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REPUBLIC OF ETHIOPIA



REPUBLIC OF KENYA



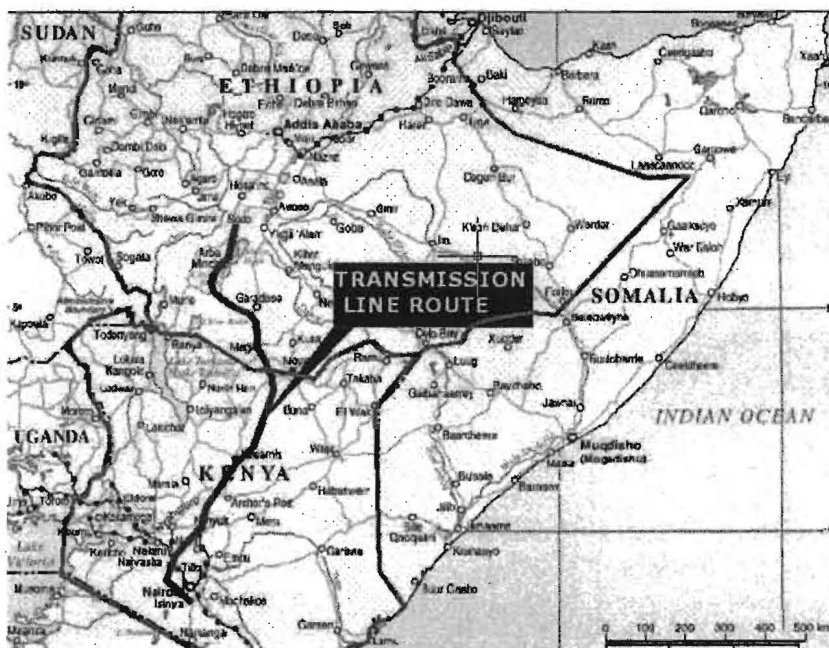
ETHIOPIAN ELECTRIC POWER  
CORPORATION (EEPCo)



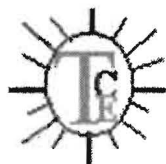
KENYA ELECTRICITY  
TRANSMISSION COMPANY LIMITED

ETHIOPIA-KENYA POWER SYSTEMS INTERCONNECTION PROJECT  
REVISION OF ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT AND RESETTLEMENT  
ACTION PLAN STUDIES

ESIA (APPENDICES)



PART 2: KENYA  
JANUARY 2012



Tropics Consulting Engineers Plc  
P.O.Box 351 Addis Ababa, Ethiopia  
TEL 251-11-618 54 66 Fax 251-11-618 38 61  
e-mail: [tropicsemt@ethionet.et](mailto:tropicsemt@ethionet.et)  
web-site [www.tropicsconsultingengineers.com](http://www.tropicsconsultingengineers.com)



Gamma Systems Ltd  
P O Box 1033 – 00606  
NAIROBI, Kenya  
Tel: +254 20 44 51 528  
Fax: +254 20 44 51 529

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# ANNEXE 1

## Schedule of response to comments from reviewers and stakeholders

### The AfDB

Comment	Response
<p><b>1.5.1.3</b> Water (Surface and Groundwater Resources) Isiolo River is extensively used and is the main water source for Isiolo = the contractor must under no circumstances use this river for construction purposes. they must drill their own boreholes which should be left for use by the community after construction and this can be recorded as complimentary initiatives for the project</p>	<p>Works at the Suswa substation will require borehole since there is no permanent water in the vicinity. It may not be economical to sink boreholes for construction of tower foundations all along the alignment because the water demand for each tower is low and the supply can be easily be sub-contracted to local contractors.</p>
<p><b>Executive summary conclusion:</b> Further, during consultations with the Client and Financiers, it was discovered that the scaling of the maps included in the reports gave erroneous impression that Option A/C route traversed Matthew’s Range and Losai protected areas. By increasing the scale of the map adequately it is shown that the route traverses well outside the two protected areas. Thus Option A/C route was able to regain the credit it earlier apparently lost = this is well noted and the distance to the said areas should be mentioned.</p>	<p>Corrected</p>
<p><b>8.2.3</b> Estimates of livestock and wildlife populations are notoriously inaccurate in the project region. However, regular ground counts and aerial surveys indicate long-term population changes = how was the inaccuracy established? The accurate results should then be given. It will be crucial for the changes to be graphically shown as this will also allow analysis of whether the project (especially construction stage) will have any noticeable impact on fauna in the area.</p>	<p>This paragraph has been reworded to clarify that the Table indicates data from last known census (2008) for Laikipia and Samburu. The paragraph has been reworded to indicate that accurate data from the rest of the area especially north of Samburu are not available.</p>
<p><b>8.2.3 last paragraph</b> ....The following species are listed in the 2004 IUCN Red List of Threatened Species, and can be found within the various districts traversed by the project. Population and distribution of species in the project affected districts could not be obtained = but there is no list following this paragraph. Furthermore, if there are no estimated figures and the distribution how will the impacts if any of the project on the species be done? Hopefully there will be a detailed monitoring that can then form a baseline. This should be included in the ESMP.</p>	<p>Statement deleted since it is no longer applicable because the paragraph referred to Kajiado which is now outside the project area.</p>
<p><b>8.2.4</b> The proposed transmission line route include various protected areas e.g. national parks and game reserves, both protected under Wildlife Conservation and Management Act, Cap 376, and forest reserves which are protected under Forest Act No. 7 of 2005 and Forest Act, Cap 387. Though the routing was planned close to existing roads, it is in some sections in the vicinity or even crossing the following</p>	<p>A new Table (Table 5) has been introduced clarifying the alignment in relation to the protected areas. New maps (Figures 22, 25 and 36) have also been inserted clarifying this information</p>

protected areas in Kenya (listed from North to South): IBA Dida Galgalu Desert	
<b>8.2.4</b> Marsabit National Reserve Losai National Reserve Matthews Range Forest Reserve Aberdare National Park and neighboring Forest Reserves IBA Lake Ol Bolossat IBA Lake Naivasha Longonot National Park = this paragraph is contradicting point 6 of the conclusion of the executive summary. Please clarify.	Clarified
<b>8.2.4.1.1.1</b> Marsabit National Reserve and Marsabit Forest Reserve = there should be a map (to scale) showing the T-line in relation to this facility. The same for the other two IUCN areas. This is because the given map is covering a wider area and is not clear. Also the numbering of these subparagraphs should be corrected.	The relation of TL in relation to protected areas clarified. Done, see Figures 22, 25 and 36 The entire report has been reformatted.
<b>8.3.1</b> The Laikipia – Samburu Ecosystem The Laikipia-Samburu ecosystem spans approximately 25,000 square kilometers and is defined by the Ewaso Ngiro river watershed. The proposed transmission line crosses this ecosystem from around Rumuruti to around Logologo. = Show on a map or explain in detail the extend	Map has been inserted (Figure 23)
<b>8.3.1.2</b> Fauna Laikipia – Samburu ecosystem, although ..... Below is a summary of the 2008 population estimates for some of the species that are counted regularly using sample survey techniques by the Department of Resource Surveys and Remote Sensing (DRSRS) in partnership with Mpala Research Centre (Kinnaird and Ojwang 2008). This shows that paragraph 8.2.3 is not correct. The ESIA study could have updated the 2008 scenario instead of using Kinnard & Ojwang results. Updated information should be obtained.	Corrected
<b>8.3.1 figure 15</b> - should show the T-line and the legend must be updated to show what the dotted thicker arrows are for.	A better map showing animal distribution has been inserted (Figure 21 also see 37)
<b>9.1.1</b> Soil The sites most vulnerable to ..... adequate mitigation measures will be taken to ensure least damage to the soil and to rehabilitate sites disturbed during construction. Other sections following this one have clear mitigation (the How). This mitigation is not enough	The mitigation actions are now elaborated
<b>9.1.8</b> Protected Areas The alignment has carefully avoided the The Marsabit National Park, Samburu and Buffalo Springs National Park and The Aberdares national Park. It however traverses through several conservancies and the Losai Game reserve. Adequate distance has been maintained between the proposed RoW and most sensitive parts of the protected areas. No impacts are expected on Marsabit Forest Reserve, Aberdare National Park and the neighboring Forest Reserve, IBA/Ramsar site Lake Naivasha and Longonot National Park. It is assessed that the project's impact will be low to medium for the traversed IBA Dida Galgalu Desert, Marsabit National Reserve, Losai National Reserve, because the construction of such a large infrastructure project poses the risk of lowering their importance and decreasing their scenic landscape value	This has been reassessed and appropriately corrected. Bird collisions during construction are not as critical and therefore only during operation does it pose some danger, although still low in our assessment.

<p>to tourism. The project's impact on IBA Lake Ol Bolossat is assessed as low since the lake is about 4 km away and the risk of bird collisions during construction is very low. Risk allocation is confusing here. If the development is permanently decreasing the importance and tourism value why is it given low to medium? This must be accompanied by further justification. Secondly, the statement about bird collision during construction should also bear in mind that the structures are permanent. More details here are required.</p>	
<p><b>Figure 26 below:</b> The red line depicts the section (7.5 km) to be fitted with overhead 'aviation' balls near Lake Ol Bolosat to enhance the visibility of overhead conductors for birds. This should be included in the ESMP to ensure that it is included in the costing and implemented.</p>	<p>Included and costed in the ESMP</p>
<p>There should be an annex of the consultation process, including all the meetings undertaken, people/stakeholders met, and the issues raised and how they were addressed.</p>	<p>Annexe of consultation process included as appendix 5</p>
<p>By and large, there is clarity needed on where the line passes with regard to areas of environmental significance.</p>	<p>This has been corrected and clarified all through the report</p>
<p>They have also not mentioned where construction waste will be taken to. Merely stating that it will be appropriately disposed of is not adequate because if there are no appropriate landfills around, it would mean transporting it over long distance and this would be costly and should therefore be included in the ESMP so that money can be allocated to the activity.</p>	<p>It is not possible to be precise at this stage. In the ESMP, the contractor is expected to develop a waste management plan before commencement of work. Construction water is normally contained in the contract quotes by the Contractor. However, only Suswa substation will require large quantities of water</p>
<p>They have not stated where water will be transported from since most of the construction is preferably going to be done during the dry periods.</p>	<p>A new chapter on Positive Impacts has been introduced.</p>
<p>By and large the project lacks benefits in terms of complimentary initiatives and direct benefits to the communities. Therefore the section on ICT could have been elaborated further clarifying how communities or municipalities will gain and how they will be notified of this benefit and assisted to make use of it.... Some capacity building or information sessions that must then be included in the ESMP.</p>	

## The AFD

Comment	Response
<p>The ESIA is inspired by the Fichter Report. New chapters have been included: Private and communal ranches, information on the avifauna in IBA...</p> <p>The change of line routing out of Matthews Range appears in Figure 1 but some chapters which describe the route still mention "crossing Matthews range". It appears that the report has not been properly re-read as Losai reserve is described twice... etc..</p> <p>No explanation for the reader why the route has changed to avoid Matthews Range (it is mentioned in a sentence in the RAP)</p>	<p>The Report has been revised to avoid repetitions e.g. of Losai Reserve, etc.</p> <p>The new preferred alignment is now described fully.</p>
<p>No information on construction / How many workers / working site etc... - No assessment on the impact of the construction works on the population and Marginalised group (how many jobs etc.. need for services...)</p>	<p>This is not possible at this stage. All this will depend on the contractors' approach, e.g. a contractor may opt to subcontract some works, etc. However, the general aspects of jobs, business opportunities, etc are contained in the new Chapter on positive impacts, and a section on how the positive impacts can be enhanced.</p>
<p>No information is provided on impacted conservancies (and to which extent), their status, the consultations held with them etc.</p>	<p>This is now elaborated in the Baseline conditions. List of affected conservancies are now included plus more information on them.</p> <p>The extent on the impact on conservancies must be read under the Potential Impacts on Fauna and Flora and Tourism in general</p>
<p>No analysis of the impact on tourism.</p>	<p>This is now elaborated in the section 10.2.1, under Aesthetics</p>
<p>The ESMP is not sufficiently developed and its follow up will be difficult as it is not precise enough.</p> <p><i>For example: During construction</i></p> <p><i>Instruction of the employees not to disturb the animals, especially birds, hunting/ poaching shall be prohibited in general.</i></p> <p>The ESMP should give more detailed information of what are the best practices otherwise anything</p>	<p>The ESMP is now revamped. The EMP mentions the need for the Contractors' employees to be bound by a code of conduct that, among others prohibit poaching, bush meat, etc.</p> <p>Further the ESMP spells out that the Contractor should inform the employees of the</p>

	<p>Wildlife Act that prohibits killing game for whatever reason without a permit from KWS.</p> <p>Being too specific may be risky as it runs the risk of excluding unforeseen issues. However a monitoring plan has been presented in a new chapter that will address the unforeseen issues.</p>
<p>No mention on how Ketraco will supervise 3 contractors at the same time. AFD has received from Ketraco its safety, health and environment Policy and its Environmental and Social Management Framework. AFD will send some comments to Ketraco if necessary.</p>	<p>Addressed in the new Institutional Analysis Chapter 15.</p>
<p><u>Specific comments</u>  p.29: (6.1.3) Why the EP are mentioned specially under the title "AfDB Environmental Social Impact Assessment Guidelines, 2004 ?</p>	<p>Corrected</p>
<p>p.31: List of Stakeholders : a large number of ranchers and interested individuals (see annexe). I did not find this annex. Idem for the consultations and § 7.2 (iii) community consultations.</p>	<p>Annex attached</p>
<p>p.20: <i>The proposed 500 kV HVDC transmission line is on conventional lattice self supported steel towers of approximate height 45 m.</i>  p.33: <i>The proposed 500 kV HVDC transmission line is supported on conventional lattice self supported steel towers of approximate height 38 m.</i></p>	<p>Corrected, 45 m retained.</p>
<p>p. 35: <i>the transmission line routes were then compared with selected parameters as shown below.</i> No parameters below.</p>	<p>Paragraph revised with more clarity</p>
<p>p.42 : <i>In order to exhaust all comments of all stakeholders of the project, comparison of all possible routes- from technical, ecological, and economic points of view were undertaken to come to a final decision on the route preferred to project implementation. Discussion with the client gave emphasis on the need of long distance road construction work in option D. Construction of the road is not in immediate domains of mandate of EEPCo and KETRACO and such work has potential to delay the project even more. Further, during consultations with the Client and Financiers, it was discovered that the scaling of the maps included in the reports gave erroneous impression that Option A/C route traversed Matthew 's Range and Losai protected areas. By increasing the scale of the map adequately it is shown that the route traverses well outside the two protected areas. Thus Option A/C route was able to regain the credit it earlier apparently lost. I do not understand this paragraph. Was it written before or after the change of route ?</i></p>	<p>Corrected</p>
<p>p. 47 : Lake paradise : Isn't it dry?</p>	<p>No, not dry</p>
<p>p.49 : <i>It continues southwards along the main road at a distance of up to 8 km from the road to Merille where it diverts westwards through a pass in the Wamba Mountains or Matthews Range respectively. This sentence is a copy and paste from Fichtner 2009. I</i></p>	<p>Corrected</p>

<p>thought that it was agreed that the new routing did not go through Matthews Range.</p> <p>p. 54 : Map with the line routing crossing Matthews Range. Then Matthews Range has disappeared from the text but with no explanation.</p>	
<p>p.56 :On Reserve or National parks : no mention on the management of the protected areas. Please add this information.</p>	Information added
<p>p. 52 : Wildlife : only marsabit with no figures and then in p. 59 under Laikipia Ecosystem, there is a fauna paragraph. Why not a comprehensive chapter on Wildlife/Fauna ?</p>	Fauna now integrated in one section
<p>Why Losai National Reserve is in § 9.2.4 and again in p. 68 (§9.3.4)</p>	Corrected
<p>p. 83 : § 10.1.5. Noise : . In total, about 433 households, consisting of slightly over 2000 persons that are within the 65 m wayleave can potentially be affected. However, considering only those with the vicinity of the towers will be affected, the actual number of people is substantially lower. I do not understand. The people within the way leave should not be resettled?</p>	Re-worded for clarity
<p>p.84 : Woodlands of Laikipia and Samburu  <i>.. The impact on this type of vegetation could be through two processes, all of them during construction:</i>  1. Construction of access roads to the alignment RoW for construction of towers and stringing  2. Clearing the alignment to allow stringing  Typically, construction access roads will require roads of between 7 and 10 m width to deliver construction materials. Considering that the alignment is some distance to existing roads in over 60% of the case across this ecosystem, accesses will be required to access tower sites and to deliver materials. It is not possible to accurately indicate the extent of vegetation lost but rough indications are that if a total of about 100 km of new access roads will be required across this ecosystem, then about 100 ha of woodlands will be cleared.  Considering that this loss is not along a continuous line but several small accesses spread across the vast ecosystem, the impact is considered low and transient. <i>Mitigation Measures</i> To mitigate this impact, it suggested that the road be thoroughly scarified to allow vegetation to re-establish naturally. The area being semi-arid, it is not practical to artificially plant trees on these decommissioned roads as the seedlings may not establish. Left to naturally regenerate, it estimated that the impact can be fully mitigated after about 10 years if the abandoned roads are scarified. Where trees of value are to be cleared within individual holdings, such individuals will be compensated to enable them replace lost trees away from the RoW.  Why no offsetting is proposed as mitigation measures?</p>	Revised and improved
<p>The EMP seems to be the compilation of two documents.  p. 99 § 11.4 Mitigation plan. Next paragraph 3.1.3 sub plans and Tasks  (i) Construction and workers camp management plan  In the summary of the EMP, the Construction and workers camp</p>	The entire ESMP is revamped and all these issues clarified. New chapter on Monitoring is introduced.



<p>management plan is not mentioned. There is a need to improve the chapter.</p> <p>Summary of the EMP : why is it less developed and comprehensive than the report from Fichtner? (no paragraph on waste)</p> <p>The Construction and workers camp management plan and the monitoring plan are supposed to be produced later . They should be done with an independent consulting firm. Is it budgeted ? Who shall pay contractor ? Ketraco ?</p>	
No grievance mechanisms in the EIA	Now included under 13.5 Construction phase environmental management Plan

### The World Bank

Comment	Response
<p>The organization of the draft is extremely unclear. Several sections shown in the Table of Contents are not in the draft. The Executive Summary does not appear to be present, although Section 2 is called Executive Summary in the TOC and the text in Section 1 looks as if it started out to be an Executive Summary but then became something different. The Executive Summary should in any case be a section that precedes Section 1 of the main text and that can stand alone, since a copy of it has to be sent to the Bank's Board of Executive Directors.</p>	<p>The whole report has been revised ensuring better flow. The Exec summary was presented as a separate file, that is why you may have missed it. Now included in the same document.</p>
<p>Although the consultants responded to earlier comments by Noreen Beg, the draft only partially reflects changes based on those comments. There are, for example, still figures that show the t-line passing through protected areas, but there are also figures that show it avoiding some of them. The picture is not consistent.</p>	<p>Corrected throughout the document</p>
<p>OP 4.04 restrictions may not have been met – e.g., while line does not pass through Marsabit National Park, it does pass through Marsabit National Reserve, which is also critical by 4.04 definition. There is nothing in the text to demonstrate that doing so will not degrade critical natural habitat.</p>	<p>Clarified and the TL does not cross Marsabit National Park.</p>
<p>1. The draft fails to fulfill the required content of OP 4.01. It is missing the following sections:</p> <ul style="list-style-type: none"> <li>• An executive summary</li> <li>• Assessment of institutional capacities of KETRACO, NEMA, Ministry of Energy and county and local government to manage and monitor environmental and social impacts, and specific recommendations to strengthen capacity where needed.</li> <li>• An analysis of the "without project" or "no action"</li> </ul>	<p>Exec summary now in same doc. A new chapter on institutional analysis (Chapter 15) More details added to the Analysis of alternatives chapter A new chapter on monitoring is introduced</p>

<p>alternative.</p> <ul style="list-style-type: none"> <li>• A monitoring plan.</li> </ul>	
<p>The ESMP in Section 9 as summarized in 9.5.10 is not comprehensive. It does not present mitigation measures for all identified impacts, and it omits key recommendations from the ESIA, such as scheduling construction so that it does not disrupt animal migrations, and installing devices near important bird areas to reduce risk of collisions</p>	<p>The ESMP is revamped and all concerns captured</p>
<p>Analysis of alternatives is not complete. Section 6 covers route options, and the text in various other places has a material on adjustments of the alignment to avoid sensitive and protected areas. However, there is no analysis of the "no action" alternative, which is a requirement of OP 4.01, nor is there analysis of alternatives to the project.</p>	<p>Done</p>
<p>There should be a section on cumulative impacts. If there are none, this section should still be included to explain why not and to show that the question was considered.</p>	<p>A new chapter on cumulative impacts has been introduced (Chapter 11).</p>
<p>There is a whole collection of social issues that are not addressed. Examples: positive impacts of employment of local workers in ROW clearing and other unskilled work; HIV/AIDs and other STDs that may be brought to the area by workforce; positive and negative impacts of small businesses that may spring up around sites and worker camps (service providers, prostitution, bush meat sellers).</p>	<p>A new chapter on Positive Impacts is introduced (Chapter 9. Other social issues have also been captured, others enhanced</p>
<p>There are some very important recommendations that need follow-up by the Bank, the most important of which is to schedule construction so that it does not coincide with animal migrations. Mentioned twice in the text, it has already gotten lost by the time the ESMP summary table in Section 9 was prepared. It needs to be a clause in all construction contracts</p>	<p>This, and others, now captured in the ESMP</p>
<p><b>Specific Comments</b></p> <p>See edits and marginal comments in the copy of the draft that accompanies these notes.</p>	<p>These have been dealt with throughout the document</p>

Comments from other stakeholders'

Comment	Response
<p><b>Joseph Mbugua- Lake Olbolossat conservation network.</b></p> <ul style="list-style-type: none"> <li>• Lake olbolossat should not be referred to as a small lake/swamp since it is the the only lake in central province and the tourism driver in Nyandarua</li> <li>• How will the rare and endangered and rare birds around lake olbolossat be protected since they are not documented in the report.</li> <li>• What are the long and short term benefits to the</li> </ul>	<ul style="list-style-type: none"> <li>• Lake Ol Bolossat is never referred to as a swamp anywhere in the document</li> <li>• Protection of birds will be done through warning reflective spheres – already</li> </ul>



<p>affected communities?</p> <ul style="list-style-type: none"> <li>• Will there be a forestation initiatives supported by the project?</li> </ul>	<p>mentioned as a mitigation measure</p> <ul style="list-style-type: none"> <li>• The other issues of benefits are for KETRACO to include in their CSR policy</li> </ul>
<p><b>Engineer Kariuki- compliance and enforcement department (NEMA)</b></p> <ul style="list-style-type: none"> <li>• Public participation not clear in the report</li> <li>• Separate impacts at construction, operation and commissioning.</li> <li>• Justify why health and safety issues have been assessed as insignificant.</li> <li>• The E.M.P being a predictive tool should be finalised before construction (not as a frame work)</li> <li>• Discuss the specific issues for compliance under legal frameworks picked, pick impacts and discuss mitigation</li> <li>• General safety measures proposed not conclusive</li> <li>• When will the environmental management plan/action plan be developed?</li> </ul>	<ul style="list-style-type: none"> <li>• Public participation records now attached as annex</li> <li>• The ESMP is in the report</li> <li>• Other concerns are addressed throughout the document</li> </ul>
<p><b>Bernard –NEMA</b></p> <ul style="list-style-type: none"> <li>• Gender disaggregated consultation and community participation not clear in the report</li> <li>• Need for specific valuation of endangered and rare bird species around lake olbolossat</li> <li>• Impact ratings on lake olbolossat should not be low</li> </ul>	<ul style="list-style-type: none"> <li>• Species of L. Ol Bolossat are listed</li> <li>• Impacts on L. Ol Bolossat is low and justification is contained in the text</li> <li>• More data on PAPs presented including gender disaggregated data e.g. Tables 7 - 11</li> </ul>
<p><b>Mildred- KETRACO</b></p> <ul style="list-style-type: none"> <li>• Clearly indicate how line A/C was chosen out a range of lines A,B,C and D</li> <li>• How will data on avi-fauna be collected and who will do it?-Need for analysis of available secondary data on avi-fauna collisions by such projects</li> <li>• How did the consultant arrive at 3.7 Km away from lake Olbolossat</li> </ul>	<ul style="list-style-type: none"> <li>• Issue of preferred TL alignment is discussed</li> <li>• Bird collision data unavailable in Kenya, a monitoring system is proposed for future data collection</li> </ul>
<p><b>World bank</b></p> <ul style="list-style-type: none"> <li>• Develop a clear frame work for the mitigation of impacts on cultural properties</li> <li>• Can anything be done to avoid criss-crossing lines i.e. main transmission lines verses distribution lines</li> <li>• Vigorous public sensitisation should be done to people on and along the line</li> <li>• Other comments by world bank on ESIA have been sent to the consultant</li> <li>• The cured and complete report should be approved by</li> </ul>	<ul style="list-style-type: none"> <li>• These comments are addressed as appropriate throughout the report</li> </ul>

word bank committee by the 10 <sup>th</sup> of January 2012	
<p><b>AFD</b></p> <ul style="list-style-type: none"> <li>• Not enough explanations for rerouting</li> <li>• Compensations and effects on conservancies should be properly compiled</li> <li>• Short and long term impacts especially on tourism not clear</li> <li>• Monitoring and evaluation procedures should be properly documented</li> <li>• Grievance address measures or criteria not shown in the report</li> <li>• Need for a map showing the line and its effects on roads and other key features</li> </ul> <p>(AFD report and or comments to be sent to the consultant by latest 9<sup>th</sup> Dec 2011)</p>	<ul style="list-style-type: none"> <li>• The new route is now the subject of this ESIA</li> <li>• Explaining the reason for this alignment is done in several sections of the report</li> </ul>
<p><b>Ogada- Tourism and aesthetics</b></p> <ul style="list-style-type: none"> <li>• Elaborately compile effects of visual intrusion ad add more information on tourism in laikipia in page 23 of the report</li> <li>• There is difficulty in text interpretation e.g the use of left and right ffor direction instead of east or west</li> <li>• Follow up on laikipia conservation principals and try to technically separate biodiversity per county</li> </ul>	<ul style="list-style-type: none"> <li>• More info on tourism added</li> <li>• Biodiversity does not recognize county boundaries. The Laikipia - Samburu ecosystem is discussed in details in the report because of its importance</li> <li>• Description of the preferred route has been revised to avoid ambiguity.</li> </ul>

## **ANNEXE 2: THE TERMS OF REFERENCE FOR ESIA AND RAP**

### **1. Objectives**

The aim of the study is to achieve the following objectives:

- Review of existing EIA and RAP reports on sections of the line which are not changed.
- To identify and assess potential environmental and social impacts of the project.
- To identify all potential significant adverse environmental and social impacts, of the projects and recommend measures for mitigation.
- To review and develop an Environmental and Social Management Plan (ESMP) and RAP.
- To prepare an Environmental and Social Impact Assessment, RAP and ESMP reports compliant to the relevant authorities, and detailing findings and recommendations.

### **2. Scope of the Consultancy Services**

The consultant is expected to undertake investigations on social aspects, economic activities, and conservation of natural resources, historical and anthropological heritages, public consultations and disclosures. The proposed transmission line route and associated substations will be provided to give a guideline of the facilities to be studied. The scope of services to be undertaken by the Consultant shall include the following:

**Task.1. Detailed Desk-top Review:** The Consultant is to review all existing documentation, and previous EIA, RAP and ESMP reports on other route options. He shall further undertake a detailed study of the proposed new route section, mapping the desktop route on actual map of appropriate scale. The Consultant shall then concisely describe each facility assessed, its geographic, ecological, general layout of facilities including maps at appropriate scale where necessary. Information on size, capacity, facilities and services should also be provided.

**Task-2. Description of the baseline environment:** The Consultant is required to collect, collate and present baseline information on the environmental characteristics of the existing situation around each facility. This description should involve but not limited to:

- a) Physical environment (topography, land cover, geology, climate and meteorology air quality, hydrology, etc,
- b) Biological environment (i.e, flora and fauna types and diversity, endangered species, sensitive habitats etc.)
- c) Social and cultural environment, including present and projected. Where appropriate (i.e., population, land use, planned development activities, community social structure, employment and labour market, sources and distribution of income, cultural/religious sites and properties, vulnerable groups and indigenous populations etc)
- d) Economic activities, agriculture, livestock, fisheries, small scale industries etc.

**Task – 3. Legislative and Regulatory Framework:** The Consultant shall identify and describe the pertinent regulations and standards - both local and international, governing the environmental quality, health and safety, protection of sensitive areas, land use control at the national and local levels and ecological and socio-economic issues. Thereafter, the Consultant shall identify the project activities that should comply with the identified regulations.

**Task-4. Determination of impacts of project facilities and activities:** From the detailed field study, the Consultant shall analyze and describe all significant changes brought about by each facility/activity. These would encompass environmental, ecological and social impacts, both positive and negative, as

a result of each facility/activity intervention that are likely to bring about changes in the baseline environmental and social conditions discussed in Task 2. The Consultant will make a prioritization of all concerns identified and differentiate between short, medium, long-term and cumulative impacts during construction, operation and decommissioning. The Consultant shall also identify both temporary and permanent impacts. A detailed outline and discussion of specific conditions that might affect the environment which are unique to the type of facility and/or operation being audited should be provided.

Task-5. Occupational health and safety concerns: The Consultant shall analyze and describe all occupational health and safety concerns brought about by activities during all the phases of the project. The Consultant shall make recommendations on corrective and remedial measures to be implemented under the environmental management plan.

Task-6. Development of management plan to mitigate negative impacts: The Consultant shall develop a comprehensive environmental management plan. The plan should recommend a set of mitigation, monitoring and institutional measures to eliminate, minimize or reduce to acceptable levels of adverse environmental impacts and/or maximize socio-economic benefits. The Consultant should provide cost outlays for the proposed mitigation measures as well as their institutional and financial support, time frame and responsibility. This shall be provided for all the project phases.

Task-7. Development of re-settlement action plan:

- The consultant shall undertake a socio-economic survey of the communities along the proposed line route.
- Conduct a census of the affected persons. and identification of vulnerable groups and indigenous populations.
- Develop an eligibility criteria and establishment of a cut-off date.
- Evaluate and prepare an inventory of the affected properties
- Evaluate all other socio-economic costs.
- Conduct public consultations/awareness creation of the relevant stake-holders, taking into consideration the gender concerns and vulnerable groups
- Identification of alternative relocation sites, where affected person might have to be resettled.
- Develop adequate livelihood restoration mechanisms.
- Prepare the resettlement implementation costs.
- Preparation of implementation schedule.
- Develop a monitoring and evaluation methodology
- Consider the relevant legal provisions for land acquisition and resettlement during preparation of an appropriate re-settlement action plan.
- Prepare and submit a detailed resettlement action plan.
- Develop a conflict resolution mechanism.

Task-8. Development of monitoring plan: The Consultant is required to give a specific description, and technical details, of monitoring measures for both ESMP and RAP, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, definition of thresholds that will signal the need for corrective actions as well as deliver a monitoring and reporting procedure. The Consultant should provide a time frame and implementation mechanism, staffing requirements, training and cost outlays.

Task-9. Comparison: The consultant shall undertake a comparison of all the earlier routes considered and studied. These other alternatives shall be compared to the proposed final route; and pros/cons of each route selection detailed,

Task-10. Study Reports: The output will be an Environmental and SOcl(J1 Impact Assessment report and Resettlement Action Plan prepared in accordance with the regulatory provisions. The report shall be in the English Language and has to be dear and concise. The reports should be in a format acceptable to local competent authorities, international environmental standards and development partners. The Consultant shall present the reports to relevant environmental authorities for approval in the required number of copies.

Task-11. Approval: The Consultant shall present the report prepared under Task 9 for approval by the relevant authorities. The Consultant shall be responsible for making any modifications that the authorities may demand before approval of the report.

Task- 12. Counterpart Staff: for the purpose of capacity building the Consultant shall undertake the study together with counterpart staff seconded by the Client.

Task- 13. All the comments in the Attachment to this TOR from the various EIA Authorities which are considered vital but not considered on the last Final ESIA and RAP reports shall be carefully addressed.

### **Study Description**

This being a category one project, the consultants will conduct a full Environmental and Social Impact Assessment (ESIA) and prepare an Environmental and Social Management Plan (ESMP) and a separate Resettlement Action Plan (RAP) in accordance with the ADB's Environmental and Social Assessment Procedures (ESAP, 2001), Integrated \*

power projects; and Bank's policy on Involuntary Resettlement (2003). This will comprise all the tasks that are required for a full environmental assessment, as described hereafter. The Consultant will be responsible for gathering, reviewing and analyzing all necessary data and information. Where these are insufficient, the Consultant shall make all practical efforts to produce the missing information/data including professional estimates and predictions based on the most likely conditions at the project area, reliable information and data from similar situations and conditions, etc.

The Consultant shall characterize the extent and quality of available data and describe the key-data gaps and the uncertainties associated with estimates, predictions, and data used from similar situations. The methods of accommodating these gaps and uncertainties in the ESIA should be well stated and presented by the Consultant. When estimated values are used in place of data, the Consultant will be required to provide the uncertainty limits associated with these values and perform an appropriate sensitivity analysis.

The work will also include thorough consultations and meetings with all parties concerned (affected population or their representatives; local, regional, and national authorities; representatives of the scientific community; NGOs; etc.); in strict accordance with the requirements of the governments of Ethiopia and Kenya and ADB policies and procedures.

The consultant will be responsible to review and update the following tasks:

**a) Inception Report including a detailed work plan**

The consultant will:

- Examine all aspects of the Project and will produce an inception report which will review the tasks to be carried out and agree with the client on any modifications and additions that may be required.
- Prepare a detailed work plan indicating schedules and inputs required to complete the tasks. During this inception period the consultant will carry out a scoping exercise that will provide the basis for the final report and detailed work plan.
- Prepare a public consultation and disclosure plan.

**b) Provide description of the proposed Project**

The consultant will provide a brief description of the Project including maps (at appropriate scales) where necessary.

**c) Public Consultation Process**

The consultant will:

- Identify all affected people (e.g. people affected by construction activities and during operation) and will facilitate dissemination of information to relevant authorities and interested and affected parties (IAPs) concerning the proposed project NGOs and government departments and agencies that may have a stake in the Project and its effects should be consulted.
- Prepare a Stakeholder Consultation Plan, providing an opportunity for the relevant authorities and IAPs to raise issues and concern pertaining to the proposed power line. and allow the identification of the additional alternatives and recommendations. Describe a schedule for public consultation with these different groups, including number and timing of public input. and the methods to be employed (e.g. media announcements. town hall meetings questionnaires, one-on-one meetings, public EA steering committees). Public consultation should occur, at least, during the inception and collection of baseline information, and at the draft report stage. An annex of ESIA should summarize the Public consultation process and the results of the consultation process.
- Gather more detailed information through which the study team could anticipate issues not raised by the IAPs that will be addressed by the environmental impact assessment report.
- Focus the study on relevant issues and recommend specific investigations, such that the resulting ESIA is useful to decision makers and it addresses the concerns of IAPs

**d) Legal and Administrative Framework**

- Describe the pertinent regulations and standards governing environmental quality, health and safety, protection of sensitive areas, protection of endangered species. land use control, etc., at national and local levels.
- Describe the current administrative arrangements for environmental regulation, enforcement and management In Ethiopia and Kenya, and more specifically, within EEPCo and KPLC.
- Provide a general assessment of the two utilities and relevant government agencies involved in environmental and social management issues, to ensure that the EMP will be effectively implemented. The agencies may need strengthening through capacity building measures to be specified in the



## Environmental Management Plan.

### e) Description of the environment/project setting

Assemble, evaluate and present baseline data on the relevant environmental and social characteristics of the study area. In addition to the data being used for determining and assessing impacts it will be used as a baseline against which future changes caused by the Project can be measured and monitored. The data should include any information on changes anticipated before the Project commences. The description should contain relevant descriptions of the following.

- **Physical environment:** geology, topography, soils, climate and meteorology; ground water and surface hydrology
- **Biological environment:** flora; fauna; forests; rare or endangered \* significant natural sites, etc.; species of commercial importance, and species with potential to become nuisances, vectors or dangerous
- **Socio-cultural environment:** (include both present and projected where appropriate); population affected (numbers and subsistence systems), land use where appropriate and property (including houses, crops trees, plants, other properties. etc.); planned development activities; public health; cultural characteristics (including cultural property and heritage); and gender differentiation.
- **Economic activities:** livelihood; employment; gender composition cross border migration. Some examples of the specific activities are: recording plant species that occur along the route, based on field surveys; identification of any species of special concern, namely species with conservation status or endemic to the area including birds; commentary on conservation status of specific species; compilation of a broad scale vegetation or habitat map of the area indicating the extent to which the power line would affect each vegetation or habitat type; description of current land use and compilation of a broad land use map.

### f) ESIA Methodology used

As a chapter of the ESIA report the consultant will describe the methods used for conducting the ESIA (scoping and bounding, impact analysis and public consultation process, etc.). The consultant will include a public participation plan to include stakeholder identification process, stakeholders identified, stages within the ESIA process where stakeholders have participated, and the different levels of participation used. Identification of impacts will include the identification of the important environmental components, and selection criteria used for identifying the significant impacts (positive and negative) whenever possible. Significant levels may be determined through the application of scoring system if the consultant feels that such an approach is warranted. The consultant will employ environmental economic analysis where applicable, particularly to justify significant impacts to be mitigated.

### g) Potential Impacts of the Proposed Project

Using the collected baseline data and the system or monitoring and evaluation. the consultant will take a systematic approach to identification mitigation and evaluation of all impacts and will identify potential changes which the Project may cause.

These would include, but not be limited to, changes in the following:

- Physical environment
- Biological environment.
- Socio-cultural environment.
- Economic activities.

- Employment opportunities.
- Safety issues, including (i) measures to assure safety of local residents with respect to exposure to electromagnetic radiation, (ii) measures to ensure transformers and equipment at the substations do not contain PCBs; (iii) ensure that the safety and health concerns of temporary and migrant workers are addressed, and (iv) an HIV/AIDS program for workers and affected communities.
- Hazards for birds - potential electrocution of birds and how to manage this impact.
- Construction phase impacts.
- Impacts of work camps.
- Waste management for the entire project, including the work camps and construction sites.
- Changes in land use, land tenure patterns and land grabbing as a consequence of improved access: (i) residential patterns; (ii) agricultural practice; (iii) livestock management (pastoralism). (iv) commercial use; (v) traditional use (herb, firewood collection, sacred sites etc.); (vi) access to public services (health, education etc.).
- Impacts of access roads and how to manage these impacts and if needed closure or immobilization of access roads. In case of improved access to sensitive natural and critical natural habitats through access roads to be constructed under the project, an Induced Access Management Plan needs to be prepared, in order to manage longer term impacts on natural habitat.
- Traffic density, safety and dust control.
- Land acquisition and resettlement as per ADS Guidelines.

The Consultant will analyze:

- Positive and negative impacts.
- Direct *and* indirect impacts, short term, and long term.
- Impacts those are avoidable/unavoidable. Reversible/irreversible
- Pre-construction actions to avoid or minimize negative impacts.
- Construction and operational phase impacts.
- Cumulative impacts occurring as a consequence of other activities in
- the project area: existing activities, projects under construction or planned activities within a reasonable time frame.
- Impacts in critical and non-critical habitats.
- Identify the potential risk of the spread of HIV/AIDS and other sexually transmitted diseases during the construction period, and prepare a detailed plan for awareness and prevention including resource implications.

Wherever possible, the consultant will describe impacts quantitatively. In terms of environmental costs and benefits, and assign economic values when feasible. Impact analysis should be divided between construction and operation impacts.

#### **h) Environmental and Social Management Plan**

An Environmental and Social Management Plan (ESMP) that addresses the following aspects should be prepared:

- **Activities and impacts:** Predicted adverse environmental and social impacts (and any uncertainties about their effects) for which mitigation is necessary should be identified and summarized. \* effective measures to prevent or reduce significant negative impacts to acceptable levels during (i) construction and (ii) operation. Estimate the impacts and costs of those measures. Estimate the costs of any residual impacts. Another area of impacts that could contribute substantially are the cumulative effects of construction and operational phases of the Project. Most of these, if not all, can be avoided by following a



set of best practices that the consultant will prepare (e.g. construction workers not littering, soil stockpiled in such a way as to prevent erosion and waterway sedimentation, only working day shifts to avoid unnecessary noise to adjacent households).

- **Description of implementation and monitoring program:** Prepare detailed institutional arrangements (responsibilities) for implementing and for monitoring implementation of mitigation measures and the impacts of the project during construction and operation and maintenance. This will include a description of monitoring methodology, specific operations and features to be monitored, monitoring reporting relationships, and arrangements to ensure that monitoring is effective and leads to modifications where required to ensure minimal impact on the environment. Include in the plan an estimate of costs and description of other inputs such as training and institutional strengthening to ensure effective monitoring. An indication of what performance indicators to be used is to be provided.
- **Institutional strengthening and training:** Identification of institutional needs to implement environmental recommendations: Review the authority and capability of EEPCo, KPLC and other relevant institutions and recommend steps to strengthen or expand these institutions to ensure that effective environmental management and monitoring will occur.

**i) Resettlement Action Plan (RAP)**

The Consultant shall develop a comprehensive **RAP** based on a door-to-door survey ("resettlement survey") for all expropriation operations and displacements of houses and businesses needed for the selected option

The objective of the **RAP** is to ensure that the population to be expropriated and displaced by the project is formally consulted and adequately compensated and treated. Involuntary resettlement should be avoided or minimized where feasible. However if displacements and expropriation are unavoidable, a resettlement plan needs to be developed. Displaced and expropriated persons should be consulted and compensated for the losses at full replacement costs prior to the actual move. Secondly they should be assisted in the move and supported during the transition period in the resettlement site. Thirdly assistance should be provided in their efforts to improve on their former living standards or at the very least maintain them.

In general, a **RAP** would include the following sections:

- i. **Executive Summary:** including the statement of objectives legal framework and main recommendations
- ii. **Description of the Project.** including a general description and identification of the project area
- iii. **Potential impacts, including identification of:**
  - a) The project component or activities that give rise to resettlement.
  - b) The zone of impact of such activities
  - c) The alternatives considered to avoid or minimize resettlement; and
  - d) The mechanisms established to minimize resettlement to the extent possible, during project implementation.
- iv. **Main objectives of the resettlement program**
- v. **Socio-economic survey:** Findings of socio-economic studies to be

conducted in the early stages of project preparation and with the involvement of potentially displaced people, including:

**a) The results of a census survey covering:**

- The current occupants of the affected area to establish a basis for the design of the resettlement program and to exclude subsequent inflows of people for eligibility for compensation and resettlement assistance;
- Standard characteristics of displaced households
- The magnitude of the expected loss - total or partial – of assets, and the extent of displacement, physical or economic;
- Information on vulnerable groups or persons, for whom special provisions may have to be made; and
- Provisions to update information on the displaced peoples livelihoods and standards of living at regular intervals

**b) Other studies describing the following:**

- Land tenure and transfer systems, including an inventory of common property natural resources from which people derive their livelihoods and sustenance, non-title-based usufruct systems, and any issues raised by different tenure systems in the project area;
- The patterns of social interaction in the affected communities, including social networks and social support systems, and how they will be affected by the project
- Public infrastructure and social services that will be affected and
- Social and cultural characteristics of displaced communities including a description of formal and informal institutions that may be relevant to the consultation strategy and to designing and implementing the resettlement activities

**vi. Legal framework including:**

- The scope of the power of eminent domain and the nature of compensation associated with it in terms of both the valuation methodology and the timing of payment;
- The applicable legal and administrative procedures;
- Relevant laws governing land tenure, valuation of assets and losses, compensation and natural resource usage rights customary personal law related to displacement and \*

d) Laws *and* regulations relating to the agencies responsible for implementing resettlement activities:

e) Gaps, if any, between local laws in the two countries covering eminent domain and resettlement and the World Bank's resettlement policy, and the mechanisms to bridge such gaps and

f) Any legal steps necessary to ensure the effective implementation of Resettlement activities under the project.

**vii. Institutional framework covering:**

- a) The identification of agencies responsible for resettlement activities and NGOs that may have a role in project implementation;
- b) An assessment of the institutional capacity of agencies and NGOs; and
- c) Any steps that are proposed to enhance the institutional capacity of agencies and NGOs

responsible for resettlement implementation.

## ANNEX 3

### ARCHAEOLOGICAL IMPACT ASSESSMENT

#### THE ETHIOPIA-KENYA POWER SYSTEMS INTERCONNECTION PROJECT: REPORT PREPARED FOR GAMMA SYSTEMS LIMITED

By Mr. Gilbert K. Wafula

Department of History and Archaeology

#### INTRODUCTION:

The archaeological survey reported here was undertaken in the regions of Rift Valley (Kajiado Nakuru, Laikipia and Samburu counties), Central (Nyandarua County) and Eastern (Isiolo, and Marsabit counties) between September 12, 2011 and September 26, 2011.

The purpose the archaeological survey was to:

1. Identify archaeological sites and other evidence of past cultural heritage located in the Way leave of the proposed Ethiopia-Kenya Power Systems Power Line.
2. Assess the cultural significance of the identified archaeological and other cultural heritage.
3. Recommend the appropriate action to be undertaken, if any, to avoid destroying the concerned past cultural heritage.

In order to get a good picture of the results of the archaeological survey, it is necessary to first have a glimpse of the archaeological context and the culture history of the survey area.

#### Archaeological Context:

The chronological framework for dating archaeological heritage in sub-Saharan Africa (where the survey area lies), is based on two systems:

1. The traditional system premised on the Three Age System – from which the past is sub-divided into the Stone Age, which is sub-divided into the Earlier Stone Age (**ESA**), Middle Stone Age (**MSA**) and Later Stone Age (**LSA**), Bronze Age, and Iron Age that is subdivided into the Early Iron Age (**EIA**) and the Later Iron Age (**LIA**). In the survey area, concern is with the Stone Age and Iron Age sites, since there was no Bronze Age in East Africa.
2. The J.D Clark System based on lithic (stone) technology is the other system. This was proposed by archaeologist David Phillipson to avoid an 'apparent ambiguity' in the terms Early, Middle, and Late Stone Ages. This alternative terminology is based on a hierarchy of 5 modes of stone technology that were aimed at helping to minimize

artificial divisions of continuous processes of technological and cultural development. Examples of these modes are:

- **Mode 1:** Comprises simple rudimentary tools representing the earliest culture known as the **Oldowan**, with the characteristic tool type being the chopper.
- **Mode 2:** Comprises bifacial tools, e.g., handaxes and cleavers characterizing the second technological phase of humanity, the **Acheulian Industrial Complex**.
- **Mode 3:** Constitutes flake tools produced from prepared cores. This correlates with all but the latest phases of the Middle Stone Age.
- **Mode 4:** Comprises punch-struck blades with steep retouch. This mode comprises technologies developed in some areas of Africa during the final phases of the MSA plus some industries regarded as belonging to the earlier part of the LSA. Such industries are found in some parts of northern and north-eastern Africa. As will be reported later on, sites of this technology were identified in the survey.
- **Mode 5:** This comprises microlithic components of composite tools. This mode falls in the LSA. Here, there is a reduction in tool size and the resultant tiny tools are hafted, fitted into handles, several at times used as a composite tool. Also, backing retouch was developed and helped to hold the stone inserts in place in their hafts.

#### **Cultural History:**

The oldest culture in the world – the **Oldowan Industry** (tools made with mode 1 technology) of the ESA has been found in East Africa, with the oldest sites found in Kenya and Ethiopia. This pioneer culture is represented in the area of concern. One of these early Oldowan sites is **Koobi Fora** in Marsabit County, which dates to between 2.3 and 2.1 million years ago. Archaeological and paleontological evidence suggests that Oldowan tools were made by the first direct ancestor of humans – *Homo ergaster*.

The second major cultural period, represented by the **Acheulian Industry** (used mode 2 technology in stone tool production) of the ESA, is represented in the survey area by sites from Kajiado County. These include **Isinya** along the Athi River-Namanga Road and **Olorgesailie** near Magadi, in addition to **Lewa Downs** in Isiolo County. Olorgesailie has plenty of typical Acheulian stone artifacts – the handaxe and cleaver. Acheulian tools are believed to have been made by *Homo erectus*, who descended from *Homo ergaster*. Acheulian tools are not limited to Africa like their predecessors, the Oldowan. They are also found in Europe and Asia where they are the earliest archaeological evidence of human settlement anywhere outside Africa. This evidence shows that the two regions were occupied by humans after they migrated from Africa. The Acheulian emerged about 1.8 million years ago and lasted until about 200,000 years ago.

The succeeding cultural timespan, the **MSA** (mode 3 and mode 4 technology), whose sites within the research area have been located within the Rift Valley and the adjacent Eastern highlands, emerged around 200,000 years ago and remained in use up to 35,000 YA, and later, in some areas. The MSA sites are located in the Nakuru-Elmenteitan Basin, the slopes of Mt.

Eburru and the Kinangop Plateau, the Nyandarua Range, Nanyuki and the lower slopes of Mt. Kenya. At the site of **Nderit Drift**, in the Elmenteita-Nakuru Basin, in Nakuru County, excavations yielded high concentrations of obsidian artifacts and many bone fragments. The artifacts comprise scraper points, bifacial pieces, and grooving and piercing pieces. The most important artifact, however, was the leaf-shaped spear point. The MSA industries were the product of fully developed modern humans – *Homo sapiens sapiens*.

The assemblage from Kinangop Plateau in Nyandarua County is dominated by small tanged and leaf-like points, together with scrapers and burins. One of the sites at Kinangop Plateau, the **Cartwright site**, yielded artifacts that could be regarded as being intermediate between the Late Acheulian and the MSA. Projectile points constitute the dominant stone tool types. On the slopes of Mt. Eburru in Nakuru County, is the site of **Prospect Farm**. This site discovered revealed a series of occupation and working floors. The stone industry from this is characterized by scrapers, knives and points that were either bifacially (both sides) or unifacially (one side only) retouched.

LSA industries succeeded the MSA ones, as early as about 40,000 years ago, according to archaeological evidence. Generally, there is no a clear distinction between the LSA and the preceding MSA particularly in stone tool technology. Some LSA retouched artifacts broadly resemble the MSA ones, suggesting evidence for continuity, with a number of assemblages seeming to fall typologically between the two. However, a closer observation reveals that LSA assemblages are generally much smaller, and at least in the better-known later LSA industries (especially those that date later than 20,000 years ago, they are more standardized.

One of the most diagnostic characteristics of the LSA constitutes the technological advances made in stone tool manufacture. There was continuity in the techniques of stone tool manufacture from the preceding MSA period as evidenced by the occurrences of Mode 4 technology in some LSA assemblages. Enkampung Ya Muto archaeological site from Nakuru County, dated to 46,000 years ago is one of the earliest LSA sites. The Lower Eburran is a lithic industry representing earlier periods of the LSA. This is a **backed blade industrial tradition of Mode 4 technology** based on the production of fine **punch-struck blades**. In the areas where they occur, sites of this industrial tradition largely predate a fully developed mode 5 Technology. A good example of these mode 4 industries in the survey area is the Lower Eburran in the Rift Valley of Kenya (formerly known as the '**Lower Kenya Capsian**'). This industry is best represented at the site of **Nderit Drift** in Nakuru County where it is dated to around 11,000 years ago at the very end of the Pleistocene. Other sites of the Lower Eburran in the central Rift Valley are **Gambles Cave II**, also in Nakuru County, and **Prospect Farm**, in Nyandarua County, where they been dated to about 10,000 BC (12,000 YA). The Lower Eburran of mode 4 technology appears to have evolved to the Upper Eburran Industry of mode 5 technology.

The later part of the LSA period is represented by sites of the **Savanna Pastoral Neolithic (SPN)** and **Elmenteitan** traditions. SPN sites in the survey area include Narosura and Salasun in Narok County, Ndabibi, Nderit and Maringishu in Nakuru County, and North Horr in Marsabit County.

Elmeteitan Tradition archaeological sites include Gambles Cave, Njoro River Cave, Masai Gorge and Ngamuriak, all in Nakuru County.

**ARCHAEOLOGICAL SURVEY**

The archaeological survey was carried out within and near areas close to the Way Leave of the proposed power line project.

In terms of **methodology**, the survey was carried out through **surface inspection and collection**. This involved field walking to identify archaeological materials lying on the ground surface, especially along footpaths, animal tracks, galleys and other eroded surfaces, at the base of trees, and along river banks. To discover what lay in the sub-surface, road cuttings were observed to see any hanging archaeological materials. Also, to probe what lay underground, a trowel was used to unearth a few inches of top soil to expose the artifacts.

As a result of the archaeological survey, no archaeological materials or other evidence of past cultural heritage were observed in the counties of Kajiado, Laikipia, Isiolo and Marsabit. Nevertheless, from the counties of Nakuru and Nyandarua, 16 archaeological sites reported below, which were previously unknown, were identified. The archaeological materials recovered were in the form of lithic (stone) artifacts made from obsidian (a shiny black glasslike stone).

**1. Kiambogo-Longonot**

**Site:** Kiambogo (north of Longonot Shopping Center) on a feeder road towards the Mombasa-Malaba Road

**Region:** Rift Valley

**County:** Nakuru

**Village/Sub-location:** Kiambogo

Specific Location	Latitude (N)	Longitude (E)	Elevation (meters)
	9904744	0220901	2217

**Archaeological Findings: Obsidian lithic specimens**

Specimen Type	Number	Spit/Level	Distribution
Artifacts	2	surface	Sparse
Flaked pieces	3	surface	Sparse

Debitage	5	surface	Sparse
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**Remarks:** The notable artifact recovered here was a notched scraper with steep retouch (Fig. 1a on the next page)

**Cultural Affiliation:** Later Stone Age (Mode 5 industry)



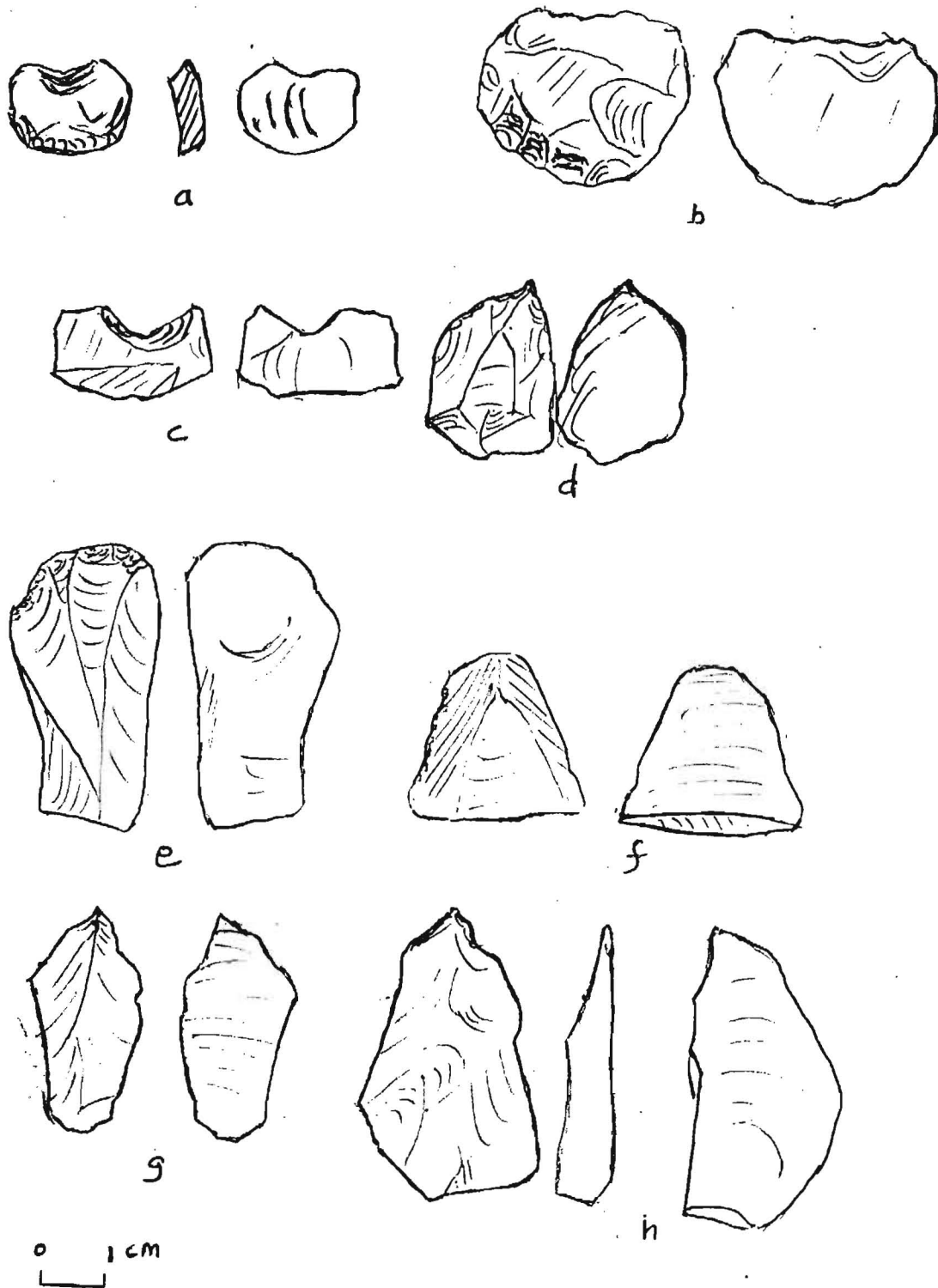


Fig. 1: Lithics; a = notched scraper; b = semi-circular convex scraper; c = notched scraper; d = point; e-f = modified flakes with retouch; g-h = projectile points

## 2 Nyamathi I

**Site:** Nyamathi (located between Kiambogo-Longonot and the Mombasa-Malaba Road)

**Region:** Rift Valley

**County:** Nakuru

**Village/Sub-location:** Nyamathi Village

<b>Specific Location:</b>	<b>Latitude (N)</b>	<b>Longitude (E)</b>	<b>Elevation (meters)</b>
	9913598	0220993	2179

**Archaeological Findings:** Obsidian lithic specimens

<b>Specimen Type</b>	<b>Number</b>	<b>Spit/Level</b>	<b>Distribution</b>
Artifacts	0	surface	Absent
Flaked pieces	2	surface	Sparse
Debitage	4	surface	Sparse

**Remarks:** The flaked pieces were shaped as tools but do not have wear patterns to suggest they were used as tools.

**Cultural Affiliation:** Later Stone Age (Mode 5 industry)

## 3. Nyamathi II

**Site:** Nyamathi (located between Kiambogo-Longonot and the Mombasa-Malaba Road)

**Region:** Rift Valley

**County:** Nakuru

**Village/Sub-location:** Nyamathi Village

<b>Specific Location</b>	<b>Latitude (N)</b>	<b>Longitude (E)</b>	<b>Elevation (meters)</b>
	9912541	0220993	2179

**Archaeological Findings: Obsidian lithic specimens**

Specimen Type	Number	Spit	Distribution
Artifacts	1	surface	Sparse
Flaked pieces	6	surface	moderate
Debitage	11	surface	moderate

**Remarks:** The notable artifact here recovered was semi-circular convex scraper (Fig. 1b). The relatively high number of flaked pieces and debitage suggests the presence of an obsidian stone tool manufacturing site nearby.

**Cultural Affiliation:** Later Stone Age (Mode 5 industry)

**4. Maguna Shopping Center**

**Site:** Maguna Shopping Center (along the Nairobi-Naivasha Highway – Mark point 49)

**Region:** Rift Valley

**County:** Nakuru

**Village/Sub-location:** Maguna

Specific Location	Latitude (N)	Longitude (E)	Elevation (meters)
	9912541	0220993	2179

**Archaeological Findings: Obsidian lithic specimens**

Specimen Type	Number	Spit	Distribution
Artifacts	7	surface	sparse
Flaked pieces	1	surface	sparse
Debitage	2	surface	sparse

**Remarks:** Lithic artifacts are dominated by scrapers, which the most notable being the notched scraper (Fig.1 c). The other notable tool is the point (Fig. 1 d).

**Cultural Affiliation: Later Stone Age (Mode 5 industry)**

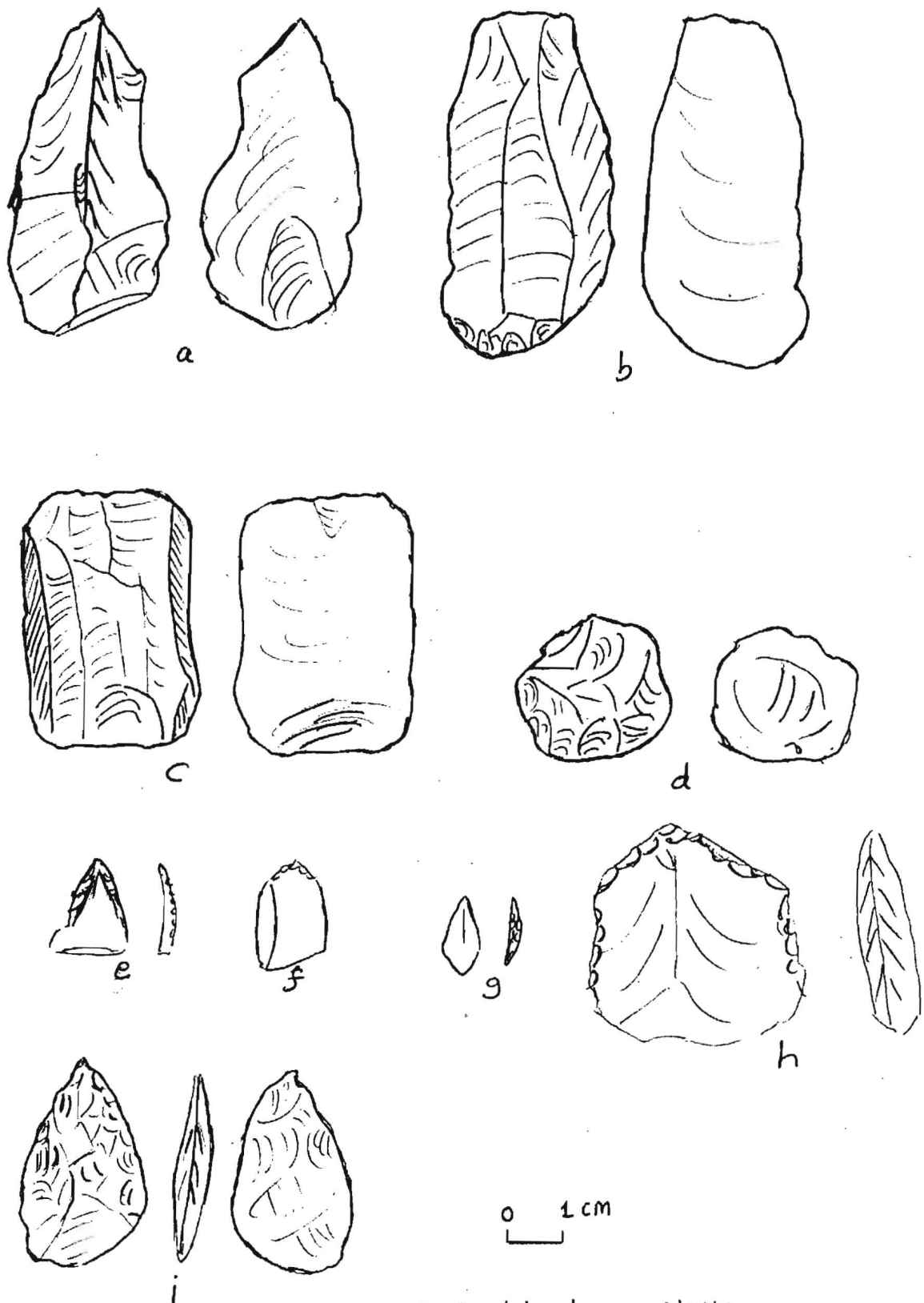


Fig. 2: Lithics: a = percoir ; b = backed blade c = flake  
 d = outill ecailes; f-h = microliths; i = arrowhead

### 5. Karai Quarry

**Site:** Karai Quarry (about 1 km northwest of Maguna Shopping center)

**Region:** Rift Valley

**County:** Nakuru

**Village/Sub-location:** Maguna

Specific Location	Latitude (N)	Longitude (E)	Elevation (meters)
	9916324	0221476	2080

**Archaeological Findings:** Obsidian lithic specimens

Specimen Type	Number	Spit	Distribution
Artifacts	2	Level 1 (subsurface road cutting)	sparse
Flaked pieces	4	0	sparse
Debitage	0	0	sparse

**Remarks:** Lithic artifacts are dominated by modified flakes with retouch suggesting that they were used as tools (Fig. 1 e and f).

**Cultural Affiliation:** Later Stone Age (Mode 5 industry)

### 6. Customer Site - Mairugushu

**Site:** Customer Site (in Mairugushu Village)

**Region:** Rift Valley

**County:** Nakuru

**Village/Sub-location:** Mairugushu

Specific Location	Latitude (N)	Longitude (E)	Elevation (meters)
	9918483	0222466	2283

**Archaeological Findings: Obsidian lithic specimens**

Specimen Type	Number	Spit	Distribution
Artifacts	6	surface	moderate
Flaked pieces	6	surface	moderate
Debitage	3	surface	sparse

**Remarks:** There were 6 projectile points in the toolkit (see example Fig 1 g), which is an interesting feature as it indicates the presence of arrows and or spears, and hence a hunting economy of the human inhabitants.

**Cultural Affiliation:** Later Stone Age (Mode 5 industry)

**7. Kahurugo Village - Karati**

**Site:** Kahurugo Village

**Region:** Rift Valley

**County:** Nakuru

**Village/Sub-location:** Mununga

Specific Location	Latitude (N)	Longitude (E)	Elevation (meters)
	*	*	*

\* Surface collections from different spots in the village (Kahurugo) along the Way Leave

**Archaeological Findings: Obsidian lithic specimens**

Specimen Type	Number	Spit	Distribution
Artifacts	8	surface	sparse
Flaked pieces	5	surface	sparse
Debitage	10	surface	sparse

**Remarks:** The stone tools from Kahurugo Village are bigger in size compared to those observed from other sites. These include projectile points (Fig. 1 h and i), burins, and backed blades, modified and utilized flakes. These tools were made using different technology (mode 4) from those observed from the above sites.

**Cultural Affiliation:** Later Stone Age (Mode 4 – Lower Eburran Industry)

### 8. Light of Hope Childrens' Home I

**Site:** Light of Hope Childrens' Home (100 meters to the east of the Home).

**Region:** Rift Valley

**County:** Nakuru

**Village/Sub-location:** Mununga

Specific Location	Latitude (N)	Longitude (E)	Elevation (meters)
	9924024	02212827	2210

**Archaeological Findings:** Obsidian lithic specimens of Mode 4. The tools were found along the road cutting 1.5 meters below the surface.

Specimen Type	Number	Spit/Level	Distribution
Artifacts	13	Sub-surface (1.5 meters)	moderate
Flaked pieces	10	surface	moderate
Debitage	10	surface	moderate

**Remarks:** This site is interesting in that it is dominated by mode 4 stone artifacts of the lower Eburran Industry (just like the Kahurugo Village Site) and unlike the other sites encountered. The mode 4 artifact types recovered from the side of the road include the *percoir* – a type of point (Fig. 2 a), backed blades (2b), flakes (2 c), and scrapers.

**Cultural Affiliation:** Later Stone Age (Mode 4 – Lower Eburran Industry)



### 9. Light of Hope Childrens' Home II

**Site:** Kahurugo Village

**Region:** Rift Valley

**County:** Nakuru

**Village/Sub-location:** Mununga

Specific Location	Latitude (N)	Longitude (E)	Elevation (meters)
	9922771	0221227	2210

**Archaeological Findings:** Obsidian lithic specimens of Mode 4. The tools were found along the road cutting 1.5 meters below the surface.

Specimen Type	Number	Spit/Level	Distribution
Artifacts	8	surface	sparse
Flaked pieces	7	surface	sparse
Debitage	10	surface	sparse

**Remarks:** Lithic tools here include *outil ecailes* (e.g., Fig. 2d) and microliths Fig.2f, g and h), and percoirs, etc. The significance of this site is that it shows that the people of the Lower Eburran stone Industry were succeeded by Later Stone Age people of Mode 5 technology.

**Cultural Affiliation:** Later Stone Age (Mode 5)

### 10. Kimbo Primary School

**Site:** Kimbo Primary School

**Region:** Central

**County:** Nyandarua

**Village/Sub-location:** 100 meters west of Kimbo Primary School on an eroding gully (on the western edge of the Way Leave)

Specific Location	Latitude (N)	Longitude (E)	Elevation (meters)
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	9942412	0211271	1975
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**Archaeological Findings:** Obsidian lithic specimens of Mode 4. The tools were found along the road cutting 1.5 meters below the surface.

Specimen Type	Number	Spit/Level	Distribution
Artifacts	6	Sub-surface (1.5 m below along eroding gully)	sparse
Flaked pieces	5	surface	sparse
Debitage	8	surface	sparse

**Remarks:** Lithic tools found here include points and scrapers of the Mode 5 technology.

**Cultural Affiliation:** Later Stone Age (Mode 5)

### 11. Malewa Ranch

**Site:** Malewa Ranch

**Region:** Central

**County:** Nyandarua

**Village/Sub-location:** About 1 km southeast of Kamahia Shopping Center

Specific Location	Latitude (N)	Longitude (E)	Elevation (meters)
	9945739	0210810	2028

**Archaeological Findings:** Obsidian lithic specimens of Mode 5. The tools were collected from the surface.

Specimen Type	Number	Spit/Level	Distribution
Artifacts	15	surface	sparse
Flaked pieces	10	surface	sparse

Debitage	8	surface	sparse
----------	---	---------	--------

**Remarks:** Lithic tools found here include points, convex scrapers, endscrapers, burins and blades. Points are especially predominant in the assemblage.

**Cultural Affiliation:** Later Stone Age (Mode 5)

### 12. Kamahia Shopping Center

**Site:** Kamahia Shopping Center

**Region:** Central

**County:** Nyandarua

**Village/Sub-location:** Lereshwa

Specific Location	Latitude (N)	Longitude (E)	Elevation (meters)
	9949022	0210216	2128

**Archaeological Findings:** Obsidian lithic specimens of Mode 5 technology collected from the surface along footpath on the northwestern side of the shopping center.

Specimen Type	Number	Spit/Level	Distribution
Artifacts	5	surface	sparse
Flaked pieces	7	surface	sparse
Debitage	2	surface	sparse

**Remarks:** Points and scrapers were the tool types found here. Lithic tools found here include points, convex scrapers, endscrapers, burins and blades. Points are especially predominant in the assemblage.

**Cultural Affiliation:** Later Stone Age (Mode5)

### 13. Lake Olobosat Secondary School

**Site:** Lake Olobolosat Secondary School

**Region:** Central

**County:** Nyandarua

**Village/Location:** Northwestern edge of Lake Olobolosat Secondary School

Specific Sub-location	Latitude (N)	Longitude (E)	Elevation (meters)
	99478424	0218936	2338

**Archaeological Findings:** Obsidian lithic specimens of Mode 4 technology collected from the surface along footpath on the northwestern school fence.

Specimen Type	Number	Spit/Level	Distribution
Artifacts	10	surface	sparse
Flaked pieces	8	surface	sparse
Debitage	3	surface	sparse

**Remarks:** Ponts and scrapers are the tool types found here.

**Cultural Affiliation:** Later Stone Age (Mode 5) – Lower Eburran Industry

#### 14. Warukira Shopping Center

**Site:** Warukira Shopping Center

**Region:** Central

**County:** Nyandarua

**Village/Sub-location:** Northwestern edge of Lake Olobolosat Secondary School

Specific Location	Latitude (N)	Longitude (E)	Elevation (meters)
	9942412	0211271	1975

**Archaeological Findings:** Obsidian lithic specimens of Mode 4 technology collected from the surface on the roadside.

Specimen Type	Number	Spit/Level	Distribution
Artifacts	3	surface	sparse
Flaked pieces	2	surface	sparse
Debitage	1	surface	sparse

**Remarks:** All the tools located were points.

**Cultural Affiliation:** Later Stone Age (Mode 5) – Lower Eburran Industry

### 15. Ndemi Village

**Site:** Ndemi Village

**Region:** Central

**County:** Nyandarua

**Village/Sub-location:** Ndemi Village

Specific Location	Latitude (N)	Longitude (E)	Elevation (meters)
	9959977	0212882	2280

**Archaeological Findings:** Obsidian lithic specimens of Mode 5 technology collected from the surface along footpath.

Specimen Type	Number	Spit/Level	Distribution
Artifacts	10	surface	sparse
Flaked pieces	8	surface	sparse
Debitage	4	surface	sparse

**Remarks:** Tools located included points, scrapers with steep retouch, outil ecailles and burins.

**Cultural Affiliation:** Later Stone Age (Mode 5) – Lower Eburran Industry

### 16. Ndururi Village

**Site:** Ndururi

**Region:** Central

**County:** Nyandarua

**Village/Sub-location:** Ndaragwa

Specific Location	Latitude (N)	Longitude (E)	Elevation (meters)
	9999129	0226009	2184

**Archaeological Findings:** Obsidian lithic specimens of Mode 5 technology were collected from the surface along a footpath northwestwards behind the shopping center.

Specimen Type	Number	Spit/Level	Distribution
Artifacts	4	surface	sparse
Flaked pieces	4	surface	sparse
Debitage	2	surface	sparse

**Remarks:** Tools located included points and scrapers. A spectacular find was an obsidian arrowhead (Fig. 2 i) flaked on all sides, a typical feature of the Later Stone Age hunter-gatherer societies.

**Cultural Affiliation:** Later Stone Age (Mode 5) – Lower Eburran Industry

### SIGNIFICANCE OF THE SITES IDENTIFIED AND RECOMMENDATIONS

The sites identified are significant in the sense that they confirm that the Rift Valley and Central regions of Kenya were inhabited in the ancient past. Although the archaeological materials recovered from most of these sites are sparsely distributed, they are important in that they show that most of these areas were occupied especially by hunters and gatherers who would have traversed the landscape in search of game.

More importantly is the fact that the survey revealed new sites not known before. Areas around Nyamathi Village near the Mombasa-Malaba Road, Mairugushu, and Light of Hope Childrens' Home in Naivasha counties, which had 'moderate' distribution of obsidian stone tools need to be investigated further for detection of sub-surface archaeological materials and possibly for excavation. It is, therefore, necessary that the results of this survey are put to the knowledge of the concerned authorities – the national Museums of Kenya, and to the public.

This survey **did not encounter any site with an abundant distribution** of archaeological materials within the Way Leave of the proposed power line. Most of those detected were mostly either outside or o the edge of the Way Leave. Also most of such sites had a sparse distribution of the cultural materials. Therefore, there is **no apparent danger of destroying past cultural heritage if the proposed project proceeds.**

## ANNEX 4

### E-MAIL COMMENTS RECEIVED FROM RANCHERS AND CONSERVANCIES

**From:** John Otuoma [mailto:jmotuoma@yahoo.com]  
**Sent:** Thursday, September 22, 2011 10:28 AM  
**To:** [director@laikipia.org](mailto:director@laikipia.org)  
**Cc:** [communications@laikipia.org](mailto:communications@laikipia.org); Tom Omenda  
**Subject:** Contacts of conservancies traversed by power line

The Executive Director

Laikipia Wildlife Forum

The Government of Kenya intends to purchase electricity from Ethiopia. Plans are underway to construct a high voltage power line (400 megawatts) to transfer the electricity from Ethiopia to a sub-station in Suswa in Kenya through Moyale, Marsabit, Matthews Range, Rumuruti, Aberdare ranges, Naivasha and Longonot. The power line will traverse sections of Laikipia and Samburu counties. In order to protect wildlife, the power will be transmitted as DC, which will be converted to AC at the Suswa sub-station before connecting it to the national grid. In recognition of this, the Kenya Electricity Transmission Company (KETRACO) has engaged Gamma Systems to carry out an environmental and social impact assessment of the power line.

During my visit to your office at the Nanyuki airstrip on Monday 19<sup>th</sup> September 2011, I informed you of the proposed power line and the need to have a consultative meeting with owners of conservancies / ranches that may be affected, particularly on issues related to the location of wildlife corridors, airstrips and disturbance to the natural landscape. Looking at the map that you gave me, the power line is likely to pass through the conservancies listed below:

Please assist us with contacts (email addresses and telephone numbers) of these conservancies / ranches to enable us invite them for a consultative meeting in Nanyuki.

List of conservancies likely to be traversed by the proposed Ethiopia-Kenya power line in Laikipia & Samburu counties

1. ADC Mutara
2. Bhora
3. Lombala
4. Ngorare
5. Ol Doinyo Lemboro
6. Ilmotiok Group Ranch
7. Koiya Group Ranch
8. Oldonyiro Conservancy



- 9. Meibae Conservancy
- 10. Namunyak Conservancy

Kind regards,  
John Otuoma  
Environmental Consultant  
GAMMA SYSTEMS

**FW: Contacts of conservancies traversed by power line**

TO: 28 More 28 recipients  
CC: 4 recipients You + 3 More  
BCC: recipients You  
FROM: [Anthony King](#)  
TO: ['Ben Wandago'](#) ['Benson. Lengalen'](#) ['Daudi Sumba'](#) 25 More...  
CC: [jmotuoma@yahoo.com](mailto:jmotuoma@yahoo.com) ['Tom Omenda'](#) ['Josephat'](#) ['Sandra Obudo'](#)

Dear All

The power line proposal looks to cut through the area from Mathews to Rumuruit – no doubt in the straightest or easiest line. We don't yet have the proposed route. However it may or will affect you. Please note the email below and contact John Otuoma directly for more information and the proposed meeting.

Kind regards,

Anthony

**Proposed Moyale - Rumuruti power line 3**

TO: You 1 recipients  
CC: 1 recipient You 1 More  
BCC: recipient You  
FROM: [John Elias](#)  
TO: [jmotuoma@yahoo.com](mailto:jmotuoma@yahoo.com)  
CC: [Anthony King](#)

Dear Mr Otuoma

We have been informed by Anthony King at the Laikipia Wildlife Forum of the proposed power line from Moyale to Rumuruti. We would be interested to know its exact routing/alignment, elevation and design. We understand you are proposing a consultative meeting in Nanyuki, and we would like to be invited.

Regards

John Elias

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John Elias, Director  
[john.elias@ol-lentille.com](mailto:john.elias@ol-lentille.com)  
Tel: +254 20 204 7491  
Mob: +254 720 389824  
Regenesis Limited  
PO Box 1512  
Nanyuki 10400  
Kenya

**FW: Power line I**

1 recipients  
CC: recipientsYou More  
BCC: recipientsYou  
FROM: Sean  
TO: [jmotuoma@yahoo.com](mailto:jmotuoma@yahoo.com)

Dear John,

I have been passed on your e-mail about the proposed power line traversing Laikipia by Anthony King. The thought of a large power line cutting right through the middle of Kenyas second most important wildlife and conservation area is an ecological and financial disaster. I suggest you arrange a meeting for all those affected as soon as possible with the exact route of the power line and details then at least we know what we are dealing with.

Yours

Sean Outram

*Sosian Ranch,  
Samburumburu ltd  
P.O.Box 6, Rumuruti 20321  
0703707703  
[www.sosian.com](http://www.sosian.com)*

**Re: Contacts of conservancies traversed by power line**

TO: 1 More1 recipient  
CC: recipientsYou More

BCC: recipientsYou  
FROM: José Kalpers  
TO: John Otuoma

Dear John,

Thank you for your email and NRT will make sure that someone attends this meeting.

One question: it sounds like this meeting will only focus on the Laikipia area. How about the Samburu and Marsabit districts? NRT works closely with all community conservancies involved in northern Kenya and we would be interested to learn more about the exact routes considered through those districts. Attached is a map of the region showing all the community conservancies we work with.

Looking forward to your feedback.

Kind regards,  
José

**Dr. José Kalpers**  
*Chief Operations Officer*

Northern Rangelands Trust  
Private Bag, Isiolo, Kenya

Tel. : +254(0)64 31405  
Mobile : +254(0)724 614046  
Email : [jose.kalpers@nrt-kenya.org](mailto:jose.kalpers@nrt-kenya.org)  
Website : [www.nrt-kenya.org](http://www.nrt-kenya.org)

**RE: Contacts of conservancies traversed by power line**

TO: 1 More1 recipient  
CC: recipientsYou More  
BCC: recipientsYou  
FROM: tom lalampaa  
TO: 'John Otuoma'

John,

In preparation of the proposed meeting would you kindly send us a map showing the proposed route and any documentation/literature relating to this power line. This will enable us to prepare adequately for this important meeting.

Many thanks.

**Tom Lalampaa**  
*Community Development Manager*

Northern Rangelands Trust  
Private Bag, Isiolo, Kenya  
Mobile : +254-723 468 874  
Skype : tom.lalampaa  
Email : [tom@nrt-kenya.org](mailto:tom@nrt-kenya.org)  
Website : [www.nrt-kenya.org](http://www.nrt-kenya.org)

**Re: Contacts of conservancies traversed by power line 3**

TO: You 1 recipients  
CC: 31 recipients You 31 More  
BCC: recipients You  
FROM: [John Elias](#)  
TO: [John Otuoma](#)  
CC: [Anthony King](#) [Ben Wandago](#) [Benson. Lengalen](#) [Daudi Sumba](#) [tom lalampaa](#) 26  
More...

Thank you, John. May I join with Tom Lalampaa in requesting a map of the proposed route and any other supporting project documents in advance of the meeting.

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John Elias, Director  
[john.elias@ol-lentille.com](mailto:john.elias@ol-lentille.com)  
Tel: +254 20 204 7491  
Mob: +254 720 389824  
Regenesis Limited  
PO Box 1512  
Nanyuki 10400  
Kenya

**Re: Contacts of conservancies traversed by power line**

TO: You 1 recipients  
CC: 32 recipients You 32 More  
BCC: recipients You  
FROM: [Julia Francombe](#)  
TO: [John Otuoma](#)  
CC: [Anthony King](#) [Ben Wandago](#) [Benson. Lengalen](#) [Daudi Sumba](#) [tom lalampaa](#) 27  
More...

Dear John,

Please send maps and any other information regarding the power-line.

From the names of areas listed this line may be cutting through a critical elephant migration corridor - and impacting several tourist operations in which many people in the area are reliant.

Best wishes

Julia

Ol Malo Samburu Trust  
julia@olmalo.org

**Re: Contacts of conservancies traversed by power line**

1 recipients

CC: recipients You More

BCC: recipients You

Hide Details

FROM: Verity Williams

TO: John Otuoma

Dear John,

Thanks for this, but unfortunately I will be unable to attend, as will be away.

I too should be very grateful if you could, please, send us all a map of the proposed route beforehand.

Also I should be grateful if you could send me the minutes of the meeting.

All the best,

Verity

SABUK

+++++

Sabuk Lodge  
P.O. Box 666  
Nanyuki 10400  
KENYA

veritykd@africaonline.co.ke

www.sabuklodge.com

**FW: Friday 14th Oct meeting at Nanyuki. 1**

1 recipients

CC: recipients You More

BCC: recipients You

FROM: Gabriel Nyausi

TO: jmotuoma@yahoo.com

Dear Otuoma,

Hope you get it as it bounced earlier.

Thanks.

**Gabriel Nyausi**

*Asst Community development Manager/*

*Regional coordinator Mathews Region*

Northern Rangelands Trust

Private Bag, Isiolo, Kenya

Mobile : +254-721 293 474/0733 293 474

Skype :

Email : [gabriel.nyausi@nrt-kenya.org](mailto:gabriel.nyausi@nrt-kenya.org)

Website : [www.nrt-kenya.org](http://www.nrt-kenya.org)

**Re: Basic maps**

TO: 1 More1 recipient

CC: recipients You More

BCC: recipients You

FROM: John Elias

TO: Tom Omenda

Thank you, Tom.

What is the venue for the Saturday meeting, please?

**Re: Basic maps**

TO: 1 More1 recipient

CC: 33 recipients You + 32 More

BCC: recipients You

FROM: Aidan Hartley

TO: Tom Omenda

CC: Julia Francombe John Otuoma Anthony King Ben Wandago Benson. Lengalen 28  
More...

Tom,

If adequate detailed maps of the power line route are not supplied ahead of a meeting in good time we may be wasting a long trip to attend in good faith -- because this information is a vital part of allowing interested parties to contribute to the EIA. If you do go ahead with this imminent meeting I propose that this can in no way be seen as

conclusive as you will need to schedule further gatherings when all stakeholders possess ALL the information needed for them to make studied decisions. Clearly this overhead power line will be of immense concern to all local parties and one's worry is it will have a major environmental impact that is potentially negative -- and given the conservation locations involved it could attract a level of international interest comparable to, one imagines, the controversial Serengeti highway.

Yours,

Aidan Hartley  
Tango Maos Ltd

**RE: Basic maps 1**

TO: You + 2 More3 recipients  
CC: 31 recipients You 31 More  
BCC: recipients You  
FROM: Dr Max Graham  
TO: 'Tom Omenda' 'Julia Francombe' 'John Otuoma'  
CC: 'Anthony King' 'Ben Wandago' 'Benson. Lengalen' 'Daudi Sumba' 'tom lalampaa' 26  
More...

Dear Tom

Given the sensitive nature of the proposals concerned, I would like to kindly request that you give local stakeholders more time to go through the proposals and the maps, once these are ready, before calling this meeting. I note that the meeting is due to take place in 2 days time, on a Saturday, but a venue has yet to be confirmed. With all due respect, if you would like full participation from local stakeholders, it would be courteous if you could give us more notice than this.

I look forward to hearing from your response.

With many thanks

Max

Dr Max Graham | Founder & CEO

T: +254 (0) 20 800 2975 | M: +254 (0) 722 485 584

[max@spaceforgiants.org](mailto:max@spaceforgiants.org) |  
[www.spaceforgiants.org](http://www.spaceforgiants.org)

**Re: Basic maps**

TO: 1 More1 recipient  
CC: 33 recipientsYou + 32 More  
BCC: recipientsYou  
FROM:[euphorbialtd](#)  
TO:[Aidan Hartley](#)  
CC:[Tom Omenda](#) [Julia Francombe](#) [John Otuoma](#) [Anthony King](#) [Ben Wandago](#) 28 More...

Dear Tom

From the maps provided it is impossible to make any informed comments whatsoever - they are at too large a scale. Would it be possible for your GIS expert to share the Shape files with an organisation that also has GIS capacity today? This would enable them to link it into their databases and perhaps speed up the process of production and assessment. Save the Elephants, Space for Giants, AWF, NRT and Mpala all have some GIS capacity and may be able to help - although time is now very short.

Kind regards  
David

**Ethiopia - Kenya power line 1**

TO: 5 More5 recipients  
CC: 34 recipientsYou + 33 More  
BCC: recipientsYou  
FROM:[Anthony King](#)  
TO:'[Dr Max Graham](#)' [tom@loisaba.com](#) '[Sandra Obudo](#)' 2 More...  
CC:'[Ben Wandago](#)' '[Benson. Lengalen](#)' '[Daudi Sumba](#)' '[tom lalampaa](#)' '[José Kalpers](#)' 29 More...

Dear All

There are three (maybe 4) primary considerations:

1) Environmental impact: there is probably a significant amount of knowledge already about this since these lines are fairly common, it will be a matter of fitting known impacts with the local context

2) Social impact: here things are trickier because different people see these kinds of things in different ways. Some like to see pristine wilderness, others like to see man's technology and engineering... includes perceptions of aesthetics



3) Economic impact: also tricky, looking at the local, national and international implications. Less dependence on fossil fuels, resolving the national power shortfall, opportunities for the less well off from compensation for crossing land, negative impacts on established and potential tourism enterprise, negative impacts on land values, loss of inward investment locally, etc etc will need to be weighed up. Again perceptions of aesthetics to consider.

4) Human health may also be a consideration

We have been through a similar process with the proposed Disease Free Zone. We worked on this professionally and involved people who knew what they were talking about. We were able to present an informed, professional and rational response, which has resulted in changing the national position with regard to Disease Free Zones. We did not fire off uninformed knee-jerk NIMBY reactions, and we must not do so with something of such national development magnitude as the proposed power line. I urge the tourism sector of Laikipia as a whole to work coherently through the tourism sub-committee (Chair is Tom Silvester) and officer (Sandra) to form a clear and single position; and through the conservation sub-committee (Chair is Max Graham) to similarly look at the implications and form a position.

The proposed meeting to receive views is premature, again we went through this with regards to the Disease Free Zone. The first meeting should be to simply present the proposed project to the fullest level of information and detail available to the concerned parties. Based on that, the affected parties will be able to consider the implications and present the ESIA consultant team and relevant Ministry with an informed response and importantly, a set of alternative options if the local impacts of the current route are found to be sufficiently negative.

Tom Omenda, I would request that you take this first meeting as a detailed presentation of the proposal so that work on this can begin on our side. It will also mean that a smaller group can attend who can feed back to the wider community.

Kind regards,

Anthony

Executive Director

Laikipia Wildlife Forum

**Re: Ethiopia - Kenya power line 1**

TO: 5 More5 recipients

CC: 31 recipientsYou + 30 More

BCC: recipientsYou

FROM: Tom Omenda  
TO: Anthony King 'Dr Max Graham' [tom@loisaba.com](mailto:tom@loisaba.com) 2 More...  
CC: Ben Wandago 'Benson. Lengalen' 'Daudi Sumba' 'tom lalampaa' 'José Kalpers' 26 More...

Dear Anthony,

Thank you for the initial thoughts. Anthony, can you suggest a venue for our meeting tomorrow? Could we meet at your offices in Nanyuki where we met the key people during the Disease Free Study?

Regards,

*Regards,*

Tom Omenda

**Out of Office Re: Meeting venue Ethiopia - Kenya power line**

1 recipients  
CC: recipients You More  
BCC: recipients You  
FROM: Anthony King  
TO: [jmotuoma@yahoo.com](mailto:jmotuoma@yahoo.com)

I am out of the office until Tuesday October 25th. For all matters please contact Dr Mordecai Ogada [deputydirector@laikipia.org](mailto:deputydirector@laikipia.org) and Josephat Musyima [community@laikipia.org](mailto:community@laikipia.org) and Rosemary Oyugi [info@laikipia.org](mailto:info@laikipia.org)

Dr Anthony King  
Executive Director  
Laikipia Wildlife Forum  
[www.laikipia.org](http://www.laikipia.org)

**Meeting tomorrow**

TO: You 1 recipients  
CC: 3 recipients You 3 More  
BCC: recipients You  
FROM: Gemma Francis  
TO: [jmotuoma@yahoo.com](mailto:jmotuoma@yahoo.com)  
CC: Iain Douglas-Hamilton Festus Ihwagi Monica Dean

Dear John,

I understand there is a meeting tomorrow for ranchers and interested parties that may be affected by the proposed Ethiopia - Kenya powerline in Laikipia County. Can you please provide Iain Douglas-Hamilton and Festus Ihwagi details of the meeting place and time in case a member of staff from Save the Elephants is also able to attend.

Many thanks,

Gemma

**Gemma Francis**

**PA to Dr. Iain Douglas-Hamilton**

Save the Elephants

P.O.Box 54667, Nairobi, 00200 Kenya

Tel: +254 20 891 673 / 890 597

Cell: +254 732 72 45 59

[www.savetheelephants.org](http://www.savetheelephants.org)

**Re: Meeting venue Ethiopia - Kenya power line 1**

1 recipients

CC: recipientsYou More

BCC: recipientsYou

FROM: Deputy Director (LWF)

TO: John Otuoma

Dear All, I am in agreement with the views Anthony has expressed on this matter. Further to that, I do not see these preparations and notice as appropriate for a matter of this magnitude locally, nationally and regionally.  
Regards, Mordecai

**RE: Meeting venue Ethiopia - Kenya power line 2**

TO: You + 6 More7 recipients

CC: 29 recipientsYou 29 More

BCC: recipientsYou

FROM: Sean

TO: 'John Otuoma' 'Anthony King' 'Dr Max Graham' 4 More...

CC: 'Ben Wandago' 'Benson. Lengalen' 'Daudi Sumba' 'tom lalampaa' 'José Kalpers' 24 More...

John,

Venue and location notice is far too late for us to change plans with only 16 hours warning. I have been away from my office until 7:00am this morning. This meeting has been rushed unnecessarily with very little meaningful information given to us. I will not

be able to attend the meeting but hope in the future you will be more organised to discuss this further.

Yours

Sean Outram

*Sosian Ranch,  
Samburumburu ltd  
P.O.Box 6, Rumuruti 20321  
0703707703  
[www.sosian.com](http://www.sosian.com)*

**Re: Meeting venue Ethiopia - Kenya power line**

TO: You + 5 More6 recipients

CC: 30 recipients You 30 More

BCC: recipients You

Hide Details

FROM: [tom@loisaba.com](mailto:tom@loisaba.com)

TO: [John Otuoma](#) [Anthony King](#) ['Dr Max Graham'](#) 3 More...

CC: ['Ben Wandago'](#) ['Benson. Lengalen'](#) ['Daudi Sumba'](#) ['tom lalampaa'](#) ['José Kalpers'](#) 25 More...

Dear John,

I am afraid I am unable to attend due to previous commitments

**Out of Office AutoReply: Meeting tomorrow**

1 recipients

CC: recipients You More

BCC: recipients You

FROM: [Monica Dean](#)

TO: [John Otuoma](#)

Jambo!

Thanks for your message.

I will be out of the office from September 28 through October 30, with only intermittent email access after September 28. Unless your message requires an urgent response, I may not be back in touch with you until I return to the office on October 31.

Please contact Shayla Givens with any TNC-related matters. She can be reached at [sgivens@tnc.org](mailto:sgivens@tnc.org) or at 434-951-0539.

For non-business matters, please contact Robert Steckel at [steckel@lynchburg.edu](mailto:steckel@lynchburg.edu) or at

434-946-7032.

Asante,  
Monica

### **Ethiopia - Kenya power line meeting 15th Oct 2011 Nanyuki**

TO: You + 35 More  
CC: recipients  
BCC: recipients  
FROM: Anthony King  
TO: 'Sean' 'John Otuoma' 'Dr Max Graham' 33 More...

Dear All

We met with the consultants doing the ESIA for the 38m high HVDC power line from Ethiopia to Longonot/Suswa this morning in Nanyuki.

On behalf of LWF members I noted that the importance of this project for both national and regional needs is well recognized and supported.

However, I reported that the proposed route across Laikipia would not be workable because of the negative effect on the tourism sector which is based on selling a wilderness experience and setting. We discussed this matter in some detail, noting that significant investment had been made and was being made in the tourism sector in Laikipia, to the advantage of both the local and national economy, and that this was growing. Laikipia is now one of Kenya's prime tourism destinations and this was anticipated to continue to grow.

We discussed the possibility that the line be much more to the west from the start in northern Kenya. It was reported that the Ethiopian government's requirements there had pushed the line further to the east than was desired in Kenya, because it would have been desirable to have linked with the Turkana wind farm project line which enters Laikipia somewhere near Lonyiek and passes near Rumuruti before descending down into the rift.

We explored an alternative route which would cut across from somewhere south of Wamba, but north of Laikipia and then join the proposed route for the Turkana wind farm line. We also discussed the possibility of burying the wire.

We also discussed matters of wild animals and birds. It seems birds are most impacted by these things. Under the lines the bush can be left to grow up to 5m high, and any grazing of farming can continue under the lines. Apparently being DC means that the electromagnetic radiation is not the same as AC lines that we all live with and pass under regularly....

In short, however, it was clear the Laikipia's tourism needs to demonstrate it worth both locally and nationally. I was asked to submit a comprehensive report with quantifiable data to this end for Tuesday 25<sup>th</sup> October, including maps with tourism facilities,

alternative routes for the line and so on. This we must do if we don't want the line to run past the 7+ lodges the current proposal suggests.

I am away for the next 10 days, and also Sandra (LWF tourism officer) is also away at that time. However, we will send out a questionnaire to get up to date data to ALL Laikipia tourism to get a clear picture of its value locally and nationally. I am sure that everyone will be happy to send back their response and suggestions for an alternative route without delay.

All the best,

Anthony

### **Ethiopia/Kenya Power Line**

TO: 1 More1 recipient

CC: 31 recipients You + 30 More

BCC: recipients You

FROM: Rocky

TO: Anthony King

CC: 'Ben Wandago' 'Benson. Lengalen' 'Daudi Sumba' 'tom lalampaa' 'José Kalpers' 26 More...

Dear Anthony

Thank you for your email of October 15 2011 on the above subject.

I totally agree that the proposed route for the power line as per the map you enclosed, would be highly intrusive and would produce an extremely negative effect on tourism in an area that is rapidly becoming one of the top three tourism destinations of Kenya.

#### **The main Area of Dispute**

This would be between the Wamba turnoff at Donyo Sabachi through to Rumuruti.

#### **The People Affected**

Not only would many lodges and wildlife areas be affected but also affected would be the numerous tribal conservation areas that everyone has been striving so hard to create. The pastoral way of live in these areas is under severe threat due to the numerous droughts or recent years and the development of conservation and tourism could well be the way of saving these areas from complete destruction in the future. An ill thought out power line passing through them would surely be a highly unfair retrograde step in their development.

#### **Radiation**

An added problem is that of radiation. The power line will pass directly over numerous dwellings especially between D.Nyiro town and Rumuruti. Although a DC current is a great improvement on AC, research has shown that it does indeed produce a radiation effect which could open the consultants of this plan up to a large litigation threat in the future.

### **Suggested Route**

I would suggest a route along the main road through Marsabit, Isiolo, Nanyuki, Nyahururu, Gilgil, Naivasha. This route would only increase the distance by approximately 10-12% and a large saving would be the easy access to the power line from the main road which is already a wilderness eyesore in itself, but which does not pass through any areas directly involved with tourism.

### **Conclusion**

Tourism in Kenya is of prime economic importance and should be given every help possible in the planning of its future. I sincerely hope the planners of this project will think very seriously prior to going ahead with its development.

Regards

Colin Francombe

### **Re: Ethiopia/Kenya Power Line**

TO: 1 More1 recipient

CC: 31 recipients You + 30 More

BCC: recipients You

FROM: James Christian

TO: Rocky

CC: Anthony King Ben Wandago Benson. Lengalen Daudi Sumba tom lalampaa 26

More...

Dear All,

I won't repeat all of the good ideas that Colin and everyone else has voiced about this issue but I would like to stress Colin's excellent point about access. I am not an engineer but surely it is easier to maintain powerlines along existing (and in the case of the marsabit road, excellent) roads (Marsabit, Isiolo, Nanyuki, Nyahururu, Gilgil, Naivasha).

Neither am I an economist but costs for initial construction and sending maintenance crews along squirrely roads through the heart of wild Laikipia would surely cost a great deal in lost efficiency. If this is the case I would imagine that besides the aesthetic and environmental issues, this would be the most effective criticism to put before the Kenyan people since while many people might not sympathize with the tourism sector all can understand the stupidity of wasted money.

Cheers, Jamie

**Re: Ethiopia/Kenya Power Line**

TO: 1 More1 recipient

CC: 31 recipientsYou + 30 More

BCC: recipientsYou

FROM:Kuki Gallmann

TO:James Christian

CC:Rocky Anthony King Ben Wandago Benson. Lengalen Daudi Sumba 26 More...

Could not agree more and one wonders WHY that route was chosen?? In finding out the reasons l the winning strategy lays

Cheers

Kuki

Sent from my iPhone





ANNEX 5

COMMENTS ON LAKE OI Bolosat

From: John Otuoma <jmotuoma@yahoo.com>  
Subject: Proposed power line  
To: "[serene68ke@yahoo.com](mailto:serene68ke@yahoo.com)" <serene68ke@yahoo.com>  
Date: Wednesday, September 21, 2011, 6:29 AM

Dear Ms Karanja,

Following our conversation yesterday, please find an overview of the proposed power project and give us your opinion.

The Government of Kenya has been in talks with the Government of Ethiopia over the possibility of purchasing electricity from Ethiopia. In recognition of this, the two countries have identified financiers to support the construction of a high voltage power line (400 megawatts) from Ethiopia to a sub-station in Suswa in Kenya through Moyale, Marsabit, Matthews Range, Rumuruti, Aberdare ranges, Naivasha and Longonot.

The proposed power line passes 3 km away from Lake OI Bolosat (on the edge of Aberdare ranges). The flat marshy terrain in which the lake lies, is an important Bird Area. In order to protect birds during their movement to and from the wetland, conductors / transmission wires will be made of material that is clearly visible to birds to protect them from flying into the conductors. Also, the power will be transmitted as DC and not AC in order to protect the birds in the event that they fly into the conductors. The DC will be converted to AC at Suswa sub-station before connecting it to the national grid.

Given the background provided above, please provide us with your opinion, concerns and recommendations on actions that should be considered during the design of the power line, in general and for Lake OI Bolosat in particular.

Kind regards,  
John Otuoma.

**Re: Proposed power line**

TO: You 1 recipients  
CC: 4 recipients You 4 More  
BCC: recipients You  
Hide Details  
FROM: serene serene  
TO: John Otuoma  
CC: Wanyoike Wamiti  
Moses Ziro  
isaackkairu@yahoo.com  
Joseph Mbugua  
Message flagged  
Tuesday, September 27, 2011 11:39 AM

## Message body

Hi,

I hope this email finds you well. I circulated your email to a number of stakeholders working around the wetland. I am sure their comments will complement mine.

First, i do not have a very clear picture of where the power line will be erected since the lake is approximately 43km<sup>2</sup>. Perhaps when you are in the area we can visit and see the exact location.

Secondly, i hope you will furnish my office and other concerned ministries with a copy of the Environmental Impact Assessment Study Report for comments. The report will also inform of the negative impacts identified and the mitigation measures.

As you mentioned the wetland is an IBA and it is home to an overwhelming bird species, particularly 17 Palaeactic species. My concerns are: How high from the ground will the power lines be? Will they be in the migratory route of the birds? How do you ensure that there are minimal bird accidents as they come and go?

Also noteworthy is that the proposed site of the power line which is the Aberdare range is a forest. The KFS has a stake in the exercise.

Regards,

Lydia Karanja  
NEMA, Nyandarua.

--- On Wed, 9/21/11, John Otuoma <[jmotuoma@yahoo.com](mailto:jmotuoma@yahoo.com)> wrote:

## **Re: Proposed power line**

TO: You + 2 More3 recipients

CC: recipientsYou More

BCC: recipientsYou

Hide Details

FROM: [kianjata Springs](#)

TO: [jmotuoma@yahoo.com](mailto:jmotuoma@yahoo.com)

[serene68ke@yahoo.com](mailto:serene68ke@yahoo.com)

[mosesziro@yahoo.com](mailto:mosesziro@yahoo.com)

Message flagged

Sunday, October 2, 2011 12:06 PM

## Message body

Without facts on exact high voltage power path near Lake Olbolossat, safe to say migratory birds have been recorded in this 61st IBA nationally already a seriously degraded ecosystem. Perhaps it is worthy to consider a CNN news item of July 19 2004 where a hawk hit a power line, dropped dead, burnt, causing a big fire in Los Angeles forest and consider necessary mitigating factors. Assurance on Aberdares forest welcome. I do not know if there are high voltage line over/near the Kenyan recognised Ramser sites and what are the experiences.

Joseph Mbugua, Lake Olbolossat Conservation Networks

**Re: Fw: Proposed power line**

TO: 1 More1 recipient

CC: 1 recipients You

BCC: recipients You

Hide Details

FROM: serene serene

TO: Wanyoike Wamiti

CC: John Otuoma

Message flagged

Tuesday, October 4, 2011 3:10 PM

**Message body**

Hi Wamiti,,

Thanks alot for taking the time to send your concerns and suggestions on the Proposed power line. I have not come across a copy of the EIA but i hope to sooner than later.

I am sure your thoughts will be of great assistance to Mr. John Otuoma.

Regards

Lydia

## ANNEXE 6

### LIST OF CONSULTATIONS

The following communities were interviewed.

	Place of meeting	Ethnic group
1.	Suswa	Maasai
2.	Longonot	Kikuyu /Maasai
3.	Longonot	Kikuyu /Maasai
4.	Karati	Kikuyu
5.	Kamahia	Kikuyu
6.	Ndemi	Kikuyu
7.	Warukira	Kikuyu
8.	Wamba	Samburu
9.	Merrille	Rendille
10.	Bubisa	Gabbra
11.	Turbi	Gabbra / Boran

The list of NGOs interviewed

The following NGOs were consulted:

- The Catholic Church - Laisamis,
- Concern Worldwide – Marsabit
- World Vision – Laisamis
- National Tax Payers Association – Nyahururu Regional Office
- Laikipia Wildlife Forum
- Northern Rangelands Trust

Their concerns were generally similar in terms of how the local communities would be affected, the form of compensation, who will receive the compensation and whether communities traversed by the power line will be connected to the power grid. In Marsabit the NGOs proposed the use of wind power which is abundant to connect small isolated villages, markets and schools. They were also concerned about how local people will benefit in terms of employment opportunities during construction.

The list of GoK departments and officers consulted

	Officer	Department
1.	Chief - Suswa Location	Provincial Administration
2.	Head – National Youth Service – Naivasha	Provincial Administration
3.	Chief - Ndemi Location	Provincial Administration
4.	Senior Research Officer – Marsabit	KWS
5.	Warden Marsabit National Park	KWS
6.	NEMA officers (Nyandarua, Laikipia, Marsabit)	NEMA
7.	Regional Forest Conservatoir (Nyeri, Nakuru, Nyandarua)	KFS
8.	Chief - Wamba Location-Barsalinga	Provincial Administration
9.	Administration Officer –	Samburu County Council

The list of other stakeholders (conservancies, businesses, hotels, etc)

	Conservancy / Ranch	County
1.	Malu	Nakuru
2.	Meibae	Samburu
3.	Namunyak	Samburu
4.	Ollentille	Laikipia
5.	Naibunga	Laikipia
6.	Melako	Marsabit
7.	Forole (planned)	Marsabit

	Hotels	County
1.	Sarara lodge	Marsabit
2.	Ollentille	Laikipia
3.	Regenesis	Laikipia
4.	Naibunga	Laikipia

## **Annex 7**

# **Community Meetings**

# SUSWA MEETING

08/19/2011

## Agenda

- ① To introduce the project to the Community
- ② To obtain community views about the project
- ③ To obtain socio-economic, environmental information about the projects

## Attendance

	Name	tel. No.	Gender
1	Meitiaki Kishau - Chief	0713 270223	M
2	Dansen Reson - Ass. chief	0722 241 806	M
3	Benjamin Paruire - Community secretary	0725-861454	M
4	Mike Itika loka - Community chair	0723 523540	M
5	Letiet Amin	0725 553218	M
6	Samson Shukuru	0720 407977	M
7	Santamo Shukuru		"
8	Moses Pungua	0725 505511	"
9	Santai mututu	0710 193959	"
10	Peter Kishau	0714 002171	"
11	Jeremiah Pungua	0720 358262	"
12	Meja Kisoti		"
13	Collins Paruire	0728 202153	"
14	Kooli Karatina	0725 803517	"
15	Olanguyana mututu	0713 998083	"
16	Jeremiah Salaash	0710 589498	"
17	James Parkine	0726 830801	"
18	Santamo Olokeri	0725 73104 0725 731447	"
19	Elyah Murasmi	0713 287062	"
20	Amos Pungua	0705 288377	"
21	John Paruire	0722 795086	"
22	Mark Tukoi	0712 384973	"



	Name	Tel. No	gender
23	Mampet Nakola	0721 205209	M
24	Nchakucha mutuma	0726 575916	M
25	Oloshuro merumu		"
26	Kapoto Tulito		"
27	Tima Pamine	0728 504856	"
28	Joshua Pungua	0714 972411	"
29	Jeremia Kuraru	0723 679679	"
30	Daniel Meshuko	0713178456	"
31	Ole Teeka	0728 757739	"
32	Pempa Karatina	0724 138920	"
33	Lelet Murami	0720 532921	"
34	Ole Moyis - Chairman Empushu	0725 541295	"
35	Samparuan Pamine	0713 440 0713 440444	"
36	Oleku Merumu		"
37	Julius resiroke	0723 433920	"
38	Isaiak Nika Mutuma	0717 680912	"
39	Joseph Maisiodo	0722 555861	"
40	Joseph Sintei	0727 674102	"
41	† Musa Meshuko	0725 574533	"
42	Antony Tunguka	0725 239117	"
43	Nixon Naloi	0720081561	
44	Francis Supero	0724 274022	

Agenda I: To introduce the project to the Community

- This is a Kenya Government project designed to get power from Southern Ethiopia and a substation at Suswa.
- Land for the substation has already been identified at Suswa market.
- A 65m corridor (Right of Way) will commence from the substation taking a generally North 67

westerly direction to northern Kenya to Ethiopia.

All those landowners whose land will fall within the Right of Way will be compensated of the land and other developments. The compensation will be at market rates.

- The team requests land owners to cooperate with the team in the course of the interviews ongoing at household levels along the entire Right of Way.

Agenda 2: To obtain community views about the project

- The community supports the project since it is a government project and will bring development
- The contractor should not cheat or renege on agreements reached with the community the way other contractors at Olkaria have shortchanged the Maasai.
- The contractor should ensure that all local jobs/tasks are given to the local people and only those technical ones that local people cannot do are given to outsiders.
- This area is dry. So they appeal to the contractor to assist in form of compensation to the community especially regarding water.
- The landowners must be compensated before the commencement of the



Agenda 3: To obtain socio-economic and Environmental information.

The community provided: Administrative, Environmental information on trees, animals and garbage disposal.

Other areas were: Waste management, Uses of Surrounding Area, Harvests, population, occupation, Religion, Community Infrastructure, Workforce, Services, Community compensation priority areas. The

- They also raised the following issues:
  - Compensation of land owners
  - Contractor to follow agreement with the community
  - Contractor to prioritize local people in employment.
  - Contractor to prioritize local people for business contracts.

Signed: 

Date: 13-9-2011

Chief: Dansen Reson

Tel: 0722 241806

# KAMORE - LONGONOT AREA.

## COMMUNITY MEETING

14/9/2011

### Attendance

Name	tel NO	Gender
1. Anthony Karanja	072870136	Male
2. George Kuria Mjogo	0710324092	Male
3. David M. Kimani	0724500829	Male
4. GEORGE RUTHI	0721746335	Male
5. KIBUNJA DANIEL	0726344471	M
6. MILTON WATHIRO	0728-315287	M
7. DAVID MBUEWA	0721-986704	M
8. GEORGE KIRAI	0710158974	M
9. BENJAMIN OHEGE	0710448739	M
10. K.M. NGUNJE	0724077452	M
11. JAMES K. MUTUMBI	0720654494	M
12. FRANCIS NJENGA	0722378511	M
13. JOHN GILSONYO	0724248389	M
14. Paul Njoroge Mugo	0710262714	M
15. Stephen Mbugua	04765247	M
16. Kamau Kamiti	-	M
17. KAMAU MUCHERU	10/NO 633057	M
18. MRS ESTHER NUTA	0724 511635	F
19. PAUL MOSES NJIHA	0716 270058	M
20. MR PETER MUNGAI	0721 491252	M
21. Lucy WAMBUI KARIKI	072185577	F
22. Margaret Mocheri	0727589967	F
23. Eunice Wanjiku Mwangi	0721227216	F
24. Lucy Wangari	0718608125	F
25. Margaret Mumbi	0726793729	F
26. Jane Mukami	0727035382	F
27. Jane Wacuka	0711584555	F 70



28	Mary	ngonyo	Kungu	0722985860	F
29	Esther	Njosi		072007797	F
30	James	gutain	muruki	0725544050	M
31	John	Ndentu			M
32	Edward	NESTHE		= 0202440423	M
33	KARENTH	MWANGI		- 0738203385	M
34	JOHN	KARIUKI	KAMAU	- 0724-971683	M
35	JOSHUA	NAMIGA	MURATA	- 0727097431	M
36	JOHN	Mogwa	KIMANI	0720726138	M
37	Samuel	K.	Kungu	0724296908	M
38	Peter	Njau	thuo	0720741577	M
39	HANWATH	WANSIAU		0714205104	F
40					

## Agenda

1. Introduce the project to the community.
2. To obtain socio-economic and Environmental information about the community.
3. To discuss the school: Gettle Belle primary school in the ROW.
4. To ~~obtain~~ obtain community concerns about the project.

1. To introduce the project to the community  
 This is a government of Kenya project that has a planned construction of a high voltage power line originating from Striopia to Suswa. The line takes a ROW of 65 metres.

The ~~line~~ ROW is a generally straight one without abrupt corners.

farms, buildings, public institutions along.

- The compensation will be done in advance to property owners at market rate.
- What the team is doing is called ~~social~~ Environmental and Social Impact Assessment to the community. As of today the ~~line~~ ROW is proposed and may be confirmed intact or with some adjustments depending on the Engineers design.
- The team urges the community to cooperate with the household interviewers who are undertaking the interviews.

~~2~~ To

Agenda 2: To obtain Socio-Economic and Environmental Information

~~Names of~~ Wild Animals common in this area - were identified as: Zebra, Gazelle, Leopard, Hyena, Porcupine, Buffalo. The common trees were those used for timber, firewood, charcoal, fodder and construction of houses.

- The dominant ethnic group is Kikuyu. ~~They are~~ The Maasai constitute a minority in the area.
- Most people are small scale and mixed farmers.
- Most people here are Christians mainly 72



protestant and Catholic who constitute about 98%.

- There are primary schools, secondary schools, health centre, trading centre but only one trading centre is connected to electricity.
- The community has a huge potential of existing workforce.
- The community has people who have ability to provide most services during construction. However heavy machinery contractors are not available.
- One primary school donated by a donor whom the community was not willing to disclose is affected. This is a private primary school.
- The community was willing to have it relocated to a nearby area if it is compensated materially and in terms of disturbance and lost time.
- The community prioritized a water project as the most critical since this is a dry area.
- The community was of the opinion that local people be considered first for employment during the construction period.
- That community compensation project be undertaken at the beginning of the project construction to ensure the contractor fulfills the pledge.

Agenda 3: To discuss Gentle Bells primary School.

- This is a private school donated by a donor whom the community believed ~~to~~ to disclose the identity.
- The community fears that if the school is relocated the donor may withdraw further funding. So they pray the line be shifted instead.
- The school has 6 permanent classrooms, 1 permanent
- ~~While there is abundant land in~~ Administration Block. It has 137 pupils, and 9 teachers, ~~over~~ 8 VIP Toilets, one urinal, fence.

Agenda 4: To obtain Community Concerns about the Project

The community felt that although it is a Government project the line can be moved to save the school.

- That the compensation be done beforehand before relocation begins.
- Enough time be given for people affected to relocate.
- There is confusion in this area about power lines because recently they had a meeting similar to this one about another powerline from Turkana.
- What would happen to graves or that fall in the ROW?
- The owners of the school should also be compensated.
- The community also wanted to know if



the ROW can be used by the previous owner. To this we responded yes, but only in a restricted way ~~but~~ that does not include ~~that~~ planting tall trees and building a house in the ROW.

- The community wanted proof from the Contractor if local people will be considered for non-professional employment.

Signed: #52

Chief: Stephen Kimiri

Date: 14/09/2011

Time: 1:45 pm

Telephone Number: 0724-935887

# Kamnyu Primary Meeting

10/17/2011

## with School Management Committee

### Agenda:

1. To introduce the project to the School Management Committee
2. To discuss how the school is affected
3. To obtain views from the School Management Committee

### Attendance

Name

tel. NO.

- 1 STEPHEN KURIA MUTHIRY - CHAIRMAN 072284 0727235313
- 2 MARGARET WANJIKU MWANGA - 0729784307
- 3 PETER KARANTA GITAU 0726515659
- 4 STANLEY N. KIRONTO - H/T SECRETARY

Agenda 1: To introduce the project to the School Management Committee

This is a Government project designed to source electricity from Ethiopia to Suswa Substation.

- What the team is doing is the Environmental and Social Impact Assessment & in the area crossed by the Wayleave.

- The Right of Way is a 65 metre wide corridor stretching from the Ethiopia border with Kenya to Suswa.
- The ROW passes through peoples properties including land, farmland, houses and public institutions.
- Those whose property is affected will be compensated and given enough time to relocate their structures if the line is approved.
- Property owners will be identified using the local administration, elders and possession of land ownership documents.
- The Community should cooperate with the team of assessors who are undertaking the interviews at household and community levels.

Agenda 2: To discuss how the school is affected.

The entire school is affected particularly the classrooms and the staffroom.

The school has all permanent classrooms, a store, staffroom, water tanks, kitchen and fast water harvesting infrastructure.


- The committee has no objection if the school will be compensated and given enough time to relocate.
- With money there is plenty of land around the school to move the school to.
- The school has:
  - classrooms - 9
  - staffroom - 1

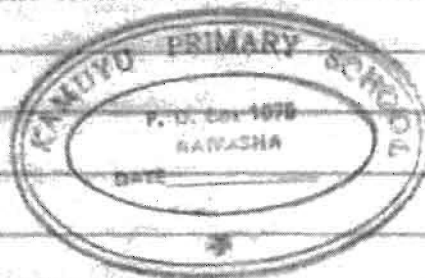


Kitchen - 1  
Water tanks - 4  
Pit latrines - 10  
Total school acreage -  
Metal lorry container - 1  
Pupils : 362  
Teachers : 11

Agenda 3: To obtain views from the School Management Committee

- The committee was of the opinion that they cannot oppose a government project.
- They were concerned about the adequacy of the compensation.
- The school has land and other land can be easily available in the community.
- They have no objection if the school is relocated to pave way for the powerline.

Signed by:  Date 15/9/11  
Title : H/Teacher  
Telephone Number : 0726590219  
Time : 10:50 am



Meeting at night of 17/9/2011

## Childrens Home

### Attendance List

#### Agenda

1. To introduce the project to the Community and Childrens Home Management Committee.
2. To obtain socio-economic and environmental data
3. To obtain community responses about the project

Name	tel NO.	Gender
Grace Nyumbura	—	Female
Jane wambui	—	Female
Teresia njeri	0714471502	F
Sarah wainimu	0710594845	F
Sarah wangari njenga	0710575373	F
Tabitha muthoni	0710651597	F
Nancy wangari	092984823	F
Leah wambui	—	F
Mary wanjiku	0716411578	F
Mary njoki	0722391796	F
Teresia nduta	0726789057	F
Josephine Kamau	0711689643	F
James mutunga	0703555667	M
Margaret muthoni	—	F
Quah njoki	0711748287	F
Tabitha wanja	0729281189	F
Beatrice wambui	0717308328	F



Name	tel	Gender
Helen Cheledi	0726104588	F
Ann Wachake	0703593849	F
Mary Muthoni	0716037692 0716037692	F
Serah Wathara	0717690162	F
David Ndirangu	0714854889	M
Joseph Kamau	0728811598	M
Zipporah Wairimu	0708680378	F
Consolata Wanjiku	—	F
Teresiah Wanjiku	0722977704	F
Benson Chacha	0720995685	PM
Julius Nyugi	0702072759	M
Wilfred Kamuyu	0720731586	M
Dominic Mutiga	—	M
Martin Kibiru	0714704693	M
Francis Kibugi	0701248088	M
Harun Cinthanga	0705765528	M
Patrick Kinoko	—	M
Joseph Kamuyu	—	M
Peter Kamiti	0703478849	M
David Thiongo	0725217374	M
Joseph Kamuki	0702821746	M
Ezekiel Kamau	0727620852	M
Henry Ngunja	0723226113	M
Orasmus Gatare	0702072766	M
Joel Kungu	0720417168	M
Miriam Wathiku	0721175358	F
Karin Maita Wathiorho		M
Mary Nyeri Thinyanjui		F
Consola Wanjiku		F
John K. Kithasi	0722866452	M

Agenda I: To introduce the project to the community and children's home.

- This is a 400 kv powerline originating from Ethiopia to Suswa in Masailand. As of now the line is still proposed.
- The project takes a ROW of 65M wide running in a generally straight line.
- It passes through peoples farms, homes and institutions in some places. But the owners will be compensated at market rates.
- The purpose of the team currently on the ground is to obtain socio-economic information and community concerns about the project.
- The team therefore requests cooperation from the community.

Agenda 2: To obtain socio-economic information and environmental information from the community.

- The community said there are absolutely no wild animals in this area ~~at~~ apart from jackals and rare snakes.
- The common trees are ~~big~~ blue gum and cypress. Most indigenous trees have been cut down.
- The area is rich in stones.
- The Kikuyu is the dominant ethnic group comprising about 98% of the total population.



as well as business people. They are able to take on all contracts apart from supply of heavy machinery.

Agenda 3: To obtain community concerns about the project


The community had no objection to the project since they cannot oppose a government project.

- They however felt that if possible the line could be moved to save the children's home and the private secondary school.
- What would happen to a property owner who refuses to relocate?
- If compensation is given women be adequately involved since men may take all the money and fail to buy land or construct a house.
- The possibility and feasibility of government buying and settling those relocated was discussed but the resolution was that individual property owners should buy their own land to avoid corruption.
- The community shall first engage the government before they take the cheques for compensation.
- The compensation be higher 82



than the market rates since the property owners will raise land prices once they learn compensation has been done.

- Construction materials locally available should be used during construction eg stones.
- Local youth should be hired during construction.
- Government should ensure if the school is relocated all children attending school in this Home continue with school.

Signed by Principal of children Home:   
Name: MIRIAM WANJIKU KARANJA 0721175368  
Date: 17/09/2011  
Time: 12:50 PM

# Community Meeting at Kamahia Trading Centre

17/9/2011

## Attendance

1. John Mwangi
2. Joseph Mburu Njoroge 0721-360755
3. Susan Wanjeru Mburu 0727-298835
4. Joseph Kamau Moricho 0722-692420
5. Michael Njoroge 0712-320960
6. James Gathu Chege 0114112037
7. Mwaniki Kamau 0710-217097
8. Johnson Gumo N/A
9. Isaac Mwangi 0724566387
10. MARY NGENDO 0723-89956

## Agenda

1. To introduce the project to the community
2. To obtain socio-economic information about the area.
3. To obtain community feedback.

Agenda 1: To introduce the project to the community

This is a government project commencing from Ethiopia to Sudan.  
It is a 400KV line sourced from dams in Ethiopia

- In this corridor there may be houses, trees, crops etc.
- Owners of the properties will be compensated at market rate.
- The electricity is of high tension and will not be used by local people.
- The people are asked to cooperate with the team of researchers currently on the ground.

Agenda 2: To obtain socio-economic information from the community

The community said as follows:

Buffaloes, hippo and hares are the common wild animals.

The people are small scale farmers.

- They do dairy farming, plant maize and beans.
- There is a National Bank of the National Cereals Store.

• The Likuyu ethnic group are the most dominant group almost 99%.

• There exist many skilled people ~~here~~ in this area.



- People who can ~~provide~~ take on contracts are available apart from supply of heavy machinery.
- The community is predominantly Christian with about 65% Protestant and 35% Catholic.
- The community experiences water problem so they prioritized piped water project from the adjacent river Malewa.

Agenda 3: To obtain community views about the project.

The community sought the following clarifications.

- When the project construction will commence.
- Whether the people will be given adequate compensation and how the compensation will be done.

Signed by Chief: ~~Thandi~~

Date: 17/9/2011

Time: 5:00 PM

Telephone Number: 0723570372

Community Meeting 20/9/2011  
held at Ndemo Market at the  
Chief's Office.

Time: 10:00 am End

Attendance

	Name	tel. NO.	Gender
1	FRANCIS MURIGI KIMANI	0710746004	M
2	SAMUEL NYUIN	0701754132	M
3	MUTURI WACHIRA	0722 815935	M
4	FRANCIS GICHA	0723390155	M
5	KIRAGU MUNGA	0720134996	M
6	JAMES KAMUNYA	0701754132	M
7	HANNAH NJERI WACHIRA	0711714556	F
8	ELIZABETH MUTHONI ILAKO	0718774582	F
9	J. K. KIMANI	0725113523	M
10	KIBUI KAMBURU	0724665554	M
11	JAMES MATNA MUCHAI	0715579769	M
12	WILSON WANJERU	N/A	M
13	AMOS NAMUNYU	N/A	M
14	SAMUEL MATWENGE	0726211518	M
15	JOHN MWANGI	0726586307	M
16	JOHN UBUNGA NJANI	0723203443	M

11/05/11

Ndemi page 2

20/9/2011

17	Stephen	Ndumu	N/A	M
18	Simon	MUCHERI	0722465370	M
19	NIENGA	KAZANJA	0715307669	M
20	Simon	MWANGI	0729745761	M
21	MATNA	KINGORI	0712726392	M
22	PETER	KAROCHU	N/A	M
23	FRANCIS	WAMAM	0719446701	M
24	STANLEY	MACHARIA	0728593314	M
25	BERNARD	MWANGI	0735760239	M
26	JOHN	KARURI	0729745805	M
27	KULIA	TIOTI	0722760414	M
28	PETER	MACHARIA	0723164411	M
29	JOSUAH	KAMBURU	0729769593	M
30	JUSTUS	LETAH	0726343610	M
31	SAMMY	KINUTHIA	072179652	M
32	DAVID	WACHIRA	0735039780	M
33	STANLEY	MWANGI	0722102673	M
34	DICKSON	NGARE	0727223109	M
35	DAVE	KATUNGA	0724674045	M
36	SAMUEL	MWANGI	0727546055	M
37	DEBAY	NGARE	0724445922	M



38	JOHN	MWANGI	XIBENGEN	0721592544	M
39	PAUL	KINGORI	MUSA	0710 827 568	M
40	ISAAC	AKULINA	MWANGI	0724 555 329	M
41	JOSPHAT	KINANDU	KARIUKI	0713 978 350	M
42	ALICE	NIGANZI		0713 722 128	F
43	DHLOMENA	MUTIMU		N/A	F
44	BERNICE	KABURA		N/A	F
45	SPERANSA	KIUKU		0720 904525	F
46	HANNAN	KATONI		N/A	F
47	SAMUEL	NIATWA		0725 282068	M
48	DIANA	WANGI		N/A	F
49	JANE	NYAMBURA	XIBENGEN	0713 703597	F
50	FRANCIS	KI	KINDHO	0725 970069	M
51	NEHEMIAH	M.	KARANJA	0727 450566	M
52	SIMON	NUGI		0713 250562	M
53	FRANCIS	NKEMBA		0729 460563	M
54	BERNARD	KINGORI		0716 533210	M
55	BERNICE	NJOKI		0710 625522	F
56	BENSON	NDUITU		0713 722189	M
57	DAVID	KATU		0721 875275	M
58	JERUSA	WANGI		N/A	M

20/9/2011

59	LUCHANI NUSALI	0723 228476	M
60	DAVIS R. DOBUANO	0724107619	M
61	JULIUS KAMA	0723 095183	M
M			
F			
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# Communal Meeting at Ndem Chief's Camp.

20/9/2011

## Agenda:

1. To introduce the project to the Community
2. To obtain socio-economic information
3. To obtain community comments and recreations to the project.
4. Any Other Business.

The meeting began with a prayer provided by one of the community members selected by the chief.

Agenda I: To introduce the project to the Community.

The Ethiopia - Sudan project was first initiated in 2007 when the ESIA was done.

This time round the process is an update of the information gathered in 2007.

This is a government project commencing from Ethiopia. It takes a ROW of 65m wide moving in a generally northerly direction.

- In the ROW there ~~are~~ may fall houses, public institutions, farmland, trees etc which will be compensated 100% at market rate.

Those compensated will be required to replace/rebuild or purchase what was affected.

- A committee made up of local elders will be elected to oversee the

of vegetation and construction.

- All trees within the ROW that are over 4.5 metres high will be cut down during construction.
- The ROW can still be used by the landowners for farming or ~~as~~ as grassland for livestock. However, buildings or houses will not be allowed.

Agenda 2: To obtain socio-economic and environmental information

This area is a generally agricultural area inhabited small scale/mixed farmers. Dairy is the most dominant activity but maize, ~~and~~ beans and potatoes are common.

The Kikuyu ethnic group comprise about 90% of the population.

- The area is connected to electricity but a wider area is not connected.
- This area has many primary schools but have no electricity. There is only one secondary school.
- The main market is Ndeni which has financial services but others are small and ~~for~~ function erratically.
- A wide variety of skills are locally available in this area.
- There exist people who have ability to be given contracts during construction. However, nobody has<sup>92</sup>



- The community does not have any cultural area reserved at all.

Agenda 3: To obtain community comments/reactions about the project.

Having been taken through the project and having answered the community questionnaire, the community had the following observations:

- The community had no objection to the project.
- The community was afraid that there are negative effects of the project such as exposure to dangerous rays.
- That there is fear the power lines will interfere and block mobile phones, radio and television in the area.
- One member proposed the possibility of monthly payment as compensation instead of a one-off payment.
- The government should compensate property owners at market rate.
- There is fear that government may fail to compensate fully property owners if the compensation is in instalments. So they prefer a one-off payment.
- There should be a project office in the field during construction so that disputes can be directed there.
- That the issue of people living between the Ethiopia-Suswa and ~~Suswa~~ Suswa-Turkana be resolved. They wonder whether such people will be safe even if not affected by both lines.
- The people wanted to know ~~is~~ what will happen or who will be compensated for public property eg a Chief's office if affected.
- There is fear that the pylons will increase lightning, hence ~~wondered what for~~ <sup>wondered what</sup> the government will do about it.
- During construction the Contractor should consider to use locally available materials eg stones. The contractor should also give priority to local youth for employment.
- The meeting was closed by prayer.

Community Meeting at Warukira

Shopping Centre in Shamata

Sublocation, Shamata Location

Attendance List

Name	tel. No.	gender
1 Gilbert Kungu	0720-943204	male
2 Geoffrey Ndungu	0710-915332	male
3 Duncan Wainome		male
4 Charles Njunga	0725-419364	male
5 Geoffrey Gitungo	0714290034	male
6 Harun Maino		male
7 Grace Mugure	0703-253276	female
8 Margaret Wambui	0723-829924	female
9 Terabit Mukenyi	0720-990610	female
10 Francis Mwangi		male
11 John Macheris		male
13 George Mutahi		male
14 John Ndiritu		male
15 Raphael Njunga		male
16 Wilson Maino	0723-100259	male

Warukira page 2

16	Hannah	W. Nyathira	0727-706680	Female
17	Grace	W. Wachira	0725-376877	Female
18	Joseph	Muchera	0715-455482	Male
19	Paul	Njuguna	Nil	male
20	Jeremiah	Njuguna	Nil	male
21	Anthony	MUKUMBI	0705-302956	male
22	Mary	Wanjoka KKA		female
23	Peter	Kagitho	0710-200600	male
24	Joseph	Rathora		male
25	John	Mwangi		male
26	John	Wachira		male
27	Charles	Kidenge		male
28	Nelson	Kinyua	0727-201988	male
29	Joseph	Mwangi	0713-280987	male
30	Patrick	Ngugi	0719-554676	male
31	Joseph	Njuguna	0704-558382	male
32	Grace	Muthoni		female
33	Mary	Weirima	0729-213451	Female
34	Mary	Weirima w.	0727-097712	Female
35	John	Ngumi	0724973716	male
36	Charles	Wachira D		male



Warukira page 3

37	Miriam	Kabing'u	N11	male
38	John	Muiruri	0725-421803	male
39	Wilfred	W. Karuki	0725826782	male
40	David	MGoche	0716496438	male
41	James	Mwangi	0725306491	male
42	Joseph	Kemunde	Mwaura-072732031	male

## Agenda

1. To introduce the project to the Community
2. To obtain socio-economic information about the community.
3. To receive community concerns about the project.

Agenda I: To introduce the project to the Community.

- The Etiopia - Suswa power project was first initiated and work done in this area in 2007. What is being done now is simply an update of the already existing information.
- This is a 400KV line that will not be used by local people living along the ROW.
- Those whose properties, land, buildings or trees fall within the ROW will be compensated and given time to

relocate. Force will not be used in the process.

- In each sublocation the pro Row is a local committee made up of locally people will be elected by the people to handle the relations between the community and the project.
- The date of commencement of compensation is not definite but it is in the near future. People should meanwhile go on with their livelihoods unperturbed until informed otherwise.

Agenda 2: To obtain socio-economic information about the community.

This <sup>area</sup> is inhabited by the Kikuyu ethnic group who comprise about 90% of the population.



## Warukira page 6

They are a predominantly Christian group, mainly protestant.

The people are mixed small scale farmers. Maize farming, potatoes and dairy are main forms of livelihood.

- There are several educational institutions, trading centres but most are not connected to electricity.

Agenda 3: To receive feedback from the community.


- The community had no objection to the project.
- The main concern was how compensation would be made and whether it would be adequate.
- That there is need for a time schedule well in advance so that people can be prepared in

## Wanukira Page 7

advance.

- Before the construction commences a public meeting involving the directly affected should be held.
- The other concern was how the contractor will identify the existing local skills during construction.
- The other concern was whether a land owner would be allowed to continue using the ROW for grazing and farm activities.

The meeting ended with a prayer provided by one of the community members.

Signed by Chief: 

Date : 21/9/2011

Name of Chief: WILFRED W. KARULUKI

Time : 12.30 p.m.

# Community Meeting at Terille Trading Centre

## Attendance List

Name	tel No.	Gender
1. YUSSUF NGOLEY		M
2. CHARFI SHAMA		M
3. LOSUBU GALGIDHELE		M
4. LDUKIYAN KALAIKĒ		M
5. LENGERERI JOSPHAT		M
6. ABDULAHİ TURUGA		M
7. DAHIR NGOLEY		M
8. LEMIA KURAKI		M
9. WILFRED LONGELESİ		M
10. LEKUPANO LIJINGWA		M
11. TALIAN LONGELESİ		M
12. ABDULAHİ NGOLEY		M
13. JIM KALKENA		M
14. LUIGI LESUKUD		M
15. SHABAN LONGELESİ		M
16. JOSEPHIN LEPAKINO		F
FRANCISCA SAPADEI		F
DANIELA KAPANA		F
RUKIA BASHIR		F
RITA LENGERPEI		F
RIREN LESIMONTĒ		F
NATEHE LEKOITIP		F
NJELİYON KENGESEN		F
SITELA KERESİ		F
MARTHA HUSSEIN		F
NAROMROM LEAUSD		F
MANTELIAN LEPAATI		F
NAITAMANY KOREUBA		F



30	MPERESIN LEINJIRO	F
31	HALKANO BERKE	M
32	NANYAMBATA HALKANO	F
33	NAOMI LEKURAKI	F
34	NKUNONI LEKALAILĒ	F
35	SIAMAT LEKALAILĒ	F
36	NAIBORSĀE LESIMAKALO	F
37	MASULANI LEALO	F
38	NKOINATO LEKALAILĒ	F
39	OKICHO LEKOYAN	F
40	NKASIRAN LEILIMO	F
41	LERANGIN LEKALAILĒ	M
42	ABDI NEDLEY	M
43	JOSEPH ORTOYA	M
44	LEKORSI LENDAMA	M
45	LPARARI KERIYA	M
46	LEMATA LEKOPIR	M
47	LEIBOR LEDELEA	M
48	HUSSEIN TURUETA	M
49	JAMES UPANE	M
50	CHIEF LENEERPĒI	M
51	LESIMIRDANA	M
52	SAMUEL BALATA	M
53	LEPORA LEKOYAN	M
54	SINGIDA LEKUTON	M
55	LEMAREN	M
56	HAWO EALBORLEN	F
57	SKRPEND NAKWANĒ	F
58	AZIZ EALBORLEN	M
59	KEMATACHO	M
60	AMINA NEDLEY	F
61	LMASINGAN SAKALPD	M
62	ALI MOHAMUD	M

64	DAUDI KORIMA	M
65	LINO CHUDUKLEH	M
66	ORTOYA	M
67	HUSSEIN	M
68	KSTHSR KSIMANA	F
69	NESERE LEDUSA	F
70	NKORUMA MARASARA	M
71	KOKAI LEKAPANA	M
72	LEWMAN LEKIMIRE	M
73	JOSEPH LEPATI	M
74	ROSE NALLE	F
75	DABLEYA LEKUTON	F
76	LONGIROI LEPATI	M
77	CHUKULIS BALATA	MF
78	LEWAMBAN LESUKUD	M
79	SALAT MOLU	M
80	GUYO	M
81	LOIBORLALA	M
82	SUSAN MOKU	F
83	LPASIKAN LENGURE	M
84	JOSEPHIN HAJUFLE	F
85	ANTONY LEBALI	M
86	LEJALE	M
87	ANTONY LEKELE	M
88	NKIRIPA LEKORIMA	F
89	ALI NGULET	M
90	LEKUPANO	M
91	LENAIKA	M
92	LEMARTIN	M
93	LORUAV	M
94	KULI BALATA	M
95	LTISATON SURMAT	M
96	LMIMPIN PARKERI	M

98	NYENCHU DABASO	M
99	MASEYAN DABALEN	F
100	RIMBINDI GALDAYAN	F
101	LENAKWANE	M
102	NAIKAN IKKUTON	F
103	MARIA IKKIDAYO	F
104	LUKO THIKA	M
105	ISUZU ALIELLE	M
106	GALCIDHELE	M
107	Domenic	M

### Agenda.

1. To introduce the project to the community.
  2. To obtain socio-economic and environmental information.
  3. To obtain community reactions about the project.
- A. A. O. B.

Agenda 1: To ~~obtain~~ introduce the project to the community.

- The meeting began with ~~for~~ prayer said by one of the elders.
- This is a government of Kenya project proposed to ~~be~~ commence in the next few years although the exact date is not known.
- The project commences ~~from~~ at Suway in Kajiado County up to the Ethiopian border with Kenya.
- The team before you comprises of a community Development Specialist.



and an archaeologist and a Enumerator.

~~The aim of the meeting is to explain~~

They are all undertaking the Environmental and Social Impact Assessment of the proposed project.

- The project ROW is a 65 metre wide Corridor running in a generally straight way.
- Buildings, farms or trees that fall in the ROW will have to be relocated, demolished or cut down but only after compensation of the legal owners.
- Those who will be directly affected will be given adequate notice time to relocate.
- In each location the Line crosses, a local Committee comprising men and women will be elected to ~~be~~ oversee relations between the community and the Contractor and also resolve any disputes thereof.
- Therefore those members of the community who ~~are~~ have any questions or concerns are free to ask or seek any clarifications about the project.

Agenda 2: To obtain socio-economic and environmental information.

The community said that a new Conservancy had been created about ~~7~~ 7 kilometres away from the proposed ROW. It had hosted key international figures including the President of Norway

and Prince William and potential for tourism

- ~~The area~~ is high
- The area is predominantly inhabited by the Rendille ethnic group. Most of them (about 70%) practice traditional religion.
- Pastoralism is the main form of livelihood.
- Most ~~tree~~ vegetation here is the Acacia.
- There are many wild animals especially lions, cheeta, giraffe, buffalo, elephants, leopards, ~~and~~ gazelles and zebra.
- There are few shops and only one shopping centre.
- The area is easily accessible from Isioto town as the tarmac road terminates at ~~the~~ this centre.

Agenda 3: To obtain reactions from the community about the project.

The community indicated that they had initially heard of this project but were not sure if it would proceed. They had no objection to the project but hope it would bring development in the area.

- The following issues were particularly raised:
  - (i) That there is need to ensure the




community that the powerline will not scare and kill wildlife that roam out of the Conservancy.

- (ii) Local youth should be prioritized for employment during construction.
- (iii) Local people/contractors with ability to take contract especially like supply of sand or stones be prioritized.
- (iv) Women should be part of the local committee that will oversee the construction of the line.
- (v) The community also wished to know when construction is expected to commence.

(vi) What will be the community contribution to the project?

(v) The Contractor should ensure the ~~building~~ projects proposed by the community are done to alleviate the suffering of the people since this is a semi-arid area.

Name of chief:

Signed by Chief: James Leulane 

Date : 23/9/2024

Time : 12:30

COMMUNITY Meeting held at " " "  
Loglogo Borok Location at  
the Water pan.

## Attendance

1. Samuel - 6 Kaping
2. L. M. Ligo leado
3. moru lekatiwan
4. L. M. L. on leandro
5. L. T. J. L. to lekatiwan
6. L. M. T. on lekatiwan
7. L. T. L. to lesilan
8. K. M. L. do letapa
9. H. K. A. R. E. I. T. A. N. H. A. S. Y. A.

## Agenda

1. To introduce the project to the community
2. To obtain socio-economic and Environmental information.
3. To obtain community feedback about the project.

1. Agenda I: To introduce the project to the community.

Government of Kenya project meant to increase power supply in Kenya.

This project was first undertaken in 2007 and today we are only updating the information.

The ROW will be 65m wide. All buildings or trees in the ROW will be demolished or cut down but only after compensation of the owners. Adequate time will be ~~provided~~ given so that those affected can relocate.

- The aim of this assessment is to record all that is found in the ROW to inform decision making.
- During construction each location crossed by the proposed line will elect a committee to oversee relations with the contractor.
- Therefore the community is urged to cooperate with the team by providing information.

## Agenda 2:

To obtain Socio-economic and Environmental information

The dominant community is Rendille.

There is plenty of wildlife whose numbers increase during the wet season. Lions, hyena, elephant, giraffe, gazelle etc are very common.

- There are few schools, has dispensaries and all have no electricity.
- A considerable proportion of people here practice traditional religion.
- The community has a vibrant water hole with high water maintenance.



- The community is not connected to electricity.
- The village is the home of the current member of parliament for Laisamis Constituency.
- The community depends over 80% on famine relief.

Agenda 3: To obtain community feedback about the project.

The community members were concerned about the fact that they have no electricity yet they will host a power line. They should be considered for connection.

- They also expressed the fact that many trees will be cut down within the ROW thereby depriving livestock and wildlife of fodder.
- Since this area has never had electricity there should be sensitization of the people on the do's and don'ts concerning electricity.
- The community had no objection to the project.

Signed by community elder: *John*

Name

: LAADO JOHN



# Community Meeting at Turbi Centre

## Attendance

Name	tel. No.	Gender <u>Sig</u>
1 chief: Abudho Godena		m
2 Ali umur		m
3 Reba Shemsu		m
4 Bishar Noor		m
5 Hawo Tura		F
6 Guyo worso		m
7 Olla Guyo		m
8 Adhi Gufo		F
9 Racho Boru		m
10 Gurach Abudho		m
11 Abudho Nyele		m
12 Kaitu Guyo		F
13 Galgallo Boya		m
14 Barilo Shokote		m
15 Uka Adhe		m
16 Gabebe Guyo		m
17 Diko Abudho		F
18 Isacko Adeno		m
19 Sheikh Ali Guyo		m
20 Sora Katelo		m
21 Adan Shedo		m
22 Roba Ali lito		m
23. Olla Shedo		m
24. Kuni Isacko Komba		m
25. Dibe Jaldes		m
26. Dika K. lobo		F

Gender

27	Galgallo	Huka	m
28	Qadubo	Jirsa	F
29	Rufa	Abduba	F
30	Chuluze	wato	F
31	Mohammed	Roba	m
32	Iula	Adan	F
33	midine	Ali	F
34	Hassin	Abudha	m
35	Doko	wako	F
36	Layo	Galgallo	m
37	Qabale	Boya	F
38	Roba	Elema	F
39	makai	mololo	F
40	Boru	Galgallo	m
41	Alkano	Qericha	m
42	Chalari	Kombola	F
43	Ilad	Gene	F
44	Bokayo	Budha	F
45	Okola	Cale	m
46	Chuluze	wato	F
47	Layo	Jaldesa	m

Agenda

1. To introduce the project to the community
2. To obtain socio-economic and environmental information.
3. To obtain community views and concerns about the project

Agenda 1: To introduce the project to the

This is a government of Kenya project commencing from Svsua to Etenopia.

This project was first undertaken in 2007 and now it is being updated.

The aim of this assignment is to obtain socio-economic and environmental information to find out or determine the effect of the project on the local community and environment.

The ROW is a 65m wide corridor running in a generally straight way. Those people whose structures or other property will be in the ROW will be compensated in advance and given enough time and notice to reconstruct and relocate.

Public institutions will equally be compensated.

During construction a local committee comprising of locally elected people - men and women will oversee relations between the contractor and the community.

- Therefore the team requests the community to cooperate with the Assessment team in providing the necessary information.

Agend 2: To obtain Socio-economic and ~~the~~ environmental information.

The Gebra community is the dominant ethnic group in the area.



90% of the total population. Others are the Sakuye, Burji and Somali.

- The area has ~~se~~ many wildlife especially hyena, lion, giraffe, gazelle.
- The area experiences acute drought which often kills wildlife, ~~and~~ human beings and livestock.
- There are few people with skills in this area.
- The area is predominantly pastoralist and experiences ~~an~~ acute water problems.
- This area is on the edge of Bobisa Desert.
- The area is renowned for conflict and murder in this region, locals, Ethiopians who crossed into Kenya.

Agenda 3: To obtain community views and concerns about the project.

The community supported the project in totality. However they had the following concerns which they would want addressed:

(1) The area has a lot of wildlife many of which die during drought due to lack of water. They would like the project to benefit both wildlife and people by providing and increasing access to water.

... should also be considered

to electricity since it is rotated. That  
it would be ironical to host a powerline  
but fail to be connected.

- That if connection directly from the proposed  
powerline will be difficult then a fee  
alternative wind energy be considered. The  
area has very strong wind from which  
power can be easily generated.
- The other concern is the potential danger  
the powerline ~~will~~ will expose the people,  
the livestock and wildlife to. They fear that  
the pylons will ~~have~~ be active hence any  
contact with it will lead to death.

Name of Area Chief : <sup>Habit</sup> Abusso Godana

Signed by Area Chief : *[Signature]*

Date : 25/9/2011

Time : 12:45 Hrs.



# Community Meeting at Bubisa Centre.

11/11

## Attendance List

	Name	tel No	Gender
1	GUYO Habano	-	M
2	GOLLO WARIO (C/W)		M
3	ABAYO Gon JOSE	0908014163	M
4	SAKO GODANA	0902449155	
5	ROBA DIBA		M
6	DARANA DUBA		M
7	GUYO DOKATA		
8	Qandubo KOTOWA		M
9	DOY DIBA		M
10	MAMO Adano		M
11			
12			

## Agenda

1. To introduce the project to the community
2. To obtain socio-economic and environmental information
3. To ~~to~~ obtain community views about the project.

Agenda 1: To introduce the project to the community.

This Ethiopia-Kenya power project is a

- government of Kenya project. The first assessment was done in 2007 and today it is being updated.
- The project takes a 65 metre wide ROW commencing from Suswa to Ethiopia border ~~at~~ at Forole.
  - The ROW runs in a generally straight way besides the Merille - Moyale ~~border~~ <sup>road</sup>.
  - Structures, vegetation and other properties that fall within the wayleave will be removed and owners compensated at market rate including a 15% disturbance rate.
  - The aim of this meeting is to sensitize people of this area about the project and to request them to cooperate with the assessors currently on the ground by providing information.
  - During construction a local committee made up of local administration, men and women will be elected to handle matters between the contractor and the local community.
  - The participants are free to ask any questions <sup>or</sup> seek clarifications about the project.
  - As part of Community Compensation the community is asked to select any three prioritized projects that they would like the project to provide to this community. The projects should be on the list that will benefit the community. 117



Agenda 2: To obtain socio-economic and environmental information

- The Bubissa area is inhabited by the Gabbra ethnic group. They are a predominantly pastoralist group dependent on livestock.
- There are many wild animals in this area including hyena, gazelle, lion, ostrich, leopard and cheetah.
- The area has few skilled people but ~~has~~ has many people with ability to ~~perform~~ undertake contract work.
- There are only two ~~sub~~ primary schools but no secondary school.
- The area has plenty of water obtained from the very productive boreholes.
- There is one small dispensary that serves a total of about 7000 people.
- The area is littered with many tombs not far from the ~~right~~ ROW.
- The cemetery is out of the ROW.


Agenda 3: To obtain community views and concerns about the project.

The community had no objections to the project. However they made the following observations:

(1) The people wondered what ~~the~~ other

people besides the community compensation

- There was concern about possibility of accidents involving the people, livestock and wildlife in the ROW. They wanted to know what would happen in such an eventuality.
- There was concern that the very strong winds of this place (Babisa means a place of strong wind) may be able to collapse the pylons.
- That locally available materials used by the contractor should be paid for.
- Employment of local people was also discussed and they wondered about the point at which such local people shall be employed.

  
Signed by Councillor : Gollo Warid  
Name of Councillor :  
Date : 25/9/2011  
Time : 4:10 PM

Meeting with Ranchers in Laikipia 15/10/2011  
 held at Ibis Hotel in Nanyuki  
 Town. LAIKIPIA WILDLIFE FORUM.

### Attendance

Name	Organization	Sign
DR ANTHONY KING	LAIKIPIA WILDLIFE FORUM	<i>Anthony King</i>
Timothy de Masiangy	OLLENTILLE CONSERVANCY	<i>Timothy</i>
Joseph Edebe	ICWS - Marsabit	<i>Edebe</i>
Dickson Toa	ICWS - Marsabit	<i>Dickson</i>
SONAH AGGARWAL	REGENT'S LTD	<i>Sonah</i>
Bernice Lempairi	Narburga Conservancy Trust	<i>Bernice</i>
Gabriel Nyau	Northern Rangebude Trust NRT	<i>Gabriel</i>

- That there is need to call for a broader meeting with the entire Laikipia forum to project their common position about the project.
- That the people will be happy to hear that a ~~road~~ highway will not be built in the ranches.
- That project proposers may not be aware of the importance of Laikipia in tourism especially its wilderness. They know that wildlife ~~may~~ not be affected by the powerline except birds.
- That the aesthetic ~~of~~ considerations of the project seem to be not considered in this project.



to push the line more to the west to avoid the myriad of lodges and the wilderness, natural environment. The economic impact of the line on tourism instruments will be the main point for lobbying for the line to be changed.

- They propose the line could be buried underground.

- Thursday 25th / October they will send the economic cost of the line on tourism.

- Generally they support the project based on the bigger picture but with some adjustments.

Base points from: Anthony King

ANTHONY KING (General Director LWF)  
2 15/10/11  
NANUKI

# Wamba - Meeting for Representatives of Conservancies in Samburu County

Attendance	Name	tel. No.	Name of Conservancy
1.	Jonathan Lengi Porsidjo	0720722527	Meibae
2.	James Lengojine	0572514189	Meibae
3.	POIS LEMADOKI	0718323754	Meibae
4.	LENGEES KIRIANO	0725056537	Meibae
5.	APETE LADOKURU	0723874682	Meibae/Namungak
6.	LERINGATO PAUL	0729592964	Namungak
7.	William LEKADAA	0722856712	Namungak
8.	DORIS LEKOKWAI	0722600812	Namungak
9.	LATIF BORU	0720383026	NRT
10.	GIDEON FASO LOKOROKORU	0719305469	N.W.C. (Namtak)
11.	Gabriel Nyasi	0721293474	NRT
12.	ROBERT LENGOLIAI	072796347	NAMUNYAK
13.	MORRIS LENGOKWAI	0720924450	NAMUNYAK
14.	JACOB LEKIKON	0714847713	NAMUNYAK
15.	KATTAI LELEKOK	11	NAMUNYAK
19.	Fred Longonyek	0723601406	MEBAE
20.	Salim Lesachese	0719800909	Chief Wamba
21.	Mzee Lapman	072048378	Mabe
22.	LORNON LOKOKWAI	0700626318	
23.	KIRIKO LEMAMARA	- N/A	

## Agenda

1. To introduce the project to the community
2. To obtain reactions about the project
3. Any other business

24. Moses M. LOKARAB - D/DADC - 0720592338  
 25. ADAT LOKUDERE - NRT - 0720643517

20 William Lemeng mess: 0720236009

27. RODHA BONANGARIMA - 0718067429 - DAMUNYAR  
28. Reuben Lasangurukuri - 0721691910 - ~~Project~~  
29. Lawrence Lekomrai - 0720434881 - ~~Damunyar~~

### Agenda

1. To present the project to the Community.
2. To obtain community responses about the project
3. A.O.B

Agenda I : To present the project to the Community

This is a Government of Kenya project meant to source electricity from Ethiopia to Suisun in Kenya. The proposed ROW traverses part of Samburu County. This is a 400KV powerline taking a 65m wide ROW.

- In the ROW no structures will be allowed.
- All trees above 4.5m high will be cut down.
- Compensation shall be done at market rates.



## Agenda 2:

### 2. To Obtain Community responses to the project

- That a ~~of~~ Conservancy can have several Group Ranches
- That they want to know exactly where the ~~lines~~ ROW is in order to decide that local leaders should be part of the survey Team. That way they will be able to make informed decisions.
- That so far individuals will be affected so they must be identified first so that everybody knows.
- The exact ROW must be ~~to~~ shown so that the right Conservancies and Group Ranches are identified. This will create a conducive environment in the community between the group ranches and Conservancies
- What will be the compensation be like - they want details. That before compensation time they also want to know how the environment will be affected. They want to be sure that the impact is not negative.
- That representatives cannot make decisions in stability but must have authority from the members before they agree and make decisions
- How will the land itself fit in the ROW



- That a Locational Committee and Group Ranch Committee be used in compensation.

- That individual property eg a manurella is in the ROW that person should be individually compensated, but that payment should be done with the knowledge of the Group Ranch Committee and Conservancy Committee. But trees and other communal properties be paid to Group Ranch or Conservancy Committees.

- That the ROW be clearly marked ~~at~~ as from Waso River until it exits Samburu County. This will clearly show the structures or other important community features.

- Land is communally owned so compensation will be communal unless it is an individual structure.

- That is the negative effect of the power line of that high voltage pole on livestock, wildlife, vegetation

- Is there room for community to reject the powerline.

- Why not pass government main road instead of disrupting community lifestyle in rural areas.

- Ceremonies are part of the Samburu. The

- Muratare - circumcision of boys
- Lmugeti - graduation ceremony, marking age sets.

Both of these ceremonies take place in the rain seasons either in April-May or October-December. During this period the contractor can liaise with local people. They are free to attend or take pictures but only with prior permission. If a local person is employed ~~at~~ the project and he is an initiate he shall have to be given permission. These ceremonies take up to 2 months.

- That during the Isiolo-Mentle Construction of the Road - many issues emerged including attacks on road builders, poaching of wildlife etc. They fear that this project may escalate tensions in this area. That

- That prior agreements on material sourcing must be made first.

- That poaching, ~~use~~ of materials from local area must be bought.

- There is fear of poaching as experienced by the construction of the Isiolo-Mentle road. If there will be ~~any~~ poaching

That contractors usually provide market for game trophies.


- That contractors should focus only on powerline work during construction not to deviate to other issues. 126



- They would like to know how Local Council/Authority would benefit from the project during construction - prioritized as follows: piped water, electricity, <sup>Education</sup> ~~health facility~~.
- That the project should also undertake community projects to compensate communities.
- That local centres eg Lodvuyokine and Otters should be connected because they are close to the ROW.

### 3. Agenda 3. A.O.B.

- That this is the two <sup>community</sup> ~~street~~ meeting and such a project cannot be done by town people.

Signed: 

Title: Chairman Sarara-Safeshe/Namunyak

Date: 24/10/11