



THE KENYA POWER AND LIGHTING COMPANY

Resettlement Action Plan

Proposed Olkaria -Narok-Bomet-Sotik Kisii-Sondu 132 Kv Transmission Lines



Draft Project Report



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LIST OF ABBREVIATIONS

AfDB	:	African Development Bank
AFD	:	Agence Francaise de Development
AIDS	:	Acquired Immune Deficiency Syndrome
EIA	:	Environmental Impact Assessment
EU	:	European Union
HHs	:	Households
HIV	:	Human Immunodeficiency Virus
KPLC	:	Kenya Power and Lighting Company
KRU	:	KPLC Resettlement Unit
kV	:	Kilo Volts
M&E	:	Monitoring and Evaluation
MoU	:	Memorandum of Understanding
NEMA	:	National Environmental Authority
NPs	:	National Parks
PAP	:	Project Affect People
PC	:	PAP Committee
RAP	:	Resettlement Action Plan
RLA	:	Registered Land Act
WB	:	World Bank

EXECUTIVE SUMMARY

Purpose

In response to the request by the Kenya Power and Lighting Company Limited (KPLC), Log Associates undertook an assessment for the resettlement action plan of the proposed 132 kV *Olkaria-Narok-Bomet-Sotik, and Kisii-Sondu* Transmission Line

1. Objectives

The objective of this study was to prepare a resettlement action plan (RAP) for the project affected persons.

2. 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. Some of the people we consulted were the KPLC staff, local chiefs, community leaders among others. Detailed description of the approaches and methodologies we used is discussed in section 1.6 of this report.

3. Findings

This report has examined the legal and regulatory framework and grievance redress procedures for the PAPs, socio-economic profile in the project area, identified areas that would require resettlement and proposed relevant compensations and entitlements. The report also provides implementation framework and accountability and monitoring and evaluation mechanism. Key findings from the study are:

- i. **Population:** From Olkaria to Narok the line traverses areas with low population density. The other areas which include Bomet-Sotik, and Kisii-Sondu have high population densities, which may require relocation during project implementation.
- ii. **Public Consultations:** A lot of consultations with the affected communities were done along the line. During the consultations, the issues that rose concerning the project were discussed. Generally the public was not resisting the project apart from a few cases where the consultant had difficulties interviewing the persons likely to be affected since a comprehensive survey had not been done. The public also feared that they would be relocated to an unproductive land in which case we recommend that factors like land productivity and climate be

considered. Most of the respondents resisting the project were of the opinion that they will not benefit much from the same.

- iii. **Project Impacts:** The project will traverse a long stretch of land with considerable levels of mitigable impacts to the flora and fauna. There are also impacts which will be socio-economic in nature especially during the construction phase, that need mitigating interventions as provided for in the ESIA report
- iv. **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 both during and after construction phases.
- v. **Community expectations:** Originating from the public discussions and meetings, the following requests have been made by the locals:
 - a. Use of local labour during the construction phase
 - b. Provision of rural electrification to the community
 - c. Timely and adequate compensation

4. Recommendations

- i. The KPLC should compensate all the affected persons in a timely manner using the prevailing market rates. The total estimated amount compensation is shown in Table 1. We have estimated total resettlement cost at **KSh. 499 million**. It is estimated that of 694.8 Ha total land affected, only about 20% of the land may require full compensation for loss of land use since most of the economic activities would still proceed even with the implementation of the project. This will effectively reduce the total land value qualifying for compensation to about **Ksh 83,430,000**.

Table1: Olkaria-Sotik

Item	Quantity	Cost	Amount(KSh)
Land to be compensated	111.6ha	625,000	69,750,000
Structures	300 No.	100,000/structure	30,000,000
		Sub-Total	99,750,000
Trees	5% subtotal		4,987,500
		Total	104,737,500

Table2: Kisii-Sondu

Item	Quantity	Cost	Amount(KSh)
Land to be compensated	27.36ha	500,000	13,680,000
Structures	2000 No.	150,000/structure	300,000,000
		Sub-Total	313,680,000
Trees	5% subtotal		15,684,000
		Total	329,364,000

The total estimated cost of the project compensation is as table 3

Table 3 Total estimated Project compensation

Sub-Project	Amount(KSh)
Olkaria-Sotik	104,737,500
Kisii-Sondu	329,364,000
Sub-Total	434,101,500
Disturbances 15% of subtotal	65,115,225
Total	499,216,725

Table 4 shows the estimated cost per item.

Item	Amount(KSh)
Land	83,430,000
Structures	330,000,000
Trees	20,671,500
Total	434,101,500

- ii. Continuous sensitisation of affected communities in the pre-construction phase of the project, especially in the populated areas should be encouraged as a preparatory measure before project implementation. KPLC should be at the forefront in ensuring this is carried out
- iii. Before resettlement, the PAPs should be mobilized and counseled both socially and economically to avoid undue social and economic disruptions. Where applicable, health experts should be involved in counseling to create awareness within the community on issues relating to HIV/AIDS.
- iv. Compensation to PAPs should be made before demolition commences. This will be done at either the KPLC 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.

- v. KPLC should negotiate a memorandum of understanding with KWS on use of national parks and game reserves to cover not only the current project but future projects as well.
- vi. KPLC should be responsive and live up to corporate social responsibility in the project area through the following activities:
 - Rural electrification programme
 - Revegetation

1.0 INTRODUCTION

1.1 Purpose

This Report has been prepared following a request by **The Kenya Power and Lighting Company Limited**, to the consultant **Log Associates**, to prepare a Resettlement Action Plan (RAP) for the 132 kV *proposed Olkaria-Narok-Bomet-Sotik, and Kisii-Sondu* Transmission Line. This is in line with the predicted resettlement of the project affected people (PAP).

1.2 Background

Kenya's Power Sector falls under the Ministry of Energy, which offers the general oversight and policy direction. The Electricity Regulatory Commission (ERC) is an independent body responsible for the regulatory function of the sector.

The KPLC Least Cost Power Development Plan identified various 132 KV developments for improving the performance of the West Kenya network to cater for the increasing load growth and meet the 2030 vision objectives. To meet this objective, KPLC intends to construct approximately 282 km of a single circuit 132 kV transmission line. 189km from Naivasha (Olkaria) to Sotik via Narok and Bomet, 49.9km from Kisii to Awendo and 45.6 km from Kisii to Sondu. The Kenya Power & Lighting Company Limited is expecting to receive financial assistance for the Construction of the Transmission Line from the World Bank.

The construction of the transmission line is expected to have widespread positive impacts on overall socio-economic status and livelihoods of the electrified users and project- affected people (PAPs). The project will have some minor negative effects especially to those who may be displaced from the right of way either through land acquisition or removal of those who have developed on the road reserve. A resettlement Action Plan is therefore required to guide the process. The aforementioned RAP should conform to the requirements of the WB's environmental and social policies, guidelines and assessment procedures in addition to those of National Environment and Management Authority (NEMA).

1.3 Objectives

The objectives of this study were:

- ❖ To prepare a resettlement action plan (RAP) for the project affected persons.
- ❖ To identify the likely impacts that will result from land acquisition for the construction of transmission lines project activities and the mitigatory measures that will be put in place to address these adverse impacts

- ❖ To identify the policies governing land expropriation, the range of adverse impacts and entitlements
- ❖ To come up with a strategy for achieving the objectives of the resettlement/land acquisition policy
- ❖ To come up with a framework for implementation of the stated strategies to ensure timely acquisition of assets, payment of compensation and delivery of other benefits to project affected persons (PAP)
- ❖ To gather the public information, consultation and participation, and grievance redress mechanisms in project planning, design and implementation.
- ❖ To provide estimates of required resources for implementation of the RAP
- ❖ To come up with a framework for supervision, monitoring and evaluation of resettlement implementation.

1.4 Scope of Work

The RAP was carried out in compliance with the Government of Kenya's and World Bank's Resettlement, Environmental and Social considerations policies among other relevant laws, regulations, and guidelines standards.

To meet the objectives stated in section 1.3 above, the consultant undertook the following tasks.

- i. **Literature review** to gather Resettlement, environmental and social information pertaining to the project
- ii. **Description of the baseline environment:** to collect, collate and present baseline information on the environmental characteristics
- iii. **Detailed Description of the proposed project:** to concisely describe the proposed project, its geographic location, ecological, general layout of facilities including maps at appropriate scale where necessary
- iv. **Legislative and Regulatory Framework:** to identify and describe all pertinent regulations and standards governing resettlement.
- v. **Identification of potential Impacts:** Analyze and describe all significant changes expected due to the proposed project
- vi. **Public Participation:** Consult the public and PAP's on the resettlement plan.

- vii. **Resettlement Action Plan Report:** Prepare and submit a Resettlement Action Plan Report.

1.5 Guiding Principles

In order to ensure that the RAP complies with international best practice as regards resettlement, the principle implementing agent, Kenya Power & Lighting Co. Limited shall bind itself to the following guiding principles:

Principle 1: Resettlement must be avoided or minimized

Action: To comply with the principle, KPLC has demonstrated that the proposed resettlement is both necessary and viable, and that its scope and extent cannot be lessened. KPLC has shown that they have designed the line routes so as to cause the least possible displacement and/or disruption.

Principle 2: Genuine consultation must take place

Action: Given its focus on resettlement, the primary concern is to take seriously the rights and interests of the PAPs. For this to take place, their voices need to be made clear, via the formation of local level consultative forum. These structures have been co-ordinated at the community level by the KPLC personnel.

Principle 3: Establishment of a pre-resettlement baseline data

Action: To support the successful reestablishment of affected property, the following activities will be undertaken prior to displacement.

- An inventory of landholdings and immovable/non-retrievable improvements (buildings and structures) to determine fair and reasonable levels of compensation or mitigation.
- A census detailing household composition and demography, and other relevant socio-economic characteristics.

The asset inventories will be used to determine and negotiate entitlements, while the census information is required to monitor homestead reestablishment. The information obtained from the inventories and census will be entered into a database to facilitate resettlement planning, implementation and monitoring.

Principle 4: Assistance in relocation must be made available

Action: KPLC will guarantee the provision of any necessary compensation for people whose fields will be disturbed to make way for the transmission lines, or any other

disturbances of productive land associated with the project in proportion to their loss.

Principle 5: A fair and equitable set of compensation options must be negotiated

Action: Compensation will be paid for structures, land and trees that are disturbed according to set rates derived from market value comparables.

Principle 6: Resettlement must take place as a development that ensures that PAPs benefit

Action: Where practical the employment and sub-contracting opportunities that arise from the project will be made available to the affected population.

Principle 7: Vulnerable social groups must be specifically catered for

Action: Members of vulnerable groups are often not able to make their voice heard effectively, and account will be taken of this in the consultation and planning processes, as well as in establishing grievance procedures. They are often physically weaker, and may need special help in the relocation/disturbance phase. In particular, female-headed households may lose out to more powerful households when assets will be demolished to make way for the transmission line. This will entail KPLC ensuring that the pre-resettlement database specifically identifies vulnerable social groups and makes provision for them to be included in consultative forum. KPLC must further ensure that they are given the necessary protection to ensure that they receive equitable access to replacement resources. In addition, KPLC will make specific reference to vulnerable social groups being paid particular attention in the monitoring process. Vulnerable groups will include those with minimal assets, the illiterate, and the aged (those PAPs of more than 65 years).

Principle 8: Resettlement must be seen as an upfront project cost

Action: Experience across the world shows that unless resettlement is built in as an upfront project cost, it tends to be under budgeted, that money gets whittled away from the resettlement budget to 'more pressing' project needs, and that it tends to be seen as peripheral to the overall project. KPLC will ensure that compensation costs, as well as those resettlement costs that fall within their scope of commitment, are built into the overall project budget as up-front costs.

Principle 9: An independent monitoring and grievance procedure must be in place

Action: In addition to internal monitoring that will be provided by KPLC an independent Team comprising local administration and the locals will undertake monitoring of the resettlement aspect of the project. Grievance procedures will be organised in such a way that they are accessible to all affected parties, with particular concern for the situation of vulnerable groupings. Monitoring will specifically take place via measurement against the pre-resettlement database.

Principle 10: World Bank's operational procedure on forced resettlement

Action: the World Bank's operational policy 4.12 on involuntary resettlement will be adhered to. It requires that involuntary resettlement be avoided where feasible, or minimized, exploring all viable alternative project designs. Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits. Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs. They should also be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of the project implementation, whichever is higher. KPLC shall adhere to their standards.

1.6 Methodology

Consultant's methodology included participatory approach. Accordingly, community meetings, public hearings and key informants (Chiefs, District Officer, Local Authorities, and KPLC Way-leaves Officers among others) were part of qualitative and quantitative mixed methods that the consultant used to interact with some of the stakeholder groups. We consulted widely with the KPLC team, as well as all stakeholders during the preparation of the RAP. The data collection instruments has been attached as Annex I

The Consultant applied a variety of methodologies to ensure that impact and compensation assessments are based on current and verifiable socio-economic and demographic information. Brief descriptions of the methodologies being applied by the consultant are:

- 1. Rapid Techniques:** Being used to identify the PAPS along the proposed line, intensity of impact and sites of cultural significance.
- 2. Socio-Economic Survey:** comprising detailed census/inventories with affected households as well as formal and semi-formal discussions with

sample focus groups. The consultant also developed a comprehensive questionnaire for data collection.

The questionnaire captured the following information:

- a. Household Bio data (Demographic information)
- b. Livelihoods
- c. Infrastructure inventories including land, common properties, Houses, fences, trees, commercial properties and social services infrastructure.

3. Public consultation was done as part of participatory approach to sensitise the community and inform the PAP's about compensation.

4. Use of Maps and GPS: The consultant used the survey maps availed by KPLC personnel and GPS to identify the proposed line and itemised the affected persons.

1.7 Justification of the project

It is difficult to quantify the overall financial and economic benefits of the project because it cuts across many sectors of economy. Generally, the project will result to adequate and reliable supply of electricity in the country, which will greatly contribute to economic growth.

The benefit of carrying out RAP, particularly in this project is basically to identify the PAP's and the mode of compensation on land, structures, trees and loss in land use.

2.0 LEGAL FRAMEWORK AND GRIEVANCE REDRESS PROCEDURE

2.1 Introduction

In developing the RAP, the consultant reviewed numerous laws in Kenya and international conventions which are relevant to this study. This RAP has been developed in line with these laws and regulations. The several statutes that handle the issue of land and infrastructure development are:

- World Bank Safeguard Policies
- Government Lands Act Cap 280
- Land Titles Act Cap 282
- Registration of Titles Act Cap 281
- Land (Group Representatives) Act Cap 287
- Trust Land Act Cap 291
- Registered Land Act Cap 300
- Land Control Act Cap 302
- Mining Act Cap 306
- Agriculture Act 318
- Environmental Management Co-ordination Act, 1999
- Land Acquisition Act, Cap 295

The following sub-sections give a brief description of what constitutes land related legal issues in Kenya.

2.1.1 Indigenous People OP/BP 4.10

The objective of this policy is to:

- i. Ensure that the development process fosters full respect for the dignity, human rights, and cultural uniqueness of indigenous peoples;
- ii. Ensure that adverse effects during the development process are avoided, or if not feasible, ensure that these are minimized, mitigated or compensated; and
- iii. Ensure that indigenous peoples receive culturally appropriate and gender and inter-generationally inclusive social and economic benefits.

The policy is triggered when the project affects the indigenous peoples in the project area. The Olkaria-Bomet 132kV transmission line does not pass through any indigenous peoples and as such OP/BP 4.10 is not triggered.

2.1.2 Involuntary Resettlement: OP/BP 4.12

The objective of this policy is to

- i. Avoid or minimize involuntary resettlement where feasible, exploring all viable alternative project designs;
- ii. Assist displaced persons in improving their former living standards, income earning capacity, and production levels, or at least in restoring them;
- iii. Encourage community participation in planning and implementing resettlement; and
- iv. Provide assistance to affected people regardless of the legality of land tenure.

This policy covers not only physical relocation, but any loss of land or other assets resulting in:

- i. Relocation or loss of shelter;
- ii. Loss of assets or access to assets;
- iii. Loss of income sources or means of livelihood, whether or not the affected people must move to another location.

It also applies to the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons. OP/BP 4.12 will be triggered by the project.

2.1.3 Projects in International Waters: OP 7.50

The objective of this policy is to ensure that Bank-financed projects affecting international waterways would not affect:

- i. Relations between the Bank and its borrowers and between states (whether members of the Bank or not); and
- ii. The efficient utilization and protection of international waterways.

The policy applies to the following types of projects:

- a) Hydroelectric, irrigation, flood control, navigation, drainage, water and sewerage, industrial and similar projects that involve the use or potential pollution of international waterways; and
- b) Detailed design and engineering studies of projects under (a) above, include those carried out by the Bank as executing agency or in any other capacity.

This policy is triggered if

- a) Any river, canal, lake or similar body of water that forms a boundary between, or any river or body of surface water that flows through two or more states, whether Bank members or not;
- b) Any tributary or other body of surface water that is a component of any waterway described under (a); and
- c) Any bay, gulf strait, or channel bounded by two or more states, or if within one state recognized as a necessary channel of communication between the open sea and other states, and any river flowing into such waters.

OP 7.50 will not be triggered by the project.

2.1.4 Land Related Legal Issues

Interests in land broadly fall into two groups. Rights that are held through traditional African systems and rights that derive from the English system introduced and maintained through laws enacted first by colonialists and later by the Independent Kenya governments. The former is loosely known as customary tenure bound through traditional rules (customary law). The latter body of law is referred to as statutory tenure, secured and expressed through national law, in various Acts of Parliament.

- a. **Customary Land Tenure:** This refers to unwritten land ownership practices by certain communities under customary law. Such tenure still exists in large parts of the country where land has not been adjusted and registered. Its management falls within Trust Land Act, Cap 291.
- b. **Statutory Tenures:** categorised in two forms:
 - i. *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.
 - ii. *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. e.g. relating to developments and usage.
- c. **Public Tenure:** This is land owned by the Government for own purpose and which includes unutilised or delineated 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.
- d. **Other Interests include:**
 - Reservations of other government or trust land to government ministries, departments or Parastatals for their use.
 - Non-formalised defacto tenure by which people, individually or in groups invade and occupy other peoples government land particularly in the major urban centres.
 - Minor interest such as easements, way-leaves and temporary occupation licences.

2.2 Valuation and Related Legal Issues

The valuation practice in Kenya is governed by the Valuers Act Cap 532, which provides for a Valuers Registration Board that regulates the activities and conduct of registered valuers. Valuers in Kenya are registered upon application to the Board and are required to be full members of the Institution of Surveyors of Kenya (ISK). The Act governs the formation and composition of valuation practices including the qualification of partners and directors in charge of valuation. The Board also deals with discipline and complaints in respect to valuation practice. Other statutes that govern valuation are the Government Lands Act Cap 280 that regulates the valuation for land rent while valuation for rating is governed by the Rating Act Cap 267. Land Acquisition Act Cap 295 governs valuations for compulsory acquisition purposes.

2.2.1 Valuation Process Relevant to RAP

The Table 2.1 outlines valuation process that complies with the Laws of Kenya and the World Bank guidelines.

Table 2.1: Valuation Process Relevant to RAP

Asset	Process
Land with Structures	<p>Steps:</p> <ol style="list-style-type: none"> a. A detailed inventory of all persons, possessions, assets and stock requiring resettlement will be made. b. Accurate and real valuation of dwelling will be taken. c. Determine compensation packages according to valuations will be carried out. d. Allow a reasonable time period prior to moving, for salvage of building materials. PAP's may salvage any material without this being deducted from compensation entitlements. e. Provide temporary housing/shelter if necessary. <p>Recommendations:</p> <ol style="list-style-type: none"> a. KPLC will pay compensation for the lost housing structures. b. KPLC will provide transport for the occupants and their belongings to their new place of residence. c. The owner will be entitled to remove any materials he or she wishes to salvage within one month of vacating the old dwelling. d. KPLC will provide transport for these materials, other than masonry, to the new residential site.
Land without structures	<ol style="list-style-type: none"> a. Inventory: As part of the RAP phase the KPLC hopes to acquire names and contact details of all persons affected by the project. b. Compensation: The RAP data sheet spells out how each person is affected and indicates how much compensation will be paid for crops and trees lost.
Lost business profits and employee earnings	<ol style="list-style-type: none"> a. Where business profits may be affected compensation will be paid according to Valuation & Audited results of the enterprises monthly income.
Crops/Trees on the fields cultivated by those affected.	<ol style="list-style-type: none"> a. Tree/seasonal crops: Harvesting of the crops will be given a first priority but where harvesting is not possible, counting of the affected crops will be done by a registered valuer and KPLC agent in the presence of the owner. Computation of the costs will be done according to market rates and payments thereafter made either at KPLC offices, or through the local chief's office. b. Annual crops: Crops will be harvested by the owner and therefore no compensation will be paid for crops. In instances where crops are not able to be harvested, KPLC will pay compensation at the market rates.

Notes¹

¹ All payments shall be made before demolition commences

2.3 Dispute Resolution and Arbitration of Disputes

The practice of domestic and international arbitration in Kenya is conducted within the framework of the 1995 Arbitration Act and is interpreted as: "any arbitration whether or not administered by a permanent arbitral institution". The Act follows the UNCITRAL model almost word for word but with a number of glaring omissions: notably no provision for costs and interest, nor any provision for appeal in international arbitrations. These omissions are dealt with by the Rules of an active local branch of the London-based Chartered Institute of Arbitrators, being an amalgam of Rules established by leading international arbitral institutions and providers such as the London Court of Arbitration, the ICCA and Chartered Institute of Arbitrators or NEMA, Department of Arbitration.

In addition to ratifying the UNCITRAL Model Law, Kenya has also ratified the New York Convention, the WTO and WIPO Treaties relating to arbitration. The Kenyan branch of the Chartered Institute of Arbitrators, founded in 1984, is recognised as the professional body for the annual training and examination of those seeking to qualify as arbitrators; it also acts as the appointing body where stipulated in contract.

Kenya's Dispute Resolution Centre (DRC) is an independent, not-for-profit organisation that promotes the prompt, effective and economic resolution of disputes through arbitration, predominantly mediation, expert determination and early neutral evaluation. This is a resource that could be called upon by the stakeholders to arbitrate. They would be of particular use should disputes around the compensation and resettlement process arise.

In addition, there are a series of customary avenues that have been set up to deal with dispute resolution and they will be employed as the "court of first appeal", where relevant.

2.4 Grievance Redress Mechanisms

Grievance redress mechanisms are essential tools for allowing affected people to voice concerns about the resettlement and compensation process as they arise and, if necessary, for corrective action to be taken expeditiously. Such mechanisms are fundamental to achieving transparency in the resettlement process.

Disputes will be referred to KPLC and then if necessary, the PAP committee who will be asked to provide recommendations as to how it is to be addressed. If deemed necessary by the PAP committee the case will be re-investigated and, depending on the nature of the issue, referred to the National Environmental Tribunal or Public Complaints Committee. Grievances will be dealt with as represented in Fig. 2.1.

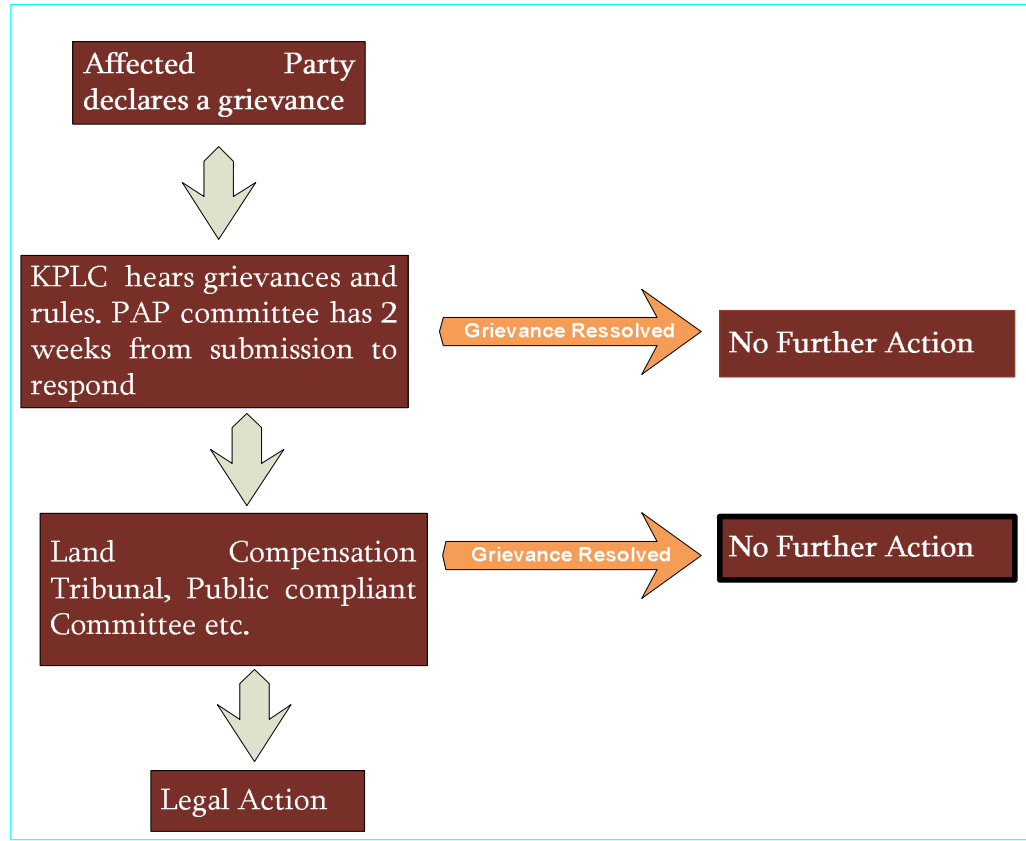


Figure 2.1: Grievance Redress Procedure

Information about all dispute and grievance procedures is to be widely disseminated, through consultation forums, Chief Barazas and the Media.

The PAPs committee secretary or nominated agent (in the absence of the secretary) will keep a written record of all disputes/grievances raised and dealt with during the resettlement and compensation process. These records will be monitored regularly by the PAPs Committee and by the independent Monitoring Team. This will be undertaken as part of the on-going monitoring and evaluation process.

3.0 DESCRIPTION OF THE PROPOSED PROJECT

3.1 The project setting

The Olkaria-Narok-Bomet-Sotik 132kV Transmission line traverses Hell’s Gate National Park, through settled areas, shrubs and savanna spanning about 186km. This alignment follows the eastern side of the existing 33kV line to Narok town. This routing avoids creation of a separate and new alignment in accordance with WB/IFC recommended practice and lessens environmental impact. This is accessible through the local tracks either from the existing DCK-Narok 33kV line or the many other tracks linking the area’s Masai ‘manyattas’ between Olkaria and the B3 highway Mai Mahiu –Narok. Thereafter, the proposed line will follow the southern side of the B3 highway from Narok to Bomet then to Kaplong and terminates at Sotik.

The proposed Sondu-Kisii line starts at Kegati in Kisii where KPLC is constructing a substation. Kegati substation is about 1km from Kegati town. The line runs for about 46km.

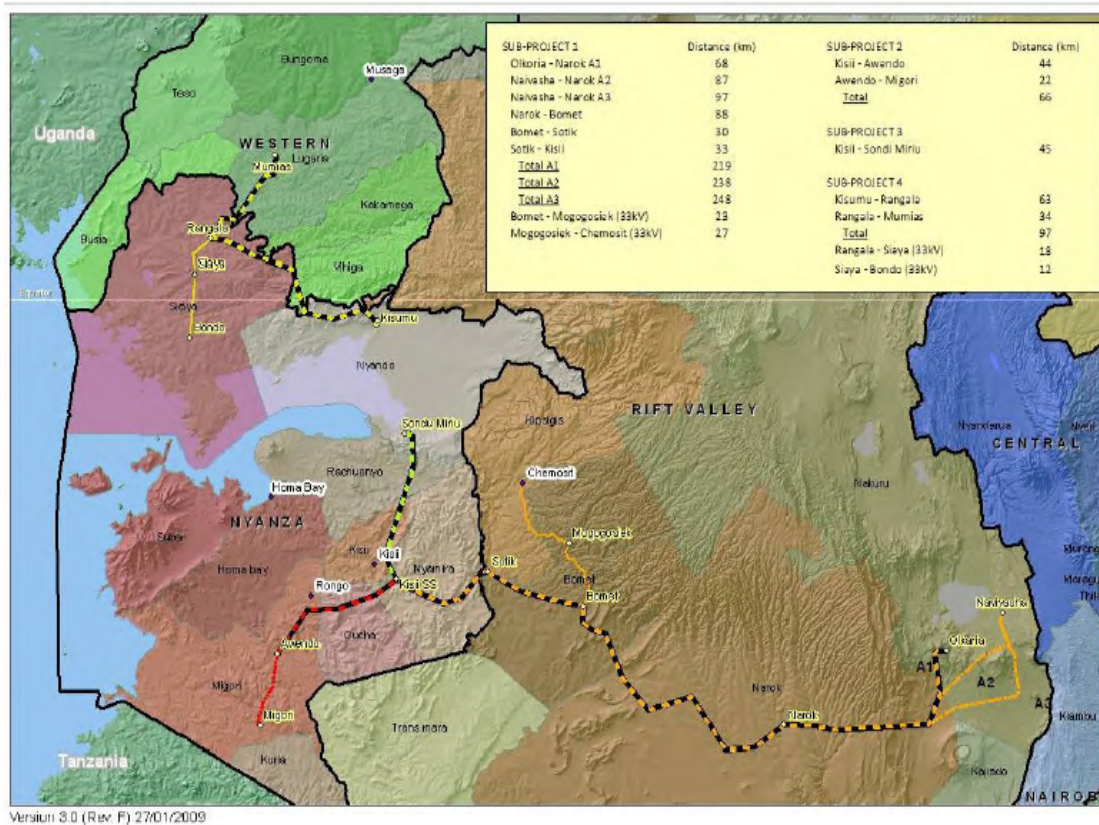


Fig 3.1: The Proposed Route of the Transmission Line

3.1.1 Project Area

The proposed transmission line routes traverses various districts which includes; Bomet, Narok, Narok North, Narok South, Nyamira, Ololunga, Sotik, and Kisii Central. The main ethnic groups along the Olkaria to Sotik line comprise the Maasai and the Kipsigis while along the other route of Kisii to Sondu comprises mainly the Kisii. The majority of the people in the affected area are dependent upon land and livestock as the basis of socio economic subsistence. This is shown in the figure 3.1.

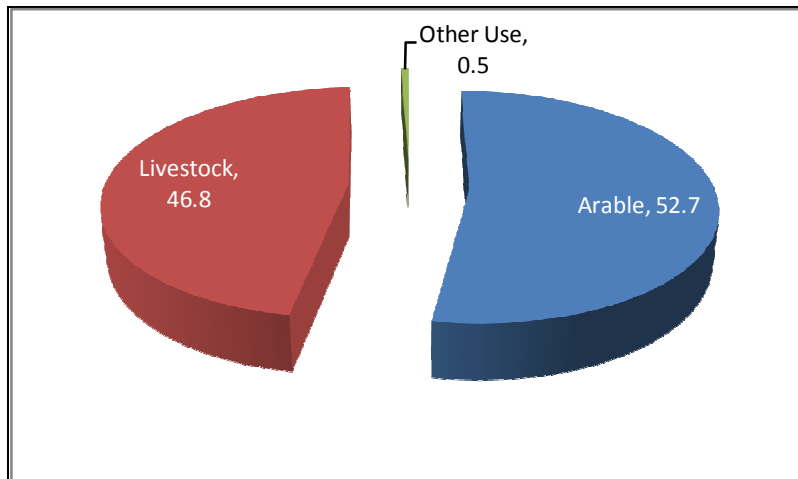


Fig 3.2 Land use

As shown from the figure, crop farming accounts for 52.7% of the agricultural activities while livestock rearing takes 46.8%. Most of the crops grown include maize, beans, millet, sorghum, potatoes, bananas, avocado, coffee, tea, sugar cane in the Kisii-Sondu areas while wheat, potatoes, beans and other cereals are grown in the Narok region. The majority of farmers pursue rain-fed agriculture.

Cultivation practices have generally shaped the settlement profile. Most of the areas where small-scale subsistence farming is the predominant agricultural practice farmers tend to be located on their properties. Where roadside villages occur, families tend to take advantage of commercial opportunities presented through the traffic by establishing small kiosks and other income generating activities.

3.2 Baseline environmental information

The baseline environmental information in the project area is summarized under the following thematic areas as follows:

3.2.1 Olkaria-Narok-Bomet-Sotik Line

Location

The transmission line will start opposite the west side of Olkaria- I Geo-thermal Power Station's switchyard, the supply point for the proposed Sub-project-1.



Fig.3.3: Geo-thermal Power Station's switchyard where the proposed line will originate

The line will pass through some populated areas, near Bomet town all the way to sotik although to a larger extent, it will pass through Shrubland and savanna grasslands used for ranching, grazing purposes and wheat farming between Olkaria and Narok.



Fig.3.4: Existing 33kV Line at Hell's Gate National Park
The line passes through the following areas;

1. Hells Gate national park

Hell's Gate National Park lies south of Lake Naivasha in Kenya, North West of Nairobi. It was established in 1984. A small national park, it is known for its wide variety of wildlife and for its scenery. This includes the Fischer's Tower and Central Tower columns and Hell's Gate Gorge. The national park is also home to three geothermal power stations at Olkaria. The park is equipped with three basic campsites and includes a Masai Cultural Center, providing education about the Maasai tribe's culture and traditions.

Hell's Gate National Park covers an area of 68.25 square kilometers. The park is at about 5000 feet above sea level. It is within Nakuru District, near Lake Naivasha and approximately 90 kilometres from Nairobi, and has a warm and dry climate. Olkaria and Holey's, two extinct volcanoes located in the park, can be seen as well as obsidian forms from the cool molten lava. Within Hell's Gate is the Hells Gate Gorge, lined with red cliffs which contain two volcanic plugs: Fischer's Tower and Central Tower. Off of Central Tower is a smaller gorge which extends to the south and of which a path descends into hot springs.

There is a wide variety of wildlife in the national park, though most of the species are sparsely distributed within the park. Examples of little seen wildlife include lions, leopards, and cheetahs. However, the park has historically been an important home for the rare lammergeyer eagles. There are over 103 species of birds in the park, including vultures, Verreaux's Eagles, Augur Buzzard, and swifts. Hyraxes, African buffalo, zebra, giraffe, eland, hartebeest, Thomson's gazelle, and baboons are also common. The park is also home to serval and small numbers of klipspringer antelope

and Chanler's mountain reedbuck. The Maasai community also grazes their animals in the park. Angle points which are in the park are from AP 102 to AP 105.



Fig.3.5: Hell's Gate national park

2. Hell's Gate-Enoosupukia-Suswa-Olasiti Section

This line section is initially in Hell's Gate National Park (as is Olkaria-1) for 4km and on exit, then through adjacent areas with some wildlife movement in/out of the National Park and what is primarily livestock grazing land for Masai communities inhabiting the area. The proposed line traverses through Enoosupukia, and Suswa, locations in Narok North District. From (AP105-AP106), the line runs through open shrub-land and rocky and hilly terrain with the dominant species being *Acacia drepanolobium* and short grasses. The line passes through Olasiti Primary School and Olasiti Secondary School near point AP 108. It also cuts across Olasiti AIC Church and Olasiti dispensary which might be relocated. This stretch is approximately 20.7km.



Fig. 3.6: *Olasiti primary school. Proposed line likely to cross through the school play ground*

3. Olasiti-Ntulele Section

The route follows the northern side of the B3 highway to Narok in compliance with WB/IFC guidelines (AP108-AP110). The vegetation is mainly Savannah and Grassland mix, occasional stands of woodland trees that include Acacia species, Eucalyptus spp. and *Grevillea robusta*. Some Zebras were seen grazing in the area. Small holder agriculture is practised with main crops being maize, potatoes and beans. In area north of corridor some wheat are grown but mostly to south of B3 and line corridor. The land is primarily open, undulating and with a gradual rise with its western progression across the Rift Valley Province with Narok nominally midway toward the Rift's western boundary



Fig. 3.7: *Giraffes at settlement area near Ntulele in Narok North District*

4. Ntulele-Narok Town

The proposed alignment is selected on the basis of it following the adjacent existing 33kV overhead line ex DCK/Naivasha. The route follows the northern side of the B3 highway to Narok town. The vegetation is mainly Savannah and Grassland mix, occasional stands of woodland trees that include Acacia species, Eucalyptus spp. and *Grevillea robusta*. Small holder agriculture with main crops are maize, potatoes and beans. In area (northern corridor) some wheat is grown but mostly to south of B3 and line corridor. The land is primarily open, undulating and with a gradual rise with its western progression across the Rift Valley Province with Narok nominally midway toward the Rift's western boundary



Fig. 3.8: Temporary structures neighbouring the existing 33kV line at Ntulele Centre

5. Narok-Bomet

Proposed line will follow the southern side of the B3 highway from Narok to Bomet. Vegetation varies; Savannah/Grassland mix with occasional stands of woodland with various species of Acacia trees. The ground is hilly as you approach Bomet, trees predominantly Eucalyptus spp. and *Grevillea robusta*. Some large-scale wheat farms only to south of B3 road; proposed route corridor is north of this wheat belt. Small/medium farming is widely spread in both southern and northern sides of the B3 road, with crops of maize, potatoes, beans, some minor Pyrethrum and Tea cultivation on approach to Bomet. Commercial scale Pyrethrum and Tea production is west of Bomet towards Sotik and Kisii. The land is primarily open, undulating with gradual rise on western progression across Rift Valley Province from Olulunga, midway point. As you approach Bomet, the terrain is hilly with a series of ridges such as the predominant Kiabonyoru Hills, Manga Ridges, and Nyabisimba Hills as the outstanding features. Corridor crosses Ewaso Ng'iro River between AP111-AP112 and crosses Mosantare River AP 112-AP113 and minor river/stream AP114 and Nikori Hill. Cross B3 Highway southwest of Narok and other local road crossing along route AP 112 to AP 118.



Fig. 3.9: Settlement at Ololunga Location Narok South District

6. Bomet-Sotik

The line again selected on the basis of it following the southern side of the B3 highway to Kaplong and then Sotik which is approximately 34km from Bomet town. The land cover is mainly characterized by woodland and Savannah grass land mix. Some trees identified are Eucalyptus, Pines and *Grevillea Robusta*. Small holding/farms are practiced with maize and wheat being the major crops and some livestock/ cattle/farming. The area is mostly hilly with series of ridges dominant in this area. It crosses the Sisei River some 8 km before AP 122 and again some 4 km before Sotik. This region is mainly inhabited by the Kipsigis community who are currently practicing farming and they are famously known for growing Kenyan "green gold" - tea.

3.2.2 Kisii-Sondu Line

Location

The transmission line ends at Kegati substation in Kisii from the Sondu Miriu Power station in Sondu – Miriu Power plant. The Kisii-Sondu transmission line traverses through settled areas, shrubs spanning about 46km.

1. Kegati Substation

The site of the substation is very active in terms of agriculture with local people growing various crops like maize, beans, bananas and millet.



Fig.3.10: Kegati Substation under construction

The proposed line passes through the following areas:

2. Kegati-Manga

This section is about 7.6km with dense population. The proposed take off bisect a Primary School, Charpha Academy adjacent to the Substations as it traverses from Kegati through Omogonchoro. The line crosses the Kisii- Nyamira road near Omogonchoro market. This section has a lot of activity in terms of agriculture. Crops commonly cultivated include; maize, beans, millet and peas. Cash crops grown in the area include tea and coffee. There are different types of trees which will be affected by the proposed project. They include; Eucalyptus/blue gum, Grevilla, Cider, Pine/Cypruss/Jacaranda. The soils in this section vary from clay to a mixture of loam and sand making brick making and agriculture a major source of income.



Fig 3.11 a: Charpha Academy



Fig 3.11 b: Affected Cultivated Farms

3. Manga-Ringa

This section is the longest stretch of about 26.9km with a dense population. It traverses from Manga area in Nyamira District, passes through Ringa to Ramula in Rachuonyo District. There is no direct major existing road or overhead line corridors to be nominally followed. The alignment is based in relation to topography and local roads and foot paths available to support construction and subsequent Operation and Maintenance. The area around Manga escarpment is characterised with rocky rugged terrain that changes as it approaches Ringa to a mixture of clay and loam soils. The main economic activities in the area are small scale farming with few cash crops like tea around Manga and patches of Sugarcane at Ringa. The proposed line crosses Kisii - Kisumu road near Ringa Girls High School on Parcel of land owned by the Ringa County Council as it traverses through small scale farms to Ramula.



Fig3.12a :Eucalyptus tree plantation



Fig3.12b :Proposed line intersection of

near PAP 302 at Manga

Kisii – Kisumu Road next Ringa Girls
School

4. Ringa-Ramula

This stretch is about 8.3km characterized by a thinly population. It traverses through a government land besides Ramula Hospital in Rachuonyo district. The soils in this section are shallow and sandy. The major crops in this area include groundnuts, sweet potatoes, maize, beans and cassava.



Fig.3.12: Agricultural activities near Ramula

5. Ramula-Kolweny

This section is about 1.9km which is scarcely populated. It crosses an unclassified road that passes near the Sondu - Miriu intake which leads to the power generation plant. This section has a little activity in terms of agriculture. Crops commonly cultivated include; maize, beans, and cassava. This place is characterized by thorny bushes and rocky/ sandy soils.



Fig 3.13a: Sondur – Mirui HPP Intake



Fig 3.13b: Low farm activity in Kolweny

6. Kolweny-Sondu-Miriu Power Station

This section is about 0.9km scarcely populated. The proposed line joins and moves along the existing line at Kolweny as it moves to the power station. People in this area practice little agriculture as the place is characterized by sandy shallow soils and thorny bushes. Crops commonly cultivated include; cassava and groundnuts and fruits like mangoes and pawpaw. Cattle rearing are also practiced.



Fig.3.14: A section showing where the proposed line joins the existing line

7. Sondu Miriu Power Station

This transmission line terminates at Sondu Miriu power station at Kolweny.



Fig. 3.13: Sondu Miriu Power Station

3.3 Socio-economic information

3.3.1 Population and Social Characteristics

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 main ethnic groups in the project area are the Maasai, Kipsigis, Gusii, and Luos.

Maasai

Maasai tribe is one of the ethnic tribes of Kenya. Maasai tribe (or Masai) is a unique and popular tribe due to their long preserved culture. Despite education, civilization and western cultural influence, the maasai people, unlike other tribes of Kenya have clung to their traditions and way of life making them a symbol of Kenyan culture. They practice nomadic pastoralism while others have been absorbed into modern day jobs working in tourism where they perform their culture to visiting tourists.

Kipsigis

They are a sub-group of the Kalenjin and originated in the Sudan, moving into the Kenyan area in the 18th century. The current settlement of the Kipsigis is in the Rift Valley province of Kenya. The Kipsigis are the most numerous of the Kalenjin. They occupy the highlands of Kericho stretching from Timboroa to Mara River in the south, the west of Mau Escarpment in the east to Kebeneti in the west. They also occupy parts of Laikipia, Kitale, Nakuru, Narok, Trans Mara District, Eldoret and Nandi Hills. The Kipsigis territory is bordered to the south and southeast by the Maasai. To the west, Gusii (a Bantu language) is spoken. To the north-east, other Kalenjin people are found, mainly the Nandi. East from the Kipsigis, in the Mau forests, live some Okiek speaking tribes. Currently the community practises farming and they are famously known for growing Kenyan "green gold" - tea.

Gusii

The Gusii language (also known as *Kisii* or *Ekegusii*) is a Bantu language spoken in the Kisii district in western Kenya, whose head-quarters is Kisii town, (between the Kavirondo Gulf of Lake Victoria and the border with Tanzania). The Kisii are regarded as one of the most economically active communities in Kenya, blessed with rolling tea estates, coffee, and banana groves. However, Kisii district has a very high population density. It is one of the most densely populated areas in Kenya (after the two cities of Nairobi and Mombasa), and the most densely populated rural area.

Luo

The Luo (also called *Jaluo*) are an ethnic group in Kenya, eastern Uganda, and northern Tanzania. The Luo are the third largest ethnic group (13%) in Kenya, after the Kikuyu (22%) and the Luhya (14%). The Luo population in Kenya was estimated to be 3,185,000 in 1994. The traditional occupation of the Luo is fishing, though many are also farmers or work jobs in the larger cities. They speak the Dholuo language, which belongs to the Western Nilotic branch of the Nilo-Saharan language family spoken by other Luo-speaking peoples such as the Lango, Acholi, Padhola and Alur (all of Uganda).

3.3.2 Social Economic profile of the population

a) Women

The economic, social and political status of women in the entire Project affected area is relatively weak. This is shown through the small percentage of women who own land as shown in the table 3.1.2 (a) below.

Table 3.1 (a): Land Ownership in the project area

Gender	Ownership				Total
	Leasehold	Freehold	Ranch	others (specify)	
	%	%	%	%	%
Male	12	77	3	6	98
Female	0	15	0	0	15

Apart from land ownership, most women are subjected to early marriages after which their roles are largely confined to household management and agricultural production. 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 land preparation, planting and weeding. 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. This is projected in table 3.1 (b) which shows that 40% of the female respondents did not attend school. This percentage was relatively high compared to that of the males.

Table 3.1(b): Level of education of the respondents

Gender	Highest level of education of respondent				Total
	Primary	Secondary	Post Secondary	Never attended	
Male	38.8%	29.6%	8.2%	23.5%	100.0%
Female	33.3%	20.0%	6.7%	40.0%	100.0%
Total	38.1%	28.3%	8.0%	25.7%	100.0%

The reason for this gender parity as regards to education levels is due to the fact that families tend to privilege male children due to scarcity of education facilities and therefore literacy levels amongst girls and women are therefore significantly lower.

With little access to formal employment, they consequently represent a negligible proportion of persons employed in professional, technical and administrative occupations.

b) Children

Children are the most vulnerable members of the population due to the effects of drought, famine, related displacement and disintegrations of families. The effect of drought is highly experienced in Narok district. A related displacement due to political interferences was witnessed in Kisii and Gucha districts.

We also assessed infant mortality rate in the project affected areas. Our observations were that the rates were generally low due to the ongoing government interventions through IFAD and the presence of NGOs such as APHIA II Nyanza who are working in the region to help reduce cases of infant mortality.

c) Housing

The quality of housing in the project affected area consists of a mix of permanent, semi-permanent houses and grass thatched houses. Figures 3.2a and 3.2b highlight some of the houses within the project area.



Fig 3.14a: Homestead affected in Kegati



Fig 3.14b: Homestead affected in Bassi Chache

From our assessment (fig below) shows that 48.9% of the respondents were living in semi-permanent structures, 37.8% in permanent structures and the rest in grass thatched houses. These results further explain the socio-economic status of the households living within the project areas.

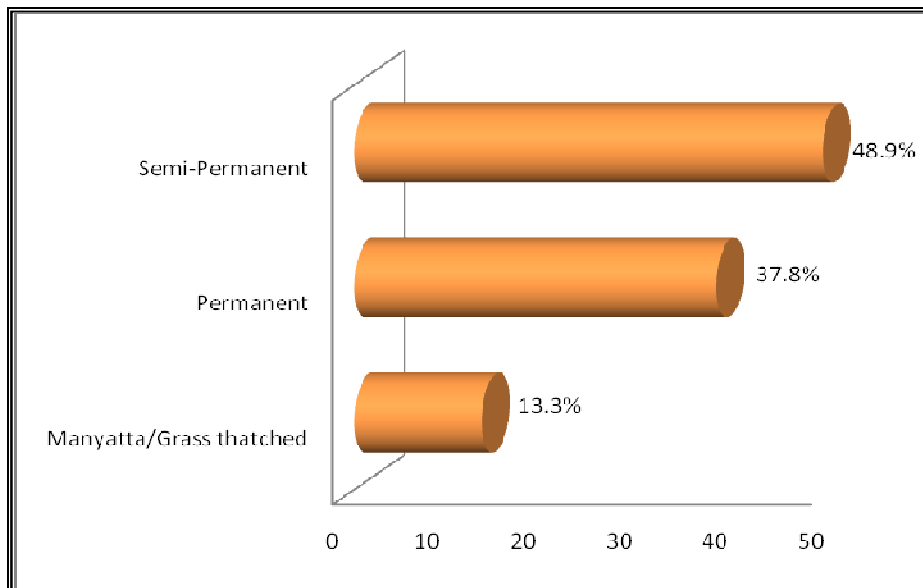


Fig 3.15: Distribution house types

d) Food Security

The area between Kisii and Sondu is agriculturally productive. Households within these areas practice a mix of subsistence farming and cash crop farming. The subsistence farming consist crops such as maize, beans cowpeas, bananas and fruit crops. The harvest from these crops is used for household consumption and for sale. This has enhanced food security within these areas. The cash crops grown in these areas include tea, coffee and sugarcane. The proceeds from the sale of these crops further contribute to the food security situation in these households.



Fig.3.16: *Affected agricultural land in Kegati, Kisii*

The stretch between Olkaria and Sotik depicted various characteristics. From Olkaria to Narok and parts of Narok to Bomet, the land was relatively dry with little agricultural activities. Along this section of the line we observed that the major cash crop was wheat production even though households within this section are pastoralists. The food security was not very good owing to the fact that the country was experiencing drought. From Bomet to Sotik the situation was rather different as the characteristics of the area resemble that of Kisii-Sondu areas.

3.3.3 Economic Characteristics

The majority of the populations affected are;

- Pastoralists
- Large scale farmers
- Subsistence farmers
- Small and medium business operators and
- People in formal and informal employment

3.3.4 Public Health

HIV-AIDS is a severe health threat in Kenya, and HIV-positive prevalence is very high, at almost 7% of the population of ages 15-55. HIV/AIDS is a big problem and it ranks among the top ten diseases in the project area. During power line construction work, the project employees will interact with the local communities and this can have serious public health impacts. The other common diseases reported in Kenya are respiratory diseases, malaria, skin diseases and diarrheal diseases.

3.3.5 Land tenure and transfer system

Interests in land in the project area is mostly held through traditional African systems and rights that derive from the English system introduced and maintained through laws enacted first by colonialists and later by the Independent Kenya governments.

Along the proposed line, the land is owned by individuals, especially men, whom they transfer to their children through inheritance.

3.4 Environmental and Social Impacts

Employment opportunities will be offered to the construction workers and any other person who will be hired to provide her/his services during the construction phase.

With the additional substations and power lines, Kenya Power and Lighting Company Limited will be able to increase its electric power reliability and power supply capacity. This additional capacity would have a positive impact on the increasing power demands across the areas, in terms of economic empowerment, because KPLC would be able to supply more electric power which cannot be supported by the existing 33kV line.

Power transmission lines characteristically generate impacts such as acquisition and maintenance of the right of way, clearing of vegetation from sites and line corridor; construction of access roads, and tower pads, are the most obvious sources of construction-related impacts. The construction phase is the period where most disturbances to the environment will occur. Broadly, key negative impacts of the development are likely to include:

a) Impacts to Agricultural Land

Transmission lines can affect farm operations and increase costs for the farm operator. Potential impacts depend on the transmission line design and the type of farming. Transmission lines can affect field operations, irrigation, aerial spraying, wind breaks, and future land development. For many transmission lines, KPLC should

repair much of the damage that can occur during construction and provide monetary compensation for damages that cannot be easily repaired. Pole placement in farm fields can:

- Create problems for turning field machinery and maintaining efficient fieldwork patterns
- Create opportunities for weed encroachment
- Compact soils and damage drain tiles
- Hinder or prevent aerial activities by planes or helicopters
- Interfere with moving irrigation equipment
- Hinder future consolidation of farm fields or subdividing land for residential development

Placement of transmission lines along field edges or between fields where windbreaks have been planted can increase erosion of soils if the windbreaks must be removed. To mitigate this, KPLC should work with agricultural landowners to determine optimal pole heights, pole locations, and other significant land use issues. The potential for soil compaction and erosion by transmission construction and maintenance activities can be lessened. Work in agricultural areas can be performed when soils are not saturated. If compaction has occurred, affected soils can be chisel plowed over successive seasons as needed to break up compacted layers. The effects of windbreak removal can be mitigated by trimming the windbreak vegetation selectively, replanting lower-growing trees and brushes beneath the line, or creating a new windbreak elsewhere.

b) Impacts on Flora and Fauna

It is well known that transmission lines induce physical hazard to birds and climbing animals. Bird strikes and mortality will be of concern in the areas of their high densities and those areas with large birds such as waterfowl colonies and migratory bird species. This is likely to be of concern during the operation stage of the project but can be mitigated by use of reflectory conductor wire types which improve visibility for the birds.

The impact of a transmission line on fauna is limited. Except for birds, most animals are not disturbed by the transmission line. However, the cleared way-leave creates a specific biotope in areas with denser vegetation. This biotope is similar to a natural meadow, although obviously much longer in extent, that acts as an open grazing area for herbivores, and hence as a hunting ground for carnivores.

Birds occasionally collide with the transmission lines, and birds nesting in the towers pose a danger both to themselves and to the safe operation of the power line. This is because large nests eventually fill with droppings that can reach the conductors and

cause electric shocks or burns. The effect is more severe for birds with long generation times, and for large birds, such as eagles.

Vegetation is affected in the way-leave, in the sense that higher trees and shrubs are cleared, creating an open stretch in woodland and shrub land. The most intense effect is during the construction phase, when in addition to clearing, vehicles and machines move in the way-leave for tower construction and stringing. These impacts will be completely negligible in the case of line construction because only tower/pole holes will be dug.

c) Potential Aesthetic Impacts

The overall aesthetic effect of a transmission line is likely to be negative to most people, especially where proposed lines would cross natural landscapes. The tall steel or wide "H-frame" structures may seem out of proportion and not compatible with agricultural landscapes or wetlands. Landowners may find transmission lines bordering their property particularly disruptive to scenic views. Some people however, do not notice transmission lines or do not find them objectionable from an aesthetic perspective. To some, the lines or other utilities may be viewed as part of the infrastructure necessary to sustain our everyday lives and activities. To others, new transmission lines may be viewed in a positive light because it represents economic development.

Aesthetic impacts depend on:

- The physical relationship of the viewer and the transmission line (distance and sight line)
- The activity of the viewer (living in the area, driving through or sightseeing)
- The background, or context, of the transmission line, such as whether the line stands out or blends in

A transmission line can affect aesthetics by:

- Removing a resource, such as clearing fencerows that provide visual relief in a flat landscape
- Degrading the surrounding environment (intruding on the view of a landscape).
- Enhancing a resource (evoking an image of economic strength in a developing business or industrial area)

The proposed development will have minimal effects on the landscape. The OHTL route was established so as to meet the co-inhabitation requirements imposed by the natural landscape, objects, buildings, and facilities in the neighborhood, assuring it's

framing into the existing landscape and with an impact on as limited land areas as possible.

d) Electric Power Lines

Ionizing radiations/Electric and Magnetic Fields

Electric overhead lines are considered a source of power frequency, electric and magnetic fields, which may have a perceived health effect. The strength of both electric and magnetic fields is a function of the voltage, distance from the conductors to the ground and the lateral distance from the line to the receptor. Many studies published during the last decade on occupational exposure to Electro-Magnetic Fields (EMF) have exhibited a number of inconsistencies and no clear, convincing evidence exists to show that residential exposures to electric and magnetic fields are a threat to human health. However, the EMF decrease very rapidly with distance from source and there should be no potential health risks for people living outside the 30 m wide way leave corridor.

Vibration

Kenya Power and Lighting Company will install anti-vibrating devices over the entire over head transmission line (OHTL) length to damp vibration caused by the conductors exposed to the dynamic load of wind.

Stray Voltage

For the past 20 years, stray voltage has been vigorously studied. Stray voltage often is not noticeable to humans, but may be felt by an animal. For example, a dairy cow may feel a small electric shock when it makes contact with an energized water trough. Dairy cow behaviors that may indicate the presence of stray voltage include nervousness at milking time, increased defecation or urination during milking, hesitation in approaching waterers or feeders, or eagerness to leave the barn. A stray voltage problem may be reflected in increased milking time, in uneven milking, and sometimes with decreased milk production. Other non-electrical factors can cause similar symptoms, such as increased mastitis or milk-withholding problems for farms with milking parlors or in barns with milk pipelines. Measurement of any voltages or current flow in livestock confinement areas can be done using established testing procedures with appropriate equipment. If the proposed line contributes one milliamp or more to stray voltage on a farm, KPLC must take corrective action.

e) Impacts on Natural Vegetation

The proposed transmission line will pass through shrubland and savanna grasslands used for grazing purposes and wheat plantations. The predominant vegetation forms are shrubland and savannah with scattered trees and shrubs. It will also pass through small pieces of land used for cultivation. These pieces of land have different types of exotic trees such as Eucalyptus, Grevillia Robusta and Pine trees. This will not cause substantial impacts on the flora and fauna. While impact on woody vegetation is going to be permanent, impact on grasses and herbs is mostly transient.

In order to minimize the environmental impact it is recommended that clearing is done manually as much as possible with no burning of the cleared vegetation. In order to reduce the impact of firewood used in the worker's camps it is recommended that wood from the clearings is transported to the camp sites. It is important to reiterate that, vegetation clearance through the Protected Areas will be done with the guidance of KWS staff.

f) Impact on Biodiversity and Loss of Habitat

The consultant reviewed the Wildlife Act and noted that the proposed development will not cause significant adverse effects on Hell's Gate national park that will be affected. The construction activities may cause temporary and limited damage to local flora and fauna. Tree and bush clearance will be limited as most tree/shrubs within the wayleave are less than 12 ft in height, the maximum allowed. The cleared vegetation will be recovered by planting small trees and plants. The OHTL does not interfere with any major bird migration routes. In areas of known bird flight paths, warning spheres will be placed on the OHTL.

3.5 Archeological and Historical Sites Impacts

Archeological and historical sites are protected resources. They are important and increasingly rare tools for learning about the past. They may also have religious significance. Transmission line construction and maintenance can damage sites by digging, crushing by heavy equipment, uprooting trees, exposing sites to erosion or the elements, or by making the sites more accessible to vandals. Impacts can occur wherever soils will be disturbed, at pole locations, or where heavy equipment is used.

The selected route is not expected to cause any damage to historical, archeological and cultural sites. Kenya Power and Lighting will consult widely and monitor the OHTL throughout the works period to ensure no archaeologically valuable areas will be disturbed.

Chance Find Procedure

In the event that an archeological resource is discovered during the construction process a Chance Find Procedure will be implemented. A Chance Find Procedure, as described in Performance Standard 8 of IFC, is a process that prevents archeological sites from being disturbed until an assessment by a competent specialist is made and actions consistent with the requirements of PS8 are implemented. It is a project-specific procedure that outlines what will happen if previously unknown physical resources are encountered during project construction or operation. The procedure includes record keeping and expert verification procedures, chain of custody instructions for movable finds, and clear criteria for potential temporary work stoppages that could be required for rapid disposition of issues related to the finds. In accordance with this Procedure, work will cease on a site where archaeological material is found. The site Environmental Officer will inspect and secure the site, and will then contact Museums of Kenya for advice and arrange for a survey or salvage work as appropriate.

4.0 IDENTIFIED AREAS FOR RESETTLEMENT

4.1 Introduction

We assessed two different lines; the first line stretches from Olkaria to Sotik about 186km. The second line starts from Kegati Substation in Kisii to Sondu Miriu power project stretching about 45.6km. This implies that the total line inspected by our team was about 231.6 km.

During our field visit we noted that the above lines traverse nature, personal lands and homesteads. This section discusses the various areas that have been affected by the line.

4.1.1 Olkaria-Sotik

The line starts from opposite the west side of Olkaria -1 Geo-thermal power station's switchyard. It traverses through Hell's Gate National Park about 15km. It follows the adjacent existing 33kv overhead line up to Narok. It then follows the southern side of B3 highway to Sotik.

The line will traverse homesteads, personal land and un-tarmacked road network, passing through manyattas, wheat plantations and social structures. The estimated number of structures to be affected was 300.

The social structures noted that will be affected include schools and a dispensary.



Fig 4.1: Harvested wheat plantation



Fig 4.2a:Aldo-Rebby primary school near Ntulele centre



Fig 4.2b Olasiti dispensary in Suswa location

In summary table 4.1 shows the proposed project estimates for land and structures affected by the project.

Table 4.1: Cost estimates

Item	Quantity	Cost	Amount(KSh)
Land to be compensated	111.6ha	625,000	69,750,000
Structures	300 No.	100,000/structure	30,000,000
		Sub-Total	99,750,000
Trees	5% subtotal		4,987,500
		Total	104,737,500

4.1.2 Kisii-Sondu

The transmission line will begin from Kegati substation located approximately 1Km from Kisii town. It then traverses through lands and homesteads and crosses the Kisii-Nyamira road near Omogonchoro market in Kemera location. The line then passes through Manga near Manga escarpment to Ringa in Kodhoch Location. It crosses the Kisii-Kisumu road near Ringa girl's high school and proceeds to Sondu Miriu hydro power project passing near the Sondu Miriu intake and joins the existing line at Kolweny.

The line will traverse homesteads, personal land and social structures, passing through expansive tea plantation and eucalyptus trees and on some instances will cross small rivers. The estimated number of structures to be affected was 2000. From our assessment we estimated that the household occupied averagely an area of about 100m².



Fig 4.5: *Affected tea, maize and Eucalyptus plantations*

We also noted that along the line there will be social structures that will be affected like Charpha academy primary school.



Fig: Fig 4.6: *Affected school, Charpha Academy*

Table 4.3: Cost Estimates

Item	Quantity	Cost	Amount(KSh)
Land to be compensated	27.36ha	500,000	13,680,000
Structures	2000 No.	150,000/structure	300,000,000
		Sub-Total	313,680,000
Trees	5% subtotal		15,684,000
		Total	329,364,000

5.0 COMPENSATION AND ENTITLEMENTS

5.1 Introduction

Compensation and entitlements will be triggered by particular and specific impacts resulting from the project. Using a holistic approach, these general impacts emanating from the project would include losses both at family and commercial establishments.

5.2 Eligibility

Those who will be considered as qualified for resettlement/compensation must be PAPs. These people will directly or indirectly experience the following losses:

5.2.1 Loss of Assets

Families living on way-leave trace would have their makeshift structures destroyed. The consultant undertook a comprehensive fieldwork to physically count and assess the nature of assets likely to be affected by the project albeit with challenges. The main challenge the consultant faced was lack of beacons along the proposed line because KPLC had not finalised the survey work along the line.

Loss of asset will include:

1. Loss structures
2. Loss of agricultural land

5.2.2 Loss of Livelihood

Some of the PAPs work at nearby centres and a nearby stone quarry. Others reside at the rear of their business establishment. Some business owners employ workers to work as helps in their establishments. Both the employers and the employees in the affected establishments may lose income. Other PAPs rent out their premises to earn income. It is noteworthy that some PAPs have grown trees and food crops along the way-leaves trace for commercial purposes. As a result these PAPs will not only experience loss of income but also loss of their customers and market. Thus the project may consider compensations for goodwill.

5.2.3 Loss Due to Severance

In a number of cases, the transmission line will divide a piece of land into two or more portions. This increases the cost of working the land by additional fencing etc and some of the portions may be rendered uneconomic to manage. Under the land acquisition act CAP 295, this loses are taken care of by adding ex-gratia payment of 15% of the value of the assets acquired.

5.3 Categorization of PAPs

1. Category 1: Structures

Category	Description
A	Those who will lose all structures such as residential, kiosks, stalls, etc and have acquired relevant licence e.g. Temporary Occupation Licence
B	Those who will lose some part of their structures such as residential, kiosks, stalls, etc and have acquired relevant licence e.g. Temporary Occupation Licence
C	Those who will lose all structures such as residential, and have not acquired relevant licence e.g. Temporary Occupation Licence
D	Those who will lose some part of their structures such as residential, kiosks, stalls, etc and have not acquired relevant licence e.g. Temporary Occupation Licence

2. Category 2: Agricultural Land

Category	Description
E	Those who will lose all Trees e.g. Eucalyptus/blue gum, Mukima/ Grevilla, Cider, Pine/Cypruss/Jacaranda, Mukuyu, Mugumo, Coconut etc
F	Those who will lose part of their Trees e.g. Eucalyptus/blue gum, Mukima/ Grevilla, Cider, Pine/Cypruss/Jacaranda, Mukuyu, Mugumo, Coconut etc
G	Those who will lose all field crops e.g. Maize, Coffee, Onions, Beans, Kales/Sukuma wiki etc

H	Those who will lose part of their field Coffee, Onions, Beans, Kales/Sukuma wiki, Maize etc
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5.4 Restorative Courses of Action

To minimize the negative economic impact of improvement activities on commercial establishments, it is recommended that these establishments be treated in such a manner as to allow them to operate with minimal disruptions and/ or disturbances.

5.5 Entitlement Matrix

The right to benefits will only be granted to PAPs whose assets will be demolished and those who will have to move their assets to a different location. KPLC will use prevailing market rates for land structures and trees as practiced by the international valuation standards committee (2008) rules and The Institution of Surveyors of Kenya valuation rules. KPLC also has a policy that ensures that any cut or uprooted vegetation is left for owners use after compensation. Assets that are not vegetative would require valuation before compensation and resettlement. Table 5.1 outlines the entitlement for the PAPs

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Table 5.1: Entitlement matrix

	Types of Loss	Entitled Person	Legal Entitlements	Restorative Compensation
1	Land	Owners of land through customary or legal acquisitions	Compensation for the area of land affected at prevailing market rates	Same as the legal entitlement
2	Main Structure totally affected (residence/commercial).	Owners of structures including kiosks and stalls in the project area who have no title declaration to the land or other acceptable proof of ownership	<p>Compensation for the entire structure at replacement cost as determined by the concerned appraisal committee without deduction for salvaged building materials</p> <p>Free transport for those who operate business in moveable containers such as fork lifting containers to relocation sites</p> <p>Free transportation to relocation site</p>	<p>Same as the legal entitlement</p> <p>Same as the legal entitlement</p> <p>Same as the legal entitlement</p>
3	Crops/Trees affected.	Owners of crops/trees	Compensation of the crops and Trees affected at prevailing market rates	Same as the legal entitlement

4	Other fixed assets and/or structures	Owners of fixed assets and /or structures	Compensation in cash for affected portion of the structure, including the cost of restoring the remaining structure, as determined by the concerned appraisal committee, with no depreciation nor deduction for salvage building materials	Same as the legal entitlement
5	Electric, telephone and/or water connection	Projects affected persons with utility connections	Compensation to cover cost of restoring the facilities	Same as the legal entitlements
6	Social amenities including water, electricity and revegetation	Communities whose members are affected by the project	To be carried out as a Corporate Social Responsibility	No legal entitlement but may be carried out in response to community requests

An estimate of the replacement costs of the structures to be demolished along power lines construction entire project (231km of 132kV transmission line) shall be carried out by a licensed valuer, appointed by KPLC for the exercise. It is from this that the compensation amount of the affected households will be determined.

6.0 IMPLEMENTATION AND ACCOUNTABILITY

6.1 Implementation

The implementation of the RAP calls for collaboration from all the stakeholders. This would require a properly constituted structure for the administration of the same.

6.2 Organisation Structure

The organisational structure elaborates on the role of various stakeholders in the implementation and administration of the RAP. It further clarifies the role of PAPs and their responsibility in the entire exercise.

6.2.1 KPLC Resettlement Unit (KRU)

The structure of the unit shall be as follows:

- Legal Advisor
- Surveyor
- Transmission Engineer
- Socio-Economist
- Way-leave Officer
- Environmental Expert
- Community Liaison Officer
- Database Officer
- KPLC registered valuer

The KRU will be responsible for the following:

- i. Oversee the implementation of the RAP.
- ii. Oversee the formation of PAP Committee (PC)
- iii. Ensure maximum participation of the affected people in the planning of their own resettlement and post resettlement circumstances.
- iv. Accept financial responsibility for payment or compensation and other designated resettlement related costs.
- v. Ensure detailed valuation of the structures in order to determine the case to case value of each component of the project and agree upon a value for compensation.
- vi. Pay the affected people compensation to the amounts agreed.
- vii. Ensure monitoring and evaluation of the PAPs and the undertaking of appropriate remedial action to deal with grievances and to ensure that income restoration are satisfactorily implemented.

- viii. Ensure initial baseline data is collected for the purposes of monitoring and evaluation report as per the indicators provided by the RAP.

6.2.2 PAP Committee (PC)

Under the guidance and coordination of KRU, the PC will be formed one week after the formation of the KRU which will act as a voice PAPs. The committee shall comprise of the following:

1. National Environmental Management Authority (NEMA) officer
2. Lawyer, Kenya Power & Lighting Co. Ltd.
3. Valuer, Kenya Power & Lighting Co. Ltd.
4. Two Project affected people Representatives – to be appointed by PAPs
5. Local council representative
6. District Valuer or any Independent Valuer
7. Surveyor
8. The local area chiefs
9. District Land Adjudication and Settlement Officer
10. District Social Development Officer
11. Provincial State Counsel

The PC shall have a Chairperson and a Secretary appointed or elected by PAPs. The chairperson ought to be from the local area.

The PC will be concerned with the following:

1. **Public Awareness:** Includes extensive consultation with the affected people so that they can air their concerns, interests and grievances.
2. **Compensation:** Involves ratifying compensation rates and also serves as dispute resolution body to negotiate and solve any problem that may arise relating to resettlement process. If it is unable to resolve any such problems, will channel them through the appropriate grievance procedures laid out in this RAP.
3. **Monitoring and Evaluation (M&E):** Involves developing the monitoring and evaluation protocol
4. **Logistics:** Involves exploring all mechanisms by which RAP can be implemented

5. **Employment, Training and Counselling:** Involves employment protocol in the project (if any) for those who cannot find alternative employment. The committee will also counsel the PAPs both socially and economically.

6.3 Community Consultation

Resettlement or compensating PAPs needs communication or dialogue with the stakeholders, as such it is a never ending exercise, until implementation of RAP is over. This has been outlined in the guiding principles 2 in section 1.5 of this report. The consultant undertook an extensive consultation with the PAPs and also we are aware the KPLC staff has also done considerable bit of work towards this end. In our discussions, we encouraged the community and the PAPs to:

- i. Be open and make known their concerns and claims
- ii. Be free to access the formally established grievance process for lodging complains
- iii. Allow and give the necessary assistance to the M&E team

KPLC personnel would continue to conduct a series of consultation and counselling meetings with the PAPs. During these meetings the PAPs will be informed of the results of the survey findings and plans for the area including actual date of demolitions. These consultative meetings should include all stakeholders.

6.4 Compensation of the PAPs

Compensation to PAPs shall be made before demolition commences. This will be done at either the KPLC offices or at the local chief's office, whichever will be appropriate after approval. After compensation, a minimum of one month notice shall be given to the affected people before the demolition exercise commences, so as to allow relocation and salvage of necessary asset by the PAPs. Renters shall likewise be given at least one month notice before actual demolition to give them ample time to relocate. The sites shall be handed over to KPLC once all the PAPs have been fully compensated.

6.5 Monitoring and Evaluation

6.5.1 Internal Monitoring

It is the responsibility of the KPLC proponent to conduct regular internal monitoring of the resettlement performance of the operation through KRU which will be responsible for implementing resettlement and compensation activities. The monitoring should be a systematic evaluation of the activities of the operation in relation to the specified criteria of the condition of approval.

The objective of internal monitoring and supervision will be:

- a. To verify that the valuation of assets lost or damaged, and the provision of compensation, resettlement and other rehabilitation entitlements, has been carried out in accordance with the resettlement policies provided by the GOK, AfDB, AFD and EU.
- b. To oversee that the RAP is implemented as designed and approved;
- c. To verify that funds for implementation of the RAP are provided by the Project authorities in a timely manner and in amounts sufficient for their purposes, and that such funds are used in accordance with the provisions of the RAP.

The main internal indicators that will be monitored regularly:

- i. That the KPLC's entitlements are in accordance with the approved policy and that the assessment of compensation is carried out in accordance with agreed procedures
- ii. Payment of compensation to the PAPs in the various categories is made in accordance with the level of compensation described in the RAP
- iii. Public information and public consultation and grievance procedures are followed as described in the RAP
- iv. Relocation and payment of subsistence and shifting allowances are made in a timely manner
- v. Restoration of affected public facilities and infrastructure are completed prior to construction

6.5.2 External Monitoring and Evaluation

The Consultant recommends that an independent monitoring unit (IMU) be established to evaluate implementation of compensation and resettlement.

The IMU shall be appointed to monitor the resettlement and compensation process and implementation of requirements to verify that compensation, resettlement and rehabilitation have been implemented in accordance with the agreed RAP. The IMU will also be involved in the complaints and grievance procedures to ensure concerns raised by PAPs are addressed.

More specifically, the IMU will carry out the following:

- a. Review the results of the internal monitoring and review overall compliance with the RAP
- b. Assess whether relocation objectives have been met especially with regard to housing, living standards, compensation levels, etc.
- c. Assess general efficiency of relocation and formulate lessons for future guidance
- d. Determine overall adequacy of entitlements to meet the objectives.

The Consultant recommends that KPLC establishes an IMU that draws on personnel with resettlement and social development experience. The Consultant further recommends that relevant representatives from the AfDB, AFD and EU, KRU. The project affected persons should be represented through relevant PC.

The objective of this unit will also be to provide a forum for skills-sharing and to develop institutional capacity. It is important that the Unit is able to maintain a strong independent position and provide constructive feedback to the project to ensure the objectives are met.

The RAP would be implemented by The KPLC. The M&E will be carried out by the KRU and PC. The KRU will be responsible for the overall M&E while the PC will monitor and evaluate respective communities where they will have been formed.

Progress and performance of the RAP would be before, during, and after implementation. Using the baseline information that are being compiled by the consultant through this RAP report, the M&E advisors would be in a position to note changes that may have occurred before and after resettlement. Some of the baseline indicators that are relevant to this study are:

1. **Income statistics:** Average annual family income within the communities should not fall below an agreed upon factor in the first 18 months after the move. Data should indicate that the socio-economic situation of the affected people is stable after one year. If, after a year, the situation of PAPs are found to be deteriorating further interventions may be considered.
2. **Entitlement Listing.** In the event of relocation to alternative site for the PAPs such site should have comparable services and amenities to the previous site.

The basis of comparison could be qualitative, although a quantitative measure could also be developed based on per capita maintenance costs. The consultant has however recommended financial compensations rather than relocation. Thus, the choice of the relocation site would depend to the PAPs.

6.5.3 Responsible Parties

Due to the magnitude of the project, it is recommended that PC be charged with the task of monitoring and evaluation of the PAPs. It will therefore be enlisted to continue the post project evaluation system and conduct actual monitoring and reporting. KPLC will obtain Category M&E reports from the PCs for compilation.

6.5.4 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.

6.5.5 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.

6.5.6 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 noticed, KPLC should immediately address the same.

6.5.7 Reporting

Post-resettlement monitoring results should be subject to review by, representatives of the affected community through the PC and representatives of KPLC.

The Monitoring Team must write its reports before the end of each visit and submit them to the KPLC Project Manager and the PC. The Monitoring Team should structure its reporting in conjunction with accepted variables set out in Annex V.

6.6 Implementation Timelines

The implementation times will be pegged on the following process

- KRU is constituted
- PC is constituted
- PC signs off on the RAP. This constitutes KPLC acceptance of the terms of the RAP.
- KPLC draws up offer documents for affected people and advertises the fact that offers will be made.
- The affected people review the offers made and enter into agreements with KPLC.
- The affected people will have to identify alternative sites surrender the land and move off the project site. These affected people shall do this on the basis of "willing buyer-willing seller principle".
- Monitoring of the "willing buyer - willing seller" affected people begins

Fig. 6.5 is a Gantt chart itinerary for the implementation of RAP activities.

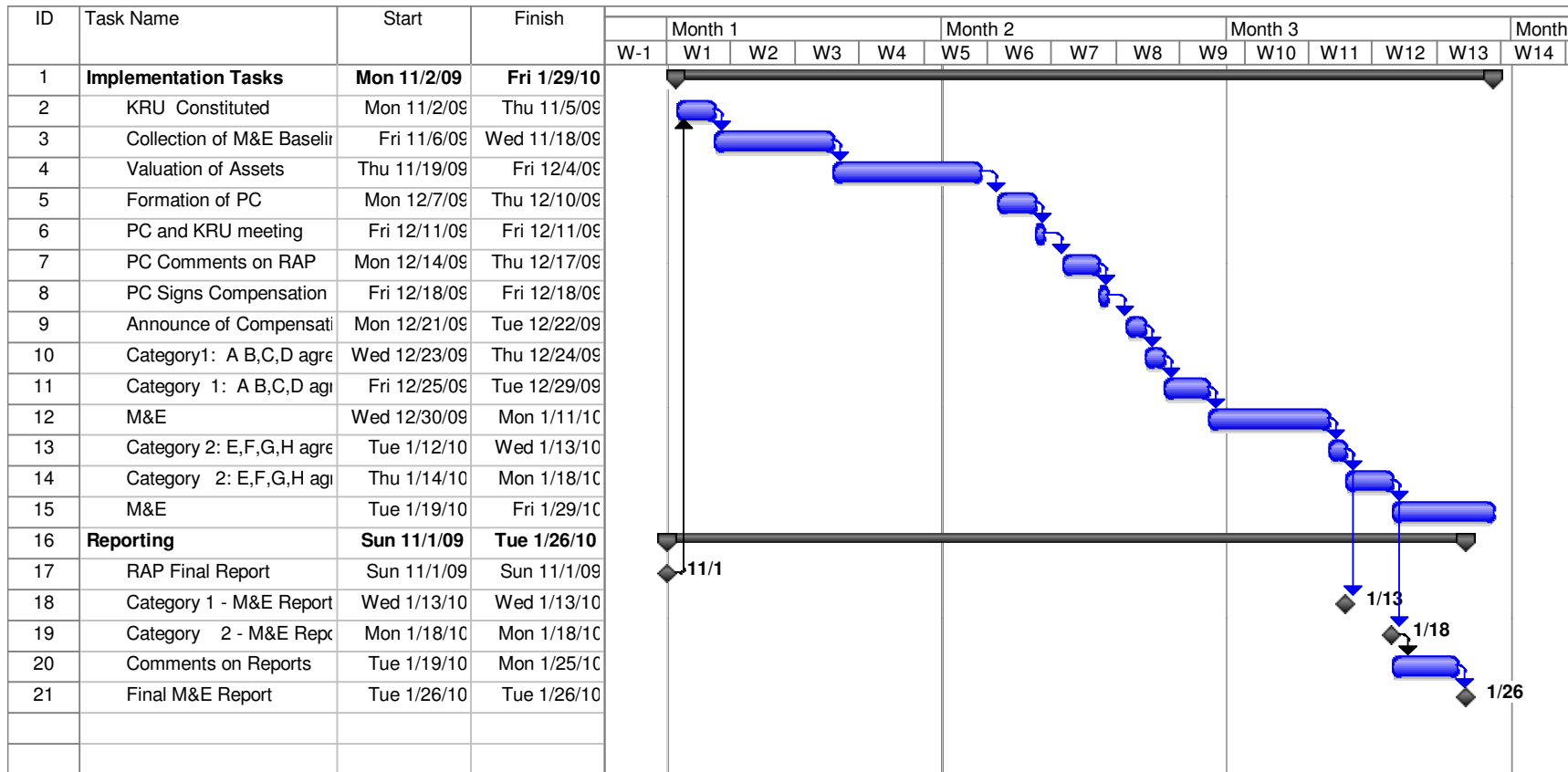


Fig. 6.5: Itinerary implementation schedule

6.7 Resettlement Cost Estimate

Summary of the resettlement cost estimates is shown in the Table 6.1

Table 6.1 Resettlement Cost Estimate

Sub-Project	Amount(KSh)
Olkaria-Sotik	104,737,500
Kisii-Sondu	329,364,000
Sub-Total	434,101,500
Disturbances 15% of subtotal	65,115,225
Total	499,216,725

The total in table 6.1 is the estimated resettlement cost inclusive of trees estimated at 5% of the total cost of land and structures.

Assumptions:

1. No direct compensation for land under NP
2. Structures cost at the prevailing construction rates depending on materials of construction and maintenance condition
3. Trees compensated on the basis of value per tree depending on age and size

6.8 Compensation a ward and Public grievance redress

Each identified PAP will be issued with a letter of award in annex III for their acceptance or otherwise before payment is made. In the event of a dispute or grievance, KPLC will issue a grievance form, Annex IV, to be filled by aggrieved persons so as to reach a settlement within a period of one month. No construction should commence before public grievance is settled.

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 Conclusions

The following is a summary of the study conclusions:

1. **Survey Work:** The survey work along the line has not been finalised. The line boundaries have not been marked. This has made it difficult for the consultant to assess and physically count the affected HHs to determine the accurate level of compensation required.
2. **Population:** The transmission line route passes mostly on areas with low population density.
3. **Public Consultations:** A lot of consultations with the affected communities were done along the line. During the consultations, the issues that rose concerning the project were discussed. Generally the public was not resisting the project apart from a few cases where the consultant had difficulties interviewing the persons likely to be affected since a comprehensive survey had not been done. The public also feared that they would be relocated to an unproductive land in which case we recommend that factors like land productivity and climate be considered. The public also expressed their dissatisfaction with KPLC's poor history in terms of compensation. Most of the respondents resisting the project were of the opinion that they will not benefit much from the same.
4. **Project Impacts:** The project will traverse a long stretch of land with considerable levels of mitigable impacts to the flora and fauna. There are also impacts which will be social economic in nature especially during the construction phase.
5. **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.
6. **Requests:** During the the public discussions and meetings, the following requests have been made by the locals:
 - a. Use of local labour during the construction phase
 - b. Provision of electric power
 - c. Timely compensation

- 7. Resettlement:** KPLC will provide both the financial input into the resettlement process as well as significant additional managerial and technical expertise.

7.2 Recommendations

- i. The survey needs to be done to facilitate the identification of the PAPs and assessment of resettlement costs before the project implementation.
- ii. KPLC should compensate all the affected persons in a timely manner using the prevailing market rates. We have estimated total resettlement cost at **KSh. 499 million**.
- iii. Before resettlement, the PAPs should be mobilized and counseled both socially and economically to avoid undue social and economic disruptions. Where applicable, health experts should be involved in counseling to create awareness within the community on issues relating to HIV/AIDS
- iv. Compensation to PAPs should be made before demolition commences. This will be done at either the KPLC 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
- v. KPLC should be responsive and live up to corporate social responsibility in the project area through the following activities:
 - Rural electrification programme
 - Revegetation

ANNEXURES

Annex I: Data collection tool

Questionnaire Number	
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CONSENT: Hello. We are conducting an assessment for KPLC to enable us determine the people affected so that they can be compensated.

Name of Property Owner		ID No.
District		Division
Location		Sub location
Interviewer		Date

1.0 Bio-data

Gender	Age	Number of Dependants	Disability	Marital Status	Education
1. Male 2. Female	How old is...[Name] in Years		1. Disabled 2. Normal	1. Married 2. Widowed 3. Divorced 4. Separated 5. Single	What is the highest Level of education of respondent? 1. Primary 2. Secondary 3. Post Secondary. 4. Never attended

2.0 Employment/ Source of Income

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

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3.0 Assets

Land					
Stretch of Land Affected (Km)	Ownership	Land Use	Estimated value per acre		
	1. Leasehold 2. Freehold 3. Trust land 4. Squatter	1. Arable 2. Livestock 3. Sanctuary 4. Other Uses (specify)			

Buildings	Year of construction	Materials	Condition of the Building	Estimated cost
		1. Manyatta 2. Permanent 3. Semi-Permanent	1. Good 2. Fair 3. Poor	

Other Affected	Description (length or depth)	Construction material	Estimated Cost
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Structures 1. Fence 2. Boreholes 3. Others (Specify)				
Type of Crop	Area Affected	Maturity stage	Estimated Value	

4.0 Social Structures

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

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5.0 Trees

Number.	Name	Number	size	Estimated cost
1.				
2.				
3.				
4.				
5.				
6.				
7.				

Annex II: Public Consultation

As a requirement to carry out any project by NEMA, a number of public consultations were conducted along the proposed line. The following is the summary of the discussions:

I. Olkaria-Narok-Bomet-Sotik

1. Meeting held on 6th October 2009 at 1.30pm to 2.55pm At Katakala centre.

Ngareta location, Oleleshwa sub location

In attendance: 17 Locals, area chief and 2 consultants

Agenda

- Introduction to members present
- Introduction of the project
- The community's view of the project
- Legibility for compensation
- Agreements on mode of compensation

Community's issues and views of the project

- Members wanted to know whether there will be any losses that can be caused by the transmission line. Members were mainly from Masai community and they stated many previous projects like construction of the B3 highway to Sotik caused damage to their livestock i.e. vehicles knocking down their herds.
- Community wanted to know whether they will benefit from the project. Concerns were raised whether they will continue with farming and livestock rearing once the transmission line is erected. Members raised concerns of the size of their farms that will be affected.
- The community wanted to know distant from the proposed line within which they can be allowed to build houses.
- Some members have small parcels of land i.e. 100m x 100m therefore, if line were to pass, little land will be left for construction of buildings.
- Members wanted to know the rates of compensation used presently.
- Community felt that compensation should be based on the cost of land in the area (i.e. the cost of land in the area currently is 200,000 per acre).
- Community members wanted to know if compensation mode would be in instalment basis or they would be paid the whole lump sum amount. If compensation mode were to be lump sum, community members preferred to be paid at least 2million for each family.



Fig 1: Public participation at Katakala centre in Ngareta Location, Narok South District

2. Meeting held on 7th October 2009 at 10.30am to 11.15am at Mulot centre, Kiplabotwa location.

In attendance: 11 locals area chief and 2 consultants.

Community's issues and views of the project

- Community members wanted to know how they stand to benefit when the proposed project would be completed.
- Community members wanted to know how compensation will be done.
- Some members raised issue of title deeds. They wanted to know whether those who don't have title deeds will be compensated.
- Most of the members preferred to be paid on the basis of the value of land (i.e. 1 hectare is valued at approximately KSh 500, 000)

3. Meeting held on 7th October 2009 at 11.45am to 12.59pm at Kajemas centre, Kiplabotwa location.

In attendance: 7 locals area chief and 2 consultants.

Community's issues and views of the project

- Locals with land along the proposed transmission line, raised concerns about a previous project of the 33kv line that passed through their farms and no compensation was done.
- Locals wanted to know how compensation will be done.
- Community wanted to know whether they will benefit from the project. Concerns were raised whether they will continue with farming and livestock rearing once the transmission line is erected.

4. Meeting held on 7th October 2009 at 2.05pm to 3.50pm at Farmers centre, Cheboin location.

In attendance: 24 locals, area chief and 2 consultants.

Community's issues and views of the project

- There were complaints about the previous project of the 33kv line that passed through their farms and no compensation was done.
- Locals wanted to know how compensation will be done and how much they will be compensated.
- Community members wanted to know whether they will benefit from the project.

5. Meeting held on 8th October 2009 at 9.05am to 10.30am at Kipsoen centre, Cheboin location.

In attendance: 25 locals, area chief and 2 consultants.

Community's issues and views of the project

- Some members had small pieces of land along the proposed transmission line route and they were wondering whether they will have to move to another land.
- Community members wanted a comprehensive survey to be done to ascertain the size of their land that would be taken up by the project.
- Questions of whether the pylons to be constructed would be a danger to their kids if they were to climb them.
- Questions of whether their crops would be affected by the proposed project.
- Community members wanted to know whether they will benefit from the project.

6. Meeting held on 5th October 2009 at 9.25am to 10.30am at Narok town.

In attendance: 4 locals, area chief and 2 consultants.

Community's issues and views of the project

Members raised concerns of the size of their farms that will be affected. In addition, members wanted to know the allowance they will need to construct buildings.

Concerns were raised about those members who have small parcels of land. They were worried that little land will be left for construction of buildings once the project is undertaken. Members wanted to know the rates of compensation used presently

II. Kisii-Sondu Line

Three formal Public Participation meetings were held in the project area. They were held in Kegati location in Kisii at the chief's camp, Kemara Location in Nyamira at Kiogoro Primary school and Ramula location in Kodhoch at Ramula Do's Place

Agenda

- Introduction to members present
- Introduction of the project
- The community's view of the project

Meeting 1: Meeting Kegati location in Kisii at the chief,s camp location on 02/10/2009 at 14:30pm to 15:30 pm.

In attendance: 10 locals and 2 consultants

Summary of the issues raised:

- Rural electrification
- Local labour should be used in construction and operation
- Find ways to provide power to the local community.
- Public also expressed feared that they may be relocated to an unproductive land

Meeting 2: Meeting Kemara Location in Nyamira at Kiogoro Primary school on 05/10/2009 at 11:15am to 12:20pm

In attendance: 26 locals and 2 consultant

Summary of the issues raised:

- They requested to provide labour all the way
- Payment of the labour
- Compensation be done using the current rates
- The rates of compensation of fruit trees and other commercial trees.
- Rural electrification

Meeting 3: Meeting at Ramula location in Kodhoch at Ramula Do's Place on 07/10/2009 at 11:30am to 14:00pm

In attendance: 33 locals and 2 consultants

Summary of the issues raised:

- The mode of compensation
- Provision of unskilled labour
- Rural electrification



Fig.2. Public meeting at D.O's place Ramula in Rachuonyo District

Public consultation forms

Consultancy Services for carrying out Environmental and Social Impact Assessment and Resettlement Action Plan of
the Proposed Olkaria-Narok-Bomet-Sotik, Kisii-Awendo, Kisii-Sondu 132kV Transmission Line

Public Participation Form

Kiplabotwa location

No.	Name	Location	ID Number	Address	Tel Number
1	KIPRUTO ARAP KOECH	KIPLABOTWA	2319599	131, Amalo	0714885218
2	JOHN MARIM BETT	"	3238254	"	0714687787
3	CHAMPWONY A. SANG	"	070362471	"	0721366170
4	WILLIAM G.K. MASAS	"	1363617	94, Loigisa	0728674559
5	ROTHICH DAVID	"	11794308	"	0727221948
6	SITIKEL JOHN	"	20339859	75, Loigisa	0728801216
7	JOEL SEGERGER	"	11432818	94, Loigisa	
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Consultancy Services for carrying out Environmental and Social Impact Assessment and Resettlement Action Plan of
the Proposed Olkaria-Narok-Bomet-Sotik, Kisii-Awendo, Kisii-Sondu 132kV Transmission Line

Public Participation Form

Kiplabotwa

No.	Name	Location	ID Number	Address	Tel Number
1	WILLIAM KIPLANGAT CHIRCHIR	KIPLABOTWA	2280860	Box 90, Amalo	074662538
2	TECKLA CHEKROETH CHIRCHIR	"	9729936	"	0728769942
3	SUGUMA KILUSHO ARAP	"	3827569	"	
4	TAPOTANY CHEKORIR KILETI	"		"	
5	KIPTANGUS ARAP CHEPTIRLOE	"		"	0723987619
6	JOSEPH KIPWJET	"	0282350	Box 59, Loigisa	0723711181
7	KIPKEMEI JOSPH BARCHOK	"	1363140	Box 15, Amalo	
8	KIPISGEND ARAP KUYUMI	"		Box 94, Loigisa	0711568511
9	MARIA CHEKORUN KALIASOI	"		Box 94, Loigisa	0729041792
10	RICHARD ROTHICH	"		Box 94, Loigisa	
11	KIPORA MOLEL	"		"	
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Consultancy Services for carrying out Environmental and Social Impact Assessment and Resettlement Action Plan of
the Proposed Olkaria-Narok-Bomet-Sotik, Kisii-Awendo, Kisii-Sondu 132kV Transmission Line

Public Participation Form

No.	Name	Location	ID Number	Address	Tel Number
1	SAMUEL ABURA	KPHC	64224485	Box 151 Kisii	0722457886
2	Charles Ombeki	IBENO	20244675	Box 31 Kisii	0722928323
3	ASSA O. MURUKA	BOITANIRAGI	22215524	Box 40 Kisii	0724231526
4	Peter Sakara	Basichache	22040299	Box 733	0712029237
5	William EKOBASI	Basichache	5801714	Box 592 Kisii	0713847863
6	Ronald Mutui	Basichache	13746993	Box 224 Kisii	0710395219
7	Joseph Nyandika Nyekya	Basichache	-	Box 592	-
8	Nantava K. Ogeya	Basichache	4958799	Box 592 Kisii	0725005466
9	Roda K. Nyandisi	Basichache	2195440	Box 592 Kisii	-
10	Simon Nyandisi	Basichache	14606446	Box 592 Kisii	0714072052
11	Glady's Mwangi	Basichache	1375373	Box 592 Kisii	0729706029
12	LIBANUS ONDERA RAIENO	BASSI CHACHE	1627128	Box 733 Kisii	0714778610
13	VERONICA				
14	HENRY S. ONDIKI	BASSI CHACHE	10661762	Box-1539	0727700625
15	ANN NYAKARA ONDRO	BASSI CHACHE	6554025	Box 733	0712017442
16	TERESA NYABOKI	BASSI CHACHE	1584382	Box 733	0716798511
17	RAEL KERUBO NTABO	BASSI CHACHE	1627967	Box 733	-
18	GRACE MORAA MOKUA	BASSI CHACHE	2674296	Box 733	0725808122
19	SAMUEL MOCHA	BASSI CHACHE	6554332	Box 733	070713107891
20	ONTOBO MATOKA	BASSI CHACHE	0447119	Box 733	-

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the Proposed Olkaria-Narok-Bomet-Sotik, Kisii-Awendo, Kisii-Sondu 132kV Transmission Line

Public Participation Form

No.	Name	Location	ID Number	Address	Tel Number
1	Onsare Richard Elijah Mweru	BASSI CHACHE	13084948	3385	0722617624
2	Clarence Oduo	BASSI CHACHE	0379111	Box 733	0728270058
3	Simon Mwangi Mulo	BASSI CHACHE	2332381	733	0724773015
4	Abel Mwangi Onyiego	BASSI CHACHE	24251405	733	0701290997
5	CHARLES OMWENIA	BOCHI CHACHE	7573221	64 Mungae	0728241633
6	NORAH NYABOKE	BOCHI	-	-	0716255300
7	JOHN ONDIKI	BOCHI	-	64 Mungae	-
8	MARTHA MWERI	BOCHI	-	64 Mungae	-
9	EPHANS OMACHE	BOCHI	23055954	64 Mungae	-
10	Helen Rabiki	BOCHI	-	64 Mungae	0725464566
11	Robert Onjoke	BOCHI	-	64 Mungae	-
12	Evans Anani	BOCHI	-	64 Mungae	0715884482
13	ROBERT TENGEJA	BOCHI	700117016	64 Mungae	0714196790
14	John Ogeya	BABASI	6555864	-	0720252326
15	Calless M. Kibicho	BASSI CHACHE	12605170	64 Mungae	0710902007
16	Josh Akuku	Kangumkago	9642640	-	0716746648
17	P	Kangumkago	-	-	-
18	Rose Anna Mwangi	Kangumkago	7281112	-	-
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the Proposed Olkaria-Narok-Bomet-Sotik, Kisii-Awendo, Kisii-Sondu 132kV Transmission Line

Public Participation Form

No.	Name	Location	ID Number	Address	Tel Number
1	Wilson Magire	Basis Chacka	2558676	1539	072634663
2	James Otuchok Kenya	Basis Chacka	0357782	2285	0713719053
3	Esther Kenbo	Nyamaramba			0721732432
4	Sams Ombani	Nyamaramba	21510581		0722626392
5	Selome Kiambaka	Nyamaramba			0727772081
6	Ayidi CHQ Ogwosi				0725046167
7	Michael O. omwanyi	Bogereya	24535176		
8	Geoffrey Njanelani	Bogereya	24745293	1 Nyamirambi	0724975986
9	Peter Mogaka	Njukembere	26418750	1 Nyamirambi	0728730766
10	Maobe Samuel	Njukembere	25521423	1	0723839362
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the Proposed Olkaria-Narok-Bomet-Sotik, Kisii-Awendo, Kisii-Sondu 132kV Transmission Line

Public Participation Form

No.	Name	Location	ID Number	Address	Tel Number
1	Wilson Magire	Basis Chacka	2558676	1539	072634663
2	James Otuchok Kenya	Basis Chacka	0357782	2285	0713719053
3	Esther Kenbo	Nyamaramba			0721732432
4	Sams Ombani	Nyamaramba	21510581		0722626392
5	Selome Kiambaka	Nyamaramba			0727772081
6	Ayidi CHQ Ogwosi				0725046167
7	Michael O. omwanyi	Bogereya	24535176		
8	Geoffrey Njanelani	Bogereya	24745293	1 Nyamirambi	0724975986
9	Peter Mogaka	Njukembere	26418750	1 Nyamirambi	0728730766
10	Maobe Samuel	Njukembere	25521423	1	0723839362
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the Proposed Olkaria-Narok-Bomet-Sotik, Kisii-Awendo, Kisii-Sondu 132kV Transmission Line

Public Participation Form

No.	Name	Location	ID Number	Address	Tel Number	
1	CHARLES ASIAGO MBAKA	Basi duche	8125598	7	0724355386	5/10/09
2	JOHN D. NYAKECHI	CENTRAL KANYAMKAGO	7345507	2, URIRI	0721320331	John D.
3	CHARLES O. NIROTA	CENTRAL KANYAMKAGO	20548400	100-40288-URIRI	0723985420	Mutus
4	SOLOMON OKELLO	West. Kobwa	14550955	196 DANON		Okello
5	TIMINA MBOGA	C. KANYAMKAGO		Box 19 Rapoti		
6	AGNEN DUMA JAKOYO	C. KANYAMKAGO	2741875	Box 16 Rapoti	0715353581	Agnes
7	DOMNIC EGON GITO	C. KANYAMKAGO	-	Box 41 URIRI	-	-Domnic
8	JOANES OHWALO OSONGO	C. KANYAMKAGO	6762466	Box 15 Rapoti		
9	JULIUS OMYANGO ODIRA	C. KANYAMKAGO	2742156	Box 13 Rapoti		Julius
10	SAMUEL OBONGU YAMO	C. KANYAMKAGO	2743907	Box 16 Rapoti		Obongu
11	MICHAEL OWITI	C. KANYAMKAGO	14484657	Box 26 URIRI	0736992108	Michael
12	NOAH OTIENO EBUNOI	C. KANYAMKAGO	6413378	Box 142 Rapoti	0724703902	Noah
13	PUSKIAGO EYOLA	C. KANYAMKAGO		Box 13 Rapoti		
14	OSAMA OPIYO	C. KANYAMKAGO		Box 13 Rapoti		Osama
15	ALDO OZIT	C. KANYAMKAGO	1565816	Box 13, RAPOTI	0711427127	Aldo
16	DANIEL OBARA	C. KANYAMKAGO		P.O. Box 13 Rapoti		Daniel
17	VITALIS LUCH NERE	C. KANYAMKAGO	6762560	Box 134 SARE		Vitalis
18	JACOBO DUMA NERE	C. KANYAMKAGO	204891582	Box 16 Rapoti	0711728155	Jacob
19	JENIFA BERE NERE	C. KANYAMKAGO		Box 16 Rapoti		Jenifa
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DINY OHACHO CHIEF'S OFFICE
CENTRAL KANYAMKAGO LOC.
P. O. BOX 100 RAPOTI
DATE 5/10/2009

John Ohacho
CHIEF CENTRAL KANYAMKAGO

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the Proposed Olkaria-Narok-Bomet-Sotik, Kisii-Awendo, Kisii-Sondu 132kV Transmission Line

Public Participation Form

No.	Name	Location	ID Number	Address	Tel Number
1	Asif Chief Clarence MBEI Obwaho	KEGATI	10927693	590	0726476564
2	Chief LINDSEY D. BISHOP	KEGATI	2625538	590-KISII	0729519748
3	JOHN NIJAMUETA NIMONDI	KEGATI	0412421	883 Kiara	071355875
4	BENJAMIN NIAMONDI	KEGATI	0278269	412 Kiara	071042734
5	WILSON MUKORI	KEGATI	0413037	11 11	-
6	ISAAC MOSE MUKAYA	KEGATI	2672427	11 11	0712411624
7	JUNIOR O. VERONDI	KEGATI	13481687	11 11	0721464675
8	DANA MUKORI	KEGATI	10692343	11 11	0712766046
9	HENRY KEBWARO K.	KEGATI	1614233	71 71	0714094020
10	Phyllis MBEI NIAMONDI	KEGATI	3468755	11 11	0711772887
11	PATRICK OJANDA OJANGI	KEGATI	1622925	11	0725035386
12	JOSEPH NIAMONDI MUKANDA	KEGATI	1614515	11	0722764975
13	ROBERT MUMBO	KEGATI	0426800	2554 Kiara	0721327424
14	STEPHEN MARIETA MUKORI	KEGATI	10693501	412 Kiara	0715753616
15	SABASTIAN OMBATI MOKHEDE	KEGATI	21942898	29 KISII	0710729519
16	EDRANUS ONTHWARI OTWANA	KEGATI	0302163	1950 KISII	-
17	PHEDUS OMBATI GISIKI	KEGATI	1619525	1950 KISII	-
18	SAMUEL MUMA OJANGI	KEGATI	8509591	1414 KISII	0723881625
19	Christopher N. Nyakoe	KEGATI	13139337	515 KISII	0721760191
20	James Ojoro Ojoro	KEGATI	4141205	515 KISII	0725970110

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AG. CHIEF
KEGATI LOCATION
6/10/2009

1

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the Proposed Olkaria-Narok-Bomet-Sotik, Kisii-Awendo, Kisii-Sondu 132kV Transmission Line

Public Participation Form

No.	Name	Location	ID Number	Address	Tel Number
1	Linet N. Myambaga	Kegati		1950 Kisii	0715287583
2	Charles O. Nbere	Kegati	1619633	1950 Kisii	0726540612
3	Agnes M. Isaac	Kegati		412 Kisii	0724661762
4	Stella B. Simoin	Kegati	—	412 Kisii	0724661762
5	Beta Ogga Amamba	Kegati	6550135	1950 Kisii	—
6	Philip Ondieki Ondimu	Kegati	13746742	412 Kisii	0733497441
7	DAVID MASESE	Kegati	265176	540 Kisii	0714115306
8	ISAIAH MAGOMA	Kegati	11484110	—	0722329824
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AG, CHIEF
KEGATI LOCATION
6/10/2009

1

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the Proposed Olkaria-Narok-Bomet-Sotik, Kisii-Awendo, Kisii-Sondu 132kV Transmission Line

Public Participation Form

No.	Name	Location	ID Number	Address	Tel Number	SIGN
1	MARGRET GESARE NYACHU	KEGATI	20713135	412 KISII	0729696582	<i>[Signature]</i>
2	CHARISANTU MUSE MAREYA	KEGATI	2673956	412 KISII	0714981918	<i>[Signature]</i>
3	JOSHUA NYAKONI	KEGATI	20599685	904 KISII		<i>[Signature]</i>
4	FLORENCE WACHERA KINYUA	KEGATI	22717648		0725350552	<i>[Signature]</i>
5	JARSD NYANDUJI	KEGATI	26276809	3595 KISII		<i>[Signature]</i>
6	DAVID NYAMALI ANDROG	KIOGORI	13481748	1804 KISII	- 0713628589	<i>[Signature]</i>
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Consultancy Services for carrying out Environmental and Social Impact Assessment and Resettlement Action Plan of
the Proposed Olkaria-Narok-Bomet-Sotik, Kisii-Awendo, Kisii-Sondu 132kV Transmission Line

(Katakala Centre)

Held at Ngareta Location, Okeshwa Sublocation - Chief - Nelson Naisunya

Public Participation Form

No.	Name	Location	ID Number	Address	Tel Number
1	WILSON SAOLI	Ngareta location	22331297	155	0724094020
2	MORJOI NKURUMU	Nkareta			0728517820
3	MICHAEL ROIKO	"	20569499	21	0723317646
4	JOSEPH SAOLI	"	22610975	155	0729649262
5	KOSION TIKA	"		"	0716106477
6	SIRENE ROIKO	"	24488133	"	0726251521
7	MWANGI NKURUMU	"			0710518567
8	SARINKE NKURUMU		21128594		0728674527
9	LEMENI SAOLI		24481356		0710927702
10	KIRETIE KIMONGO		20836797		0725814808
11	LEON SAOLI				0724266086
12	CHRIS SAOLI				0710554044
13	RAKITS KIMONGO				
14	ISAACK NKURUMU		22607963		0727354866
15	TEKETI PARE				0710460112
16	MALIRE PARE				
17	MICHAEL SAOLI	"	21554549		0723976916
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Consultancy Services for carrying out Environmental and Social Impact Assessment and Resettlement Action Plan of
the Proposed Olkaria-Narok-Bomet-Sotik, Kisii-Awendo, Kisii-Sondu 132kV Transmission Line

Meeting Held at Kirpaen Training Centre

08/10/2009

Public Participation Form

No.	Name	Location	ID Number	Address	Tel Number
1	David Towett	Cheboin	5242329	Box 50 Langisa	0712957131
2	Philip Kirui	Cheboin	11432825	Box 90 Langisa	0729809528
3	Juel mutai	Cheboin		89 Langisa	-
4	Matthew Soi	Cheboin	6890909	Box 90 Langisa	0720883798
5	Chirchir Mike	Cheboin	2450397	Box 190 Langisa	0729379982
6	Philip Langat	Cheboin			
7	Julias Mwasik	Cheboin	20789631	Box 90 Langisa	0725221711
8	David Kogei	Cheboin	5996345	Box 90 Langisa	-
9	Koed Peter	Cheboin	23191923	Box 90 Langisa	0724040501
10	Emanuel Ngetich	Cheboin	23954149	Box 90 Langisa	0726066017
11	Julias Kirui	Cheboin	14633394	Box 90 Langisa	-
12	Julias Langat	Cheboin	0736024	Box 90 Langisa	0725048019
13	Wilfred Soi	Cheboin	4755647	Box 90 Langisa	
14	Margaret Chepkorir Bore	Cheboin	071128765	Box 90 Langisa	0713507122
15	Caroline Chepkurui	Cheboin	25324263	Box 90 Langisa	0713122569
16	Joyce Chepkemai	Cheboin	21704989	Box 90 Langisa	0728084275
17	Philip Ngetich	Cheboin	5996508	Box 90 Langisa	0727279198
18	Julias Mutai	Cheboin		Box 90 Langisa	-
19	Michael Kirui	Cheboin	10542105	Box 90 Langisa	-
20	William Soi	Cheboin	27777565	Box 90 Langisa	0713456184
21	Stephen Towett	Cheboin	7623210	Box 90 Langisa	0721704030
22	Ernest Bartai	Cheboin	0871344	Box 90 Langisa	0727930072

Annex III: Letter of award

Kenya Power & Lighting
Company Ltd,
P.O Box 30099-00100,
Nairobi, Kenya

Ref. No.

Mr./Mrs./Ms.....
.....

ENERGY ACT 2006

PROJECT: ENERGY RECOVERY STRATEGY

PLOT NO..... (PART)

COMPENSATION

IN PURSUANCE OF SECTION 10 of the (Energy Act 2006) having concluded the
inquiry relating to the purchase of the acquisition of land described above, I HEREBY
AWARD you the sum of

Kshs.....
.....

in respect of your interest in the land and permanent improvements acquired for the
development of the above project.

I hereby give the following particulars relating to the acquisition:-

a) The area of the land to be acquired is..... Approximately.

b) The total value of land and improvements is in my opinion
Ksh.....

c) The total amount of compensation payable for the land and improvements is
Kshs.....

d) The compensation HEREBY AWARDED is payable to the following persons
Interested in the land:

.....
.....
.....

If you accept the above compensation award, Please sign this statement and send a copy of the same to me as soon as possible.

DATED this.....day of.....2009

Managing Director
Kenya Power & Lighting Company Ltd,

Annex IV: Public grievance form

Resettlement Action Plan Public Grievance Form

RAP Reference No.	
Full Name	
Contact Information	Address: ----- ----- ----- ----- -----
Please mark how you wish to be contacted (mail, telephone, e-mail)	Telephone:- _____ Email----- --
Preferred Language for Communication(Please mark how you wish to be contacted)	English Kiswahili
National Identity Number	
Description of Incident or Grievance:	What happened? Where did it happen? Who did it happen to? What is the result of the problem
Date of Incident/ Grievance	
	One time incident/ grievance(date----- ---) Happened more than once (How many times-- -----) Ongoing (Currently experiencing problem.....)
What would you like see happen to solve the problem?	

Signature:

Date:

Please return this form to:

Kenya Power and Lighting Company Limited

Energy Sector Recovery Project,
Stima Plaza, Kolobot Road, Parklands,
P.O. Box 30099-00100,
Nairobi-Kenya

Annex V: Monitoring Indicators

Subject	Indicator	Variable
Land	Acquisition of land	<ul style="list-style-type: none"> • Area of cultivation land acquired for KPLC developments • Area of communal land acquired for KPLC developments • Area of private land acquired? • Area of government land acquired?
Buildings/ Structures	Acquisition of buildings	<ul style="list-style-type: none"> • Number, type and size of private buildings acquired • Number, type and size of community buildings acquired • Number, type and size of government buildings acquired
	Acquisition of other structures	<ul style="list-style-type: none"> • Number, type and size of other private structures acquired • Number, type and size of other community structures acquired
Trees and Crops	Acquisition of trees	<ul style="list-style-type: none"> • Number and type of trees cut
	Destruction of crops	<ul style="list-style-type: none"> • Crops destroyed by area, type and ownership
Compensation, Re- establishment and Rehabilitation	Compensation and re-establishment of affected owners/individuals	<ul style="list-style-type: none"> • Number of homesteads affected (buildings, land, trees, crops) • Number of owners compensated by type of loss • Amount compensated by type and owner • Number of replacement houses constructed • Size, construction, durability and environmental suitability of replacement houses • Possession of latrines • Water supply access • Number of replacement businesses constructed
	Re-establishment of community resources	<ul style="list-style-type: none"> • Number of community buildings replaced • Number, type of plants lost • Number of seedlings supplied by type • Number of trees planted
Hazards and Disturbances	Introduction of nuisance factors	<ul style="list-style-type: none"> • Number of homesteads affected by hazards and disturbances from construction (noise levels, blasting, increased traffic levels)

Subject	Indicator	Variable
Social/ Demographic	Changes to homestead structure	<ul style="list-style-type: none"> • Homestead size (births, deaths, migration in and out) • Age distribution • Gender distribution • Marital status • Relationship to homestead head • Status of "vulnerable" homesteads
	Population migration	<ul style="list-style-type: none"> • Residential status of homestead members • Movement in and out of the homestead (place and residence of homestead members)
	Changes to access	<ul style="list-style-type: none"> • Distance/travel time to nearest school, health centre, church, shop, village
	Changes to health status	<ul style="list-style-type: none"> • Nutritional status of resettled homestead members • Number of people with disease, by type (STDs, diarrhoea, malaria, ARI, immunizable disease) • Mortality rates • Access to health care services (distance to nearest facility, cost of services, quality of services) • Utilization of health care services • Disease prevention strategies • Extent of educational programmes • Latrine provision at schools (school child population per VIP on site)
	Changes to educational status	<ul style="list-style-type: none"> • Literacy and educational attainment of homestead members • School attendance rates (age, gender) • Number, type of educational establishments
	Changes to status of women	<ul style="list-style-type: none"> • Participation in training programmes • Use of credit facilities • Landholding status • Participation in KPLC-related activities and enterprises

Subject	Indicator	Variable
	Homestead earning capacity	<ul style="list-style-type: none"> • Ownership of capital assets • Ownership of equipment and machinery • Landholding size, area cultivated and production volume/value, by crop (cash and subsistence crops) • Landholding status (tenure) • Redistribution of cultivation land • Changes to livestock ownership: pre- and post disturbance • Value of livestock sales, and imputed value of barter transactions • Consumption of own livestock production • Employment status of economically active members • Skills of homestead members • Earnings/income by source, separating compensation payments • Changes to income-earning activities (agriculture) – pre- and post disturbance • Changes to income-earning activities (off-farm) – pre- and post disturbance • Amount and balance of income and expenditure • Possession of consumer durables • Realisation of homestead income restoration plans (components implemented, net income achieved) • Possession of bank and savings accounts • Access to income-generating natural resource base (wood, grass, sand, stones)
	Changes in social organisation	<ul style="list-style-type: none"> • Organisational membership of homestead members • Leadership positions held by homestead members
	Population influx	<ul style="list-style-type: none"> • Growth in number and size of settlements, formal and informal • Growth in market areas

Subject	Indicator	Variable
Consultation	Consultation programme operation	<ul style="list-style-type: none"> • Number of local committees established • Number and dates of local committee meetings • Type of issues raised at local committees meetings • Involvement of local committees in KPLC development planning • Number of participating NGOs
	Information dissemination	<ul style="list-style-type: none"> • Number, position, staffing of Information Centres • Staffing, equipment, documentation of Information Centres • Activities of Information Centres • Number of people accessing Information Centres • Information requests, issues raised at Information Centres
	Grievances resolved	<ul style="list-style-type: none"> • Number of grievances registered, by type • Number of grievances resolved • Number of cases referred to court
Training	Operation of training programme	<ul style="list-style-type: none"> • Number of local committee members trained • Number of affected population trained in Project-related training courses
Management	Staffing	<ul style="list-style-type: none"> • Number of implementing agencies by function • Number of GoK ministry officials available by function • Number of office and field equipment, by type
	Procedures in operation	<ul style="list-style-type: none"> • Census and asset verification/quantification procedures in place • Effectiveness of compensation delivery system • Number of land transfers effected • Co-ordination between local community structures, KPLC and GoK officials