



**Ethiopian Electric Power**



**EASTERN ELECTRICITY HIGHWAY  
ETHIOPIA-KENYA POWER SYSTEMS  
INTERCONNECTION PROJECT RAP**

**EEP**

**Ethiopian Electric Power**

**KETRACO**

**Kenya Electricity Transmission Company  
Limited**

**CONVERTER STATION,  
GROUND ELECTRODE AND MVTL  
Land Acquisition Plan  
ETHIOPIA**

**February, 2016**

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## ABBREVIATION AND ACRONYMS

|          |  |
|----------|--|
| AC       | Alternate Current  |
| AfDB     | African Development Bank                                 |
| CBO      | Community Based Organization                             |
| CIS      | Corrugated Iron Sheet                                    |
| CSA      | Central Statistical Authority                            |
| CS       | Converter Station  |
| EEP      | Ethiopian Electric Power                                 |
| EHS      | Environmental Health Standard                            |
| EIA      | Environmental Impact Assessment                          |
| EPA      | Environmental Protection Authority                       |
| ERA      | Ethiopian Road Authority                                 |
| ESIA     | Environmental and Social Impact Assessment               |
| ESAP     | Environmental and Social Assessment Procedures           |
| ESMU     | Environment and Social Management Unit                   |
| FDRE     | Federal Democratic Republic of Ethiopia                  |
| FHH      | Female Headed Households                                 |
| GE       | Ground Electrode   |
| GDP      | Gross Domestic Product                                   |
| GPS      | Global Positioning System                                |
| HH       | Household Head   |
| HIV/AIDS | Human Immuno Virus / Acquired Immuno Deficiency Syndrome |
| HVAC     | High Voltage Alternate Current                           |
| HDVC     | High Voltage Direct Current                              |
| IFC      | International Finance Corporation                        |
| ILCA     | International Livestock Center Africa                    |
| JPCU     | Joint Project Coordination Unit                          |
| JSC      | Joint Steering Committee                                 |
| KETRACO  | Kenya Electricity Transmission Company                   |
| kV       | kilo Volt  |
| LS       | Lump Sum   |
| Km       | Kilometer  |
| M        | meter  |
| MoFED    | Ministry of Finance and Economic Development             |
| MVTL     | Medium Voltage Transmission Line                         |
| NGO      | Non Governmental Organization                            |
| OH       | Over Head  |
| PAP      | Project Affected Persons                                 |



|        |  |
|--------|--|
| PIC    | Public Information Center                                |
| PIU    | Project Implementation Unit                              |
| RAP    | Resettlement Action Plan                                 |
| ROW    | Right of Way   |
| SNNPRS | South Nations, Nationalities and People's Regional State |
| STD    | Sexually Transmitted Diseases                            |
| TV     | Television   |
| WB     | World Bank   |
| USD    | United States Dollar                                     |

## Executive Summary

### A. General

The Ethio-kenya interconnection project is planned to provide reliable power supply to Kenya from Ethiopia's National Grid System. The transmission line to be constructed is a High Voltage Direct Current (HVDC) having  $\pm 500$  kV double pole line which starts from Sodo substation in Southern Ethiopia, some 382 km from Addis Ababa. The total length of the project is 1066 km and of which 433 km is located inside Ethiopia.

The project includes the construction of a Converter Station (CS) in Welayta Sodo Woreda, a Ground Electrode (GE) in Humbo Woreda along with 6km of Medium Voltage Transmission Line (MVTL) 30 kV to connect the GE with the HVDC line.

An ESIA and RAP for the main line were conducted in 2009 by Fichtner and revised by Tropics in 2012. At the time of that review the project did not include the RAP and ESIA study for the Converter Station and the Ground Electrode. Therefore, the objective of this assignment is to produce a land acquisition plan for the above mentioned components.

The main objective of preparing this land acquisition plan is to ensure that people living in the project area are not impoverished due the implementation of the project. The implementation of the project has to be carried out without making much negative impacts on the livelihood of the population and the environment. Appropriate mitigation and compensation measures have to be taken to ensure that the impacts from the construction of the transmission line are minimal. The RAP establishes the basis for the design of relocation and resettlement of the project affected persons.

It is prepared to avoid the impoverishment of Project Affected Persons (PAPs) due to development projects; it is gender sensitive, takes care of vulnerable groups, puts emphasis on community participation, and considers providing support to host communities.

A Socio economic survey has been conducted in the Converter Station and Ground Electrode areas in order to map the affected households and define their socio economic profile. Aim of the study is to determine the magnitude of the impacts on PAPs livelihood and set guidelines for the compensation and alternative source of livelihood procedure so as to avoid risk of impoverishment of PAPs.

### B. Description of the project

The transmission line inside Ethiopia traverses through nine Woredas (or districts) located in two Regional states, namely Southern Nations, Nationalities' and People's Regional State (SNNPRS) and Oromia.

The ESIA has studied four alternative routes for the construction of the transmission line. Among the four alternative routes, the one known as A/C has been identified as the preferred option from environmental, social and technical point of view (Figure 1.1-1). The line enters into the Kenyan territory at a coordinate point of 421519(E) and 397867 (N).

In Ethiopia, the transmission line could be divided into two main parts. The first section, which is located from km 00 to km 204, crosses a number of rural villages having highly cultivated farmlands and densely populated areas. The second section, which starts from km 204 to km 433 up to the Kenyan border, has less cultivated fields and low population density.

The line require 65 angle towers and 995 suspension towers. The Right of Way (ROW) is 50 m wide in not habited areas and 65 m wide adjacent to settlements.

The project includes ancillary services for camp constructions, permanent and temporary access roads.

Moreover a Converter Station and a Ground Electrode are planned to be built in the first section of the line in Southern Nations, Nationalities, and Peoples' Region.

The new 400 kV Converter Station switchyard is located in Wajakero Kebele, Wolayta Soddo Woreda, about 315 km of road distance from Addis Ababa and approximately 20 km north of the Northern end of Lake Abaya(WGS84 UTM 37N. X= 369,278 ; Y= 744,320).

The proposed ground electrode site (SDn400) is located in Ela Kebele, Humbo Woreda, it is close to station 404 and located about 22km from the Converter Station. The area is flat, dominated by thorny bushes and acacias, indicating shallow water table heading towards Lake Abaya. The soil is of volcanic origin and the near surface soil appears dry and drained. The elevation is 1,555m above sea level and the coordinates are WGS84 UTM 37N X= 358,846, Y= 763,762 (ANNEX 2 Ground Electrode – Project Map).

### C. Summarized Project Impacts

The project will require permanent land acquisition causing the displacement of 21hh (141 people) in the Converter Station area and 6 hh (45 people) in the Ground Electrode area.

The table below presents the number of PAPs and type of impact per project components.

Furthermore, the project will cause loss of structures, crops, tress and graveyards and the . Converter Station also will affect the communal grazing land.

The socio-economic survey has also identified 28 vulnerable households which constitute elderly , women heads of households and people with disability.

| Project Components | Total n. of affected HH | Total n. of PAPS | Total N. of HH who will lose residential land | Total N. of PAPs who will lose residential land | Total N. of HH who will lose farm land | Total N. of PAPs who will lose farmland | Total N. of HH who will lose trees and crops | Total N. of PAPs who will lose trees and crops |
|--------------------|-------------------------|------------------|---|---|--|---|--|--|
| Kind of Impact     | PERAMANENT              |                  | PERAMANENT                                    |   | PERAMANENT                             |   | PERAMANENT                                   |  |
| Con-verter Station | 52                      | 345              | 21  | 141   | 53                                     | 345                                     | 53   | 345  |
| Ground Elec-trode  | 12                      | 86               | 6   | 45  | 12                                     | 86                                      | 12   | 86   |

### D. Legal Framework

The section on policy and legal framework discusses those policies and legal issues that are pertinent in the preparation and implementation of RAP. Since loss of land is one of the major impacts observed in the construction of the Converter Station and Ground Electrode, FDRE policy on land ownership and expropriation and compensation is discussed in detail. As per the constitution of the Federal Democratic Republic of Ethiopia, land is a public property and that no individual person has the legal right to ownership. Since there is no private ownership of land in Ethiopia, and hence, rural or urban land could not be sold or mortgaged or transferred; citizens

have only usufruct right only over land. A usufruct right gives the user of the land the right to use and the right to benefit from the fruits of her/his labour which may be crops, trees, etc. found on the land or any permanent works such as buildings etc.

In the expropriation of land for public use, the Federal Democratic Republic of Ethiopia (FDRE) has issued two proclamations. Proclamation No. 455/2005, which deals with the expropriation of land holdings for public purposes and payment of compensation and the Council of Ministers Regulation No.135/2007, which details the basis regarding payment of compensation for property situated on land holdings expropriated for public purposes.

#### E. Institutional Framework

The preparation of RAP for Interconnection project and its implementation, the Ethiopian Electric Power (EEP) is responsible and has the legal mandate.

EEP has extensive experience in the preparation and implementation of a number of RAPs that have been implemented under its power projects. In EEP, the Environmental and Social Management Unit is responsible for the monitoring and evaluation of Environmental and Social Impact Assessment (ESIA) and RAP documents prepared for power projects and its implementation.

Within the Ethio – Kenya Interconnection project the Project Implementation Unit (PIU) is the main responsible body for the coordination, facilitation and implementation of this RAP. PIU is also responsible to monitor the restoration of services/utilities affected by the construction works.

Resettlement, property valuation and grievance redress committees has been formed at the woreda level and working with the PIU. It is the responsibility of the PIU to provide all necessary technical support to the committees and facilitate budget and resource allocation required by each Woreda level committee.

#### E Public Consultation

The Public Consultations for the Converter Station Construction project took place on May 17, 2015 in the project area which is located in Wajakero Kebele. The meeting was facilitated by two Woreda Compensation Committees Members Mr Mulugeta Futato and Mr Ephrem Yakos, the head of Wajakero Kebele Mr Daniel Dawana, EEP Representative and EEP's Consultant. The discussion was moderated by Mr Areka Abate, PAPs representative (**ANNEX 6 Public Consultations Records**)

The Public Consultations for the Ground Electrode Construction project took place on May 16, 2015 at the Woreda office and on May 17 in the project area which is located in Ela Kebele. The meeting was facilitated by Woreda Compensation Committees Member, EEP Representative and EEP's Consultant (**ANNEX 6 Public Consultations Records**).

During the public consultation the participants have agreed to cooperate and to take actions that will contribute to the speedy implementation of the project construction works and implementation of this RAP. Similarly, woreda authorities have also agreed and committed to facilitate the implementation of the RAP.

A cut-off date has been established and agreed during the public consultation with PAPs, communities, Woreda authorities and resettlement committees. June 23, 2013 is the cutoff date for the converter station and May 24, 2015 is for the Ground Electrode, which is established following the final inventory of assets and properties located within the Right of Way. The established cut-off date is expected to prevent encroachment into the ROW and thereby posing a risk to the project implementation

#### F Grievance Redress Mechanism

In case dispute arises between the RAP Committees and PAPs the preferred option to settle the dispute will be through amicable means using traditional and cultural methods as well. This will save time and resources as opposed to taking the matter to court. To ensure that the PAP have avenues for redressing grievances related to land acquisition and resettlement, procedures for the redress of grievances has been established for the project. The objective of establishing the grievance redress committees is to respond to the complaints of the PAP promptly and in a transparent manner. The mechanism is designed to be easily accessible, transparent and fair; and that grievances and appeals are to be addressed through arbitrational procedures.

Arbitral tribunals will settle disputes arising in the respective kebeles. The arbitral tribunals will be established from the outset instead of leaving the appointment of the arbitrators to the disputants. This is the preferable option since it might take a lot of time to appoint arbitrators if left to the disputing parties. If any of the parties disagree, the aggrieved party has the right to appeal to the ordinary courts.

### G Budget Requirement for Land acquisition

An itemized budget is required for the implementation of this RAP including compensation payment for PAPs. An indicative cost and budget is prepared for compensation payment of affected properties and also budget for the implementation of the RAP including an estimated 10% contingency. The RAP budget specifies the mechanisms for transferring and channeling funds to responsible organizations and agencies, for disbursement to PAPs. Hence, the total estimated cost and budget will be a total of Birr 19,179,560.15.

EEP will be responsible to disburse, administer and oversee the overall budget. At Woreda level, the Woreda resettlement/implementation committee in collaboration with the PIU will be responsible for compensation payment and relocation activities. The details of the budget preparation and justifications are summarized below for each category; namely, compensation payment for affected properties and assets, rehabilitation support for PAPs, and project running and management cost.

| <b>A. Compensation Costs</b>                      | <b>Estimated Cost ETB</b> |
|---|---------------------------|
| Compensation Costs for Houses                     | 1,119,846.10              |
| Compensation Costs for Crops                      | 11,821,477.74             |
| Compensation Costs for Trees                      | 2,198,139.93              |
| Sub Total   | 15,139,463.78             |
| <b>B. Rehabilitation Measures</b>                 | 0.00                      |
| Vulnerable Households Assistance                  | 140,000.00                |
| Livelihood and Income Restoration                 | 640,000.00                |
| Removal of Graveyards and Reburial Process        | 60,000.00                 |
| Relocation and Rehabilitation Assistance          | 202,500.00                |
| Legal and Administrative Costs                    | 250,000.00                |
| Sub Total   | 1,292,500.00              |
| <b>C. Project Management and Other Costs</b>      | 0.00                      |
| Cost for Resettlement and Compensation Committees | 504,000.00                |
| Monitoring and Evaluation Cost                    | 500,000.00                |



|                    |                      |
|--------------------|----------------------|
| Sub total          | 1,004,000.00         |
| Total (A+B+C)      | 17,435,963.78        |
| Contingency 10%    | 1,743,596.38         |
| <b>Grand Total</b> | <b>19,179,560.15</b> |



## H. Monitoring and evaluation

In order to successfully complete the resettlement action plan as per the implementation schedule and the entitlement matrix and in compliance with the World Bank policy on involuntary resettlement, monitoring and evaluation of the RAP implementation is mandatory. A Monitoring and Evaluation Program that includes internal and external monitoring that has to be regarded as a continuously evolving process has been proposed as part of this RAP. The Project Implementation Unit shall play key roles in reporting the progress of implementation as well as monitoring compliance with this RAP. A lump sum cost estimate of Birr 500,000.00 has been budgeted for such purpose.

## Disclosure

This RAP shall be disclosed in-country to the general public for review and comment before it is approved by the Bank at designated locations and in World Bank Info Shop.



## Introduction

The Ethio-kenya interconnection project is planned to provide reliable power supply to Kenya by taking it from Ethiopia's National Grid System. The transmission line to be constructed is a High Voltage Direct Current (HVDC) having  $\pm 500$  kV double pole line which starts from Sodo substation in Southern Ethiopia, some 382 km from Addis Ababa. The total length of the project is 1066 km and of which 433 km is located inside Ethiopia.

The project includes the construction of a Converter Station (CS) in Welayta Sodo Woreda, a Ground Electrode (GE) in Humbo Woreda along with 6km of Medium Voltage Transmission Line (MVTL) 30 kV to connect the GE with the HVDC line.

An ESIA and RAP for the main line were conducted in 2009 by Fichtner and revised by Tropics in 2102. At the time of that review the project did not include the RAP and ESIA study for the Converter Station and the Ground Electrode.

The two new components require permanent land acquisition affecting 64 households (431 PAPs), among whom 27(186 PAPs) will lose residential land. A land acquisition plan is needed in order to provide displacement and compensation assistance as per WB and AfDB standards.

Objective of this assignment is to define a land acquisition plan for the above mentioned components.

A Socio economic survey has been conducted in the Converter Station and Ground Electrode areas in order to map the affected households and define their socio economic profile. Aim of the study is to determine the magnitude of the impacts on PAPs livelihood and set guidelines for the compensation and alternative source of livelihood procedure so as to avoid risk of impoverishment of PAPs.

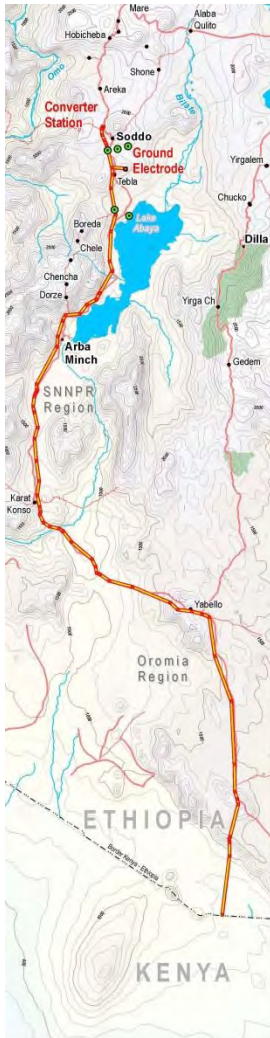
The survey took place during the month of May 2015 after a round of public consultation with local communities and Woreda Committees. Socioeconomic questionnaire has been prepared and tested in the project area and submitted to 100% of affected households. The questionnaire has been structured in order to get information on: household profile, land holdings, economic profile of the household, and perception about the proposed project.

The study has been conducted following AfDB and WB procedures.



# 1 DESCRIPTION OF THE PROJECT, PROJECT AREA AND AREA OF INFLUENCE

## 1.1 General Description of the Ethiopia-Kenya Interconnection Project



**Legend**

— Line

The transmission line inside Ethiopia traverses through nine Woredas (or districts) located in two Regional states, namely Southern Nations, Nationalities' and People's Regional State (SNNPRS) and Oromia.

The ESIA has studied four alternative routes for the construction of the transmission line. Among the four alternative routes, the one known as A/C has been identified as the preferred option from environmental, social and technical point of view (Figure 1.1-1). The line enters into the Kenyan territory at a coordinate point of 421519(E) and 397867 (N).

In Ethiopia, the transmission line could be divided into two main parts. The first section, which is located from km 00 to km 204, crosses a number of rural villages having highly cultivated farmlands and densely populated areas. The second section, which starts from km 204 to km 433 up to the Kenyan border, has less cultivated fields and low population density.

The line requires 65 angle towers and 995 suspension towers. The Right of Way (ROW) is 50 m wide in non-habited areas and 65 m wide adjacent to settlements.

The project includes ancillary services for camp constructions, permanent and temporary access roads.

Moreover a Converter Station and a Ground Electrode are planned to be built in the first section of the line in Southern Nations, Nationalities, and Peoples' Region.

Figure 1.1-1 Ethiopia - HVDCL line, Converter Station and Ground Electrode

## 1.2 Converter Station

The new 400 kV Converter Station switchyard is located in Wajakero Kebele, WolaytaSoddo Woreda, about 315 km of road distance from Addis Ababa and approximately 20 km north of the Northern end of Lake Abaya(WGS84 UTM 37N. X= 369,278 ; Y= 744,320)

It is directly opposite to the WolaytaSoddo 400/132/15 kV substation for the Gilgel Gibe III HP project (ANNEX 1 Converter Station – Project Map); it will be linked by four short OHL connections to the existing substation from which it will take the 2000 MW capacity to be delivered in Kenya through the HVDC line.

The necessary area for the Converter Station construction will be in the range of 800 m x 600 m and it is close to Wajakero Kebele. The site selection is due to the presence of the existing Substation.

The project area is flat and dominated mainly by communal grazing land and partially by farm land, trees, scrubs, and 52 houses. The project will trigger displacement of 141 people (21 hh) and loss of farmland and trees for 345 people (52 hh).

The communal grazing land is used by three surrounding Kebeles (Wajakero, Damo Tuwaja and Wareza Lasho). Around 200 households (1000 PAPs) have been counted to use this area for grazing purposes.

The contractor will use the existing access road, if any enlargement or new access road will be necessary, the study shall be treated under the guidelines of this RAP and in compliance with national and international standards.



Figure 1.2-1 Converter Station project area.

## 1.3 Ground Electrode

The proposed ground electrode site (SDn400) is located in Ela Kebele, Humbo Woreda, it is close to station 404 and located about 22km from the Converter Station. The area is flat, dominated by thorny bushes and acacias, indicating shallow water table heading towards Lake Abaya. The soil is of volcanic origin and the near surface soil appears dry and drained. The elevation is 1,555m above sea level and the coordinates are WGS84 UTM 37N X= 358,846, Y= 763,762 (ANNEX 2 Ground Electrode – Project Map).

The project area is surrounded by three unpaved roads, the land is scarcely habited, though in the proximity the area is habited and used for farming purposes.

This site in fact, in spite of being occupied by 86 people (12 households), among whom there are 6 hh (45 people) who reside and cultivate land and 6 hh (41 people) are only cultivate land, project affected persons participated during consultation have supported the construction of the electrode, as it is reasonably far from Soddo (12 km) and from the HVDC transmission line (6 km), and presents low-resistivities for the shallow, near-surface and deep ground layers.

The ground electrode will be designed by the Contractor respecting the following limits:

- step voltage - 8V;

- 200V for touch potential on wooden fences;
- 35V for touch potential on long insulated structures, electrical fences or non-buried metallic ducts;
- 10V for transformers saturation; and
- 4V for buried metallic pipelines corrosion (with length > 20 km).

The proposed preliminary geometry for this electrode is a vertical single ring design with a 672m diameter ring, with 64m wells (0,35m diameter). Each sub-electrode will have a 33m long active part, starting 31m deep, composed of an array of SiCrFe anodes inside a carbon coke backfill.

The ring of ground electrode will be fenced at it will be consider the project area boundaries. According to this, the land to be acquired and fenced will have a radius of 336 m and an area of 35.5 ha. All houses and structures inside this area shall be relocated and any activities inside the area will be forbidden.

## 1.4 Medium Voltage Transmission Line

The Medium Voltage Line is made by two bundles, each one with two Pheasant conductors, erected on special towers of  $\pm 500$ kV on the first 10 km from the converting station. The remaining section of about 6 km length, up to the ground electrode station, will run on 30 kV MVDC line with self-supporting steel towers.

The alignment here presented is tentative and free of houses, though land acquisition for tower location will be necessary (Figure 1.4-1). The final line route shall be selected by the contractor by taking into consideration the prevailing site condition and avoiding the resettlement of any house as per the criteria set in ESIA Towers location can be defined only at the moment of line confirmation by the contractor.

The technical characteristics of the line allow avoiding resettlement and minimizing land acquisition. Notably, the MVTL has a row of 15 m, therefore it can be designed in order to avoid settlements and any displacement. Land taking is limited to the area of tower erection which is 4 m<sup>2</sup> for each tower and 6.25 m<sup>2</sup> for angle towers. Towers can be located in non-invasive areas as far as possible, such as next to the roads, in free land or in between two fields so as to minimize the impacts.

According to Environmental and social standards the following principle shall be applied to the MVTL implementation:

- 1 The ROW shall be free of settlements
- 2 Final alignment and tower location shall be define by the contractor
- 3 Land acquisition for the tower erection shall be compensated by EEP as per Ethiopian and World Bank Standards prior the commencement of the works
- 4 The accidental loss of trees and crops due to line stringing shall be compensated (compensation at the time of erection and in case of damage)

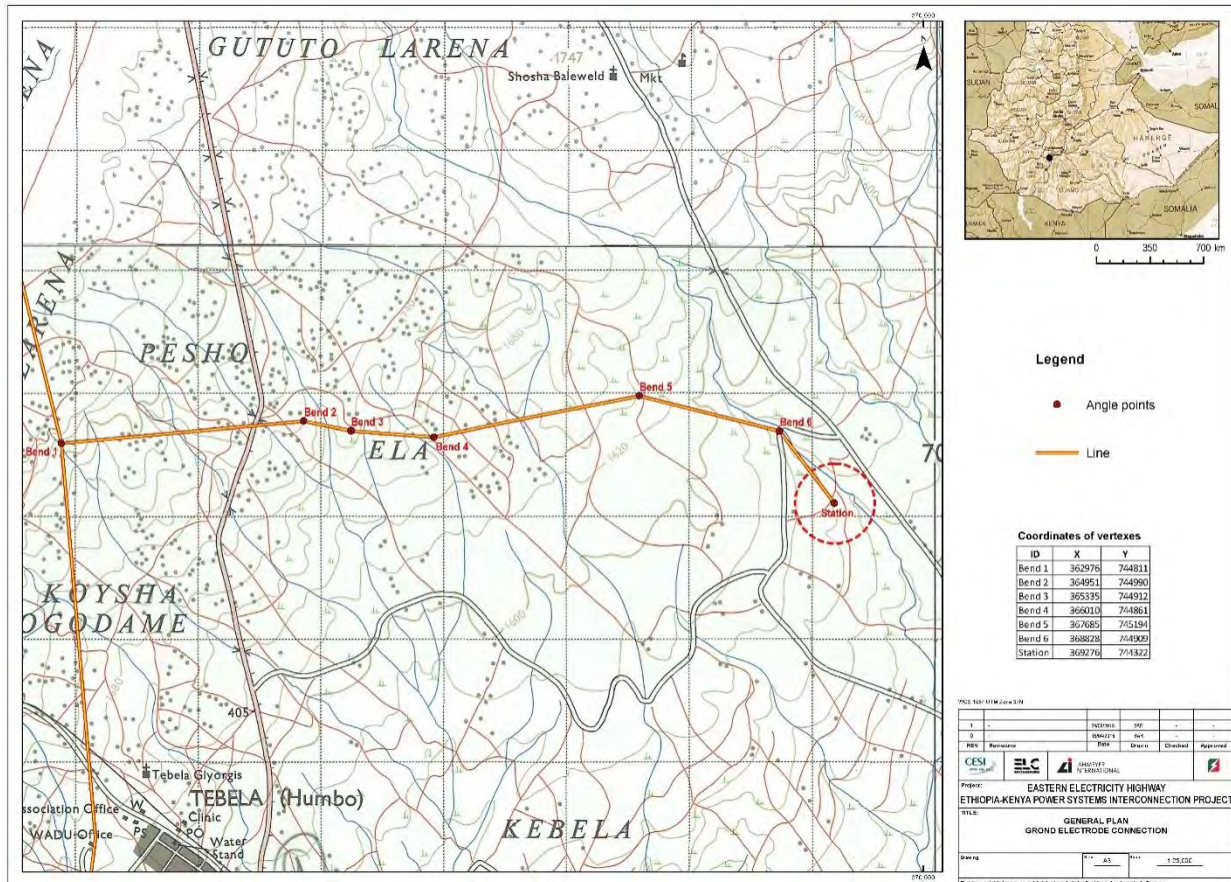


Figure 1.4-1 MVTL project map (Annex 3)

## 2 POTENTIAL IMPACTS

### 2.1 Converter Station

#### 2.1.1 Loss of residential Land - Displacement

The construction of the Converter Station will affect twenty one households (141 PAPs) (ANNEX 4 List of Households to Be **Displaced**).

Out of these 21 hh, 15 (101 PAPs) have extra land near to the project area and are willing to move their house in the remaining plot. Some of the affected houses (5HHs) that do not have sufficient land for construction of new houses will be provided land for construction of houses within their existing villages without losing their socio-economic ties and family network. Currently, the Woreda Administration in consultation with the PAPs is working to find alternative relocation sites for these households prior the payment for compensation.

The Compensation Committee estimated the compensation cost for each affected assets including houses and structures based on current market price at replacement cost. The total estimated amount for the loss of 21 houses is 769,846.1 ETB (details on the type of structures are included in ANNEX 5 Converter Station – Assets **Evaluation**).

Figure 2.1-1 Converter Station - Project Map – HH to be displaced – (Annex 1)

shows the impacts on estimated landholding of people to be displaced, relevant data come from the survey with PAPs, picture of PAPS and structures are include in **ANNEX 4**.

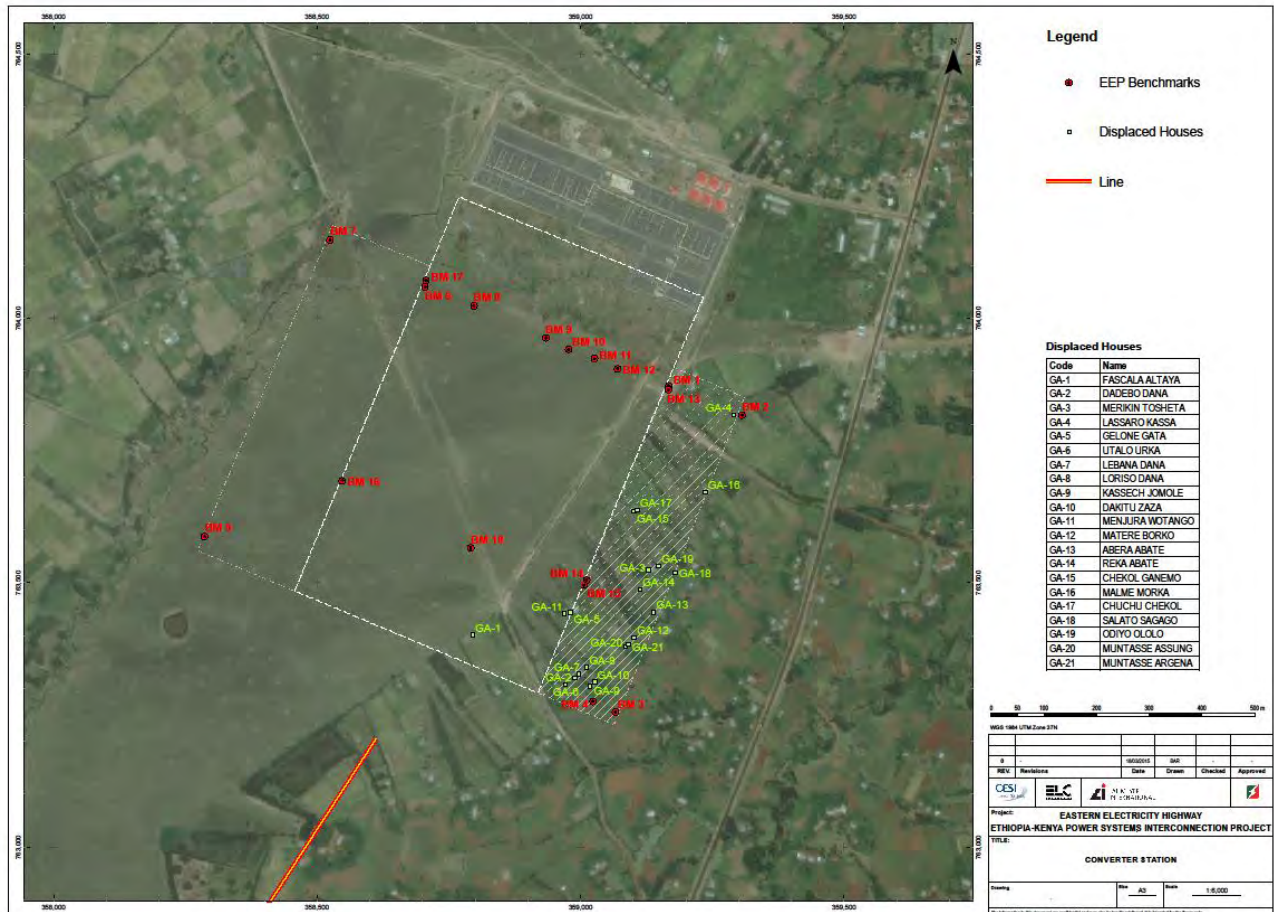


Figure 2.1-1 Converter Station - Project Map – HH to be displaced – (Annex 1)

### 2.1.2 Permanent Loss of Agricultural and Grazing Land

The area identified for the construction of the substation is partially used for agricultural purpose by 45 households and partially it is used as a community grazing land by three surrounding Kebeles (Wajakero, Damo Tuwaja and Wareza Lasho). Around 200 households use this area for grazing purposes.

Table 2.1-1 shows the impact on estimated farmland of the 45 households who cultivate within the project boundaries. Relevant socioeconomic profile is included in chapter 3.

Table 2.1-1 Converter Station - List of households affected by loss of farm land

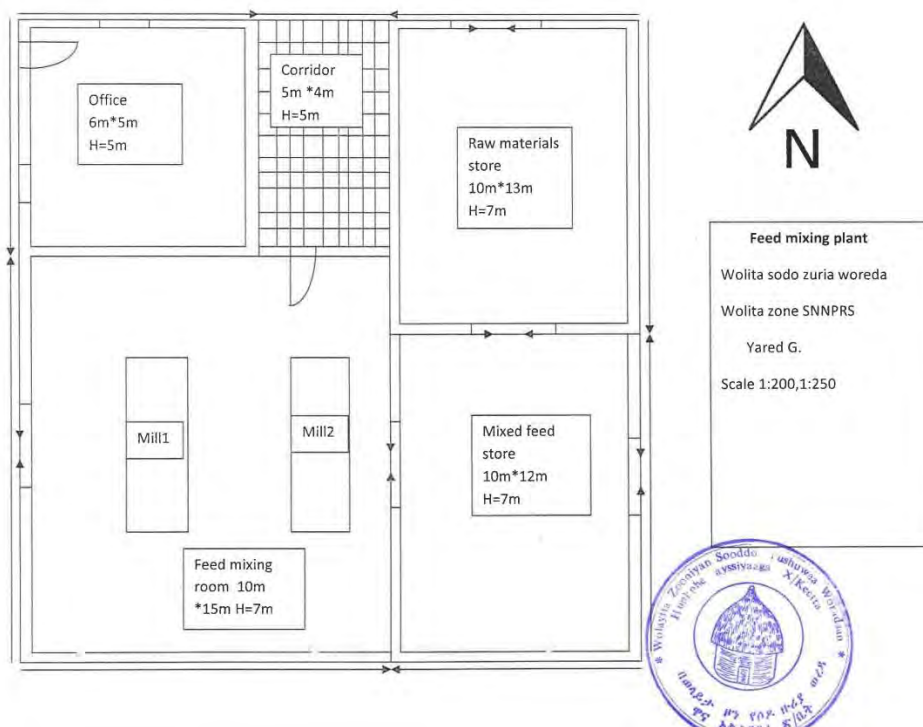
| N  | Name                 | N. of Family members | Total household landholding              |                                  |                                     | HH to be displaced |
|----|----------------------|----------------------|--|----------------------------------|-------------------------------------|--------------------|
|    |                      |                      | Residential land inside the project area | Farmland inside the project area | Extra land outside the project area |                    |
|    |                      |                      | Permanent loss                           |                                  | No loss                             |                    |
|    |                      |                      | Ha                                       | Ha                               | Ha                                  |                    |
| 1  | FASCALA ALTAYE       | 5                    | 0.05                                     | 0.7                              | 0                                   | X                  |
| 2  | DADEBO DANA          | 10                   | 0.25                                     | 0.75                             | 0.125                               | X                  |
| 3  | MERIKIN TOSHETA      | 8                    | 1  | 2                                | 1                                   | X                  |
| 4  | LASSARO KASSA        | 3                    | 0.3                                      | 1                                | 0.125                               | X                  |
| 5  | GELONE GATA          | 9                    | 0.03                                     | 1.02                             | -                                   | X                  |
| 6  | UTALO URKA           | 6                    | 0.5                                      | 1                                | 0.125                               | X                  |
| 7  | LEBANA DANA          | 6                    | 0.5                                      | 1                                | 0.25                                | X                  |
| 8  | LORISO DANA          | 6                    | 0.5                                      | 1                                | 0.25                                | X                  |
| 9  | KASSECH JOMOLE       | 4                    | 0.2                                      | 0.5                              | 0.5                                 | X                  |
| 10 | DAKITU ZAZA          | 6                    | 1  | 1                                | 0.25                                | X                  |
| 11 | MENGIURA WOTANGO     | 9                    | 0.05                                     | 1                                | 0                                   | X                  |
| 12 | MATERE BORKO         | 2                    | 0.25                                     | 0.5                              | 0.25                                | X                  |
| 13 | ABERA ABATE          | 7                    | 0.5                                      | 1                                | 0.5                                 | X                  |
| 14 | REKA ABATE           | 4                    | 0.25                                     | 0.75                             | 0.5                                 | X                  |
| 15 | CHEKOL GANEMO        | 5                    | 0.25                                     | 0.75                             | -                                   | X                  |
| 16 | MALME MORKA          | 4                    | 1  | 1                                | 0.5                                 | X                  |
| 17 | CHUCHU CHEKOL        | 4                    | 0.1                                      | 0.4                              | 0                                   | X                  |
| 18 | SALATO SAGAGO        | 13                   | 0.1                                      | 0.4                              | -0                                  | X                  |
| 19 | ODYIO OLOLO          | 12                   | 0.5                                      | 1                                | 0.5                                 | X                  |
| 20 | MUNTASSE ASSUNG      | 10                   | 0.5                                      | 1                                | 0.5                                 | X                  |
| 21 | MUNTASSE ARGENA      | 8                    | 0.5                                      | 1                                | 0.25                                | X                  |
| 22 | AWEL ABATE           | 9                    | -  | 0.5                              | 0.5                                 | -                  |
| 23 | AYELECH CHAMA        | 5                    | -  | 0.75                             | 0.25                                | -                  |
| 24 | ASAVE ADEMA          | 7                    | -  | 1                                | 0.5                                 | -                  |
| 25 | BOLOSHE BARATA       | 6                    | -  | 0.55                             | -                                   | -                  |
| 26 | CHUTA CHAMO          | 13                   | -  | 0.5                              | 0.5                                 | -                  |
| 27 | DOBOCH CHAMO         | 7                    | -  | 0.5                              | 0.5                                 | -                  |
| 28 | ENARIYAS MUTASE      | 1                    | -  | 1                                | 0.5                                 | -                  |
| 29 | ERASMO ABATE         | 7                    | -  | 1                                | 0.5                                 | -                  |
| 30 | FELEEKCH FONZA       | 2                    | -  | 0.5                              | -                                   | -                  |
| 31 | GETU ABERA           | 1                    | -  | 0.5                              | 0.5                                 | -                  |
| 32 | GOSALO YOTA          | 13                   | -  | 0.5                              | 0.5                                 | -                  |
| 33 | HALISA HALYE         | 9                    | -  | 2.1                              | 0-                                  | -                  |
| 34 | KACHIKA HONTA        | 8                    | -  | 1                                | -0                                  | -                  |
| 35 | MARTA BADE           | 4                    | -  | 0.5                              | -0                                  | -                  |
| 36 | MEYA ERGABO          | 11                   | -  | 0.5                              | 0.5                                 | -                  |
| 37 | MLR NLMARIME KOLASSO | 11                   | -  | 1                                | 0.5                                 | -                  |
| 38 | MOYES UKE            | 10                   | -  | 3                                | 0.5                                 | -                  |
| 39 | SALATO SAGAGO        | 9                    | -  | 1                                | 0.3                                 | -                  |
| 40 | TAMIRU MORKA         | 11                   | -  | 2.45                             | 0.5                                 | -                  |
| 41 | TANTU CHALEBO        | 11                   | -  | 0.7                              | 0-                                  | -                  |
| 42 | TATES ADEMA          | 5                    | -  | 1                                | 0.5                                 | -                  |
| 43 | TEREFE MORKA         | 5                    | -  | 1                                | 0.4                                 | -                  |
| 44 | WODALO WATANGO       | 7                    | -  | 0.5                              | 0-                                  | -                  |
| 45 | WOYSHA WOTANGO       | 5                    | -  | 0.5                              | -0                                  | -                  |
|    | Tot                  | 307                  |  |                                  |                                     |                    |

Assets valuation has been conducted by Soddo Property Evaluation Committee. The total estimated compensation cost for loss of cereal crops from farmland will be Birr 3,994,376 ETB (**ANNEX 5**)

The 20 hectares of communal grazing which is used by around 200 households will be affected as a result of the construction of a substation in Wolyta Sodo area. The communal grazing land is a public land which is used as grazing by residents of three kebeles. In order to compensate the loss for communal grazing land, livelihood restoration plan has been developed by Sodo Development Committee. According to this plan PAPs will be organized in association and will have a livestock feed production plant.

Figure 2.1-2 Feed processing plan view from Annex 10). This helps PAPs to change their livelihood style from extensive to intensive livestock production. The proposed plant will have a feed grinding mill and mixer with a production capacity of 3,000 tons per year and it will require a total area of 2ha. The total estimated cost to implement the plan is 2,316,454 ETB. The proposed project is identified in consultation with PAPs and the community. Copy of the proposal with detail information which has been submitted to EEP is included in ANNEX 10 **Livestock Feed Processing Plant**.

Figure 2.1-2 Feed processing plan view extracted from Annex 10



### 2.1.3 Permanent Loss of Crops and Trees

As stated above, the affected project land is partially used for grazing and partially for subsistence agricultural purposes by 45 Households (345 PAPS) who will lose crops (Maize, Teff, Beans, Potato) and trees (Eucalyptus, Enset, Banana, Avocado, Mango, Cordia Africana). Seven (7) households will lose only trees, mainly Eucalyptus. Most of the residential lands are naturally fenced with eucalyptus trees. Trees found at the backyard of the residences are mostly fruit trees and Enset.

Crops are essential for all affected households since this is the primary source of food for the household, for their animals and as source of cash. Crops are planted twice in a year: dry season and wet season. The total estimated income from the loss of crops is 1,823,444 ( Table 3.1-10 and Table 3.1-11). The total estimated income from trees is 3,560,242 ETB, ( Table 3.1-12).

## 2.1.4 Loss of graveyards

According to Soddo Property Evaluation Committee 4 households will be affected with loss of graves. The cost for the compensation is 60,000 ETB and it includes the cost for their moving to the near Amanuel Church, reconstruction and ceremony. The table below shows the list of affected graveyards.

Table 2.1-2 Estimation of Affected Graveyard

| No. | Name of deceased family close relative | Relationship | Name of deceased      | type of Graves | ETB  | Household Name    |
|-----|--|--------------|-----------------------|----------------|------|-------------------|
| 1   | Manjura Wetango Welancho               | Brother      | Welka Wetango         | 1990           | 7500 | Muntas Ergena     |
| 2   | Muntase Argana Dangore                 | Brother      | Yasin Ergana Dangore  | 1966           | 7500 | Manjura Wetango   |
|     |  | Sister       | Askale Ergana Dangore | 1960           | 7500 | Awel Abari        |
| 3   | Gelan Gata Gatiso                      | Wife Cousin  | Sale Welancho Semago  | 1958           | 7500 | Mentasena Manjura |
| 4   | Tafese Adema Amajo                     | Grand        | Magejo Mana           | 1945           | 7500 | Mentasena Manjura |
|     |  | uncle        | Meshesha Mana         | 1945           | 7500 | Chekol Ganamo     |
|     |  | uncle        | Meshesha Mana         | 1950           | 7500 | Kachica Honja     |
|     |  | Sister       | Tsedale Adema         | 1955           | 7500 | Muntase Ergena    |

## 2.1.5 Impacts on female-headed households

Female-headed households are considered as a vulnerable group and would require special attention and support. Most female-headed households are single parents, either widowed or separated from their husbands. Relocation will be more tough and difficult for them, such as rebuilding a new house, developing a new agricultural land requires a lot of hard physical work. Among the 52 households affected by the Converter Station project, 8 households are female headed.

## 2.1.6 Impacts during construction

Potential temporary inconveniences as result of the construction activities are to be considered. This could be in the form of accumulation of wastes (both construction and domestic waste in the construction areas, associated odor, air emissions, especially dust as a result of excavation). These impacts are of temporary nature and will be of very limited level of severity, particularly since the construction activities will be in not populated areas.

The construction activities will be limited to the project area and to access road from the main road to the project boundaries. A camp site will be constructed inside the acquired land; therefore no additional land will be required for workers accommodation. Nevertheless the access road may require enlargement or additional land acquisition, hence affected assets and land (if any) shall be evaluated by the Compensation Committee and compensated accordingly by EEP.

The construction of the Converter Station will require influx of workers which may cause disturbance to local communities and rising in the number of sex workers in the area.

Appropriate measure such as Community consultation and communication plan with surrounding kebeles shall be implemented in order to rise awareness regarding traffic time and rules previously agreed by the woreda and HIV prevention methods.



### 2.1.7 Impact during operation

The only impact during operational phase is related to noise emission. The audible noise emitted from the Converter Station may be high and exceed beyond the buffer zone limit and acceptable National and International Standards. Particularly referring to the Converter Station the Contractor (once defined the characteristics of the station) shall prepare a sound propagation simulation in order to understand if the house located in the vicinity of the Converter Station will be affected or not. In case the audible noise will exceed the (daytime and nighttime) IFC's standards the Contractor shall apply proper mitigation measures (soundproofing of the Converter Station building, construction of noise barriers, etc), to reduce the audible noise in the houses close to the Converter Substation to the International threshold values.

## 2.2 Ground Electrode

The electric field around the electrode can cause stray current influence on buried or immersed metallic structures. The main concern is the risk of increased corrosion but also other forms of interference have to be considered such as transformer saturation and disturbances in the telephone network. The electrical field in the vicinity of the electrode may also have an impact on humans and animals.

The primary method to avoid interference is to provide sufficient distance between the location of the earth electrode and critical structures. It is only in the close vicinity of the electrode that the design of the electrode influences the magnitude of the electric field.

For this reason ground electrode location has been selected far from metallic structures and telephone network. Moreover, it will be fenced so as to guarantee the safety distance for people and animals.

The ground electrode will be designed as central pole from which a radius of 336 m, the ring will be fenced and nor settlement neither activities are allowed within.

The ground electrode construction will require 35.2 ha of land which partially habited and partially use for subsistence agriculture.

### 2.2.1 Loss of residential Land - Displacement

The proposed project will affect 6 households (45 PAPs) located within project boundaries (Figure 2.2-1). According to the socio economic survey, 6 households (45 people) shall be displaced (ANNEX 4 List of Households to Be **Displaced**). The affected households will lose residential land, farmland, and structures within the land, crops and trees. The estimated compensation cost for the loss of houses is equivalent to the cost for reconstruction of the same houses based on current market price at replacement cost. The estimated total amount of compensation cost is 350,000 ETB.

*Figure 2.2-1 Ground Electrode - Project Map – Affected HH– Annex 2*

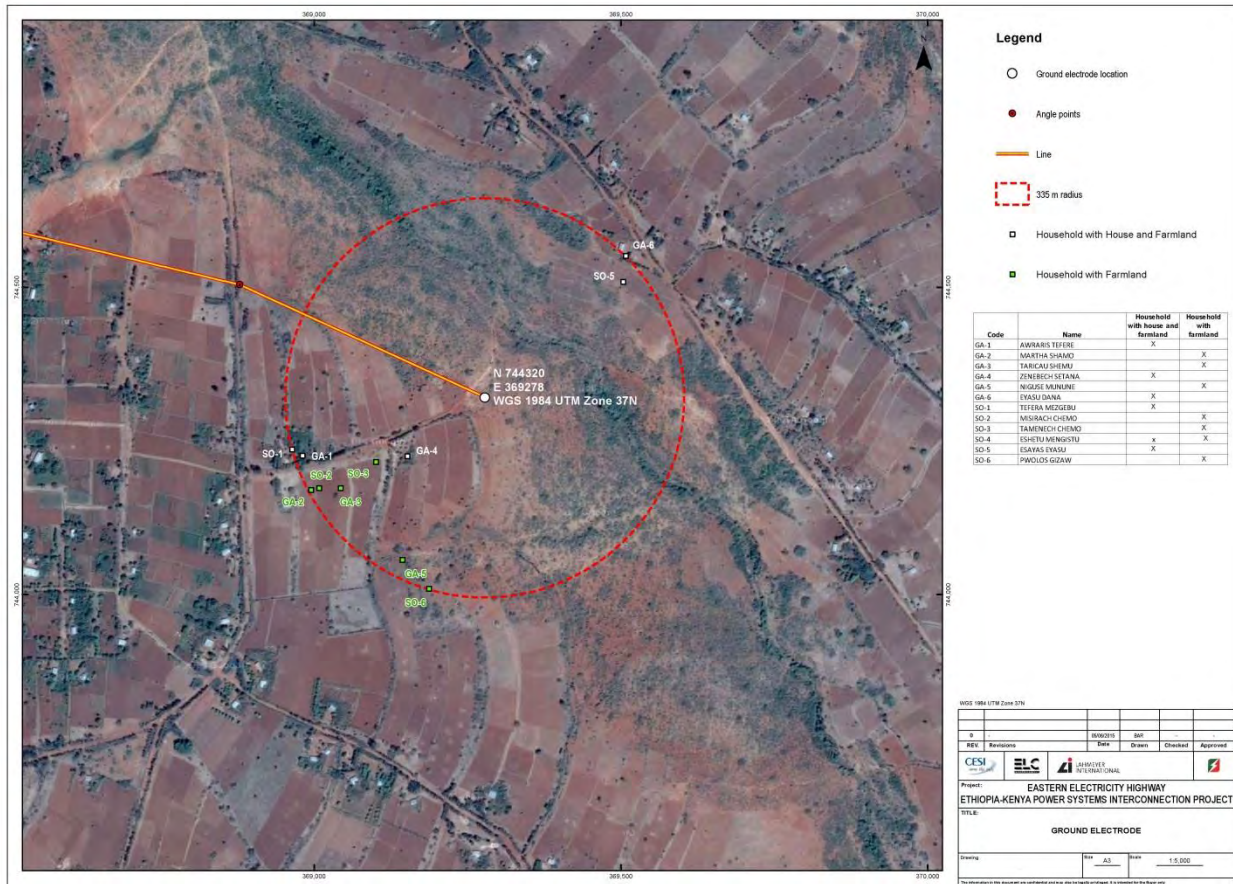


Table 2.2-1 List of Households to be displaced – Ground Electrode

| Questionnaire code | Name             | N. of Family members | Total HH landholding                             |   |                                     |
|--------------------|------------------|----------------------|--|---|-------------------------------------|
|                    |                  |                      | Loss of Residential land inside the project area | Loss of Farm land inside the project area | Extra land outside the project area |
|                    |                  |                      | Permanent loss                                   | Permanent loss                            | No loss                             |
| GA-1               | AWRARIS TEFERA   | 8                    | 0.06   | 2   | -                                   |
| GA-4               | ZENEBECH SETANA  | 9                    | 0.08   | 3   | -                                   |
| GA-6               | EYASU DAN        | 9                    | 0.1  | 2   | -                                   |
| SO-1               | TEFERA MEZGEBU   | 10                   | 0.08   | 4   | -                                   |
| SO-4               | ESHETU MEN-GISTU | 5                    | 0.05   | 1.5                                       | -                                   |
| SO-5               | EYASU EYASU      | 4                    | 0.05   | 1   | -                                   |
|                    | TOT              | 45                   |  |   |                                     |

## 2.2.2 Permanent Loss of Agricultural Land

The estimated loss of farmland in hectares is 19.7. The project area will require permanent land acquisition which is used for farming and residence. A total of 12 Households (86 people) will be affected by this project activity among which 6 hh (45 people) have residential and farmland while the remaining 6 hh (41 people) have only farmland.

Table 2.2-2 Ground Electrode – Estimated loss of farm land

| N  | Name             | N. of Family members | Total household landholding              |                                  |                                     | HH to be displaced |
|----|------------------|----------------------|--|----------------------------------|-------------------------------------|--------------------|
|    |                  |                      | Residential land inside the project area | Farmland inside the project area | Extra land outside the project area |                    |
|    |                  |                      | Permanent loss                           |                                  | No loss                             |                    |
|    |                  |                      | Ha                                       | ha                               | Ha                                  |                    |
| 1  | AWRARIS TEFERA   | 8                    | 0.06                                     | 2                                | -                                   | X                  |
| 2  | ZENEBECH SETANA  | 9                    | 0.08                                     | 3                                | -                                   | X                  |
| 3  | EYASU DAN        | 9                    | 0.1                                      | 2                                | -                                   | X                  |
| 4  | TEFERA MEZGEBU   | 10                   | 0.08                                     | 2                                | -                                   | X                  |
| 5  | ESHETU MEN-GISTU | 5                    | 0.05                                     | 1.5                              | -                                   | X                  |
| 6  | EYASU EYASU      | 4                    | 0.05                                     | 1                                | -                                   | X                  |
| 7  | MARTHA SHAMO     | 10                   | -  | 1.5                              | -                                   | -                  |
| 8  | MISIRACH CHEMO   | 7                    | -  | 1.5                              | -                                   | -                  |
| 9  | TAMENECH CHEMO   | 5                    | -  | 1.25                             | -                                   | -                  |
| 10 | TARICAU SHEMU    | 3                    | -  | 1.5                              | -                                   | -                  |
| 11 | NIGUSE MUNUNE    | 10                   | -  | 0.1                              | 1.5                                 | -                  |
| 12 | PWOLOS GIZAW     | 6                    | -  | 0.1                              | 1                                   | -                  |
|    | Tot              | 86                   |  |                                  |                                     |                    |

### 2.2.3 Permanent Loss of Crops and Trees

Crops are essential for all affected households since this is the primary source of food for the household, for their animals and it is a source of cash.

PAP's will lose crops (maize, beans, potato, pepper and teff) and trees, mainly eucalyptus, avocado, enset, banana, cordia africana and mango. People in the project area produced crops twice in a year, dry season and wet season.

### 2.2.4 Impacts on female-headed households

Female-headed households are considered a vulnerable group and would require special attention and support. Most female-headed households are single parents, either widowed or separated from their husbands. Relocation will be more tough and difficult for them, such as rebuilding a new house, developing a new agricultural land requires a lot of hard physical work. Among 12 households affected by the ground electrode construction project 2 are female headed.

### 2.2.5 Impact during construction

The construction will be limited to the project boundaries and it will consist mainly in drilling works. These activities will not require any camp installation, workers and track will come from Converter Station Camp daily. Contractors will use the existing roads as much as possible, if enlargement of existing roads will be necessary and this will acquire land. The major impacts during construction will be due to heavy vehicle traffic along the access road which crosses rural settlements increasing dust noise and accident risk. Proper traffic management plan provided as per ESIA indication.

### 2.2.6 Impact during operation

Operation will be exceptional. The ground Electrode will operate only in case one pole of HVDC will be out of order.

#### 2.2.6.1 Effects on Metallic Structures

Stray current corrosion occurs in spots where the DC current leaves the metallic construction. In principle all buried metallic structures can be exposed to stray current corrosion from HVDC electrodes. The extent of the structure, the longitudinal resistance, the quality of the coating system and the local top soil resistivity are the most important factors determining the magnitude of impact in each case. The structures most vulnerable to be attacked are pipelines having a good coating system.

For smaller items especially if poorly coated, the field strength is more important. Depending on the resistivity of the soil surrounding the structure different magnitudes of potential differences can be accepted.

### **2.2.6.2 Effects on Electrical Infrastructure**

If a DC potential difference exists between the transformer neutrals in two transformer stations, a DC current will pass in parallel of the transformer to the remote transformer neutral and thus have an effect on the transformer saturation. In general, banks of single-phase and 5 limbed transformers are seriously affected by DC currents in the transformer neutrals. Transformer with 3 limbs can tolerate much higher DC currents due to a low magnetic resistance. Voltage differences above 10 V will cause problems.

### **2.2.6.3 Effects on Humans and Animals**

The highest field strength and therefore the greatest risk for humans and animals is in the direct vicinity of the electrode. Current entering the body must not exceed 5 mA. The body resistance can be set to 1000  $\Omega$ .

Maximum acceptable step voltage is influenced by the soil resistivity ( $\rho$ ).

$U_{step} = 5 + 0.03 \cdot \rho$  (V). Assuming very low soil resistivity, the step voltage should not exceed 5V/m.

### 3 SOCIO-ECONOMIC STUDY OF THE AFFECTED AREAS

#### 3.1 Socio-Economic Conditions of affected Kebeles

##### 3.1.1 Project Location and administrative boundaries

The project location is in Southern Nations, Nationalities, and Peoples' Region, Wolayta Zone. Converter Station is located in Soddo Woreda, Wajakero Kebele, while the ground Electrode is located in Humbo Woreda, Ela Kebele.

##### 3.1.2 Demographic conditions and Ethnic groups

Wajakero kebele has total number of 960 household, among whom 850 are headed by males while 110 households are administrated by females. The Ela kebele has a total number of 700 households that include 525 male heads and 175 female heads. According to the information of survey from the Converter Station and Ground Electrode, the people affected by the project are only Wolayta and Amhara communities.

Table 3.1-1 Population of the Soddo Zuriya and Humbo Woredas

| Woreda       | Male   | Female  | Total   | Area (km2) | Population density |
|--------------|--------|---------|---------|------------|--------------------|
| Soddo Zuriya | 99,781 | 103,131 | 202,912 | 404.30     | 501.88             |
| Humbo        | 79,150 | 78,522  | 157,672 | 859.20     | 168.2              |

Table 3.1-2 Population of the Wajakero and Ela Kebeles

| Woreda       | Kebele     | Male  | Female | Total |
|--------------|------------|-------|--------|-------|
| Soddo Zuriya | Wajakero   | 3,527 | 3,753  | 7,280 |
| Humbo        | Ela Kebele | 1924  | 1710   | 3,634 |

Table 3.1-3 Ethnic groups in Wajakero and Ela Kebeles

| Woreda       | Ethnic Group | Language    |
|--------------|--------------|-------------|
| Soddo Zuriya | Wolaita      | Welayitigna |
| Soddo Zuriya | Amhara       | Amharic     |
| Humbo        | Wolaita      | Welayitigna |
| Humbo        | Amhara       | Amharic     |
| Humbo        | Sidama       | Sidamigna   |
| Humbo        | Oromo        | Oromifa     |

##### 3.1.3 Converter Station - Socio economic Study of the affected PAPS

A household socio-economic survey was conducted around the affected area in May 2015.

Fifty-two households were included in the socio-economic survey. The results of the survey cover 52 households which include the 21 hh (141 people) to be displaced. Of these 52 households, 8 are female-headed and 44 are male-headed. The Tables below shows the profile of the population at the project affected area.

Table 3.1-4 CS Population

| Age Range        | No of PAPs Female | No of PAPs Male | Forty-two percent (42%) of the population for both female and male in the project area are 15 years old children and below and 55 % of the population for both female and male are still in their productive years which is between 16-50 years old. |
|------------------|-------------------|-----------------|--|
| Below 1 year old |                   |                 |  |
| 1-5              | 22                | 16              |  |
| 6-10             | 30                | 13              |  |
| 11-15            | 19                | 27              |  |
| 16-20            | 35                | 26              |  |
| 21-25            | 11                | 24              |  |
| 26-30            | 26                | 12              |  |
| 31-35            | 16                | 11              |  |
| 36-40            | 6                 | 9               |  |
| 41-45            | 3                 | 7               |  |
| 46-50            | 6                 | 3               |  |
| 51-55            | 3                 | 1               |  |
| 56-60            | 3                 | 10              |  |
| 61 and above     | 0                 | 3               |  |

Table 3.1-5 CS Ethnicity by Gender

| Ethnic Group | Female | Male | The ethnic group in the project area is Wolayta. |
|--------------|--------|------|--|
| Wolayta      | 183    | 162  |  |

Table 3.1-6 CS Educational Levels by Gender of the Population

| Education Level | Female | Male | Thirty-eight percent (38%) of female and 23 % of males have no education; 52% for both female and male have attended primary education. As the level of education goes higher, few female pursue higher education compared to the male. |
|-----------------|--------|------|---|
| No education    | 70     | 37   |   |
| Primary         | 95     | 85   |   |
| Secondary       | 12     | 22   |   |
| Preparatory     | 5      | 14   |   |
| College         | 0      | 3    |   |

Table 3.1-7 CS Occupation of Population by Gender

| Occupation    | Female | Male | The main occupation contributing to the household income is farming. Majority are farmers. There is also a big number of students making almost 40-45% of the population surveyed. Female roles are confined to tasks related to house work such as housewife, trading (selling) and waiting. Unemployment can also be attributed to the lack of education of the population where 23-38% is not educated. |
|---------------|--------|------|--|
| Not Employed  | 42     | 15   |  |
| Daily Laborer | 0      | 2    |  |
| Driver        | 0      | 1    |  |
| Employee      | 0      | 1    |  |
| Farmer        | 22     | 47   |  |
| Guard         | 0      | 1    |  |
| Housewife     | 29     | 0    |  |

|               |    |    |
|---------------|----|----|
| Social Worker | 1  | 0  |
| Student       | 82 | 95 |
| Trader        | 5  | 0  |
| Waiter        | 2  | 0  |

Table 3.1-8 CS Types of Landholdings and With Land Certificates

| Landholdings                                      | Number of Households | With Certificates |
|---|----------------------|-------------------|
| Farmland inside the project affected area         | 40                   | 15                |
| Farmland outside the project affected area        | 12                   | 0                 |
| Grazing land inside the project affected area     | 38                   | 12                |
| Grazing land outside the project affected area    | 1                    | 0                 |
| Residential land inside the project affected area | 21                   | 15                |

**Of the 52 hh affected by the Converter Station construction, only 15 have landholding certificates. For the 21 households that will be relocated, 6 of them do not have a landholding certificate as evidence for legally owning the land, Wjakero Kebele will issue a letter as evidence for compensation eligibility for hh with no land holding certificate and entitled for compensation.**

**Household's residential lands should be replaced also with land as much as possible within the kebele where they are currently residing. Fifty percent (50%) of these households' landholding certificates have been issued 6-10 years ago.**

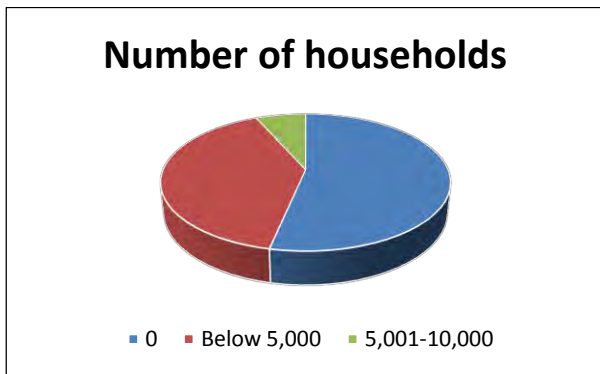


Figure 3.1-1 CS Estimated Residential Affected Area

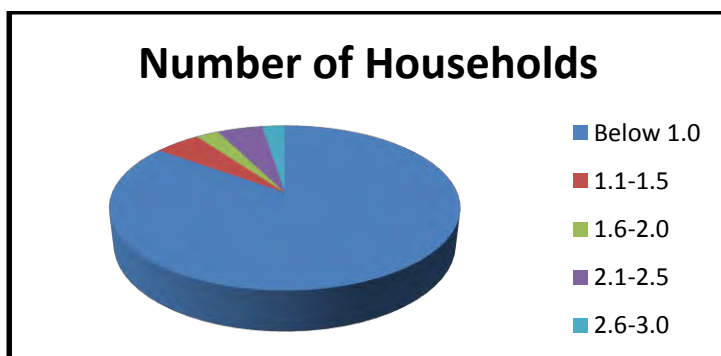


Figure 3.1-2 CS Estimated Farmland Affected Area

Most of the affected residential land has an area less than 0.5 hectares and for farmlands, below 1.0 hectares.

Table 3.1-9CS Affected Trees and Crops

| Trees /Crops    | Estimated Number of Trees | Number of Households | Large number of trees are enset and eucalyptus. Enset is a staple food for the household and also for the livestock. The eucalyptus is a fast growing tree which is used by the household in building the local houses and is also sold as a source of cash for the household. |
|-----------------|---------------------------|----------------------|--|
| Albizia         | 2                         | 2                    |  |
| Avocado         | 190                       | 30                   |  |
| Banana          | 549                       | 20                   |  |
| Cassava         | 38                        | 3                    |  |
| Chat            | 57                        | 2                    |  |
| Cipressus       | 13                        | 2                    |  |
| Coffee          | 1483                      | 19                   |  |
| Cordia Africana | 343                       | 20                   |  |
| Croton          | 4                         | 1                    |  |
| Enset           | 16110                     | 25                   |  |
| Eucalyptus      | 37603                     | 50                   |  |
| Gesho           | 650                       | 2                    |  |
| Gravilia        | 9                         | 2                    |  |
| Juniper         | 207                       | 6                    |  |
| Mango           | 155                       | 23                   |  |
| Orange          | 4                         | 1                    |  |
| Podocarpus      | 39                        | 5                    |  |

Table 3.1-10 CS Estimated Income from Affected Dry Season Crops

| Dry Season Crop | Total Estimated Income ETB | Total estimated income from dry season crops affected by the project is Birr 602,100. |
|-----------------|----------------------------|---|
| Bean            | 143500                     |   |
| Chat            | 20000                      |   |
| Grain Rain      | 13200                      |   |
| Green Pepper    | 13200                      |   |
| Pepper          | 4400                       |   |
| Potato          | 323800                     |   |
| Sweet Potato    | 70000                      |   |
| Teff            | 14000                      |   |

Table 3.1-11 CS Estimated Income from Affected Wet Season Crops

| Wet Season Crop | Total Estimated Income ETB | The estimated income from wet season crops that will be affected by the power Converter Station is Birr 1,221,344. |
|-----------------|----------------------------|--|
| Banana          | 4284                       |  |
| Beans           | 148000                     |  |



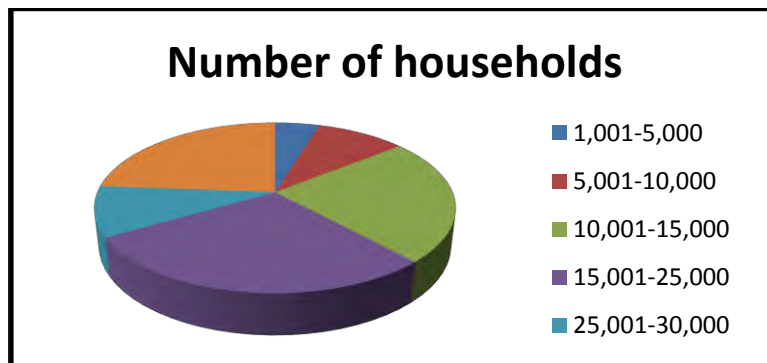
|              |        |
|--------------|--------|
| Cabbage      | 1600   |
| Chat         | 7000   |
| Enset        | 4000   |
| Grain rain   | 17600  |
| Green Pepper | 13200  |
| Maize        | 324000 |
| Pepper       | 4400   |
| Potato       | 307800 |
| Sugarcane    | 17700  |
| Sweet Potato | 77000  |
| Teff         | 286160 |
| Teti         | 8400   |
| Vegetables   | 200    |

Table 3.1-12 CS Estimated Income from Affected Trees

| Trees /Crops    | Estimated Income ETB |
|-----------------|----------------------|
| Albizia         | 600                  |
| Avocado         | 50380                |
| Banana          | 191760               |
| Cassava         | 518                  |
| Chat            | 3700                 |
| Cipressus       | 0                    |
| Coffee          | 873360               |
| Cordia Africana | 70600                |
| Croton          | 0                    |
| Enset           | 1503700              |
| Eucalyptus      | 336000               |
| Gesho           | 32500                |
| Gravilia        | 0                    |
| Juniper         | 0                    |
| Mango           | 94000                |
| Orange          | 0                    |
| Podocarpus      | 0                    |

The estimated income from trees is around Birr 3,157,118. These trees, except for banana, enset and chat, would take at least 5 years before they start bearing fruits or could be sold for the wood.

Figure 3.1-3CS Estimated Annual Income of 21 Affected Household



Total estimated annual income of 21 affected households is presented in the pie-chart above: 5 households have an income range of 10,000-15,000 ETB, 6 households have an income range of 15,000-25,000 ETB, 5 households have an annual income of above Birr 30,000 ETB.

### 3.2 Ground Electrode - Socio economic Study of the affected PAPS

A household socio-economic survey of the potentially affected households in the area where the ground electrode will be located were conducted on May 2015. Around 12 households were included in the household survey. Of these 12, six (6) will be relocated.

These 6 households will lose their residential land and all structures inside the land including their houses; trees, crops and farmlands will likewise be lost.

Below is a profile of the affected households.

Table 3.2-1 GE Population by Age and Gender

| Age              | Female | Male | The age of the population in this area shows that 82% of the female population are below 30 years old and that 87% of the male population are also below 30 years old. |
|------------------|--------|------|--|
| Below 1 year old | 2      | 2    |  |
| 1-5              | 6      | 8    |  |
| 6-10             | 4      | 13   |  |
| 11-15            | 5      | 6    |  |
| 16-20            | 9      | 5    |  |
| 21-25            | 6      | 3    |  |
| 26-30            | 4      | 3    |  |
| 31-35            | 2      | 1    |  |
| 36-40            | 2      | 1    |  |
| 41-45            | 2      | 1    |  |
| 46-50            | 1      | 1    |  |
| 51-55            | 2      | 1    |  |

|          |   |   |
|----------|---|---|
| 56-60    | 0 | 1 |
| Above 60 | 1 | 1 |

Total

93

Table 3.2-2 GE Ethnicity by Gender

| Ethnic Group | Female | Male | The main ethnic group in Humbo is Wolayta. |
|--------------|--------|------|--|
| Wolayta      | 37     | 32   |  |
| Amhara       | 5      | 12   |  |

Table 3.2-3 GE Educational Levels by Gender of the Population

| Education Level | Female | Male | Around 50% for both female and male have attended primary education and only 13% pursued higher education. |
|-----------------|--------|------|--|
| No education    | 10     | 11   |  |
| Primary         | 26     | 24   |  |
| Secondary       | 3      | 6    |  |
| Preparatory     | 3      | 2    |  |
| College         | 0      | 1    |  |

Table 3.2-4 GE Occupation of Population by Gender

| Occupation          | Female | Male | There are more dependents in this population because 67% of the females and 90% of the males are not employed and many are still attending school. |
|---------------------|--------|------|--|
| Not Employed        | 7      | 8    |  |
| Government Employee | 0      | 1    |  |
| Student             | 20     | 28   |  |
| Farmer              | 5      | 7    |  |
| Housewife           | 7      | 0    |  |
| Waiter              | 1      | 0    |  |
| Worker              | 2      | 0    |  |

Table 3.2-5 GE Types of Landholdings and With Land Certificates

| Landholdings                                      | Number of Households | With Certificates | Only 4 of the 12 households have landholding certificates. Of these 12 households, 6 will need to be relocated because of the ground electrode construction. Their residential and farmlands that will be lost because of relocation should be replaced with land of the same size and quality even if they don't have landholding certificates. The 4 landholding certificates, 2 are below 1 year old and the other 2 are between 6-10 years old. |
|---|----------------------|-------------------|---|
| Farmland inside the project affected area         | 12                   | 2                 |   |
| Farmland outside the project affected area        | 0                    | 0                 |   |
| Grazing land inside the project affected area     | 0                    | 0                 |   |
| Grazing land outside the project affected area    | 0                    | 0                 |   |
| Residential land inside the project affected area | 6                    | 2                 |   |

Figure 3.2-1 GE Estimated Affected Residential Area

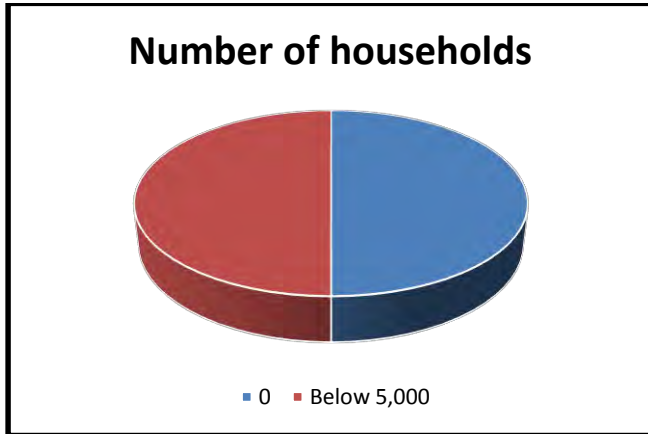
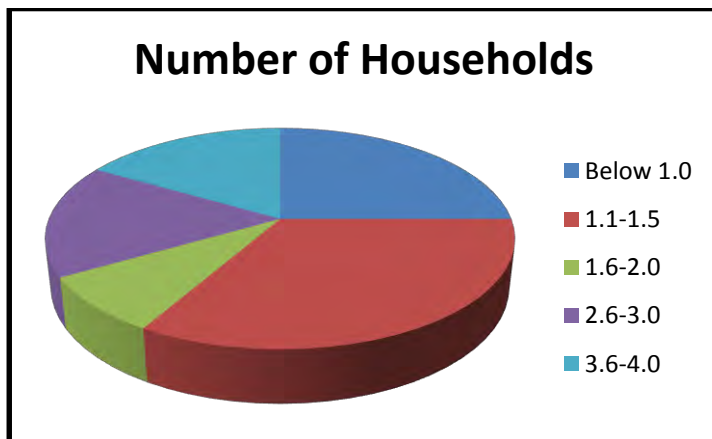


Figure 3.2-2 GE Estimated Affected Farmland Area



Six (6) households have residential lands less than 0.5 hectares. For the farmland out of 12 affected households, 4 households have farmlands between 1-1.5 hectares; and 3 households below 1 hectare.

Table 3.2-6 GE Non-Irrigated Affected Crops

| Affected Non-Irrigated Crops | Planted Area (ha) | Number of Households |
|------------------------------|-------------------|----------------------|
| Beans                        | 3.9               | 13                   |
| Boyna Potato                 | 0.25              | 1                    |
| Maize                        | 9.9               | 11                   |
| Millet                       | 0.45              | 2                    |
| Potato                       | 1.25              | 3                    |
| Sorghum                      | 1.25              | 2                    |
| Teff                         | 4.25              | 7                    |

*Table 3.2-7 GE Affected Irrigated Crops*

| Affected Irrigated Crops | Planted Area (ha) | Number of Households |
|--------------------------|-------------------|----------------------|
| Beans                    | 0.5               | 1                    |
| Maize                    | 1                 | 1                    |

*Table 3.2-8 GE Affected Trees*

| Trees           | Estimated Number of Trees | Number of Households |
|-----------------|---------------------------|----------------------|
| Avocado         | 19                        | 3                    |
| Banana          | 356                       | 5                    |
| Coffee          | 286                       | 4                    |
| Cordia Africana | 7                         | 1                    |
| Enset           | 108                       | 4                    |
| Eucalyptus      | 76                        | 5                    |
| Gravilia        | 268                       | 3                    |
| Mango           | 39                        | 4                    |
| Oil Tree        | 2                         | 1                    |
| Orange          | 1                         | 1                    |

*Table 3.2-9 GE Affected Dry Season Crop Income*

| Dry Season Crop | Estimated Income ETB |
|-----------------|----------------------|
| Beans           | 107800               |
| Boyna           | 17500                |
| Maize           | 30000                |
| Potato          | 30950                |
| tot             | 186250               |

*Table 3.2-10 GE Affected Wet Season Crop Income*

| Wet Season Crop | Estimated Income ETB |
|-----------------|----------------------|
| Beans           | 125400               |
| Maize           | 297000               |
| Millet          | 18900                |
| Potato          | 46000                |
| Sorghum         | 9800                 |
| Teff            | 157500               |
| tot             | 654600               |

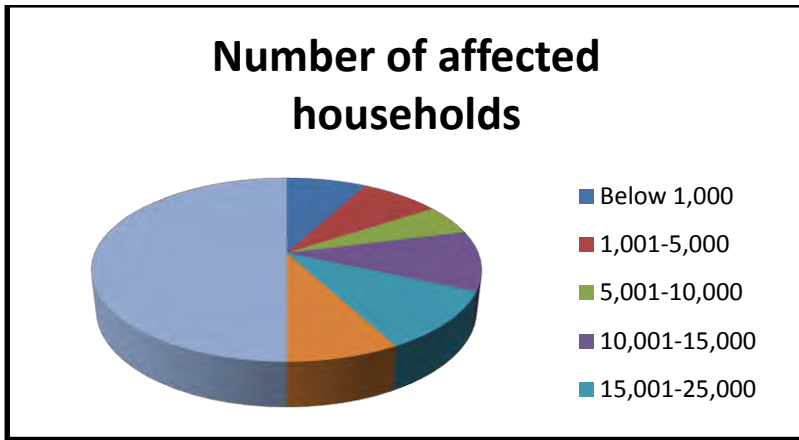
*Table 3.2-11 GE Estimated Income from Trees*

| Trees           | Estimated Income ETB |
|-----------------|----------------------|
| Avocado         | 8400                 |
| Banana          | 77760                |
| Coffee          | 106400               |
| Cordia Africana | 0                    |
| Enset           | 86400                |
| Eucalyptus      | 22000                |
| Gravilia        | 0                    |
| Mango           | 78000                |
| Oil Tree        | 0                    |
| Orange          | 0                    |
| tot             | 378960               |

*Table 3.2-12 GE Estimated Income from Livestock*

| Livestock  | Number Heads | of | Income ETB |
|------------|--------------|----|------------|
| Bull       | 1            |    |            |
| Chicken    | 27           |    | 5260       |
| Cow        | 18           |    | 179100     |
| Dog        | 1            |    | 0          |
| Donkey     | 1            |    | 19200      |
| Goat       | 7            |    | 0          |
| Oxen       | 21           |    | 0          |
| Lamb/Sheep | 7            |    | 0          |
| tot        |              |    | 203560     |

Figure 3.2-3GE Estimated Annual Income of Affected 21 Households



Fifty percent (50%) of the surveyed households have an annual income above Birr 30,000. In term of poverty, based on the World Bank poverty rate, a USD 1.5 per day per person, a household of 4 household members should at least have an annual income of Birr 43,800.

Based on the household survey conducted for both Soddo and Humbo, 50% of the population is living below the poverty line. And it is essential that all losses caused by the project be properly valued and compensated.

## 4 LEGAL FRAMEWORK

The section discusses the legal frame work for land acquisition, acquisition and compensation payment; and also the conflict resolution mechanism for Ethiopia.

### 4.1 Constitution of Federal Democratic Republic of Ethiopia

The Constitution of Federal Democratic Republic of Ethiopia is the legal basis for land acquisition and resettlement. FDRE Constitution lays down the basis for the property to be compensated in case of acquisition as a result of State programs or projects in both rural and urban areas.

In Ethiopia, rural or urban land could not be sold or mortgaged, citizens have only usufructuary right over land. A usufructuary right gives the user of the land, the right to use the land and the right to benefit from the fruits of her/his labour which may be crops, trees, etc. found on the land or any permanent works such as buildings etc.

Persons who have lost their land as a result of public projects are entitled to be compensated to a similar land plus the related costs arising from relocation; assets such as buildings, crops or fruit trees that are part of the land etc.

According to the Constitution of Federal Democratic Republic of Ethiopia (FDRE) article 40.3, land is a public property that no individual person has the legal right of ownership. There is no private ownership of land in Ethiopia, as per FDRE constitution Article 40 (the Right to property) No.2, "Land is a common property of the Ethiopian Nations, Nationalities and Peoples of Ethiopia and shall not be subject to sale or to other means of exchange". Hence,

Article 40 No.7 FDRE Constitution states the right of citizens to develop the land and to have immovable property and make permanent improvements.

"Every Ethiopian shall have the full right to the immovable property he builds and to the permanent improvements he brings about on the land by his labour or capital. This right shall include the right to alienate, to bequeath, and, where the right use expires, to remove his property, transfer his title, or claim compensation for it. Particulars shall be determined by law".

Article 40, No. 8 of the Constitution, states that if the land that is used by an individual is expropriated for public use, the person is entitled for compensation.

"... the Government has the right to expropriate private property for public purposes subject to payment in advance of compensation commensurate to the value of property".

Regarding displacement of the public due to development projects, the FDRE Constitution of Article 44 (Environmental Rights) No.2 states that:

"All persons who have been displaced or whose livelihoods have been adversely affected as a result of state programs have the right to commensurate monetary or alternative means of compensation, including relocation with adequate state assistance".

### 4.2 FDRE Legislation on Acquisition of Land Holdings

The Government of FDRE has issued legislation in July 2005 for the Acquisition of Landholdings, which is known as "Acquisition of Land Holdings for Public Purposes and Payment of Compensation (Proclamation No. 455/2005)." The objectives of the proclamation are to minimize and mitigate the impacts due to the acquisition of landholdings for public purposes.

The proclamation clarifies and defines who has the power to expropriate landholdings either in urban or rural sections of the country. As per the proclamation, the power of acquisition of landholdings mainly rests on Woreda or urban administration authorities. Article 3 No.1 of the proclamation states that: "A Woreda or an urban administration shall, upon payment in advance of compensation in accordance with this proclamation, have the power to expropriate rural or urban landholdings for public purpose where it believes that it should be used for a better development project to be



carried out by public entities, private investors, cooperative societies or other organs, or where such acquisition has been decided by the appropriate higher regional or federal government organ for the same purpose.”

A land holder whose land has been expropriated for public use by the concerned government authorities is entitled for compensation for his property situated on the land and for the permanent improvements he made on the land.

The amount compensation to be paid for the property situated on the expropriated land will be determined or calculated on the basis of full replacement cost. For houses in urban areas, the amount of compensation will not be less than the current market value of construction.

Woreda or urban administration has to notify in writing to the entity (which is either an individual or an organization) to be expropriated indicating the time not less than 90 days when the land has to be vacated and the amount of compensation to be paid.

A rural land holder, where his land does not have any crop or other property on the expropriated land should hand over within 30 days.

The proclamation also clarifies how utility lines that are owned and provided by Federal or Regional government offices, or by a public enterprise should be treated and compensated. Utility lines could only be removed from expropriated land by payment of compensation. The project owner has the responsibility to inform the utility provider in writing by indicating the exact location of the lines that will be removed.

The utility provider is responsible in determining the amount of compensation which is required for replacing the lines within 30 days of notice; and the body which requested the removal of utility line has also to pay compensation within 30 days from the date of the receipt of the valuation.

Any expropriated property, in addition to the amount of compensation payment, will also receive a provision for cost of removal, transportation and erection.

Concerning displacement compensation for rural land holdings, a rural landholder whose land holding has been permanently expropriated shall also be paid displacement compensation equivalent to ten times the average annual income he secured during the five years preceding the acquisition of the land (Part 3, article 8).

The above proclamation also states that the valuation of property shall be determined on the basis of valuation formula to be adopted at national level by the Ministry of Federal Affairs. However, until such time valuation of properties will be carried out by property valuation committees to be established both in rural and urban areas as stated in article 10 of the proclamation.

#### **4.3 FDRE Council of Ministers Regulation No. 135/2007**

FDRE Council of ministers issued a regulation on July 2007, regarding the payment of compensation for property situated on land holdings expropriated for public purposes. The regulation provides the basis for compensation of affected properties and to assist the displaced or affected persons to restore their livelihood.

The regulation sets the methods for the assessment of compensation, provision of land for land replacement and payment of displacement compensation.

The methodology followed by the regulation for the assessment of compensation establishes the basis and formula for compensation that will be made for the different types of assets and categorizes into ten parts.

- Compensation for buildings
- Compensation for fences
- Compensation for crops
- Compensation for perennial crops
- Compensation for trees

- Compensation for protected Grass
- Compensation for permanent improvement on rural land
- Compensation for relocated property
- Compensation to mining license
- Compensation to burial ground

The regulation recognizes that land replacement should be made for urban and rural lands. In rural areas if land replacement is not possible for permanently affected land, PAPs will be compensated for the affected perennial crops ten times of the annual production. For temporary impact the amount of compensation will be calculated by the number of years the land is occupied by the project.

In both permanent and temporary losses of land, the Council of Ministers' Regulation fails to assess and provide compensation for income restoration. It also does not recognize squatters or those persons who can't provide evidence of possession for the land they have been cultivating or have built houses.

#### **4.4 Rural Land Administration and Land Use Proclamation**

FDRE has also issued a proclamation on rural land administration and land use (proclamation 456/2005). The proclamation mainly states the right to hold and use of rural land, and rural land use restrictions.

Rural land users have the right to rent or contract their land either for farmers or investors and the contract duration depends on whom it is rented out. Hence, no formal land transaction exists by law except giving out in a form contract or lease for certain period. The maximum period to rent out is up to 25 years for investors who grow perennial crops. To ensure land use rights the government has started issuing out of land entitlement certificates for each rural land owner.

In relation to compensation payment to be made for a holder in relation public works either by the Federal or Regional governments, section two, article 7, no. 3 states that:

“Holder of rural land who is evicted for purpose of public use shall be given compensation proportional to the development he has made on the land and the property acquired or shall be given substitute land thereon. Where the rural land holder is evicted by the federal government, the rate of compensation would be determined based on the federal land administration law. Where the rural land holder is evicted by their regional governments, the rate of compensation would be determined based on the rural land administration laws of regions”.

#### **4.5 African Development Bank Policy and Guidelines on Involuntary Resettlement**

The policy goals of the African Development Bank (AfDB) on involuntary resettlement are to ensure that PAPs are treated equitably and that they share the benefits of the project.

The guiding principles of the AfDB policy state that compensation for project affected persons has to be made at the full replacement cost. Compensation for loss of lands and other assets should be paid prior to projects implementation with the view to improve the former living standards, income earning capacity and production levels of the affected population. The improvement of these living standards should also apply to host communities.

The policy also states that compensation will be made at full replacement cost for loss of lands and other assets and that it should be paid prior to the commencement of the implementation of the project. This will help the affected population to improve their living standard and income earning capacity.

The policy also recognizes that squatters and displaced person without having recognized legal right to be compensated and to be entitled for resettlement assistance in lieu compensation for land.

Particular attention should be given for disadvantaged groups among those displaced, especially those below the poverty line.

The following are the basis of the objectives of AfDB policy

To avoid resettlement where feasible, or minimize resettlement impacts where population displacement is unavoidable, exploring all viable project designs.

Ensure that displaced persons received resettlement assistance, preferably under the project, so that their standards of living, income earning capacity, and production levels are improved.

Provide explicit guidance to Bank staff and to the borrowers on the conditions that need to be met regarding involuntary resettlement issues in the Bank operations in order to mitigate the negative impacts of displacement and resettlement and establish sustainable economy and society.

Set up mechanism for monitoring the performance of involuntary resettlement programs in Bank operations and remedying problems as they arise so as to safeguard against ill prepare and poorly implemented resettlement plan

## 4.6 World Bank Policy and Regulations on Involuntary Resettlement

This RAP also builds on World Bank's policy on involuntary resettlement (OP/BP 4.12). The Bank's policy addresses the need for the treatment of project impacts, which cannot be avoided. The policy objectives of OP 4.12 are either to avoid or minimize involuntary resettlement; if carried out to execute as sustainable development program and to provide assistance to displaced persons so that they could be able to restore or improve their livelihood. The policy also sets eligibility criteria, resettlement instruments and monitoring, and other provisions.

The policy also sets eligibility criteria, resettlement instruments and monitoring, and other provisions.

The objectives of the policy include:

- Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs.
- Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable persons displaced by the project to share in project benefits. Displaced should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs.
- Displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.

## 4.7 Gaps between Ethiopian Legislation, AfDB and WB Policies

The preparation and content of this RAP is within Ethiopia's existing legal and administrative framework and that of the AfDB and World Bank's policy on involuntary resettlement. The Ethiopian law and regulations and requirements for resettlement and rehabilitation are not fully compatible and it has some gaps with that of AfDB and WB.

The Ethiopian law does not accommodate squatters and illegal settlers; it does not have clear provision for income restoration and transitional assistance. It also does not have any provision to assist the vulnerable and disadvantaged groups.

The Ethiopian law also does not provide any assistance or clarify for those tenants renting houses from individuals or government (or Kebele) houses, if displaced.

Table 4.7-1 Comparison of Ethiopian Legislation and World Bank's Operational Policy summarizes the gaps between the Ethiopian Law, AfDB and World Bank Policies on Involuntary Resettlement.



The Ethiopian law does not clarify or specify how and why public consultation should be carried out. Bank policy states and gives high importance to public consultations and considers their views and opinion to influence the implementation of the project.

In case of conflicts or gaps between the Federal Democratic Republic of Ethiopia (FDRE) law and AfDB and World Bank Policies, the higher standard shall prevail and this RAP will be an international credit agreement between the Government of Ethiopia, the World Bank and AfDB.

Table 4.7-1 Comparison of Ethiopian Legislation and World Bank's Operational Policy

| Theme             | World Bank Op 4.12  | Ethiopian Legislation  | Comparison   | Recommendations to Address Gaps  |
|-------------------|---|--|--|--|
| Policy Objectives | <p>World bank OP4.12 has overall policy objectives, requiring that: Involuntary resettlement should be avoided wherever possible, or minimized, exploring all alternatives.</p> <p>Resettlement program should be sustainable, include meaningful consultation with affected parties and provide benefits e affected parties</p> <p>Displaced persons should be assisted in improving livelihoods etc or at least restoring them to previous levels</p> | <p>Proclamation No 455/2005 (Article 3(1)) gives power to Wereda or urban administrations to “expropriate rural or urban landholdings for public purpose where it believes that it should be used for a better development...”This is supported by Article 51(5) and Article 40(8) of the 1995 Constitution.</p> <p>Proclamation No 455/2005 (Article 7(5) states that” the cost of removal, transportation and erection shall be paid as compensation for a property that could be relocated and continue to serves as before.”</p> | <p>The World Bank requirement for avoidance or minimization of involuntary resettlement is not written into Ethiopian legislation. Proclamation No 455/2005 does not indicate consultation with displaced persons throughout the resettlement process, rather only allows for a complaints and grievance process. Although Proclamation No 455/2005 allows for some form of support to the displaced persons, it does not explicitly state that livelihoods should be restored to previous levels or improved.</p> | <p>World Bank OP 4.12 overall objectives shall be applied to avoiding or minimizing involuntary resettlement to ensure resettlement program is sustainable and includes meaningful consultation.</p> |

| Theme                                       | World Bank Op 4.12   | Ethiopian Legislation   | Comparison  | Recommendations to Address Gaps   |
|---|--|---|---|---|
| Notification period /timing of displacement | Article 10 of World Bank OP4.12 requires that the resettlement activities associated with a sub - projects are linked to the implementation of development program to ensure displacement or restriction of access does not occur before necessary measures for resettlement are in place. In particular, taking of land and related assets may take place only after compensation has been paid and where applicable, resettlement sites and moving allowances have been provided to displaced persons. | Article 4 of Proclamation No 455/2005 requires notification in writing, with details of timing and compensation, which cannot be less than 90 days from notification. It requires that land should be handed over within 90 days of payment of compensation payments. If there is no crop or other property on the land, it must be handed over within 30 days of notice of expropriation. It further gives power to seize the land through police force should the landholder be unwilling to hand over the land | There is a gap in Proclamation No 455/2005 to allow land to be expropriated before necessary measures for resettlement take place, particularly before the displaced person has been paid. This can have serious consequences for those affected, as they may be displaced without shelter or livelihood. | Displaced person should always be paid compensation and support before the land is handed over, as per World Bank OP4.12. |
| Eligibility for Compensation                | World Bank OP4.12 gives eligibility to:<br>Those who have formal legal rights to the land;   | Proclamation No 455/2005, Article 7(1) allows 'landholders' to be eligible for compensation, where the term "landholder" (Article 2(3) means" and individual,   | According to World Bank OP4.12, eligibility for compensation is granted to "affected parties". Ethiopian Legislation only grants com-   | The requirements of World Bank OP4.12, as described in Column 1 of this table, expected to be applied,                    |

| Theme        | World Bank Op 4.12  | Ethiopian Legislation  | Comparison  | Recommendations to Address Gaps  |
|--------------|---|--|---|--|
|              | <p>Those who do not have formal legal rights to land, but have a claim to such land; and</p> <p>Those who do not have recognizable legal right or claim to the land</p>   | <p>government or private organization or any other organ which has legal personality and have lawful possession over the land to be expropriated and owns property situated thereon”</p>   | <p>pensation to those with lawful possession of the land, and as per Proclamation No 456, those with traditional possession i.e. Communal lands. It therefore does not recognize those without a legal right or claim as eligible for compensation.</p>   |  |
| Compensation | <p>World Bank OP4.12 Article 6(a) requires that displaced persons are provided with prompt and effective compensation at full replacement cost for losses of assets attributable directly to the project. If physical relocation is an impact, displaced persons must be provided with assistance during relocation and residential housing, housing sites and /or agricultural sites to at least equivalent standards as the previous site. Replacement cost does not take depreciation into account. In term of valuing assets.</p> | <p>Article 7 of Proclamation No. 455/2005 entitles the landholder to compensation for the property on the land on the basis of replacement cost; and permanent improvements to the land, equal to the value of capital and labour expended. Where property is on urban land, compensation may not be less than constructing a single room low cost house as per the region in which it is located. It also requires that the cost of removal, transportation and erection will be paid as compensation for a relocated prop-</p> | <p>The World Bank requirement for compensation and valuation of assets it that compensation and relocation must result in the affected person must have property and a livelihood returned to them to at least equivalent standards as before. This is not clearly stated in local Proclamations. It is expected that the regulations and directives will provide more clarity and clearer guidance in this regard.</p> | <p>The World Bank requirements for compensation must be followed, as per OP4.12 footnote 1, which states, “Where domestic law does not meet the standard of compensation at full replacement cost, compensation under domestic law is supplemented by additional measures necessary to meet the replacement cost standard”</p> |

| Theme  | World Bank Op 4.12   | Ethiopian Legislation   | Comparison   | Recommendations to Address Gaps  |
|--|--|---|--|--|
|  |  | <p>erty continuing its service as before. Valuation formula are provided in Regulation No. 135/2007</p>   |  |  |
| <p>Responsibilities of the project proponent</p> | <p>According to OP4.12, Article 14 and 18), the borrower is responsible for conducting a census and preparing, implementing, and monitoring the appropriate resettlement instrument. Article 24 states that the borrower is also responsible for adequate monitoring and evaluation of the activities set forth in the resettlement instrument. In addition, upon completion of the project, the borrower must undertake an assessment to determine whether the objectives of the resettlement instrument have been achieved. This must all be done according to the requirements of OP4.12.</p> | <p>Article 5 of Proclamation No 455/2005 sets out the responsibilities of the implementing agency, requiring them to gather data on the land needed and works, and to send this to the appropriate officials for permission. It also requires them to pay compensation to affected landholders.</p> | <p>The process required for the project proponent / implementing agency lacks descriptive processes in local legislations...</p> | <p>As per the World Bank requirements, project processes included screening, a census, the development of a plan, management of compensation payments and monitoring and evaluation of success. It must also include proper consultation with the affected parties throughout the process.</p> |





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| Theme | World Bank Op 4.12  | Ethiopian Legislation | Comparison | Recommendations to Address Gaps |
|-------|---|-----------------------|------------|---------------------------------|
|       | <p>Article 19 requires that the borrower inform potentially displaced persons at an early stage about the resettlement aspects of the project and takes their views into account in project design.</p> |                       |            |                                 |

## 4.8 Gender issues and AfDB Gender Policies

Examining of gender differences and issues is essential factor for effective resettlement planning and implementation. This requires Gender Analysis which involves in a close look and understanding of the target population. Gender analysis enables the collection and interpretation of information on gender matters and in particular that of women. AfDB has put in place Gender policy in 2001 to ensure gender mainstreaming in all its activities and lending policies. The policy recognizes gender main streaming as a development goal rather than on women as a target group. The achievement of this goal requires the Bank to examine all of its policies, programs and projects for their actual and potential impacts on women and men.

AfDB's policy sets the guideline that gender sensitive planning is a requirement starting from project design, implementation, monitoring and follow-up instruments. Ethiopia has issued Women's policy and also Gender action plan to improve the lives and condition of women. Women in the project area face multi-dimensional, social, economic and political constraints as most of the project area is predominantly located in rural area. Most of the problems seem to emanate from the social, cultural and religious setting of the area. However, the poor economic development of the area plays a role in worsening the situation of women directly or indirectly. Women in project area suffer from the following major problems:

- Discriminatory culture, norms and value systems of the society.
- Harmful traditional practices which includes: Female Genital Mutilation, polygamy and the like.
- Women carry out excessive workloads for longer hours.
- Women have very low social status and poor access to and benefit from basic social services.
- Male dominate resource rights and decision making power.

The magnitude of women's poverty situation in the project area is manifested through lack of access to resources; low educational level and high level of illiteracy among women, and lack of decision making power are some. As in most parts of the country; women in the project area face disproportionate workload as compared to men. Women accomplish both productive and reproductive role. Women play significant role in productive activities mainly in agricultural activities (crop production and Livestock rearing) and to some level in rural trade business.

Women have limited access and control over resources. Legally women are entitled for land ownership. But from the actual practice men still have control over land and other economic resources. Women's role and responsibilities is limited to household chores and do not occupy important roles in social, religious and political positions. At the time of implementing this RAP and associated RAPS, special attention, support and care will be given to Female Headed Households (FHH) recorded in the RAPs since they may face several problems and difficulties that would either hinder or affect their rights. The support will be in rebuilding their houses, transporting properties and materials, utensils to relocation sites and newly constructed residential houses. Even though it may be difficult to quantify the support provided in monetary terms, these supports are to be considered as one form of social compensation for Female Headed Households.

At the time of cash compensation, Female Headed Households will be treated equally like that of their male counterparts. In general, there might be a need to safeguard the need and interest of women, and in particular that of female headed households in resettlement measures. Some of the issues that need to be looked into the safeguard of women's interests include;

- Identification of the socioeconomic conditions, needs, and priorities of women; and that of FHH in particular

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- Entitlement criteria recognize Female Headed Households both for land and compensation payment Entitlements ensure that women are not disadvantaged by the process of land acquisition and resettlement
- Ensuring that land titles at the relocation sites or any grants included are in the name of both spouses
- Hiring of female staff to assist women in all kinds of relocation/resettlement activities, including planning and implementation of income restoration programs
- Providing and organizing training on employment creation activities to FHH

## **5 INSTITUTIONAL FRAMEWORK**

### **5.1 Ethiopian Electric Power**

The Ethiopian Electric Power (EEP) is a public enterprise established more than 50 years ago and has recently been re-established in February 2010 by the Council of Ministers Regulation no. 170/2009 under the supervision of the Ministry of Mines and Energy.

Some of the major responsibilities of EEP include the operation of generation, transmission, distribution and sell of electrical energy; construction of electricity generation, transmission, and distribution; administer the operation of national grid; lease transmission lines to foreign countries; negotiate and interconnect its power transmission lines with neighboring countries or regional and international power pool systems for purposes of export or when necessary purchase of electricity at price to be set through inter-governmental agreement.

EEP has extensive experience in the preparation and implementation of a number of RAPs that have been implemented under its power projects. In EEP, the Environmental and Social Management Unit is responsible for the monitoring and evaluation of Environmental and Social Impact Assessment (ESIA) and RAP documents prepared for power projects and its implementation.

### **5.2 Environmental and Social Management Unit of EEP**

EEP's Environmental and Social Management Unit (ESMU) which is under the Corporate Planning Department has the overall responsibility of coordination of the implementation of RAP and ESIA for Power Projects; and its monitoring and evaluation. The unit also has participated in the preparation of ESIA and RAP for some specific Power Projects.

In the Ethiopia Kenya Power Interconnection Project, ESMU will have the role and responsibility to monitor and evaluate the study and the implementation of this RAP and ESIA. It will also provide training and capacity building support for PIU's Environmental and Social experts.

Moreover, EEP's Environmental and Social Management Unit needs to strengthen its organizational capacity and be able to influence the management regarding environmental and social issues. EEP's management also needs to provide the unit with appropriate support so that it becomes technically effective and efficient and could be able to address the various environmental and social requirements of the different projects that are implemented by EEP and the requirements of the financing institutions as well.

### **5.3 Ethio-Kenya Joint Project Coordination Unit (JPCU)**

The Government of Ethiopia and Kenya, following the memorandum of understanding signed in 2006, have established a ministerial commission to oversee the overall coordination of the Joint Project.

The joint ministerial commission has also established a Joint Project Coordination Unit (JPCU), which has the responsibility for the coordination of the activities in the two countries. The responsible utilities in each country (EEP and KETRACO) set up a Project Implementation Unit (PIU) for the implementation of the project activities, for procurement services, oversee construction supervision and progress of the project. Also, the day to day implementation activity of the RAP is administered and run by the PIU.

Since EEP has the overall responsibility in Ethiopia, it is also responsible to coordinate the different stakeholders working both at Federal and Regional level.

## 5.4 Project Implementation Unit (PIU)

The Project Implementation Unit (PIU) is the main responsible body for the coordination, facilitation and implementation of this RAP. PIU is also responsible to monitor the restoration of services/utilities affected by the construction works.

The Project Implementation Unit (PIU) is responsible for the coordination and implementation of the following major activities:

- Coordinate and establish Resettlement and Valuation committees at Woreda level;
- Establish Income Restoration of PAPs, organize Skill Development training for PAPs and provide Social Development Plan,
- Effect Compensation Payment for PAPs
- Provide support for Vulnerable Groups;
- Monitor the Restoration of Services/Utilities affected by the construction works, such as, water supply, etc.

It is the responsibility of the PIU to provide all necessary technical support to the committees and facilitate budget and resource allocation required by each Woreda level committees formed to support the implementation of the land acquisition plan.

## 5.5 Resettlement / Implementation Committee

Woreda Level Resettlement/Implementation Committees are established in each of the Woreda's crossed by the project in December 2011. The Committee has responsibility of planning, coordinating and monitoring of compensation payments and relocation activities.

The Woreda Level Resettlement/Implementation Committee will have the mandate and authority to ensure the proper implementation of this RAP, assess the timely payment of compensation to the PAPs and provision of other support mechanisms. The Committee will report directly to the Woreda Administration Offices and to the Ethic-Kenya Interconnector Project Implementation Unit.

Duties and Responsibilities of the Committee:

- Guide and monitor the implementation of relocation
- Coordinate activities between the various organizations involved in relocation
- Ensure that appropriate compensation procedures are adopted and followed
- Coordinating and supervising the activities of the valuation and that of the grievance committees, follow up the compensation payment, relocation activities, etc.,
- Oversee Project's requirements related to the social environment, clarifying policies and operational guidelines about compensation.

The composition of members for the Resettlement / Implementation Committee for each of the Woreda's crossed by the project is shown as follows:

*Table 5.5-1 Members of the Resettlement Committee by Institution*

| List of Members                          | Responsibility     |
|--|--------------------|
| Woreda Administration                    | Chairperson        |
| Woreda Agriculture and Rural Development | Deputy Chairperson |
| Woreda Justice Office                    | Member             |
| Woreda Mobilization Office               | Member             |
| Woreda Finance and Economic Development  | Member             |
| PAPs representatives                     | Member             |

*Table 5.5-2 Members of Resettlement Committees by Woreda - 2015*

| Woreda | Representative   |
|--------|--|
| SODO   | Mr. Tedla Nadew - Woreda Chief Administrator-<br>Mr. Efreem Yaekob Assistant Chairman<br>Mr. Hailmariam Medebo - Member<br>Mr. Teklu Mena- Member<br>Mrs. Workenesh T/Mariam - Member<br>Mr. Nigussie Baashe Explainer |
| HUMBO  | Mr. Ayalew Ayiza- Chief Administrator<br>Mr. Indirias Lante -Justice Office<br>Mr. Brihane Nigussie – Finance Office<br>Mr. Mearegu Asrat – From Civil Service   |

Each Woreda Resettlement Committee is expected to prepare its detailed schedule and activity plan in consultation with the PIU. Since the task and responsibility of the Resettlement/Implementation Committee is challenging, it requires dedication and extra effort. The PIU will be responsible to provide the committee with all the necessary materials, equipment and allowance for field works.

## 5.6 Property Valuation Committee

The Property Valuation Committee has the responsibility of preparing valuation and cost estimates for affected properties and assets as per FDRE proclamation 135/2007, list down all PAPs, registration of assets and properties; and shall establish unit rates, taking into account, Proclamation 455/2005 and councils of Ministers regulation 135/2007.

This Committee is composed of professionals that are drawn from different Government offices to carry out valuation of affected properties and assets. Members of the Committee include different professionals such as, Agricultural Experts for valuing crops and trees; and a Civil Engineer for the valuation of houses. The involvement of different experts as Committee Members

will assist and speed up the day-to-day task in the valuation of the affected assets. The Valuation Committee will have the following major duties and Responsibilities:

- Establish standards for unit rates of affected assets and properties
- Revalidate inventories of PAPs and affected assets
- Establish valuation ahead of time effect the compensation payment resettlement/ relocation activities.
- To make each PAP verify and sign on the list of their affected assets and properties.

The table below present's members of the property valuation committees established in each of the Woreda's crossed by the project.

*Table 5.6-1 List of Valuation Committees Members by Institution*

| List of Members                                 | Responsibility |
|---|----------------|
| Woreda Agriculture and Rural Development Office | Chair Person   |
| Natural Resource Expert/Forester                |                |
| Crop Expert /Agronomist/                        |                |
| Municipality Town Planner or Civil Engineer     |                |
| Representative of PIU                           |                |

*Table 5.6-2 Members of Valuation Committees by Woreda – 2015*

| Woreda | Representative  |
|--------|---|
| SODO   | Mr. Nigussie Bashe - Chairman<br>Mrs. Etaferahu Zeleke r<br>Mr. Zinabu Mathiwos<br>Mr. Nabiyo Yosef<br>Mr. Melkamu Debisa -Project Representative<br>Mr. Nasir Mohammed - Project Representative                                |
| HUMBO  | Mr. Tomas Toru - from Chief Administration<br>Mr. Mengistu Meheka -Natural Resource Expert.<br>Mr. Zerihun Zara – Municipality Engineer<br>Mr. Ejigu Alemayehu – Crop expert<br>Project Representative<br>Kebele Representative |

The Property Valuation Committee reports to the Woreda Resettlement / Implementation Committee.

## 5.7 Grievance Redress Committee.

In addition to the above two Committees, a third Committee, which is known as Grievance Redress Committee is also established at each Woreda level. The details of the Grievance Redress Committee are presented on grievance redress mechanism chapter.

*Table 5.7-1 Members of Grievance Redress Committees by Woreda - 2015*

| <b>Woreda</b> | <b>Representative</b>  |
|---------------|--|
| SODO          | Mr. Tedila Nadew Chairman<br>Mr. Awol Alemayehu<br>Mr. Pawulos Nadew<br>Mr. Semeon Gitore<br>Mr. Melkamu Debisa Project Representative<br>Mr. Nasir Mohammed Project Representative  |
| HUMBO         | Mr. Ayalew Ayiza – Chief Administrator<br>Mr. Indirias Lante – From Justice<br>Mr. Wagaye Wada – From Chief Administration Special Consultant<br>Mr. Esayas Altaye – Petition Hearing/Decision given Work process<br>Mr. Esayas Altaye – From PAPs |

## 5.8 PAPs Representatives

PAPs are represented in different committees..

- Soddo, Converter Station: Mr Areka Abate
- Humbo, Ground Electrode: Mr Tefera Mezegebu, Mr Eshetu Megistu



## 6 COMMUNITY PARTICIPATION, PUBLIC CONSULTATION, INFORMATION DISCLOSURE and DISSEMINATION

Community Participation and Public consultation is an essential component in the preparation of ESIA and RAP. The primary purpose of community participation and public consultation is to protect the interest of affected persons/communities, especially the poor and vulnerable groups. Public consultation also gives opportunity for the affected people to influence the project to reduce adverse impacts, maximize additional benefits, and ensure that they receive appropriate compensation. In the project area, public consultation was carried out more than three times at different periods.

Public consultation was conducted in a form of formal meetings and public gatherings, focused group discussions and also through informal meetings held with different sections of the community.

The objective of public consultation is to inform the public on the potential impacts of the project and seek their participation and contribution during the construction of the transmission line. It also helps to identify the potential social impacts (positive and negative); and how the implementation of the proposed mitigation measures for the negative impacts should be carried out and also on the proposed reinforcement measures for the positive impacts.

### 6.1 Stakeholder analysis

Stakeholder identification is undertaken to determine who will be directly or indirectly affected by the project. Those identified will then need to be consulted to varying degrees, depending on level of impact, at strategic points during the life of the project.

At Government level the main stakeholders have been consulted during the screening activities and prior the commencement of socioeconomic survey in order to set the boundaries of the study, to identify issues implemented by the Woreda Committees and to draft a preliminary list of PAPs.

The Authorities which play a role in the first phase of the project are:

- EEP Project Implementation Unit(PIU), EEP’s Environmental and Social Management Unit (EMU)
- Environmental Protection Agency at Regional and National Level
- Soddo and Humbo Woreda Administrators
- Soddo and Humbo Woreda Committees for Compensation, Assets Evaluation and Grievance Mechanism
- Heads of Wajakero and Ela Kebeles

**Table 6.1-1** shows the group of people consulted for the first phase of the study which is aimed at identifying people to be displaced, people to be compensated for the loss of assets and income due to the land acquisition..

*Table 6.1-1 Project Area Affected people*

| Type of PAP affected by land taking                | Location                                  | n. of PAPs |
|--|---|------------|
| Farmers whose land will be impacted by the project | Wajakero Kebele –Soddo, Converter Station | 345        |
|  | Ela Kebele – Humbo, Ground Electrode      | 86         |

|  |   |     |
|--|---|-----|
| People using land or natural resources inside the project boundaries | Soddo, Converter Station – Communal Grazing Land used by Wajakero, Damo Tuwaja and Wareza Lasho Kebeles | 200 |
| People living in project areas                                       | 21 HH of Wajakero Kebele – Soddo, Converter Station   | 141 |
|  | 6 HH Ela Kebele – Humbo, Ground Electrode   | 45  |

The group of PAPs of the above table is strictly related to the definition of the project boundaries and it has been consulted since the beginning of the screening activities. For the MVTL, PAPs will be identified once the Contractor will start the check survey.

## 6.2 Converter Station

The Public Consultations for the Converter Station Construction project took place on May 17, 2015 in the project area which is located in Wajakero Kebele. The meeting was facilitated by two Woreda Compensation Committees Members Mr Mulugeta Futato and Mr Ephrem Yakos, the head of Wajakero Kebele Mr Daniel Dawana, EEP Representative and EEP's Consultant. The discussion was moderated by Mr Areka Abate, PAPs representatives.

EEP explained the main design of the Converter Station and relevant impacts in terms of permanent loss of land and temporary disturbance due to construction activities. The PAPs were well informed about the project and displacement needs. The Consultant explained the temporary impacts due to construction activities mainly due to the heavy traffic, noise and dust in the area, and permanent impacts during operational phase such as continuous noise. Specific mitigation measures will be defined in order to minimize the impacts. (**ANNEX 6 Public Consultations Records**)

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Table 6.2-1 Converter Station - Summary of Queries/Observation and the response given to the Stakeholders

| Stakeholders View/Concern  | How it will be addressed  |
|--|---|
| The land for replacement is very small. We would like to be compensated in cash for this.              | in order to assess the HH profile and the size of their land and in order to have a clear understanding of relocation scheme and possible alternative locations A socio economic survey has been conducted .Based on the findings of the survey the PAPs will adequately compensate for their loses due to the intervention of the project. |
| We hope we can be notified before the construction and give more time harvest our crops                | PAPs will be notified in advance about the commencement date and they can grow their crops up to the construction.  |
| Wajakero is the only Kebele in the surrounding without access to water. We would receive this service. | During the revision of the RAP for the transmission line, this issue has been rased and the project promised to provide this basic social service as a compensation for the acquired communal grazing land  |

|  |  |
|--|--|
| <p>A previous camp was in the area and during dismantling the Contractor destroyed the project water pump that could have been used by the community</p> | <p>The PIU in coordination with the woreda administration is working to provide the service.</p>   |
| <p>we hope this project can compensate us adequately for the grazing land we lost.</p>   | <p>The Proposal for the animal feed machine drafted by Soddo Development Committee with the input of PAPs will have been submitted to EEP and evaluated in order to pass to the next phase</p> |
| <p>We expected that the project will offer jobs to our community?</p>  | <p>Both unskilled and semi-skilled wage labor in construction activities and in the camps will be ensured for the PAPs</p>   |



### 6.3 Ground Electrode

The Public Consultations for the Ground Electrode Construction project took place on May 16, 2015 at the Woreda office and on May 17 in the project area which is located in Ela Kebele. The meeting was facilitated by Woreda Compensation Committees Member, EEP Representative and EEP's Consultant (**ANNEX 6 Public Consultations Records**).

**At WOREDA LEVEL**



**Main issues raised:**

- Since the loss is permanent the affected houses need to be compensated with an amount adequate for the reconstruction elsewhere,
- Trees need to be evaluated according to their quality and age and compensated for 10 years loss
- Special assistance shall be given to vulnerable groups
- There should be grievance handling mechanism to solve the complaints regarding with compensation and resettlement.

**At COMMUNITY LEVEL**



The main questions, concerns and worries raised during the consultation are summarized in the following table;

*Table 6.3-1 Ground Electrode -Summary of Queries/Observation and the response given to the Stakeholders*

| Stakeholders View/Concern                         | How it will be addressed   |
|---|--|
| How do you identify the affected people?          | <p>PAPs have been identified based on the project design prepared by EEP. Any household who has structures or other property and cultivates land inside the project right of way has been identified as a PAP.</p> <p>It has been done with the help of the head of Kebele and Woreda administration</p> |
| Do you give assistance to people to be displaced? | <p>All the people to be displaced will have assistance during the displacement.</p> <p>Special care will be given to vulnerable groups.</p>  |



## 7 GRIEVANCE REDRESS MECHANISM

A grievance redress mechanism and procedures is setup at each woreda level to provide opportunity for PAPs to settle their complaints and grievances amicably. The established grievances redress procedures and mechanism ensures that PAPs are provided with the appropriate compensation payment and that all administrative measures are in line with the law. It also allows PAPs not to lose time and resources from going through lengthy administrative and legal procedures.

Grievances are first preferred to be settled amicably whenever possible through arbitral tribunal. In line with FDRE Council of Ministers' Regulation No.135/2007 that grievance redress tribunals (or committees) are established at each woreda level in December 2011. The main responsibility of the committee is to address grievances that are raised during the property valuation and implementation of this RAP, including during the post-resettlement period as PAPs re-establish their livelihood. The committee is composed from woreda Government offices, the PIU and representatives of PAPs. The representation in the committee makes PAPs to have trust and build confidence in the system.

The grievance redress committee reports its plan and activities to the Resettlement/ Implementation committee. The following list presents members of the committee.

**Table 12-1: Members of the committee**

| No. | List of member organizations              | Responsibility |
|-----|---|----------------|
| 1   | Woreda Administrator                      | Chair Person   |
| 2   | Woreda Justice Office                     |                |
| 3   | Woreda Complaint (or grievance) committee |                |
| 4   | Representatives of PAPs                   |                |
| 5   | Representatives of PAPs                   |                |

The duties and responsibilities of the Grievance redress committee includes;

- To assist PAPs in providing appropriate response to their complaints by referring to the legal procedures
- To communicate with property valuation committee and the project office on issues related with compensation payment and valuation of properties and assets
- To ensure that the procedures followed by the property valuation committee are conducted based on the government regulations and guidelines.

According to FRDE law, if a PAP is dissatisfied with the amount of compensation payment or other related measures he will be advised to take the case to arbitral tribunal. For PAPs taking their cases or complaint to arbitral committee will give them the opportunity to have positive discussions with the committee in the presence of their representatives, local administration representative or any influential person in the locality.

In case a dispute is not resolved by arbitral tribunal, the aggrieved party has the right to appeal to the ordinary courts of law according to FDRE Proclamation N0.455/2005. However,

the preferred option of dispute settlement ought to be the option of settling the dispute amicably because recourse to courts may take a very long time even years before a final decision is made.

The following principles will apply to address complaints and grievances in the project:

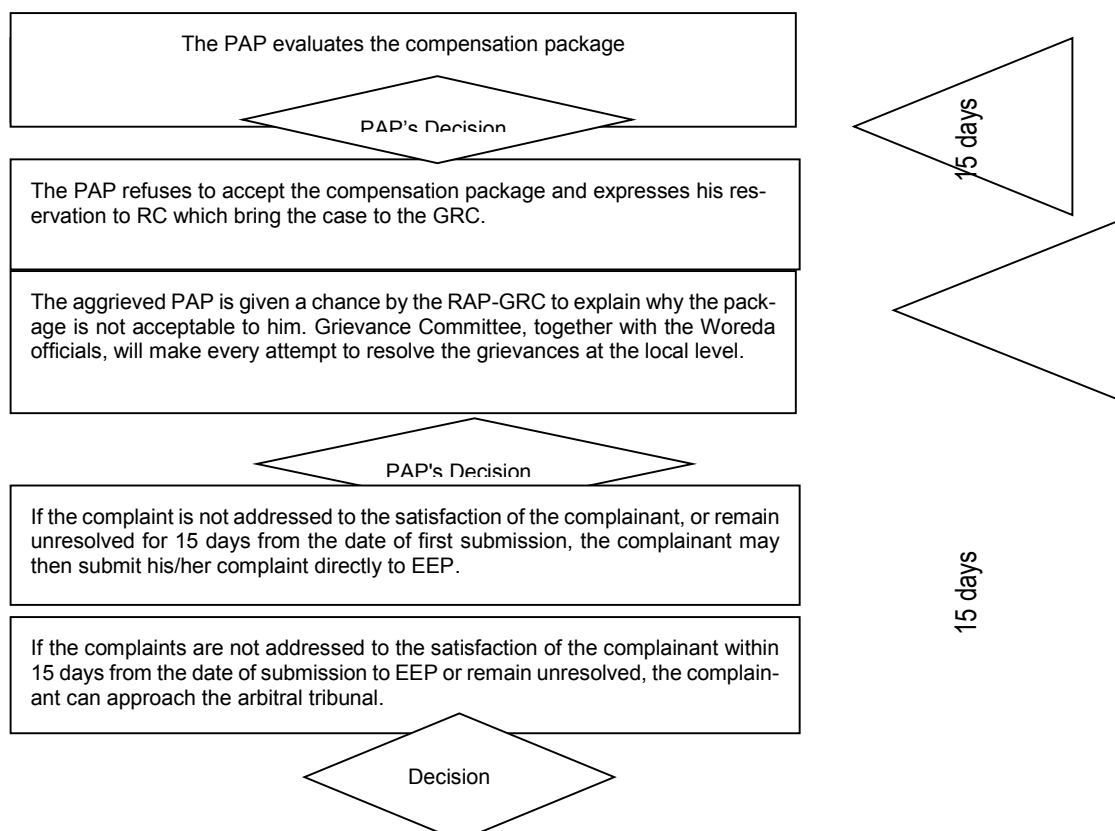
Transparent and simple to understand or uniform process for registering complaints  
 The procedure should be able to be activated rapidly or a time bound system of adjudication

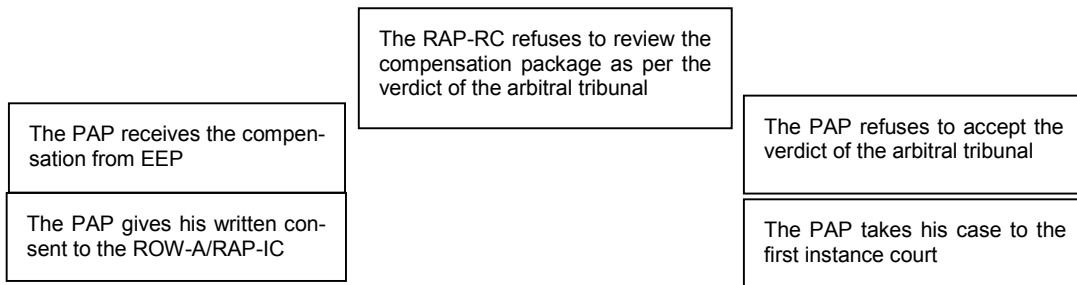
- Complainants will be exempted from all administrative and legal fees incurred in pursuant to the grievance redress procedures. All such costs will be borne by Woreda and/or EEP
- All complaints would be written, if received verbally), and documented properly. The Grievance Committee at the Woreda will also put all relevant details of complaints and the actions taken on their respective website for the purpose;
- The Grievance Committee at the Woreda will maintain proper documentation of all complaints received and actions taken. These documents would be available to the EEP which is responsible for monitoring.

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Grievance Resolution Channels for the Project Affected persons are shown in Table 6.3-1 Project Affected Persons (PAPs) grievance resolution channel.

*Table 6.3-1 Project Affected Persons (PAPs) grievance resolution channel*





## 8 VALUATION and COMPENSATION OF LOSSES

### 8.1 Compensation Procedures and Approach

The strategy adopted for compensation of the affected properties/assets follows the Federal Government and Regional Government laws and regulations. In addition to the FDRE and Regional Governments laws and regulations, AfDB and WB policies and other supplementary guidelines were used.

The compensation procedures and approach of the RAP adopted the following three steps:

1) Establishment of Property Valuation Committees: Woreda Property Valuation Committee has been established at each of the project. It is composed of professionals such as, Agronomist, Forester and Civil Engineer. The Property Valuation Committees provided PAPs with details of compensation estimates, measurement of all affected assets and properties that PAPs will be losing. The compensation estimate and valuation has been reviewed by the Resettlement/Compensation Committee

2) Assessment of Properties and Assets: All Properties and Assets affected by the project have been assessed at a full replacement cost based on the present market value.

3) Establishing Unit Rates: Unit Rates have been established for each of the expropriated assets and properties by the project. The unit rate is established for each of the affected properties and assets expropriated due to the construction works of the transmission line on the basis of current market value.

The valuation committee, in close consultation with PAPs and woreda administration office established unit rate for the affected assets on the basis of market value.

Compensation for land structures, business, fixed improvements and other temporary impacts are based on among other things on market valuation, production and productivity valuation, negotiated settlements, material and labor valuation, disposition of salvage materials and other fees paid.

PAPs are entitled to transitional assistance which includes moving expenses, temporary residence (if necessary), employment training and income support while awaiting employment. In preparing the valuation, it is the average cost which is assumed. PAPs that do not have license or legal permit are also eligible for compensation payment. According to AfDB and WB policies that lack of license or permit will not be a bar to compensation.

Compensation payment to PAPs will be effected after the property valuation committee makes the final estimate of compensation payable for the affected properties at a full replacement cost and finally approved by Ethiopia-Kenya project JPCU and PIU.

Payment to affected properties and assets will be effected before the commencement of the construction works. The payment procedures and mechanisms to be adopted will be simple and easily understandable to PAPs.

### 8.2 Income Restoration

This section consists of the plan for income restoration for PAPs and communities affected by the project. Livelihood restoration is an important component for the resettlement of PAPs who have lost their productive base, jobs, or other income sources, regardless of whether they have also lost their houses or not. The livelihood restoration program is the most important as far as the RAP of Ethiopia-Kenya power interconnection is concerned as indicated the livelihood of more than 300 persons has been negatively affected due to productive agricultural land acquisition and dislocation.



Experience in other RAPs conducted elsewhere in the country shows that it is a program which for many reasons is either overlooked or is not properly implemented to address the needs of PAPs. The basis for the livelihood restoration program has to be basically the **World Bank's** involuntary resettlement Policy **OP 4.12 which** shall be adhered to. Among the objectives of this policy, the most important one with respect to livelihood restoration program is the objective that states the need to assist displaced persons in improving their former living standards, income earning capacity, and production levels, or at least in restoring them.

Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as Sustainable Development Programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits. They should also be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of the project implementation, whichever is higher.

The general objective of the plan is to enable PAPs not only to restore their income but also to improve their standard of living through a set of integrated strategies and assistance measures by the project implementing agency.

In livelihood restoration, issues such as source of livelihood (monetary and non-monetary), availability of land for replacement (if possible), existing skills of PAPs, employment opportunities and income restoration options will be considered. For PAPs who have lost their assets, income restoration plans or programmers may require support services in the long and short term basis as discussed under the chapter on mitigation of impacts.

The short term support plans include provision of employment opportunities at project construction site. Long-term income restoration involves land and non-land-based economic activities that will provide a sustained source of income over a longer period of time.

Income Restoration plan will provide support and services in the long and short term basis.

The short term strategy is to provide support plans which will include compensation payment made for lost assets and properties before relocation, allowances for transportation and moving agricultural extension and other related supports until the income level of PAPs is restored. This short term support also involves provision of employment opportunities at project construction site.

Long-term income strategy for income restoration involves land and non-land-based economic activities that will provide a sustained source of income over a longer period of time and to enable Income Restoration, or better still, improvements in PAPs standard of living.

For people affected by converter station construction project, special support will be given in training assistance for the implementation of livestock feeding processing plant so as to allow affected PAPS to maintain their source of livelihood. Specific training will be planned in concomitance of the Livestock feeding processing plant project development (Annex 10) which is at the design phase and under evaluation by the PIU.

Some PAPs who will lose land may also need to receive skill training, employment opportunities to restore their livelihood. Based on the need an interest of PAPs, tailor made skill training programs will be planned and implemented. The training may be focused on special skill training in agricultural development or trainings related with self employment.

The income restoration measures will also target the vulnerable persons to ensure that they are reasonably assisted to overcome potential economic shock from the project, and maintain the quality of life not less than their pre-project state because; they are at higher risk than others due to their vulnerability status.

The type of livelihood restoration suitable to each PAP will be identified by the resettlement committee in consultation with PAP. As minimum indicator to be considered, PAPs level of education, age and present means of livelihood should be assessed.

The proposed training should be organized not far away from the locality of PAPs. The changes brought to the livelihood of PAPs after the training and employment opportunities and other supports provided to them by the project office has to be monitored regularly.

### 8.3 Methodology in Valuing Losses

There are three commonly known methods of valuing assets and properties, namely,

- a) income based approach
- b) replacement cost at market data
- c) comparable sales approach

However, in this RAP, the methodology for valuing assets is based on Full Replacement Cost. Full Replacement Cost is one method of valuation of property that determines the amount of replacement through compensation.

The replacement cost approach involves:

- direct replacement of expropriated assets and covers an amount that is sufficient for asset replacement,
- net depreciation,
- moving expenses
- other transaction costs

AfDB's policy on involuntary resettlement defines replacement cost "Displaced persons should be compensated for their losses at "full replacement" cost prior to their actual move or before taking of land and related assets or commencement of project activities, whichever occurs first" It also states that it has to consider socioeconomic factors that will affect productivity and social integration. Similarly, World Bank's OP 4.12 defines replacement cost, "method of valuation of assets that helps determine the amount sufficient to replace lost assets and cover transition costs. In applying this Method of Valuation, depreciation of structures and assets should not be taken into account."

In Places where markets are not well organized or thin, replacement of assets may be scarce, or loss of human or social capital might also be debilitating there is a need to establish supplemental income strategies.

With regard to land and structures, replacement cost is defined as shown in the following table for the different land use type, such as, agriculture, urban and rural land.

Table 8.3-1 Replacement Cost

| Agricultural Land  | For Public Infrastructure   | For Houses  |
|--|---|---|
| It is the pre-project or pre-displacement, whichever is higher.  | It is the pre-project or pre-displacement, whichever is higher with similar or improved public infrastructure facilities and services and located in the vicinity of the affected area. | It is the market cost of the materials to build a replacement structure (house) with an area and quality similar to or better than the affected house, or to repair a partially affected house. |
| Market value of land (where possible) of equal productive potential or use located in the vicinity of the affected land. | The cost of any registration and transfer taxes.  | The cost of transporting building materials to the construction site.   |
| The cost of land preparation to levels similar to those of the affected land.  | The cost of transporting building materials to the construction site  | The cost of any labor and contractors' fees.  |
| The cost of any registration and transfer taxes.   | The cost of any labor and contractors' fees.  | The cost of any registration and transfer taxes.  |

## 8.4 Basis for Valuation

On the basis of FDRE's Proclamation 455/2005, AfDB and WB policy on Involuntary Resettlement, valuation of affected assets and properties has been carried out by experienced and skilled valuers. Proclamation 455/2005, states that "The valuation of property situated on land to be expropriated shall be carried out by certified private or public institutions or individual consultants on the basis of valuation formula adopted at the national level."

In order to provide PAPs with adequate compensation for assets and properties they will be losing, proper valuation has been undertaken by the Valuation Committee and reviewed by the Resettlement/Compensation Committee. The Valuation Committee, in close consultation with PAPs and in collaboration with Resettlement/Compensation Committee prepared the unit rates for the affected assets determined on the basis of market value.

## 8.5 Valuation for Loss of Houses and Fences

In determining replacement cost for loss of houses, the following points are considered:

- a) Current Construction Cost estimate on the basis the local market;
- b) Depreciation of the asset and the value of salvage materials are not taken into account, nor is the value of benefits to be derived of the project deducted from the valuation of an affected asset;
- c) The Unit Rate (or bill of quantity) is estimated on the basis of the type of the construction work necessary to build a new house per square meter.

- d) The Disturbance Allowance is to cover the loss of established businesses, and include social disruptions and inconveniencies. Disturbance Allowance is used by PAPs to cover expenses associated with relocation including access to social and public services.

The compensation payment for houses, fences and other structures affected by the project as described above shall take place at full replacement cost based on current market price.

The project affected households and institutions that would be relocated from their current location will receive compensation equivalent to the location advantage they might lose due to the project.

The formula adopted from proclamation 135/2007 for this RAP is as follows;

- Cost of construction (current value)
- Cost of permanent improvement on land
- Amount of refundable money for the remaining term of lease contract

PAPs losing part of their housing plot that is located either in rural or urban areas will be allowed to retain the remaining portion of the plot to construct new houses and as long as it is located outside of the ROW

Compensation estimates for the different types of houses such as, CIS roof house, thatched roof (Tukul) and for fences is estimated on the basis of unit rates prepared by the municipalities from each Woreda at current market price. The compensation estimate for houses is prepared at a replacement value.

## 8.6 Valuation for Permanent Loss of Agricultural Land / Crop Loss

The principle for permanent Loss of Agricultural Land /Crop loss is that it should be compensated with land for land compensation (or land for land replacement) in those areas where land is available for replacement. In the extent at which the agricultural land lost can't be replaced, the principles for monetary compensation will apply as per

Table 9.1-1 Entitlement Matrix – Ethiopian Ministry of Finance and Economic Cooperation.

Cash compensation is paid for loss of crops and trees found on permanently lost agricultural land and acquired for the construction of the transmission line.

The unit rates for loss of perennial crops and annual crops from lost agricultural land will be revised by the Valuation Committee and submitted for approval to the Resettlement / Implementation Committee and PIU by adopting the following methodology:

*Table 8.6-1 Formula for calculating compensation for crops, unripe and ripe perennial crops*

| 1. Cereal and related crops               | 2. Ripe perennial crops               | 3. Unripe perennial crops                 |
|---|---------------------------------------|---|
| The total area of the land in m2          | Annual yield in kg                    | No. of plants (legs)                      |
| Value of the crops per kg                 | Current price of the produce          | Cost incurred to grow an individual plant |
| The amount of crops to be obtained per m2 | Cost of permanent improvement on land | Cost of permanent improvement on land     |



|                                       |  |  |
|---------------------------------------|--|--|
| Cost of permanent improvement of land |  |  |
|---------------------------------------|--|--|

A PAP whose agricultural land is expropriated for the proposed project will be compensated as per proclamation No. 456/2005, which provides displacement compensation for rural landholders whose lands expropriated permanently that amounts ten times the average annual income secured during the five years preceding the expropriation.

Table 8.6-2 Category and Types of Losses from Agricultural Land

| No. | Category of Losses                   | Type of Losses  |
|-----|--------------------------------------|---|
| A   | Permanent and Temporary loss of land | Farmland  |
|     |                                      | Housing plot and compound   |
|     |                                      | Residential and Business premises (house)                                     |
| B   | Income sources and Livelihood        | Income from standing crops  |
|     |                                      | Income from share cropping  |
|     |                                      | Income from affected business   |
|     |                                      | Income from perennial crops   |
|     |                                      | Income from cash and root crops   |
|     |                                      | Income from timber trees  |
| C   | Public and Community Assets          | Loss of farmland, Forest reserve, Tree nurseries, Grazing Land                |
|     |                                      | School and Church properties such as, tree plantation, fence, farmland        |
|     |                                      | Cemeteries, burial places (tombstones)  |
| D   | Environment related                  | Environmental impacts that will result due to construction activities / works |

FDRE Proclamation 456/2005, Article 8 (displacement Compensation) No. 1 states that: “A rural landholder whose landholding has been permanently expropriated shall, in addition to the compensation payable under article 7 of this proclamation, be paid displacement compensation which shall be equivalent to ten times the average annual income he secured during the five years preceding the acquisition of the land”

The Principle of Compensation also follows that of income restoration of PAPs. Agricultural land valuation will consider the five year average annual income from the land and calculate the ten-year gross income. According to FDRE proclamation 455/2005, compensation for lost income is based on the average annual income secured during the five years preceding the acquisition of the land.

In the case of fruit trees, the calculation will take into account the annual produce value of one season and by a major interruption of the income series after a tree has reached its economic limit of life and a new tree planted instead will have reached its fruit bearing age.

Non fruit bearing trees (or timber trees) will be compensated at a market value and PAPs will also be allowed to cut and take the trees for their own use.

## 8.7 Valuation for Temporary Dispossession of Agricultural Land

The valuation methodology for the amount of crop loss from temporarily affected agricultural land is identified as follows:

- Land type (irrigated and non irrigated) and size for each type of crop,
- Average production per hectare,
- Number of farming season (or production season)

The average net income earned from one hectare of land will be calculated according to a farm budget by using local market prices. Taking into account the nature of the project, the extent of land acquisition is unlikely that there will be anything other than a low level of (partial) impact as far as agricultural landholders and the overall project are concerned.

## 8.8 Valuation Compensation for Burial Grounds and Tombstones.

The Converter Station Construction will trigger loss of 8 graveyards which will be compensated and relocated in the near Amanuel Church. The relocation requires costs and also requires religious services to be carried out. Hence, compensation payment will be made for the relocation of the cemetery including religious and cultural services to be carried out.

## 8.9 Valuation for Grazing Land

There are commonly two types of grazing land ownership in most parts of Ethiopia and in the project area; namely, communal and private. The common type of grazing land observed in the project area is mainly communal.

As per the current practice and experience in the country, there has never been any compensation for grazing land since land ownership belongs to Government and the public. Although land could not be compensated in Ethiopia, however, there is a need to reinstate communal grazing land if affected by the construction works to allow for the livelihood of the communities to be maintained at the end of the construction of the transmission line.

Next to crop farming, livestock production is the second major source of household income in the project area and hence, there is a clear need to reinstate communal grazing land to its original condition if occupied for a certain period.

The grazing land which is located in Sodo Zuria Woreda, area planned for the construction of the Substation is used by three Kebeles. And hence, making compensation payment for the above grazing land either for a group of people or for residents of a single Kebele does not seem to be appropriate. Hence, what is proposed as a compensatory measure by the Woreda Administration and the Resettlement Committee for the loss of the grazing land is to construct a livestock feed processing plant. In addition, social service giving institution that serves all the kebeles located adjacent to the grazing land is also proposed. Details of the proposal are included in **ANNEX 10 Livestock Feed Processing Plant**.



## 9 ELIGIBILITY CRITERIA FOR AFFECTED HOUSEHOLDS

The eligibility criteria will identify PAPs that are eligible for relocation/resettlement and be able to receive compensation. PAPs eligible for relocation/resettlement and able to receive compensation as per AfDB policy on involuntary resettlement and World Bank's OP/BP 4.12; criteria which are adopted for this RAP include

- Those who have formal legal right to land (including customary and traditional rights recognized by law of the country);
- Those who do not have formal legal rights to land at the time the census begins but have a claim to such lands or assets and recognized through a process identified in the resettlement plan
- Those who have no recognizable legal right or claim to the land they are occupying
- PAPs that will lose Houses, Fences, Grain store and Cattle barn affected by the construction works of the tower.
- Those PAPs whose crops and trees and other properties are affected by the Converter Station and the ground electrode,
- Those people who may not be physically residing at the project site or persons who may not have any assets or direct sources of livelihood derived from the project site, but who have spiritual and/or ancestral ties with the land (e.g. graveyards, sacred forests, places of worships).

Female heads of household who will be eligible for compensation may need special attention for the same benefits as their male counterparts. It is true that FHH may need special attention since they lack resources, educational qualifications, skills, or work experience compared to men. The resettlement process must provide opportunities for women's participation.

Relocated Households who will be losing access to their existing natural resources, such as, indigenous trees, forest areas, water ways and grazing land will be provided with replacements in kind, which is identified and preferred by the households.

It is also evident that all affected parties or PAPs may not be eligible for resettlement and there may be encroachers to the project area or some new inflow of people into the project area seeking eligibility for compensation. Hence, those persons who encroach on the area after a 'cut-off date' ( Converter Station June 23, 2013, Ground Electrode on May 24, 2015) will not be entitled for compensation. During Public consultations with PAPs and local communities, and also meetings held with local officials, it was confirmed that local authorities agreed to ensure that no person will be allowed to encroach to the project area after the cut-off date (ANNEX 8 Cut-Off Date **Letters**).

AfDB policy states that; At the minimum, under the Bank's policy (with no contradiction to the borrower's legislation), land, housing, and infrastructure should be provided to the adversely affected population, including indigenous minorities, and pastoralists who may have usufruct rights to the land or other resources taken for the project. The cut-off date must clearly be communicated to the project affected population. Persons who encroach on the project area after the cut-off date are not entitled to any form of resettlement assistance.

Similarly, World Bank's policy on involuntary resettlement (OP 4.12) states; the cut-off date is the date the census begins. The cut-off date could also be the date the project area was delineated, prior to the census, provided that there has been an effective public dissemination of information on the area delineated, and systematic and continuous dissemination subsequent to the delineation to prevent further population influx.

Squatters (in urban or rural areas) and encroachers (into community and state forest areas) may be relatively recent arrivals on unused land. If such people arrived before the entitlements cut-off date they are eligible for compensation for any structures, crops or land improvements that they will lose. The government should pay the equivalent amount of relocation/rehabilitation assistance.

For squatters who do not depend on agricultural activities, Woreda officials can identify alternative income restoration options in close consultation with the squatters themselves. Squatters who occupy right of way can be provided with housing or income-earning opportunities elsewhere.

The Ethio-Kenya power interconnection project has committed itself to take into account AfDB and World Bank requirements for determining compensation. Thus, the eligibility criteria contained in AfDB and WB OP 4.12 will be followed when determining eligible persons for compensation.

The eligibility criteria set by the World Bank is basically in line with the national legal requirements. In regard to legal rights over land, the eligibility with respect to land rights can be easily determined in most cases because land is owned by the Government in both rural and urban areas and there are authorities such as municipalities, woredas and Kebele administrations who allocate the land or give legal recognition to such land to the person using such land affected by acquisition.

Legal documents such as certificates of registration may be difficult to obtain in rural areas but in cases of urban areas where municipalities exist there affected persons may have such legal documents. In practice, however, such legal documents may be difficult to find even in urban areas and most residents may claim such rights due to many years of possession or occupation of the land which in most cases is recognized by the urban authorities. Moreover, the Civil Code also recognizes that a possessor of an immovable shall become an owner of such an immovable if he/she has paid taxes for fifteen consecutive years (Art. 1168). With the exception of the land which is owned by the Government, this would apply to buildings, residential houses etc.

EEP agreed with the Committees that PAPs with no legal documents can present a proof or evidence of their land holding through the mediation of the head of the Kebele where the household reside. The head of Kebele, as witness, will sign a paper with the references of the HH regarding the residential and farmland (size, years of use). This document will be sent to EEP and used as reference for confirmation and payment release.

## 9.1 Entitlement Matrix

Entitlement Matrix proposes eligibility and payments for all kinds of losses (e.g., land, housing, businesses, and temporary loss of income, displacement, and moving costs). It sets standards for compensation.

Below is the Entitlements and Compensation for losses of displaced/affected households used for this RAP

Table 9.1-1 Entitlement Matrix – Ethiopian Ministry of Finance and Economic Development

| Land and Assets   | Types of Impact   | Person(s) Affected   | Compensation/Entitlement/Benefits  |
|-------------------|---|----------------------|--|
| Agricultural land | Cash compensation for affected land equivalent to market value<br>Less than 20% of land holding affected<br>Land remains economically viable. | usage title holder   | Cash compensation for affected land equivalent to replacement value, taking into compensation rates as per government regulation.  |
|                   |   | Tenant/lease holder  | Cash compensation for the harvest or product from the affected land or asset, equivalent to ten times the average annual income s/he secured during the five years preceding the expropriation of the land.  |
|                   | Greater than 20% of land holding lost<br>Land does not become economically viable.  | Farmer/ Title holder | Land for land replacement where feasible, or compensation in cash for the entire landholding according to PAP's choice, taking into account market values for the land, where available<br>Land for land replacement will be in terms of a new parcel of land of equivalent size and productivity with a secure tenure status at an available location which is acceptable to PAPs. Transfer of the land to PAPs shall be free of taxes, registration, and other costs.<br>Relocation assistance (costs of shifting + assistance in re-establishing economic trees + allowance up to a maximum of 12 months while short- term crops mature ) |
|                   |   | Tenant/Lease holder  | Cash compensation equivalent to ten times the average annual income s/he secured during the five years preceding the expropriation of the land.<br>Relocation assistance (costs of shifting + assistance in re-establishing economic trees + allowance up to a maximum of 12 months while short- term crops mature   |
| Commercial land   | Land used for business partially affected   | Title holder/        | Cash compensation for affected land, taking into account market values for the land, where available.  |

| Land and Assets  | Types of Impact  | Person(s) Affected              | Compensation/Entitlement/Benefits   |
|------------------|--|---------------------------------|---|
|                  | Limited loss   | business owner                  | Opportunity cost compensation equivalent to 5% of net annual income based on tax records for previous year (or tax records from comparable business, or estimates where such records do not exist).   |
|                  |  | Business owner is lease holder  | Opportunity cost compensation equivalent to 10% of net annual income based on tax records for previous year (or tax records from comparable business, or estimates where such records do not exist).  |
|                  | Assets used for business severely affected<br><br>If partially affected, the remaining assets become insufficient for business purposes. | Title holder/business owner     | Land for land replacement or compensation in cash according to PAP's choice; cash compensation to take into account market values for the land, where available. Land for land replacement will be provided in terms of a new parcel of land of equivalent size and market potential with a secured tenure status at an available location which is acceptable to the PAP.<br><br>Transfer of the land to the PAP shall be free of taxes, registration, and other costs.<br><br>Relocation assistance (costs of shifting + allowance)<br><br>Opportunity cost compensation equivalent to 2 months net income based on tax records for previous year (or tax records from comparable business, or estimates) |
|                  |  | Business person is lease holder | Opportunity cost compensation equivalent to 2 months net income based on tax records for previous year (or tax records from comparable business, or estimates), or the relocation allowance, whichever is higher.<br><br>Relocation assistance (costs of shifting)<br><br>Assistance in rental/ lease of alternative land/ property (for a maximum of 6 months) to reestablish the business.  |
| Residential land | Land used for residence partially affected, limited loss<br><br>Remaining land viable for present use.                                   | Title holder                    | Cash compensation for affected land, taking into account market values for the land, where available.   |

| Land and Assets          | Types of Impact   | Person(s) Affected  | Compensation/Entitlement/Benefits  |
|--------------------------|---|---------------------|--|
|                          |   | Rental/lease holder | Cash compensation equivalent to 10% of lease/ rental fee for the remaining period of rental/ lease agreement (written or verbal)   |
|                          |   | Title holder        | <p>Land for land replacement or compensation in cash according to PAP's choice; cash compensation to take into account market values for the land.</p> <p>Land for land replacement shall be of minimum plot of acceptable size under the zoning law/s or a plot of equivalent size, whichever is larger, in either the community or a nearby resettlement area with adequate physical and social infrastructure systems as well as secured tenure status.</p> <p>When the affected holding is larger than the relocation plot, cash compensation to cover the difference in value.</p> <p>Transfer of the land to the PAP shall be free of taxes, registration, and other costs.</p> <p>Relocation assistance (costs of shifting + allowance)</p> |
|                          | <p>Land and assets used for residence severely affected</p> <p>Remaining area insufficient for continued use or becomes smaller than minimally accepted under zoning laws</p> | Rental/lease holder | <p>Refund of any lease/rental fees paid for time/use after date of removal</p> <p>Cash compensation equivalent to 3 months of lease/ rental fee</p> <p>Assistance in rental/ lease of alternative land/ property</p> <p>Relocation assistance (costs of shifting + allowance)</p>  |
| Buildings and structures | <p>Structures are partially affected</p> <p>Remaining structures viable for continued use</p>   | Owner               | <p>Cash compensation for affected building and other fixed assets taking into account market values for structures and materials.</p> <p>Cash assistance to cover costs of restoration of the remaining structure</p>  |
|                          |   | Rental/lease holder | Cash compensation for affected assets (verifiable improvements to the property by the tenant), taking into account market values for materials.  |



| Land and Assets | Types of Impact   | Person(s) Affected        | Compensation/Entitlement/Benefits   |
|-----------------|---|---------------------------|---|
|                 |   |                           | Disturbance compensation equivalent to two months rental costs  |
|                 | Entire structures are affected or partially affected<br><br>Remaining structures not suitable for continued use | Owner                     | Cash compensation taking into account market rates for structure and materials for entire structure and other fixed assets without depreciation, or alternative structure of equal or better size and quality in an available location which is acceptable to the PAP.<br>Right to salvage materials without deduction from compensation<br>Relocation assistance (costs of shifting + allowance)<br>Rehabilitation assistance if required (assistance with job placement, skills training)                                   |
|                 |   | Rental/lease holder       | Cash compensation for affected assets (verifiable improvements to the property by the tenant)<br>Relocation assistance (costs of shifting + allowance equivalent to four months rental costs)<br>Assistance to help find alternative rental arrangements<br>Rehabilitation assistance if required (assistance with job placement, skills training)  |
|                 |   | Squatter/informal dweller | Cash compensation for affected structure without depreciation<br>Right to salvage materials without deduction from compensation<br>Relocation assistance (costs of shifting + assistance to find alternative secure accommodation preferably in the community of residence through involvement of the project<br>Alternatively, assistance to find accommodation in rental housing or in a squatter settlement scheme, if available)<br>Rehabilitation assistance if required assistance with job placement, skills training) |
|                 |   | Street vendor (informal)  | Opportunity cost compensation equivalent to 2 months net income based on tax records for previous year (or tax records from   |

| Land and Assets       | Types of Impact  | Person(s) Affected                               | Compensation/Entitlement/Benefits   |
|-----------------------|--|--|---|
|                       |  | mal without title or lease to the stall or shop) | comparable business, or estimates), or the relocation allowance, whichever is higher. Relocation assistance (costs of shifting) Assistance to obtain alternative site to re-establish the business. |
| Standing crops        | Crops affected by land acquisition or temporary acquisition or easement  | PAP (whether owner, tenant, or squatter)         | Cash compensation equivalent to ten times the average annual income s/he secured during the five years preceding the expropriation of the land.   |
| Trees                 | Trees lost   | Title holder                                     | Cash compensation based on type, age and productive value of affected trees plus 10% premium  |
| Temporary acquisition | Temporary acquisition  | PAP (whether owner, tenant, or squatter)         | Cash compensation for any assets affected (e.g. boundary wall demolished, trees removed)  |
| Loss of Livelihood    | Households living and/or working on the project area, including title holders/non-title holders/daily laborers working in the market | Rehabilitation Assistance                        | Training assistance for those interested individuals for alternative income generating activities; providing employment opportunities on the construction site for the PAPs.                        |

## 9.2 Delivery of Entitlements

PAPs will be entitled to various types of compensation and resettlement assistance that will help in the restoration of their livelihoods, at least, to the pre-project standards.

Persons affected by land acquisition, and relocation and/or rehabilitation of structures/assets, are entitled to a combination of compensation measures and resettlement assistance, depending on the nature of ownership rights of lost assets and scope of the impact, including social and economic vulnerability of the affected persons.

PAPs residing in rural areas whose farmland is affected will be provided with land for land if possible, access to credit facilities and to those PAPs where the preferred option is not land based beyond cash compensation they will be provided training on income generating activities and will get priority to get jobs available on the project..

Some of the benefits and entitlements that will be provided to PAPs under a resettlement /rehabilitation program include

- Financial compensation for loss of housing
- Provision of social services, such as, educational and health facilities for relocated houses in places where they will be relocated
- Provision of transport facilities during relocation and resettlement
- Provision of temporary accommodation for relocated /resettled PAPs until they could be able to have their own housing or accommodation
- Short term support for the relocated households, which includes credit facilities, training or job opportunity.

## 10 IMPLEMENTATION SCHEDULE

The Implementation Schedule discusses the major activities to be carried out in the Implementation of the RAP and identifies organizations responsible for Implementation. The Implementation of the RAP will be carried out and expected to be completed before the commencement of construction works.

During the Implementation Period of this land acquisition plan, EEP through Project Implementation Unit (PIU) and its Environmental and Social Management Unit will provide adequate governance and management and financial support for timely operation.

The Project Implementation Unit (PIU) will be the main responsible body for the coordination, facilitation and implementation of this RAP. In the process of the Implementation of this RAP, there will be a number of crucial and important activities to be performed to make the physical relocation of the people under this project possible.

The Implementation of the activities will be undertaken either through the direct involvement of the Woreda administration offices and the Resettlement / Implementation Committee.

The tentative time schedule within which the compensation payment will take place is proposed in Annex 7- Implementation Schedule

The Implementation of the resettlement/relocation process will pass through the following different stages /phases:

- Assets Evaluation – (only for Ground Electrode Area, Convert Station is achieved)
- Announcement of Displacement
- Payment
- Public consultations
- Conduct training on livelihood restoration issues
- Monitoring and reporting

## 11 BUDGET

An itemized budget is required for the implementation of this RAP including compensation payment for PAPs. An indicative cost and budget is prepared for compensation payment of affected properties and also budget for the implementation of the RAP including an estimated 10% contingency. The total estimated cost and budget will be a total of Birr 19,179,560.15

EEP will be responsible to disburse, administer and oversee the overall budget. At Woreda level, the Woreda resettlement/implementation committee in collaboration with the PIU will be responsible for compensation payment and relocation activities. The details of the budget preparation and justifications are summarised below for each category; namely, compensation payment for affected properties and assets, rehabilitation support for PAPs, and project running and management cost.

### 11.1 Compensation payment

- a. **Compensation cost for Houses:** Compensation estimates for the different types of houses such as, CIS roof house & Fences is estimated on the basis of bill of quantities obtained from the Weredas and experiences from other similar projects. The compensation estimate for houses is prepared at a replacement value and no depreciation is considered. The total estimated cost for both houses and fences is Birr1,119,846.10
- b. **Compensation for crop:** The compensation estimate for annual crops (cereal, pulses and oil seeds); for perennial crops, cash and root crops are calculated on the basis of average production and productivity. The last five years average prices also collected for each crop type from the woreda's crossed by the project. As per Ethiopia's law, the compensation estimate is made at a replacement cost. The total estimated cost for crops will be Birr 11,821,477.74.
- c. **Compensation for Trees:** The compensation estimate for timber trees is calculated on the basis of tree size and age. The cost for each tree type is calculated on the existing market price collected for each woreda. The cost estimate for trees is Birr 2,198,139.93
- d. **Cost for graveyard:** Around 8 grave yards are expected to be affected. This cost includes replacement cost for the graveyards and payment of compensation for conducting religious services and cultural ceremony. The cost estimate for each graveyard is estimated to be Birr 7500 and the total estimated cost for removal and reburial of grave yards is Birr 60,000.

### 11.2 Rehabilitation Support

- e. **Support for vulnerable Households:** There are 28 vulnerable groups that require special assistance and support during the project implementation. It is planned that each vulnerable person will be provided either in cash, material or in a form of capacity building training.
- f. An estimated amount of Birr 5000 is allocated for each vulnerable group.
- g. **Livelihood restoration:** An estimated cost of Birr 640,000 is allocated for the livelihood restoration of PAPs.
- h. **Relocation & Rehabilitation Assistance:** An estimated Birr 202,500 is allocated for relocation and rehabilitation.
- i. **Legal & Administrative costs:** This includes legal fees, administrative costs, tax, land registration and related costs. A lump sum of Birr 250,000 is estimated.

## 11.3 Project Management & Running costs

**Budget for committees:** This includes allowances for 8 persons for six months, material cost, fuel and vehicle cost and office equipment. A total of birr 504,000-- is allocated for different committees.

**Monitoring & Evaluation Cost:** There will be regular monitoring of the RAP implementation and periodic evaluation and for this a lump sum of Birr 1,500,000 is allocated for the three years of construction project. The following table summarizes the total amount of the fund (or compensation estimate) that is required for the implementation of this RAP. The budget is divided into three main categories. The first category deals with compensation payment, the second section with rehabilitation support and the third category is for project management / administrative costs.

*Table 11.3-1 Detail Budget for RAP Implementation*

| <b>A. Compensation Costs</b>                      | <b>Estimated Cost ETB</b> |
|---|---------------------------|
| Compensation Costs for Houses                     | 1,119,846.10              |
| Compensation Costs for Crops                      | 11,821,477.74             |
| Compensation Costs for Trees                      | 2,198,139.93              |
| Sub Total   | 15,139,463.78             |
| <b>B. Rehabilitation Measures</b>                 | 0.00                      |
| Vulnerable Households Assistance                  | 140,000.00                |
| Livelihood and Income Restoration                 | 640,000.00                |
| Removal of Graveyards and Reburial Process        | 60,000.00                 |
| Relocation and Rehabilitation Assistance          | 202,500.00                |
| Legal and Administrative Costs                    | 250,000.00                |
| Sub Total   | 1,292,500.00              |
| <b>C. Project Management and Other Costs</b>      | 0.00                      |
| Cost for Resettlement and Compensation Committees | 504,000.00                |
| Monitoring and Evaluation Cost                    | 500,000.00                |
| Sub total   | 1,004,000.00              |
| Total (A+B+C)                                     | 17,435,963.78             |
| Contingency 10%                                   | 1,743,596.38              |
| <b>Grand Total</b>                                | <b>19,179,560.15</b>      |

## 12 Monitoring, Evaluation and Reporting

### 12.1 General

The monitoring and evaluation process should be an integral part of this RAP. It should be as much as possible participatory whereby all the stakeholders namely PAPs, Woreda Municipality and Kebele administrations are involved and results will be made available to the Public.

### 12.2

#### 1 Internal Monitoring

Internal monitoring will be conducted by the PIU, following the plan described and the JPCU & PIU management team will make the necessary follow-up to ensure that proper monitoring is being undertaken. Since the magnitude and complexity of the operations is not quite large, PIU will conduct the monitoring by assigning its staff on the project site. The resettlement /implementation committees' at each woreda level will also conduct its own monitoring of the RAP or in collaboration with the PIU.

JPCU through the PIU will assign a qualified Sociologist/Social scientist to conduct individual evaluations of PAPs re-establishment socio-economic progress. This service aims at evaluating, and reporting on, the level of living conditions and social services of the PAPs, both before and after the re-establishment. The evaluation will be done on quarterly and annual basis for two consecutive years. The monitoring and evaluation results will be based on a number of key indices for selected households, in combination with the special observation by the social scientist.

The monitoring report by PIU staff will be submitted to local authorities (Woreda and Municipality). A copy of this will be submitted to EPA and the JPCU and EEP/COs management. It will also be enclosed in the construction progress reports submitted by supervising engineers.

#### 12.3 External Monitoring

The external monitoring and evaluation will be done in a predictable manner and period. The Federal EPA and the Regional EPAs will be responsible for the external monitoring of the RAP. Both the Federal and Regional EPA's have significant role in the external monitoring and evaluation of the RAP.

The objective of the external monitoring and evaluation, which is also a post resettlement assessment will be done by an independent consultant (or an NGO) commissioned by EEP/CO, to ensure that the project affected persons have secured and able to maintain at least their livelihood prior to the construction of the project.

Hence, at the end of all expropriation/compensation operations a household survey will be carried out to evaluate the impacts of the resettlement and other implemented social

mitigation measures. During the survey, Woreda and Kebele level administrations will be consulted to provide their assessments of the impacts of the mitigation measures applied.

After completion of the resettlement operations, it is expected that livelihood of PAPs should be better than prior to the resettlement. Therefore, resettlement operations need to be monitored as regard performance and compliance with the set goals.

The key indicators for external monitoring will focus on outputs and impacts. External Monitoring will be conducted by an independent consultant who will be hired to supervise the RAP and the Environmental Mitigation Plan.

The monitoring process is an integral part of the RAP and it will oversee the re-establishment process of the Project Affected People (PAP). It will be a compliance monitoring and will assist to follow the type of measures incorporated in RAP documents and the extent to which recommendations on these matters, as set out in the RAP are complied with.

## 12.4 Monitoring Plan

The monitoring and evaluation process should be Participatory Monitoring and Evaluation including all the stakeholders (PAP, Zonal, Woreda and Kebele administrations, NGOs, other Government organizations and host communities).

EEP PIU will be responsible to monitor and evaluate the compensation and RAP in consultation with the independent consultant and with Woreda/Municipality/kebele administration offices and the PAP by adopting the following process and output indicators:

### Pre-construction Phase:

- Compensation to be made according to agreement
- Appropriateness of the time schedule for RAP
- Public infrastructures and social services needs to be re-established
- Support and assistance to vulnerable groups and women

### Construction Phase

- Compensation to be made for additional land requirement
- Restoration and restitution of PAP in the new site
- Contractor operates within the boundary of handed over area
- Appropriateness of grievance redress mechanism

### Post Construction Phase

- Land taken temporarily is well restored and returned to PAPs
- Evaluate PAPs' socio-economic situation vs. a baseline situation

The monitoring report by the PIU will be submitted to the local authority. It will also be enclosed in the construction progress reports submitted by supervising engineers..

The main purpose of monitoring will be to verify:

- If Actions and commitments described in the RAP are implemented.
- If Eligible project affected people receive their compensation prior to the civil work.



- The magnitude of RAP actions and compensation measures in restoring and improving pre-project livelihoods and lost incomes.
- If Complaints and grievances forwarded by project affected people are followed up and appropriate corrective measures are taken.
- If necessary changes in RAP procedures are made to improve delivery of entitlements to PAPs.
- If Compensation disbursement is made to affected parties.
- The physical progress of resettlement and rehabilitation.
- Restoration of social services and amenities.
- Special care and assistance provided to social groups in need of additional assistance.

All Monitoring and Evaluation Reports including Monthly and Quarterly Implementation Status Reports will be submitted to the World Bank on regular basis.