



**KENYA ELECTRICITY TRANSMISSION COMPANY LIMITED**



**LOT 3**

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**RESETTLEMENT ACTION PLAN**  
**SHAMATA-KINAMBA 500 kV TRANSMISSION LINE**

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**FINAL REPORT**

**MAIN REPORT**

**MAY 2014**

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**Assignment:**

Resettlement Action Plan for the Proposed Bipolar 500 kV HVDC Ethiopia-Kenya Transmission Line (Kinamba-Shamata).

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For: NAJJ Consultants

*Disclaimer:*

*This Resettlement Action Plan is strictly confidential to Kenya Electricity Transmission Company (KETRACO) and any use of the materials thereof should strictly in accordance with the agreement between KETRACO and Najj Consultants.*



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## ACKNOWLEDGEMENTS

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We wish to appreciate the effort of KETRACO's team for the timely response, clarification of issues and support during data collection and reporting phases. Specifically we wish to recognise the efforts of Eng. John Mativo, Kilimo and Mildred Ogendo.

Finally, we wish to register special thanks to all stakeholders and PAPs for their cooperation and willingness to support the process.

**God Bless you all**



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## ABBREVIATIONS

AFD	Agence Francaise de Development
AIDS	Acquired Immune Deficiency Syndrome
EMCA	Environmental Management and Coordination Act
ERC	Energy Regulatory Commission
ESIA	Environmental and Social Impact Assessment
EU	European Union
HHs	Households
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome
HVDC	High Voltage Direct Current
IFC	International Finance Corporation
IPPs	Independent Power Producers
KenGen	Kenya Electricity Generating Company Ltd
KETRACO	Kenya Electricity Transmission Company
KRU	KETRACO Resettlement Unit
kV	Kilo Volts
M&E	Monitoring and Evaluation
MoE	Ministry of Energy
MoU	Memorandum of Understanding
PAPs	Project Affected People
PDP	Project Affected Person
RAP	Resettlement Action Plan
RLA	Registered Land Act
RPF	Resettlement Policy Framework

## 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 at current market value.

**Cut-off date:** means the date after which eligibility for compensation or resettlement assistance will not be considered is the cut-off date. The start date of carrying out the census/inventory of losses is considered as the cut of date for eligibility of resettlement benefits.

**Displaced Person (DP):** As per ADB Safeguard Policy Statement (SPS) 2009- 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. ADB's policy explicitly states that such people cannot be denied resettlement assistance.

**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 woman or woman with dependents and low incomes; (ii) headed by elderly/ disabled people without means of support;

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## EXECUTIVE SUMMARY

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### Purpose

The Kenya Electricity Transmission Company Limited (KETRACO) contracted NAJJ Consultants to undertake the Resettlement Action Plan (RAP) for the proposed HVDC (High Voltage Direct Current).

### Objectives

The objective of this study was to prepare a detailed resettlement action plan for the proposed Bipolar 500 kV HVDC Ethiopia-Kenya Transmission Line (Kinamba-Shamata). The RAP identified the project affected persons and proposed mitigation measures.

### Approach and Methodology

To meet the objectives of the study, we adopted systematic, integrated, participatory and collaborative approaches. We gathered information through document reviews, field investigations, focus group discussions and key informant interviews. We consulted KETRACO staff, administrators (Chiefs and their Assistants), community leaders among others.

The RAP examined 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 from the RAP include:

- i) Population:** this will give an indication of the people/populations who may be affected during project implementation.
- ii) Public Consultations:** Consultations was conducted with the affected persons/communities where issues that may 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.
- iv) Monitoring and Evaluation:** There will be need for continued monitoring and evaluation. This will ensure that issues that may 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.

### Legal Framework of the RAP

This RAP and its entitlement matrix have been prepared in compliance with the applicable policy provisions of Kenyan Government and requirements of the World Bank's Safeguard Policy on Involuntary Resettlement. OP 4.12 of the World Bank requires that a RAP be prepared for all projects that anticipate land acquisition and displacement affecting shelter, livelihood and associated impacts. This 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. Relevant Kenya laws considered include:-

- The New Constitution of Kenya
- The Land Acquisition Act Chapter 295
- The Wayleaves Act, etc.

**Ownership of target land:** the land traversed by the project between Kinamba and Shamata is majorly private lands and Ranches owned by communities and individuals.

### Economically sensitive resources

**Land:** Land is just about the most important and widely coveted resource in Kenya access to which is a pre-requisite to economic production, settlement through ownership of shelter, and it offers security in old age and upon eventual death, all of which account for the huge interest that vests in land within Kenya where the dream to own land is commonly held by majority of citizenry. Against this background, the requirement for land to be set aside for construction of the proposed transmission line will have minor impacts within the route of traverse since the 60% land is used for grazing purpose especially Laikipia and Isiolo counties.

**Private investments:** some private investments;- buildings, trees, developed farms etc will be traversed by the project with the prospect that quite a number will be cleared out of the Right of Way corridor and measures must be put in place to insure against retrogressive impacts of infrastructure.

### Potential damages and modalities for Compensation

**Anticipated damages:** The project is **111 km** long and will affect a total area of **666Ha** which was earmarked for wayleaves on which all physical development including any tree taller than 7metres will be removed. Further, of the farms traversed, a total of **297 structures** will be



affected in the proposed way leave. The table below shows the number of the affected structures.

Affected Structures

No.	Location	structures		
		Main structures	Outbound structures	Total
1	Oldonyiro	2	1	3
2	Olborsoit	3	3	6
3	Ilmotiok	7	7	14
4	Shamata	6	9	15
5	Pesi	8	13	21
6	Kianjogu	7	10	17
7	Salama	31	36	67
8	Simbara	10	17	27
9	Kahutha	36	69	105
10	Mwehoko	7	15	22
<b>Totals</b>		<b>117</b>	<b>180</b>	<b>297</b>

**NB:** Outbound structures are Latrines, bathroom, cowshed, poultry cage/house, sheep and goat pen

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

**Total PAPs:** the total PAPs in Lot 2 are one hundred and forty one (141). The table below shows the number of PAPs per each locations.

Summary of the PAPs per location in Lot 2.

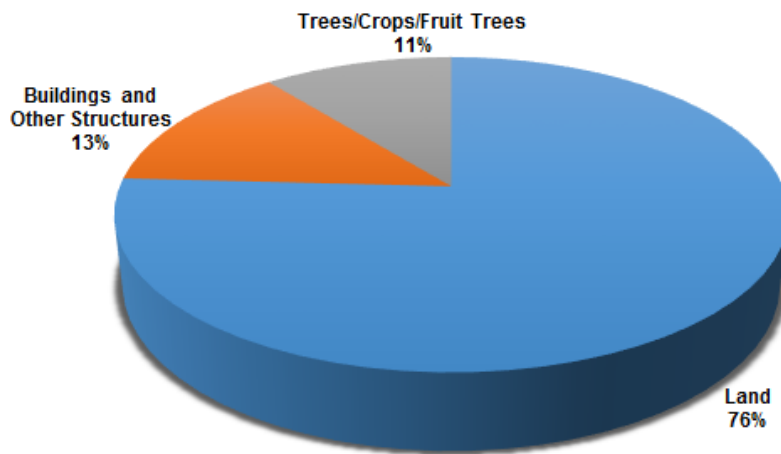
No.	Location	PAPs
1	Oldonyiro	1
2	Olborsoit	3
3	Ilmotiok	3
4	Shamata	25
5	Pesi	5
6	Kianjogu	6
7	Salama	20
8	Simbara	19
9	Kahutha	46
10	Mwehoko	13
<b>Total</b>		<b>141</b>

**Costs of the RAP:** From analysis of potential damage and application of valuation methodologies, the likely cost of the damage anticipated from creation of the wayleaves is Kenya Shillings **Four Hundred Forty Three Million, Five Hundred and Thirty Three Thousand, Three Hundred and Sixty Eight (Ksh 443,533,368)**. of this amount, 76% will go towards compensation of land while 13% will meet the cost of removal of buildings from the designated wayleave as shown below.

Summary of compensation cost

Item	Amount in KES
Land	336,381,495
Buildings and Other Structures	59,224,873
Trees/Crops/Fruit Trees	47,927,000
<b>Total</b>	<b>443,533,368</b>

Note: 15% Severance, Injurious affection and Disturbance allowance added to structures only.



**Certified by:**

**Isaiah Bonyo**  
(Registered Valuer)

**Sign** ..... **Date** .....

# Chapter

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# One

## 1.0: INTRODUCTION

### 1.1 Purpose

The Kenya Electricity Transmission Company Limited (KETRACO) contracted NAJJ Consultants to undertake the Resettlement Action Plan (RAP) for the proposed 500kV HVDC (High Voltage Direct Current) 111km line from Kinamba to Shamata (Lot 2).

### 1.2 Transmission line

The Proposed 500kV DC (Direct Current) transmission line will originate from Wolayita Sodo in Ethiopia and terminate at Suswa in Kenya. This report covers Lot 2, Kinamba-Shamata line (111km).

### 1.3 Background of the Project

The Government of Kenya plans to increase access to electricity in Kenya tenfold from the current 4% in the rural areas to about 40% by 2020. To do this, the transmission lines network is being considered for upgrading and with it the communication system required for line protection and management purposes.

The proposed 500kV DC (Direct Current) Transmission line will increase reliability and improve power quality in the country. The proposed bipolar 500 kV HVDC (High Voltage Direct Current) line with a power transfer capacity of 2000MW will originate from Wolayita Sodo in Ethiopia and terminate at Suswa in Kenya. For the Kinamba - Shamata Part, the line traverse Isiolo, Laikipia and Nyandarua Counties of Kenya

Given that KETRACO does not own any land within the neighborhood of the proposed project, and given that the proposed project seeks to pass through privately owned land, the basis of acquisition would be through negotiation and mutual agreements with the property owners.

This project is expected to have widespread positive impacts on the overall socio-economic status and livelihoods of the electricity users and the Project Affected People (PAPs). However, the project will have some minor negative effects especially to those who may be displaced from the way leave. A Resettlement Action Plan is therefore required to guide the process.

#### **1.4 Technical Description of the proposed transmission line**

A completely new transmission line with self-supporting steel lattice towers with concrete foundations will be built from Sodo in Ethiopia to Suswa in Kenya. Substations will be built at Sodo (Ethiopia) and Suswa in Kenya. Approximate average construction span length of the line is 400 m and with 60m RoW corridor. The 2009 technical feasibility study recommends adopting a conceptual design featuring:

- $\pm 500$  kV HVDC bipolar overhead line, from Wolayta/Sodo S/S on the Ethiopian side to Suswa Kenyan side.
- Ground electrode lines at Wolayta/Sodo and Suswa
- Five 400 kV  $1\frac{1}{2}$  breaker diameters at Wolayta/Sodo on the Ethiopian side,
- Seven 400 kV  $1\frac{1}{2}$  breaker diameters at Longonot on the Kenyan side, including switched shunt compensation, dynamic compensation and stepdown transformers
- One synchronous condenser rated 200 MVar at Longonot S/S.

In normal operation, the rectifier station will be at Wolayta/Sodo in Ethiopia and Suswa in Kenya. The proposed 500 kV HVDC transmission line is on conventional lattice self supported steel towers of approximate height 45 m.

#### **1.5 Description of proposed works**

The main activities for implementation of the project shall include clearing of bushes and cutting of trees over 4.5m high that fall within the 60m RoW corridor. This work may at certain places be preceded by clearing of bushes scrub to create temporary vehicular passage to facilitate conveyance of construction materials and personnel from the nearest road position to the transmission line corridor. 45m steel-lattice towers will be erected at regular intervals to

support the overhead conductors. Each steel towers will be supported on 4m deep reinforced concrete foundation.

## **1.6 Objective of the RAP**

The objective of the RAP was to carry out a detailed Resettlement Action Plan (RAP).

The RAP entails:

- i) a survey on the amount of land that will be affected by the proposed line,
- ii) the actual number of structures that will be affected by the proposed line,
- iii) The actual number of people that will be affected and the actual number of households that will be affected by the proposed line.

The consultant also carried out estimation of valuation for the land to be affected, estimated valuation of structures to be affected, estimated valuation of crops and trees likely to be affected.

## **1.7 Scope of work**

### **1.7.1 Resettlement Action Plan**

The project scope included baseline socio economic data on the people affected, valuation of structures and total land affected, compensation mechanism, conflict redress mechanism and a report detailing all these variables.

#### **The specific tasks included:**

Detailed survey on the actual number of people to be affected by the proposed line; this include:

- Description of the project area including location of the project area and the number of people to be affected by the project in each location.
- Undertaking of a socio economic baseline survey of the people affected by the project
- Description of the categories of people affected, partially or wholly taking into account gender, vulnerability and other diversity concerns.
- Identification of all the people to be affected (PAPs) on the entire trace of the line providing their names with their official identification as in the National Identity Card

phone contacts and physical contacts (street/estate, village, sub-location, location, District and Country).

**A detailed evaluation of the amount of land to be affected by the project, including:**

- Description of the total land that will be affected by the way leave access., land
- Description of baseline for land tenure, land use patterns and transfer systems.
- Evaluation of both the commercial and subsistence farm land that will be affected by the proposed line and give a rough estimate of the land values.
- Report on the type of effect for every parcel of land affected in terms of partial or entire parcel.

**A detailed survey on the structures to be affected by the proposed lines, including:**

- the total number of structures affected by the proposed line
- Provision of baseline description of structures affected including permanent structures
- the total number and type of structures to be affected by the proposed transmission line
- total number of public institutions/community structures to be affected by the proposed line
- description of structures affected- plinth area and construction materials
- detailed values/estimation of structures to be affected accompanied by pictures measurements and geographical positions (inscribed as a foot note of the pictures) of the structures affected (using coordinates)
- names of the true owners of structures and include the names in each caption of pictures taken for each structure
- type and methodology of compensation, preferred method of valuation with justification and the compensation framework including country laws and regulations.
- an inventory of loses and a detailed entitlement Matrix that will be used for compensation

**A detailed census/count of trees affected by the proposed line and also:**

- the number, type and breast height diameter of mature trees affected per each parcel affected

- assessment of trees/crop damage estimate values of the trees/crops affected

**An inventory of losses and a detailed entitlement matrix** that will be use for compensation

**Detailed organizational arrangement** for delivery of entitlement, including livelihood restoration measures, preparation and review of costs estimates, the flow of funds and contingency arrangements

**Detailed description of implementation process, linking resettlement implementation to civic works:** Initiate stakeholder involvement and come up with specific stakeholder committees either locational or sub-locational in areas affected that will ensure smooth implementation of the RAP.

**Detailed grievance redress mechanism** including concise procedures for dispute resolution taking into account traditional dispute settlement measures and judicial resource.

**Detailed description of arrangements for monitoring** by the implementing agency and if required, by independent monitors

**Detailed description of mechanism for consulting** with, and participation of displaced persons in planning, implementing and monitoring

**Detailed estimated budget cost** for the whole resettlement action plan inclusive of costs of structures, land, contingencies and monitoring of the project.

## **1.8 Justification for Resettlement Action Plan**

A Resettlement Action Plan (RAP) for any project that results in either the physical or the economic displacement of people such as the proposed project will indeed require the physical relocation of some persons. The scope and level of detail of resettlement planning varies with circumstances, depending on the project's complexity and the magnitude of its effects.

The line route will lead to the need for physical movement of structures, physical displacement of people, loss of their shelter, loss of assets, loss of income sources or means of livelihood, or restriction of access to economic resources. As a minimum requirement, a Resettlement Action Plan must ensure that the livelihoods of people affected by the project are restored to levels prevailing before inception of the project, thus OP 4.12 calls for the preparation of individual Resettlement Plan that must be consistent with the relevant Policy and Safe Guarded documents for this project.

## 1.9 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, NAJJ 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 community and area along the proposed transmission line would pass. These included:

- i) A detailed **desk study** to establish and describe the socio-economic conditions within the propose transmission line route
- ii) **Key Informant Interviews and Semi-Structured Interviews** were conducted with the Chiefs, Assistant Chiefs, Councillors and Village Elders.
- iii) **Open-ended questionnaires** were administered to obtain views about the proposed project and its perceived impacts from households along the line. A cluster-random sampling approach was used along the proposed Wayleave and also on whose homestead the 30 meters Wayleave would pass.
- iv) **Public Barazas** which were organised and chaired by the Chiefs and Assistant Chiefs.
- v) **Transect walk**, was done to establish the biophysical nature of the project area and to meet the stakeholders.
- vi) **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.
- vii) **Photography**- cameras were used to take photographs of public participation meetings, PAPs and affected assets (trees, crops, houses etc.).
- viii) **GPS (Global Positioning System) and Maps** - The provided angle point coordinates were input in the handheld GPS (GARMIN GPSMAP 76CSx).

These were then used to create the transmission line 'routes'. Zooming into the line then allowed us to follow along the route pointing out structures within the transmission line corridor such as houses, trees and plantations.

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

## 2.0: LEGAL FRAMEWORK

This chapter looks at the various legislations that relate to land acquisition and resettlement in Kenya. There are several statutes that handle issues pertaining to land, among the salient ones are discussed below:

### 2.1 The Wayleaves Act Cap 292, Kenya

The Act provides for certain undertakings to be constructed e.g. transmission lines, pipelines, canals, pathways etc., through, over or under any lands. Section 3 of the Act states that the Government may carry any works through, over or under any land whatsoever provided it shall not interfere with any existing building or structures of an ongoing activity.

Where any developments are affected, the Act recommends for compensation. Section 6

(1), “the Government shall make good all compensation to the owner of any tree or crops destroyed or damaged”. The Act further explains the process of resolving conflicts that arise in determining the compensation value.

#### Relevance

This project is under the provision of the Act. The transmission line corridor will require the acquisition of Wayleaves within the affected areas. The proponent will comply with the provisions of this Act in the process of acquiring such Wayleaves. In accordance with the Act (section 4), notice will be given before carrying out works with full description of the intended works and targeted place for inspection. Any damages caused by the works would then be compensated to the owner as per section six.

## 2.2 The Land Acquisition Act, Cap 295, Kenya

The Act provides for compulsory acquisition of land from private ownership for public benefit. It is noted that:

- i) When the Minister is satisfied on the need for acquisition, notice will be issued through the Kenya Gazette and copies delivered to all the persons affected.
- ii) The Act also provides for full compensation for any damage or loss resulting from the entry on to the land.
- iii) Section 8, the Act recommends that full compensation to be paid promptly to all persons affected.

### Relevance

This Act will not be triggered at this stage but can be applied in future where necessary. The proposed transmission line will pass through private land and the Proponent will not use compulsory acquisition; rather the PAPs will be engaged in consultations and negotiation before arriving at the final compensation cost.

## 2.3 Government Lands Act Cap 280, Kenya

This Act of Parliament provides further and better provision for regulating the leasing and other disposal of Government lands and for other purposes. Under this act the president through the commissioner of lands, allocates any un-alienated land to any person he so wishes ("unalienated Government land" means Government land which is not for the time being leased to any other person, or in respect of which the Commissioner has not issued any letter of allotment). Such a land once allocated is held as a grant from the government on payment of such rents to the government as the government wishes.

### Relevance

In areas where the line passes through such lands, though our team didn't get any, we recommend that the alienation of the same be undertaken in line with the provisions of this Act. Lands e.g. Township/Municipality plots will be undertaken in compliance with the provisions of this Act.

## 2.4 Trust Land Act Cap 288, Kenya

The land which is not registered under any Act of parliament is vested in local authorities as Trust. In these Trust Lands a person may acquire leasehold interest for a specific number of years. The local authorities retain the powers to repossess such land for their own use should the need arise.

### Relevance

The proposed line passes through Oldonyiro location. It is a trust land where the land is under the defunct county council of Isiolo (currently under Isiolo county government). This Trust Land will be acquired under Section 7 of the Act which defines how setting apart of Trust Land is carried out.

## 2.5 Land Registration Act 2012, Kenya

This Act of parliament provides for the absolute proprietorship over land (exclusive rights). Under this Act any person may acquire absolute ownership to any land once he or she has been registered as the absolute owner. On registration such a person acquires freehold interests on the land. Freehold implies absolute ownership. Section 98 gives the provisions for granting an easement over land and the specifications required on the instrument creating the easement.

### Creation of easement.

- An owner of land or a lessor may, by an instrument in the prescribed form, grant an easement over the land, lease or a part of that land to the owner of another parcel of land or a lessee for the benefit of that other parcel of land.
- The owner of land or a lessor referred to in subsection (1), who is transferring, assigning or leasing land or a lease may, in the transfer, assignment or lease, grant an easement for the benefit of the land transferred, assigned or leased over the land retained by him or her or reserve an easement for the benefit of land retained by him or her.

### Relevance

The proposed project traverses areas with Registered Land/title deeds. The Proponent shall comply with the provisions of the Act in the acquisition of Registered Land and subsequent

request for easements. We recommend that the project proponent adheres to the provisions of this Act.

## 2.6 Land Control Act 302, Kenya

This is an Act of parliament; it restricts transfer of land and as such has some bearing on the flexibility with which affected farmers can acquire replacement land. Section (9) states the economic size of land for agriculture. It controls the subdivisions of the agricultural land.

### Relevance

The proposed transmission line traverses Nyandarua County which is agricultural land. The PAPs along the wayleave practice mixed farming; where beans, potatoes and maize are major crops grown in the area. In this area, most of the affected people will have to be relocated since their land is less than 4000m<sup>2</sup> and affected land is more than 50%. The provisions of this Act will need to be observed in the provision of land for resettlement of PAPs who will be completely relocated. The allocated land should be able to support the resettled groups in carrying out their livelihood in a manner equivalent to or more improved than during the pre-settlement period.

## 2.7 The Constitution of Republic of Kenya

Issues related to land are provided in Chapter Five of the new constitution of Kenya requiring that land be held and used in a manner that is equitable, efficient, productive and sustainable. Section 61 (2) of the constitution has classified land as public, community or private. The definitions of the same are provided in sections 62, 63 and 64 of the constitution. The proposed transmission line will traverse public, community and private land.

NB: However, before the formulation of the laws under the new laws, the above laws will apply provided they are in consistency with the new constitution and the new set of land laws.

## 2.8 World Bank Safeguard policies triggered by the proposed project

The objective of the World Bank's environmental and social safeguard policies is to prevent and mitigate undue harm to people and their environment in the development process.

### OP 4.12 - Involuntary Resettlement

This policy is triggered in situations involving involuntary taking of land and involuntary restrictions of access to legally designated parks and protected areas.

The policy aims:

- To avoid involuntary resettlement to the extent feasible, or to minimize and mitigate its adverse social and economic impacts.
- It promotes participation of displaced people in resettlement planning and implementation,
- To assist displaced persons in their efforts to improve or at least restore their incomes and standards of living after displacement.

### Relevance

The proposed project triggers this policy in that it shall require involuntary acquisition of land as well as restrictions of access in areas within the transmission line Wayleave.

The Proponent complies with the requirements of OP 4.12 in the following ways:

- PAPs, host communities and local non-governmental organizations, have been consulted.
- PAPs have been informed of their rights including prompt compensation at full replacement cost for loss of assets attributable to the project; assistance during relocation, and transitional support and development assistance.

## 2.9 The African Development Bank Involuntary Resettlement Policy

The AfDB involuntary resettlement policy has been developed to cover involuntary displacement and resettlement of people caused by a Bank financed project and it applies when

a project results in relocation or loss of shelter of the persons residing in the project area, or their assets being lost or livelihoods being affected.

The primary goal of the involuntary resettlement policy is to ensure that when people must be displaced they are treated equitably, and that they share the benefits of the project that involves their resettlement.

### **Objectives**

- i) To avoid involuntary resettlement where feasible, or minimize resettlement impacts where population displacement is unavoidable, exploring all viable project designs. Particular attention must be given to socio-cultural considerations, such as cultural or religious significance of land, the vulnerability of the affected population, or the availability of in-kind replacement for assets, especially when they have important intangible implications. When a large number of people or a significant portion of the affected population would be subject to relocation or would suffer from impacts that are difficult to quantify and to compensate, the alternative of not going ahead with the project should be given a serious consideration.
- ii) To ensure that displaced people receive resettlement assistance, preferably under the project, so that their standards of living, income earning capacity, and production levels are improved.
- iii) To provide explicit guidance to Bank staff and to the borrowers on the conditions that need to be met regarding involuntary resettlement issues in Bank operations in order to mitigate the negative impacts of displacement and resettlement and establish sustainable economy and society.
- iv) To set up a mechanism for monitoring the performance of involuntary resettlement programs in Bank operations and remedying problems as they arise so as to safeguard against ill-prepared and poorly implemented resettlement plans.
- v) Community participation in planning and implementing resettlement should be encouraged.

According to AfDB's IRP, the resettlement plan should include measures to ensure that displaced persons are:

- ✓ Informed about their options and rights pertaining to resettlement;
- ✓ Consulted on, offered choices among, and provided with technically and Economically feasible resettlement alternatives and
- ✓ Provided prompt and effective compensation at full replacement cost for losses
- ✓ Provided assistance (such as moving allowances) during relocation, and
- ✓ 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 old sites.

Where it is necessary to achieve the objectives of the resettlement plan, it should also ensure that displaced persons are:

- i) 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 standard of living; and
- ii) Provided with development assistance in addition to compensation measures, such as land preparation, credit facilities, training, or job opportunities.

## **2.10 Statutory Tenures**

### **2.10.1 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. The Registered Land Act (RLA) Cap 300 of the Laws of Kenya governs freehold land. 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.

With regard to the areas with lower agricultural potential, mostly arid and semi-arid parts of the country where the dominant land use was pastoralism, a different registration system was instituted in 1968. This is the regime of Land (Group Representatives) Act. Here the registration of group ranches was viewed as a compromise between individual ownership and the need for access to wider resources in dry lands. Under this system 'communal lands' are divided into

smaller 'ranches,' which are then registered in the names of group representatives (three to ten members) elected by the members of the group (Wanjala 2000). Every member of the group has rights in the ownership of the group land in undivided shares. The members are entitled to reside therein free of charge with their family and dependants and make exclusive use for the grouped ranches resources.

The proposed project traverses through ADC ranch, GG ranch, Gorge Mwai ranch, Segera ranch, Ngorare ranch, Oldonyo lemboro ranch, Impala ranch, Koiya group ranch and Lemarti group ranch. The community. The Koiya and Lemarti ranches are group ranches owned by the members and are entitled to compensation since they have exclusive use of the ranches.

### **2.10.2 Leasehold Tenure**

Leasehold is an interest in land for a definite term of years and may be granted by a freeholder, usually subject to the payment of a fee or rent and is subject to certain conditions which must be observed. For government land the government also grants leases, the local authorities for trust land and by individuals or organisations owning freehold land. The new constitution of Kenya has set the maximum term for leasehold tenure to ninety-nine (99) years.

### **2.10.3 Public Tenure**

This is land owned by the Government for own purpose and which includes unutilised or unalienated government land reserved for future use by the Government itself or may be available to the general public for various uses. The land is administered under the Government Lands Act Cap 280. These lands are vested in the president who has, normally through the Commissioner of Lands, powers to allocate or make grants of any estates, interests or rights in or over unalienated government land. Categories of government land include forest reserves, other government reserves, alienated and unalienated government land, national parks, townships and other urban centres and open water bodies (GOK, 1996).

The Government Lands Act does not contain any notion of trusteeship by government of the land on behalf of the people of Kenya. Indeed the government at times acts as a private owner and allocates parcels to those in its favour.



#### **2.10.4 Community Tenure System**

This mode of ownership is currently governed by the Trust Land Act, by which all land in the rural areas which is neither government land nor individually owned is vested in the county council in trust for the residents living there.

The proposed transmission line passes Oldonyiro area where the land is trust land under the defunct Isiolo county council.

#### **2.11 KETRACO Resettlement Policy Framework**

It outlines the principles, procedures, entitlements and eligibility criteria, the organization arrangements and provisions for monitoring and evaluation, the framework of stakeholder participation, as well as the mechanism for redressing grievances.

#### **Objectives**

- ✓ Avoid or minimise involuntary resettlement
- ✓ Ensure that affected individuals and households and /or displaced communities are meaningfully consulted, have participated in the planning process, and are adequately compensated to the extent that at least their pre-displacement incomes have been restored and that people and enterprises affected by the project are compensated for any loss of property and/or socio-economic displacement as a result of the project
- ✓ Provide the PAPs with opportunities to restore or improve their living standards and income earning capacity to at least pre-project levels
- ✓ Provide guidelines to stakeholders' participation in the mitigation of adverse social impacts of the project, including rehabilitation or resettlement operations to ensure that PAPs are not impoverished by the adverse effects of the project.

Generally, KETRACO mandates itself to adhere to all relevant legislations, guiding principles and polices both locally and internationally.

#### **2.12 Easement**

KETRACO requires easements for the way leave corridor. An easement is an agreement made between the landowners and KETRACO granting the RoW to place towers on or cables under his or her land. While KETRACO will not acquire part of the land affected by the easement, it will

register an encumbrance upon the land. For instance, while the landowners will continue to own the land and may use such land for crop farming and animal grazing, they will not be allowed to construct structure or grow vegetation that can reach greater than 12 feet high within the way leave trace. The provisions concerning the acquisition of easement are set out in the Limitations of Actions Act and Registered Lands Act Laws of Kenya.

# Chapter Three

## 3.0: PROJECT DESCRIPTION AND BASELINE DATA

### 3.1 Description

The proposed bipolar 500 kV HVDC line will originate from Wolayta Sodo in Ethiopia and terminate at Suswa in Kenya. The length of the proposed transmission line from Kinamba to Shamata (Lot 2) is 111km out of which approximately 606 km is the total length of the line in the Kenya side.

### 3.2 Proposed transmission line route (Kinamba-Shamata)

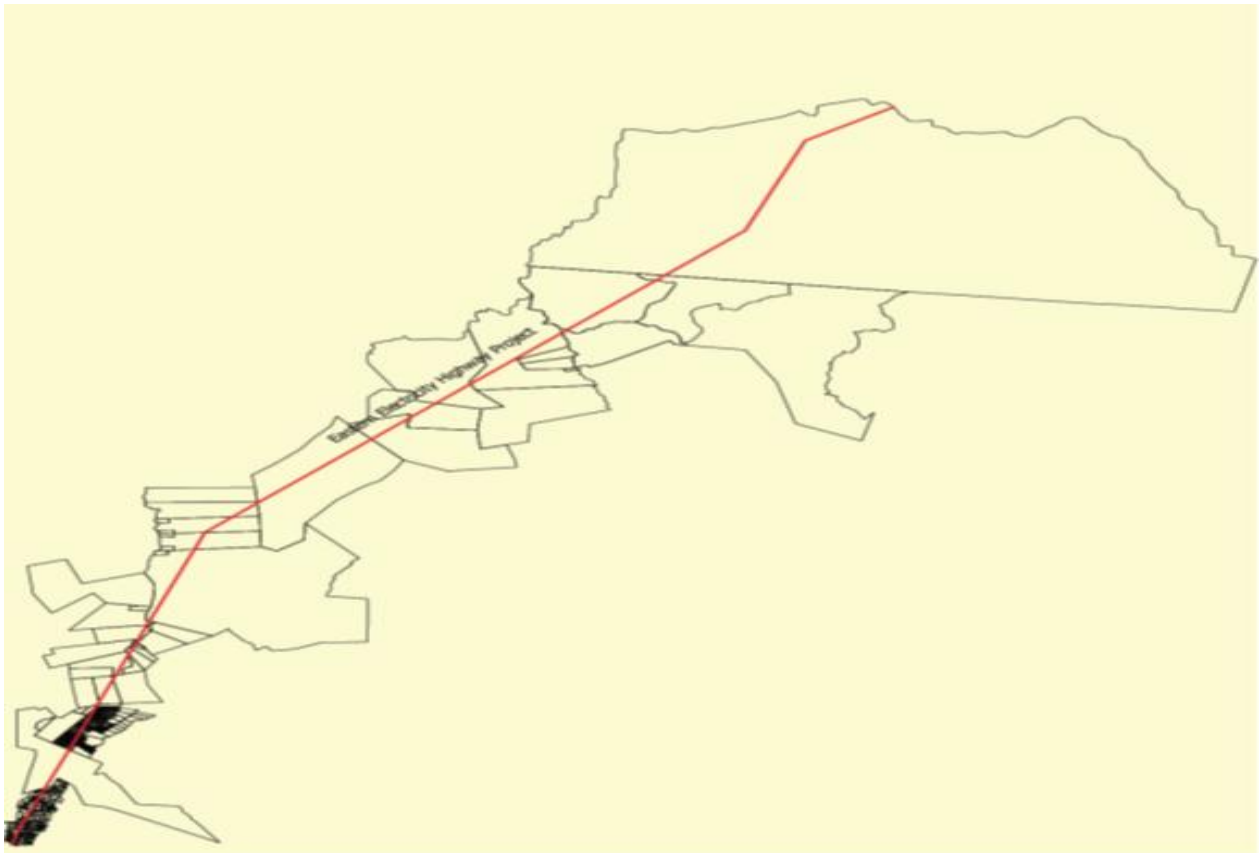


Figure 1: proposed Line route

### **Oldonyiro location**

The proposed line traverses through the vast land of Oldonyiro location, Isiolo county. The location is sparsely populated with an average household size of five (5). Pastoralism is the main economic activity in the area where cattle, camels and goats being the dominant livestock in the area. The topography is sloppy with rough terrain characterized by sparse vegetation cover like shrubs.

### **Shamata location**

The line passes a road reserve and traverses through farms affecting homesteads. Generally the line runs along river Pesi, this region is home to indigenous trees and forest. The major crop grown in the area is potatoes and onions; they also practice dairy farming and lies to the west of Aberdare forest and national park generally referred to the' *shamata gate*'. The region is characterized by hills with undulating terrain with low temperatures.

Shamata settlement scheme is home to different communities such as the Meru, Embu, Kikuyu, Kalenjin among others.

### **Simbara location**

The transmission line traverses through farms and generally avoiding homes through to the Aberdare forest. As such therefore, affecting trees and wildlife in the forest.

The transmission line crosses the Nyahururu- Nyeri road to the eastern side of Ndaragua town at about 3 km.

This borders Aberdare forest to the west and passes to the north of Ndaragua town, it avoids the town completely. In Kahutha the line affects several homes and homesteads; it is a place that is relatively densely populated.

Kahutha primary school affected partially, the structures are the school pit latrine, classroom that is being built, water tank. The consultant recommends that the transmission line be re-routed to avoid the school.

### **Kianjogu location**

In this section the line runs through vast land away from the general settlement area. The region is generally covered with shrubs and doesn't support crop production.

### **Uruku location**

The line crosses river pesi into the western side of Uruku location avoiding homesteads generally.

### **Pesi location**

This line passes the lower side of Pesi town along river Pesi, in this region horticulture farming is practiced through irrigation. The region is generally populated hence a number of homesteads are affected. It is also worth noting that this area is tsetse fly infested and as such the people have reservations in a situation where they will be required to relocate to the southern part.

### **Salama location**

The line traverses through several homesteads and the area is prone to human wildlife conflict. The elephants from the ADC normally invade the farms destroying crops.

It passes through salama dam, around this section river Pesi meanders and is prone to floods during the rainy season.

The ranches affected from Rumuruti to Oldonyiro are:

- i) ADC ranch
- ii) GG ranch
- iii) Gorge Mwai ranch
- iv) Segera ranch
- v) Mathira 2 community ranch
- vi) Oldonyo lemboro ranch
- vii) Ngorare ranch
- viii) Impala ranch
- ix) Koiya group ranch
- x) Lemarti group ranch

### **ADC Ranch**

The ranch is in Laikipia county and is owned by Agricultural Development Corporation (ADC), a parastatal body. The consultant met with assistant manager of the ranch and discussed the proposed project. From the meeting, the management expressed no objection and referred the consultant to head office in case of any further clarification on the same. The ranch is used for

crop farming, livestock keeping and as a wildlife conservancy. The wildlife in the ranch include but not limited to:

- ✓ Elephants
- ✓ Antelopes
- ✓ Zebra

There will be no significant impact caused by the proposed line, since there are no structures to be affected in the ranch.

### **Segera ranch**

Segera ranch borders ADC ranch on the west. It is among the biggest ranches in Laikipia County. The ranch hosts both livestock and wildlife. The RAP team met with the manager, Mr. Mark Jeekins, at the ranch office for disclosure and consultation. The manager opposed the project and asked us to follow up with Laikipia Wildlife Forum (LWF) for the issues raised since they had discussed and documented all the issues and mandated the LWF to advocate for them.

### **Ngorare ranch**

The proposed transmission line passes through the ranch. The Ngorare ranch is a wildlife conservancy and tourist destination place with lodges inside the ranch. It is a large farm specializing in extensive grazing of livestock in the country of Kenya. Its center lies at a latitude of 0.2166700 and longitude of 36.6666700 and it has an elevation of 1885 meters above sea level.

### **Koiya group ranch**

Proposed transmission passes through Koiya group ranch which borders Impala ranch, at Olborsoit Location. The ranch is owned by the local community, hence, registered as a group ranch under management of the elected officials. The ranch hosts both livestock and wildlife. Three *manayatta* structures will be affected in this ranch. The RAP team held a baraza at group ranch offices where the community members participated. The issues raised during this meeting is described in chapter five.

### **Lemarti group ranch**

Lemarti group ranch is a community ranch in Ilmotiok location. The ranch is registered as a group ranch and has livestock and wildlife inside. The line traverses the edge of the ranch with no impact on the structures.

### **Impala ranch**

The proposed transmission line passes through the impala ranch. The ranch is a wildlife conservancy and tourist destination place with lodges inside the ranch. There are no structures to be affected by the proposed line. The RAP team met with the management at Nanyuki under the umbrella of LWF and the issues raised are described in chapter five.

### **Mathira II community ranch**

Mathira II is a community owned ranch basically for livestock keeping. The proposed line passes the ranch, no structures will be affected by the proposed line.

### **Oldonyo lemboro ranch**

The proposed project cuts through the ranch. The ranch is a wildlife conservancy and tourist destination place with lodges inside the ranch. There are no structures to be affected by the proposed line.

### **GG ranch**

GG ranch is a private ranch owned by an individual. The proposed project cuts through the ranch. The ranch is a wildlife conservancy and for livestock keeping. There are no structures to be affected by the proposed line

### **Gorge Mwai ranch**

Gorge Mwai ranch is a private ranch. The proposed project cuts through the ranch. The ranch host wildlife and livestock. There are no structures to be affected by the proposed line.

Generally, the survey team assessed the impacts of the line in all these areas and found out that the impacts will be minimal in the ranches since there are no structures and the vegetation in Laikipia is mainly shrubs.

## **3.3 Physical Environment**

### **3.3.1 Topography and geography**

In line route traverses the following counties: Isiolo, Laikipia and Nyandarua. Nyandarua County has a total land area of 3,304 km<sup>2</sup>. It lies between latitudes 0° 8' N and 0° 50' N and between longitudes 35° 13' E and 36° 42' E. The county borders Laikipia County to the north, Nyeri and Murang'a Counties to the east, Kiambu County to the south and Nakuru County to the west.

Nyandarua County mainly lies in the Aberdares highland, comprising the Kinangop Plateau, Ol Kalou/Ol Joro Orok Plateau and Ol Kalou/Ol Joro Orok Salient.

### **3.3.2 Geology**

The geology of Laikipia and Nyandarua Counties is composed of mainly mica (biotite, muscovite) and/or hornblende schists and gneisses that occasionally show the presence of staurolite, almandine garnet, kyanite and sillimanite. The areas were created by vulcanicity and faulting which gave rise to two major landforms, the Great Rift Valley to the west and Aberdare Ranges to the east. Between the two physiographic features lies Kinangop and Ol Kalou Salient plateau. The Aberdares are an isolated volcanic range that forms the eastern wall of the Great Rift Valley. This escapement stretches for roughly 100 km in a north-southerly direction between Nairobi and Nyahururu. The Aberdare Ranges run across Nyandarua County. The proposed transmission line route is expected to cross the slopes of the Aberdare Ranges near Shamata settlement area. The soils in the area are red and of volcanic origin and rich in organic matter.

### **3.3.3 Climate**

Laikipia and Nyandarua Counties experience two rainy seasons per year. The long rains are typical between March and May, and the short rains between September and November. The annual average rainfall is about 800 mm, which supports agriculture. Agriculture is important in the county, as it is the main occupation of the residents, and crops of this region are delivered to the nearby urban centres like Nairobi, Nakuru and Gilgil and over larger distances to cities like Mombasa and Kisumu.

## **3.4 Biological Environment**

### **3.4.1 Vegetation**

There are shrubs, indigenous trees and exotic trees within the wayleave mainly attributed to areas ASAL. In Laikipia and Isiolo counties, It consists of woody plants of about 6m high without a significant presence of trees. Canopy cover is more than 20%. It is characterized by scattered shrubs less than 6m height with sparse or no herbaceous vegetation and rocky ground cover. Shrub or Bush Grassland consists of grassland with scattered trees and shrubs having a combined canopy cover of less than 20%. Grassland is dominated by grasses or sedges. Woody



plants are either lacking or are dwarfed and inconspicuous. Woody plants contribute to less than 2% of the canopy cover.

### **3.4.2 Wildlife**

In Laikipia county, although a semi arid, is very rich in biodiversity. The tourism industry is based not only on the wildlife but also on the adverse avifauna and an abundance of dry-land plant species. It has the largest diversity and population of wildlife which are mainly found in private ranches and the communal lands.

# Chapter

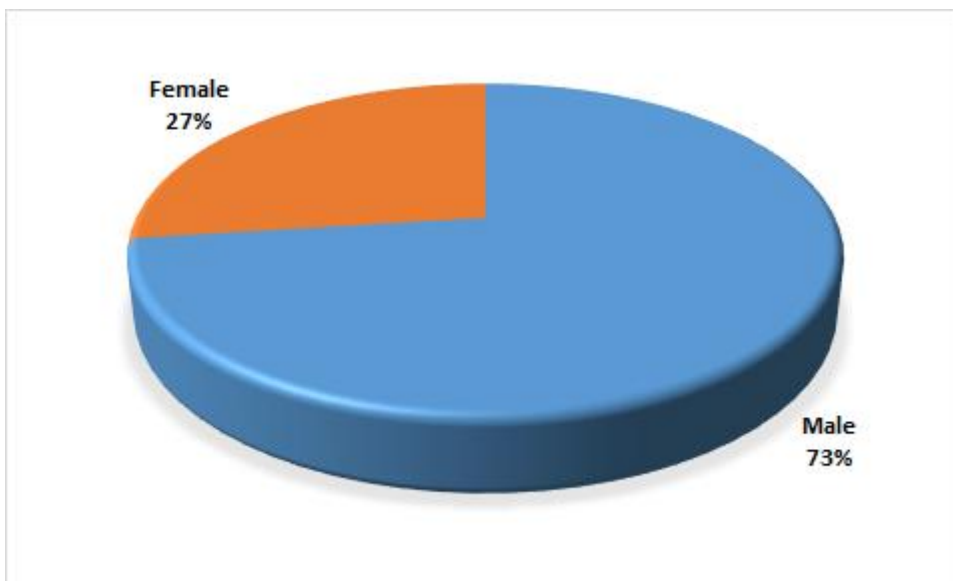
# Four

## 4.0: SOCIO-ECONOMIC SURVEY AND RESETTLEMENT IMPACTS

### 4.1 Demographic characteristics of the PAPs

#### 4.1.1 Gender

From the survey, 73% of the PAPs are male. Most of the households are headed by male with a few (27%) female headed households as shown in the figure below.

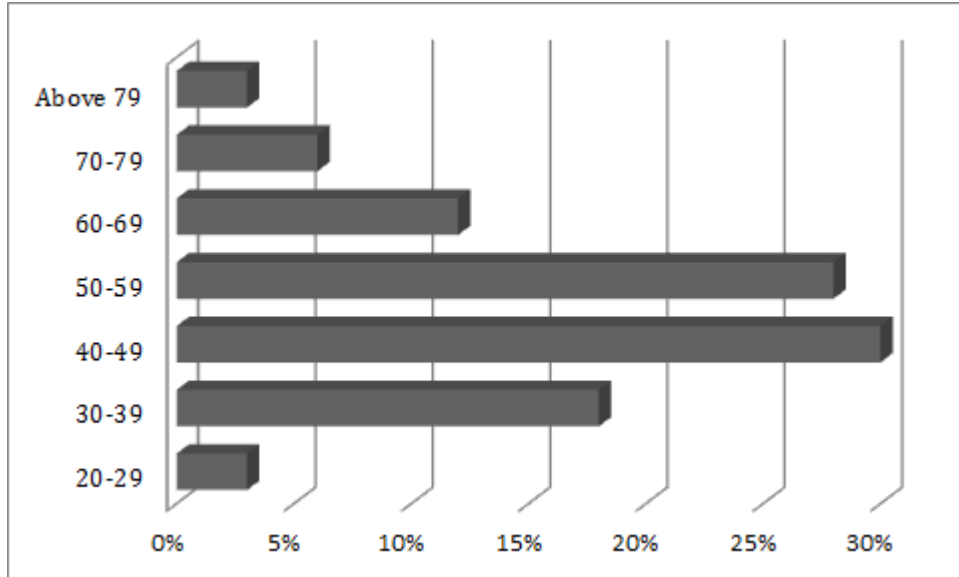


**Figure 2: Gender distribution**

The 27% of the female showed above comprises mainly widows and single mothers affected by the project. They are considered to be a vulnerable group because they are faced with multiple tasks of being breadwinners, mothers, providers of shelter, and providers of security for those under their responsibility. Shelter relocation and livelihood restoration will be huge tasks for them.

### 4.1.2 Age distribution

Age distribution among PAPs should be considered especially during resettlement process and compensation so as to be factored in during livelihoods restoration.



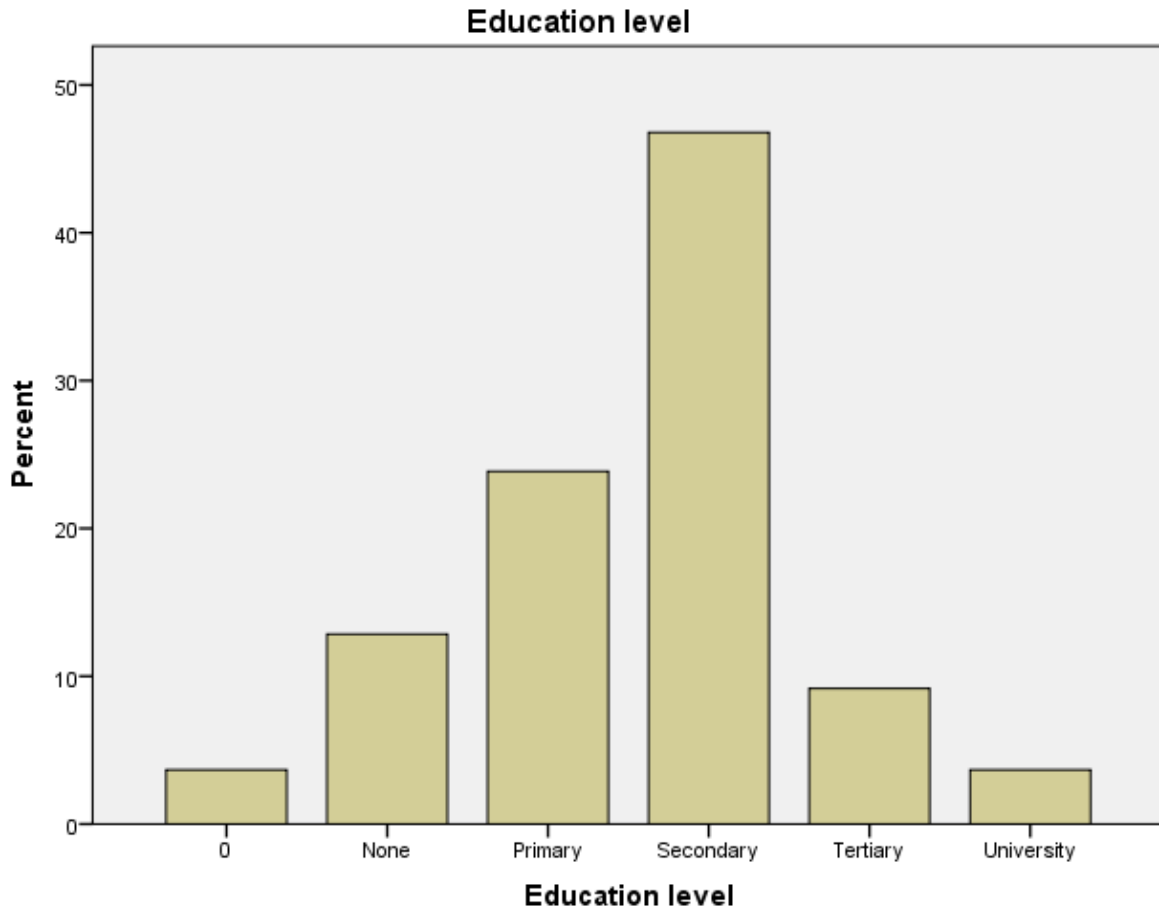
**Figure 3: Age distribution of PAPs**

As shown above, majority (30%) of the affected persons are aged between 40 – 49 years who are considered to be economically productive groups. This group of people should be considered for skilled and unskilled employment. In addition, 3% of the PAPs are over 79 years. This group requires special assistance to restore their livelihood status. Such assistance may include:

- ✓ Private and continuous consultation
- ✓ Priority in site selection in case of complete relocation
- ✓ Relocation near to kin and/or former neighbours
- ✓ Assistance in transportation of salvage materials from original home

### 4.1.3 Level of education

Level of education is crucial in this resettlement process since the literate PAPs will understand their constitutional rights and also they be part of the RAP process.

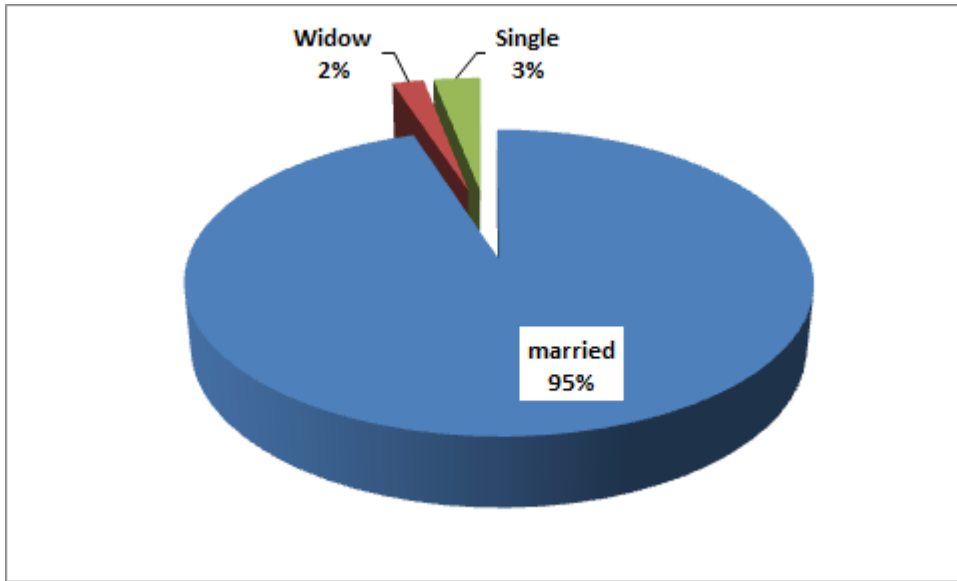


**Figure 4: Level of education**

The figure above indicates over 50% of the PAPs can be categorized as literate with highest number of respondents (43%) indicating their highest level of education being secondary. Though the survey showed few respondents (12%) have no formal education, continuous consultations and counseling will be necessary so that all the affected people will make informed decision regarding the RAP.

**4.1.4 Marital status**

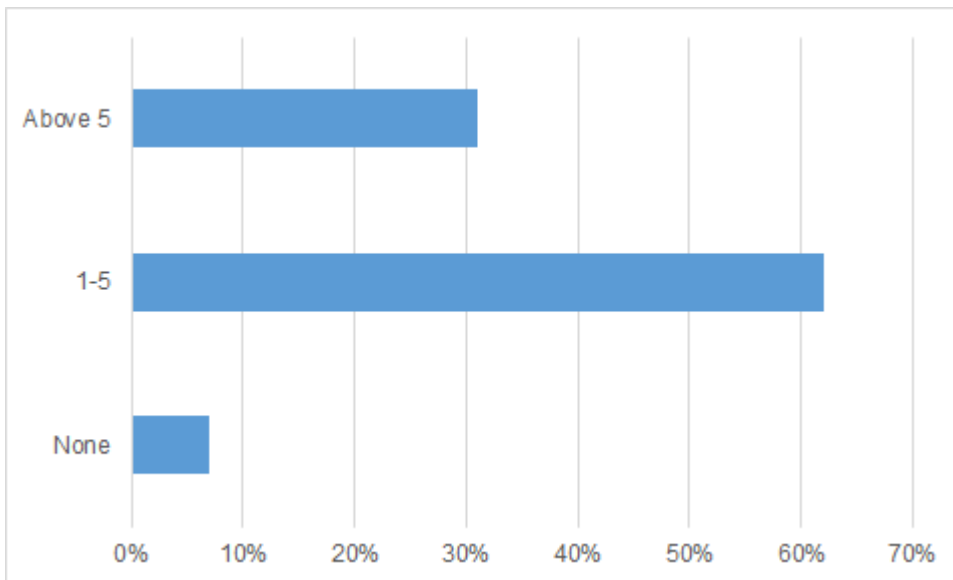
The survey team established that, 95% of the PAPs are married while 2% indicated as widows and 3% single women as shown in the figure below.



**Figure 5: Marital status**

#### 4.1.5 Household size

The household size is important during this RAP process especially where there is Project Displaced Persons (PDP). The survey team established that the average household size is between 1-5 persons (61%) as indicated in the figure below.



**Figure 5: Household size**

6% of the PAPs have no dependants, they will be the only ones to be affected. Most of this group people are unmarried and youth.

## **4.2 Social Characteristics**

### **4.2.1 Ethnic distribution**

A number of ethnic groups in Kenya reside along the planned power line route. None of them are to be considered as vulnerable ethnic minorities. The major ethnic groups in the project area are the Kikuyu, Turkana and Samburu.

### **4.2.2 Women**

The economic, social and political status of women in the areas of Oldonyiro, Olborsoit and Ilmotiok locations is relatively weak. Apart from land ownership, most girls are subjected to early marriages after which their roles are largely confined to household management. They are generally economically dependent upon men who tend to make the decision as to how many children the family should have.

In rural areas in particular, women are burdened by back-breaking work. In addition to all food preparation, child rearing and domestic chores, they are responsible for building *manyattas*. Women are also the principle collectors of water and firewood, and in some instances, they have to walk long distances to acquire these resources for drinking and cooking. Women's access to formal education is low in the affected areas.

### **4.2.3 Children**

Children are the most vulnerable members of the population due to the effects of displacement and disintegrations of families. In the project area, children are tasked to look after cattle, sheep and goats. Also, in parts of Laikipia county, the Samburu community task the children to fetch water at long distance. In addition, girl child is still subjected to the outlawed practice of FGM.

### **4.2.4 Housing**

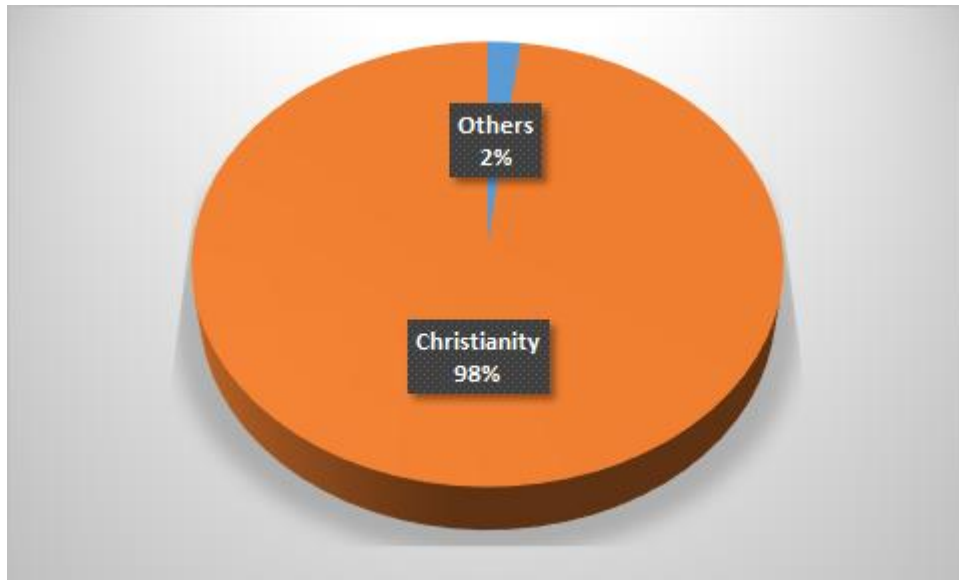
The quality of housing in the project affected area consists of a mix of permanent, semi-permanent houses and *Manyatta* houses. Most houses are permanent especially in Nyandarua county. *Manyattas* are found in the samburu and laikipia area along the proposed line route.



**Plate 1: Types of housing in the project area**

**4.3 Religion, Ethnicity and Language**

The project area is characterized by a great deal of religious diversity but dominated by Christianity. Christianity comprises of 98% of the population. The remaining 2% are traditional religion and those who don't subscribe to any religious faith as shown below.



**Figure 6: Religion**

There is no ethnic minority in and around the project area.

**4.4 Economic Conditions and Livelihood Activities**

**4.4.1 Occupation**

From the table below, 75% of the PAPs are farmers, 6% are pastoralist and 11% under employment. The occupation differs depending on tribe and the regions, for example Ilmotiok, Olborsoit and Waso locations recorded 100% pastoralism as their occupation. This is informed by the fact that these locations are inhabited by the samburu ethnic group and are pastoralist. Nyandarua County in parts of Kahutha, Mwehoko and Shamata locations which are categorized

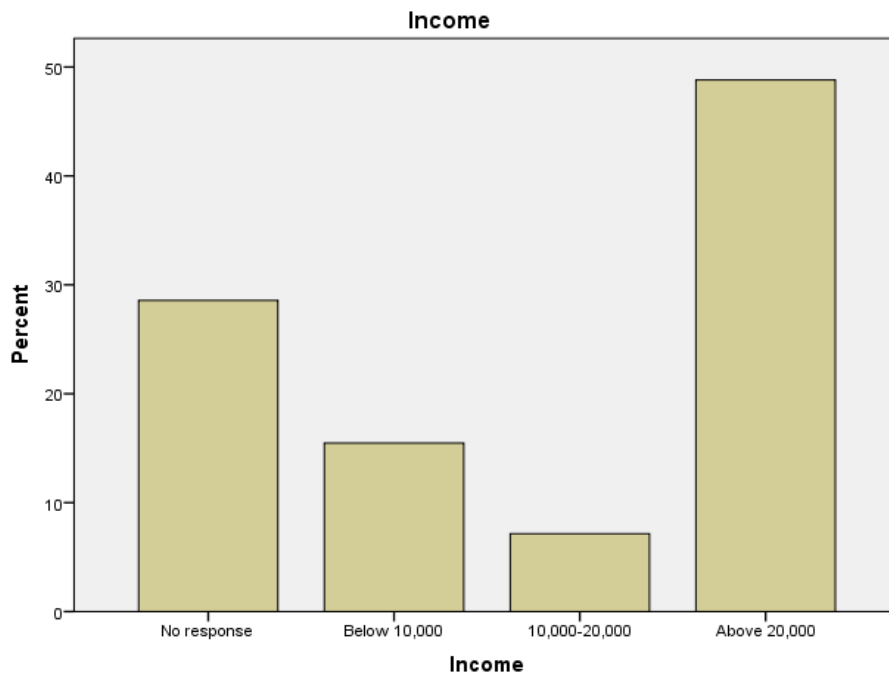
under agro-ecological zones making it suitable for mixed farming. The farming system and pattern of agricultural production vary based on the nature of agro ecology.

**Table 1: Occupation**

Locations	None	Farmer	Pastoralist	entrepreneur	Employed
Mwehoko	-	83%	7%	9%	2%
Shamata	18%	82%	-	-	-
Ilmotiok	-	-	100%	-	-
Olborsoit	-	-	100%	-	-
Waso	-	-	100%	-	-
Kahutha	-	70%	-	4%	26%
<b>Total</b>	<b>3%</b>	<b>75%</b>	<b>6%</b>	<b>5%</b>	<b>11%</b>

**4.4.2 Amount of income**

The communities living along the project areas have different sources of income based on the available resources and climatic conditions. As shown in the figure below, the majority of the PAPs (48%) indicated that the average amount of income per month is above Ksh. 20,000. 16% of the respondents earn less than 10,000 per month. Due to the sensitivity, 20% of respondents didn't disclose their income.



**Figure 7: Amount of income per month**



### 4.4.3 Sources of income

The table below show the various sources of income for the PAPs. 42% of the respondents indicated that there major source of income is farming. This shows that land is the critical natural resource for livelihoods in the project area.

**Table 2: sources of income**

Activity	Frequency	Percent (%)
Farming	36	42
Business	9	10
Salary	4	5
Others	34	40
Tourism	3	3
<b>Total</b>	<b>86</b>	<b>100</b>

Of interest is the 3% of respondents who indicated that tourism is their major source of income. These majorly are the communities in Laikipia County (Koiya and Lemarti group Ranches) who depend on tourism to generate income. The community expressed reservations on the proposed project since they believe that the construction of the proposed transmission line will scare away wilderness tourisms.

### 4.4.4 Total Number of livestock owned by PAPs

During resettlement process, the impact of the process is great when the PAPs have the highest number of total livestock. From the figure below, 40% of the respondents indicated that the number of livestock they own is above 30.

**Table 3: Number of livestock**

Locations	Below 10	10-20	21-30	Above 30
Mwehoko	20%	30%	20%	30%
Shamata	71%	18%	6%	6%
Ilmotiok	-	100%	-	-
Olborsoit	-	50%	-	50%
waso	-	-	-	100%
Kahutha	13%	15%	13%	59%
<b>Total</b>	<b>24%</b>	<b>22%</b>	<b>14%</b>	<b>40%</b>

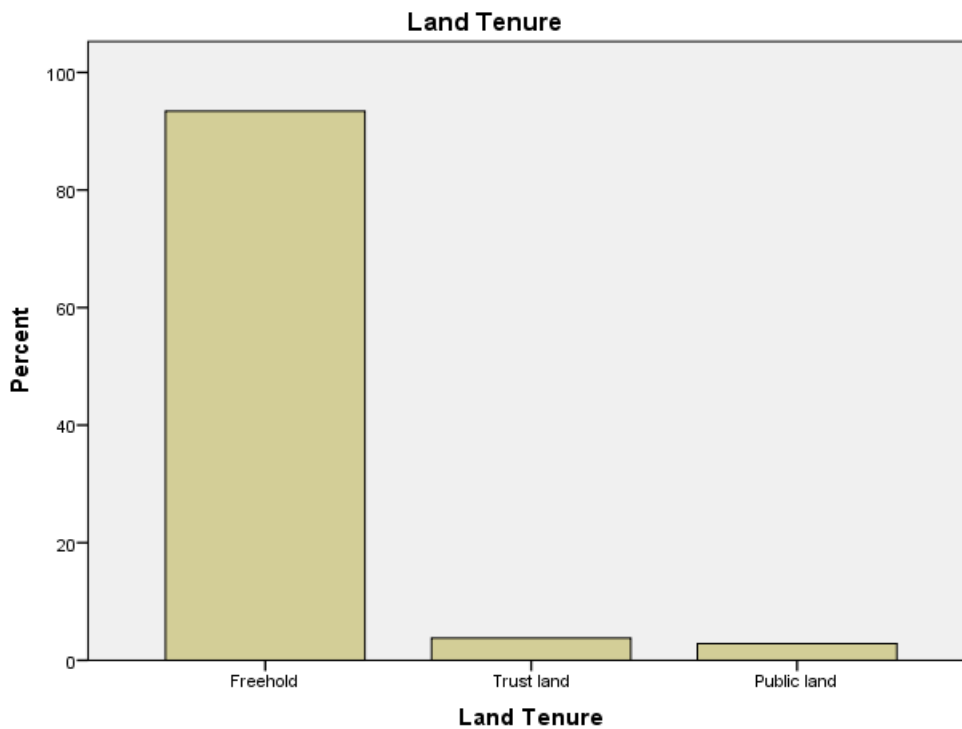
#### 4.5 Land Use and tenure

From table below, 82% of the respondents indicated that land is basically used for mixed farming i.e. for crop and livestock farming. Grazing lands and wildlife conservancy areas are in Laikipia county, Ilmotiok, Olborsoit and Waso locations. PAPs in Nyandarua county and within Rumuruti town practice mixed farming where they keep dairy animals and grow crops e.g. potatoes, beans and maize.

**Table 4: Land use**

Location	Mixed farming	Crop farming	Livestock farming	Others
Mwehoko	96%	-	2%	2%
Shamata	88%	13%	-	-
Ilmotiok	-	-	100%	-
Olborsoit	-	-	100%	-
waso	100%	-	-	-
Kahutha	72%	16%	8%	4%
<b>Total</b>	<b>82%</b>	<b>8%</b>	<b>7%</b>	<b>3%</b>

The figure below on land tenure shows that land tenure is freehold (93%). The line traverses the community land at oldonyiro location which under the Isiolo county council as trust land.



**Figure 8: land tenure**

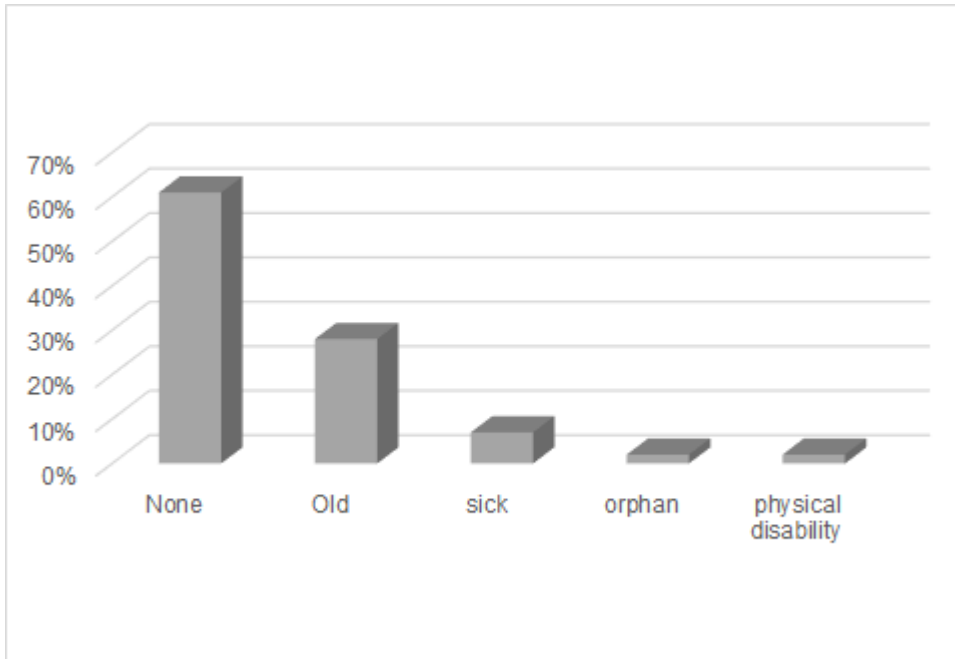
#### 4.6 Vulnerable groups

The elderly, single mothers, female heads of households, and orphans are considered the most vulnerable. These groups also include the disabled; widows and the terminally ill among which people living with HIV/ AIDS are a part of.

The various groups are considered vulnerable due to their ability to cope with and participate in decision making with regards to resettlement.

- The elderly are vulnerable because most of them are physically weak and cannot relocate to new shelters nor restore their livelihoods without support from others. It is more difficult for the female elderly.
- The orphans are a special group different from other children because they are totally dependent on sympathetic relatives or adults. With the increase of responsibilities in the resettlement process, orphans will most likely be marginalized. Their needs might not be a priority in the planning and/or in the implementation stages.
- Widows are vulnerable because they have lost their breadwinners and are suddenly faced with the reality that they have to provide for themselves, the children and other dependants. Resettlement will be an additional responsibility, which will need outside support. The need becomes bigger where the widow is elderly.
- Disable or the terminally ill are vulnerable because they cannot attend to their resettlement responsibilities without support from family members or relatives.

From the study, the vulnerable groups identified include the elderly people, sick, orphans and the disable. From figure below, 28% of the respondents are elderly, 7% are sick.



**Figure 9:** Vulnerable group

The vulnerable groups require assistance and protection to help them overcome difficulties during the RAP implementation. Special attention should be given to them on a case by case basis, with regard to their habitation, livelihood and education.

#### 4.7 Utilities

##### 4.7.1 Distance to water source

Water is a very crucial water resource. 45% of the respondents indicated the distance to be less than 1km, 41% said it is 1-2km. However, the community at Waso location indicated that the source of water is more than 5km away.

**Table 5: distance to water source**

location	Less than 1km	1-2km	2.1-3km	3.1-5km	Above 5km
Mwehoko	43%	32%	20%	2%	2%
Shamata	6%	94%	-	-	-
Olborsoit	-	100%	-	-	-
Waso	-	-	-	-	100%
Kahutha	64%	28%	6%	-	2%
<b>Total</b>	<b>45%</b>	<b>41%</b>	<b>11%</b>	<b>1%</b>	<b>3%</b>

#### 4.7.2 Distance to the health center

Distance to the health center is considered especially where there is a complete relocation so as to ascertain the resettlement impacts. From the table below, 45% of the respondents travel more than 5km to get medical services. Notably, respondents from Mwehoko and Waso locations recorded the highest percentage, 77% and 100% respectively.

**Table 6: distance to health centre**

	Less than 1km	1-2km	2.1-3km	3.1-5km	Above 5km
Mwehoko	--	-	5%	18%	77%
Shamata	13%	88%	-	-	-
Olborsoit	-	-	-	100%	-
waso	-	-	-	-	100%
Kahutha	6%	29%	16%	18%	31%
<b>Total</b>	<b>4%</b>	<b>25%</b>	<b>9%</b>	<b>17%</b>	<b>45%</b>

#### 4.8 Resettlement Impacts

##### 4.8.1 Displacement

The proposed transmission line require displacement of **117** households and **297** structures. The commercial and business enterprises including poultry farms, fish pond, cowshed etc. have been categorized under outbound structures.

##### 4.8.2 PAPs and public Structures

Households, businesses and one public structure will be affected by the project in this lot. All the households, shops and community properties are included in the RAP as impacts that are to be mitigated through compensation and resettlement assistance. The PAPs are being encouraged to self-relocate. The total number of PAPs affected in this lot are 141. Volume II of this report highlights the partially and totally affected PAPs.

The table 7 describes the total PAPs per location

**Table 7: Summary of PAPs**

No.	Location	Total PAPs
1	Oldonyiro	1
2	Olborsoit	3
3	Ilmotiok	3
4	Shamata	25
5	Pesi	5
6	Kianjogu	6
7	Salama	20
8	Simbara	19
9	Kahutha	46
10	Mwehoko	13
<b>Total</b>		<b>141</b>

There is only one public structure along the proposed line route, Kahutha primary school, which KETRACO should re-route the line in this place to avoid the school.

#### 4.8.3 Physical Structures Affected

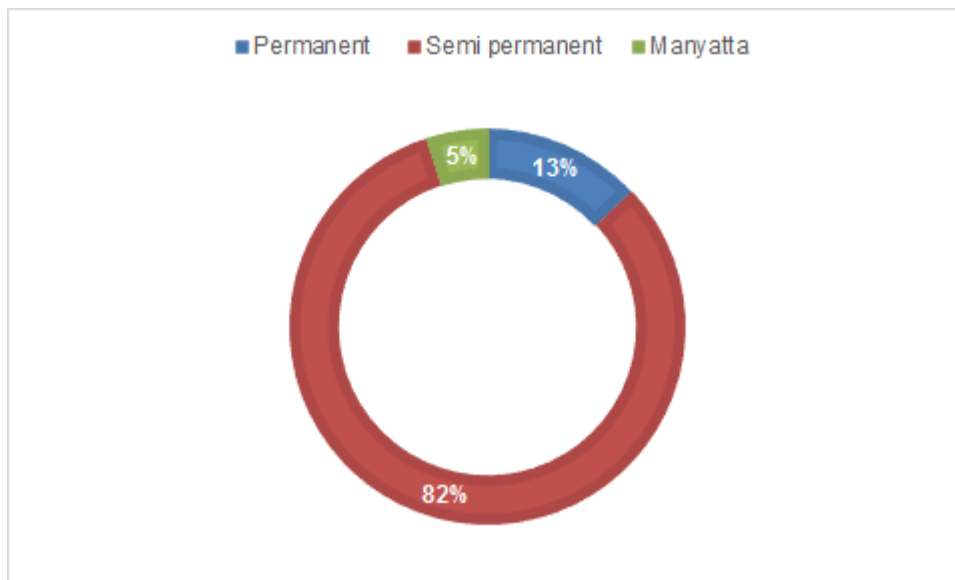
All of the dwellings and other physical structures on the project RoW identified for relocation are on private land. Table below shows the total number of various types of structures owned by the displaced households and those structures which are identified as outbound structures. The outbound structures are the secondary structures for example latrines, bathrooms, cowsheds, sheep pens, poultry houses, cages etc.

**Table 8: Number of Structures**

No.	Location	structures		
		Main structures	Outbound structures	Total
1	Oldonyiro	2	1	3
2	Olborsoit	3	3	6
3	Ilmotiok	7	7	14
4	Shamata	6	9	15
5	Pesi	8	13	21
6	Kianjogu	7	10	17
7	Salama	31	36	67
8	Simbara	10	17	27
9	Kahutha	36	69	105
10	Mwehoko	7	15	22

<b>Totals</b>	<b>117</b>	<b>180</b>	<b>297</b>
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In terms of building materials of affected structures, semi-permanent (iron sheet roof and mud wall, timber wall) are mostly affected (82%), followed by 13% permanent (wall is made of brick/stone/concrete and roof is made of iron sheet) and 5% *manyattas* -grass thatched (wall made of mud/straws/shrubs).



**Figure 10:** Types of structures

**4.8.4 Affected Trees and Crops**

Different species of trees, both fruit bearing and timber type, have been naturally grown up or planted on the embankment. The trees standing beside the RoW will not require cutting.

Trees affected include:

- Cypress
- Bluegum
- Shrubs
- Indigenous trees

**4.8.5 Public institutions**

Kahutha primary school was affected partially by the proposed project, the structures affected include school pit latrine, classroom under construction and water tank. The school head teacher and the committee chairman had no problem with the project and asked that they be

considered for developing the school further. The minutes of the school committee confirming this is attached in annex 4. The photos of the affected structures are shown below.



Incomplete classroom



Pit latrine



Water open tank

The consultant recommends that the portion of the line at this place be re-routed to avoid the primary school.



# Chapter

# Five

## 5.0: PUBLIC CONSULTATION AND PARTICIPATION

### 5.1 Introduction

KETRACO Resettlement Framework Plan (RFP) 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. RFP requirements for Public Consultation are being used as the primary point of reference.

During the fieldwork a number of community meetings were conducted within the way leave trace with PAPs and with local administration, community leaders and elders. In order to have adequate participation of the communities, notices were given to respective communities through the local area Chiefs and Elders. These leaders assisted in mobilization of the community to attend public consultative meetings. In addition, pictorial aids showing the locations of the different project area were prepared and used during information gathering and dissemination.

### 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. The main groups of stakeholders are:

#### 5.2.1 Directly Affected People

These are the people who reside in the wayleave or derive their livelihood from the proposed wayleave of the transmission line. These people will lose their property to KETRACO 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 may not adjust their livelihood e.g. groups such as those residing far from the project area but have farms near the proposed project area. The study identified communities around Kahutha primary school. Though, minimal effect on the buildings of the institutions will be affected, the land will be limited for future expansion.

### **5.2.3 Government Agencies and Other Organizations**

These include:

- i) Provincial Administration (District Officers, Area Chiefs and Assistant Chiefs)
- ii) National Environment Management Authority (NEMA)
- iii) Ministry of Lands
- iv) Ministry of Roads
- v) Ministry of Agriculture
- vi) County government

## **5.3 Community Meetings and issues raised**

Community consultation meetings were held within the project area to give information about the project and gather people's perceptions, opinions, suggestions and fears about the project. The community meetings acted as a forum for discussions between the RAP team and the community members. The information gathered was used as input into the Resettlement Action Plan Interviews using questionnaires and public *barazas* with the stakeholders were carried out from 17th to 27th March 2013 in the presence of administrative leaders, community leaders and the residents who are likely to be affected by the project along the wayleaves trace.

### **5.3.1 Community meetings**

Emerging from the preliminary phase, a number of consultation meetings were organised with the community and the provincial administration to create awareness and consult on

compensation options, possible effects of the proposed project on the community and to make clarifications on issues that were not clear to the community in relation to the proposed project. The consultants, among other things, discussed the emerging issues from the PAPs exploring various feedback options and possibilities on areas that were not clear to the community members.

The meetings had open forum (*Baraza*) especially with the PAPS. The plenary session at the beginning were used to introduce the transmission details and its effects on the community members living along the line route. It is in these meetings where the consultant had the opportunity to listen to views in the preferred compensation modes, land rates and other issues pertaining to the involuntary resettlement. The meetings were organized in every location with the help of the public administration- the chiefs and their assistants. In total, 15 locations within – counties were reached.

**Table 9: Summary of PAPs**

No.	Location	Total PAPs
1	Oldonyiro	1
2	Olborsoit	3
3	Ilmotiok	3
4	Shamata	25
5	Pesi	5
6	Kianjogu	6
7	Salama	20
8	Simbara	19
9	Kahutha	46
10	Mwehoko	13
<b>Totals</b>		<b>141</b>

**5.3.1.2: Public baraza at Ewaso trading centre, Olborsoit location on 23 March 2013**

The meeting was held at Koiya group ranch offices at Ewaso trading centre, community ranch members and officials attended the meeting. The plate below shows the photos of the meeting.



**Plate 2:** Public Baraza at Ewaso trading center, Olbosoit location

### **Issues raised by the PAPs**

The following is a summary of the issues raised in the meeting:

- i) **Compensation** : The community members and their officials resolved that the land is under Koiya group ranch and has not been sub divided, hence, the compensation of land be done to the members through the group management officials.
- ii) **Proposed transmission line impacts:** Koiya community group ranch owns a lodge and the community expressed fears that the proposed project will impact negatively on tourism, hence, affecting their source of income. The consultant allayed their fears affirming that the project will have minimum or no impact on tourism.
- iii) **Compensation:** the community members expressed their reservation on compensation cost on land of 30% of the land value. The consultant explained to them that KETRACO is only seeking RoW and will not take away their land, in addition, they will still continue using their land for livestock grazing.
- iv) Compensation should be paid promptly
- v) **Employment:** The community members requested that the local people should be considered both for the unskilled and skilled labour during project implementation.
- vi) The community requested that KETRACO should assist the community in drilling boreholes and construction of water dams so as to supply water for domestic and livestock use.

### **5.3.1.2 Public baraza at Kahutha chief's camp and at Mwioko**

The two public *barazas* were held at Kahutha chief's camp and Mwioko. The plates below show the said meetings.



Kahutha chiefs camp



Kwa wanyoike shopping center, Mwihoko location

**Plate 3: Public *Baraza***

**Issues discussed**

**Compensation**

From these meetings, it was clear to all that the options for compensations of necessity needed to meet the requirements of the existing Kenyan laws and World Bank’s policy guidelines on Involuntary Resettlement. PAPs were willing and did show readiness to relocate to new sites. The challenge is that getting land around and in close proximity to the affected areas, may be difficult especially in urban settlements where there is a high population density. The project should therefore take into cognizance the daunting task of looking for land in the neighbourhood as a form of compensation a part from cash. Therefore both cash and in-kind compensation forms for most affected could be proposed to improve the economic and social well-being of the PAPs. These two forms of compensation were proposed by the beneficiaries based on the women’s demands that, cash compensation alone would leave them with nothing behind, which might result in future grievances. For male-headed households, cash compensation alone may result in internal household conflicts if the cash is not made into good use.

**Conflicts and Conflicts Resolution**

Studies have shown that land scarcity and increase in land values lead to increased conflicts over land. In the case of Shamata-Kinamba Transmission line, it is anticipated that there has been increase in land values amidst increasing scarcity. Even though the meetings found limited potential cases of conflicts cases are likely to arise as people get compensated for their portions

of land that may be acquired for the project implementation. This could be experienced at the household, homestead and even at the community levels and especially where land ownership is not clear.

Traditionally land conflicts have been resolved in the project area through local institutions ensuring that amicable solutions are reached. In other cases the local administration largely the provincial administration have been used to resolve land cases and most PAPs expressed their wish that any disputes arising out of the implementation of this project be handled by the administration and not courts. It is therefore appropriate that conflicts that are likely to arise over who should be compensated will need to be addressed using the most efficient and appropriate approaches and a marriage of traditional and local administration appears to be the best in the circumstances in resolving such conflicts.

### **Some of the Key questions asked.**

The project may need to further engage in sensitization and awareness creation as a number of queries were raised concerning the project, a reflection of people's limited knowledge and information on the project. Some of the key questions asked were;

1. People plant trees for long term purposes, is the compensation taking care of this?
2. In a situation where one has unfinished structure, are they going to be compensated for a fully completed structure?
3. What happens if the projects commences before I built another house for my family?
4. If I had to sell the affected land, would I include the affected area?
5. Can an outsider use the portion of land that I have given out for the project as is no longer mine?
6. Are we going to receive training on how to make good use of the compensation money?
7. What happens to those who still do not have title deeds
8. Can the PAPs benefit from the transmission line directly?
9. A good part of my land is affected, is there a possibility of buying that whole land?
10. Of what benefit is this project to our people now that we are giving out our land?
11. Is the line insured, suppose it collapsed?
12. Will the youth get menial jobs from this project?
13. Does the compensation vary in relation to the types of houses?
14. If you are paying 70% compensation, when do you pay the other 30%?
15. Am I allowed to use my valuator and what circumstances?
16. Is it possible that you don't use the district land values for compensation?

17. What happens if the land in question belongs to a group?
18. Is it possible to pay the compensation amount once?
19. Should I misuse the money, what would happen?
20. Are you going to upgrade grass thatched houses?

# Chapter

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# Six

## 6.0: VALUATION AND COMPENSATION

### 6.1 Introduction

Under this Resettlement Action Plan, it is estimated that the land to be acquired for the Wayleave will be a corridor measuring 111Km (111,000 m) by 60m. That sums to 666Ha.

#### Basis of Valuation

The basis of the valuation for compulsory acquisition is the **open market value** plus **statutory additions**. The principle is that the value to the owner of land acquired would be greater than its market value. This is because of issues of severance, injurious affection and disturbance. The idea is to put the owner in a position to reinstate himself on other land so as to be able to carry on his activities unaltered and undiminished (equivalent reinstatement)

Issues that have been ignored in determining market value are:-

- a) Improvements put on the land after the notice unless they were necessary for maintenance of the property.
- b) Degree of urgency that led to the acquisition.
- c) Any disinclination/reluctance/unwillingness of the person whose property is to be acquired.
- d) Any willful destruction.
- e) Damages likely to be caused to the property after publication of intention to acquire it.
- f) Use to which the land will be put after acquisition.

Items to be compensated within the wayleave include land, structures, trees and crops.

It is also important to point out that the value of crops is quite minimal in parts of Laikipia and Isiolo Counties as most of the affected land is used pastoralism. In Nyandarua county, the values



of the subsistence crops have been ignored as they are expected to be harvested within a short time.

## **6.2 Valuation Methodology**

Valuation was conducted in line with Principle 8 of the International Resettlement Standards which states that “Resettlement must be seen as an upfront project cost”.

Valuation can simply be defined as the art or science of establishing the value (worth) of a particular interest in property for a specific purpose and at a particular moment in time; taking into considerations all the features of the property and also considering all the underlying factors of the market.

All valuation techniques rely on the collection and analysis of data such as social, Economic, Government and Environmental attributes. Specific data include local market conditions and details of property transactions such as location, physical and functional form and legal characteristics. The value of the property is affected by the rights of enjoyment or compensation when such benefit may be alienated.

After deriving the market value, add 15% of the market value for disturbance and awards for severance and injurious affection if applicable. Thus in such circumstances, the value paid is higher than normal market.

### **6.2.1 Comparison Method**

Comparison method compares like properties. It is the most reliable and requires an active market while adjustments are made to fit specific properties. The limitation faced by this method is lack of data and sometimes misleading data. Comparables may be biased where the seller may sell more or less depending on the needs at the time. Elsewhere the data given may not be correct because of personal secrecy. Thus in long learn, valuers have been able to come up with values per square foot/meter that can be used in various regions and give a reasonable value. Adjustments are made depending on various factors.

### **6.2.2 Investment Method**

Investment method is based on the expected future returns and its applicable where active investment market is available. Just like comparison method, investment method is limited due to lack of varied data.

### 6.2.3 Contractors Test (Cost) approach method

Cost approach method is where the property value is assessed based on the cost of buying the site and constructing the building. It is based on the reproduction/replacement value.

### 6.3 Valuation and compensation of affected assets

We followed the procedures outlined in the Valuers Act Cap 532, which requires that an authorised valuer is entitled to do cost valuation of assets to be possessed by any development project. Also, KETRACO’s RPF formed the basis and provided the guidelines in the exercise.

#### 6.3.1 Valuation and compensation of Land

Adequate compensation rates have been drawn based on the prevailing market rates of the affected land along the wayleave trace. The compensation rates varied along the project area due to change in values.

RPF stipulates per centum principle for land valuation as shown in table below.

**Table 10: Per centum principle**

Land Parcel	Area Affected (%)	Per centum of OMV (%)
Less than 1 Acre	> 50	100
Less than 1 Acre	< 50	50
Greater than 1 Acre	< 50	30

#### 6.3.2 Valuation and compensation of Structures

After deriving the market value, add 15% of the market value for disturbance and awards for severance and injurious affection if applicable

The established KETRACO’s rates prevailed since even after applying all the methods still it was competitive and ensured upfront compensation. The RPF rates are shown in Table below.

**Table 11: Rate for Structures**

Structure	Unit of Measure	Rate (KES)
<i><u>Buildings</u></i>		
i) Permanent	Square Feet(f <sup>2</sup> )	1,500 – 4,500
ii) Semi-Permanent	Square Feet (f <sup>2</sup> )	1,000-3,000
iii) Temporary	Square Feet(f <sup>2</sup> )	500-3,000
<i><u>Other Structures</u></i>		
i) Domestic Storage Facilities	Square Feet(f <sup>2</sup> )	500-2,000
ii) Domestic Animal Units	Square Feet (f <sup>2</sup> )	500-1000
iii) Water Storage Facilities	Cubic Metre (M <sup>3</sup> )	1500-2000
iv) Pit Latrines	Feet(f)	1,300
v) Boreholes/Wells	Feet(f)	1,000

(Source: KETRACO RPF)

### 6.3.3 Valuation and compensation of Trees and Crops

Compensation of trees and crops was decided according to the gross market value of the lost trees/crops. Gross market value makes full provision for owners' crops or users input already expended (labour, seeds, fertilizer etc) in the event that there is a crop in – ground at the time of acquisition.

There are two determinant of gross or full market value which are market value for crops and the average annual yield of the crop. The price used to calculate compensation is the highest market price of the crop during the year. The average annual yield of the crop involves some degree of data collection and analysis. Harvesting of crops and trees will be given first priority but where harvesting will not be possible, counting of the affected crops will be carried out and values applied according to the market rates.

### 6.4 Livelihood Restoration

One of the objectives of this RAP is to ensure that livelihoods are improved or restored to pre-displacement levels. Compensation for affected property therefore sought to facilitate full and smooth recovery without exposing the PAPs to vulnerability and this applies to people who are not necessarily physically displaced but who are affected by a land loss that affects their sustainability.

The restoration strategies to be applied to ensure income restorations to the affected communities are as discussed below which rather revolves round compensation. The overall objective of the adopted strategies is to ensure no negative change in the livelihood of the affected persons and their respective activity. The strategies aim at livelihood promotion through various economic incentives to the affected.

### **Land-based Compensation**

Land-based resettlement options for this project will be provided to PDP whose livelihoods was based on use of the land and rather own a land small enough not to require them further stay within the land. These options may include resettlement on or access to land acquired or purchased for resettlement based on the wish of the affected person. The following are the guiding principles for land-land compensation option:

- ✓ New land should be equivalent or superior in productive potential to the land from which people will be displaced;
- ✓ New land should be located in reasonable proximity to land from which people will be displaced;
- ✓ New land should be provided free of any “transaction costs” such as registration fees, transfer taxes, or customary tributes;
- ✓ New land should be prepared for productive levels similar to those of the land from which people will be displaced; preferably, affected people should be paid by the project to do this work.

### **Cash Compensation**

This compensation option is adopted where the affected persons choose cash rather than land for-land compensation after an informed consultation. The following are the World Bank guiding principles for cash compensation option:

- ✓ Compensation rates should be calculated in consultation with representatives of affected populations to ensure that rates are fair and adequate;
- ✓ Compensation for land, crops, trees, and other fixed assets should be sufficient to enable affected people to restore their standard of living after resettlement;
- ✓ Compensation for structures should cover full replacement cost exclusive of depreciation and inclusive of all fees such as construction permits and title charges and labour costs;

- ✓ Compensation payments should be made before any acquisition of assets or physical resettlement takes place unless those payments are staggered to enable affected people to begin preparation of new sites;
- ✓ Compensation for dismantled infrastructure or disrupted services should be paid to affected communities, or to local institutions as appropriate, at full replacement cost, before civil works begin;
- ✓ Compensation for lost earnings should be paid to proprietors and employees for the duration of work stoppages resulting from the relocation of enterprises.

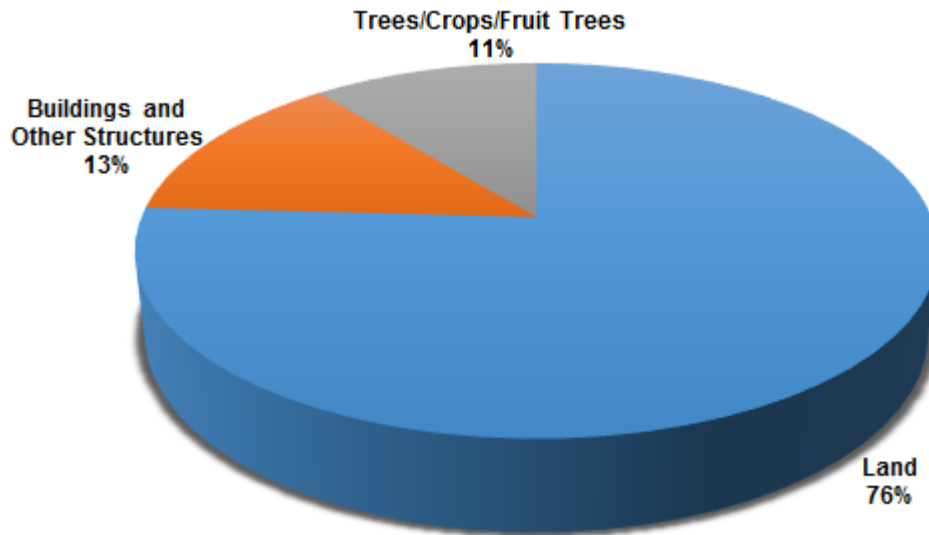
### 6.5 Cost summary

From analysis of potential damage and application of valuation methodologies, the likely cost of the damage anticipated from creation of the wayleaves is Kenya Shillings **Four Hundred Forty Three Million, Five Hundred and Thirty Three Thousand, Three Hundred and Sixty Eight (Ksh 443,533,368)**. of this amount, 76% will go towards compensation of land while 13% will meet the cost of removal of buildings from the designated wayleave as shown below.

#### Summary of compensation cost

Item	Amount in KES
Land	336,381,495
Buildings and Other Structures	59,224,873
Trees/Crops/Fruit Trees	47,927,000
<b>Total</b>	<b>443,533,368</b>

Note: 15% Severance, Injurious affection and Disturbance allowance added to structures only.



**Certified by:**

**Isaiah Bonyo**

*(Registered Valuer)*

**Sign** ..... **Date** .....

**6.6 Cut-off date**

The entitlement cut-off date refers to the time when the assessment of persons and their property in the area is carried out, i.e. the time when the project area has been identified and evaluated. The proposed project cut of date is 08 April 2013.

Entitlement cut-off date implies no new cases of affected people and properties will be considered after the set up date. The establishment of a cut-off date is required to prevent opportunistic invasions/rush migration into the chosen land areas thereby posing a major risk to the project. Therefore, establishment of a cut-off date is of critical importance since it defines legal PAPs to be compensated before project starts. Persons encroached in the area after RAP study (census and valuation) are not eligible for compensation or any form of resettlement assistance. Once it is determined that an area is likely to incur land acquisition or relocation, the project implementation entity together with the community agrees on a program of implementation. The dates would then be communicated to the community through their respective representative in the villages and broader project locations.

# Chapter



# Seven

## 7.0: ELIGIBILITY AND ENTITLEMENT MATRIX

### 7.1 Eligibility

The RPF has clearly shown that, those eligible for compensation may fall within the following:

- ✓ Asset owner
- ✓ Business tenant
- ✓ Residential tenant
- ✓ Squatter

Encroachers, i.e. those who come after cut-off date, are not eligible for compensation or other rehabilitation measures provided by the project.

### 7.2 Entitlement matrix

The entitlement matrix (outlined below) outlines the type of loss, entitled person and the compensation thereof. The RPF gave an outline of how the matrix was made for the project.

**Table 12: Entitlement matrix**

Type of Loss	Specification	Affected Person	Category	Compensation Entitlements
Land	Private land	Owners	Very small plots	Provide 100% compensation at open market value
			Land parcels <4000m <sup>2</sup> and less than 50% affected	Provide per centum rate of 50% of the Open Market Value of the land affected
			All other categories of land	Provide per centum rate of 30% of the open Market Value of the affected land.
Building and Structures	Modern houses with modern finishes including concrete, natural stone, bricks and treated sawn timber materials structures	Owners	Permanent	Provide compensation rate within range of KES 1,500 – 3000 per square feet depending on finishes used
	Structures made from sawn timber, timber-off cuts, GCI walling, sundried bricks or cemented floors	Owners	Semi-permanent	Provide compensation rates of within range of KES 1000-2500 per square feet depending on finishes used
	Thatch roofs, rammed or earthen floors and Adobe blocks and wattle, thatch walls, tents,	Owners	Temporary	Provide compensation rate within range of KES 500-



Type of Loss	Specification	Affected Person	Category	Compensation Entitlements
	tarpaulins and manyattas		Houses	1500 per square feet depending on finishes used
Domestic Storage Facilities	Based on the permanency, design, size and construction materials used.	Owners	Storage facilities	Rates will be between KES 500 -1,500 per square feet
Domestic animal units	Chicken pens, zero grazing units and other domesticated animal facilities.	Owners	Animal facilities	Rates will be between KES 500 - 1,000 per square feet
Water storage facilities	These are storage facilities for water. They range from plastic tanks, concrete tanks, bricks and stone.	Owners		Provide rate in the range of KES 1,500.00-2,000 per cubic metre
Fencing	These will be determined by type of construction material, (chain links, barbed wire, concrete	Owners		Chain link from KES 400 – 600 per metre run, barbed wire from KES 100 – 300 per metre run, concrete/stone wall from KES700 –1,000 per metre run, natural hedge is catered for under crop damage. The variance will be determined by type of the supports
Crops	Crops damaged as a result of the acquisition way leaves and construction activities.	Owners	All crops	Crop damage compensation rates will be at market rates
Trees	All trees taller than 12 feet	Owners	Private or Public	For trees, compensation rates will be derived at Market rate

Type of Loss	Specification	Affected Person	Category	Compensation Entitlements
Economic loss	Business premises affected acquisition way leaves and construction activities.	Owners	All	Provide one-time payment

# Chapter Eight

## 8.0: RAP ORGANIZATIONAL PROCEDURE AND IMPLEMENTATION SCHEDULE

### 8.1 organizational procedure

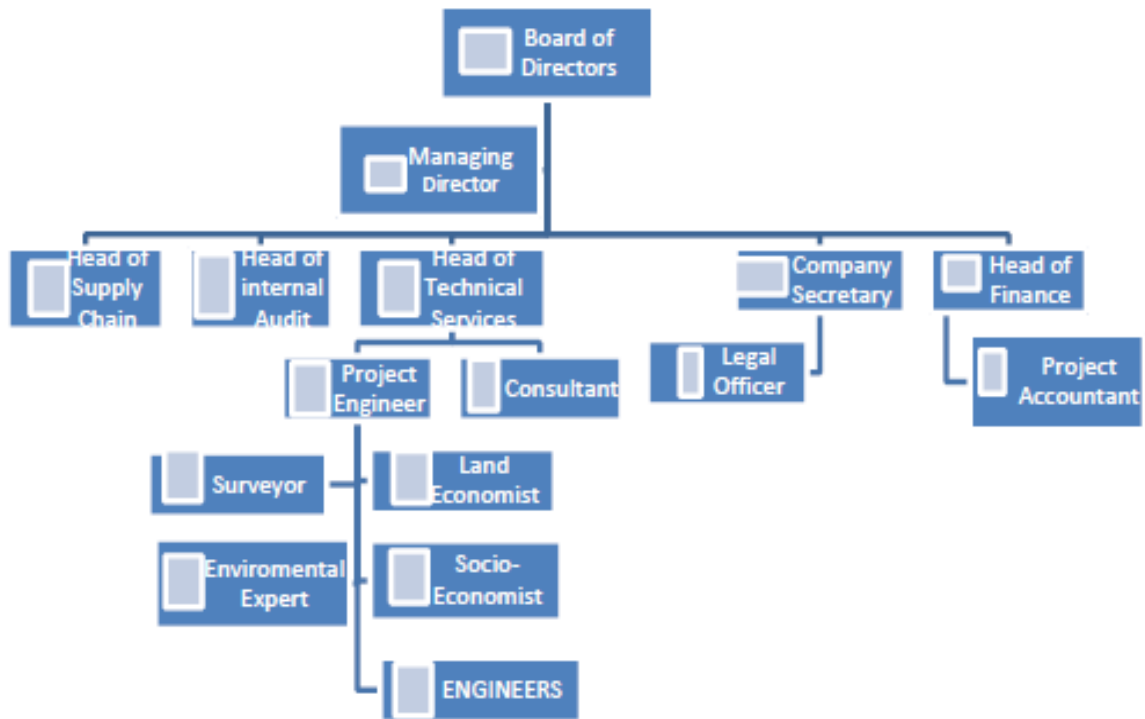
The RPF outlines that, transmission line projects will be under the administrative authority of the Ministry of Energy with KETRACO as the implementing agent. Policy and strategic decisions involve the following Ministries:

- ✓ Ministry of Finance
- ✓ Ministry of Environment and Natural Resources
- ✓ Ministry of Lands and Settlement (Physical Planning Department)
- ✓ Ministry of Roads, Public Works and Housing
- ✓ Ministry of Agriculture
- ✓ Ministry of Local Government.
- ✓ Provincial Administration
- ✓ The Local Authorities in the respective project regions will also be involved.

The Ministry of Energy provides administrative input and makes decisions about the policy direction of the projects undertaken by KETRACO.

#### 8.1.1 Resettlement Project Team (RPT)

KETRACO will establish a RPT, comprising a socio-economist, surveyor, way leave officer, environmental specialist, transmission engineer, land valuer, legal officer and building technician to manage the RAP process. The figure below shows the organogram.



**Figure 11: RPT Organogram**

*(Source: KETRACO RPF)*

**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. Offer compensation options – including cash and resettlement alternatives;
- vii. Deliver prompt compensation/resettlement;
- viii. Undertake transfer of lands for the vulnerable PDPs;
- ix. Be a member of the grievance procedure; and
- x. Monitoring, evaluation and reporting.

### **8.1.2 Resettlement Working Group (RWG)**

The RAP will be implemented in partnership with various relevant governmental, NGOs and CBOs. The RWG will comprise the local leaders and PAP (community) 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 KETRACO and the PAPs; and
- ✓ Serve as the court of first appeal to solve problems that may arise during RAP's implementation.

### **8.1.3 Local PAP Committees**

The PAPs committee acts as a link between the various communities and KETRACO. The committee will also ensure that those who have been compensated use the money for the intended purpose. PAP committee shall comprise:

- ✓ Chairperson appointed by the PAPs
- ✓ Secretary appointed by the PAPs
- ✓ 2 members nominated by the PAPs
- ✓ Local Area Chief

## **8.2 Implementation schedule**

Generally, this RAP study assesses the potential positive and negative social impacts of the proposed line as per the designed that could in effect minimize the resettlement and resultant impacts.

The project implementation timeframe is not definite as the start date was not indicated in the TOR. However, all the residents in the corridor including PAPs were eager to be given clear timeframe as well as be furnished with the duration they will be served with notices to relocate.

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, erecting posts and connecting transmission lines.

The resettlement schedule for land acquisition, house demolition and relocation will be coordinated with Resettlement Project Team (RPT). The activities prior to construction are outlined in the following table below.

**Table 13: RAP Implementation schedule**

RAP Activities	Duration	Start	Finish
Submission of Final RAP report by the consultant	1 day	Wed 4/24/13	Wed 4/24/13
Approval of RAP by KETRACO/AfDB	14 days	Thu 4/25/13	Tue 5/14/13
Constitution of RPT and RWG	7 days	Wed 5/15/13	Thu 5/23/13
Validation process by consultant’s valuer and RPT	10 days	Fri 5/24/13	Thu 6/6/13
Community consultation	15 days	Fri 6/7/13	Thu 6/27/13
Constitution of RAP PAP committee	7 days	Fri 6/7/13	Mon 6/17/13
Notification of entitlement	7 days	Tue 6/18/13	Wed 6/26/13
Signing of Agreement on entitlement by PAPs	7 days	Fri 6/28/13	Mon 7/8/13
Payment of compensation (70%)	20 days	Tue 7/9/13	Mon 8/5/13
Notification of relocation	30 days	Tue 8/6/13	Mon 9/16/13
Redress of Grievances	58 days	Thu 6/27/13	Mon 9/16/13
Relocation of households	30 days	Tue 9/17/13	Mon 10/28/13
Final payment of compensation (30%)	7 days	Tue 10/29/13	Wed 11/6/13
Submission of project completion report by RPT	7 days	Thu 11/7/13	Fri 11/15/13
Monitoring and Evaluation	101 days	Fri 6/28/13	Fri 11/15/13

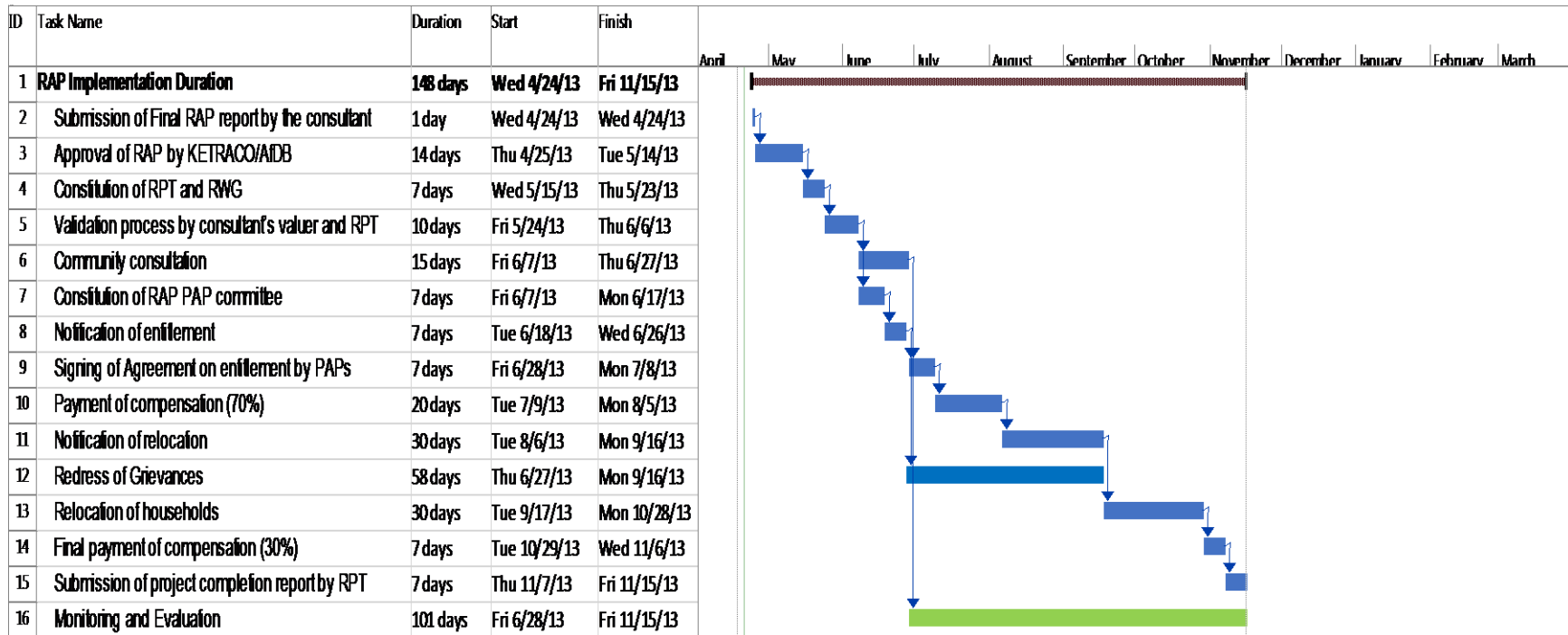


Figure 12: RAP Implementation schedule

# Chapter



# Nine

## 9.0: GRIEVANCE REDRESS MECHANISM

### 9.1 Introduction

As part of the RAP, options for instituting independent grievance mechanisms were explored. It was recommended that for every location traversed by the proposed line, a grievance redress team comprised of respected local elders be put in place by PAPs themselves to coordinate with the proponent in responding to all grievances.

This grievance redress mechanisms will aim at solving or managing disputes at the earliest possible time in the interest of all involved and interested parties.

### 9.2 Grievances Redress Procedure

Elaborate grievance redress mechanism has been put in place to deal with all emerging issues in the project area. Grievance procedures may be invoked at any time, depending on the complaint and if the resolution of the team is not acceptable to the “aggrieved” party, the matter should be referred to the High Court whose decision will be final.

The steps are summarized in figure below.



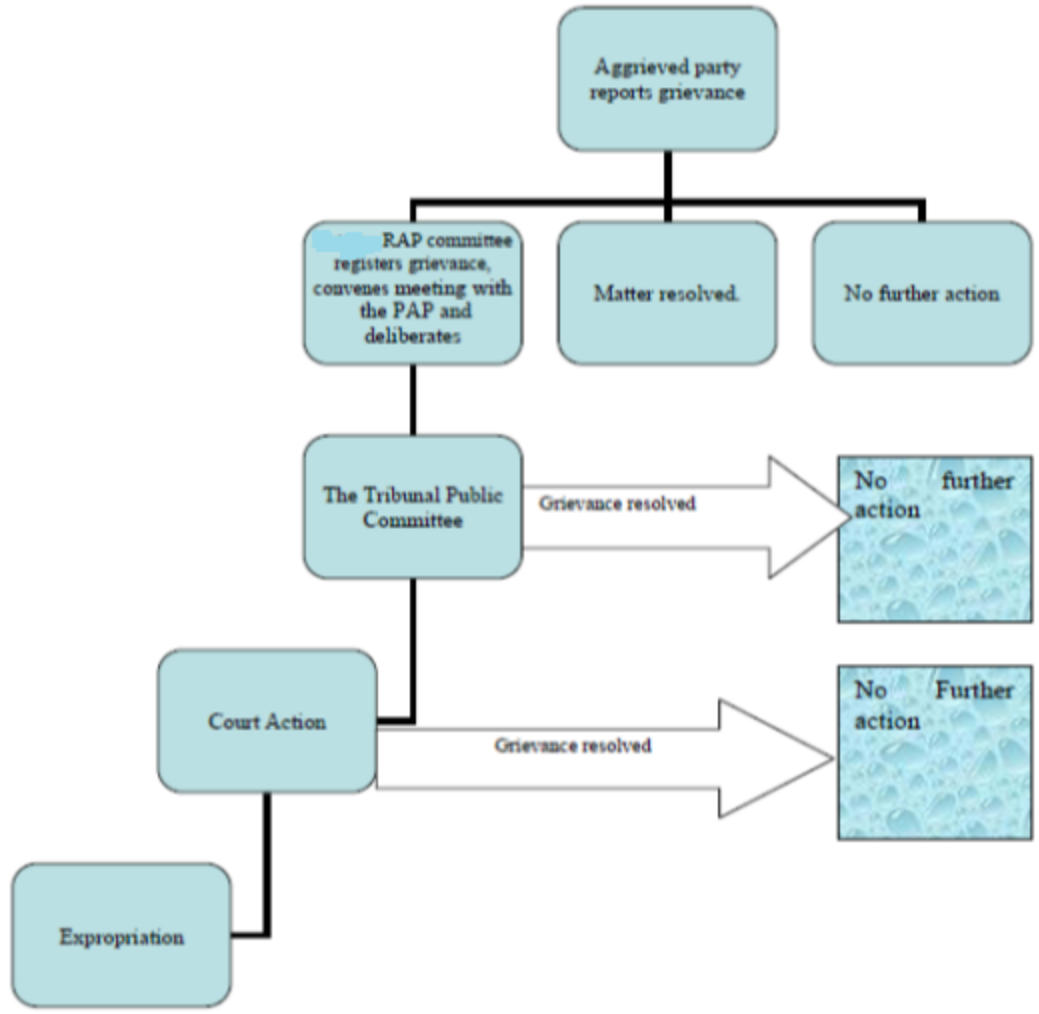


Figure 13: Grievance redress procedure

# Chapter



# Ten

## 10.0 MONITORING AND EVALUATION

In order to guarantee that the compensation plan is smoothly performed and the benefit of the affected persons be well treated, the implementation of the compensation 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 RPT. 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 e.g. records on compensation for assets as well as the day today observations by implementing staffs. The RPT 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 should visit the project area at least thrice per year.

The consultant should ensure that:

- ✓ Replacement housing for those who have had to move is of an adequate standard.
- ✓ 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 transmission line, households affected have been afforded suitable land replacement.
- ✓ 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 the RPT.

## 10.3 Methodology for monitoring

The approaches and methods used would require regular dialogue and surveys of the affected communities. The dialogue will provide a forum for affected parties to air any grievances or complaints that may arise. The survey will provide a more objective form of progress measurement to complement the more subjective consultations/dialogue.

## 10.4 Data Collection

Qualified census personnel will collect data from a respectable research firm or government agency. The surveys should be conducted with the full consent and permission of affected parties.

## **10.5 Data Analysis and Interpretation**

The data should be able to measure changes in net welfare based on pre-resettlement profile and post resettlement conditions. Where negative welfare is noted, KETRACO should immediately address the same.

## **10.6 Reporting**

Post-resettlement monitoring results should be subject to review by, representatives of the affected community through their representatives and representatives of KETRACO. The consultant must write its reports before the end of each visit and submit them to the RPT. The Monitoring team should structure its reporting in conjunction with accepted variables.

## **10.7 Monitoring Indicators**

The table below shows the monitoring indicators:

**Table 14: Monitoring indicators**

Subject	Indicator	Variable
Land	Relocated PAPs	<ul style="list-style-type: none"> <li>✓ Area of cultivation land acquired</li> <li>✓ Developments</li> <li>✓ Area of communal land acquired</li> <li>✓ Area of private land acquired</li> <li>✓ Area of government land acquired</li> </ul>
Buildings/ Structures	Number of buildings to be demolished	<ul style="list-style-type: none"> <li>✓ Number, type and size of private buildings acquired</li> <li>✓ Number, type and size of community buildings acquired</li> <li>✓ Number, type and size of government buildings acquired</li> </ul>
	Number of other structures to be demolished	<ul style="list-style-type: none"> <li>✓ Number, type and size of other private structures acquired</li> <li>✓ Number, type and size of other community structures acquired</li> </ul>
Trees and Crops	Number of trees to be cleared	<ul style="list-style-type: none"> <li>✓ Number and type of trees cut</li> <li>✓ Age size at girth level</li> </ul>
	Value of crops to be destroyed	Crops destroyed by area, type and ownership
Compensation, Re-establishment and Rehabilitation	Number of PAPs compensated	<ul style="list-style-type: none"> <li>✓ Number of households affected (buildings, land, trees, crops)</li> <li>✓ Number of owners compensated by type of loss</li> <li>✓ Amount compensated by type and owner</li> <li>✓ Number of replacement houses constructed</li> <li>✓ Size, construction, durability and environmental suitability of replacement houses</li> <li>✓ Possession of latrines</li> <li>✓ Water supply access</li> </ul>

Subject	Indicator	Variable
	Number of community resources re- established	<ul style="list-style-type: none"> <li>✓ Number of community buildings replaced</li> <li>✓ Number, type of plants lost</li> <li>✓ Number of seedlings supplied by type</li> <li>✓ Number of trees planted</li> </ul>
Hazards and Disturbances	Number of complaints received from PAPs	<ul style="list-style-type: none"> <li>✓ Number of households affected by hazards and disturbances from construction (noise levels, blasting, increased traffic levels)</li> </ul>
Social/ Demographic	Changes to household structure	<ul style="list-style-type: none"> <li>✓ Household size (births, deaths, migration in and out)</li> <li>✓ Age distribution</li> <li>✓ Gender distribution</li> <li>✓ Marital status</li> <li>✓ Relationship to household head</li> <li>✓ Status of vulnerable households</li> </ul>
	Population migration	<ul style="list-style-type: none"> <li>✓ Residential status of household members</li> <li>✓ Movement in and out of the household (place and residence of household)</li> </ul>
	Changes to access	<ul style="list-style-type: none"> <li>✓ Distance/travel time to nearest school, health Centre, church, shop, village</li> </ul>
	Changes to health status	<ul style="list-style-type: none"> <li>✓ Nutritional status of resettled household members</li> <li>✓ Number of people with disease, by type (sexually transmitted diseases, diarrhea, malaria)</li> <li>✓ Mortality rates</li> <li>✓ Access to health care services (distance to nearest facility, cost of services, quality of services)</li> <li>✓ Utilization of health care services</li> <li>✓ Disease prevention strategies</li> <li>✓ Extent of educational programmes</li> </ul>

Subject	Indicator	Variable
	Changes to educational status	<ul style="list-style-type: none"> <li>✓ Literacy and educational attainment of household members</li> <li>✓ School attendance rates (age, gender). Number, type of educational establishments</li> </ul>
	Changes to status of women	<ul style="list-style-type: none"> <li>✓ Participation in training programmes</li> <li>✓ Use of credit facilities</li> <li>✓ Landholding status</li> <li>✓ Participation in KETRACO related activities and enterprises</li> </ul>

# Chapter Eleven

## 11.0 CONCLUSIONS AND RECOMMENDATIONS

### 11.1 Conclusions

The subject of this RAP Report is the proposed construction of power transmission lines by the KETRACO in sections between Kinamba and Shamata.

This RAP has been prepared consistent 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. Basically, this RAP presents an inventory of (register) of people likely to be affected by development of the transmission lines, a register of the assets that are likely to be displaced by the project and the proposed compensation package.

Baseline data on proposed development was generated through desktop studies, site visits and interviews with the proponent, potentially affected people. Stakeholder consultations were undertaken towards development of a Resettlement Action Plan (RAP) and as per requirements of Environmental Management and Coordination Act 1999 (EMCA). To identify, predict, analyze and evaluate the various impacts that may emanate from the project, diverse study methods and tools including use of checklists, matrices, expert opinion SPSS and observations were employed.

Development of the project has been justified on the basis that it will improve access to electric power in a country where current national coverage averages allow 14% with most connections being recorded in urban areas. Provision or additional and stable power supply has potential to unlock the economic potential of rural areas and thus contribute to national economic growth.



**Project Impacts:** The project is 111 kilometers long and will affect private farms and structures. A total of 666Ha of land will be acquired for way leaves on which all physical development and trees taller than 12 feet will be removed. This constitutes the most drastic impact of the project. An Asset register detailing the features of all farms and structure likely to be affected and the likely damage has been prepared as part of this RAP. A total of Ksh **443,533,368** will be required to effect way leave agreements and offset damage to property. This is the responsibility of the KETRACO in capacity of proponent.

<b>Size of Land</b>	666 Ha
<b>Number of PAPs</b>	141
<b>Number of Structures</b>	297

Way leave agreements and payment of compensation will be approached using procedures already operationalized by the KETRACO's Way leaves Department. Other recommendations are as follows-

### **11.2 Recommendations:**

- ✓ Continuous sensitisation of affected communities in the pre-construction phase of the project, especially in the populated areas of traverse should be encouraged as a preparatory measure before project implementation. KETRACO should be at the forefront in ensuring this is carried out
- ✓ KETRACO should compensate all the affected persons in a timely manner using the prevailing market rates.
- ✓ Compensation value of 70% to PAPs should be made before demolition commences. This will be done at either the KETRACO offices and/or provincial administration offices.
- ✓ A minimum of one month notice should to be given to the PAPs to enable them salvage their assets
- ✓ Unskilled labor should 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.

- ✓ KETRACO under its Corporate Social Responsibility (CSR), should provide health centre, water pans and shallow wells to communities from Olborsoit and Ilmotiok locations. The areas are considered ASAL and require these projects.
- ✓ Monitoring and Evaluation: For the RAP to be successful there will be need for continued monitoring and evaluation. This will ensure that arising issues are properly addressed.

**ANNEXES**

**ANNEX 1: SAMPLE QUESTIONNAIRE**

KETRACO TRANSMISSION LINE

RESETTLEMENT ACTION PLAN

HOUSEHOLD INTERVIEW CHECKLIST

**Introduction**

The Kenya Electricity Transmission Company Limited (KETRACO) has engaged the services of NAJJ Consultants to undertake a Resettlement Action Plan (RAP) for the 111km, proposed line. The RAP is being conducted to determine the residents’ preferences and estimate costs for the relocation/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:

Names of household head \_\_\_\_\_ Sex \_\_\_

Name of respondent \_\_\_\_\_ Sex \_\_\_ Relation to HH \_\_\_\_\_

**1. Identification information**

Full names of property owner		ID No	
Village		County	
Sub-Location		Photo No	
Location		GPS /Map Reference	
Division		LR NO.	
District			

2. What is your religion? \_\_\_\_\_

3. List the names of dependents on this property as follows:

Serial no.	Name	Sex	Age	Relation to HH head	Marital status	Income per month	Occupation	Highest level of education	Any physical disability/ vulnerability orphan/sick/old

4. What is the total monthly expenditure of this household in each of the following?

- a. Food\_\_\_\_\_
- b. Rent\_\_\_\_\_
- c. Education\_\_\_\_\_
- d. Health\_\_\_\_\_
- e. Transport\_\_\_\_\_
- f. Water\_\_\_\_\_
- g. Others\_\_\_\_\_

5 How many of each type of animals do you own?

Animal	Number owned
Cattle	
Goat	
Sheep	
Donkey	
Chicken	
Others	

Total	
-------	--

6. What crops do you grow/produce and how much of it do you harvest/realize in a season? E.g. annual (maize, beans, etc) or perennial (tea, coffee etc)

Type of crop	Land use	Amount/ bags

7. Other sources of income \_\_\_\_\_

8. Land information

Name of owner	Date of occupation	Tenure(registered, not registered, leasehold, freehold, trust land, squatter)	Size/use of whole land, (farm homestead, commercial other)	Size/use of land affected

9. Any specific land disputes 1. Yes 2. No. If Yes, please explain:

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10. Trees affected

Type	Age(mature medium, young)	Breast, height diameter, cm (if mature)	Number

11. Where do you go for each of the following services?

- a) Health treatment \_\_\_\_\_ Distance \_\_\_\_\_
- b) Education \_\_\_\_\_ Distance \_\_\_\_\_
- c) Water \_\_\_\_\_ Distance \_\_\_\_\_
- d) Church \_\_\_\_\_ Distance \_\_\_\_\_
- e) Shops \_\_\_\_\_ Distance \_\_\_\_\_

12. Assets

Stretch of Land Affected (Km)	Ownership	Land Use	Estimated value per acre
	Leasehold Freehold Trust land Squatter	Arable Livestock Sanctuary Other Uses (specify	

Buildings	Year of construction	Materials (Manyatta, Permanent Semi-Permanent)	Condition of the Building (Good, Fair, Poor)	Estimated cost

Other structures affected	Description (length or depth)	Construction material	Estimated Cost

a) Fence			
b) Boreholes			
c) Others (Specify)			

13. If your land was to be acquired/taken from you:

vi) Preferred site for relocation \_\_\_\_\_

vii) What mode of compensation would you want? (please tick)

viii) Cash \_\_\_\_\_

a. Another similar property\_\_\_\_\_

b. Both \_\_\_\_\_

ix) How much (Kshs) would you sell an acre of your land? \_\_\_\_\_

What other support would you want to be given?

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

14. a) What are your expectations, concerns, fears of the PAPS regarding the transmission line

a) What would be your preferred grievance redress procedure

15. Which part of your land is being affected by the transmission line? (e.g. middle/ boundary, partial/entire)

16. Will the location of the transmission line have any impacts on the use of the remaining land?

Explain

a. \_\_\_\_\_



- b. \_\_\_\_\_
- c. \_\_\_\_\_

17. Other comments or requests:

18. Identification Card (ID) Number \_\_\_\_\_ Signature \_\_\_\_\_ Date \_\_\_\_\_

Phone Number(s) \_\_\_\_\_

GOD BLESS YOU

**ANNEX 2: KEY INTERVIEW GUIDE FOR KEY INFORMANTS****KETRACO TRANSMISSION LINE  
RESETTLEMENT ACTION PLAN  
KII CHECKLIST**

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1. What are the key economic and social challenges in this community?
2. How will the transmission line affect the community?
3. Which community facilities and services will be affected by the project?
4. What are the concerns and fears relating to this transmission line project?
5. How can we identify the most vulnerable individual in the project?
6. What strategies do we use to handle grievances resulting from the project?
7. Give your recommendation for the project implementation.

### **ANNEX 3: LIST OF PUBLIC PARTICIPATION**

**ANNEX 4: MINUTES OF KAHUTHA PR. SCHOOL COMMITTEE**

## **ANNEX 5: LIST OF PAPS**

NAME	ID NO.	CONTACT	MAIN STRUCTURES	OUT BOUND STRUCTURES	TOTAL COST OF STRUCTURES	TREES
<b>SHAMATA LOCATION</b>						
JOSEPH NDICHU	461512	723589859	1	1	410,320	540,000
PETER NGIGE NJOROGE	4671341	728761649		4	106,950	188,000
JOSEPH WAITHAKA NJOROGE	27341601	717022957	2	1	316,250	240,000
MICHAEL KINUTHIA KENENE	2933023	731820321	3	1	835,820	160,000
GEORGE WACHIRA KAGURU	2266930	723203036		1	92,000	878,000
PETER MACHARIA	19964151	728398827				
BETH NDUTA MWATHIA		728974131				460,000
FRANCIS MUGUNKA MWERU		717161518				
GLADYS NYOKABI						
MAINA KIMOHU						
MERCY BUSIENEI						
EDWARD NGUGI		720880560				2,236,000
KINUTHIA KAHURU		721261181		1	23,000	358,000
NANCY WANGARI	3154112	726762014				18,000
MAGRET NJOKI		714916976				1,696,000
PAULINE WACHEKA		715844068				310,000
JOSEPH GITHAKA		715844068				16,000
MIRIAM WAMBUI						358,000
SHAMATA/897						2,200,000
GODFREY MAINA						70,000
ABRAHAM NDERITU						30,000

NAME	ID NO.	CONTACT	MAIN STRUCTURES	OUT BOUND STRUCTURES	TOTAL COST OF STRUCTURES	TREES
KINUTHIA KERIKA						140,000
PATRICK NDUNGU						1,000,000
SIMON NGANGA KEHIO,/EMILIOZINA WANGECI	7002055	723304229				4,610,000
MUTUNGARITHI NGINA						381,000
<b>TOTAL</b>			<b>6</b>	<b>9</b>	<b>1,784,340</b>	<b>15,889,000</b>
<b>SIMBARA LOCATION</b>						
FRANCIS GATERO	46766002	723986446	1		448,500	1,040,000
ANTONY MUREITHI	14428814	732297650				4,290,000
MITHERIA KARINGO NDUTO	4676488	725995070	2	6	1,212,100	
MARTHA WANJA KABUGI	760682	719290728	2	3	693,450	132,000
KARITHO ITHANGATHA MWANGI	4677294	719290728	2	7	1,144,250	
ANN KIGENYO MUGO	4676819	715617182				39,000
MICHAEL THUITA NDIRANGU	13844959	729278758				
BEN MWANGI KIHAMA						269,000
NJERI GLADYS CHEGE	9012578		3	1	272,550	
JOHN IHUKA		723958786				480,000
PAUL MUGO						808,000
MICHAEL KAGIRI GITAU	6832045	720942119				1,800,000
ELIZEBETH WANGUI	13211156	722862167				530,000
ELIUD NDIANGUI		700496359				390,000
HILLARY GITONGA		721732330				180,000
RAEL WAIRIMU		723305041				220,000
BENFRED MACHARIA						198,000
SIMBARA/ 46						3,400,000
KAMAMIA						360,000

NAME	ID NO.	CONTACT	MAIN STRUCTURES	OUT BOUND STRUCTURES	TOTAL COST OF STRUCTURES	TREES
						240,000
<b>TOTAL</b>			<b>10</b>	<b>17</b>	<b>3,770,850</b>	<b>14,376,000</b>
<b>MWEHOKO LOCATION</b>						
MAGARET NJOKI		714916976	1		144,900	
PAULINE WACHEKE		715844068				
JOSEPH GICHAKA						
BONFACE MUCHOKI	9019764	700348119		2	112,700	
JAMES NJONJO	20364833	714451814		1	172,500	
BEATRICE WANGARE NJOROGE /SARAFINA WANJIRU	8937050	727546505	1			
CHARLES KIMOTHO			2	1	510,600	
GODFREY MAINA	21122764	723727082	1	5	1,216,930	
ABRAHAM NDERITU	12485838	705807663		2	126,500	
SUSAN NJERI KINUTHIA/ KINUTHIA KIRIKA	2946907	700914069	1	1		
GEOFFREY NGOMI			1	3	625,600	
PATRICK NDUNGU		726873690			602,600	
SIMON NGANGA KIHIA/ EMELIZIONA M WANGECI	7002055	723304229				
<b>TOTAL</b>			<b>7</b>	<b>15</b>	<b>3,512,330</b>	
<b>KAHUTHA LOCATION</b>						
LUCY WANJIRU CHEGE	340378	728212095 /07501995 45	1	8	1,696,480	
SYLAS NJUE WACHIRA	22390792	728632109	3	3	1,422,550	86,000
JOHNSON KANYI		722857912	1	1	347,300	
ESTHER WANGECI WANGOMBE	617245	727042705	2	5	1,095,950	



NAME	ID NO.	CONTACT	MAIN STRUCTURES	OUT BOUND STRUCTURES	TOTAL COST OF STRUCTURES	TREES
STEPHEN WANJOHI		726152711	2	1	670,450	160,000
AMOS MUTHUI NGARE	7028195	73131120/ 072681033 7	0	1	23,000	
JAMES NDUNGU KAMUNYA	14235776	710535386	0	7	2,992,000	1,320,000
JANE NJERI KEBUE			2	3	330,050	45,000
BERNICE KABUI JOSHUA	3179909		1	3	373,750	554,000
JOB KIRAGU WAITARA						
ISAAC MAINA KINGARA	3577394	728713758	2	3	1,831,950	600,000
GICHUI			2	2	454,250	600,000
KAHUTHA PRIMARY SCHOOL			1	2	1,204,453	130,000
ISABELA JANE NDERITU		720028968	1	3	599,150	
CHARLES NGARE			1	1	295,550	
EPHRAIM NGARE KABURO	4948930	721324204 /07278200 88	3	6	1,913,370	160,000
CHARLES KIAMA KARIUKI			3	6	4,638,525	2,154,000
TIMOTHY GITHUI MAINA	22052603	725629049	1	0	23,000	63,000
ERUSTUS NDUNGU THIRIMA	3179099	721579409	4	6	3,078,550	
CHARLES NDERITU WACHIURI	811878	720125111	0	1	23,000	
WACHIRA KIRAGURI						
SAMWEL MWAI MACHARIA	4676872	716341756	3	4	1,186,800	
DANIEL MACHARIA			2	1	549,240	
THUKU MWANGI			1	2	197,800	
SAMWEL KAMAU						240,000
PETER KAMAU						240,000
JOSEPH MWAURA		720710117				50,000

NAME	ID NO.	CONTACT	MAIN STRUCTURES	OUT BOUND STRUCTURES	TOTAL COST OF STRUCTURES	TREES
KAHUTHA /92						980,000
KAHUTHA/722						12,000
NGATIA MUGO		721327967				620,000
KAHUTHA/652						900,000
KAHUTHA/651						1,440,000
SIMON MWANGI						300,000
ZIPORAH						400,000
JOSEPH GACHAGUA,JOHN WANJOI		721874433				1,050,000
KAHUTHA/73						440,000
JOSEPH MURAKARU		725324922				820,000
JOHN NDIANGUI KEBUI						38,000
GLADYS WANGARI,LEONARD ICHURA		721653322				94,000
STEPHEN KIBOI	7084869	722860162				240,000
SAMWEL MAN MUHORO	8023512	718130683				280,000
EMILIO MUIYA GITHII	3392279	728586675				30,000
STANLEY NDIRANGU ERNEST						10,000
JOSEPH KARAGENYO KIRUGUMI						300,000
JUSTUS NDUNGU WAMBUGU		723717714				80,000
JASHON NDUMIA	1819345	723658248				138,000
<b>TOTAL</b>			<b>35</b>	<b>61</b>	<b>23,250,688</b>	<b>14,574,000</b>
<b>KIANJOGU LOCATION</b>						
SAMWEL KARANJA MUYA/MARY WANJIRU MWANGI	13844637	726445092	1	2	856,750	

NAME	ID NO.	CONTACT	MAIN STRUCTURES	OUT BOUND STRUCTURES	TOTAL COST OF STRUCTURES	TREES
HEZRON MBOGO GITUMBI		723965905	0	1	34,500	
JOHN MUGO		723965905	3	5	995,900	
DAVID MUNYI		723965905	0	1	23,000	
ELIJAH KIRUGA NJAU			2	0	221,950	
PARAYA (EVALINE) KWA MAMA NGONDU			1	1	240,350	
<b>TOTAL</b>			<b>7</b>	<b>10</b>	<b>2,372,450</b>	
<b>PESI LOCATION</b>						
ERNEST IRUNGU NJOGU	10932564	714245368	3	6	1,932,690	
SAMWEL KARABA WAKABA	2314773	719727411	2	4	1,154,140	
GEOFFREY NYORIA MAINA	332168	723307948	1	0	172,500	1,200,000
PETER MUTHUI KAYAI		721883258	1	2	721,280	280,000
SIMON KAYAI NDUNGU	13551282	726871996	1	1		160,000
<b>TOTAL</b>			<b>8</b>	<b>13</b>	<b>3,980,610</b>	<b>1,640,000</b>
<b>SALAMA LOCATION</b>						
SIMION KAYAYI NDUNGU	13551282	726871996	2	0	451,950	
JIMMY			1	2		80,000
JOHN KAMWEGWE GUYO	3229397	720109027	3	0	1,836,780	350,000
SAMWEL NDUNGU KINGORI	3073304	723526274	3	5	1,520,300	92,000
JOHN MBURU KINGORI	3353640/66	723528501	3	8	1,718,330	
JANE WANGECI MATHENGE	4357075	727470891			2,194,660	
MICHAEL MAINA MATHENGE	21923318	720280050	5	7		
PHILOMENA KERIGU	5170604	724761092	0	1	34,500	380,000
MARY GATHONI MUTURI	4357538	724761092	1	0	254,150	
GEORGE MACHARIA KIMANI		728173636	1	1	340,400	240,000

NAME	ID NO.	CONTACT	MAIN STRUCTURES	OUT BOUND STRUCTURES	TOTAL COST OF STRUCTURES	TREES
KIMANI MUTURI KURIA			1	0	162,150	
MWANGI KIMANI	29421895	727049	1	0	78,200	
ANN WANGECI MUKARU		713747885	2	2	615,250	334,000
PAUL WACHIORI	27537465	704683947	1	2	453,100	
SILAS KANYUGO	20298934	711248023	2	2	455,400	260,000
FREDRICK MIGWI		724125068	0	1	23,000	200,000
GEORGE MAINA	6830833	727610306	3	1	755,550	280,000
JANE KARITE			0	3	184,000	
JOHN GATURUKO WANGOMBE			1	0	115,000	
GABRIEL KIOKO	11404734	722297297	1	1	230,000	
<b>TOTAL</b>			<b>25</b>	<b>34</b>	<b>11,422,720</b>	<b>2,216,000</b>
<b>ILMOTIOK, OLBORSOIT &amp; OLDONYIRO LOCATIONS</b>						
LEKALKOLI SAMUEL			2	1	3,570,290	
SANIKA LESEKETETI			1		831,105	
SIKITEI NAIPUTARI			1	1	508,185	
LEWARGES			1	2	818,800	
NTAINGAN LESIANGUA			1	2	245,525	
NAKARAI LEPARKIRAS			3	1	196,650	
KETUNE LEKIPUSUNYU			3	4	457,125	
<b>TOTAL</b>			<b>12</b>	<b>11</b>	<b>6,627,680</b>	