300mm steel bell mouth. - To allow smooth entry (with little frictional resistance) of water into the inlet pipe.
- DN 300mm gate valve and gate valve chamber – To control entry of the water into the inlet pipe.
- DN 300mm bulk water meter - This has been located a few meters away from the intake chamber.
- DN 150mm bell mouth, compensation pipe/scour pipe and a gate valve: This system serves to flush off sediments at the bottom of the intake chamber and also to allow continuous flow of water along the river channel downstream (environmental flow). Flushing of sediments has been designed to be continuous.

iii. Sluice way and sluice gate - A path has been designed between the intake chamber and the weir body which remains closed by a sluice gate during the normal running of the system. The gate is opened occasionally to flush sediments that settle

behind the sluice gate at the entry to the intake chamber. Other design considerations have been adopted to facilitate flushing of the system as shown in the intake drawings.

iv. Wing walls - Reinforced wing/ retaining walls have been designed 13.8m long to divert water into the main channel and also prevents undermining the intake.

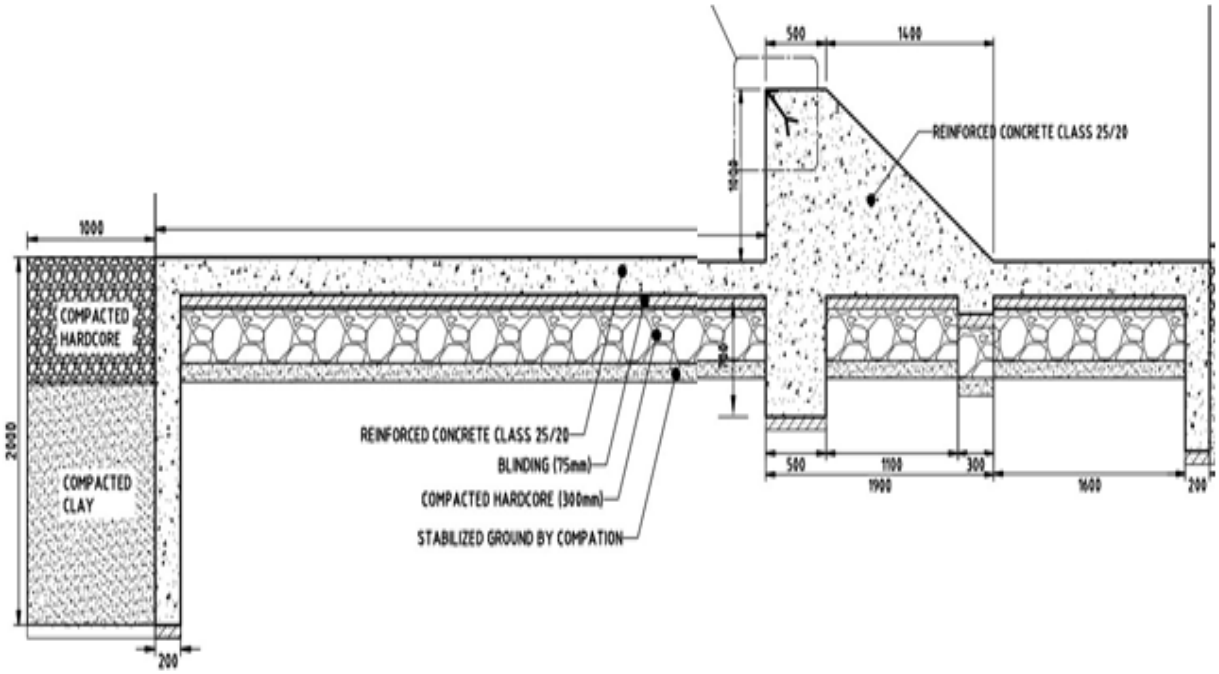


Figure 3.5: Makomboki weir with apron and cut off wall

3.3.3. Mainlines and Distribution lines

Table 3.3: Mainlines and distribution lines

Pipeline Name	Distance (m)	Pipe size and Material	Comment
Gitwe Mainline	8590	160mm Upvc 90mm Upvc	New pipeline
Kanderendu Kimotho Mainline	832	200mm uPVC	Replacing all the existing 160mm Upvc pipe.
Kanderendu sub main	2880	160mm Upvc	Replacing part of the existing 110mm Upvc pipe.
Kimotho sub main	1320	110mm Upvc	Replacing part of the existing 90mm Upvc pipe.

Other pipe appurtenances such as air valves, washouts marker post etc. have been included in the proposed projects as indicated in the design criteria.

3.3.4. Storage Tanks

Two 225m^3 storage tanks have been proposed for Kanderendu and Kimotho sub mains at chainage 0+000 and 1+320 respectively. The tanks acts as balancing tanks, emergency storage and as break pressure tanks.

3.3.5. Break Pressure Tanks

One break pressure tanks has been proposed for Gitwe mainline at chainage 4 + 375m.

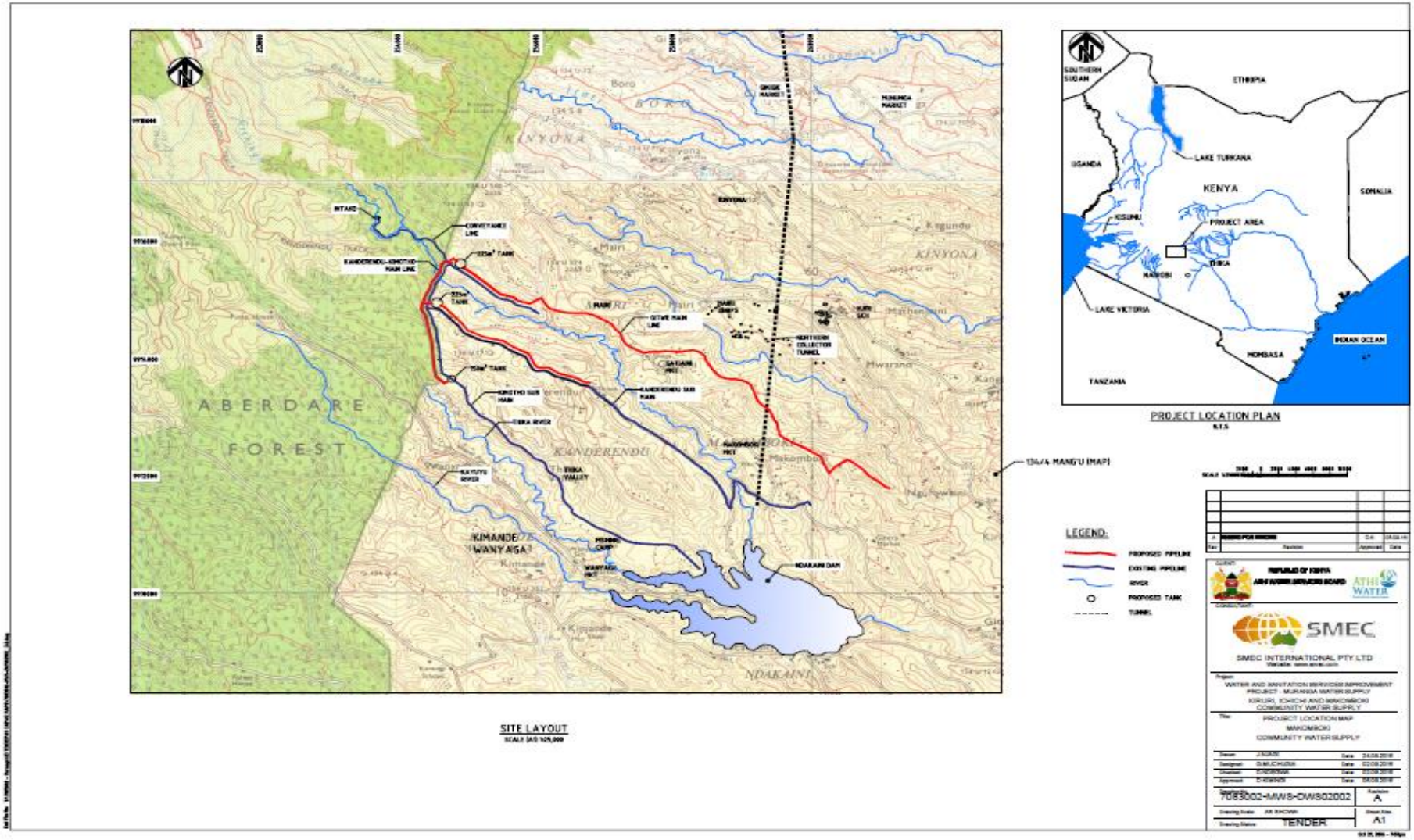


Figure 3.6: Layout of Makomboki water supply project

3.4. Components necessitating resettlement

The proposed project will lead to minimal land take majorly for the twelve (12 No.) break pressure tanks. The intake works and water pipelines will be laid within the Aberdare forest, Nyayo Tea Zones land and on the road reserves. The land take for the project is as shown in Table 3.4.

Table 3.4: Summary of land requirement for the Infrastructure under the project

Makomboki water supply project	
Project Component	**Land Ownership**
1. Main Tanks	
225m^3 Gitwe Tank	*Private land*
225m^3 Kanderendu Tank	Nyayo Tea Zone land (public land)
150m^3 Kimotho Tank	Public land
2. **10m^3 Break Pressure Tanks (BPTs)**	
On Gitwe – Ngurweini Mainline At Chainage 4+375m	*Private land*
3. **Pipeline**	
Kanderendu-Kimotho Mainline – 832m	Nyayo Tea Zone land (public land)
Kimotho Submain – 1340m	
Gitwe Mainline-8590m	Both are on the road reserve
Kimotho sub main-1320m	
Kiruri & Ichichi water supply project	
1. **Main Tanks**	
225m^3 Karurumo Tank	Nyayo Tea Zone land (public land)
225m^3 Ichichi Tank	*Private land*
2. **10m^3 Break Pressure Tanks**	
Kiruri Mainline at chainage 5 + 312m	*All on private land*
Kawariua Mainline at chainage 1+400m.	

Magomano Mainline at chainage 1+440m	
Gatara Distribution line at 1+200m.	
Githambo Distribution line at 0+860m.	
Ichichi Mainline at 5+900m	
Ichichi Distribution Line at 3+080m	
Ichichi Distribution Line at 4+180m	
Gikigie Distribution Line at 1+960m	
3. **Pipeline**	
Intake	In the forest (public land)
Karurumo Conveyance 8495m	In the forest (public land)
Ichichi Mainline 3050m	Sections of the pipeline on Nyayo Tea Zone land and forest land
Kiruri Main line-5320m	All are on the road reserve
Kawariua Mainline-1950m	
Magomano Mainline-2660m	
Gatara Distribution Line-3980m	
Githambo Distribution Line-2370m	
Ichichi Distribution Line-5240m	
Gikigie Distribution Line-3501m	

Note:

The approximate size of land required for tanks and BPTs are:

- 1 No. 225m^3 Karurumo Tank: 17m by 17m.
- 3 No. 225m^3 Tanks: 17m by 13m.
- 1 No. 150m^3 Tanks: 15m by 13m.
- 10 No. ^{10m3} Break Pressure Tanks: 10m by 5m.
- All pipelines: 3m corridor.

12 of the tanks are on private land and 3 are on public land.

CHAPTER FOUR: SOCIO-ECONOMIC INFORMATION AND RESETTLEMENT IMPACTS

4.1 Approach for Identifying Project Affected Persons

As soon as the sites were determined, the identification of project's affected persons was undertaken. The PAPs were classified into three groups namely;

a) Those who have formal legal rights to the land they occupy;
b) Those who do not have formal legal rights to land, but have a claim to land that is recognized or recognizable under the national laws including those measures put in place by the draft land policy; or
c) Those who have no recognizable legal right or claim to the land they occupy.

The following categories of PAPs will be used in identifying groups of PAPs for the purpose of determining impacts.

Project affected persons (PAPs) are individuals whose assets are lost, including land, property, other assets, and/or access to natural and/or who lose access to economic resources as a result of activities related to sub-project(s), whether permanently or temporarily.

Project affected households are groups of PAPs in one household and where one or more of its members are directly affected by the Project. These include members like the head of household, male, and female members, dependent relatives, tenants, etc.

Vulnerable groups of people. From these households, the Project will separately identify the vulnerable members, such as those who are old or ill; children; those with HIV/AIDS; women; unemployed youth; etc. Households headed by women that depend on sons, brothers, and others for support will also be identified. Similarly, households with elderly or seriously ill or disabled persons will be identified. Vulnerable people and households will be eligible for additional support.

4.2. Population

The population census of the project area carried out in 2009 by the Kenya National Bureau of statistics (KBS) is as shown in the table below:

Table 4.1: General population in the project area

Project Area	sub location	Male	Female	Total Population
Kangema sub-county				
Kiruri	Karurumo	845	809	1,654
	Kiruri	1,180	1,233	2413
Ichichi	Nduini	644	672	1316
	Ichichi	1,155	1,155	2310
Kanyenyaini	Ngoeini	743	786	1529
	Githiga	2,158	2,383	4541
	Kibutha	1,087	1,294	2381
Kigumo sub-county				
Makomboki	Makomboki and Kanderendu	4,139	4,156	8,295
Kangari	Kangari	5,946	5,964	11,910
Total		**17,897 (49.24%)**	**18,452 (50.76%)**	**36,349**

Source: 2009 Kenya population and Housing Census

From the census data tabulated above, 49% of the population are male while 51% are female. This is in line with the Murang'a County male: female sex ratio of 48:52. The higher female population in relation to male is attributed to high male emigration to other counties and towns in search of employment and business opportunities.

According to 2009, the population of Murang'a County by age and sex is as shown in Table 4.2.

Table 4.2: Population Projection by Age Cohorts

Age Cohort	2009 (Census)		
	M	F	T
0-4	57,758	56,251	114,009
5-9	60,903	59,271	120,174
10-14	49,520	58,162	107,682
15-19	49,964	45,324	95,288
20-24	39,934	37,888	77,822

25-29	31,622	36,550	68,172
30-34	28,932	32,310	61,242
35-39	25,942	28,755	54,697
40-44	20,525	23,835	44,360
45-49	19,241	23,156	42,397
50-54	14,347	17,083	31,430
55-59	13,170	15,057	28,227
60-64	12,691	13,432	26,123
65-69	8,769	11,039	19,808
70-74	6,853	8,602	15,455
75-79	4,707	6,069	10,776
80+	6,873	11,693	18,566
Total	**451,751**	**484,477**	**936,228**

From Table 4.2 above male population is more than female population for age groups 0 - 9 years and 15 – 24 years. However in all other age cohorts, females are more than males. This trend can be attributed to emigration of male to neighbouring urban areas in search of economic opportunities.

4.3 Social characteristics of PAPs

The socio – economic survey was done during the month of December 2017 and it covered mainly the PAPs. A total of 14 out of 15 PAPs were interviewed.

4.3.1 Demographics of the land owners

The gender distribution of the PAPs was found to be (14) men and one (1) female without any land related impacts. It is apparent that, women in these areas don't own land. As indicated in the table below, 79% of these land owners are above 60 years. This is the old age generation which is not productive economically. The spouses of this group of PAPs are 11 and considered vulnerable due to their age and gender.

Table 4.3: Demographic data

	Age		***Household size***	***Gender***	
Age	***Number***	***Percentage***	***Number***	***Female***	***Male***
31-35	1	7%	4	2	2
41-45	1	7%	4	1	3
51-55	1	7%	5	3	2
over 60	11	79%	35	19	16
Total	**14**	**100%**	**48**	**25**	**23**

The total number of affected persons is 48, where female are 25 and male 23. The mitigation of impacts caused by the project is discussed in the subsequent sections.

4.3.2 Level of education

There are several educational institutions in the project area. They include secondary schools, primary schools, and nurseries.

Figure below shows highest level of education attained by the PAPs; majority (50%) of the PAPs had the highest level of education at primary school; 29% indicated that secondary school education is there highest level; while 7% have no school education.

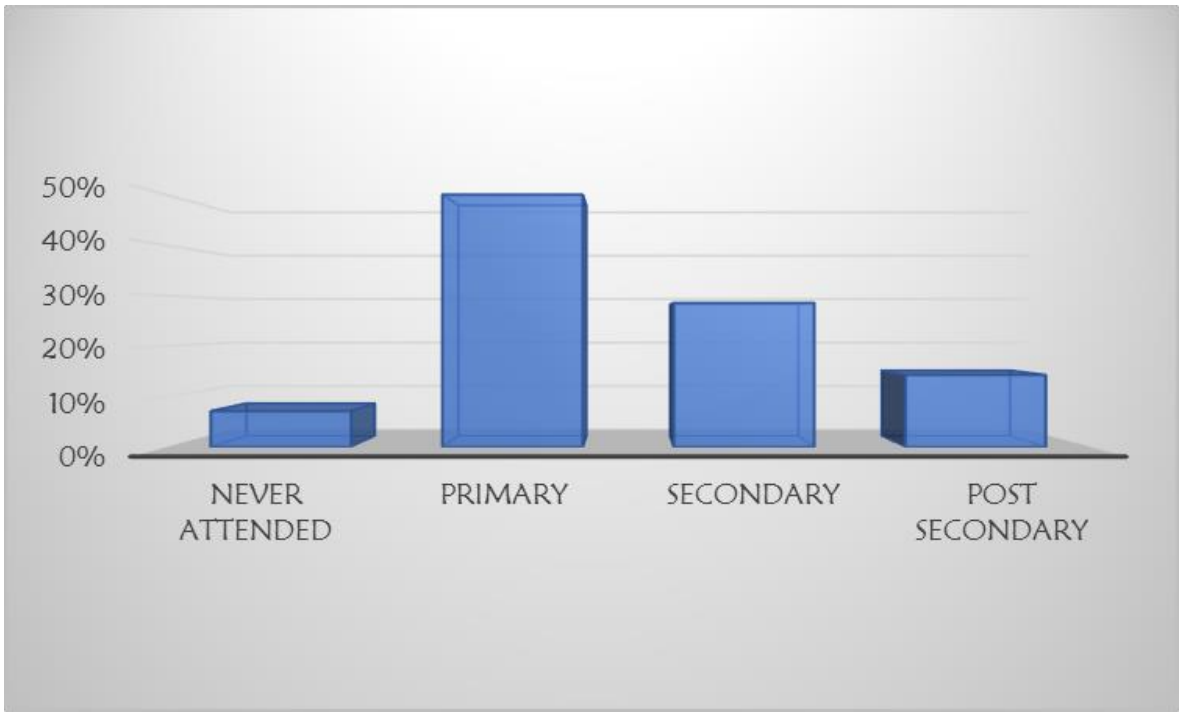


Figure 4.1: Level of education

4.3.3 Occupation

From the figure below; majority (86%) of the PAPs indicated that their occupation was farming; while 14% are employed and keep livestock. The area is so fertile and majority of the farmers grow maize, beans, tea bushes and vegetables.

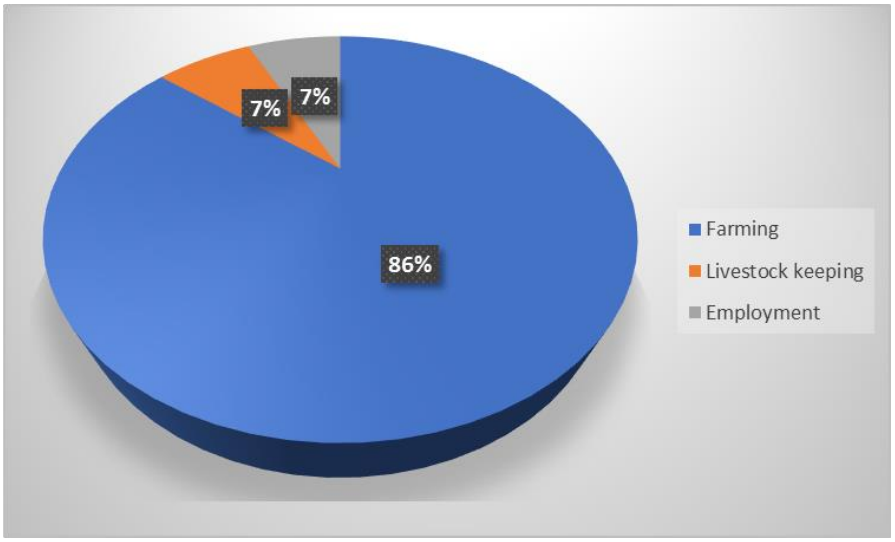


Figure 4.2: Occupation

4.3.4 Main source of water

During the study, the respondents were asked to indicate their major sources of water for domestic use. As shown in the figure below, majority (70%) of the respondents indicated that their major water source is river, while 15% source water from springs and 15% have piped water. The proposed project will provide piped portable water to the community and increase the water connection which is currently low.

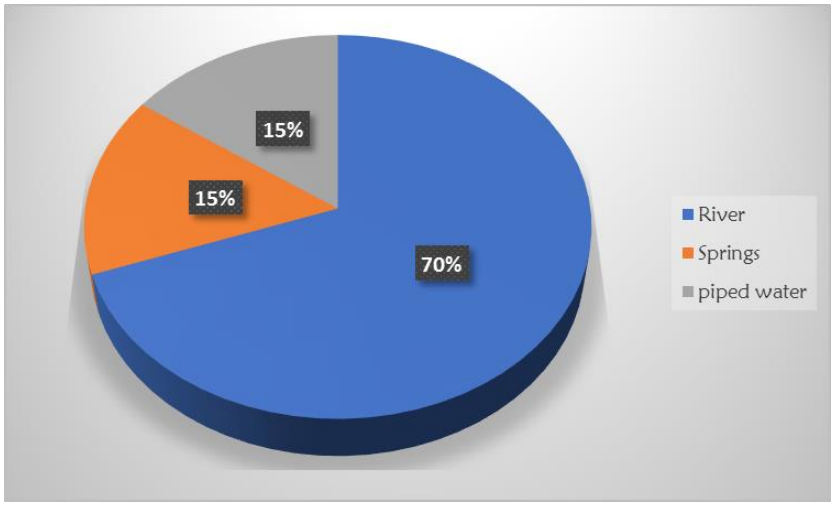


Figure 4.3: Sources of water

4.3.5. Land tenure system

During the RAP study, the affected PAPs interview indicated that the land tenure system is freehold and each one has a title deed. There are also pieces of land within the area belonging to the County Government.

4.3.6 Ethnic distribution and Religion

The dominant ethnic group in the project area is Kikuyu tribe. The religion practiced in the project area is dominated by Christianity.

4.3.7 Women

The economic, social and political status of women in the project area is relatively weak. They are generally economically dependent upon men who tend to make the decision as to how many children the family should have.

Women are burdened by back-breaking work in addition to all food preparation, child rearing and domestic chores. Women are also the principle collectors of water and firewood, and in some instances, they have to walk long distances in search of water for drinking and cooking considering that 70% of the PAPs rely on river water. Women's access to formal education is low in the affected area.

During compensation, Matrimonial Property Act No 49 of 2013 is triggered. During the disclosure of compensation packages, both spouses will be encouraged to participate. this will avert any conflicts arising from disbarment of compensation money. This is line with the act, section 3 (2) which states that, the parties to a marriage have equal rights and obligations at the time of the marriage and at the dissolution of it.

4.3.8 Children

Children are the most vulnerable members of the community due to the effects of displacement and disintegrations of families. In the project area, children are tasked to fetch firewood, collect water and to look after cattle.

During socio-economic study, it was established all the PAPs except one (1) aged 35years has minors. The family resides in Thika town and the PAP is an employee of a certain company hence, his livelihood is on salary. The children will not be vulnerable or exposed to social risks during land acquisition.

4.3.9 Housing

The quality of housing in the project affected area consists of a mix of permanent and semi-permanent houses.

4.4 Land Use

Most of the respondents indicated that land is basically used for mixed farming where crop farming and dairy farming is dominant. In the year 2015/2016, farmers from Makomboki tea factory received over 1 billion earnings from the sale of their tea. Bulk of the population is engaged in tea farming and or dairy production. Farmer sometimes experience fluctuation of prices of their products in the market (tea, milk and vegetables) and in addition to poor agricultural practices there is generally low income leading to middle to low standards of living.

The main land uses in the project area include:

- Food crop production(maize, beans, potatoes, vegetables)
- Cash crop production (Tea, cabbages)
- Livestock (cows, goats, chicken, sheep)
- Agro-forestry.

4.5 Resettlement Impacts

4.5.1 Displacement

The proposed water supply project will not result in displacement of any households. Only small portions of land with trees and crops will be affected with a total of 15 PAPs being affected. The impact is thus considered as minimal.

4.5.2 Affected Land

The land envisaged to be acquired is to be used for construction of 12 water storage tanks. Each of the tanks will occupy a total of 0.04 ha within private land. The compensation of total land value was adopted as replacement cost at the prevailing market rates.

Table 4.4: Summary of Loss of Land Impacts

Impact	*Size (*Ha)
Loss of land use	0.515

4.5.3 Affected Trees and Crops

Different species of trees, both exotic and indigenous type are present in the area. The table below shows the extent of impact.

Table 4.5: Summary of Loss of Trees and crops

Impact	*Extent*
Loss of crops and trees	- Farm crops (maize, Nappier grass) - Trees (Eucalyptus, cypress, wattle) - subsistence crops (nappier grass, beans and potatoes) - Tea bushes

4.5.4 Affected structures

The proposed project will not result to displacement of households though it will affect the following structures:

- a shop
- a timber structure
- pit latrine
- Gate
- fodder store
- wire fence

4.5.5. Affected property according to each PAP

The specifics of the affected property according to each PAP is addressed in the table below:

Table 4.6: Details of affected property

No	Tank site	Affected property
1.	Tank at Ichichi area	0.04 ha plot valued which is 2% of total land area(Total land area is 1.99ha) 412 tea bushes 4 avocado trees 2 young macadamia trees 418 maize plants 17 passion fruit plants
2.	Tank at Ichichi area	0.04 ha plot valued which is 2.66% of total land area(Total land area is 1.50ha) Wire fence and gate 2 eucalyptus trees
3.	Tank at Ichichi area	0.04 ha plot valued which is 2.25% of total land area(Total land area is 1.78ha) Live hedge & wire fence 5 eucalyptus trees 2 young macadamia plants
4.	Tank at Ichichi area (Chief's Compound)	0.04 plot (belonging to government of Kenya) 1480 Napier grass stools 3 young avocado plants Wire fence valued
5.	Tank at Kiruri area	0.04 ha valued which is 6.55% of total land area(Total land area is 0.61ha) 172 tea bushes Live hedge wire fence
6.	Tank at Kiruri area	0.04 ha plot which is 1.98% of total land area(Total land area is 2.02ha) 388 tea bushes 4 young avocados plants 18 passion fruit plants 122 napier grass stools Live hedge & wire fence
7.	Tank at Kiruri area	0.04 ha plot which is 5.1% of total land area(Total land area is 0.78ha) 1259 napier grass plants 22 cypress trees 6 young avocado plants Relocation of fodder store structure Live hedge & wire fence

No	Tank site	Affected property
8.	Tank at Matharite	0.04 ha plot which is 4.7% of total land area(Total land area is 0.85ha) Relocation of pit latrine Relocation of a timber structure Live hedge fence & gate 86 napier grass stool
9.	Tank at Gatara	0.04 ha plot which is 1.56% of total land area(Total land area is 2.56ha) Live hedge fence 42 wattle
10.	Property On Road Reserve At The Frontage of Proposed Tank Site.	Relocation of a shop structure
11.	Tank at Gatara	38 wattle trees Relocation of a fodder stall structure
12.	Crops On Road Reserve	615 napier grass stools 3 young avocado plants
13.	Tank at Kanderendu	0.04 ha plot which is 10.6% of total land area(Total land area is 0.378ha) Live hedge wire fence 6 passion fruits plants 56 sweet potatoes plants 4 trees tomatoes 14 sugar cane plants 204 maize plants 3 young avocado plants 5 banana stools 4 grevillea trees 4 indigenous trees 192 Irish potato plants Relocation of timber structure
14.	Tank at Mairi	**a) Tank site** 0.04 ha plot which is 4.65% of total land area(Total land area is 0.86ha) Barbed wire fence b) **Pipeline proposed on private land** 0.035 ha way leave for pipeline 842 Napier grass stools 782 maize plants

No	Tank site	Affected property
15.	Tank at Mairi	0.04ha land plot which is 5.33% of total land area(Total land area is 0.75ha) Relocation of pit latrine 21 eucalyptus trees 18 passion fruits 516 napier grass stools 4 young avocado plants 214 maize plants Live wire fence

CHAPTER FIVE: PUBLIC CONSULTATION AND PARTICIPATION

5.1 Introduction

Public consultations in relation to the RAP occur at all stages, starting with inception and planning stages. Public participation and consultations was done through individual, group, and community meetings. Selection of ways to consult, and expand participation by PAPs and other stakeholders, took into consideration literacy levels prevalent in affected communities; ethnicity and cultural aspects; and practical conditions (like distance). The role of traditional political and cultural leaders, including the community elders, in the participation strategy was important.

5.2 Stakeholders

During the public consultations, multiple groups of stakeholders were consulted. The stakeholders were those who have an interest in the project development, and who will be involved in the further consultative process. Consultations were done both at the ESIA stage and during RAP preparation. The main groups of stakeholders are:

5.2.1 Directly Affected People

These are the people who reside in the area or derive their livelihood from the affected land. These people will lose their property to the project through compensation of land, physical assets, trees and crops. Most of the directly affected people were informed and consulted on major issues concerning relocation, livelihood rehabilitation and income restoration. They participated in the socio economic survey.

5.2.2 Indirectly Affected Persons

This group of stakeholders includes all those who reside in areas neighbouring the project area or are reliant on resources in the project area and will have no change or the project will

not adjust their livelihood e.g. groups such as those residing far from the project area but have farms near the proposed project area.

5.2.3 Government Agencies

During the ESIA process, some of the key stakeholders consulted included:

- Kenya Forest Service (KFS);
- Kenya Wildlife Service (KWS);
- Water Resources Management Authority (WRMA);
- Physical Planner; and
- Local administration

The summary of the deliberations is itemised in Table 5.1.

Table 5.1: summary of comments from key informants.

Issue of Concern	Kenya Forest Service (Kigumo)	Kenya Forest Service (Muranga County)	Water Resource Management Authority (Upper Tana Sub-Region)	Physical Planner (Murang'a County Government)
Water shortage	Agreed there is water shortage in the area	Agreed there is water shortage in the area	Agreed that the piped water is insufficient	Agreed there is water shortage in the area
Project contribution towards alleviating this problem	-Improve the existing water supply	-Adequate water for domestic use -Irrigation	-adequate portable water for the community	-easy access to drinking water
Positive impacts	-poverty eradication	-clean and safe water to community -Income generation Establishment of tree nurseries to alleviate poverty and conserve the environment	-availability of quality water -time saving for community to do other activities	-will save time which is consumed in fetching water -Clean water hence reduced level of water borne diseases
Negative impacts	-Impact of the flow downstream	-destruction of vegetation along the way leave -the trenches dug may cause mudslides during rainy seasons because the area is hilly.	-if all regulations will be followed there will be no any negative impacts	-none
Other issues	-project committee should be formed to manage the water supply	-community ownership of the project should be enhanced -KFS to give required way leave and abstraction authority before commencement of the project. This should be accompanied by WRMA permit and NEMA license.	-follow and adhere to group by-laws - adhere to the government laws and water act -install master meter -priority of the water used should be for domestic use -acquire abstraction water permit	-community should form a committee to run the project -provide meters to regulate wage and bill of the consumers -domestic use should be the priority

Issue of Concern	Kenya Forest Service (Kigumo)	Kenya Forest Service (Muranga County)	Water Resource Management Authority (Upper Tana Sub-Region)	Physical Planner (Murang'a County Government)
		-domestic water use should be the priority		

Kenya Wildlife Service (KWS) were also consulted and requested to undertake a site visit to the proposed intake which was undertaken 27th and 28th of June 2017. From the site visit, they gave a go-ahead for the project to be implemented.

5.3 Community Meetings and issues raised

During the ESIA preparation, public meetings (*barazas*) were also held with communities living within the project area. Two other public barazas were held during the RAP study i.e. in Kiruri location and Ichichi location. They were held on 21 December 2017. . *The minutes of the meetings and attendance sheets are as shown in Appendix II.*

The following is the summary of views, comments, suggestions obtained and discussions had during public barazas at Ichichi and Kiruri locations.

Summary of Comments, issues and opinion raised during the public meetings

- As per the design of the project, twelve (12) water storage tanks acting as pressure break tanks were sited in private lands while the pipeline will be largely on the road reserve.
- Land will be acquired for the tanks and compensation done accordingly. Compensation will cover structures, land, trees and crops.
- The process for valuation starts from survey of the affected area to create boundaries, then valuation and finally disclosure.
- AWSB will have a meeting with each PAP for disclosure and if in agreement compensation will be done.
- The cut-off date is 30 December 2017. After this date any other improvement on the affected land will not be considered for compensation.
- RAP disclosure will be to an individual and compensation will be one off.
- Some of the PAPs have no title deed, what will happen during compensation?
- AWSB will facilitate land search and that will be the basis of compensation.
- The family members are encouraged to agree as a family and whoever they front as a PAP for compensation (agreement in written), he/she will be compensated but easement will be registered.
- New titles will be issued in favour of AWSB and also the land owner. The cost implications will be catered for by AWSB The landowner will surrender his/her title during compensation payment for change of title.
- During compensation, the following requirements are needed: copy of ID, Title deed, copy of KRA PIN, passport size photos and bank details.

CHAPTER SIX: VALUATION OF AND COMPENSATION FOR LOSSES

This section describes the methods used in valuation of land, trees, crops and structures eligible for compensation consistent with either Kenyan laws or policies or World Bank policy on involuntary resettlement (OP 4.12).

6.1 Inventory of Assets and PAPs

In order to prepare for compensation and other resettlement benefits, it is imperative that a comprehensive asset and affected persons inventory in the designated areas for the different project components is done. Such an inventory was conducted by a multidisciplinary team composed of the following persons: - Project Team Leader, Surveyor, Valuation Expert and Sociologist. In addition to this team, respective Location and Sub Location Chiefs plus village leaders were present to witness the process.

6.2 Valuation Procedure

At each affected land/plot, the Valuer took careful count of all crops and trees. In addition, the Valuer counted and measured all the affected buildings/structures in the presence of the affected person and a local leader. A Compensation Assessment Form was filled to record all the properties affected. The licensees or sharecroppers crops were also noted and recorded on a separate Compensation Form bearing the names of the licensee or sharecropper. The property of the sharecropper/licensee was recorded in the presence of the landowner, the licensee/sharecropper and the area leader.

All the PAPs verified the contents of the Compensation Assessment Form and appended their signatures to this form during compensation disclosure done on 4th and 5th April 2018. The affected persons will take a copy of the Compensation Assessment while the original will be retained by AWSB.

Standing crop and trees compensation

Standing trees and crops compensation procedure was guided by the ministry of agriculture guidelines. In this RAP, focus was acquisition of land for construction of storage tanks and for the pipeline that passes through private farmlands. The crops and trees affected by the project include eucalyptus, fruit trees, Napier grass, sugarcane, maize and beans.

Land compensation

Land will be acquired for construction of water storage tanks and laying of the pipeline (land for acquisition for laying pipeline is minimal since the entire distribution network is on road reserve). The total land to be acquired for the construction of storage tank and wayleave is 0.515ha. Compensation was calculated based on open market rate and considering annual output value and occupation period based on all income and yield from the land.

6.3 Land Survey

Land Surveyor demarcated the boundary of the project land required for acquisition. He then demarcated individual affected property so as to determine the different land areas/sizes acquired from each PAP. The surveyor worked hand in hand with the affected persons and the area chief.

6.4 Socio-economic profile of each PAP

Structured questionnaires were administered by a team of trained Research Assistants in order to document each Project Affected Person's profile. The team was supervised by a Resettlement Expert. The questionnaires were entered into SPSS and analyzed to estimate the magnitude of the impacts and for monitoring purposes.

The socio-economic survey revealed a substantial amount of information on the economy and social organization of the affected community. The Resettlement expert reviewed the data so as to identify appropriate and sustainable interventions.

6.5 Computation of Compensation Packages

Valuation and calculation of the affected property was based on the following;

Market rate approach: Market rates were applied especially when valuing and calculating compensation values for land.

Replacement cost approach: This applied to structures which will be affected by the project. The valuation was done based on replacement cost which is made up of market cost plus all associated administrative and transportation costs.

6.6 Forms of Compensation

Compensation shall be done in cash compensation form and will be in Kenyan local currency -- compensation will be calculated at new (i.e. un-depreciated) replacement value. Rates will be adjusted for inflation.

6.7 Disclosure of valuation report and signing of the agreement

The disclosure of the compensation packages was done to each PAP individually on 4th and 5th April 2018. All the PAPs accepted the offer and subsequently signed the sale agreements.

6.8 RAP implementation cost

The total cost for the implementation of the RAP is Kenya Shillings **Eight Million One Thirty Three Thousand Four Hundred and Forty Five Only (KES. 8,133,445.00**). The breakdown is provided in the tables below.

Table 6.1: Summary of Assets Compensation Costs

Impact	Compensation cost, KES
Land	2,695,750
Crops and Trees	846,360
Structures	889,390

Impact	Compensation cost, KES
Sub-Total	**4,431,500**
15% disturbance allowance	664,638
TOTAL	**5,096,138**

Table 6.2: Summary of administrative and other Costs

Description of activity	Amount in KES
Provisional sum to cover for RIT, RWG and PAPs committee meeting costs (rooms, transport, refreshments, stationery etc.) at a maximum of Kshs 200,000 per month for a maximum of 10 months.	2,000,000.00
Provisional sum for Capacity Building Programs for RIT, RWG, M&E and PAPs Committee members at a maximum lump sum of KES 500,000.	500,000.00
Capacity building and sensitization of PAPS on compensation (50,000 for a maximum of 3 months)	150,000.00
Total	**2,650,000.00**

Table 6.3: Estimated Costs for RAP Implementation

Description	Amount in KES
Compensation for loss of land, structures, trees and crops inclusive of 15% disturbance allowance. (Totals of Table 6.1)	5,096,138.00
Provisional cost for administrative and other Costs (Totals of Table 6.2)	2,650,000.00
Sub Total	**7,746,138.00**
Contingency 5% of total budget	387,307.00
Grand Total	**8,133,445.00**

CHAPTER SEVEN: ELIGIBILITY AND ENTITLEMENT MATRIX

7.1 Introduction

This section sets out the eligibility criteria for the different categories of PAPs who will be affected by the water supply project for resettlement and benefits.

The involuntary taking of land, results in relocation or loss of shelter and loss of assets or access to assets or natural resources or loss of income sources or means of livelihood, whether or not the PAPs must move to another location. The WB OP 4.12 Para 15 (a, b, & c) categorizes those eligible for compensation and resettlement in three groups as shown below.

(a) Those who have formal legal rights to land (including customary and traditional rights recognized under the laws of the country);

(b) Those who do not have formal legal rights to land at the time the census begins but have a claim to such land or assets-provided that such claims are recognized under the laws of the country or become recognized through a process identified in the resettlement action plan (itinerant farmers or sharecroppers) and;

(c) Those who have no recognizable legal right or claim to the land they are occupying.

PAPs covered under a) and b) above are to be provided compensation for land they lose, and other assistance in accordance with the policy. Persons covered under c) above are to be provided with resettlement assistance in lieu of compensation for the land they occupy or use, and other assistance, as necessary, to achieve the objectives set out in this policy, if they occupy or use the project area prior to a cut-off date. Persons who encroach on the area after the cut-off date are not entitled to compensation or any other form of resettlement assistance. All persons included in a), b) or c) above are to be provided with compensation for loss of assets other than land.

All PAPs irrespective of their status or whether they have formal titles, legal rights or not, squatters or otherwise encroaching illegally on land, are eligible for some kind of assistance if they occupied the land before the cut-off date. Persons who occupy the area after the socio-economic study (census and valuation) are not eligible for compensation or any form of resettlement assistance.

7.2 Cut-Off Date

The entitlement cut-off date refers to the time when the valuation assessments of the land and assets/ developments on the land and a census of all the affected people begins. The date of the census will serve as the cut-off date for eligibility and no new arrivals in the project area or assets created after the cut-off date will be eligible for compensation after this date.

The Cut- off Date for implementation of the RAP will be on 20 December 2017. No land improvement in the Project-Affected Area after this date shall be eligible for compensation.

All the PAPs were informed of the cut-off date and its implications. Information about the cut-off date was disseminated mainly through public meetings and during the socio-economic survey.

7.3 Eligibility for resettlement/relocation

Eligibility for compensation and/or resettlement considered households who are occupying land acquired for the project and the remaining piece is considered economically unviable. All the 15 PAPs will be eligible for compensation and none will be relocated.

An entitlement matrix is given in the table**Error! Reference source not found.** 7.1 below.

Table 7.1: Entitlement matrix

Land and Assets	Types of Impact	Person(s) Affected	Compensation/Entitlement/Benefits
Agricultural land	Less than 20% of land holding affected remains economically viable.	Farmer/ title holder	Cash compensation for affected land equivalent to replacement value or Market value
		Tenant/ lease holder	Cash compensation for the harvest or product from the affected land or asset, equivalent to average market value of last 3 years, or market value of the crop for the remaining period of tenancy/ lease agreement, whichever is greater.
Commercial Land	Land used for business partially affected Limited loss	Title holder/ business owner	Cash compensation for affected land Opportunity cost compensation equivalent to 5% of net annual income based on tax records for previous year (or tax records from comparable business, or estimates where such records do not exist).
		Business owner is lease holder	Opportunity cost compensation equivalent to 10% of net annual income based on bank statement.
	Assets used for business severely affected If partially affected, the remaining assets become insufficient for business purposes	Title holder/business owner	Land for land replacement or compensation in cash according to PAP's choice. Land for land replacement will be provided in terms of a new parcel of land of equivalent size and market potential with a secured tenure status at an available location which is acceptable to the PAP. Transfer of the land to the PAP shall be free of taxes, registration, and other costs. Relocation assistance (costs of shifting + allowance) Opportunity cost compensation equivalent to 2 months net income based on tax records for previous year (or tax records from comparable business, or estimates)
		Business person is lease holder	Opportunity cost compensation equivalent to 2 months net income based on tax records for previous year (or tax records from comparable business, or estimates), or the relocation allowance, whichever is higher.

Land and Assets	Types of Impact	Person(s) Affected	Compensation/Entitlement/Benefits
			Relocation assistance (costs of shifting) Assistance in rental/ lease of alternative land/ property (for a maximum of 6 months) to reestablish the business.
Residential Land	Land used for residence partially affected, limited loss Remaining land viable for present use.	Title holder	Cash compensation for affected land
		Rental/ lease holder	Cash compensation equivalent to 10% of lease/ rental fee for the remaining period of rental/ lease agreement (written or verbal)
	Land and assets used for residence severely affected Remaining area insufficient for continued use or becomes smaller than minimally accepted under zoning laws	Title holder	Land for land replacement or compensation in cash according to PAP's choice. Land for land replacement shall be of minimum plot of acceptable size under the zoning law/ s or a plot of equivalent size, whichever is larger, in either the community or a nearby resettlement area with adequate physical and social infrastructure systems as well as secured tenure status. When the affected holding is larger than the relocation plot, cash compensation to cover the difference in value. Transfer of the land to the PAP shall be free of taxes, registration, and other costs. Relocation assistance (costs of shifting + allowance)
	Land and assets used for residence severely affected	Rental/ lease holder	Refund of any lease/ rental fees paid for time/ use after date of removal. Cash compensation equivalent to 3 months of lease/ rental fee. Assistance in rental/ lease of alternative land/ property.

Land and Assets	Types of Impact	Person(s) Affected	Compensation/Entitlement/Benefits
	Remaining area insufficient for continued use or becomes smaller than minimally accepted under zoning laws		Relocation assistance (costs of shifting + allowance)
Buildings and structures	Structures are partially affected Remaining structures viable for continued use	Owner	Cash compensation for affected building and other fixed assets. Cash assistance to cover costs of restoration of the remaining structure
		Rental/ lease holder	Cash compensation for affected assets (verifiable improvements to the property by the tenant). Disturbance compensation equivalent to two months rental costs
	Entire structures are affected or partially affected Remaining structures not suitable for continued use	Owner	Cash compensation for entire structure and other fixed assets without depreciation, or alternative structure of equal or better size and quality in an available location which is acceptable to the PAP. Right to salvage materials without deduction from compensation Relocation assistance (costs of shifting + allowance) Rehabilitation assistance if required (assistance with job placement, skills training)
		Rental/ lease holder	Cash compensation for affected assets (verifiable improvements to the property by the tenant). Relocation assistance (costs of shifting + allowance equivalent to four months rental costs).

Land and Assets	Types of Impact	Person(s) Affected	Compensation/Entitlement/Benefits
			Assistance to help find alternative rental arrangements Rehabilitation assistance if required (assistance with job placement, skills training)
		Squatter/ informal dweller	Cash compensation for affected structure without depreciation Right to salvage materials without deduction from compensation Relocation assistance (costs of shifting + assistance to find alternative secure accommodation) to area where he/she can live and work legally preferably in the community of residence through involvement of the project Alternatively, assistance to find accommodation in rental housing or in a squatter settlement scheme, if available) Rehabilitation assistance if required assistance with job placement, skills training)
		Street vendor (informal without title or lease to the stall or shop)	Opportunity cost compensation equivalent to 2 months net income based on tax records for previous year (or tax records from comparable business, or estimates), or the relocation allowance, whichever is higher. Relocation assistance (costs of shifting) Assistance to obtain alternative site to re- establish the business.
Standing crops	Crops affected by land acquisition or temporary acquisition or easement	PAP (whether owner, tenant, or squatter)	Cash compensation equivalent to average of last 3 years market value for the mature and harvested crop.
Trees	Trees lost	Title holder	Cash compensation based on type, age and productive value of affected trees plus 10% premium

Land and Assets	Types of Impact	Person(s) Affected	Compensation/Entitlement/Benefits
Temporary Acquisition	Temporary acquisition	PAP (whether owner, tenant, or squatter)	Cash compensation for any assets affected (e. g. boundary wall demolished, trees removed)
Community property			In kind replacement or compensation at replacement cost for land and structures

CHAPTER EIGHT: RAP ORGANIZATIONAL PROCEDURE AND IMPLIMENTATION SCHEDULE

8.1 Organizational procedure

The proposed project will be under the administrative authority of the AWSB as the implementing agent. Policy and strategic decisions involve the following Ministries:

- ✓ Ministry of water and irrigation
- ✓ The National Treasury
- ✓ Ministry of Environment and Natural Resources
- ✓ Ministry of Lands and housing (Physical Planning Department)
- ✓ County Government of Murang'a

8.1.1 Resettlement Implementation Team (RIT)

AWSB will establish a RIT, comprising a sociologist, surveyor, environmental specialist, engineer, land valuer and legal officer to manage the RAP process.

Roles and responsibilities

i. Public sensitization of all stakeholders and on-going community engagement;
ii. Socio-economic survey to identify the PAPs;
iii. Establish eligibility for compensation;
iv. Valuation of loss of use of assets i.e. land, structures and crops/trees;
v. Determination of compensation for loss of employment/incomes and loss of business;
vi. Deliver prompt compensation/resettlement;
vii. Be a member of the grievance procedure; and
viii. Monitoring, evaluation and reporting.

8.1.2 Resettlement Working Group (RWG)

The RAP will be implemented in partnership with various relevant government agencies. The RWG will comprise the community liaison officer (AWSB), local leaders and Murang'a county government representatives. The roles and responsibilities of the RWG will include but not limited to:

- ✓ Act as the primary channel of communication between the various interest groups/organizations involved in the resettlement process;
- ✓ Serve as communication link between AWSB and the PAPs; and
- ✓ Serve as the court of first appeal to solve problems that arise during RAP's implementation.

8.1.3 Local PAP Committees

The PAPs committee acts as a link between the various communities and AWSB. PAP committee shall comprise:

- ✓ Chairperson elected by the PAPs
- ✓ Secretary elected by the PAPs
- ✓ 3 members elected by the PAPs (a male, a female and youth)
- ✓ Local Area Chief

8.2 Implementation schedule

The project implementation timeframe is not definite as the start date was not indicated in the ToR. However, all the PAPs were eager to be given clear timeframe as well as be furnished with the date of compensation payment.

The RAP anticipates that the project implementation schedule will consist of three phases namely preparation, implementation and post implementation. It mainly will include works such as clearing access roads and civil works.

The resettlement schedule for land acquisition will be coordinated with Resettlement Implementation Team (RIT). The activities prior to construction are outlined in the following table below.

Table 8.1: RAP Implementation schedule

Task Name	Duration
Project duration	**61 days**
Submission of Final RAP report by the consultant	1 day
Approval of RAP by AWSB	7 days
Constitution of RIT and RWG	1 day
Validation process by consultant's valuer and RIT	4 days
Community consultation	4 days
Constitution of RAP PAP committee	2 days
Notification of entitlement	2 days
Signing of agreement on entitlement by PAPs	4 days
Payment of compensation	14 days
Notification of relocation/acquisition	14 days
Redress of Grievances	34 days
Submission of project completion report by RIT	7 days
Monitoring and Evaluation	27 days
Deliverables	**61 days**
Final RAP report	0 days
Project completion report	0 days
Monitoring and Evaluation report	0 days

ID	Task Name	Duration
1	**Project duration**	**66 days**
2	Submission of Final RAP report by the consultant	1 day
3	Approval of RAP by AWSB	7 days
4	Constitution of RIT and RWG	1 day
5	Validation process by consultant's valuer and RIT	4 days
6	Community consultation	4 days
7	Constitution of RAP PAP committee	2 days
8	Notification of entitlement	2 days
9	Signing of agreement on entitlement by PAPs	4 days
10	Payment of compensation	14 days
11	Notification of relocation/acquisition	14 days
12	Redress of Grievances	34 days
13	Submission of project completion report by RIT	7 days
14	Monitoring and Evaluation	27 days
15	**Deliverables**	**65 days**
16	Final RAP report	0 days
17	Project completion report	0 days
18	Monitoring and Evaluation report	0 days

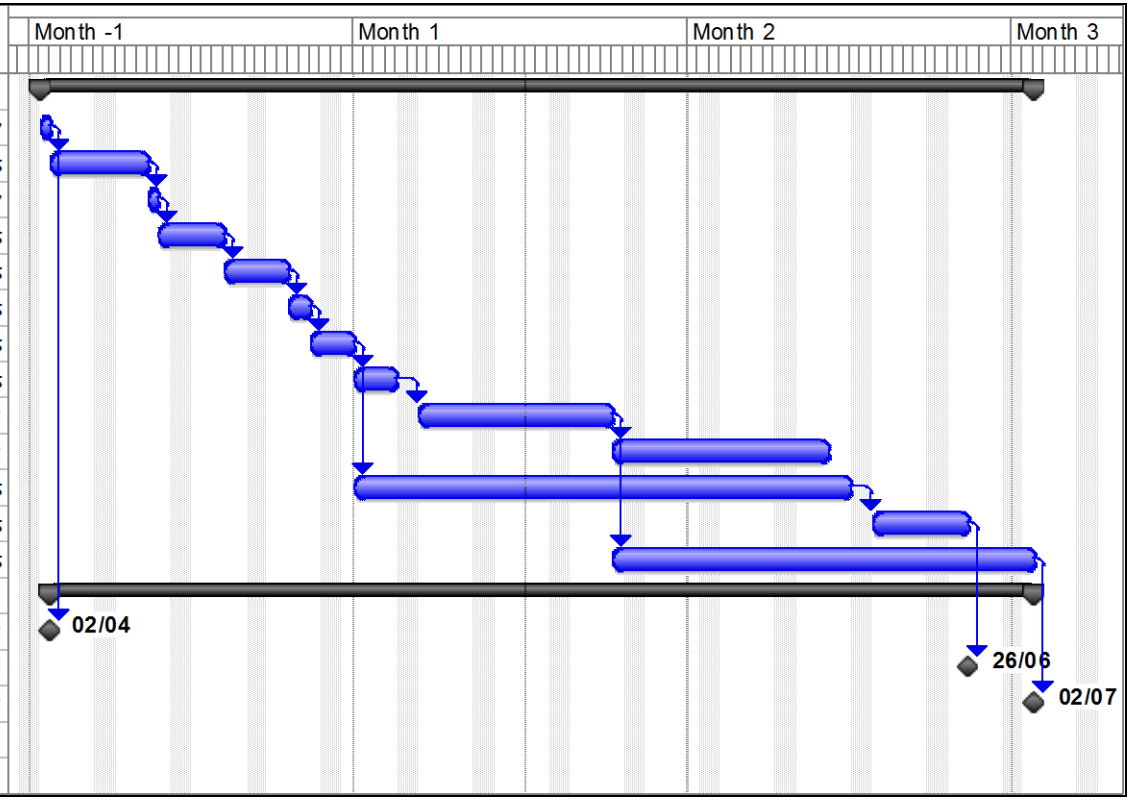


Figure 8.1: RAP Implementation schedule

CHAPTER NINE: GRIEVANCE REDRESS MECHANISM

9.1 Introduction

During the implementation of the project activities it is likely that disputes/disagreements between the project implementers and the affected persons will occur especially in terms of boundaries, ownership of crops or land or use of land/ properties, compensation values, delay in disbursement of the compensation packages. It will therefore be necessary to establish channels through which aggrieved people shall file their complaints so as to ensure successful project development and implementation. The project RAP team to be established by AWSB (and will be a team of Consultants; including a RAP Specialist, Land Surveyor and Property Valuer) will establish grievance redress mechanisms.

The grievance redress procedures will provide opportunity for PAPs to settle their complaints and grievances amicably. The procedure to be adopted will allow PAPs not to lose time and resources from going through lengthy administrative and legal procedures. This will be set up through Local Authorities, including a Resettlement Committee and through community leaders. The grievance mechanisms shall:

- Provide an effective avenue for expressing concerns and achieving remedies for communities.
- Promote a mutually constructive relationship between the project and the community or PAPs.
- Prevent and address community concerns.

9.2. Grievance Mechanisms

The Land Act 2012 and National Land Commission Act 2012 obligate the NLC to manage grievances and disputes related to resettlement or land amicably. NLC will be expected to arbitrate or negotiate with PAPs or landowners that have any grievances concerning their compensation. The structures they put in place are also expected to take up this responsibility.

This RAP thus will use the following grievance resolution mechanisms.

Grievance Resolution Committee

The grievance committee is at the local level and this constitutes the following people;

- Location Chief;
- Sub Location Chief;
- Village leader;
- Three representatives of Project Affected Persons (1 Male, 1 Female and 1 Youth);
- A representative from county government of Murang'a.

Complaints of PAPs on any aspect of compensation or addressed losses shall first be lodged either in writing or orally to the committee or project liaison officer (who receives grievance and process), which will be resolved by use of customary rules and existing grievance resolution mechanisms. The Grievance Resolution Committee will try as much as possible to arrive at a compromise for the complaints raised. This will be obtained through series of conciliations, mediations and negotiations exercises conducted with the PAPs. If the grievance is not resolved, the case will be forwarded to Resettlement Working Group (RWG).

This committee will sit at the chief's office in Kiruri. The following procedure will be followed:

1. *Registration of grievance:* an aggrieved party registers a grievance at the Chief's office or with project liaison officer using a "Grievance Registration Form" and within two working days the committee meeting is convened by the chair. (See appendix III for a sample of the Grievance Registration Form);

2. The secretary of the committee will log in the Grievance into the *Grievance Register* and the aggrieved person informed of the scheduled hearing. A maximum of 7 working days shall be given between the date the case is recorded and the date when the hearing is held;

3. The committee will be *meeting on a weekly* basis to deal with emerging cases. At these meetings, hearings with the affected persons and related witnesses will be held;

4. The committee will communicate its judgement to the affected persons within 7 days (See appendix IV for a sample Resolution Form);

5. If there is no resolution at this stage the committee through the chair moves the case to the next level. This will be done within 7 days after the hearing;

6. If the PAP is not satisfied with the judgement, he or she will be allowed to move the case to the next level.

Resettlement Working Group (RWG)

RWG as discussed in section 8.1.2 will comprise AWSB representative, area chief and Murang'a county government representatives comprising the County Executive Committee (CEC) in charge of land and environment, water and other relevant departments. The team will receive the grievance for deliberation from the grievance resolution committee. If unresolved the grievance will be forwarded to the RIT.

Resettlement Implementation Team

The project implementation team shall comprise the AWSB staff involved in the project for example; sociologist, environment officer, resident engineer and a legal officer among others.

The project implementation team will receive and verify the claims on the ground with the assistance of the grievance committee. If unresolved then the case will be forwarded to the Land and Environmental Court or High Court.

Land and Environmental Court or High Court

The constitution allows a right of access to courts of law by any person who has an interest or right over property. The aggrieved PAP not satisfied with the decision of the Committee will submit the case to courts of law as a last resort. However, this will only happen after all amicable ways to resolve the grievance have failed.

9.3. Grievance Resolution Process

PAPs were consulted about the different approaches to resolving grievances during assets valuation. Subsequently, through sensitization meetings the PAPs were informed of the different grievance mechanisms in place for them to lodge their complaints and dissatisfactions. The grievance procedure will be simple and administered as far as possible at the local levels to facilitate access, flexibility and ensure transparency. All the grievances will be channelled via the Grievance Resolution Committees. Complaints will be received in written or orally and will be filled in a Grievance Registration Form by the committee.

The steps for grievance redress are as follows:

- **First step**:

Registration of the grievances with the Grievance Resolution Committee as discussed in section 8. The committee will seek to eliminate nuisance claims and engage with legitimate claimants endeavouring to reconcile the aggrieved PAP(s) concern or depending upon the issue to negotiate for a resolution. Where the complaint and grievance cannot be resolved by the committee, the complaint is referred to the RWG.

- **Second step**:

The RWG receives grievance forwarded by the committee concerning the aggrieved PAP(s) to negotiate and possible resolution. The RWG having heard the concern, the meeting will respond to the aggrieved PAP(s) within two (2) weeks of the date of the meeting. Where the complaint and grievance cannot be resolved by the RWG, the complaint is referred to the Resettlement Implementation Team (RIT).

- **Third step**:

Where the complaint and grievance cannot be resolved by the RWG, the complaint is referred to the Resettlement Implementation Team (RIT).

- **Fourth step**:

In instances where the RIT is unable to resolve the matter, the same will be referred to the Courts for settlement. Kenyan citizens and legal entities have access to court recourse in conformance

with applicable laws. The aggrieved PAP(s) have the right to pursue the matter up to the Supreme Court if necessary.

- **Fifth step**:

Expropriation of land will be used as a last resort when all of the above procedures have either failed or extensive delays to the project are foreseen. Expropriation means taking away of private land and landed property for public purpose by the Government with or without the owner's consent subject to laws of 'Eminent Domain', which stipulates the right that government or one of its agents has the right to take property for public use following prompt and adequate compensation being paid, among other things.

The decisions of the action to be taken or taken will be communicated to all involved parties mainly in Grievance resolution form. All measures will be undertaken to ensure that the grievance is solved amicably between the concerned parties and the courts will be the last resort. Efficiency in solving of the grievances will be of paramount importance.

The above steps are summarised in Figure 9.1.

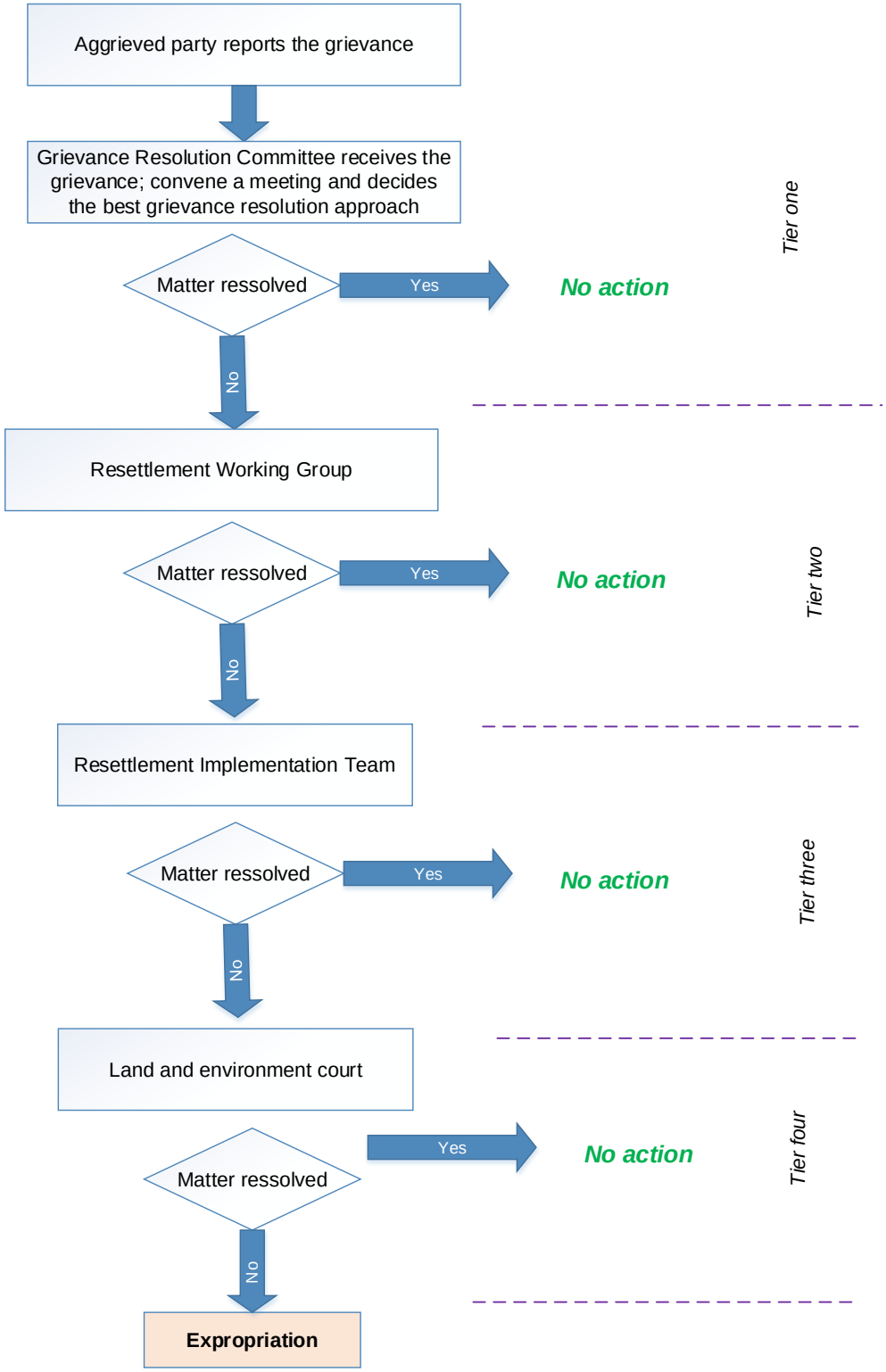


Figure 9.1: Grievance redress procedure

9.4. Monitoring Complaints

In addition to the Grievance Resolution Form, a Grievance Log will be kept by the project implementers indicating the date the complaint was lodged, actions to be taken and personnel or team responsible for the complaint. A Project Liaison Officer or Resettlement Expert for the project will monitor and document the progress of all complaints through monthly RAP implementation status reports.

CHAPTER TEN: MONITORING AND EVALUATION

In order to guarantee that the compensation plan is smoothly performed and the interests of the affected persons are well taken care of, the implementation of the resettlement action plan will be under monitoring throughout the whole process. Monitoring will be divided into two parts, i.e. internal and external monitoring.

10.1 Internal monitoring

The internal monitoring will be performed by AWSB. The target of internal monitoring is to ensure that there is overall fairness and transparency while compensation process takes place and Resettlement Action Plan is performed based on legal rights.

The main monitoring center would be compensation allocation schedule, payment and use of compensation fee, implementation of the policies and regulation specified in the resettlement plan and the whole course of implementation of the compensation.

The main source of data for internal monitoring will be the data base generated from the RAP for records on compensation of assets as well as the day today observations by implementing staffs. The client's team will record the progress of land allocation and resettlement. They will make a summary report starting from the commencement of the activities and special events will be reported on continuous basis.

10.2 External Monitoring

External monitoring will be conducted through a contracted independent and qualified consultant. The consultant will visit the project area on a quarterly basis.

The consultant will ensure that:

- Monies paid to households who have lost crops and other forms of livelihood production have received fair compensation

- Where land has been permanently acquired for the project, households affected have been afforded fair compensation.
- The grievances raised by stakeholders, notably PAPs, have been settled within the stipulated timeframe without delay including the effectiveness of the compensation delivery system.
- Review the results of internal monitoring and review overall compliance of RAP

The consultant must write its reports before the end of each visit and submit them to AWSB and the RAP committee.

10.3 Monitoring Indicators

The table below shows the monitoring indicators:

Table 10.1: Monitoring indicators

Subject	Indicator	Variable
Land	Land acquired	✓ Area of cultivation land acquired ✓ Developments ✓ Area of private land acquired ✓ Approvals sought for use of government land
Buildings/ Structures	Number of other structures to be demolished/relocated	✓ Number, type and size of other structures demolished/relocated
Trees and Crops	Number of trees to be cleared	✓ Number and type of trees cut ✓ Age size at girth level
	Value of crops to be destroyed	✓ Crops destroyed by area and type ✓ Compensation amounts for the crops destroyed
Compensation, Re-establishment and Rehabilitation	Number of PAPs compensated	✓ Number of individuals affected ✓ Number of owners compensated by type of loss ✓ Amount compensated by type and owner
Hazards and Disturbances	Number of complaints received from PAPs	Number of households affected by hazards and disturbances from construction (excavation of trenches, noise levels, blasting, increased traffic levels)

CHAPTER ELEVEN: CONCLUSIONS

The proposed construction of water supply by AWSB in Makomboki, Kiruri & Ichichi areas, Murang'a County will improve access to potable water by the community. Provision or additional water supply has potential to un-lock the economic potential of rural areas and thus contribute to national economic growth.

This A-RAP report has been prepared in consistency with the applicable policy provisions of Kenyan Government and the provisions of the World Bank's Safeguard Policy on Involuntary Resettlement (OP 4.12). OP 4.12 requires that a RAP be prepared for all projects that anticipate land acquisition and displacement affecting shelter, livelihood and associated impacts. This RAP report presents an inventory (register) of people and assets to be affected by development of the project and their equivalent value of compensation package as mitigation measures for the social risks caused by the project.

The PAPs were involved in the RAP process and their views incorporated in the report. The report also, proposes mechanisms to involve PAPs throughout all stages of the RAP process that is during the disclosure, implementation as well as monitoring and evaluation processes. The compensation packages took into consideration the livelihoods of the PAPs and will not interfere with the sources of income including current jobs available to the PAPs and compensation from loss of income from business structures and related activities.

The report has an elaborate grievance mechanism to be used in case of any dispute arose concerning RAP implementation. The grievance mechanism structure has community members, including representatives of gender to ensure that every PAP has a voice during resettlement process.

During the consultation and participation meetings with the PAPs, it was agreed that AWSB will ensure:

1. Continuous sensitisation of affected communities in the pre-construction phase of the project
2. timely compensation of all the affected persons using the prevailing market rates and as per the valuation roll.
3. A minimum of one month notice will to be given to the PAPs to enable them salvage their assets.
4. Unskilled labour will be drawn from local communities and income generating opportunities for women will be considered during project construction in the form of food preparation and sale to workers.
5. The community will be involved during monitoring and Evaluation process. This will ensure that arising issues are properly addressed.

APPENDIX

i. Asset register;
ii. Public consultation minutes and attendance sheet;
iii. Grievance registeration form;
iv. Sample grievance and resolution form
v. Grievance log
vi. Sample questionnaire used

APPENDIX I: ASSETS REGISTER

MINISTRY OF LANDS & PHYSICAL PLANNING

Telegraphic Address ……..
Telephone …….
If calling please ask for
When replying please quote
Ref No MURANG'A VAL. MRG/WASSIP

DISTRICT LANDS OFFICE
MURANG'A
P.O. BOX 342-10300
KERUGOYA.

DATE: 3rd January 2018

THE CHIEF EXECUTIVE OFFICER,
ATHI WATER SERVICES BOARD,
P.O. BOX 45283-00100,
NAIROBI.

RE: REPORT AND VALUATION OF THE PROPOSED TANK SITES AND PIPELINE ALONG KIRURI, ICHICHI AND MAKOMBOKI COMMUNITY WATER SUPPLY PROJECT

On request from Athi Water Service Board, a land, property and crops valuation assessment was carried out from 22-24 December 2017 on sites proposed for construction of tanks and pipeline corridor along Kiruri-Ichichi & Makomboki Community Water Supply Projects.

Enclosed, please find details of the report;

Yours faithfully,

B.M. NDOME
SUB CONSULTANT – EASEMENT VALUATION

S.NO	VALUATION ASSESSMENT DETAILS	AMOUNT
1.	0.04 ha of land valued @ KeShs 221,000	221,000
	412 tea bushes @ KeShs 320 each	131,840
	4 mature avocado trees @ KeShs 7,500 each	30,000
	2 young macadamia trees @ KeShs 1,125 each	2,250
	418 maize plants @ KeShs 13 each	5,434
	17 mature passion fruit plants @ KeShs 800 each	13,600
	SUB-TOTAL	**404,124**
	Add 15% disturbance allowance	60,619
	TOTAL Four hundred sixty four thousand, seven hundred forty three shillings only.	**464,743**
2.	0.04 ha plot valued @ 221,000	221,000
	Wire fence and gate @ 21,400	21,400
	2 eucalyptus trees @ 2,850	5,700
	SUB-TOTAL	**248,100**
	Add 15% disturbance allowance	37,215
	TOTAL Two hundred eighty five thousand, three hundred and fifteen shillings only.	**285,315**
3.	0.04 ha plot valued @ 221,000	221,000
	Live hedge & wire fence @ 28,480	28,480
	5 eucalyptus trees @ 2,850	14,250
	2 young macadamia plants @ 1,125	2,250
	SUB-TOTAL	**265,980**
	Add 15% disturbances allowance	39,897
	TOTAL Three hundred five thousand eight hundred and seventy seven shillings only.	**305,877**
4.	0.04 plot belonging to government of Kenya	00.00-
	1480 Napier grass stools @ 25	37,000

	3 young avocado plants @ 3,750	11,250
	Wire fence valued @ 6,800	6,800
	SUB-TOTAL	**55,050**
	Add 15% disturbance	8,258
	TOTAL sixty three thousand three hundred and eight shillings only.	**63,308**
5.	0.04 ha valued @ 221,000	221,000
	172 tea bushes @ 320	55,040
	Live hedge wire fence @ 8,400	8,400
	SUB-TOTAL	**284,440**
	Add 15% disturbance allowance	42,666
	TOTAL Three hundred twenty seven thousand one hundred and six shillings only.	**327,106**
6.	0.04 ha plot valued @ 221,000	221,000
	388 tea bushes @ 320	124,160
	4 young avocados plants @ 3,750	15,000
	18 passion fruit plants @ 1,200	21,600
	122 napier grass stools @ 25	3,050
	Live hedge & wire fence @ 28,800	28,800
	SUB-TOTAL	**413,610**
	Add 15% disturbance allowance	62,042
	TOTAL Four hundred seventy five thousand, six hundred and fifty two shillings only.	**475,652**
7.	0.04 ha plot valued at 221,000	221,000
	Relocation of pit latrine @ 87,400	87,400
	Relocation of a timber structure @ 121,600	121,600
	Live hedge fence & gate valued at 28,200	28,200
	86 napier grass stool @ 25	2,150

	SUB-TOTAL	**460,350**
	Add 15% disturbance allowance	69,053
	TOTAL Five hundred twenty nine thousand, four hundred and three shillings only.	**529,403**
8.	0.04 ha plot valued at 221,000	221,000
	Live hedge fence valued at 21,400	21,400
	42 wattle @ 2,800	117,600
	SUB TOTAL	**360,000**
	Add 15% disturbance allowance	54,000
	TOTAL Four hundred fourteen thousand shillings only**.**	**414,000**
9.	Relocation of a shop structure	142,800
	Add 15% disturbance allowance	21,420
	TOTAL one hundred sixty four thousand two hundred and twenty shillings only.	**164,220**
10.	38 wattle trees at 2,850	108,300
	Relocation of a fodder stall structure	48,800
	SUB TOTAL	**157,100**
	Add 15% disturbance allowance	23,565
	TOTAL One hundred eighty thousand six hundred sixty five shillings only.	**180,665**
11.	0.04 ha plot valued @ 221,000	221,000
	1259 napier grass plants @ 25	31,475
	22 cypress trees @ 2,800	61,600
	6 young avocado plants @ 3,750	22,500
	Relocation of fodder store structure @ 49,800	49,800
	Live hedge & wire fence valued @ 28,400	28,400
	SUB TOTAL	**414,775**

	Add 15% disturbance allowance	62,216
	TOTAL Four hundred seventy six thousand, nine hundred ninety one shillings only.	**476,991**
12.	615 napier grass stools @ 25	15,375
	3 young avocado plants @ 3,750	11,250
	SUB TOTAL	**26,625**
	Add 15 % disturbance allowance	3,994
	TOTAL Thirty thousand, six hundred and nineteen shillings only.	**30,619**
13.	0.04 ha plot valued @ 221,000	221,000
	Live hedge wire fence @ 21,400	21,400
	6 passion fruits plants @ 800	4,800
	56 sweet potatoes plants @ 30	1,680
	4 trees tomatoes @ 450	1,800
	14 sugar cane plants @ 300	4,200
	204 maize plants @ 13	2,652
	3 young avocado plants @ 3,750	11,250
	5 banana stools @ 800	4,000
	4 grevillea trees @ 1,850	7,400
	4 indigenous trees @ 1,850	7,400
	192 Irish potato plants @ 30	5,760
	Relocation of timber structure @ 128,000	128,000
	SUB TOTAL	**421,342**
	Add 15% disturbance allowance	63,201
	TOTAL Four hundred eighty four thousand, five hundred and forty three shillings only.	**484,543**

14.	**c) Tank site**	
	0.04 ha plot valued @ 221,000	221,000
	Barbed wire fence @ 8,400	8,400
	SUB TOTAL 1	**229,400**
	d) **Pipeline proposed on private land** 0.035 ha way leave	
	for pipeline @	43,750
	842 Napier grass stools @ 25	21,050
	782 maize plants @ 13	10,166
	SUB TOTAL 2	**74,966**
	Subtotal 1 + Subtotal 2	**304,366**
	Add 15 % disturbance allowance	45,655
	TOTAL Three hundred fifty thousand, twenty one shillings only.	**350,021**
15.	0.04ha land plot valued @ 221,000	221,00
	Relocation of pit latrine @ 87,500	87,500
	21 eucalyptus trees @ 2,800	58,800
	18 passion fruits @ 1,200	21,600
	516 napier grass stools @ 25	12,900
	4 young avocado plants @ 3,750	15,000
	214 maize plants @ 13	2,782
	Live wire fence valued @ 21,800	21,800
	SUB TOTAL	**441,382**
	Add 15% disturbance allowance	66,207
	TOTAL Five hundred and seven thousand, five hundred and eighty nine shillings only.	**507,589**

- **Grand total for all the PAPs = 5,096,138**
- **Total number of PAPs = 15**
- **Total number of tank sites proposed on private land = 12**

APPENDIX II: PUBLIC CONSULTATION MINUTES AND ATTENDANCE SHEET

Meeting 1: Meeting at chief's office in Kiruri on 21/12/2017 at 12.40pm

Below are the minutes of the meeting at Kiruri chief's office.

MINUTES OF PUBLIC PARTICIPATION MEETING FOR RAP FOR THE PROPOSED WATER SUPPLY SYSTEM

DATE: 21 December 2017

VENUE: Chief's office in Kiruri

IN ATTENDANCE

See attached list

AGENDA

1. Introduction of participants
2. Project introduction
3. Comments and issues
4. Recommendations
5. A.O.B

MIN01: Introduction of participants

The meeting began at 12.40 pm with a prayer from one of the community members, then introductions by each person present. The consultant from Kenface Enconsults (A) Limited introduced his team.

MIN02: Project introduction

The consultant briefed the meeting about the proposed water supply project by Athi Water Services Board at Makomboki, Kiruri & Ichichi areas in Murang'a County.

MIN03: Comments, issues and opinion

Mr. Ndome (Valuer)	He informed the meeting that this project came about as a result of Northern Collector Tunnel (NCT) project which led to implementation of nine (9) small water supply projects of which Makomboki, Kiruri & Ichichi is one of the project. Mr. Ndome explained to the meeting that there are major stakeholders in involved the project: AWSB (implementer), WB (donor), contractor and consultants. He informed the PAPs that AWSB will be responsible for compensation and overall management of the project implementation.

	As per the design of the project, twelve (12) water storage tanks acting as pressure beak tanks were sited in private lands while the pipeline will be largely on the road reserve. Land will be acquired for the tanks and compensation done accordingly.
Mr. Too (RAP consultant)	Mr. Too gave a background of the project and informed PAPs that the main activity at this point was to carry out Valuation of the affected assets so that the RAP report can be prepared. Mr. Too explained the RAP process to the PAPs informing them the laws and regulations governing the process. The PAPs were taken through the grievance redress mechanism developed and how they can use incase of any grievance emanating from compensation. Compensation will cover structures, land, trees and crops. Mr. Too informed the PAPs that the valuer will carry out valuation then AWSB will have a meeting with each PAP for disclosure and if in agreement compensation will be done. He informed the PAPs that the cut-off date is 30 December 2017. After this date any other improvement on the affected land will not be considered for compensation.
Cerere Kimotho PAP	During disclosure, each PAP will be disclosed as an individual or as a group? Is compensation payment one off or paid annually or monthly? *Response by the consultant* • Disclosure will be to an individual • Compensation is one off.
Chief PAP	Some of the PAPs have no title deed, what will happen during compensation? How will you deal with succession issues? Many PAPs have title deed under their forefathers. Is the remaining land given new title deed? *Response by the consultant* • AWSB will facilitate land search and that will be the basis of compensation.

	• The family members are encouraged to agree as a family and whoever they front as a PAP for compensation (agreement in written), he/she will be compensated but easement will be registered. • New titles will be issued in favour of AWSB and also the land owner. The cost implications will be catered for by AWSB The landowner will surrender his/her title during compensation payment for change of title.
Mr. Ndome (Valuer)	Compensation will also cater for the working area during construction. The process for valuation starts from survey of the affected area to create boundaries, then valuation and finally disclosure. During compensation, the following requirements are needed: copy of ID, Title deed, copy of KRA PIN, passport size photos and bank details.

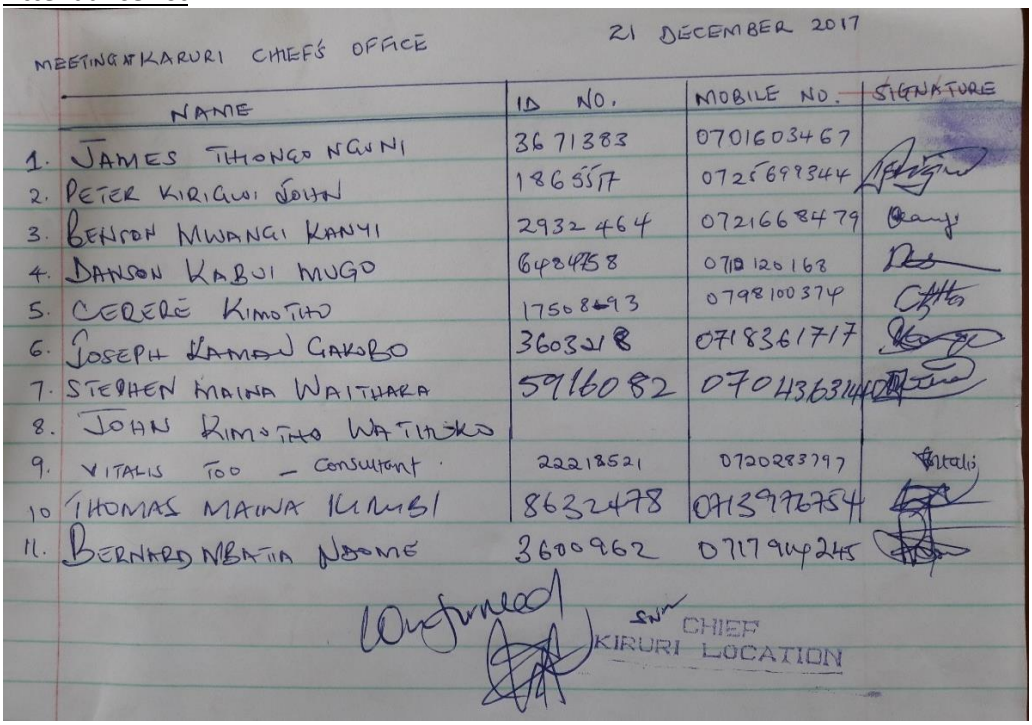
MIN04: Recommendations

After the discussions about the proposed project, the participants uniformly recommended the project to continue without delay.

MIN05: A.O.B

There being no any other business to discuss the meeting adjourned at 1pm.

Attendance list



MEETING AT KARURI CHIEF'S OFFICE 21 DECEMBER 2017

NAME	ID NO.	MOBILE NO.	SIGNATURE
1. JAMES THONGO NGUNI	3671383	0701603467	
2. PETER KIRIGWI JOHN	1865517	0725699344	
3. BENSON MWANGI KANYI	2932464	0721668479	
4. DANSON KABUI MUGO	6484758	0710120168	
5. CERERE KIMOTHO	17568693	0798100374	
6. JOSEPH KAMAU GAKORO	3603218	0718361717	
7. STEPHEN MAINA WAITHAKA	5916082	0704363144	
8. JOHN KIMOTHO WATHIKO			
9. VITALIS TOO – CONSULTANT	22218521	0720283797	
10 THOMAS MAINA KIMBI	8632478	0713996754	
11. BERNARD NBATIA NDOME	3600962	0717944245	

CHIEF
KIRURI LOCATION

Meeting 2: Meeting at chief's office in Ichichi on 21/12/2017 at 2.00pm

Below are the minutes of the meeting at Ichichi chief's office.

MINUTES OF PUBLIC PARTICIPATION MEETING FOR RAP FOR THE PROPOSED WATER SUPPLY PROJECT

DATE: 21 December 2017

VENUE: Chief's office in Ichichi

IN ATTENDANCE

See attached list

AGENDA

i. Introduction of participants
ii. Project introduction
iii. Comments and issues
iv. Recommendations
v. A.O.B

MIN01: Introduction of participants

The meeting began at 02.00 pm with a prayer from one of the community members, then introductions by each person present. The consultant from Kenface Enconsults (A) Limited introduced his team.

MIN02: Project introduction

The consultant briefed the meeting about the proposed water supply project by Athi Water Services Board at Makomboki, Kiruri & Ichichi areas in Murang'a County.

MIN03: Comments, issues and opinion

Mr. Ndome (Valuer)	He informed the meeting that this project came about as a result of Northern Collector Tunnel (NCT) project which led to implementation of nine (9) small water supply projects of which Makomboki, Kiruri & Ichichi is one of the project. Mr. Ndome explained to the meeting that there are major stakeholders in involved the project: AWSB (implementer), WB (donor), contractor and consultants. He informed the PAPs that AWSB will be responsible for compensation and overall management of the project implementation.

	As per the design of the project, twelve (12) water storage tanks acting as pressure beak tanks were sited in private lands while the pipeline will be largely on the road reserve. Land will be acquired for the tanks and compensation done accordingly
Mr. Too (RAP consultant)	Mr. Too gave a background of the project and informed PAPs that the main activity at this point was to carry out Valuation of the affected assets so that the RAP report can be prepared. Mr. Too explained the RAP process to the PAPs informing them the laws and regulations governing the process. The PAPs were taken through the grievance redress mechanism developed and how they can use incase of any grievance emanating from compensation. Compensation will cover structures, land, trees and crops. Mr. Too informed the PAPs that the valuer will carry out valuation then AWSB will have a meeting with each PAP for disclosure and if in agreement compensation will be done. He informed the PAPs that the cut-off date is 30 December 2017. After this date any other improvement on the affected land will not be considered for compensation.
Chief	This project is for the government, funded by WB. The community requested for electricity and water supply during NCT project public participation. The meeting was carried out by the government, community, and AWSB and it was agreed that wayleave be given for free by the community. Land acquisition for tanks will be compensated accordingly and land, structures, trees and crops will be compensated. He urged the PAPs to allow the valuer to carry out assessment and valuations on the affected assets. He requested that the PAPs be connected with the water without pay. *Response by the consultant* This is not possible because there are costs associated with water connection including purchase of meters and this is normally taken care of by the customer.

John Kamau PAP	The land acreage shown in the title deed will change? Yes. The acrerages will change. New titles will be issued in favour of AWSB and also the land owner. The cost implications will be catered for by AWSB The landowner will surrender his/her title during compensation payment for change of title. In case of easement, The easement will be registered in the title deed showing the size of affected land. The acreage will not change for easement cases.
Chief	The cut-off date will affect the crops especially for 3months? *Response by the consultant* Cut –off date affects any improvements on the affected land.
Mr. Ndome (Valuer)	Compensation will gather for the working area during construction. The process for valuation starts from survey of the affected area to create boundaries, then valuation and finally disclosure. During compensation, the following requirements are needed: copy of ID, Title deed, copy of KRA PIN, passport size photos and bank details

MIN04: Recommendations

After the discussions about the proposed project, the participants uniformly recommended the project to continue without delay.

MIN05: A.O.B

There being no any other business to discuss the meeting adjourned at 3pm.

Attendance list

MEETING AT CHIEFS OFFICE, ICHICHI LOCATION 21/12/2017

NAME	ID Nº	Tel Nº	SIGNATURE
PAUL NJOROGE MWANGI	21776021	0723219513	
JOHN KAMAU	30064404	0727105286	
PAUL KIMANI MACHARIA	2269205	0711780674	
DAVID GITHUGO NJOROGE	3601692	0700887723	
BERNARD NDOME	3600962	0717914245	
VITALIS TOO	22218521	0720283797	

SIGN:
DATE:
CHIEF ICHICHI LOCATION

CHIEF ICHICHI LOCATION
DATE: 21/12/2017
SIGN:

GIKAKIMA SPECIAL MEETING ON WATER PROJECT HELD ON 17th FEBRUARY 2017 AT KANDERENDU SHOPPING CENTER

PRESENT

AS PER THE ATTACHED LIST

AGENDA

1) OPENING PRAYERS
2) INTRODUCTION
3) PROGRESS OF THE PROJECT
4) ATHI WATER FUNDING
5) RESOLUTIONS
6) A.O.B
7) CLOSING PRAYERS

MIN 01/02/2017: OPENING PRAYERS

The meeting started with a word of prayers by Madam Gladys Mukami at 11:35am

MIN 02/02/2017: INTRODUCTION

The chairman (Mr.Paul) called the meeting to order and requested the secretary Mr.Gitau (Factory Unit Manager/Secretary to GIKAKIMA) to invite all invited leaders and committee for self introduction.

MIN 03/02/2017: PROGRESS OF THE PROJECT

Mr.Gitau (Factory Unit Manager/Secretary to GIKAKIMA) gave a brief history and progress of the project. He reminded members that GIKAKIMA Water project is registered as a water service provider, has a permit with mandate to supply irrigation water to whole of Makomboki Location, has a connection target of 3000 families, so far its has been able to construct an intake and distribution line to Kanderendu, Kimotho and Gitwe, all public & private public and private secondary/primary school within the catchments and Makomboki Tea Factory. However due to financial constraints it has several remaining tasks which includes; intake rehabilitation, construction of storage and pressure tanks and pipeline for the remaining areas. In conclusion thanked all for continuous support and goodwill towards completion of the project.

Mr.Gichoni (District water officer) appreciated the effort by community to be a water service provider and engage different funding agent to support their water project. In addition he assured residents of government support towards achieving their goal. Finally advised residents that due to hydrological assessment the Githika river where GIKAKIMA intake lies cannot be constructed new dam. Also urged all locations residents to work harmoniously and engage each other to have GIKAKIMA intake supply water to the whole of the location.

MIN 04/02/2017: ATHI WATER FUNDING

The board of directors from Makomboki Tea Factory thanked Athi Water Services for the funding and assured members of their full support and commitment. The entire board will offer support and any requirements to enable smooth running of the project. They noted that GIKAKIMA drafted a funding proposal (on intake rehabilitation, storage tanks & new distribution lines) to Athi Water Services and were optimistic it will be funded.

They also highlighted that the project was started in the year 2007, costed 16.2 million, community contributed 20% in terms of labour on trenching and pipeline backfilling, GIKAKIMA is licensed as a water service provider (no.WRMA/40/MRG/4CB/135/S) and financed by Fair-trade, CDF, Makomboki Tea Factory and Tea buyer (Taylors of Harrogate). In conclusion assured residents to always raise their voice and safeguard the project and offer Athi Water Services the needed support during implementation of the project

MIN 05/02/2017: RESOLUTIONS

After the discussions members resolved the following to be implemented;

1) The community fully support with no objection on the funding from Athi Water Services and are willing to cooperate and offer the necessary support from initiation till evaluation of the project.
2) Athi water services were given the wrong information pertaining the willingness of the community to support the project. There is no politics in the project except the lack of involvement of the GIKAKIMA committee members.
3) There should not be any intake interference without consent from GIKAKIMA committee.
4) The approved design should be reviewed to ensure areas not mapped are also consider for connection.
5) GIKAKIMA is licensed and permitted to supply water as a service provider, therefore the funding agent (Athi water services) must sign an agreement (MOU) that will allow

GIKAKIMA take in-charge after the project is completed for sustainability purposes.

6) Environment Impact Assessment to be conducted not only on focus group by also individual in/directly affected by the project.
7) The project to start from the intake -enlarge the dam and seal leakages

MIN 06/02/2017: A.O.B

The Assistant County commissioner assured residents of government full support, community to enhance community policing, always community should participate in projects undertaken within their environs and leaders to listen to needs of the residents.

Members agreed to be good ambassador of the project, defend and guard the pipeline against misuse and poor water management. In addition members agreed to remove silt from the dam on 18th Feb 2017 and each to carry a sack.

MIN 07/02/2017: CLOSING PRAYERS

Being no further business the meeting ended with a word of prayers by William Ndungu at 14:15 pm.

PREPARED BY: SECRETARY.....

CONFIRMED BY: CHAIRMAN.....

Meetings during the ESIA Stage

MINUTES OF PUBLIC PARTICIPATION MEETING AT KIRURI TEA BUYING CENTRE ON THE 17-02-2017 AT 1100hrs to 1300hrs

Present

1. Chief Kiruri Location
2. Ass chief Karurumo sub-location

Kenface Company limited representatives

1. Peter Muriuki
2. Marjoline Motaroki

Athi Water Services Board (AWSB)

1. Joseph Ndungu

Agenda

Public participation and consultation on the proposed construction of the Kiruri, Ichichi and Makomboki water projects.

1.0 Introduction

The area Chief welcomed all members of his location and the meeting began with a word of prayer.

The chief welcomed the government's gesture to supply water to the area. He mentioned that the water in the area has been inadequate and this has had an effect to the people mostly in farming and household use.

The area chief welcomed Mr. Ndungu from Athi Water to explain to the meeting the proposed project. Mr. Ndungu told the participants that the proposed project was initiated as a result of the outcry of the host community that they don't have water supply yet water supplying other areas originate from the area. He reiterated that the project was to benefit the community and not to be a cause of conflict amongst communities.

Mr. Ndungu then introduced the consultant, Mr. Muriuki.

Mr. Muriuki started by thanking the people for attending the meeting and for their large turnout. He mentioned about the proposed project and the project area and he informed the meeting that the public consultation and participation is a requirement by law according to the EMCA 1999 Act. He assured the community that all issues and comments raised in the meeting will be incorporated in the report as the exercise was free, fair and independent. Having explained, he welcomed the community for questions.

2.0 Comments and opinion from the public

Name	Comments
Mbuchi Kihara – Kiruri	He wanted to know how the enumeration and compensation aspects would be handled.
Evans Muturi – GSHWP project	Proposed that the existing *gataguaguo* water project to manage the project as they had the capability and were duly registrered. He mentioned that he wanted jobs to be given to the locals once the project begins.
James Maina Gichinga	He said that his community has suffered a lot in persuit of water and he expressed his optimism of the water being sufficient according to the designs.
Amos Kimani	Said that the community had previously given their views to the county leardership as well as Athi water. His main concern was whether after distribution the water would be adequate.
Peter Ruga	He wanted Athi water to ensure that all corners of the location were covered especially the public interest areas like schools, hospitals, government offices e.t.c
Pauline Wangari - Karurumo	Mentioned that the water was inadequate so additional water was greatly appreciated. She also expressed support of *gataguaguo* as a water management body.
Benson Kimanga	He was very skeptical about merging the 2 projects together. He wanted the 2 projects kept separately as this would avoid future conflicts.

3. Conclusion

After the comments and opinions from the public session was over, Mr. Muriuki thanked the public for their input. He later handed over the meeting back to the area chief who asked a member of the public to pray and the meeting concluded at 1330hrs.

MINUTES OF PUBLIC PARTICIPATION MEETING AT MAKOMBOKI CHIEFS OFFICE, MAKOMBOKI LOCATION HELD ON 07-03-17 FROM 1200HRS TO 1400HRS

Present

Local Administration;

1. Gibson Kimani - Senior chief Makomboki Location
2. John M. Kariuki - Asst. Chief Kanderadu sub-location
3. Bethiel K. Gitonga - Asst. Chief Makomboki sub location

Kenface Company limited representatives;

1. Peter Muriuki
2. Marjoline Motaroki
3. Murigi Mwangi

Athi Water representative;

1. Joseph Ndungu

Agenda

1. Public participation of the proposed construction of the Kiruri, Ichichi and Makomboki water projects.

1.0 Introduction

Chief Paul Mwangi welcomed all members of his location and the meeting began with a word of prayer from one of Pastors in the midst. The area chief explained the importance of water to the people of his location and how it would be beneficial in starting other income generating activities.

Chief welcomed Mr. Ndungu from Athi Water to explain to the meeting the proposed project. Mr. Ndungu told the participants that the proposed project was initiated as a result of the outcry of the host community that they don't have water supply yet water supplying other areas originate from the area. He reiterated that the project was to benefit the community and not to be a cause of conflict amongst communities.

Mr. Ndungu then introduced Engineer Muchugia so as to explain the design to the constituents.

Engineer Muchugia explained that he had a first meeting with the area administration and representatives from all areas were chosen and they assisted him in the design work.

Engineer Muchugia	• He mentioned that there was an issue at the intake as there was leakage and this was making more water get lost. • He mentioned that through his calculations, he concluded that if the intake is rehabilitated the water would be more than enough for the people. • In the calculations, he mentioned he looked at existing schools, dispensaries and hospitals, trading centres as well as population reports in the area. • He mentioned that the budget was for I. Intake rehabilitation I. Distribution and lastly I. Construction of tanks. • Eng Muchugia explained that the main contention was a pipeline 6km long and that was noted in the last meeting and would be factored in the contingency budget.

Mr. Ndungu then introduced the consultant, Mr. Muriuki.

Mr. Muriuki started by thanking the people for attending the meeting and for their large turnout. He mentioned about the proposed project and the project area and he informed the meeting that the public consultation and participation is a requirement by law according to the EMCA 1999 Act. He assured the community that all issues and comments raised in the meeting will be incorporated in the report as the exercise was free, fair and independent. Having explained, he welcomed the community for questions.

2.0 Comments and opinion from the public

Eng. Erastus Karanja Gakuya - the chairman of the Makomboki tea factory and board member zone II	He was very greatful for the project and mentioned that they had sat down at a different meeting and agreed that Gikakima water project should be given the work of managing the project water to the whole location immediately after completion. He mentioned that they had plans to reach everyone in the locality but the budget was the issue. He said that since there was infrastructure for the project, it would be beneficial to use it so as to save costs.
John Gitau – CEO Makomboki tea factory	He said that the existing water body *"Gikakima"* was registered in 2013 and has been serving 2 electoral areas within the locality. He mentioned that they had the capability and should be given the project immediately after completion.
Mr Maingi – KFS representative	He mentioned that it was a good thing that the community had agreed to use the existing water company as the licences take long to get and this would have had a big effect to the water distribution.

	He reiterated to the people that as much as they are getting water from the forest, they should have plans of reforestation as this would help sustain their water source.
Mr Ngure – Resident of Makomboki	He expressed his appreciation to the people for having a common agreement for the growth of the location. He was also grateful for the government.
John Mwangi – Opinion leader Gatia-ini	He was grateful for the contingency budget that would cater for the 6km pipeline.

3. Conclusion

After the comments and opinions from the public session was over, Mr. Muriuki thanked the public for their input. He later handed over the meeting back to the area chief who asked a member of the public to pray and the meeting concluded at 1400hrs.

MINUTES OF MEETING WITH LEADERS AT MAKOMBOKI CHIEFS OFFICE, MAKOMBOKI LOCATION HELD ON 07-03-17 FROM 1030HRS TO 1130HRS

Present

Local Administration;

1. Gibson Kimani - Senior chief Makomboki Location
2. John M. Kariuki - Ass. Chief Kanderadu sub-location
3. Bethiel K. Gitonga - Ass. Chief Makomboki sub location

Kenface company limited representatives;

1. Peter Muriuki
2. Marjoline Motaroki
3. Murigi Mwangi

Athi Water representative;

1. Joseph Ndungu

Agenda

1. Public participation of the proposed construction of the Kiruri, Ichichi and Makomboki water projects.

1. Introduction

- The senior chief welcomed all representatives for the different groups represented into the meeting and he requested one member to open with a word of prayer.
- He mentioned that his whole Location was well represented and that there were leaders from all the administrative areas within his locality as well as from the water and tea development companies.
- The senior chief handed over the meeting Eng. Erastus Karanja Gakuya the chairman of the Makomboki tea factory to conduct the meeting through the next phase.

2. Comments and opinion from the representatives

Name	Comments
Eng. Erastus Karanja Gakuya - the chairman of the Makomboki tea factory and board member zone II	He mentioned that they had sat down at a different meeting and agreed that Gikakima water project should be given the work of managing the project water to the whole location immediately after completion. He mentioned that they had already spent over Ksh 16m in the same project. He said that since there was infrastructure for the project, it would be beneficial to use it so that the cost saved can be budget to reach even more people.

John Gitau – CEO Makomboki tea factory	He said that the existing water body *"Gikakima"* was registered in 2013 and has been serving 2 electoral areas within the locality. He mentioned that they had the capability and should be given the project immediately after completion.

3. Comments from the design engineer

Eng Muchugia mentioned that from the meeting held, the people of makomboki location disagreed with the design and wanted to be explained on how the design was reached.

Engineer Muchugia	• He mentioned that there was an issue at the intake as there was leakage. • He mentioned that through his calculations, he concluded that if the intake is rehabilitated the water would be more than enough for the people. • In the calculations, he mentioned he looked at existing schools, dispensaries and hospitals, trading centres as well as population reports in the area. • He mentioned that the budget was for IV. Intake rehabilitation V. Distribution and lastly VI. Construction of tanks. • Eng Muchugia explained that the main contention was a pipeline 6km long and that was noted in the last meeting and would be factored in the contingency budget.

Having satisfactorily answered all the issues, the area chief gave a religious leader the opportunity to pray and therefore the meeting was concluded at 1130hrs.

NOTES ON KEY INFORMANT MEETINGS FOR THE PROPOSED WATER PROJECT AT ICHICHI, MAKOMBOKI AND KIRURI

Present

1. J. G Nderitu- Kenya Forest Service (Ecosystem Conservator Muranga County)
2. Faith Mbathi– Water Resource Management Authority
3. Jacob Mukura– Physical Planner, Muranga County
4. J.M Mihiu-Director, Kenya Forest Service, Kigumo branch, Muranga County

Kenface Company limited representatives

3. Peter Muriuki
4. Marjoline motaroki

Agenda

Public participation and consultation on the proposed construction of the Kiruri, Ichichi and Makomboki water projects.

1.0 Introduction

The key informants' participants were explained about the proposed project which was initiated as a result of the outcry of the host community that they don't have water supply yet water supplying other areas originate from the area. He reiterated that the project was to benefit the community and not to be a cause of conflict amongst communities by Mr. Muriuki.

2.0 Comments and opinion from the Key informants

Name	Comments
J. G Nderitu Kenya Forest Service (Ecosystem Conservator Muranga County)	supported the project saying; - Proponent should seek abstraction permit from the authority before commencing the project. - The project will provide adequate water for domestic and if possible irrigation - Provide clean and safe water to community - Implementation of the project may result to income generation - Recommend establishment of tree nurseries to alleviate poverty and conserve the environment He however mentioned that the negative impacts that the project can cause include; - Destruction of vegetation along the wayleave - The area is hilly and the trenches dug may cause mudslides during rainy seasons He also noted that that KFS will give wayleave after application by proponent and consideration by the service.

J.M Mihiu Director, Kenya Forest Service, Kigumo branch, Muranga County	Supported the project saying the proposed project will; - improve the existing supply which is not enough for the community - lead to poverty eradication in the community as they can use the water for irrigation - However he raised the concern that the project may cause mudslides during rainy seasons in hilly areas which will be dug
Faith Mbathi Water Resource Management Authority	Supported the project with the following sentiments; - There will be adequate and potable water for the community - There will be availability of quality water for domestic use She however said that, the proponent should adhere to government laws and Water Act, 2001 and comply with all water rules. The proponent should apply for water permit before commencing the project, The proponent should acquire an authorization to abstract water from the rivers.
Jacob Mukura Physical Planner, Muranga County	Supported the project with the following positive impacts; - Easy access to drinking water - Will save time which is normally spent fetching water - The project will improve people's health

PUBLIC PARTICIPATION

The consultant (Kenface) has been contracted by AWSB (the client) to carry out ESIA for the proposed Kiruri, Ichichi and Makomboki water projects. The National Environment Management Authority (NEMA) requires that Consultation and Public Participation be done during Environmental Impact Assessments and Audits as stipulated in part IV of the EIA/EA regulations 2003. The programme is likely to impact [illegible] environment and hence the need to carry out this evaluation. Your response is confidential and will be treated as such.-

1. Has there been water shortage in this locality? Yes
2. How is the project under implementation going to alleviate the problem? By providing easy access to drinking water
3. What positive impacts in your opinion will arise from implementation of the project? This will save time which is normally spent fetching for water and improve people's Health
4. What negative impacts in your opinion will arise from implementation of the project?
5. Was the local consulted at the design stage of the project? Yes
6. In your opinion, what organizational arrangements are required to sustainably manage the water supplied by the project? The community should form a Committee to run the project
7. How do you intend to regulate and use the water from this project? Provide Meters to regulate usage and bill the Consumers.
8. What are the priority water uses in the locality? Drinking, and other domestic uses.
9. In your opinion, should the project continue? If no, give reasons

Should go on.

Consultee information:

Name: Jacob Mukura ID Number 0560760

Occupation Physical Planner Signature

District/location Murang'a Date and Stamp 29/3/2017

PUBLIC PARTICIPATION

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1. Has there been water shortage in this locality? – YES The piped water is not adquate for the consumers.
2. How is the project under implementation going to alleviate the problem?
   There will be adquate & potable water for the community.
3. What positive impacts in your opinion will arise from implementation of the project?
   - availability of quality water.
   - Time saving for community to do other activities.
   -
4. What negative impacts in your opinion will arise from implementation of the project?
   - Complance with all water rules.
5. Was the local consulted at the design stage of the project?
   YES – The client had held 3 comunity forum at ichichi, makomboki & Kiruri
6. In your opinion, what organizational arrangements are required to sustainably manage the water supplied by the project?
   - To follow & adhear to group by laws
   - adhear to the government laws & water act.
7. How do you intend to regulate and use the water from this project?
   By installation of master meter.
8. What are the priority water uses in the locality?
   Domestic use
9. In your opinion, should the project continue? If no, give reasons – N
   Before initiation of any water project they are supposed to apply for water permit.
   Therefore they project to aquire an Authorization to abstract water before it continue.

Consultee information:

Name: Faith Mbathi ID Number 5922073

Occupation WRMA Signature

District/location AAO Upper Tana Se Date and Stamp 29/3/2017

WATER RESOURCES MANAGEMENT AUTHORITY
UPPER TANA SUB-REGION
P. O. Box 304 – 10200, MURANG'A
TEL: 020-2304211, 0714-799476
Email: wrmauppertana@yahoo.com

KENYA FOREST SERVICE – KFS – MURANG'A COUNTY OFFICE

PUBLIC PARTICIPATION

The consultant (Kenface) has been contracted by AWSB (the client) to carry out ESIA for the proposed Kiruri, Ichichi and Makomboki water projects. The National Environment Management Authority (NEMA) requires that Consultation and Public Participation be done during Environmental Impact Assessments and Audits as stipulated in part IV of the EIA/EA regulations 2003. The programme is likely to im[illegible] the environment and hence the need to carry out this evaluation. Your response is confidential and will be treated as such.-

1. Has there been water shortage in this locality? YES
2. How is the project under implementation going to alleviate the problem?
   – Will provide adequate water for domestic and if possible ~~domestic~~ irrigation
3. What positive impacts in your opinion will arise from implementation of the project?
   – Clean & safe water to community to alleviate poverty
   – Establishment of tree nurseries to alleviate poverty & conserve the env.
   – Income generation
4. What negative impacts in your opinion will arise from implementation of the project?
   – Destruction of vegetation along the wayleave
   – Area is hilly and the trenches dug may cause mudslides during rainy seasons
5. Was the local consulted at the design stage of the project?
   YES
6. In your opinion, what organizational arrangements are required to sustainably manage the water supplied by the project? Community ownership of the project to be enhanced
7. How do you intend to regulate and use the water from this project?
   – Provision of water to Kenya Forest Service Rangers camps
   – KFS to give required wayleave and abstraction authority before commencement of the project
8. What are the priority water uses in the locality?
   – Domestic use
9. In your opinion, should the project continue? If no, give reasons
   YES

Consultee information:

Name: J.G. NDERITU ID Number 8536227

Occupation Ag. Ecosystem Conservator Signature [signature]

County – Murang'a County. ~~District/location~~ Date and Stamp

ECOSYSTEM CONSERVATOR
MURANG'A COUNTY
29/3/2017

APPENDIX III: GRIEVANCE REGISTRATION FORM

Resettlement Action Plan Public Grievance Registration Form

RAP Reference No.	
Full Name	
Contact Information Please mark how you wish to be contacted (mail, telephone, e-mail)	Address: ---------- ---------- ---------- Telephone:- _____ Email----------
Preferred Language for Communication (Please mark how you wish to be contacted)	English Kiswahili
National Identity Number	
Description of complain or Grievance:	
What would you like see happen to solve the problem?	
Official use Receipt date: Nature of grievance: Action to be taken	

Signature of aggrieved party:

Date:

APPENDIX IV: SAMPLE GRIEVANCE AND RESOLUTION FORM

Name (Filer of Complaint): _____
ID Number (PAPs ID number): _____
Contact Information (mobile phone): _____
Nature of Grievance or Complaint:
_____
_____

Date	**Individuals Contacted**	**Summary of Discussion**
_____	_____	_____

Signature_____ Date: _____

Signed (Filer of Complaint): _____

Name of Person Filing Complaint (if different from Filer): _____

Review/Resolution
Date of Conciliation Session: _____
Was Filer Present? Yes___ No____
Was field verification of complaint conducted? Yes_ No____
Findings of field investigation:
_____
_____

Summary of Conciliation Session
Discussion: _____
_____

Issues_____

Was agreement reached on the issues? Yes_____ No____
If agreement was reached, detail the agreement below:
If agreement was not reached, specify the points of disagreement below:
_____

Signed (Conciliator): _____ Signed (Filer): _____

Signed: _____
Independent Observer

Date: _____

APPENDIX V: EXCEL GRIEVANCE LOG

Ref	Name of PAP	Nature of grievance	Date registered	Action taken	Ressolved	Unressolved	Next steps

APPENDIX VI: SAMPLE QUESTIONNAIRE USED

QUESTIONNAIRE

RESETTLEMENT ACTION PLAN FOR ICHICHI, KIRURI AND MAKOMBOKI WATER SUPPLY PROJECT

PROJECT AFFECTED HOUSEHOLD INTERVIEW

Introduction

AWSB has engaged the services of the Kenface Enconsults (Africa) Ltd to undertake a Resettlement Action Plan (RAP) for the proposed water supply project. The RAP is being conducted to determine compensation of Project Affected Persons (PAPs). We therefore request you to provide the following information to assist in decision making on this project. Please fill in the following information correctly:

Questionnaire Number	

Name of Property Owner			ID No.
Sub- county		Division	
Location		Sub-location	
Date			

1.0 Socio-economic

House-hold head	Gender	Age	Number of Dependants	Disability	Health status	Marital Status	Education
Child Adult	Male Female	How old is...[Name] in Years		Disabled Normal	Sick Aged	Married Widowed Divorced Separated Single	What is the highest Level of education of respondent? 1. Primary 2. Secondary 3. Post-Secondary 4. Never attended

What is the main source of water?	What is the distance to the main water source?
1. River 2. Springs 3. Shallow well 4. Borehole 5. Piped water 6. Other	1. < 1 km 2. 1.1 – 3 km 3. 3.1 – 5 km 4. Over 5 km

2.0 Employment/ Source of Income

What the person does for a living	Other Sources of Incomes for the past one year
1. Farming 2. Livestock Rearing 3. Business 4. Formal employment 5. Casual employment	1. Farming 2. Business 3. Employment 4. Remittance 5. Others (Specify)

3.0 Assets

Land				
Size of Land Affected (m)	**Ownership**	**Proof of ownership**	**Land Use**	**Estimated value per acre**
To be filled by the survey	1. Leasehold 2. Freehold 3. Trust land	1. Title deed	1. Arable 2. Livestock 3. Sanctuary	*To be filled by the valuer*

	4. Squatter 5. Other(specify)	2. Allotment letter 3. No proof 4. Other (specify)	4. Other Uses (specify)	

Buildings (Name)	Year of construction	Materials	Condition of the Building	Estimated cost
		1. Grass thatched 2. Permanent 3. Semi-Permanent	1. Good 2. Fair 3. Poor	

Other Affected Structures 1. Fence 2. Well/Boreholes 3. Others (Specify)	Description (length or depth)	Construction material	Estimated Cost

Type of Crop	Area Affected	Maturity stage	Estimated Value

4.0 Public utilities

Is the Person Close to the following Social Structures 1. Primary School 2. Secondary School 3. H/Centre 4. Road 5. Water Point 6. Historical Sites 7. Others (Specify)	Distance	Description

5.0 Trees

Type	Name	Number	size	Estimated cost
Indigenous				
Exotic				
Fruit bearing tree				
Timber trees				
Perennial crops				
Other(specify)				