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## 1. PROJECT ENVIRONMENTAL AND SOCIAL IMPACTS AND MITIGATION MEASURES CONSIDERATIONS

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### 1.0 *Impact Identification and Analysis*

The impacts presented in this chapter are the result of extending the 66kV power line from Kiyungi to Makuyuni and installation of new and rehabilitation substations. The impacts are predicted based on nature of the project, field observations and discussions with experts and concerns of people and local leaders. The assessment and valuation of impacts for different project components is characterized based on the following parameters:

- **Likelihood** –Terms to be used include unlikely, likely or certain (definite) which will refer to the level of possibility (probability) that the impact will occur. Unlikely will mean that the possibility (probability) of occurrence is limited or none because of the inherent nature of the project and design to be used; -Likely will refer to the possibility that the impact may occur and certain (definite) will mean that the impact will surely occur irrespective of the preventive measures adopted.
- **Extent of the impact:** spatial distribution – extent of an area/volume covered or to be affected and whether it is local, regional, transboundary or global. The spatial extent or zone of impact influence can be predicted for site-specific versus regional occurrences.
- **Nature of the impact:** for both positive and negative impacts; it may mean direct, indirect, cumulative or synergistic. The most obvious impacts are those that are directly related to the proposal, and can be connected (in space and time) to the action that caused them. A typical example of direct impacts is destruction of habitat caused by forest clearance.

**Indirect or secondary** impacts are changes that are usually less obvious, occurring later in time or further away from the impact source. For example anxiety, stress and community disruption associated with increased traffic volumes and noise caused by road development.

**Cumulative effects**, typically, result from the incremental impact of an action when combined with impacts from projects and actions that have been undertaken recently or will be carried out in the near or foreseeable future. These impacts may be individually minor but collectively significant because of their spatial concentration or frequency in time. Cumulative effects can accumulate either incrementally (or

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additively) or interactively (synergistically), such that the overall effect is larger than the sum of the parts.

- **Type** – the environmental impact type could be of biophysical, social, health or economic
- **Magnitude:** This is typically expressed in terms of relative severity, such as major, moderate or low. Severity, as opposed to size, also takes account of other aspects of impact magnitude, notably whether or not an impact is reversible and the likely rate of recovery.
- **Timing:** This refers to the understanding that impacts arising from all the stages of the life cycle of the project are considered (i.e. during construction, operation and decommissioning). Some impacts will occur immediately, while others may be delayed, sometimes by many years.
- **Duration:** Some impacts may be short-term, such as the noise arising from the operation of equipment during construction. Others may be long-term, such as the inundation of land during the building of a reservoir. Certain impacts such as blasting may be intermittent, whereas others, such as electromagnetic fields caused by power lines, may be continuous. Impact magnitude and duration classifications can be cross-referenced.
- **Significance:** This depends on the characteristics of the predicted impact and its potential importance for decision-making. Significance is usually attributed in terms of an existing standard or criteria of permissible change, for example as specified in a standard, policy objective or plan.
- **Intensity** – This parameter assesses the magnitude of the impact or violation of a certain standards.
- **Reversibility:** whether the impact is reversible or irreversible

It is anticipated that the proposed project will have both positive (beneficial) and negative impacts on certain aspects of biophysical and social environment to the people and surrounding environment in the project areas. These impacts may occur during mobilization, construction, operation and maintenance and decommissioning phases. The impacts may be due to one or more of the following activities though the list is not exhaustive:

- Site and route clearance (preparation)

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- Transportation and storage of equipment and construction materials
- Holes digging
- Poles erection
- Installation of porcelain insulator cups and stringing of conductors
- Erection of transformers
- Operation and maintenance of the power line
- Securing the health and safety of working site, materials, and people

### **1.1 Potential Environmental and Social Impacts**

#### **1.1.1 Positive impacts**

##### **1.1.1.1 Employment Opportunities**

The project will generate few but definite direct job opportunities for both skilled and unskilled labour during construction and operation phases. It is expected that local contractors and residents within respective project areas will take most of these job opportunities though the job will be for a short time. On the other hand there will be indirect employment created after the availability of reliable electricity and opening up of more workshops, improved guest houses, establishment of small local industries and employment in the form of provision of goods and services. The impact is positive and moderately significant and may have long term effect in the social well being in the region.

##### **1.1.1.2 Impact on economic growth**

The project will have indirect benefits that include impulses to socio-economic development in project areas. These improvements will attract more people to invest more in tourism, industries and commerce which will contribute to economic growth of Kilimanjaro Region

##### **1.1.1.3 Improved communication services**

Availability of reliable electricity will enable the establishment of stable communication facilities such as Internet. Electricity will enable mobile communication to improve as people will be able to own phones and charge them at home and other mobile companies can build communication towers in the district. Easy communication will improve business and social life thus enhancing economic growth and improve quality of life.

##### **1.1.1.4 Connection of more customers**

Construction and completion of the project will enable availability enough electricity in the region and particular Rombo and Moshi Rural that can enable many people to be connected without any problem thus improve the livelihood in the region.

## 1.2.2 Potential Negative Impacts

### 1.2.2.1 *Land Degradation and Soil Erosion*

Some parts of project area are prone to soil erosion (refer Plate ..). Clearing of vegetation cover on the way leave to allow the excavation works for tubular pole foundations and access roads may open up the soil to the agents of erosion. However, the route selection will minimize the need of access road and enable the existing roads to be used to transport construction materials and to be used during operation and maintenance phase. Therefore, it is expected that the impacts will be low, localised and will concentrate on already disturbed road zone. The impacts will occur mainly during the construction stage and they will be of short term. The impact is reversible as well.

#### 1.2.2.1.1 Mitigation Measures

In case it is necessary to clear up vegetation during construction time and for smooth operation, ground clearance will be minimised as far as possible. Route selection will avoid areas with sensitive vegetation.

### 1.2.2.2 *Pollution (Air, Soil and Water)*

Construction activities normally produce gaseous wastes, dust (especially in dry seasons) and liquid pollutants that may pollute the air, soil and water. The use of vehicles and other similar equipment will emit fumes and will produce dust that may pollute the atmosphere in the project locality.

Oil spillage may contaminate soil and water sources if not properly handled. However, it is anticipated that the pollution as a result of vehicle operations and maintenance will be very low, temporary and localized.

#### 1.2.2.2.1 Mitigation Measures

The impact on water source pollution can be severe; however the likeliness of occurrence is minimal. The impact on air and soil are expected to be low (minimum) and localised. The following measures will be considered during the implementation of the project (the work plan): -

- The contractor will provide guidelines on oil and fuel handling to prevent careless oil and fuel spillage to avoid water and soil pollution. Regular supervision will be put in place.
- Solid matters, debris, and other waste pollutants soaked with oil (contaminants) will be collected and disposed of in designated disposal areas to prevent them from going into surface and underground water or soil.
- Should there be large excavated materials and debris from construction activities, care will be undertaken not to stockpile or deposit them near the

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stream banks or other watercourse perimeter where they can be washed away by high water or storm runoff.

- Equipments and vehicles will be properly maintained to ensure complete combustion to reduce air emission. Maintenance policy shall be strictly implemented and closely followed.
- Should there be some people working in the dust areas continuously or for longer periods, nose and mouth respirators will be provided to them.

### 1.2.2.3 *Aesthetics and Visual Impact*

It is expected that the construction of 66kV transmission line will add up to already existing structures in project areas. The presence of these pole and conductors will permanently change the landscape in the project areas. However, majority of these project areas, are not aesthetically or visually sensitive sites. Hence the impact will be local, negative and low in significance.

#### 1.2.2.3.1 *Mitigation Measure*

- The best mitigation measure would be the use of underground cable. However, due to financial constrains, an underground cable option is not financially desirable. Hence overhead poles are the only option. Hence they will be aligned to the existing environment.

### 1.2.2.4 *Noise*

Construction activities may generate temporary noises depending on the type of equipment used and number of people employed. However for the current project, most activities will be done manually with few equipment, vehicles and employing a small number of people for foundation works, poles erection and pulling of the conductors. Hence, noise and vibrations resulting from the proposed project is insignificant, intermittent, temporary and localized.

During the operation and maintenance stage no noise and vibration impact is expected along the line. There will be only irregular visits by lighter vehicles during line inspection and maintenance.

#### 1.2.2.4.1 *Mitigation Measures*

The allowable noise level in residential areas is 55dB(A) during the day. When employee stays somewhere with the noise levels exceeding the allowable level in prolonged time, TANESCO and contractor will ensure that the earplugs are provided to employees. For this project no work is expected to be done at night in residential areas. At night the noise limit level is 45dB(A).

### 1.2.2.5 *Impact on Flora*

During the implementation of a project, at least 10m wide clearance of vegetation will be made for 66kV line. This clearance will be made during survey work, construction, operation and maintenance period. These clearances may affect the existing flora in the right of way temporarily or permanently.

#### 1.2.2.5.1 Mitigation Measures

Total vegetation clearance may cause other impacts such as soil erosion. Hence to reduce impact on flora TANESCO and contractor will:

- Minimize the vegetation clearance to what the safety of the line requires and confine the clearance on the line corridor and poles foundation areas.
- Shift the line whenever big indigenous trees as well as exotic or natural tree forest patches are encountered. Use will be made of open lands whenever practically possible.
- Prevent bush fires through awareness programs to workers during the project implementation. The project supervision team will in collaboration with local leaders (ward and villagers) carry out fire prevention measures and apply the existing by-laws and local knowledge of fire prevention to contain bush fires.
- Whenever possible the project will facilitate the villages during fire disasters at a time of project implementation phase to ensure that fire is contained in shortest time possible.

### 1.2.2.6 *Fauna*

It is expected that no significant wild fauna will be found in the project area due to existing human activities in the project area. In other parts of the world the main concern with power line is electrocution of animals and birds' hitting the power. For this project no significant impact is expected. However, the following mitigation measures are proposed.

#### 1.2.2.6.1 Mitigation Measures

In spite of the insignificance of the impact, precaution will be taken to protect the animals likely to cross the line. Hence:

- Care will be taken to protect birds and small mammals from electrocution by installing all safety measures possible in areas likely to cause bird collision with the power line. All areas potential for birds' passage will be avoided whenever possible.
- Breeding areas for avifauna will be protected and avoided whenever possible.
- Measures shall be taken to protect wild fires by putting restrictions on live matches and by conducting awareness raising campaign to workers during the project implementation.
- All high voltage risk areas along the transmission line and transformers shall be guarded to prevent animals against shocks and electrocution.

### 1.2.2.7 *Accidents*

It is known that whenever there are activities involving people, machines, vehicles and other equipment, accidents are always inevitable if precautions are not taken. There will be accidents from vehicles during construction ranging from falling, cutting, hammering, hitting, knocking etc. Then during operation, the accidents may be electrocution and electric shock. These accidents may affect the construction workers as well as the members of general public. The impact severity ranges from high to low depending on the level of injuries and or death.

#### 1.2.2.7.1 *Mitigation Measures*

Accidents can be minimized if machines are properly maintained, cutting edges are protected or guarded, and people including workers are aware of the dangers and understand how to protect themselves and others. On the other hand it is a role of supervisors to ensure that safety measures are in place and are enforced (implemented).

Accidents can be reduced if health and safety rules and procedures are in place and are followed voluntary or enforced. Hence, to reduce accidents TANESCO will:

- In collaboration with contractors and other stakeholders ensure that safety measures are in place and are observed during the construction and operation stages.
- In collaboration with contractors hold meetings with local communities and local leaders to raise awareness about the imminent dangers and how to prevent them.
- Erect the warning sign boards:
  - To warn the public on potential dangers at appropriate ongoing construction sites
  - To warn motorists and pedestrians on road safety
- Put danger sign on each transmission and distribution wooden poles to alert people of the live conductors above the poles.
- Raise awareness to construction workers on the ways of minimising accidents and risks of bush fire outbreaks.
- Instruct workers to care for their own safety and safety of other people, and ensure that protective safety gears are provided and are utilized.
- Set up well-stocked **First Aid** kits at working site and ensure that contractors comply with company safety policy.

### 1.2.2.8 *Surface Water Quality*

Surface water quality can be undermined if oil and fuels spill flow into water bodies. In addition, extensive vegetation clearance especially in sloppy areas particularly during the rain period can also undermine surface water quality and increase soil erosion and sedimentation. However, the extent of the impact will depend on extent of spillage and magnitude of other causative factors such as downpour, and level of awareness of

employees to prevent spills. However, the usage of oil and fuel is limited to transformers and vehicles. While transformer oil is containerized, the maintenance of vehicles will be done in workshops. Hence the probability of surface water pollution is small and the impact is low in significance and is localised as far as precaution measures are taken.

#### 1.2.2.8.1 Mitigation Measures

To ensure that the project does not impact on surface water quality TANESCO will:

- Prevent unnecessary oil spills by workers or machinery on the site by putting up special maintenance areas where oil or oil soaked wastes will be collected and right disposed of.
- Raise the level of awareness of employees about the environmental and social impacts and train them how to protect the environment through careful handling of oil and fuel in their daily duties.
- Whenever possible minimize vegetation clearance and soil disturbance close to rivers
- Waste oils will be collected and sent to the designated areas where it can be incinerated in the furnace or can be reused.
- Transformers which contain several litres of transformer oil will be diked to contain the oil in case of spillage.

#### 1.2.2.9 Soil pollution

##### **Construction stage**

It is expected that construction and operation activities may cause accidental oil or fuel spills particularly in storage areas and maintenance bays. This spill may impact soil quality in those areas surrounding storage or maintenance areas. However, this impact will be small.

##### **• Operation stage**

During operation of the line no soil pollution is expected under normal circumstance unless transformers leak. However the likelihood of impact is small.

#### 1.2.2.9.1 Mitigation Measures

TANESCO will:

- Whenever possible design and use containment to store fuel, oil and other substances that may cause the soil pollution
- Designate special areas for maintaining equipment likely to contain oil. Waste oil, spillage, oil soaked clothes, oil filters, etc. will be collected and disposed in a right manner in a designated areas.
- Collect all oil soaked items or wastes and safely dispose them
- Raise awareness level of all employees handling oil and fuel containing equipment on best practices when handling oil or oil soaked substances to prevent unnecessary oil spills and to protect the environment in their daily duties



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- Construct a container like around the transformer to take care for any transformer failure that may spill the oil.

### **1.2.2.10 Material and equipment use at construction sites**

Improper selection, storage and handling of materials may become a source of environmental problems in the project area. Materials such as Polychlorinated Biphenyl's (PCBs) and asbestos will not be used in the project.

The use of non-degradable materials such as plastic bags has become nuisance in many parts of Tanzania. Thus plastic bags and containers need to be properly managed during the implementation for this project.

#### **1.2.2.10.1 Mitigation Measures**

TANESCO and contractors will:

- Select materials that are environmentally acceptable i.e. equipment that are free from PCBs and asbestos
- Collect all non-degradable materials such as plastic bags, plastic containers, pieces of metals, broken conductors, insulation materials, etc. from the construction sites and kept in a safe place or dispose of them safely and in environmental friendly manner.

### **1.2.2.11 Archaeological and Cultural Aspects**

Generally, the development of linear projects like transmission and distribution lines have low impacts on communal cemeteries (burial sites) places of worship and archaeological importance. No archaeological places of value have been identified during a preliminary field survey of the project area. It is possible that during project implementation, old objects of archaeological values may be discovered. Although the chances of discovering the archaeological sites are small the following mitigation measures are to be implemented:

#### **1.2.2.11.1 Mitigation Measures**

- All burial sites, family or communal cemeteries will be identified in collaboration with local, religious and traditional leaders and marked to ensure that they are avoided as much as possible. In case it is found that the transmission line interferes with these places, measures will be taken to alter the direction of the route or adjust the placement of the tower.
- All fossils, coins, articles of value or antiquity and structures and other remains or items of archaeological interest found on the work sites will be placed under the care and authority of local leaders, project engineer and reported to relevant authority for guidance. The contractor shall upon discovery of any such findings, promptly give notice to the project engineer who shall issue instructions for dealing with it.

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- In case it is not possible to avoid cemeteries and graves, excavation should be done after all parties have reached the consensus in terms of reburial costs and other requirements have been fulfilled and permission has been granted by concerned relatives, religious leaders or community and all government procedures are followed.

### **1.2.2.12 Relocation of people and their properties**

It is planned that the implementation of proposed project should not physically relocate any person as far as it is practically possible through appropriate route selection. Avoiding relocation of people prevents many social impacts of the project.

#### **1.2.2.12.1 Mitigation Measures**

TANESCO shall prevent or reduce the impact of relocating people by:

- Carrying out thorough surveys of all routes to determine alternative routes that will avoid build up houses.
- Use of the existing access road whenever possible.
- When all alternatives have been exhausted and found out that the only alternative is to cross through someone's house, compensation will be made following the approved Resettlement Policy Framework and the existing Land Laws (Land Act of 1999).
- Where compensation is necessary then it will be done in a transparent manner and according to the legal and institutional framework of Tanzania and by involving the affected people from the beginning of the process to its end.
- People whose land will be permanently affected will receive financial compensation according to the existing land laws in Tanzania.
- In areas where agriculture activities are done, farmers will be given ample time notification prior to the starting of the construction works to allow farmers to plan for the harvest or adjust cultivating plan.

### **1.2.2.13 Impact on agriculture**

Agriculture forms the backbone of livelihood in rural areas. The implementation of this project may affect some of the farming activities if done during cropping season particularly paddy farms. This is because paddy needs contained water and the construction activities (way-leave clearance) may damage those containerized edges. However the impact is low as only a small part of the line will affect paddy farms.

#### **1.2.2.13.1 Mitigation Measures**

- Compensation will be paid for the land taken and the crops found on the way leave according to the land acquisition laws.
- Prior information will be given before start the implementation of the project

**1.2.2.14 Physical Presence of Immigrant Workers**

The implementation of the project will attract skilled and unskilled labourers from different parts of the country who will be working on the project. The presence of these workers will interfere with the local communities' life styles, which may lead to the increase of conflicts of socio-cultural nature and spread of diseases especially sexually transmitted diseases.

The impact is likely to occur however, it is expected to be short term confined to the construction period. The impact is of high significance. In addition, since employment chances are very few, those who shall not get jobs might jeopardize the security of the project area.

**1.2.2.14.1 Mitigation Measures**

TANESCO will:

- Promote good relations through regular meetings with local leaders to discuss impending issues that may be source of conflict and through making employees aware of their obligation (dos and don'ts) when they are working and residing in the local community.
- Subject both workers and the local communities to awareness raising campaigns so as to promote good relations and avoid the unnecessary conflicts.
- Provide information about the level of job availability during the project implementation early on so as to discourage a high expectation of job seekers.
- Provide health care education to workers and local communities particularly on the spread and prevention of sexually transmitted diseases (STDs) and HIV/AIDS in the project area. Condoms will be available to workers and local residents.
- Discourage the contractor from hiring unskilled labourers from outside the affected villages. Priority of jobs will be given to the communities directly affected by the project.

**1.2.2.15 HIV/AIDS**

HIV/AIDS has become one of the deadliest diseases in the country. Sexual relations, human behaviours, drunkenness and poverty are blamed for spreading the disease. People's interaction that leads to sexual relations are very common in project areas thus care must be taken even for this project. This issue need to be addressed in terms of health and as a potential social impact in terms of interaction with contractor's staff and the local communities.

**1.2.2.15.1 Mitigation Measures**

A special HIV/AIDS programme will be prepared by the TANESCO or contractor and implemented by an employed NGO in associated with TANESCO environmental section. The programme will address HIV/AIDS awareness and prevention and the

contractor is expected to cooperate in full with the programme including releasing workers periodically to take part in the programme.

### **1.2.2.16 Impacts of Electromagnetic Waves on Human Health**

The strength of electromagnetic waves is proportional to the level of voltage (i.e. the higher the voltage the higher the strength of electromagnetic fields). Even though there is still no concrete scientific proof connecting the magnetic field with human effects, it is thought that electromagnetic waves generated along transmission lines may cause health problems to the people who are directly exposed to them for long period of time. Hence it is advised to reduce exposure periods in strong waves especially for people who are directly exposed. The exposure limits stipulated by International Commission on Non-Ionizing Radiation Protection (ICNIRP) and IEEE defines 5kV/m as the maximum allowed limit for human exposure for 24hrs. While the maximum limit for magnetic fields (MF) is 100FT<sup>1</sup>. Therefore, for 66kV transmission lines the electromagnetic fields are expected to be low and are not expected to cause any severe risk to human health in terms of radiation. However, precautionary attitude will be maintained and measures taken to avoid the possible effects of those waves to human health.

#### **1.2.2.16.1 Mitigation Measures**

TANESCO will:

- Abide by safety measures and enforce them to ensure that no one is establishing a permanent residence under the power line. Periodic monitoring will be implemented.
- In collaborate with local authorities, alert people about the risks that may result from establishing a permanent residence in the way-leave and under the power line.
- Demarcate the way-leave corridor for people to know the safe distance for the 66kV line.

## **1.3 Decommissioning**

It is assumed that this project will continue to exist for as long time as villages and towns will continue to exist. It is expected that village load demand will grow over time. Therefore, what will be required is the maintenance of the lines and upgrade it accordingly to carry extra load.

### **1.3.1 Mitigation Measures**

When the lines are no longer needed, the following will be done:

- Wires, insulators and steel materials will be removed from the site. Good ones will be re-used while the bad ones will be disposed accordingly in an environmental friendly manner.

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<sup>1</sup> Source: The Canadian Handbook on Health Impact Assessment, Vol. 4 Health Impacts by Industry sector.htm, p.7

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- Disturbed land especially for the primary substations will be rehabilitated as per the Land Act No. 4 of 1999 requirement (i.e. reclaim the land into a state that will be used by others after completion of the project).
- Transformers will be collected and returned to the workshop for re-use where there is a need. During transportation of the transformers care will be taken to prevent oil leaks to the environment.
- Denuded land areas will be re-vegetated.

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## 2. PUBLIC AND STAKEHOLDERS CONCERNS AND OPINIONS

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This chapter highlights in a nutshell observations, concerns and opinions obtained from sampled public representatives and stakeholders about the project during the field work. The main concerns and opinions that arose from stakeholders are outlined below:

- ◆ People wanted to know if they will be allowed to continue cultivating their land when the line passes through their fields (*shamba*) particularly paddy fields.
- ◆ People requested the project proponent to avoid passing through the centre of the irrigated farms (*boda*) instead find a way of passing along the access roads. A 10m to 20m way leave will be too much for them because people depend on these *boda* fields for their livelihood.
- ◆ People were concerned about the benefit to be accrued by accepting project to pass through their land.
- ◆ People were worried that compensation may be done during dry season where there is no crops and hence reduce the value of their productive land.
- ◆ Compensation for the lost properties particularly land needs to be fair to avoid complaints as people are very sensitive on the question of land value.
- ◆ People requested critical and meaningful participation in the process stating from sensitization of the project, on compensation issues, and transparency in actual payment.
- ◆ People wanted a written document that will inform them in detail about the project and the compensation processes so that everybody can read and understand.
- ◆ Land is very sensitive issue in Kilimanjaro and people own small piece of land. The argument is if the project takes 20m way-leave some people will be landless. Hence the way leave should be small as far as possible.
- ◆ People requested employment priority given to the local people

These issues will be addressed in the design of the line and when acquiring land for the project. This is because some issues are purely line design and route selection while others are procedural issues stipulated in the Land Laws.

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### 3. IMPLEMENTATION OF ENVIRONMENTAL MANAGEMENT PLAN

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This section provides outlined details of what is required of the contractor/proponent with regard to Environmental and Social issues. The success of ESMP implementation depends upon commitment of the project proponent (TANESCO, Government of Tanzania) and contractor in the terms of resource allocation (finance and personnel), the presence of working enforceable environmental laws, and presence of workable standards and awareness of all key players. Below are some of the needful of this ESMP

#### 3.1 Social Requirement

##### **General requirement**

It is a contractual obligation for the contractor to take due cognisance of the social requirements as stipulated in this ESMP.

Social requirements are those which ensure that the project acts as a good neighbour the principle governing good neighbourliness is that the welfare of local people and local communities should not be reduced and preferably should be increased by having the project in their vicinity.

The contractor will appoint a Social Management Officer (SMO) from his own staff who will be readily available to local representatives for discussions of all reasonable project-related issues and will seek to arrange for rightful grievances to be speedily and appropriately redressed and opportunities for beneficitation of local communities to be realised.

Specific social concerns are those to do with the occupational and use of land, the procurement of water and other local resources, the participation of local people and communities in the project economy by means of preferential employment and the chance to sell foodstuff to the workforce, the aversion of risk, the creation of a channel of communication whereby local communities may readily make their views heard and may receive information, the timely dissemination of accurate and adequate information about the project to local people, and the meaningful consultation with the local community with regard to project planning, design and implementation.

In order to minimise social disruptions on the neighbouring communities, the contractor shall preferentially hire labour from the nearby local communities and shall offer local workers preferential opportunities for employment and technical or vocational training, as far as possible without detrimental to the quality or duration of the works.

In hiring local labour the contractor shall comply with all Tanzania laws and regulations related to labour and the workforce, including those laws passed under the Employment and Labour Relations Act of 2004, as well as applicable International Labour Organisation.

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The contractor shall not knowingly employ any worker under the age of eighteen years nor allow any subcontractor to hire any person under the age of eighteen years, save that a 17 year old apprentice receiving vocational training could be employed under appropriate conditions that make provision for training.

The contractor shall ensure that proper payment of all applicable taxes and levies associated with the hire of local staff is made to Tanzania Revenue Authority and social security funds. The contractor shall also recognise the rights of unions and employees rights of association.

### 3.2 HIV/AIDS Minimization

The contractor (and proponent) has an obligation to institute on-site HIV/AIDS awareness campaign and preventive measures. Project proponent or contractor himself will implement HIV/AIDS awareness and prevention programmes through a hired NGO and workers must be allowed to attend awareness campaigns.

Given the increasing seriousness of the HIV/AIDS problem and the perception that projects and personnel involved serve as one of the principal means of the virus moving from one part of the country to another, the project proponent/ contractor must integrate HIV/AIDS issues into all of their activities.

#### **General Requirement**

The contractor shall allow his employees to take part in regular HIV/AIDS awareness and prevention campaigns for the duration of the contract.

Orientation process of new employed workers must include HIV/AIDS awareness. The prevention of sexual abuse and exploitation of children will form part of that campaign.

Posters will be displayed in workplaces as part of the campaign.

Contractor/proponent must provide suitable sites or meeting rooms for communication activities and for condom distribution.

The awareness campaign activities will commence at the start of the construction period and continue throughout the construction period.

### 3.3 Environmental Requirements

Mitigation measures outlined above will be implemented to ensure that the project is implemented without causing severe environmental and social impacts. In addition to the environmental mitigation measures, contractor/project proponent shall take note of the material and equipment supplied that they meet specification as part of the contract.

### 3.4 Declaration of Hazardous Substances

The contractor shall submit a declaration of all the materials used in the manufacture of the plant and equipment being supplied for the project. The declaration shall list all the



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constituent material, their percentage of the plant item by weight, whether they can be recycled at the end of the equipment life and comments on the method of recycling to be used. The contractor/supplier shall declare all substances classified as hazardous in the equipment being supplied. These materials may be either hazardous to health (e.g. carcinogens, toxic, radioactive, dermatitis-inducing) or to the environment (contribute to global warming, ozone depletion, water pollution)

The contractor shall submit safety data sheets for all hazardous substances used in the manufacture of an item of plant. This includes packaging waste that can have associated biological issue such as transmission of disease or introduction of unwanted flora and fauna.

Should it be found that the plant or its packaging contains hazardous substances; the contractor shall undertake to dispose of, at his own cost, all equipment and plant supplied under the contract.

The contractor is required to dispose of any waste in a manner which does not harm the environment.

### 3.5 Roles and Responsibilities

The contractor shall implement mitigation and monitoring measures under the direct supervision of the Project Engineer (PE). The contractor is also responsible for the systematic and periodic monitoring of environmental and social aspects. The contractor/proponent environmental and social management officer shall be assigned responsibility to oversee the implementation of the mitigation and monitoring measures. The contractor/project proponent shall ensure that all the identified potential environmental and social parameters and variables are monitored in order to get sufficient data and information to reveal the trend(s) or performance of the project. In summary the responsibilities are as follows:

#### 3.5.1 Project Engineer

The primary responsibility of the Project Engineer (PE) is to ensure that the contractor complies with the environmental specifications in this ESMP. The PE shall:

- Assume overall responsibility for the effective implementation and administration of the ESMP
- Ensure that the ESMP is included in the contractors contract
- Ensure that the ESMP is given to the applicable construction supervisor and contractors
- Undertake regular inspections of the contractor's site as well as the construction works in order to check for compliance with the ESMP in terms of the specifications outlines in this document. Inspections using a checklist shall take place at least twice a month and the monitoring checklist maintained on file
- Keep a register of major incidents (spills, injuries, complaints, legal transgressions, etc) and other documentation related to the ESMP
- Report to the Environmental Unit TANESCO Head Office any problem (or complaints) which cannot first be resolved in cooperation with the contractor

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- Implement recommendations of possible audits
- Ensure construction staffs are trained in accordance with requirements of the ESMP
- Inform all relevant stakeholders of the date of construction at least one week in advance

### 3.5.2 Contractor

The construction contractor will have big responsibility of ensuring that environmental and social impacts are mitigated. The contractor shall:

- Ensure that the environmental specifications of this document (including any revisions, additions or amendments) are effectively implemented.
- Monitor environmental performance and conformance with the specifications contained in this document during site inspections
- Discuss implementation of and compliance with this document with staff at routine site meetings
- Report progress towards implementation of and no-conformances with this document at site meeting with the project engineer
- Ensure that suitable records are kept and that the appropriate documentation is available to the project engineer
- Advise the project engineer of any incidents or emergencies on site, together with a record of action taken
- Report and record all accidents and incidents resulting in injury or death

TANESCO is planning to work with district experts and the National Environment Management Council (NEMC) during implementation and monitoring exercise.

### 3.6 Environmental Training

Implementation of environmental and social management and monitoring plans need a good knowledge on environmental management and monitoring. Therefore it is very important that all those who will be involved directly in planning and managing construction are equipped with environmental management tools. Some will need awareness raising training on social aspects while others will need training on specific environmental and social parameters. Project engineer and contractor shall ensure that training on health and safety awareness is conducted before workers are allowed to move to the site.

Supervision of the ESMP will be initiated through a capacity building programme for TANESCO staff (Environmental Unit, and Kilimanjaro Regional Office), NEMC and the Moshi District Environmental Coordinator in their role in the project monitoring and control. The programme will comprise a one day formal course prior to commencement of construction. The course content will include all aspects of the ESMP.

### 3.7 Commitment and Financial Resources

Implementing and monitoring of these environmental mitigation measures will need financial resource commitment from the project proponent. This means some funds shall be set aside for implementing the mitigation measures and monitoring tasks while

other environmental mitigation imbedded in the design shall be included in the construction costs. The expected costs include costs for monitoring, awareness raising (health, environmental and training), compensation and capacity building costs.

### **3.8 Reporting**

Monitoring reports will be prepared and submitted to relevant bodies including Ministry of Energy, NEMC and Moshi District.

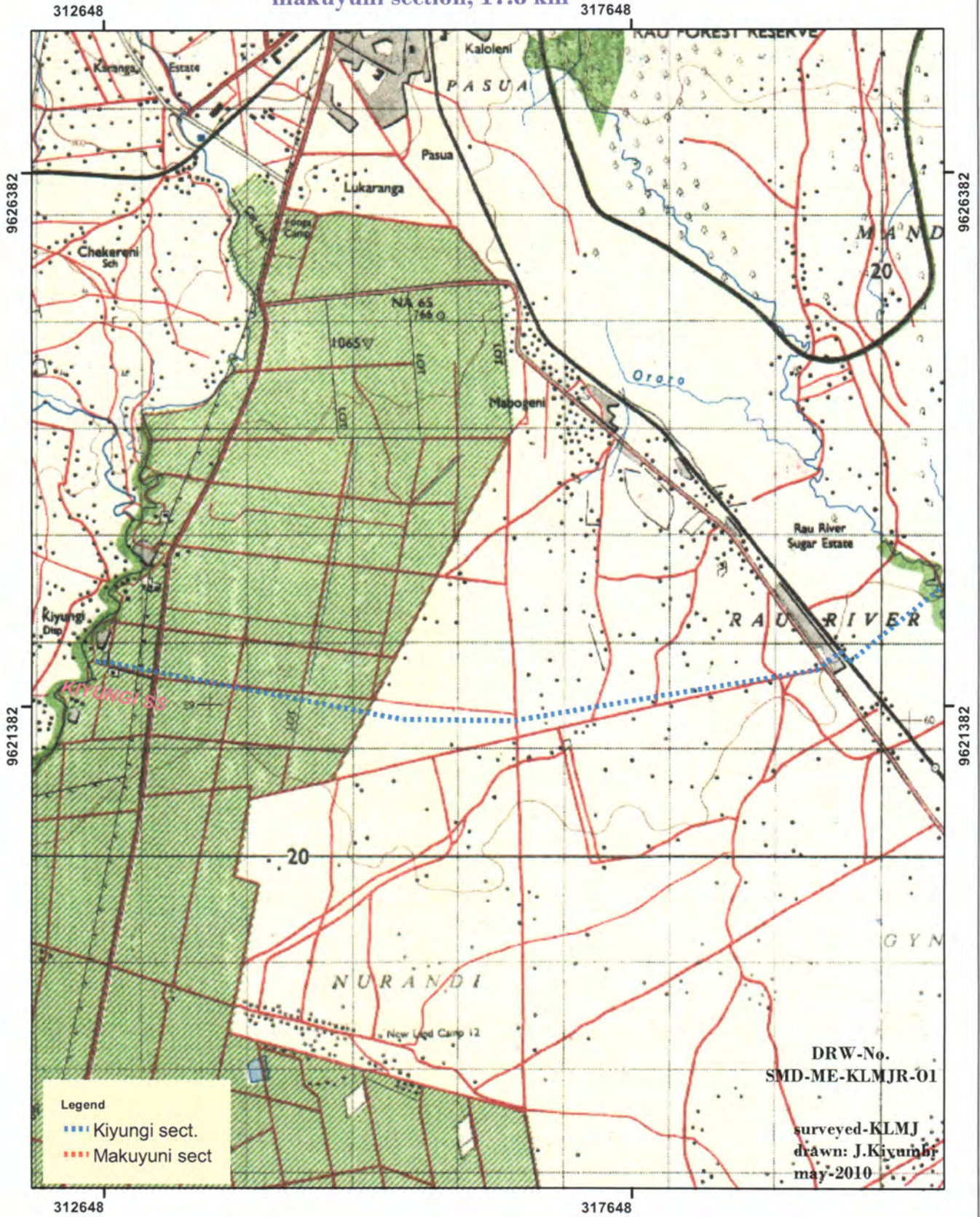
sheet-01/04

POWER IMPROVEMENT IN KILIMANJARO REGION



# OVER-VIEW

Proposed Kiyungi-Makuyuni\_66kV-line.  
kiyungi section, 13 km  
makuyuni section, 17.8 km



Legend  
..... Kiyungi sect.  
..... Makuyuni sect

DRW-No.  
SMD-ME-KLMJR-01

surveyed-KLMJ  
drawn: J.Kiyumbi  
may-2010

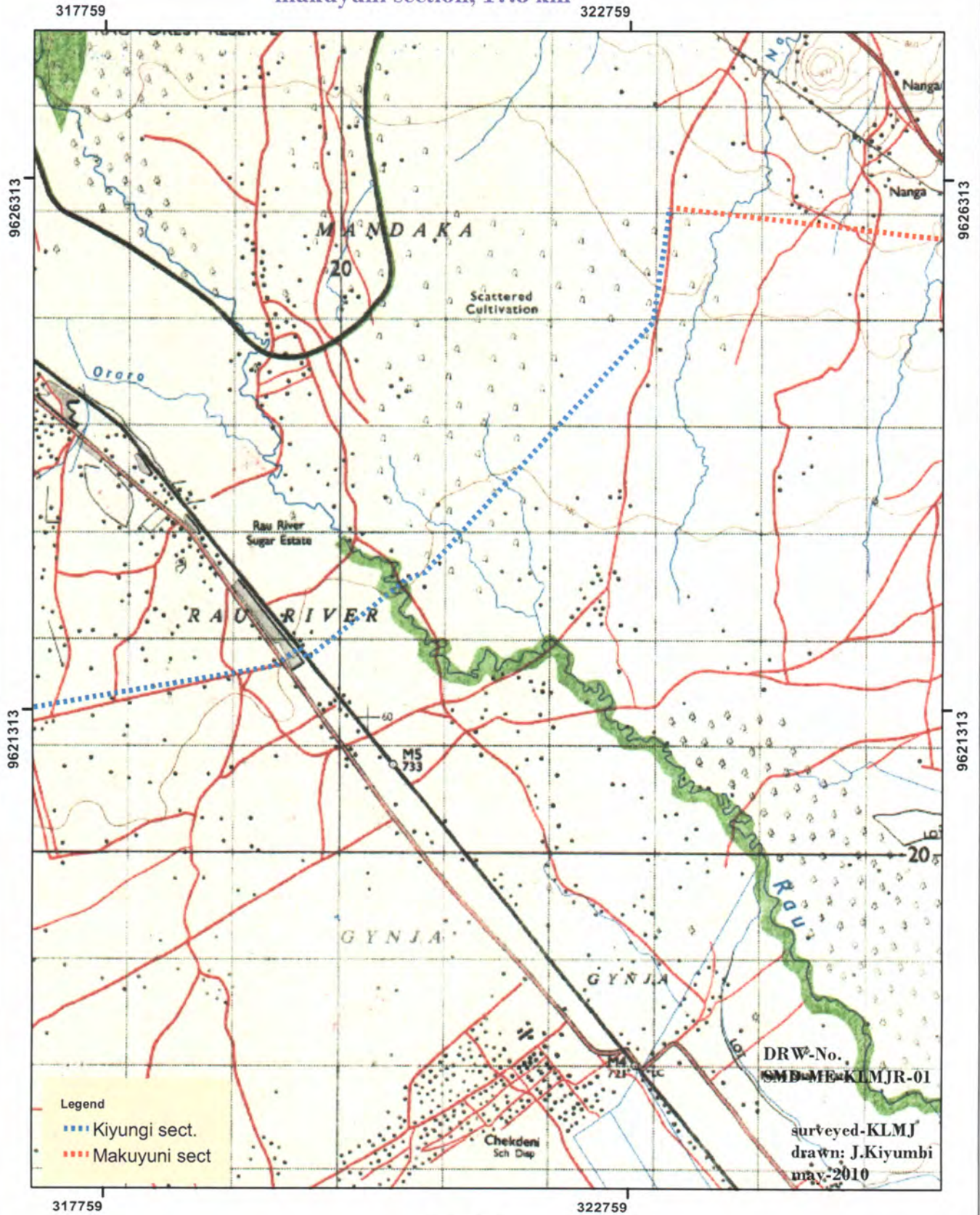
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POWER IMPROVEMENT IN KILIMANJARO REGION

# OVER-VIEW

Proposed Kiyungi-Makuyuni\_66kV-line.  
kiyungi section, 13 km  
makuyuni section, 17.8 km



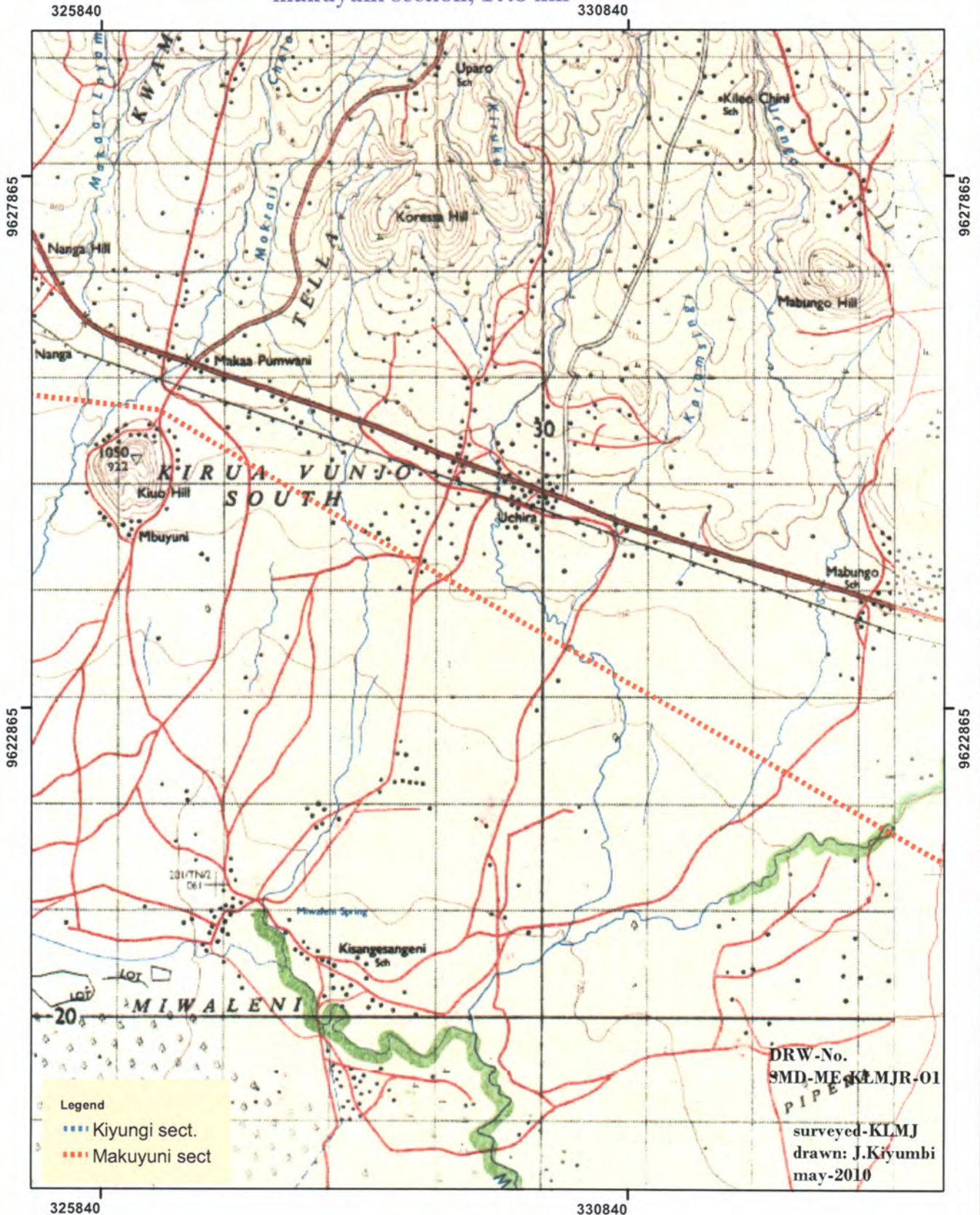
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sheet-03/04

POWER IMPROVEMENT IN KILIMANJARO REGION

# OVER-VIEW

Proposed Kiyungi-Makuyuni\_66kV-line.  
kiyungi section, 13 km  
makuyuni section, 17.8 km

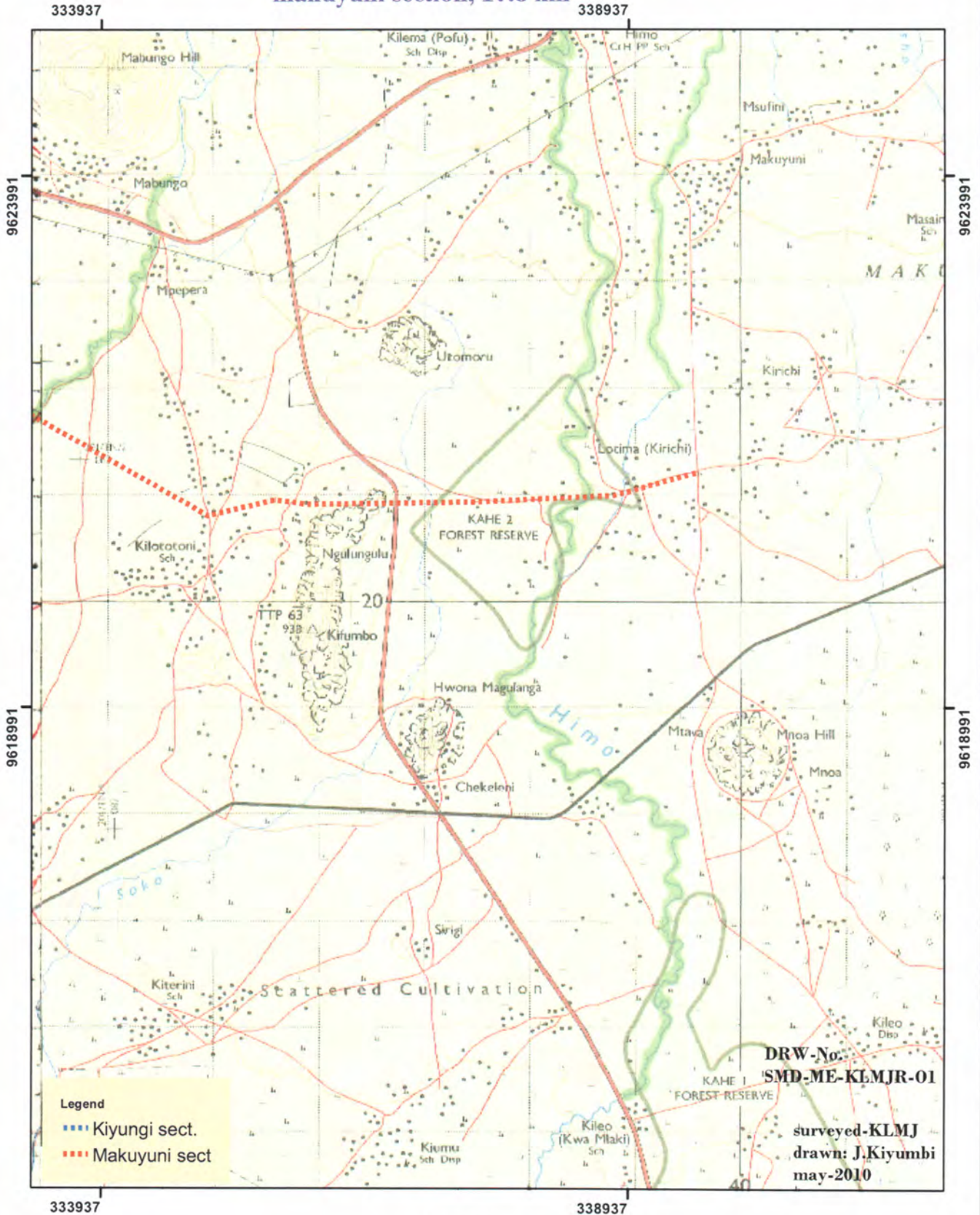


sheet-04/04

POWER IMPROVEMENT IN KILIMANJARO REGION

# OVER-VIEW

Proposed Kiyungi-Makuyuni\_66kV-line.  
kiyungi section, 13 km  
makuyuni section, 17.8 km



1:50,000

## 資料－７ スクリーニング報告書





# NATIONAL ENVIRONMENT MANAGEMENT COUNCIL (NEMC)

BARAZA LA TAIFA LA HIFADHI NA USIMAMIZI WA MAZINGIRA

Tel Dir.: +255 22 277 4852  
Tel: +255 22 277 4889  
Mobile: +255 713 - 608930  
Fax: +255 22 277 4901  
E-mail: nemc@nemctan.org

- 8 JUL 2010

Regent Estate Plot No. 29/30  
P.O. Box 63154,  
DAR ES SALAAM  
TANZANIA

In reply please quote:

**NEMC/04/20/Vol. V/21**

Ref:.....



Date: **06/07/2010**

Managing Director,  
TANESCO Ltd,  
P.O. Box 19024,  
Dar-es-Salaam. (Att: Felician Mayila)

## RE: SCREENING DECISION ON THE PROPOSED REHABILITATION OF SUBSTATIONS AND CONSTRUCTION OF TRANSMISSION LINE IN KILIMANJARO REGION

The above subject matter refers.

We acknowledge receipt of your letter Ref. SMSPP/MRE/EIA/19 of 4<sup>th</sup> June 2010 attached with three copies of dully filled EIA Registration forms and ten copies of Project Brief for the above mentioned undertaking. We have reviewed the documents and found that, this project falls in the list for which EIA study is mandatory.

In this regard, you are required to prepare a scoping report and draft Terms of Reference (ToR) for undertaking the EIA and submit them to the Council for review and approval before conducting the EIA study.

We look forward to your cooperation on this matter.

F. C. N. Rugiga  
For Director General

資料－８ スコーピング・レポートに関する  
NEMC からの通知文書



# NATIONAL ENVIRONMENT MANAGEMENT COUNCIL (NEMC)

BARAZA LA TAIFA LA HIFADHI NA USIMAMIZI WA MAZINGIRA

Tel Dir.: +255 22 277 4852  
Tel: +255 22 277 4889  
Mobile: +255 713 - 608930  
Fax: +255 22 277 4901  
E-mail: nemc@nemctan.org

Regent Estate Plot No. 29/30  
P.O. Box 63154,  
DAR ES SALAAM  
TANZANIA

In reply please quote:

Ref:..... **NEMC/04/20/Vol. 1V/28**

Date:..... **9/09/2010**

Managing Director,  
TANESCO Ltd,  
P.O. Box 19024,  
Dar-es-Salaam. (Att: D.P.Mhaiki)

**RE: SCOPING REPORT ON THE PROPOSED REHABILITATION OF  
SUBSTATIONS AND CONSTRUCTION OF TRANSMISSION LINES IN  
KILIMANJARO REGION**

The above subject matter refers.

We acknowledge receipt of your letter Ref. SMSPP/MRE/EIA/19 of 31<sup>st</sup> August 2010 attached with two copies of the scoping report on the above mentioned undertaking. We have reviewed the above document and found that they have taken most of environmental and social issues, and that the ToR can be used for undertaking detailed Environmental Impact Assessment study.

However, we have some comments which you will be required to work on for improvement and re-submit a copy of the same to the Council for record.

Should there be a need for further clarification or information on the EIA process please contact us on Telephone no. 0754 311592.

F.C.N. Rugiga  
For Director General

## 資料－9 環境影響説明書の提出に係る文書



**SHIRIKA LA UMEME TANZANIA  
TANZANIA ELECTRIC SUPPLY COMPANY LIMITED**

Ubungo Head Office, "Umeme Park", P.O.Box 9024 Dar Es Salaam, Tanzania. Tel: +255 22 2451130/9. Fax: +255 22 2452026

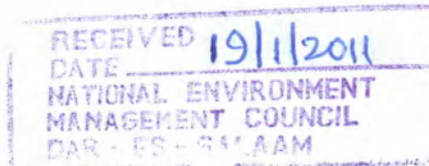
Our Ref:

**SMSPP/MRE/EIA/19**

Date

**14<sup>th</sup> Jan 2011**

The Director General  
National Environment Management Council  
Dar Es Salaam



Dear Sir,

**RE: REHABILITATION OF SUBSTATIONS AND TRANSMISSION LINE CONSTRUCTION PROJECT IN KILIMANJARO REGION**

**Subject: - Environmental and Socio Impact Assessment (ESIA) Report Submission**

Reference is made to the Environmental Management Act, 2004 (No. 20 of 2004) of which required that the ESIA report is to be reviewed by Technical Advisory Committee (TAC).

Attached herewith are fifteen (15) copies of draft final version of the ESIA report for the above-mentioned project for your further decisions.

Thank you for your continued warm co-operation.

Yours faithfully,

For: **TANZANIA ELECTRIC SUPPLY COMPANY LIMITED.**

Decklan P. Mhaiki

For: **MANAGING DIRECTOR**

GMT/DPM/YRK

資料一 1 0 **Matrix of Entitlement**

Matrix of Entitlement

Category of Displaced Persons	Type of Loss	Entitlement				
		Compensation for Loss of Land	Compensation for Loss of Structures and Assets	Compensation for Loss of Profit or Income	Allowances	Assistance
Owners of farms or plots with houses and other buildings in ROW (or Way Leave)	Loss of land	Compensation at market value. As far as possible PAPs (Project Affected Persons) will be allowed to continue farming certain crops within the ROW after construction of the transmission line		Standing crops: Compensation at capitalized annual average value	Disturbance allowance at 4% - 6% of land value	Project assistance to locate and negotiate replacement land if requested  Land preparation cost included in land value
	Loss of residential and other buildings		Compensation at replacement cost		Accommodation allowance equivalent to 36 months rent for the displaced house  Transport allowance at cost to move 12 t for 20 km	Project assistance with organizing and supervising construction of replacement houses and buildings if requested
Owners of farms or plots with non-residential buildings in ROW	Loss of land	Compensation at market value. As far as possible PAPs will be allowed to continue farming certain crops within the ROW after construction of the transmission line		Standing crops: Compensation at capitalized annual average value	Disturbance allowance at 4% - 6% of land value	Project assistance to locate and negotiate replacement land if requested  Land preparation cost included in land value
	Loss of buildings		Compensation at replacement cost			Project assistance with organizing and supervising construction of replacement buildings if requested
Owners of farms or plots without buildings in ROW	Loss of land	Compensation at market value. As far as possible PAPs will be allowed to continue farming certain crops within the ROW after construction of the transmission line		Standing crops: Compensation at capitalized annual average value	Disturbance allowance at 4% - 6% of land value	Project assistance to locate and negotiate replacement land if requested  Land preparation cost included in land value

## 資料－ 1 1 土地売買契約の事例



AGREEMENT FOR LAND SELLING.  
Selling of the ~~Traditional~~ Land Agreement  
**HATI YA UTHIBITISHO WA MAUZO NA UNUNUZI**

1. Mimi **BENJAMIN PHILIP KARENGI** wa sanduku la barua 224, HIMO – KILIMANJARO nathibitisha kwamba ni mmiliki halali wa **kiwanja Na. 1200 kilichopo KITALU "F", MJI WA HIMO WILAYA YA MOSHI.**
2. Nakubali kumuuzia **GODSON JONATHAN MATERU** wa sanduku la barua 3010, MOSHI kiwanja Na. 1200 kilichopo KITALU "F", MJI WA HIMO WILAYA YA MOSHI na kwamba GODSON JONATHAN MATERU amekubali kununua kiwanja hiki kwa bei itakayoonyeshwa hapa chini.
3. Mimi GODSON JONATHAN MATERU wa sanduku la barua 3010, MOSHI nakubali kununua kiwanja Na. 1200 kilichopo KITALU "F", MJI WA HIMO WILAYA YA MOSHI kwa bei itakayoonyeshwa hapa chini.

*Price for the Plot.*

4. BEI YA KIWANJA HIKI NI **SHS. 2,300,000/= (SHILINGI MILIONI MBILI LAKI TATU TU).**

*Payment Regulations.*

5. **UTARATIBU WA MALIPO NI KAMA IFUATAVYO:**

(i) Mnunuzi amekubali kulipa fedha zote yaani (Shs. 2,300,000/=) Shilingi milioni mbili na laki tatu tu kwa mara moja (awamu moja tu).

(ii) Muuzaji amekubali kulipwa fedha hizo kwa awamu hiyo moja na kuthibitisha kwamba hatadai tena malipo mengine yeyote yale ya ziada kuhusiana na kiwanja Na. 1200 kilichopo KITALU "F", MJI WA HIMO WILAYA YA MOSHI.

*Surrendering agreement. Offer*

6. **UTHIBITISHO WA KUKABIDHI OFA YA KIWANJA**

Mimi BENJAMIN PHILIP KARENGI wa sanduku la barua 224, HIMO namkabidhi nakala halisi (original) ya barua ya ofa ya kiwanja Na. 1200 KITALU "F", kilichopo MJI WA HIMO WILAYA YA MOSHI Ndugu GODSON JONATHAN MATERU wa sanduku la barua 3010, MOSHI – KILIMANJARO, kwa gharama zilizotajwa katika makubaliano haya, na sina kipingamizi cha yeye kubadilishiwa ofa ya kiwanja hiki kwa jina lake. Naahidi kushirikiana naye katika kubadilisha ofa hii kikamilifu.

# Acceptance of payments amount.

## 7. UTHIBITISHO WA MALIPO:

(i) Mimi BENJAMIN PHILIP KARENGI wa sanduku la barua 224, HIMO – KILIMANJARO nimepokea leo tarehe 08 mwezi Julai mwaka 2008 fedha taslim Shs. 2,300,000/= (Shilingi milioni mbili laki tatu tu) kutoka kwa NDUGU GODSON JONATHAN MATERU wa sanduku la barua 3010, MOSHI – KILIMANJARO zikiwa ni malipo kwa ajili ya ununuzi wa kiwanja Na.1200 – KITALU "F" MJI WA HIMO WILAYA YA MOSHI.

Name of the seller

8. JINA LA MUUZAJI: PHILIP A. KARENGI TAREHE: 08-07-2008

~~Name of the buyer~~

SAHIHI YA MUUZAJI [Signature] (Signature)

Witness of the seller

SHAHIDI WA MUUZAJI: CHARLES N. KIMARO TAREHE: 08-07-2008

Witness Signature

SAHIHI YA SHAHIDI: [Signature]

Name of the buyer

9. JINA LA MNUNUZI: GODSON J. MATERU TAREHE: 08/07/2008

Signature of the buyer

SAHIHI YA MNUNUZI [Signature]

Witness of the buyer

SHAHIDI WA MNUNUZI: FELIX TOUNGHA TAREHE: 08/07/2008

Witness Signature

SAHIHI YA SHAHIDI: [Signature]

## 資料－１２ スコーピング・サマリー

## Summary of the Preparatory Survey for Grant Aid

### 1. Title of the Project

The Project for Rehabilitation of Substation and Transmission Line in Kilimanjaro Region in the United Republic of Tanzania (hereinafter referred to as “the Project”)

### 2. Categorization and its Reason

#### Category B

Reasons: The Project is composed of upgrading of existing substations, construction of new substations, and construction of transmission and distribution lines. Regarding the construction and upgrading of substations, the adverse impacts on the environment and society are not significant because those scales are not large and the adverse impacts from the project activities can be avoided or minimized by normal mitigation measures, while there is requirement of land acquisition and land clearance. As for the construction of transmission and distribution lines, the adverse impacts on the environment and society are also not significant, because the most of the transmission pylons and distribution poles are erected on farm land or vacant land.

### 3. Outline of the Location

#### 3.1 Geographical Features

The United Republic of Tanzania is located on the east coast of Africa, and lies between 29°30'E and 40°30'E, and 1°00'S and 11°48'S. It has an area of approximately 945,000 km<sup>2</sup> which includes the three major coastal islands of Mafia, Pemba and Zanzibar. The country is bordered by Uganda to the north, Rwanda and Burundi to the north-west, the Democratic Republic of Congo to the west, Zambia and Malawi to the south-west, Mozambique to the south, and Kenya to the north-east, as shown in **Figure 1**. The geography is characterized by plains along the coast, a central plateau, and highlands in the north and south. Those altitudes range from sea level to the highest point of Africa, the glaciated peak of Kilimanjaro at 5,895 m.

The Project is planned in the administrative region of Kilimanjaro which is located on the border with Kenya and consists of six administrative districts: Moshi Urban (58 km<sup>2</sup>), Moshi Rural (1,713 km<sup>2</sup>), Hai (2,111 km<sup>2</sup>), Rombo (1,422 km<sup>2</sup>), Same (5,186 km<sup>2</sup>) and Mwanga (2,698 km<sup>2</sup>). The regional administration is headquartered in Moshi Urban.

#### 3.2 Population

The total population of Tanzania enumerated in the 2002 Population and Housing Census was 34.4 million, of which 33.5 million or 97.1 percent were in Tanzania Mainland and 982,000 or 2.9 percent in Tanzania Zanzibar. The average annual rate of growth during the most recent inter-census period of 14 years from 1988 to 2002 was 2.9 percent, and the population density was 36.5 inhabitants per km<sup>2</sup> in 2002.

On the other hand, the total population of Kilimanjaro Region was 1,377 thousands or 4 percent of the total population of Tanzania in 2002. The average annual rate of growth during the same period was 1.6 percent which was lower than the national level. The population density was 104.4 inhabitants per km<sup>2</sup> in 2002.

#### 3.3 Climate and Hydrology

Tanzania experiences a variety of climatic conditions, ranging from the alpine deserts on the top slopes of Mt. Kilimanjaro that are permanently covered by snow, to the tropical coastal areas that are under the influence of two monsoon winds. Average annual precipitation over the entire nation is 1,042 mm, and average temperatures range between 17°C and 27°C depending on location.

The average temperatures in Moshi town vary between 21°C and 27°C, and the annual rainfalls in recent years were 606 mm in 2007, 1,047 mm in 2008 and 801 mm in 2009.

## 12. スコーピング・サマリー

The project sites are located in the administrative districts of Moshi Urban and Moshi Rural within the Pangani River Basin which is one of the major river basins of Tanzania Mainland. The Pangani River Basin covers 43,650 km<sup>2</sup>, and supplies water to the administrative regions of Tanga, Kilimanjaro and Arusha, supporting a number of important economic activities.



Figure 1 Object Region of the Project

### 4. Institutional and Administrative Structure for EIA in Tanzania Mainland

#### 4.1 Ministry of Environment

The Ministry of Environment, which is under the jurisdiction of the Office of the Vice-President, is responsible for overall environmental management and protection on the Tanzanian Mainland.

#### 4.2 The National Environmental Management Council (NEMC)

The National Environmental Management Council (NEMC) was initially established in 1983, and its composition, powers and functions were redefined in Part III (d) of the Environmental Management Act of 2004 (EMA 2004). The NEMC is responsible for undertaking enforcement, compliance, review and monitoring of Environment Impact Assessment (EIA), including facilitation of public participation

## 12. スコーピング・サマリー

in environmental decision making. Regarding EIA procedure, the NEMC carries out screening for registered projects which are likely to have a significant impact on the environment, as well as review of EIA documents, giving advice on issuing of environmental permit to the Minister and evaluation of environmental auditing report (EAR).

### 4.3 The National Environmental Advisory Committee (NEAC)

The composition, powers and functions of the National Environmental Advisory Committee (NEAC) were set out in Part III (a) of the EMA 2004. The NEAC, which is composed of members reflecting various fields of environmental management from the public and private sectors and civil society, is an advisory body to the Minister on all matters relating to the protection and management of the environment.

### 4.4 Director of Environment

The Director of Environment is set up within the Ministry. Part III (c) of the EMA 2004 sets out the roles and responsibilities for the Director of Environment as follows:

- Coordination of various environment management activities being undertaken by other agencies;
- Promotion of the integration of environment considerations into development policies, plans, programs, strategies and projects through the use of strategic environmental assessment (SEA);
- Offering of advice to the Government on legislative and other measures for the management of the environment or the implementation of the relevant international agreements in the field of environment;
- Preparation and issue of a report on the state of the environment in Tanzania; and others.

### 4.5 Cross-sectoral Technical Advisory Committee

The NEMC sets up cross-sectoral technical advisory committee consisting of not less than twelve specialists constituting a multi-disciplinary specialization from the sector Ministries in order to take their advice on reviews of environmental impact assessment related reports.

### 4.6 Environmental Section in each sector Ministry

Functions and duties of environmental section in each Ministry are defined by Part III (e) of the EMA 2004 as follows:

- Ensuring compliance by the line ministry with the EMA 2004;
- Ensuring all environmental matters contained in other laws falling under the sector Ministry; and
- Liaising with the Director of Environment and NEMC on all environmental matters in order to achieve cooperation on shared responsibility for environmental governance.

### 4.7 Regional Secretariat

The Regional Secretariat is responsible for coordination of all advice on environmental management in their respective regions and liaison with the Director of Environment and the Director-General of the NEMC on the implementation and enforcement of the EMA 2004. Within the Regional Secretariat, a person to be known as the Regional Environmental Management Expert, who is responsible for advising the local authorities on matters relating to the implementation and enforcement of the EMA 2004, is appointed or designated by the Minister responsible for regional administration.

### 4.8 Local Government Authorities

Under the EMA 2004, each City, Municipal, District and Town Council appoints an Environmental Management Officer and establishes an Environmental Management Committee. The responsibilities of the Environmental Management Officer are mainly as follows:

- Enforcement of the EMA 2004 in his/her area of responsibility;
- Offering of advice to the Environmental Management Committee on all matters relating to

## 12. スコーピング・サマリー

- environment;
- Promotion of environmental awareness regarding the conservation and utilization of natural resources;
- Collection and management environmental information;
- Preparation of periodic reports on state of the local environment; and
- Monitoring of the preparation, review and approval of EIAs for local investments.

The responsibilities of the Environmental Management Committee are mainly as follows:

- Inquiries and investigations about any allegation relating to environment;
- Resolution of conflicts among individual persons, companies, agencies, non governmental organizations, Government departments or institutions about their respective functions, duties mandates, obligations or activities under the EMA 2004;
- Inspection and examination of any premises, street, vehicle, aircraft or any other place or article which is believed to have cause of pollution;
- Mandate to any person to remove at own cost any article or substance from any place of which article or substance is believed to be safely kept or destroyed without causing harm to health; and
- Proceeding of civil or criminal action against any person, company, agency, department or institution that fails or refuses to comply with requirements of the Committee.

In the same way, each Township, Ward, Village, Mtaa and Kitongoji establishes a development committee and designates an Environment Management Officer to manage the natural resources of their areas and to ensure compliance with the EMA 2004. However, these lower tiers of local administration do not have any responsibility for the EIA process.

## 5. Policy and Legal Framework for EIA in Tanzania Mainland

### 5.1 Policy and Legal Framework

#### (1) National Environmental Policy

The National Environmental Policy (NEP), which was adopted in 1997, seeks to provide the framework for making fundamental changes that are needed to bring environmental considerations into the mainstream of decision making in Tanzania. The NEP seeks to provide guidance and planning strategies in determining how actions should be prioritized, and provides for the monitoring and regular review of policies, plans and programs. It further provides for sectoral and cross-sectoral policy analysis in order to achieve compatibility among sectors and interest groups and exploit synergies among them. The overall objectives of the NEP are, therefore, the following:

- To ensure sustainability, security and equitable use of resources for meeting the basic needs of the present and future generations without degrading the environment or risking health and safety;
- To prevent and control degradation of land, water, vegetation and air which constitute our life support systems;
- To conserve and enhance our natural and man-made heritage, including the biological diversity of the unique ecosystems of Tanzania;
- To improve the conditions and productivity of degraded areas including rural and urban settlements in order that all Tanzanians may live in safe, healthful, productive and aesthetically pleasing surroundings;
- To raise public awareness and understandings of the essential linkages between environment and development, and to promote individual and community participation in environmental action; and
- To promote international cooperation on the environment agenda, and expand our participation and contribution to relevant bilateral, sub-regional, regional, and global organizations and programs, including implementation of treaties.