DEVELOPMENT BANK OF ETHIOPIA

Carbon Initiative for Development (Ci-Dev)

Component 3
of Ethiopia- Additional Financing for Energy Access Project

Resettlement Policy Framework (RPF)
For
Ethiopia Off-grid Renewable Energy and Ethiopia Clean Cooking Energy Program
(Final)

April 2017
Addis Ababa
# Table of Contents

LIST OF FIGURES ........................................................................................................ IV

LIST OF TABLES .......................................................................................................... IV

LIST OF PLATES .......................................................................................................... IV

LIST OF ANNEXES ...................................................................................................... IV

LIST OF ABBREVIATIONS .......................................................................................... V

EXECUTIVE SUMMARY ............................................................................................ VI

1. INTRODUCTION .................................................................................................... 1

1.1. BACKGROUND ...................................................................................................... 1

1.2 RATIONAL FOR PREPARING THE RPF ................................................................. 2

1.3. OBJECTIVES AND PRINCIPLES OF THE RESETTLEMENT POLICY FRAMEWORK (RPF) ........................................................................................................... 3

  1.3.1 Objectives of the Resettlement Policy Framework (RPF) ............................................. 3

  1.3.2 Principles of the Resettlement Policy Framework (RPF) .............................................. 3

1.4 METHODOLOGY .................................................................................................. 5

1.5. DESCRIPTION OF THE PROJECT ........................................................................ 5

  1.5.1 Background ........................................................................................................ 5

  1.5.2 Off Grid Renewable Energy Program .................................................................. 7

  1.5.3 Clean Cook Energy Program ............................................................................. 8

2. LEGAL AND INSTITUTIONAL FRAMEWORK .......................................................... 10

  2.1 POLITICAL ECONOMY AND GOVERNANCE IN ETHIOPIA .................................... 10

  2.2 PROPERTY AND LAND RIGHTS IN ETHIOPIA .......................................................... 11

  2.3 ACQUISITION AND VALUATION OF LAND AND OTHER ASSETS ...................... 12

  2.4 LEGAL AND INSTITUTIONAL ARRANGEMENTS FOR DISPUTE RESOLUTION AND GRIEVANCE MECHANISMS .......................................................... 15

  2.5. WORLD BANK OPERATIONAL POLICIES AND PROCEDURES FOR INVOLUNTARY RESETTLEMENT (OP 4.12) ................................................................. 16

  2.6. COMPARISON OF THE NATIONAL POLICIES AND THE WORLD BANK OP 4.12 OPERATIONAL POLICY .......................................................... 17

3. DESCRIPTION OF SOCIAL AND ENVIRONMENTAL BASELINE CONDITIONS ............... 22

  3.1 SOCIAL AND ECONOMIC CONTEXT .................................................................... 22

    3.1.1 Socio-Cultural Background .............................................................................. 22

    3.1.2 Land Use ........................................................................................................ 23

    3.1.3 Economic Activities ....................................................................................... 24

    3.1.4 Housing Condition ......................................................................................... 24

  3.2 BROADER PHYSICAL INFRASTRUCTURE AND SOCIAL SERVICES ......................... 25

    3.2.1 Road infrastructure ....................................................................................... 25

    3.2.2 Telecommunications .................................................................................... 25

    3.2.3 Water Supply ............................................................................................... 25

    3.2.4 Education ...................................................................................................... 26

    3.2.5 Health Services ............................................................................................. 26

  3.3 REGIONAL LEVEL ENVIRONMENTAL AND SOCIAL BASELINE CONDITIONS ............ 26

    3.3.1 Afar National Regional State .......................................................................... 26

        3.3.1.1. Bio-Physical Environment ....................................................................... 26

        3.3.1.2. Social Issues ......................................................................................... 29

    3.3.2 Tigray National Regional State ...................................................................... 30

        3.3.2.1 Bio-Physical Environment ....................................................................... 30
3.3.2.2 Social Issues ................................................................. 58
3.3.3 Amhara National Regional State .................................................. 59
  3.3.3.1 Bio - Physical Environment........................................... 59
  3.3.3.2 Social Issues .......................................................... 59
3.3.4 The Oromia National Regional State .............................................. 60
  3.3.4.1. Bio- Physical Environment ........................................ 60
  3.3.4.2 Social Issues ................................................................ 60
3.3.5 Benishangul Gumuz National Regional State .................................. 61
  3.3.5.1 Bio-Physical Environmental Conditions ............................. 61
  3.3.5.2 Social Issues .......................................................... 61
3.3.6 Gambela National Regional State .................................................. 62
  3.3.6.1 Bio-physical Environment ............................................. 62
  3.3.6.2. Social Issues .......................................................... 62
3.3.7 Somali National Regional State ................................................... 63
  3.3.7.1 Bio-physical Environment ............................................. 63
  3.3.7.2 Social Issues .......................................................... 63
3.3.8 The Southern Nations, Nationalities and Peoples Regional State ........... 64
  3.3.8.1. Bio-physical Environment ........................................... 64
  3.3.8.2. Social Issues .......................................................... 64
3.3.9 The Harari National Regional State .............................................. 65
  3.3.9.1. Bio-physical Environment ........................................... 65
  3.3.9.2. Social Issues .......................................................... 65
3.3.10 Dire Dawa Administrative Council ............................................ 66
  3.3.10.1. Physical Characteristics ............................................ 66
  3.3.10.2. Social Issues .......................................................... 66
3.3.11 Addis Ababa City Administration ............................................. 67
  3.3.11.1. Physical Characteristics ............................................ 67
  3.3.11.2. Social Issues .......................................................... 67

4. SOCIO-ECONOMIC IMPACTS AND MITIGATION MEASURES .................. 68
  4.1 INTRODUCTION.................................................................... 68
  4.2 POSITIVE SOCIO ECONOMIC IMPACTS ................................ 69
  4.3 POTENTIAL NEGATIVE SOCIO-ECONOMIC IMPACTS ON PAPs AND MITIGATION MEASURES .................................. 70
    4.3.1 Categories of Project Affected Peoples (PAPs) ....................... 70
    4.3.2 Negative Socio-economic Impacts and Mitigation Measures ...... 71

5. RAP PREPARATION, REVIEW AND APPROVAL WITH ORGANIZATIONAL PROCEDURES AND RESPONSIBILITIES ..................................................... 72
  5.1 THE IMPLEMENTERS ................................................................ 72
  5.2 PROCESSES FOR RAP PREPARATION, REVIEW AND APPROVAL .......................................................... 73
    5.2.1 The Screening Process .................................................... 73
    5.2.2 Preparation of a Resettlement Action Plan (RAP) .................. 74
    5.2.3 Review and Submission of the RAP .................................... 75

6. VALUATION PROCEDURES ................................................................ 76
  6.1 ORGANIZATIONAL PROCEDURES FOR DELIVERY OF ENTITLEMENTS ...................................................... 76
  6.2. METHOD OF ASSET VALUATION ........................................ 77
  6.3. BASIS OF VALUATION .......................................................... 77
  6.4. ESTABLISHMENT OF PROPERTY VALUATION COMMITTEES AND COMPENSATION PROCEDURES ............ 78

7. ELIGIBILITY CRITERIA ...................................................................... 80
7.1. ELIGIBILITY CRITERIA FOR VARIOUS CATEGORIES OF PAPs ................................................................. 81
  7.1.1. Eligibility for Land ......................................................................................................................... 81
  7.1.2. Eligibility for Community Compensation ................................................................................. 82
  7.1.3. Eligibility for Loss of Property/Assets .................................................................................... 82
7.2. DISPLACED PERSONS WITHOUT LEGAL TITLE ........................................................................ 83
7.3. SEVERITY OF IMPACTS .................................................................................................................. 84
7.4. COMPENSATION FOR TEMPORARY LOSSES ............................................................................. 84
7.5. CUT-OFF DATES ............................................................................................................................. 85
7.6. RELOCATION .................................................................................................................................... 86
7.7. LIVELIHOOD RESTORATION ........................................................................................................ 86
7.8. BROAD ENTITLEMENT CATEGORIES .......................................................................................... 87
  7.8.1. Agricultural Title Holders ......................................................................................................... 87
  7.8.2. Non-Agricultural Title Holders ............................................................................................... 88
  7.8.3. Common Properties .................................................................................................................. 88
  7.8.4. Entitlements ................................................................................................................................ 88

8. GRIEVANCE REDRESS MECHANISM ............................................................................................... 93

9. PUBLIC CONSULTATION AND DISCLOSURE ................................................................................ 97
  9.1. PUBLIC CONSULTATION OVERVIEW ....................................................................................... 97
  9.2. OBJECTIVES OF THE PUBLIC CONSULTATIONS ...................................................................... 98
  9.3. CONSULTATION AND PARTICIPATION PROCESS .................................................................... 99
    9.3.1. Planning Phase ......................................................................................................................... 99
    9.3.2. Data Collection Phase ............................................................................................................ 100
    9.3.3. Implementation Phase ........................................................................................................... 101
    9.3.4. Monitoring and Evaluation Phase .......................................................................................... 102
  9.4. CONSULTATIONS DURING THE PREPARATION OF THE RPF .................................................. 103
  9.5. PUBLIC DISCLOSURE .................................................................................................................... 111

10. MONITORING AND EVALUATION .................................................................................................. 112
  10.1. PURPOSE OF MONITORING ..................................................................................................... 112
  10.2. INTERNAL MONITORING ........................................................................................................... 114
  10.3. EXTERNAL MONITORING AND EVALUATION ....................................................................... 115
  10.4. INDICATORS TO MONITOR ....................................................................................................... 117
  10.5. REPORTING REQUIREMENT ....................................................................................................... 119
  10.6. COMPLETION AUDIT ................................................................................................................... 121

11. BUDGET AND FUNDING ARRANGEMENT ..................................................................................... 123

REFERENCES ............................................................................................................................................ 125

ANNEXES ................................................................................................................................................ 127

ISSUING AUTHORITY AND EFFECTIVE DATES ................................................................................. 134
List of Figures

Figure 1: General Implementation Framework of the PoA ............................................................... 6
Figure 2: General Implementation Framework of the Program of Activities (PoA) for EOREP .................................................. 6
Figure 3: Diagram of a Domestic Biogas Plant .................................................................................. 9
Figure 4 Transaction Flow for Market Development for Renewable Energy and Energy Efficient Product.................. 70
Figure 5: Steps in Social Screening and RAP Preparation .................................................................. 73

List of Tables

Table 1: Social Safeguards Screening Information .................................................................................. 5
Table 2: Comparisons of National Legislation and World Bank Operational Policies .................................. 19
Table 3: List of Positive Socio-Economic and Environmental Impacts ...................................................... 60
Table 4: Impact / Entitlement Matrix .................................................................................................... 89
Table 5: Project Entitlement Matrix Based on Ethiopian Laws and World Bank OP 4.12 ......................... 90
Table 6 Problems Associated with the Biogases, Their Description and Proposed Mitigation Measures and Their Description ........................................................................................................ 106
Table 7 Major Issues with All Sub Projects, Their Description and Proposed Mitigation Measures ............. 109
Table 8: Monitoring Indicators .............................................................................................................. 119
Table 9: RAP/ARAP Implementation Monitoring Template ........................................................................ 120
Table 10: Indicative Outline of a RAP Budget ....................................................................................... 123

List of Plates

Plate 1: Consultation with Officials at Regional and Wereda Level MFIs – SNNPRS .................................... 104
Plate 2: Briefing from Beneficiaries about Biogas Operation and Its Importance ............................................. 105

List of Annexes

Annex 1 Names of Beneficiaries, Benefits Gained and Concerns Raised .................................................... 127
Annex 2 Officials/Experts Consulted during the Fieldwork ........................................................................... 130
Annex 3: Sample Grievance Procedure Form .......................................................................................... 132
### List of Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANRS</td>
<td>Amhara National Regional State</td>
</tr>
<tr>
<td>ARAP</td>
<td>Abbreviated Resettlement Action Plan</td>
</tr>
<tr>
<td>CSA</td>
<td>Central Statistical Agency of Ethiopia</td>
</tr>
<tr>
<td>DBE</td>
<td>Development Bank of Ethiopia</td>
</tr>
<tr>
<td>EEP</td>
<td>Ethiopian Electric Power</td>
</tr>
<tr>
<td>EEPCo</td>
<td>Ethiopian Electric Power Corporation</td>
</tr>
<tr>
<td>ENREP</td>
<td>Ethiopia- Electricity Network Reinforcement and Expansion Project</td>
</tr>
<tr>
<td>EPA</td>
<td>Environmental Protection Authority</td>
</tr>
<tr>
<td>FDRE</td>
<td>Federal Democratic Republic of Ethiopia</td>
</tr>
<tr>
<td>GHC</td>
<td>Grievance Hearing Committee</td>
</tr>
<tr>
<td>GOE</td>
<td>Government of Ethiopia</td>
</tr>
<tr>
<td>GRS</td>
<td>Grievance Redress Service</td>
</tr>
<tr>
<td>KWp</td>
<td>Kilo Watt Peak</td>
</tr>
<tr>
<td>IBRD</td>
<td>The International Bank for Reconstruction and Development</td>
</tr>
<tr>
<td>IDA</td>
<td>International Development Association</td>
</tr>
<tr>
<td>LED</td>
<td>Light-emitting diode</td>
</tr>
<tr>
<td>masl</td>
<td>Meters above sea level</td>
</tr>
<tr>
<td>MoFEC</td>
<td>Ministry of Finance and Economic Cooperation</td>
</tr>
<tr>
<td>MoWIE</td>
<td>Ministry of Water, Irrigation and Electricity</td>
</tr>
<tr>
<td>MWp</td>
<td>Mega Watt Peak</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
</tr>
<tr>
<td>PAPs</td>
<td>Projected Affected Persons</td>
</tr>
<tr>
<td>PSEs</td>
<td>Private Sector Enterprises</td>
</tr>
<tr>
<td>RAP</td>
<td>Resettlement Action Plan</td>
</tr>
<tr>
<td>RPF</td>
<td>Resettlement Policy Framework</td>
</tr>
<tr>
<td>SFA &amp; RFIP</td>
<td>Special Fund Administration and Rural Financial Intermediation Programme</td>
</tr>
<tr>
<td>SNNPRS</td>
<td>Southern Nations, Nationalities and Peoples Regional State</td>
</tr>
<tr>
<td>WB</td>
<td>World Bank</td>
</tr>
<tr>
<td>WBG</td>
<td>World Bank Group</td>
</tr>
</tbody>
</table>
Executive Summary

Market Development for Renewable Energy and Energy Efficient Products is one of the four components under Ethiopia Electricity Network Reinforcement and Expansion Project (ENREP). This component leverages the market-based approach developed under the umbrella of the Lighting Africa Program to support the spread of off-grid renewable energy systems among households residing in areas far from the grid, or those in areas under the grid who cannot afford a connection. The Development Bank of Ethiopia (DBE) has been selected as a financial intermediary for the two programs under ENREP component 3, Ethiopia Clean Cooking Energy Program of Activity with the planned installation of 39,178 units of household biogas digesters and Ethiopia off-grid renewable energy program of activity which incorporates installation of 214,850 solar home systems and dissemination of 2.8 million solar lanterns within the period between 2015 and 2020. Credit facilities to Private Sector Enterprises (PSEs) and Micro Finance Institutions (MFIs) have been set up by the DBE to provide financing for stand-alone renewable energy systems and energy efficient products, such as solar home systems (SHSs), solar lanterns, and biogas.

It is found useful to have a policy document establishing principles and procedures that will govern the mitigation of adverse social impacts induced by the programs under Ethiopia-Electricity Network Reinforcement and Expansion Project (ENREP), additional Financing component three namely Ethiopia Clean Cook Energy and Ethiopia off-grid renewable energy program operations. This RPF is customized from previous ENREP RPFs prepared for parent ENREP and AF ENREP which is acceptable to the World Bank, specifically for the distribution investment (ENREP’s Component 1 and 2). The purpose of the RPF is to clarify the policies, principles and procedures that will govern the mitigation of adverse social impacts induced by the subprojects of the two programs under ENREP component 3.

The specific site for potential sub-projects intervention is not yet known and the Project components are not expected to have significant social impacts. However, since one cannot be sure whether environmental and social impacts will or will not occur in all the sub projects, it is proposed that precautionary measures be taken to ensure that planned activities do not affect livelihoods of the surrounding population. It is very unlikely that significant land acquisition and
property losses will occur during the implementation of the proposed project. However, small amounts of land acquisition and property losses may occur during implementation of the subproject specifically Solar PV mini-grid, and hence, the project triggers OP 4.12 of the World Bank safeguard policy for involuntary resettlement.

National legal and administrative frameworks and World Bank Policies have been taken into account for the preparation of this RPF. It is developed based on the World Bank Operational Policy 4.12 and the relevant national laws and regulations to form the basis for resettlement planning. In this connection, various legislative issues pertaining to resettlement planning including the FDRE Constitution, Expropriation of Landholdings for Public Purposes and Payment of Compensation Proclamation (Proclamation No. 455/2005), urban land lease holding proclamation (Proclamation No. 721/2011), Council of Ministers Regulation No 135/2007 (Payment of Compensation for Property Situated on landholding expropriated for public purposes), and other related regional proclamations have been taken into account. The WB’s Safeguard Policy on involuntary resettlement (OP4.12) has also been used for the preparation of this Framework document.

As far as the institutional arrangement is concerned, DBE will take the leading role in the process. The key ministry related to energy, the Ministry of Water, Irrigation and Energy, has established Environmental Impact Assessment and Social Development Office that will be working closely with the DBE and DBE will strengthen its Energy Coordination Team that include social and environmental staff to address Environmental and Social issues in its activities.

The safeguard category of the project is B; as there are likely to be no significant and/or irreversible adverse environmental and social issues emanating from implementing the program and its sub-projects. The RPF addresses issues of social impacts of the project like issues of land acquisition resulting from implementation of subproject investments that may or will result in loss of property or disturbance affecting livelihoods. A complementary safeguard document for this project, the Environmental and Social Management Framework (ESMF) addresses physical environment and social impacts and can be applied together with this RPF in its environmental and social impacts identification section. This RPF document will be used by all implementers of the project to ensure that all social safeguards issues related to Involuntary Resettlement/land
acquisition and or restriction of access to and use of natural resources are adequately addressed
and that the relevant capacity and training needs are established for the recommended measures
to be implemented effectively.

Given the nature and scale of the sub projects and the respective activities, there will be both
positive and negative impacts associated with the sub-projects. The solar lantern (lamp) and the
solar home systems do not require land acquisition and Biogas plants are implemented in the
beneficiaries’ homestead based on their consent and acquire a very small area, which is less than
12 m² for Biogas sub project. For the solar home system, very less active area at the roof top will
be used for placing solar panel and lantern energy provision will be made at the beneficiary
level. For the solar PV mini-grid, land may be acquired for the installation of the solar panels,
mini-grids and construction of powerhouse to store batteries and equipment.

The major benefits of the program include improve access to reliable lighting and reduce indoor
air pollution with resulting health benefits, creation of either direct or indirect job opportunities,
development of new skills, reduce expenditure for kerosene, reduce the burden of women by
reducing the time required for fuel wood gathering, improve access to social services such as
education and health and service delivery, improved social interaction, for instance families can
spend more time together even when the sun goes down and have longer time to use charged
mobiles phones to interact with others. Moreover, market opportunities and private sector
involvement in renewable energy access will be strengthened. Biogas specific benefits include
increase crop yields by enriching soil fertility by using bio-slurry and reduce costs to farmers for
buying fertilizers.

Potential negative social impacts that may be created because of the implementation of the sub-
projects are related to land acquisition to install the panels, mini-grids and construction of stores
for related equipment. As a result of land take, the farmers and urban dwellers may lose their
crops, houses and other properties. The livelihood of these dwellers might also be affected due to
loss of assets and location change/involuntary resettlement. Social conflict is another impact that
may arise with the demand on project related job opportunity by the locals and high demand for
the subprojects related services. Increased Women’s workload for fetching water to manage the
biogas is another impact. Lack of project ownership is also one dimension of the problem. The
following mitigation measures have been proposed for the major impacts:
Land Acquisition - Avoidance is the first option that should be considered before going to resettlement planning. Where that is not possible, proper planning and implementation of the Resettlement Action Plan is vital. Specifically, if special cases happen that necessitate land expropriation, livelihood Restoration Plan and Assistance to Vulnerable People will be put into effect.

Social conflicts - Considering the employment of local labour for semi-skilled and unskilled people including women and, ensuring that criteria is set for prioritization of likely beneficiary households including poor and female headed ones is vital.

Work load on women - Reduce workload of women in managing the biogas by targeting households with nearby and easy access to water points and creating awareness and experiencing sharing in engaging men and other household members in managing the biogas will contribute in reducing the workload.

Lack of project ownership - Ensure the participation of relevant stakeholders, including the beneficiaries from the outset to improve level of ownership and sustainability of the program is a concrete step. In line with this, it is important to conduct regular awareness creation and sensitization programs.

This Resettlement Policy Framework (RPF) outlines overall resettlement objectives and principles as well as funding mechanisms and organizational arrangements for any resettlement operation including the preparation, review, approval and implementation of Resettlement Action Plan/Abbreviated Resettlement Action Plan (RAP/ARAP). If RAP/ARAP preparation is a requirement, the Private Sector Enterprises (PSEs) in consultation with the DBE will be responsible for preparation and implementation of the RAP/ARAP. The RAP will be submitted to the DBE, World Bank and Ministry of Water Irrigation and Electricity (MoWIE) for review and approval before disclosure.

A key element of resettlement activities is the development and implementation of cost effective and accessible grievance handling mechanism. Legal and institutional arrangements for dispute resolution and grievance mechanisms have been indicated both in federal and regional proclamations. The initial step will be discussion at local level with local influential leaders. Discussion and consultation at the lowest levels of tiers has of paramount importance for
consensus building. If misunderstandings and disputes arise between the principal parties (e.g. local government bodies and affected parties) involved in the resettlement and compensation process, the preferred means of settling disputes is through arbitration (Proclamation No. 455/2005). Grievances will be actively managed and tracked to ensure that appropriate resolution and actions are taken in an appropriate and timely manner, with corrective actions being implemented and the complainant handled as early as possible to address specific concerns raised by the project affected persons in timely fashion and in an impartial manner.

The RPF seeks to ensure that affected communities are meaningfully consulted, participated in the planning and follow on process, adequately compensated to the extent that their pre-displacement incomes have been restored, and the process is a fair and transparent. As part of the RPF preparation process for ENREP component 3, a series of broader consultation were carried out with various stakeholders and beneficiaries between November 22, 2016 and November 26, 2016.

Discussions were made with officials and experts and biogas program coordinators working in Water, Mines and Energy sector in Oromia Region and SNNPRS, officials/experts in Hawassa Zuria Wereda and Wendo Genet Weredas from SNNPRS and Ada Wereda from Oromia were consulted. Moreover, biogas and solar home system beneficiaries from similar project at the mentioned regions were consulted. In addition to the benefits shared by the consulted stakeholders, general and specific issues, questions, concerns and opinions were raised by the participants. The issues raised during the site visit of beneficiary households include the request/demand for special stove to bake Injera and watching television through appropriate technology, the requirement of at least 12 m² plot of land for installing a biogas and a cart for transporting compost/slurry, problem of getting biogas replacement lamps on time, problems that could occur with unfenced bio-slurry halls, and functionality problem of the Solar Home system and biogas for which responses were provided.

With regard to compensation, mechanisms to estimate the budget and responsible institutions for managing the implementation have been indicated. But, specific budget has not been earmarked at this stage as specific locations of the subprojects (PV-mini-grids) have not yet been determined, and the number of PAPs cannot be identified.
The RAP/ARAP implementation will be monitored and supervised, to assess/track whether the objective of the Policy on Involuntary Resettlement is achieved and whether the project affected people have had their livelihoods restored to levels prior to project or improved. To effectively carry out the program, monitoring and evaluation will be conducted in an integrated manner. The internal monitoring and evaluation aspects will be conducted by DBE, PSEs, regional and Wereda pertinent bureaus/offices while the external evaluation will be conducted by the World Bank supervision missions. Integration and coordination of various actors both at federal, regional and Wereda levels has of paramount importance for the successful realization of the sub projects. Timely monitoring, evaluation and follow-up need also be considered in an integrated manner in collaboration with the various role players.
1. INTRODUCTION

1.1. Background

The current Ethiopian situation reveals more need for access to electricity. The population’s limited access to electricity constitutes a major barrier to economic development and to the provision of social services in rural areas. To overcome this situation the Government of Ethiopia is drawing efforts to reach rural and urban parts of the country. Access to electricity services is a priority set out in the National Energy Policy of Ethiopia. The Government of Ethiopia is committed to increasing use of renewable energy, and considers the growth of the renewable energy industry as an integral part of its rural energy and power sector development strategy. Related Project, the World Bank Electricity Network Reinforcement and Expansion Project (ENREP) has provided a significant push to the spread of off-grid renewable energy systems. This RPF is modified based on the ENREP’s disclosed RPF of February, 2016.

The International Bank for Reconstruction and Development (IBRD) has established fund for the purpose of increasing the flow of carbon finance to low-income countries for low carbon investment in programs which are intended to generate Emission Reductions, and to reduce poverty and improve the quality of life in the poorer areas of developing countries including, in particular, the least developed countries, and to expand the reach of carbon finance and Clean Development Mechanism Projects to developing countries. Besides, the IBRD has been disseminating broadly the knowledge gained in the development of the fund and the implementation of programs particularly to influence the development of future carbon markets.

In this respect, the Development Bank of Ethiopia had signed two Emission Reduction Purchase Agreements (ERPA) with IBRD as trustee of Ci-Dev.

The Development Bank of Ethiopia (DBE) has been executing two related programs, namely Rural Electrification Program (being operational as of 2005) and Market Development for Rural Energy and Energy Efficient Products since 2012. Through these two programs, the DBE has facilitated installation of 1,500 biogas, 11,145 solar home system, and distribution of nearly 500,000 solar lanterns in different parts of the country. Out of these two programs, projects that
have been operational since 2015 including biogas, solar lantern and solar home system will be accommodated in the new program which is named as “Ethiopia Clean Cooking Energy Program of Activity” which incorporates installation of 39,178 units of household biogas digesters in the period between 2015 and 2020 and Ethiopia off-grid renewable energy program of activity which incorporates installation of 214,850 solar home systems and dissemination of 2.8 million solar lanterns in the period between 2015 and 2020.

The program will cover rural areas in the nine regions of Ethiopia and Addis Ababa and Dire Dawa City Administrations with the specific locations to be decided later in consultation with the Ministry of Water, Irrigation and Electricity and Regions/City Administrations. The sub projects under the programs incorporate implementation of biogas, distribution of Solar Lanterns and Solar Photovoltaic (PV) components that include Solar Home systems and Solar PV Mini-grids with higher capacity requirements for homes and public facilities.

1.2 Rational for preparing the RPF

The Project components are not expected to have significant social impacts. However, since one cannot be sure whether social and environmental impacts will or will not occur in all the sub projects, it is proposed that precautionary measures be taken to ensure that planned activities do not adversely affect the surrounding population.

To ensure that the specified program is sustainable as well as prevent or mitigate the negative impact related to physical relocation, loss of land and assets and disruption of livelihoods of the local community, it is vital to prepare a Resettlement Policy Framework (RPF) that establishes principles and procedures to govern the mitigation of adverse social impacts induced by the sub Project operations. The two programs namely Ethiopia Off-grid Renewable Energy and Ethiopia Clean Cooking Energy Program are under the Electricity Network and Reinforcement Expansion Project (ENREP) component 3, therefore, the Resettlement Policy Framework for the program was adapted from the RPF prepared by Ethiopian Electric Power for the parent project, Ethiopia-Electricity Network Reinforcement and Expansion Project (ENREP).
1.3. Objectives and Principles of the Resettlement Policy Framework (RPF)

1.3.1 Objectives of the Resettlement Policy Framework (RPF)

The general objective of the RPF is to prepare a framework by incorporating policies, principles and procedures that govern compensation and resettlement for Project Affected Persons (PAPs) as a result of implementation of ENREP component 3, Off Grid Renewable Energy and Clean Cooking Energy program.

The specific objectives of the Resettlement Policy Framework include the following:

- To describe legal and institutional framework underlying Ethiopian approaches for resettlement, compensation and rehabilitation;
- To establish resettlement and compensation principles for the program;
- To describe the necessary organizational and operational procedures including implementation processes, grievance redress mechanisms and institutional framework;
- To describe RAP preparation and implementation procedures;
- To categorize project affected peoples, eligibility for compensation, set out eligibility criteria for various categories of PAPs, and valuing of affected assets and related aspects;
- To describe the consultation procedures and participatory approaches involving PAPs and other key stakeholders;
- To provide procedures for filing grievances and resolving disputes; and,
- To indicate institutional arrangements for Resettlement Action Plan (RAP) preparation and implementation of the program.

1.3.2 Principles of the Resettlement Policy Framework (RPF)

This RPF is guided by the following set of policy principles:

- Involuntary resettlement and land acquisition will be avoided where feasible, or minimized, by exploring all viable alternatives;
Displaced and compensated persons will be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them; and,

Where involuntary resettlement and land acquisition is unavoidable:
- Resettlement and compensation activities will be conceived and executed as sustainable development programs; and,
- Displaced and compensated persons will be meaningfully consulted and have opportunities to participate in planning and implementing resettlement and compensation programs.

The RPF seeks to ensure that affected communities are meaningfully consulted, have participated in the planning process, adequately compensated to the extent that their pre-displacement incomes have been restored and the process is fair and transparent.

The RPF is therefore prepared to guide and govern the sub-projects selected for financing and sets out the elements that will entail involuntary resettlement, which will not be known by the time of project appraisal. It ensures that any possible adverse impacts of proposed project activities are addressed through appropriate mitigation measures in particular, against potential risks.

The RPF provides the basis for preparing Resettlement Action Plan (RAP)/Abbreviated Resettlement Action plan (ARAP), if required, once their location and scope are known. Whenever a project activity or subproject results land acquisition, a RAP, which is a detailed action plan, will have to be formulated and approved by the Development Bank of Ethiopia and the World Bank before the commencement of the physical work.

Table 1 below, explains the screening process to be used by DBE to determine when to prepare a RAP.
<table>
<thead>
<tr>
<th>Ser. no</th>
<th>Social safeguards screening information</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Will the project reduce other people’s access to their economic resources, like land, pasture, water, public services or other resources they depend on?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Will the project result in the resettlement of individuals or families or require the acquisition of land (public or private, temporarily or permanently) for its development?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Will the project result in the temporary or permanent loss of crops, fruit trees and household infrastructure (such as granaries, outside toilets and kitchens, etc)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Will the project require excavation near any historical, archaeological or cultural heritage site?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Might the project adversely affect vulnerable people (e.g. Elderly, poor pensioners, physically challenged, women, particularly head of households or widows etc) living in the area?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For all issues indicated by “Yes”, the project implementer is expected to explain how he/she intends to mitigate them. Implementation of the mitigation measures will require using the Resettlement Action Plan.

When a Resettlement Action Plan (RAP) is required, it will be prepared in accordance with guidance provided in this RPF, including Detailed Measurement Surveys, Identification (Census) of PAPs/displaced persons, and Public Consultation and Disclosure Procedures. The RPF follows the guidance provided in the World Bank Operational Policy on Involuntary Resettlement (OP 4.12). The impacts of any potential resettlement activities will be monitored and evaluated as set out later in this RPF.

1.4 Methodology

The task has been conducted by using both primary and secondary sources of information. The primary sources include collection of primary data pertaining to the sub-projects. Consultation has also been made with the appropriate stakeholders and beneficiaries. The secondary sources on the other hand involved review of relevant Ethiopian legislative frameworks pertaining to compensation and resettlement, World Bank safeguard policies and review of RPFs prepared for relevant World Bank projects including ENREP RPFs.

1.5. Description of the Project

1.5.1 Background

Market Development for Renewable Energy and Energy Efficient Products is one of the four components under ENREP. This component leverages the market-based approach developed under the umbrella of the Lighting Africa Program to support the spread of off-grid renewable
energy systems among households residing in areas far from the grid, or those in areas under the grid who cannot afford a connection. Specifically, under this component, credit facilities to Private Sector Enterprises (PSEs) and Micro Finance Institutions (MFIs) have been set up to provide financing for stand-alone renewable energy systems and energy efficient products, such as solar home systems (SHSs), solar lanterns, improved cook stoves, biogas, and Solar PV mini-grids. The Development Bank of Ethiopia (DBE) serves as a financial intermediary in the process of executing the programs. Private Sector Enterprises are approved retailers that can access the credit line to import and commercialize the products as well as installation of Solar PV mini-grids while the Micro Finance Institutions (MFIs) provide financing to households or small businesses in rural areas interested in installing biogas plants and SHSs (see figure 1).

Figure 1: General implementation framework of the PoA

![Diagram](image)

Source: SNV Ethiopia, cited in Programme Design Document form for Small-Scale CDM Programmes of Activities, (Version 04.0)

Figure 2: General implementation framework of the Program of Activities (PoA) For EOREP

![Diagram](image)

Source: Program Design Document form for Small-Scale CDM Program of Activities

Under the Ethiopian Clean Development Mechanism, there are two programs. The first program is Ethiopia Off-grid Renewable Energy Program of Activities that includes distribution of 2.8
million solar lanterns, 214,850 Solar Home Systems and installation of Solar PV mini-grids. These will be implemented from 2015 to 2020 with an estimated amount of 1.1 million Certified Emission Reduction (CER) generation from 2016 to 2024. The second program under the mechanism is Ethiopia Clean Cooking Energy Program of Activity with a plan for the installation of 39,178 units of household biogas digesters in the period between 2015 and 2020 with an estimated amount of 803,167 Certified Emission Reduction (CER) generation from 2016 to 2024. The sub projects overview for the two programs are discussed below.

1.5.2 Off Grid Renewable Energy Program

a) Solar Lantern/Lamp-These comprise zero-emissions off-grid lighting products or systems that are stand-alone, rechargeable and can be installed and operated by their user. Each unit has a retail price typically less than US$100 and includes three main components: usually, a 1 to 5 W solar panel as the electricity source, a rechargeable battery, and a lantern or lamp, usually with an LED bulb. The solar panel should point in the direction that captures the most sun during the day to generate electricity that recharges the battery, and at night the electricity is available to power the lamp. These units will provide lighting for individual households and may also provide cell-phone charging or similar purposes. Only units that comply with the Lighting Global Minimum Quality Standards and have a warranty period of two (2) years will be eligible to be included in the program. Prior to the project, off-grid households relied on kerosene lamps for lighting, most of which are relatively inefficient tin lamps with a simple wick and no cover. Burning of kerosene generates CO₂.

b) Solar Home Systems (SHS)-SHS are solar photovoltaic (PV) units that provide zero-emissions electricity supply to homes for a variety of uses, such as lighting, television sets and other small appliances. Each system will consist of at least a PV module to convert solar energy into electrical energy, a battery to store the electrical energy, a charge controller to protect the system from attaining an overcharged and undercharged condition, and cables and connecting devices. System capacities are expected to range between approximately 5 and 100 KWp. As it is the case for solar lanterns, units that with a warranty period of two (2) years will be eligible to be included in the program. The SHSs are usually placed at roof tops of user households and don’t
demand much space. From experience of similar project by DBE, households have benefited from such services.

c). Solar PV Mini Grid-Solar PV Mini Grid (SPMG) that provide zero-emissions electricity supply to homes for a variety of uses, such as lighting, television sets and other small appliances. The system will consist of at least PV modules to convert solar energy into electrical energy, solar inverter to convert DC to AC, batteries to store the electrical energy, charge controller to protect the system from attaining an overcharged and undercharged condition, power house to store batteries and solar equipment’s, electric distribution lines and accessories, and cables and connecting devices. System capacities are expected to range between approximately 5 KWp to 100 KWp.

PV mini grid will be developed by private companies in remote villages and rural households become beneficiary of the electricity they are getting from the project and they will pay onetime connection fee and monthly service charge. The project will benefit off-grid households who used to relay on kerosene lamps for lighting, most of which are relatively inefficient tin lamps with a simple wick and no cover. In the baseline, off-grid lighting would have been provided by kerosene while batteries or diesel generators would have charged small appliances.

The solar PV Mini Grids may demand use of land in the target villages. Land acquisition and resettlement issues may be required owing to the location and size of the panel. The expected installed capacities for the solar systems are up to 100 KWp.

1.5.3 Clean Cook Energy Program

The subproject under the program is installation of biogas plants. Biogas is a clean and renewable form of energy produced by anaerobic fermentation of animal dung and other waste in a subterraneous digester built from locally available materials. The target beneficiaries are households with four or more local breed cattle (two in the case of hybrid), residing within thirty minutes walking distance from a water source, and willing to pay in cash or through credit for the investment cost required in the installation of the bio digester with an optional toilet connection. The biogas plants which are installed for households are interested to use the Biogas
plants on their land. The Ethiopia Clean Cooking Energy Program of Activity include the plan for the installation of 39,178 units of household biogas digesters in the period between 2015 and 2020 with an estimated amount of 803,167 Certified Emission Reduction (CER) generation from 2016 to 2024 (see figure 3).

Figure 3: Diagram of a domestic biogas plant

Source: SNV Ethiopia, cited in Programme Design Document form for Small-Scale CDM Programme of Activities, (Version 04.0), and Hivos Unlimited, May 2014

In order to commercialize the biogas program in the country, institutional arrangements with different roles and responsibilities has been established. The National Biogas Programme of Ethiopia (NBPE) started its operations in 2008 and is hosted and co-funded by the Ministry of Water, Irrigation and Electricity (MoWIE) with financial support provided by the Directorate General for International Cooperation (DGIS) of the Netherlands managed by the Humanist Institute for International Development Cooperation (HIVOS) and benefitting from technical support provided by the Netherlands Development Organization (SNV).
2. LEGAL AND INSTITUTIONAL FRAMEWORK

This RPF will apply legal and institutional frameworks that govern the use of land and other assets in Ethiopia. The laws that govern the use of land and other assets in Ethiopia, the institutional framework as well as the requirements under the World Bank’s OP 4.12 on Involuntary Resettlement is described in this part of the document.

2.1 Political economy and governance in Ethiopia

After the Proclamations No. 31/1975 and 47/1975, ownership of land was vested in the State, and Ethiopian citizens were given various forms of use-rights (usufruct) over land and other resources. Accordingly, in the 1995 Constitution of the FDRE, Article 40(3) land has been recognized as a common property of the Nations, Nationalities and Peoples of Ethiopia and prohibits sale or any other exchange of land.

In some cases, the user of land has ownership of his/her possessions with the right to benefits from the fruits of his/her labor. This includes crops, perennial crops, tress for timber, etc. found on the land or any other permanent fixtures such as residential house, business installations, stores and fences, amongst others (Proclamations No. 31/1975 and 47/1975). The 1995 Constitution Article 40(7) reiterates and consolidates this point by stating, “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 labor or capital. This right shall include the right to alienate, to bequeath, and, where the right to use expires, to remove his property, transfer his title, or claim compensation for it.”

Regional states are responsible for administering land, enacting law that is in conformity with the provisions on environmental protection and federal utilization policies (Proclamation No. 89/1997 and proclamation No.456/2005 article 17(1). Regional regulations such as Zikre Hig Regulation No.103/2012 of the Amhara National Regional State provides for the lease holding of urban land for a specific period of time, and also regulates the lease period for different functions, grade of land and payment of lease. Lastly, the law regulates manners of expropriation of land and designates land that can be expropriated for public use without payment of compensation.
These rights over “holding land” are open-ended (no time limit on this usufruct), subject to a proof of permanent physical property, ability to farm continuously and meet administrative dues and obligations (1995 Constitution Article 40(3)). Furthermore, Proclamation No. 89/1997 confirms and details the Constitutional principle that holding rights on land can be assigned to peasants and nomads, and that these are to be secured from eviction and displacement. The 1995 Constitution, Articles 40(4) and 40(5) provides for free land without payment for farmers and pastoralists. Under urban land lease holding proclamation (No. 721/2011), no person may acquire urban land other than the lease holding system. In fact in article 6 there are provisions for the conversion of old possessions to lease holding. In the same proclamation, article 12, provision of land through allotment has been stated upon the decision of the regional cabinet or city administration including for the construction of offices, social service institutions run by government or charitable organizations, public residential housing construction, manufacturing and other related aspects.

Overall, the Constitution protects against unlawful seizure of property, stating “Everyone has the right to his privacy. This right shall include the right not to be subjected to searches of his home, person or property under his possession” (1995 Constitution Article 26). “Landholder” means an “individual, government, or private organization or any other organ which has legal personality and has lawful possession over the land to be expropriated and owns property situated thereon” (Proclamation No. 455/2005 Article 2(3)).

The key institutional actors involved in resettlement are the local governments of Ethiopia at the Wereda, urban administration, and Kebele levels. This keeps in line with the Government’s policy of decentralization. The responsibilities of the federal and regional governments are confined to the actual project’s implementation. Agencies that tend to be included are the federal and regional offices of Water Irrigation and Electricity, Development Bank of Ethiopia as well as other ministries that are in one way or another associated with compensation and resettlement.

2.2 Property and land rights in Ethiopia
The 1995 Constitution of Ethiopia, Article 40(2), 40(4), 40(5) and 40(8) includes provisions that protect the Ethiopian citizen’s rights to private property and set conditions for expropriation of such property for state or public interests. For immovable property built on land, the Constitution
states that “Every Ethiopian shall have the full right to the immovable property he builds on the land and to the improvements he brings about on the land by his labour or capital.”

Land acquisition and property rights are defined in the 1995 Constitution Article 40(8), which empowers the Government to expropriate private property for public purposes subject to payment in advance of compensation commensurate to the value of the property. Under Proclamation No. 455/2005, expropriation of land and other assets are established in detailed procedures and time limits where land could be acquired after a request is received from the proponent along with compensation. Furthermore, Article 44(2) of the 1995 Constitution stipulates that all people who have been displaced or whose livelihoods have been adversely affected as a result of State programs shall have the right to receive adequate monetary or other alternative compensation, including transfer with assistance to another locality.

The power to expropriate landholdings belongs to a Wereda or urban administration for a development project (Proclamation No. 455/2005 Article 3). The implementing agency is required to provide written notification, with details of timing and compensation, which cannot be less than 90 days from notification (Proclamation No. 455/2004 Article 4). Any entitled landholder who has been served with an expropriation order shall handover the land to the local Wereda or urban administration within 90 days from the date of payment of compensation should the leaseholder accept payment. Furthermore, where there is no crop or other properties on the expropriated land, the title holder shall handover the land within 30 days of receipt of expropriation order. Lastly, Article 4 gives power to use police force if a landholder is unwilling to handover land.

The implementing agency is responsible for gathering data on the land needed and works, and sending this to the appropriate officials for permission. It is also required to compensate affected landholders (Proclamation No. 455/2005 Article 5).

### 2.3 Acquisition and valuation of land and other assets

Valuations are often done at the Wereda and urban administration levels. These local government units establish valuation committees to value private properties (Proclamation No. 455/2005). In the case of publicly owned infrastructure with a designated right-of-way (ROW),
the owners of the structures within the ROW would assess the value of properties to be removed. However, the law does not take into account depreciation values. The landholder is entitled to be compensated for the property on the basis of replacement. Permanent improvements to the land, equal to the value of capital and labour expended (Proclamation No. 455/2005 Article 7), are specified as valid basis for determining replacement value. Where property is on urban land, the law specifies that compensation “may not be less than constructing a single room in low cost house as per the region in which it is located.” It is also required that the cost of removal, transportation, and erection be paid as compensation for a relocated property, continuing its service as before. Persons who have been displaced or whose livelihoods have been adversely affected by a State program are provided, under the 1995 Constitution Article 44, to some form of compensation for their loss. This includes relocation expenses. Compensation will also be based on current cost, cost of demolishing, moving, and reinstalling. Valuation formulae have been provided in the council of Ministers Regulation No 135/2007 (Payment of Compensation for Property Situated on Landholding Expropriated for Public Purposes), article 13 which among others takes into account compensation for building, crops and grass.

As per Council of Ministers Regulation No 135/2007 (Payment of compensation for property situated on landholding expropriated for public purposes), assets will be broken down into components to assess value. Components for building costs include cost per square meter. Crops are subdivided into crops and perennial crops, and calculated based on yield per square meter of land multiplied by price per kilogram. Trees could be cut and used by owner plus payment of compensation for loss of continued income. The cost of machinery, labour for improvement, and any infrastructure as part of the improvement will be compensated based on current costs for the improvements made on land. The cost for the relocation of property will be on the basis of the cost incurred for relocation, such as payment for labour, machine used to remove and relocate, and transport. The amount of compensation for protected grass for grazing purposes shall be determined on the basis of productivity of grass per square meter based on the current price of grass. In addition to compensation to the grass, the owner of the grass can cut and collect the grass within the given period. Compensation for grass is calculated based on the area covered by the grass or area of protected grass per square meter multiplied by the current market price of the
grass per square meter for ten years. (Note: more detailed instructions for compensation are included within Regulation No. 135/2007.)

Further, assets will be classified as movable and immovable. For movable assets, compensation will be paid for inconvenience and other transition costs (Proclamation No. 455/2005 Article 7(5)). In urban areas, immovable assets include residential houses, business installations, institutional structures, stores, fences and public service providing installations. In rural areas, these assets include seasonal crops, perennial fruit trees, timber trees and other cash crops.

For losses that cannot be easily valued or compensated in monetary terms (e.g. access to public services, grazing areas, water points, fishing ponds, etc.), an attempt will be made to establish access to equivalent and culturally acceptable resources and earning opportunities (Proclamation No. 455/2005 Article 7(2)). In addition to compensation according to Proclamation No. 455/2005 Article 7, displacement compensation shall be paid equivalent to ten times the average annual income he/she secured during the five years preceding the expropriation of the land (Proclamation No. 455/2005 Article 8(3)). Compensation will be in an amount sufficient to reinstate displaced people to their economic position prior to displacement; the regionally relevant administration is required to give another piece of land to any person who lost his land in favour of a public project (Proclamation No. 455/2005). The assessment of compensation does not include the value of the land itself because land is a common property of the Nations, Nationalities and Peoples of Ethiopia and shall not be subject to sale or to other means of exchange (Article 40 of the FDRE Constitution). The compensation in Ethiopia is for the property established (house, crops, grass, perennial crops, improvements made on land including preservation) and land for land with equivalent locational value and fertility when available.

Those with informal, or undocumented rights, and those without titles or use right (e.g. squatters informal settlers,) are eligible for specific assistance. Such assistance recognizes some “typical claim to use rights or even ownership” after occupation of unused or unprotected lands has been established. Informal use-rights are likely to have structures or land improvements that are eligible for compensation, as stated in Proclamation No. 455/2005.
In general, valuation of property is to be carried out by a certified private or public institution or private consultants or a committee formed by local administration on the basis of valuation formulae adopted at the national level (Proclamation No. 455/2005 Article 9). The committee must be made up of experts with relevant qualifications (Proclamation No. 455/2005 Article 10). This must be not more than 5 experts and if the land to be expropriated is located in rural areas it will be designated by Wereda Administration and if the land to be expropriated is located in urban center it is designated by the urban administration.

The local and federal governments have different roles in compensation. The key institutional actors involved in resettlement are the local governments of Ethiopia at the Wereda (Wereda Compensation and Resettlement Committee - CRC) levels. This keeps in line with the Government’s policy of decentralization. The Wereda and urban administrations are responsible that compensation is paid and giving rehabilitation support to the extent possible, and maintain data regarding properties removed from expropriated landholdings (Proclamation No. 455/2005, Article 13).

2.4 Legal and Institutional arrangements for dispute resolution and grievance mechanisms

Discussion and consultation at the lowest levels of tiers has of paramount importance for consensus building. For example, as per the Revised Amhara National Regional State (ANRS) Rural Land Administration and Use Proclamation (Proclamation No. 133/2006), the Kebele administration (local level of government that is smaller than a Wereda) shall discuss and agree to the proposed expropriation. If misunderstandings and disputes arise between the principal parties (e.g. local government bodies and affected parties) involved in the resettlement and compensation process, the preferred means of settling disputes is through arbitration (Proclamation No. 455/2005). The number and composition of the arbitration tribunal may be determined by the concerned parties. Though Proclamation No. 455/2005 provides for appeals from valuation decision, such action will not delay the transfer of possession of land to the proponent.
A complaint related to the amount of compensation shall be submitted to the regular court having jurisdiction (Proclamation No. 455/2005 Article 11(1)) if the administrative body for handling disputes has not yet been established. Appeals for dispute resolution may be referred to the regular Appellate Court (Proclamation No. 455/2005 Article 11(4)).

The World Bank’s Safeguard Policy OP 4.12 applies to all economically and/or physically affected persons regardless of the number of people affected, the severity of impact and the legality of land holding. The OP 4.12 further requires particular attention to be given to the needs of vulnerable groups such as those who are below the poverty line, landless, elderly, women and children, indigenous groups, ethnic minorities and other disadvantaged persons. The World Bank’s Policy requires that a RAP shall be prepared and cleared by the Bank prior to implementing resettlement activities. The Bank also requires that the provision of compensation and other assistance to Project Affected Persons, to restore livelihoods when these are affected appreciably, shall be done prior to the displacement of people. In particular, the policy requires that possession of land for project activities may take place only after compensation has been paid. Resettlement sites, new homes and related infrastructure, public services and moving allowances must be provided to the affected persons in accordance with the provisions of the RAP. The land acquisition aspects of this project will be done in accordance with the Ethiopian law and the World Bank’s policy on land acquisition. In comparison and bridging the gaps between the requirements under Ethiopian Law and the World Bank, it is emphasized that the higher of the two standards/instruments (the more beneficial to the project affected persons) should be followed as it also satisfies the requirements of the lesser standard.
2.6. Comparison of the National Policies and the World Bank OP 4.12 Operational Policy

There are gaps between Ethiopian laws and regulations and the requirements for resettlement as laid out in OP 4.12. These gaps relate to the general principles for resettlement, eligibility criteria, the notification period for expropriation and resettlement, and the procedures required throughout the resettlement process. Table 2 highlights the differences between Ethiopian laws and World Bank policies regarding resettlement and compensation.

While OP 4.12 requires that compensation be completed prior to the start of the project, there are no similar timetables set out in Ethiopian laws or regulations. Additionally, there is no provision for relocation assistance, transitional support, or the provision of civic infrastructure under Ethiopian law (See Table 2).

Additionally, Ethiopian law does not make any specific accommodation for squatter settlers or illegal settlers, other than recognition of some use-rights, such as when settlers can claim rights to the land. OP 4.12 requires that affected communities be consulted regarding project implementation and resettlement. Affected communities should also receive the opportunity to participate, implement, and monitor resettlement. However, Ethiopian law states that, when it is determined that a right of way must be established, the expropriation rights of the State take precedence, although the Constitution protects the individual’s use-rights.

Ethiopian law makes no specific accommodations for potentially vulnerable groups such as women, children, the elderly, ethnic minorities, indigenous people, the landless, and those living under the poverty line. These groups are at highest risk to experience negative effects due to resettlement, and should receive special consideration during the preparation of a resettlement policy framework to assure that they can maintain at least the same standard of living after displacement takes place.

Finally, there is also no provision in the law that the state should attempt to minimize involuntary resettlement. However, this appears to be implicit in the country’s Constitution.

To ensure the interest of project affected persons and mitigating the negative impacts of the subprojects, this RPF will be based on the existing national laws on expropriation and
compensation payments as well as the World Bank Policy OP/BP 4.12. To bridge the gaps and address the negative impacts of the resettlement activities on the Project Affected Persons (PAPs), the following strategies will be followed:

- Training and technical support for the PAPs to participate/engage on different livelihood activities;
- Create access to finance/credit to participate/engage on different livelihood activities; and,
- Follow up and monitoring of the resettlement and livelihood restoration activities.

In the next table comparisons of the National Legal Provisions with that of the World Bank Operational Policies are presented as follows. Where there is a difference between national law and OP 4.12, the higher standard shall prevail:
<table>
<thead>
<tr>
<th>Theme</th>
<th>World Bank Op 4.12</th>
<th>Ethiopian Legislation</th>
<th>Comparison</th>
<th>Recommendations to Address Gaps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy Objectives</td>
<td>World bank OP4.12 has overall policy objectives, requiring that: Involuntary resettlement should be avoided wherever possible, or minimized, exploring all alternatives. Resettlement program should be sustainable, include meaningful consultation with affected parties and provide benefits to the affected parties. Displaced persons should be assisted in improving livelihoods or at least restoring them to previous levels</td>
<td>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. 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 serve as before.”</td>
<td>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 ones.</td>
<td>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</td>
</tr>
<tr>
<td>Notification period /timing of displacement</td>
<td>Article 10 of World Bank OP4.12 requires that the resettlement activities associated with 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</td>
<td>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</td>
<td>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.</td>
<td>Displaced persons should always be paid compensation and support before the land is handed over, as per World Bank OP4.12.</td>
</tr>
<tr>
<td>Theme</td>
<td>World Bank Op 4.12</td>
<td>Ethiopian Legislation</td>
<td>Comparison</td>
<td>Recommendations to Address Gaps</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Eligibility for</td>
<td>World Bank OP4.12 gives eligibility to:</td>
<td>Proclamation No 455/2005, Article 7(1) allows landholders’ to be eligible for compensation</td>
<td>According to World Bank OP4.12, eligibility for compensation is granted to “affected parties”. Ethiopian Legislation only grants compensation 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.</td>
<td>The requirements of World Bank OP4.12, as described in Column 1 of this table, expected to be applied,</td>
</tr>
<tr>
<td>Compensation</td>
<td>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 terms of valuing assets if the residual of the asset being taken is not economically viable.</td>
<td>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 labor 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</td>
<td>The World Bank requirement for compensation and valuation of assets is that compensation and relocation must result in the affected person 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.</td>
<td>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</td>
</tr>
<tr>
<td>Theme</td>
<td>World Bank Op 4.12</td>
<td>Ethiopian Legislation</td>
<td>Comparison</td>
<td>Recommendations to Address Gaps</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Responsibilities of the project proponent</td>
<td>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 be done according to the requirements of OP4.12. 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.</td>
<td>for a relocated property continuing its service as before. Valuation formula are provided in Regulation No. 135/2007</td>
<td>The process required for the project proponent / implementing agency lacks descriptive processes in local legislations.</td>
<td>As per the World Bank requirements, project processes includes 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.</td>
</tr>
</tbody>
</table>

See specific measures outlined in Section 6.
3. DESCRIPTION OF SOCIAL AND ENVIRONMENTAL BASELINE CONDITIONS

The environmental and social baseline conditions are described hereunder on the basis of the fact that the locations of the subprojects are distributed in the whole country. Ethiopia is composed of nine regional states and two City Administrations under the Federal Administration. With an estimated population of over 99 million (World Bank, 2016), Ethiopia is the second populated Sub Saharan African country next to Nigeria. The majority of the population in the country resides in rural areas. The following description deals with country overview on social and economic issues as well as regional and city administrations level description on the environmental and social baseline conditions.

3.1 Social and Economic Context

The agricultural sector plays a central role in the economic and social life of the nation and is a cornerstone of the economy. The majority of the Country’s population is principally engaged in agricultural activities (farming and livestock keeping) in rural areas. Most of the population in urban areas generates their income in small-scale trade and business, in informal businesses, such as selling of food and local drinks, marketing of agricultural produces, etc.

Though majority of the population is based in rural areas and about 85% of the population is dependent on a land-based economy (predominantly agriculture), it is expected that the activities proposed under this project are likely to be small and cause minimal negative social impacts.

3.1.1 Socio -Cultural Background

Culture is a reflection of the socio-economic condition of a particular society/community. Different cultural practices are practiced in the country and could influence the socio-economic development the society in either a positive or negative way.

Religion is also another important social activity that plays an important role in the life of a given community /society. In Ethiopia, Christianity and Islam are the two major religions that are practiced widely. Both religions play a significant role in the life of the population. Other religions include traditional religion, animism, and Judaism.
Ethnically, the country has different ethnic groups that are estimated to number over 80. The ethnic groups include: the Oromo, Amhara, Sidama, Wolayita, Somali, Gurge, Kembata, Hadiya, Tigraway and Afar. The Oromo and Amhara are estimated to comprise more than 50% of the country’s total population. Language-wise, Amharic is the most widely spoken language, followed by Oromiffa. Amharic, which has its own script, is the working language of the Federal Government. Similar to the number of ethnic groups, the number of languages is estimated to number over 80.

3.1.2 Land Use

In Ethiopia, most of the people reside in rural and about 85% of the population is dependent on land-based economic activities, predominantly on agriculture. The different land use patterns in Ethiopia include land for agriculture use, mainly for farming (cereal and cash crops). Cereal crops are the major form of crop farming in Ethiopia and occupy the largest proportion of agricultural land. Agriculture takes the largest share and this is a manifestation of the fact that the sector is dominant in the country’s economic sphere. Agricultural land is highly fragmented and the landholding size for farm households on an average is less than 2.5 hectares. Grazing land also occupies a large proportion, mostly in pastoral areas. Forest areas occupy less than 4% of the country’s land area.

Industrial areas and settlements (urban and suburban areas) occupy a very small proportion of the country’s land area. In urban areas, land is mainly used for the construction of different types of buildings for private and public services.

Electricity Network Reinforcement and Expansion Project subcomponent namely Ethiopia Off-grid Renewable Energy and Ethiopia Clean Cooking Energy Program creates improved accessibility of electricity for various land use practices and enhances development activities. Furthermore, reliable electric supply also enhances the performance of the existing land use pattern. Due to expansion of electricity, new and improved technologies, such as improved irrigation pumping, improved poultry farming, modern means of animal husbandry, preservation of products, etc. can be introduced, which will improve or promote agricultural production and productivity.
3.1.3 Economic Activities

Economic activity involves the production of goods and/or services for sale or exchange and production of certain products for consumption and sale. The economic activities undertaken in rural areas are mainly farming and livestock keeping. As agriculture is the main livelihood for the majority of the Ethiopian population, people in the rural areas are involved in this sector. Agricultural activities mainly include farming and cattle rearing which is termed as mixed-farming. This activity is widely practiced in the middle and highland areas of the country. In the lowland areas, on the other hand, rearing of cattle is the major form of livelihood for the pastoralists.

In agriculture, the farming of cereal crops, such as Teff, maize, sorghum, millet, wheat and barley, accounts for the major share of output. The second largest agricultural outputs are cash crops, such as coffee, Chat, and different types of fruits. Urban inhabitants located in the project areas are mainly engaged in various types of small trade and business and employed in public and private enterprises. In some cases, especially people living in the periphery of towns/cities supplement their income by animal rearing, dairy farm, vegetable farming and growing of trees.

3.1.4 Housing Condition

Housing is one of the basic needs for human beings. Housing condition (standard and quality) is one of the manifestations that shows the economic growth of a country, since it has a direct relationship to the economic development and wealth of a nation. Ethiopia’s growing population and rapid rate of urbanization has been exerting substantial pressure on housing. The challenges for lower income households to acquire their own home are twofold: lack of affordable, good quality housing stock and the difficulty of obtaining housing finance. During the past decades, there have been efforts by the government to provide housing for the people in urban areas. The Government had launched an Integrated Housing Programs, which are highly subsidized to enhance private ownership of houses and to create job opportunities that contributed for the improvement of the aesthetic beauty of urban areas.

The condition of houses in rural Ethiopia is at a very low or poor standard. The type and quality of construction materials that has been used for the construction of houses vary from place to
place depending on the availability of construction materials, on the climatic condition of the area, plot size, approved design, etc. In rural areas, most houses are constructed from wood and mud and covered with thatched /grass roof. After identifying the exact location for the program implementation, DBE needs to ensure that the affected households are identified and necessary measures are taken as applicable based on pertinent national and regional proclamations/regulations and the World Bank Operational Policy pertaining to Involuntary Resettlement (OP/BP4.12).

3.2 Broader Physical Infrastructure and Social Services

3.2.1 Road infrastructure

The road infrastructure in Ethiopia has improved during the past years. In 2009/2010 Ethiopia had a total length of 48,800 kms of road which raised to 63,604 km at the end of GTP I in 2014/2015. In this respect, the overall road length of the country become escalated to 110, 414 kms at the end of GTP I with improvements on the accessibility to all weather roads (National Planning Commission, 2008 E.C.). With such an achievement, among others nearly 76% of rural Kebeles of the country have got all weather roads.

3.2.2 Telecommunications

Various efforts have been made by the government of Ethiopia to improve the telecommunication infrastructure and services of the country with increased quality and coverage. The number of customers rose from nearly 7.7 million in 2009/2010 (2002 E.C.) to 38.8 million in 2014/2015 while the clients for mobile telephone grew from 6.7 million to 38.8 million in the same period (National Planning Commission, 2008 E.C.). In the same period, beneficiaries of telecommunication services in rural Kebeles within 5kms radius reached 97% in 2014/2015 as compared to 62.1% in 2009/2010.

3.2.3 Water Supply

In 2014/2015 the coverage of potable water supply in rural areas was 82% while in urban areas it was 91% with average country coverage of potable water supply of 84%. According to the Demographic and Health Survey conducted in 2016, sources of potable water supply in urban
areas of the country and rural areas reached 97.3% and 56.5% of respectively from improved sources of water the largest being piped into dwelling/yard/plot yard (CSA, Oct. 2016).

3.2.4 Education

In 2014/2015, the participation rate of education before regular education, primary school education and secondary education (9-10) reached 39%, 96.9%, 40.5% respectively. Various efforts had also been conducted to improve the quality of education of the country. In this regard, trained teachers for primary education (1-8) and secondary education (9-12) reached 71.37% and 87.3% respectively. Besides, the Government had made extensive efforts to improve and expand Technical and Vocational Education Training (TVET) and higher education.

3.2.5 Health Services

Within GTP I, a number of health posts and health centers had been established as per the standard set. The health coverage in 2014/15 in Ethiopia reached 98% and the family planning service users reached 42% as compared to 15% in 2009/2010. (National Planning Commission, 2008 E.C.). This has implications for the improvement of children and mothers health and overall reduction in the levels of mortality.

3.3 Regional level Environmental and Social Baseline Conditions

3.3.1 Afar National Regional State

3.3.1.1. Bio–Physical Environment

Afar region lies in the arid and semi arid climatic zone within the Great Rift Valley of East Africa with an irregular drainage systems and depressions. It lies in the geographic location between 8°49’ and 14°30’ N latitude and 39°34’ to 42°28’ east longitude. The land area of Afar Region is about 94,817 km², and is divided into five Zones with 32 districts (Weredas) and 401 Kebele administrative structures.

a) Topography

The topography of the Afar region varies from hilly escarpment in the western and southern edges with an altitude of 1,000 – 1,500 masl to low plain land areas in the north east and south
east. The altitude of the lowlands fall on average between 0 – 1,000 masl, while there are some areas below sea level. Over 95% of the Afar Region lies in the altitude range below 1,000 metres. About 8% of the total land area lies below sea level. This region is also known for its lowest altitudinal location (depression) in the world, having depths as low as 114 meters below sea level in the Danakil depression in the northern part of the region.

b) Climate

The region is one of the areas having high temperature and low rainfall. Temperature in the region ranges from a mean maximum temperature of 42.5°C in the area of Doubti Wereda and mean minimum temperature of 17.8°C in the high altitude zone at Gewane. The area has moisture index of less than 0.25 and receives mean annual rainfall of 200 mm.

Severe dry season occurs in May and June at regional level. This season has the hottest temperature. The main rainy season occurs between July and September, while short rain stays between March and April. Rainfall ranges from 500 mm on the western edges of the regional state to 200 mm in the lava plains to the eastern part of the region.

c) Geology and Soils

According to geological map of Ethiopia (1996), the geological formation of the area includes:

- Afar series; mildly alkaline basalt with subordinate alkaline and pre-alkaline silicics (rhyolitic dome and flows and ignibrites);
- Basalt flows, spatter cones and hyaloclastites, (a) Transitional type between alkaline and tholeitic. (b) Alkaline olivine basalt;
- Undifferentiated alluvial, lacustrine and beach sediments;
- Alkali granite and syenite;
- Rhyohitic Volcanic centers, obsidian pitchstone, pumice ignimbrite, tuff subordinate trachyctic flows (alkaline and pre-alkaline composition); and,
- Alluvial and lacustrine deposits: Sand silt clay diatomite, limestone and beach sand.
The major soils of the region in general include:

- Fluvisols /12.57%/ which are fertile and easy to work with (this soil type is found along the river courses);
- Leptosols /20.60%/ (found along plateau margins and steeper slopes) that have rocky characteristics;
- Eutric Regosols /18.88%/ (found on gentle/undulating/rolling, moderate to high relief hills);
- Eutric Cambisols and Vertic Cambisols /8.06%; and,
- Solonchaks /18.72%/ which are typical soils that develop in arid climatic conditions and most plants cannot grow on them.

The soils of the region have limited fertility value. The fertile soils of the region include fluvisols found adjacent to major stream courses.

d) Vegetation Cover and Wildlife

The vegetation cover of Afar in general is sparse and the area is prone to desertification. Over 70% of the land area in Afar region is bare land. The main vegetation types in the region include.

- Juniperous olea forest rising to less than 7m in height;
- Riparian Woodlands/ forest, species constituting varieties of acacia trees;
- Shrub land; predominantly acacia species and prosopis; and,
- Bush land; the dominant species include acacia and balanites species.

Wildlife resource of the region is rich. Wild lives of the area are those that are most adaptive creatures to the arid and semi arid lands of the region.

e) Land use / Land cover

As of 1999, the major portion of the land in the region is bare land (70.09% of the Region’s area) followed by shrub land (13.68% of the Region’s area).
f) Water Resources

There are number of rivers in the region including: Awash, Mille, Kessem, Kebena, Awura, Gulina, Dawie, Borkena, Telalk, Woama, Alaa and other streams. The other major water source of the region is Lake Water source. There are twelve relatively large lakes and five ponds in the region. Two of the largest lakes namely, Afdera Lake and Abe Lake are found in zone 1 and 2 of the Region. The smaller ones includes: Lake Asahle, Lake Dalol, and Lake Gemeri. Groundwater is also the major source for potable water supply in the region.

3.3.1.2. Social Issues

a) Population, Religion and Ethnic Group

The population of Afar region was estimated at 1,559,001 in year 2011, with 873,041 male and 685,960 female. The majority of the population (86.6%) resided in rural areas and the remaining 13.4% in urban areas. The regional population growth rate in the same year was estimated at 4.11% in the urban areas, and 2.23% in the rural. The population density is 21.6 persons/square kilometre on an average. The major ethnic groups of the regional state include Afar, Amhara, Tigre and others. The dominant occupation in the Region is pastoralist. Over 90% of the population is pastoralist community. Afar Region is one of the pastoral areas in Ethiopia, where extensive herding is practiced.

On the other hand, as per the estimations made by the CSA, for the year 2016 (July), the total population was estimated to be 1,769,002 with a male population of 969,001 and female population of 800,001. In the same period, the rural population the urban population was estimated to be comprised 81.5% and 18.5% respectively.

b) Cultural Heritage and Tourism

Afar region is rich in cultural assets. The archaeological findings from the Region have revealed that it is one of the cradles of mankind. The hominid relic of the world renown, “Lucy”, was found in Hadar area of the Region. This site is considered as an attraction area for scientific research to decipher or figure out man’s origin. The research sites such as Hadar and the middle Awash, that consist fossil and handicraft remains of human ancestors, are attractive destinations for tourists all over the world.
There are potential for tourist attraction in the area, including pale anthropologic and wildlife resources as well as the Afar traditional way of life. Ertele and the Afar depression are sites of scientific research both of natural science as well as human civilization. The Yangu Dirasa National park, the Awash National park hosts number of wildlife species for tourism and biodiversity conservation.

The economic benefits from such tourism also termed as “paleotourism” has not yet developed. But it could be known that eleven new sites have been identified to be considered for research and eventually for “paleotourism”.

3.3.2 Tigray National Regional State

3.3.2.1 Bio-Physical Environment

a) Topography

Topography of the Tigray Region is mainly the extension of the central highland and associated western lowlands and is divided into two major blocs; the eastern bloc comprises of highlands while the western bloc is predominantly lowland. Altitudes range from 500 meters up to 3,900 meters above sea level. It is situated between 12°15' N and 14°57' N latitude and between 36°59' E and 40° E longitudes with an estimated area of 53,638 km².

b) Climate

Tigray Region falls within 6 ecological zones (desert, Kola, Woina Dega, Dega and Wurch). Part of the Tigray regional state, that is, the eastern and southern zones, where Mekele is situated receive peak rain in April and August, whereas the western and central part receive single maximum rainfall between June/July to August/September and for the north western part, the wet period runs from April/ May to October/November. The mean annual rainfall for the region ranges from 600 mm in the north-eastern part to 1,600 mm in the western part of Welkait Wereda. Temperature ranges between 16°C and 20°C in the highland eastern and central part while it is 38°C to 40°C in the lowlands of the western zones.
c) Geology and Soil Type

The geology of Tigray comprises low-grade Metamorphic, Paleozoic and Mesozoic rocks. Tertiary volcanic, quaternary deposit and acidic to basic/ultra basic intrusions are also some of geological feature of the region.

Major soil types of the region identified in a study conducted in 1976 is quoted by the Bureau of Planning and Economic Development (Report of 1998) as: orthic Acrisels, chromic and Eutric cambisols, Humic cambisols, Vertic cambisols and Vertic luvisols, Eurthic fluvisols, dystric nitosols, Eutric Nitrosols, Euric rogosols, Haplic Xerosols, Cambic Arenosols, and chromic Andisols.

d) Water Resources

There are three major river basins and a valley in the Tigray Region: Tekeze basin, Mereb basin, Afar basin and Angereb valley. Some of the surface water sources comprise Tekeze River, Sure River, Mai Tell River and Mai Hitsatsa River. Groundwater source is abundant and is the major water supply source in the Region.

e) Vegetation and Wildlife

Due to human interference and early settlements in this part of the country, the major vegetation has been destroyed. Currently the dominant ones are woodland and savannah, junipers woodlands, acacia woodland and savannah.

Accordingly, the vegetation cover of the region is divided into forest, woodland savannah and grassland regions.

The plant species include Acacia trees mixed with savannah, Juniperus trees mixed with savannah, and mixed deciduous woodland. The vegetation cover of the north-western zone of the region comprises of grass land, scattered bush and scrub covered and dense forest covered land. There are protected forest areas in Tahitay Adiabo and Atsgede Tsimbela Weredas of western Tigray zone. This includes Maikohni forest area, Adi Tsetser, Adi Ascere areas and Enda Tanki protected site. The region has varied wildlife species including hyena, tiger, monkey and fox.
### 3.3.2.2 Social Issues

**a) Population, Ethnicity and Religious Groups**

According to the Statistical Abstract of CSA, 2011, the total population of Tigray National Regional State was 4,862,998, out of which 2,363,000 are male and 2,439,998 are female, with an annual growth rate of 3% in urban areas. The density in Tigray Region in this time was 116 persons /square kilometre. There are a number of ethnic groups that inhabit the Region. Tigraway being the major ethnic group, there are also Kunama, Saho, Agew, Argoba and others in smaller proportions.

According to the population estimates of the CSA, for July 2016, the total population of Tigray was 5,151,998 out of which 2,539,997 were estimated to be male while the remaining 2,612,001 were female. In terms of this estimate, 74.2% were rural inhabitants while the balance, i.e. 25.8% was urban inhabitants.

**b) Cultural and Historical Heritage**

Tigray has rich cultural and historical resources and high potential for the tourism industry. In Tigray Region, the colossal obelisks, rock-hewn churches, ruined temples, palaces, mosques, church paintings, stone inscription and manuscripts are some of the ancient Ethiopian properties that have tourist attraction values. The Axum Obelisks, the rock-hewn churches are the major tourist attractions of the Region.
3.3.3 Amhara National Regional State

3.3.3.1 Bio - Physical Environment

a) Topography and Climate

The Amhara National Regional State has diverse topographic features, with rugged mountains, extensive plateau and scattered plain separated by deeply cut gorges, steep slopes and cliffs. The elevation varies from 600 masl at Metema up to 4,620 masl at Ras Dashen.

The Amhara National Regional State is located between $9^\circ\text{N}$ and $13^\circ\text{45'}\text{N}$ North latitude and $36^\circ$ to $40^\circ30'$ East longitude. It is bounded by Tigray in the north, Oromia in the south, Benishangul Gumuz in the west and Afar region in the east. The Regional State is divided into ten Zonal administrations and has a land area of about 161,828 km$^2$ (15% of the land area of Ethiopia).

b) Climate

The climatic condition of the Region is divided into temperate (Dega), subtropical (Woina Dega) and arid (Kola) agro-climatic zones. Mean annual rainfall of the Region varies from 700 mm to over 2,000 mm and the temperature range is between $10^\circ\text{C}$ and $26^\circ\text{C}$. There are two rainy seasons, while short rain occurs during March, May, and April, heavy rain is during June, July and August.

c) Geology and Soils

The Precambrian rocks, Cenozoic rocks and Mesozoic rocks cover most part of the Amhara Region. The soil of the region includes: Arthic Acrisds, cambisols, Rendizinas, phaeozems, Lithisols, Aluvisds, and vertislols. Soil erosion is the major environmental degradation problem in the Region due to lack of vegetation cover and rugged topography. Soils in the Region are highly eroded as compared to other parts of the country. According to a study conducted in 1984 E.C, the quantity of soil loss in Amhara Region was estimated at 1.1 billion tons per year. This accounts for 58% of the total annual soil loss of the country in general during the time.

d) Water Resources

There is an abundant water resource in the Region. The major water resource basins in the region are the Abay River /Blue Nile/, Tekeze River and Awash River basins. There are also several
lakes like Lake Tana, Lake Zengena and Haik. Ground water resource is abundant and it is the major water supply source in the region.

e) Vegetation and Wildlife

The natural forest in the Region is heavily depleted and degraded by intensive human interference, mainly for agricultural purpose and for energy (firewood) production. Currently less than 10% of the total estimated forest area is considered to be natural forest in the Region. The rest are scattered wood lots (planted by individual farmers on different land use types) and plantation forests (those that have been planted for different purposes).

Indigenous tree/shrub in the area include: olea, africana, Juniperous procera, podocarpus falcatus, Acacia species, hygenia abyssinica, ximenia american and Ficus are some of the indigenous plant species diminishing in the area due to human activities.

Wildlife availability among other factors depends on the extent of vegetation cover of a given area. Parks of the Semien Mountains are preserved for the most endangered species, such as Walia Ibex, Semien Fox, Gelada Baboons and different species of birds, most of which are endemic to Ethiopia. Endangered bird species in the region include: Harwood, Francolin and Ostrich.

The Semien Mountain National Park and protected areas of main bird sanctuaries like, Lake Tana, Ankober –Debre Sina mountain, Awi Zone, Choke Mountain, Fogera, Guasa /in Menze/, Jama and Jara valley, Middle Abay valley, Gofa Forest are found in the region.

f) Land Use/Land Cover

As of 2002, the Region is largely covered by grazing land which is followed by cultivable land having 30% and 28.2% respectively of all the area coverage of the region during the time.
3.3.3 Social Issues

a) Population, Ethnic and Religious Group

According to the Statistical Abstract of CSA, 2011, the total population of Amhara Region was 18,528,997, in that 9,292,994 were male and 9,236,003 were female. Out of this, only 10.98% were urban residents while the remaining was rural population. The population density of the region during this period was 119.8 persons/ square kilometre.

As per the population estimates of the CSA, in July 2016 the Region’s total population was estimated to be 20,769,985, which constituted 10,401,995 males and 10,367,990 females. In the same estimation, the rural population was estimated to be 83.2% whereas the urban population constituted 16.8%.

b) Socio-Cultural and Historical Heritage

The Amhara Region is rich in cultural and historical heritages. Very old Monasteries, rock-hewn churches, palaces and castles are found in the region. The Lalibella Rock-hewn Churches, the Gondar Castle that are registered as International Cultural Heritage sites are found in this Region. There are several monasteries in Lake Tana Islands, which is also the origin of Blue Nile (Abay) River. The Blue Nile Falls is found just few kilometres downstream of the Regional Capital, Bahir Dar, which is a tourist attraction site.

3.3.4 The Oromia National Regional State

3.3.4.1. Bio- Physical Environment

a) Topography and land area

The Oromia National Regional State is located in the central part of the country and extends from south-east, bordering with Kenya in the south part and up to the Sudan border in the western part. It has an area of 353,690 km² (32 % of the country). Oromia National Regional State lies between 3° 40’ N and 10° 35’ N latitude and 34° 05’ E and 43° 11’ E longitude.
The topographic features of the Region have been characterized by immense geographical diversity consisting of high rugged contoured mountains dissected by the great African Rift Valley. The high mountains include Tulu Dimtu in Bale (4,307 masl), Kecha (4,245 masl), Ankolo (4,300 masl) in Arsi, Gara Mulata in East Hararge (3,492 masl) and Bada Roge in Shewa (3,350 masl).

The Regional State has topographic features of mountainous and rolling terrain in the north-western and north-eastern parts, valleys and gorges in the central and eastern, flat and plain land in the south and south-eastern part. Altitude in the Region varies from 500 masl in the south eastern part to 4,300 masl in the central and north western parts.

b) Climate

The east and southern parts are dominated by arid climate while the central and north western parts are more of temperate climate. The lowlands (500 - 1,500 masl) experience mean annual temperature of 20°C – 25°C, areas of altitude 1,500 - 2,300 masl have mean annual temperature of 15°C – 20°C, while the highland areas (2,300 - 3,300 masl) have mean annual temperature range of 10°C – 15°C. Mean annual rainfall ranges between 200 mm in the south east to 2,000 mm in the north western part of the Region.

c) Geology, Physiographic Divisions and Seismicity

The major part of Oromia falls in the Great Rift Valley of East Africa and is tectonically unstable. It appears to be a zone of volcanic and seismic activities. There are six physiographic sub-regions in Oromia: the Rift lakes plain, the transitional scrap slopes, the young lava plain, zone of ancient crystalline rocks, the central lava highlands and massifs and zone of Mesozoic sedimentary rocks. The geology of the region consists of: Rocks of the Precambrian era, Rocks of the Paleozoic era, Rocks of the Mesozoic era, and Rocks of the Cenozoic era.

d) Soil

The major soil types of the area constitute Luvisols, Fluvisols, Andosols and Fluvisols are commonly found in the plain lands of river banks and lake shores. This soil type is good for
agricultural use. Andosols are formed from volcanic ash parent material. They are light, loose, porous, have high drain capacity and easily eroded by rain or wind action. Andosols have limited agricultural value. Luvisols on the other hand are good for agriculture.

e) Water Resource of the Region

There is an abundant water resource including surface and ground sources. Oromia possess three major drainage systems or river basins: Rivers that drain to the Blue Nile (Abay) and the Mediterranean Sea, Rivers that drain to the Indian Ocean and the Rift Valley Closed drainage system. Major rivers in the country like Blue Nile (Abay), Jemma, Muger, Guder and Anger Didessa, Awash, Gibe, Wabe Shebele, Dawa, Genale, Weyb, Dabuss, traverse the Oromia Region. Most of the rift valley lakes in Ethiopia, like Lake Langano, Zeway, Abiya ta, and Shalla are found in Oromia. The wetland ecosystem of these water bodies has significant environmental and socioeconomic values.

f) Vegetation Cover and Wildlife

Oromia region possesses most of flora and fauna types found in Africa, and several endemic species. There are about 12 million ha of woodland and bush land covering 32% of the Region. There is also 70 percent of the national forest priority areas located in Oromia: the Munesa (1,385 ha), Tiro Boter Becho (8,500 ha), Menagesha Suba (9,000 ha) are set aside as Nature Reserves.

The region has dense forest cover in the central, south western and western areas, while southern and south-eastern areas are covered mainly by sparse vegetation, bushes and scrubs. The vegetation types are varied including Coniferous forest, broad leaved forest, woodland and savannah, grassland, riverine forests and wetland vegetation.
There are parks and protected sites in the region, including Awash National park (partly), Abijatta–Shala National Park, Bale Mountain National Parks, Yabelo mountains, Controlled hunting zone of Borena, wildlife Reserves (Sanctuaries) of Babile, Senkele, and Yabelo. There are also Game Reserves in Arsi, Bale and Borena with over 20 Main Bird Sanctuaries. Those parks and protected areas host variety of wildlife and important bird species. Wide varieties of wild animals exist in the Region. It includes, Mountain nyala, the Giant molerat, Ethiopian Wolf, Minilik’s Bushbuck, Bohor reed buck, Grey duiker, Oribi, Klipspringer, Grant’s Gazelle, Greater Kudu, Lesser kudu, Swayen’s hartebeest, Gerenuk, Burchell’s Zebra, Warthog, Giant forest hog, Bush pig, Colobus, Monkey, Anubis baboon, Spotted hyena, Serval cat, Lion, Leopard, Golden jackal and African Hunting.

3.3.4.2 Social Issues

a) Population, Ethnic and Religious Group

According to the Statistical Abstract of CSA, 2011, the total population of Oromia National Regional State was estimated to be 30,397,990 (15,309,996 were male and 15,087,994 were female). Ethnic group residing in the region is also varied, the majority being Oromo, followed by Amhara, and several other ethnic groups. The density of the population is 106.8 persons/square kilometre.

For the year July 2016, the CSA estimated the total population of Oromia National Regional State as 34,575,008 that comprised of 17,345,004 male and 17,230,004 female. In this estimation, the urban population and the rural population constituted 85.2% and 14.8% respectively.

b) Archaeological and Cultural Heritages

The Sof Oumar Cave, the Aba Jiffar Palace, etc are found in the Oromia National Regional State as sites of cultural heritage. The Sof-Omar caves in central Bale, with their galleries of polished white cone and chamber of columns are the incredible natural phenomena of great interest and beauty. The palace of Aba Jifar in Jimma is another historical attraction.
In general, Oromia National Regional State is rich in tourist attraction resources that could be categorized into the following major categories—

- Natural forests with wide range of wild plant species;
- Wild animals and birds of various species including endemics;
- Several rivers with their multiple spectacular waterfalls;
- Rift valley lakes and highland crater lakes;
- Magnificent landscape scenery (mountain chains, river gorges);
- Diversified local cultures with their distinct ethnography, art, traditional practices;
- Historical heritages; and,
- Natural wonders of unique forms.

3.3.5 Benishangul Gumuz National Regional State

3.3.5.1 Bio-Physical Environmental Conditions

a) Topography

The Region is stretched along the western escarpment of Ethiopia that is bounded by Gambela Region in the south, the Sudan in the west and Amhara and Oromia Regions in the northeast and east. Benishangul Gumuz Regional State has an altitude ranging from 600 masl up to 2,000 masl and has a topography dominated by river valleys which either join the Abay River before it enters the Sudan.

The areas around Wonbera are characterized by rugged mountain ranges like Gassangassa mountain range, Bedessa & Kushaya Mountains. The road route traverses flat terrain from the Guba side while the segment from the Wonbera side has rolling terrain & hilly topographic character.
b) Climate

The climatic condition of the area is varied, like most part of the country. It has climatic condition of 85% Kola (Hot climate), 10% Woina Dega (Semi –Temperate) and 8% has Dega (Temperate) climatic conditions. The annual rainfall in Metekel zone of the Region ranges from 600 mm to 1,450 mm. The rainy season stays from April/May up to October/November. The dry period is between February and April. Annual temperature of Metekel zone ranges between 18°c and 40°c.

c) Geology and Soils

The geological formation of the area is characterized by Tulu Dimtu Groups and Tonalities. Meta Basalt, Meta Andesine, green schist, phyllite, Meta conglomerate, quartzite and Marble, precious materials like Gold are also available in the area.

The region’s soil is fertile and has high agricultural potential with favourable agro-climatic conditions. It is estimated that 911,876 ha of land in the region has potential for agricultural development, out of which only 233,200 ha could be cultivated.

d) Water Resources

The region has high water resource potential. Abay/Blue Nile, Didessa and Beles Rivers are among the major water sources in the region. There are over 32 perennial rivers in Metekel Zone, most of which have potential for irrigation.

e) Vegetation and Wildlife

Benishangul Gumuz National Regional State is endowed with a variety of natural resources. Over 50% of the land is covered with natural forest, which also has commercial value. The woodlands in the Region are the Doqma woodland, the Sudanian woodland, palms and bamboo and riverine forest.
Benishangul Gumuz region lies in the Abay and Baro drainage basin and is one of the few areas that still have significant part of its landmass covered by natural vegetation. It is estimated that 55% of the land is covered by Bamboo, broad-leaved deciduous woodlands, acacia & cacao woodlands. Riverine forests are predominantly found along the river courses. Some of the tree species found in the area are endemic ones for Ethiopia.

The Region has varied wild life species. Wild animal including Elephant, Giraffe, Rhinoceros, Hippopotamus, Buffalo, Roan antelope and Hartebeest, Lion, Tiger, Patas monkey and Anubis baboon are found in the region. Estimates indicate about 40 species of larger mammals, while the bird species are estimated to be 500-550. Game Reserve and main bird Sanctuary of Dabus is found in the Region.

f) Land use/Land cover of the Region

As of 2002, Woodland and scrublands are the two largest shares of land use with 49% and 28% respectively.

3.3.5.2 Social Issues

a) Population, Ethnic and Religious Group

According to the Statistical Abstract of CSA, 2011, the total population of Benishangul Gumuz was 938,996 (476,999 male and 461,997 female). The annual population growth was about 3.1%. In the same year, the urban population was only 8.5% while the remaining was rural. The density of the population in the Region is 18.5 persons/square kilometre. There are a number of ethnic groups that inhabit the Benishangul Gumuz Region. The major ethnic groups are Berta (26.7%), Gumuz (23.4%), Shinasha (6.9%), Amhara (22.2%), Mao (0.8%) and Oromo (12.8%). The major religious groups are Orthodox Christianity (34.8%), Traditional Religion (13.1%), Protestants (5.9%) and Moslems (44%).

On the other hand, the number of population estimated for July 2016 by the CSA was 1,033,999 i.e. 524,000 male and 509,999 female. As per this estimation, the rural population constituted 79.2% while the remaining 20.8% was estimated to be urban population.
3.3.6 Gambela National Regional State

3.3.6.1 Bio-physical Environment

a) Topography

The Gambela National Regional State is situated in the south-western part of Ethiopia at 7° N - 8° 17’ North latitude and 33° E - 32° 2’ East longitudes. The altitude of Gambela lies between 300 and 2,500 masl.

b) Climate

Gambela is subdivided into three agro ecological zones: Woina Dega, Kola and desert agro – ecological Zones. In general, the Region has warm temperature ranging from 27°C to 33°C. However, temperature as high as 45°C occurred in March and as low as 10°C in January had been recorded.

The average annual rainfall varies according to the different altitudes. Areas of 400 - 500 masl of the western part receive 900 mm - 1500 mm, while areas over 2,000 masl (eastern part) have average rainfall ranging from 1,900 to 2,100 mm.

c) Geology and Soils

The Gambela Region falls within the Baro-Akobo River Basin which consists primarily of basement crystalline with eastern upland covering tertiary lava in some places and Quaternary sediments in the lowlands to the west.

Mineral resources of the area include gold, tungsten, granite, crude oil and construction material. The area is dominantly covered by alluvial and lacustrine deposits: Silt, sand, clay, diatomite, limestone, Enticho sandstone, Glacials, Gura and Filo formations and sand stones.

The soils of the region are divided into two major classifications as upland soils and fluvisols (along the river course). The soil fertility is very high and not been exploited much.
d) Vegetation and Wildlife

Gambela Region is endowed with vast natural resources. The main habitats of Gambela Region are forests, woodlands, swamps and rivers. Out of the total area 25% of the land is covered with forest. Savannah, tropical forests and seasonally flooded grass plains also inhabit the area. The eastern part of the region is covered with natural high forest. Woodlands, bush lands and Savannah woodlands inhabit the central plain lands of the region with altitudes below 600 masl.

The dominant tree species include: Acacia, Cambretum species, Terminalia coxifera, Sonogisus reiccarpa, Kegelio africanas, and Albizia cordiaria. From grass species; Beckeropsis uniseta and Hyparrhenia rufa are some to mention. Abobo-Gog natural forest is one of the 58 most important natural forests classified as National Forest Priority areas, by the Ethiopian forestry action plan (as reported in the Baro - Akobo master plan study). There are also four other sites in the region that are identified as natural forest areas.

The Gambela National park, Mago National park and three controlled hunting areas: Jikawo, Akobo and Teyu sites are found in the region. The Gambela national park is the largest park in the country and accounts for 20% of the land area of the region. The remaining controlled hunting areas of Jikawo and Teyu also occupy similar sizes of land area.

Those areas are habitat for over 300 bird species of which 100 are migratory and over 60 mammals. The major wildlife species conserved in the lowland plain are Roan antelope, White-ear kob, Nile lechwe, Topi, Elephant, lion, Leopard, hippopotamus, Warthog, Giraffe, Defas, Water buck, Buffalo, Pig, Civet, Lelwel Hartebeest, etc. Reptiles such as Tortoise, fish (Nile perch) and Crocodiles are found in the Region.

Nile lechwe and the White eared kob are unique to that area. They are also trans-boundary that migrates between Ethiopia and South Sudan.

e) Land Use and Land Cover

The major settlement area is the riverbanks for both urban and rural communities. Due to this situation, the population is frequently affected by flood calamities. As of 2000, the two major
land uses were open wood land and disturbed forest with a percentage share of 41% and 20.87% respectively.

f) Wetlands and Water Resources

Gambela Region is the wettest and best watered area in the country. There are five major rivers, namely, Baro, Akobo, Itang, Gillo and Alwero Rivers that are also trans-boundary. There are also several lakes and ponds in the Region, such as, lakes Tata, Wagan and Nitang which are cut-off lakes, so called because they have been formed when bends, branches and arms of the main river have been cut-off by sediments or changes in the direction of the main river channels.

These water sources feed the Gambela flood plain, which is the largest low laying wetland in the Baro - Akobo River Basin. Both migratory and residential birds inhabit the wetland and are one of the tourist attraction sites in the area. The flood plain of the two rivers, Gillo and Akobo form important wetland ecosystems. Wetlands support a wide range of biotical, hydrological, and physical processes which result in ecosystem function and the provision of valuable goods and services.

3.3.6.2. Social Issues

a) Population and Ethnic Group

According to the Statistical Abstract of CSA, 2011, the population of the Region was 368,999 (191,996 male and 177,003 female). Out of the total population, 17% lived in urban areas while the remaining 83% are rural residents during this time. Linguistically the population comprises mainly of Omotic, Cushitic and Nilo-Saharan, although Semitic origin also exists. The major ethnic groups are Agnuaq, Nuere, Megengir, Coma and Oppo. The population density of the region in 2011 was about 12.4 per square kilometre.

According to the population estimates made by the CSA, as of July 2016, the Region’s total population was estimated to be 422,002 having 220,000 males and 202,002 females. As per this estimation, the rural population constituted 66.8% and the urban population constituted 33.2%.
3.3.7 Somali National Regional State

3.3.7.1 Bio-physical Environment

a) Topography

The Somali National Regional State is located between 4\(^{0}\) and 11\(^{0}\) North latitude and between 40\(^{0}\) and 48\(^{0}\) East longitude in eastern Ethiopia, which lies to the southeast of the Great African Rift Valley. The region has entirely flat terrain except some hills with gentle slopes around Jigjiga and Togo Wuchale, and along major river courses. The altitude ranges between 500 to 1,600 masl. The major land area of the region falls below 900 masl.

b) Climate

The rain in the Region has been generally low, unreliable and unevenly distributed. When rain occurs it is torrential and is of high intensity. The annual rainfall is between 200 mm and 530 mm for the Region as a whole. The mean annual rainfall is 425 mm. The annual potential evapotranspiration ranges from 1,800 mm in the lowlands to 800 mm in the highlands.

The major part (60\% to 80\%) falls within hot and arid climate. Temperature ranges between 20\(^{0}\)C and 45\(^{0}\)C. The region is characterized by strong wind circulation, which can cause and aggravate soil erosion and water moisture losses. The mean annual wind speed varies between 1.8 miles/sec in the highlands and 3.6 miles/sec in the lowlands.

c) Geology and Soil Type

The geology of the Region is dominated by alternating limestone, shale, anhydrite, dolomites and marl. The land surface is sandy and often coated with reddish soil and calcareous crust typical of desert area. Minerals like edible salt, gold and natural gas also occur in the region.

The dominant soil types of the region are Yermsol, Xerosols, Regosols, and solonchakes. Minor parts have fluvisols and Vertisols, Cambisols and Luvisols. Soil erosion has been a serious problem in the region and is caused by the action of wind and water.
d) Water Resources

The region is divided into four basins: the eastern Ogaden basin, the Wabe Shebele basin, the Genale Dawa basin and part of the Awash River basin. The area receives a bi-modal rain fall: March - May and September - November. Most of the streams in the region are ephemeral and are characterized by short duration and high intensity of flood. However, perennial rivers like Wabe Shebele, Weyb, Genale and Dawa are also available in the region.

e) Vegetation and Wildlife

Endemic flora species in the Somali region represent 25% of the flora in Ethiopia, of which 18% are unique to the region. Among the largest plant families are graminacea, leguminacea, and euphorbicea. The main climax vegetation classes in the region are: acacia based woodlands, acacia comiphora bush lands, evergreen scrubland and riparian forest.

There are also a number of mammals, birds, reptiles, amphibians, fishes and invertebrates uniquely adapted to the arid and semi-arid conditions. Wildlife animals include lion, hyena, leopard, fox, hunting dogs, crocodiles and various types of snakes. Hunted wild animals include Bicids, Balango, Goodir, Dabatag, Zebra, Baboon, Hippopotamus, Ostrich, Monkey and Elephant. There are also a number of birds such as, degodi lark, little winged dove, Somali short billed crombec, Jubaland weaver, little brown bustard and white winged collared dove.

f) Land use / Land cover

In 1999, Grassland and scrubland were the two types of land use with land coverage of 56.8% and 22.2% of the Region’s total area.

3.3.7.2 Social Issues

a) Population and Ethnic Group

According to the Statistical Abstract of CSA, July 2011, the total population of Somali National Regional State is 4,986,004, out of which, 2,773,001 are male and 2,213,003 are female. The Somali National Regional State is divided into nine administrative zones, 53 Weredas and 67 urban centres. Majority of the population are pastoralists and the social organization of the
Somalis is based on clanship. Over 86% of the population is rural. The region is sparsely populated with an average density of 12 persons per km².

The total population estimates of the Region conducted by the CSA for the year July 2016 was 5,598,002 i.e. 3,023,000 males and 2,575,002 females respectively. The rural population of the Region in the same year constituted about 85.5% while the urban population comprised about 14.5%.

Somali and Issa are the major ethnic groups, while Oromos, Amharas and Gurages are also found in the urban areas of the Region.

The settlement pattern of the Somalis is characterized as group and temporary. In areas suitable for agriculture, Somalis settle permanently. The seasonal availability of water and pasture as well as the rapid exhaustion of the pasture owing to overgrazing often causes mobility of the pastoralist population.

b) Social Aspects

The social organization of the Somali society has a pyramidal structure formed by lineage segmentation levels. The segment levels are known as: Reer, Jilib, Qabil and clan families or group. Each lineage segment constitutes a separate social and political unit having definite members with a territory under it (SNRS, conservation strategy, 1999, cited in EEPCo, 2011).

The Somali are predominantly pastoralists and their settlement pattern and their life style is influenced by the same mode of occupation. They are mobile in settlement, which is mainly guided by the need of their cattle herds. As a result a densely populated area at one season can be easily deserted at other times. The Somali have divided themselves into two major lineages of Sab and Somali. The former constitutes hunters, gatherers, and agriculturists.

Among the pastoralists, mostly wealth is not held by individuals but by families. Water and pasture is commonly owned. Agriculture plots are held by families. The development of exchange and marketing in Somali has been limited by tribal conflicts, low level of interaction
between rural tribe and towns and lack of transport. Craft heritages are generally made for own use, few are sold to tourists. Since the Somali pastoralists have been isolated from the central highlands, there has been much lesser degree of acculturation. Division of labour among the Somali is based on gender differentiation. Women are exclusively responsible for job like building nomadic huts, preparing food, collecting firewood, fetching water, milking cows and small ruminants, etc. While males are culturally assigned to perform out – door tasks like herding, watering, farming and mediating.

The economic base of the region is dominated by pastoralist society. Livestock is the major economic earning for the Somali population. The rural population earns 40% of their income from livestock, 26% from crop production, 14.4% from trade and 7.4% from gifts availed from others (IPS, July 2000, cited in EEPCo, 2011).

3.3.8 The Southern Nations, Nationalities and Peoples Regional State

3.3.8.1. Bio-physical Environment

a) Topography

The Southern Nations, Nationalities and Peoples’ Region lies on surface area of 117,500 km². The Regional State is located between 4° 25’ - 8° 20’ North latitude and 34° 20’ - 38° 50’ East longitude. Altitude ranges from 400 masl in the southern part up to 4,200 masl in the northern part of the regional state. The physiographic feature of the region is divided in to highlands in the north and rift valley and lowland in the south.

b) Climate

The region’s climatic conditions vary from place to place. It has semi-desert climate in the southern extreme of the Kenya border, tropical climate in the northern highlands, and warm temperate in the mountainous areas of north Omo zone. The mean annual temperature and mean annual rainfall are 24°C and 600mm respectively, in the semi desert climatic zone, the warm temperate climatic zone of north Omo has mean annual temperature of less than 18°C and mean annual rainfall of 2,500 mm.
c) Soils Type

The soils of the region constituted the following:

- Luvisols and phaeozens that cover most of the zones of the region;
- There are also Lithosols, Arenosols and Regosols, fluvisols, Andosols, Vertisols and Cambisols; and,
- Soil fertility is high in the region and is suitable for cereals, root crops, coffee and vegetables.

d) Vegetation and Wild life

The Region is characterized by dense natural forest and rich wildlife resources. The forest resource is mainly situated in Kafa and Bench Maji Zones and in the southern part of the Region. The most common groups of vegetation include broad leaved deciduous woodland, evergreen scrubs, dry evergreen Montana forest and grasslands, acacia – commiphora woodland.

There are several National Parks in the Region. They include Nech Sar, Mago and Omo National Parks, Tama wildlife reserve and Chew Bahir wildlife reserve and all the rest of the southern parts are designated as controlled hunting areas except a small section between Akobo and west of Omo in which wildlife ranging from birds to big mammals exists.

The wildlife of the region include: Giraffe, Common eland, Buffalo, Elephant, Greater kudu, Lesser kudu, Burchell’s zebra, Grant’s Gazelle, Guenther’s Dikdik, Crocodile, Hippopotamus, Swayne’s Hartebeest, Orbi, Bohor Reebuck, Genet, African Hunting dog, Black backed jackal, Colobus monkey, Oryx, Lion, Gerenuk and Ostrich.

e) Water Resources

There are abundant water resources both from surface and sub surface sources. Surface water resource of the Region include rivers like Omo River, Dincha, Gojeb, Segen Gibe River, Bilate River, Awash River, While Rift valley lakes like Hawassa Lake, Chamo Lake and Abaya Lake are also found in the region.
3.3.8.2. Social Issues

a) Population and Ethnic Groups

According to the Statistical Abstract of CSA, 2011, the population of the regional state is 16,848,011 (male accounts for 8,385,003 and female 8,463,008), accounting for 18.5% of the total population of Ethiopia. The majority of the population (Over 87%) lives in rural areas while the remaining 13% are urban residents. As per the population estimates of the CSA made for the Region for July 2016, the total population was estimated to be 18,719,008 with 9,278,004 male and 9,441,004 female. The percentage of population lived in rural areas in the same year was 83.9% whereas the remaining 16.1% lived in urban areas. The population density of the Region is 159.1 persons per square kilometre.

The region is known for its diverse Ethnic composition. There are about 45 ethnic groups residing in the Region, constituting over 50% of the total ethnic groups of Ethiopia.

Most of the populations living in the rural areas of the Region are mainly dependent on agriculture and pastoralist economy, while trade and other businesses are the principal practices in the urban areas.

b) Cultural and Historical Heritage

There are cultural heritage sites like the Tiya monuments and the Omo valley archaeological site.
3.3.9 The Harari National Regional State

3.3.9.1. Bio-physical Environment

a) Topography

The Region is divided into highlands and low lands (valleys) with elevation ranging from about 1,300 to 2,200 masl, falling in slope gradient gradually towards the south east direction of the region and the lowest elevation of about 1,300 – 1,350 masl occurs at Kille farmer’s association (Kebele). On the other hand, the Aw-Hakim Mountain located at the southern margin of the region forms the highest peak (2,200 masl). The Regional State is located between 9° 11’ 49” - 9° 24’ 42’’ North latitude and 42° 03’ 30’’ - 42° 16’ 24’’ East longitude.

b) Climate

The rainfall pattern of the region has bi-modal type. The first peak is in April – May and the second and main peak occurs in July–August. The mean annual rainfall is 669 mm.

c) Temperature

The mean annual daily temperature at Harar weather station is 19.5°C.

3.3.9.2. Social Issues

a) Population and Population Characteristics

According to the projection made on the basis of the medium variant, the total population of Harari National Regional State in 2011 was 203,438, out of which, 102,369 are male and the rest 101,069 are female. The size of urban dwellers is 107,592 and the rest 95,846 are rural population. The growth rate according to the CSA report was 2.06 percent. With an estimated area of 311.25 square kilometres, this region had an estimated density of 589.05 people per square kilometre during the same period. The ethnic groups in the region include the Oromo, Amhara, Harari, Gurage, Somali, Tigraway and Argoba that constituted 56.41%, 22.77%, 8.65%, 4.34 %, 3.87%, 1.53%, and 1.26%, respectively. The religion with the most believers in the region during the same period were Muslim with 69.99%, Ethiopian Orthodox 27.1%,
Protestants 3.4 %, Catholic 0.3% and others 0.2 %. The Harari language is the official working language of the Region.

According to the population estimates made by the CSA, in July 2016, the Region had an estimated total population of about 240,000 in that males and females constituted 121,000 and 119,000 respectively. The rural population in the same period constituted about 44.5% while the urban population comprised of 53.5%.

b) Tourist Attraction Sites

The tourist attraction sites in the region are:

- The Jugal Wall;
- The narrow streets inside Jugal;
- The Hyena feeding;
- Harla Village;
- Abadir Cave; and,
- Traditional worshipping places.

Some of the museums in the region are:

- Arthur Rimbaud;
- Harari Cultural Centre;
- Sheriff Harar City museum; and,
- Harar National museum.
3.3.10 Dire Dawa Administrative Council

Dire Dawa Administrative Council is located between 9° 27’ N and 9°49’ N latitude and 41°38’E and 42° 19’E longitude. East Hararge Administrative Zone of Oromia National Regional State borders it in the south and southeast and Shinele Zone of Somali National Regional State in the north, east and west. The total area of the Administrative Council is about 128,802 ha; out of this urban accounts for 2684 ha (2%) and the balance 98% is for rural (Dire Dawa Administration, July 2006).

3.3.10.1. Physical Characteristics

a) Physiography

The physiography of Dire Dawa Administrative Council embraces mountains, hills, valleys, river beds and flat plains. The mountain ranges are mainly found in the southern parts of the Administrative Council having a slope of above 45 per cent while the hills are scattered over the Administrative Council with slopes ranging between 16 and 30 per cent (Water Works Design and Supervision enterprise, 2003, cited in Ministry of Federal Affairs, February 2004). On the other hand, the flat plains, which are mainly used as grazing and browsing ground for the livestock of the pastoralists are found in the northeastern and northwestern part of the Administrative Council having slopes ranging between 0 and 3 per cent (ibid.). The valley areas and the riverbeds are used as rain fed and irrigated crop production with an average slope ranging between 0 and 3 per cent.

b) Land Use

The land use systems of the Administrative Council can be classified on the basis of agro-ecological conditions- crop, livestock and tree production components and socio-cultural and economic characteristics. The cereal farming system occurs in the valley areas whereas the agro-pastoral systems occur at the foothills of the mountains particularly in the southeastern part (Water Works Design and Supervision enterprise, 2003, cited in Ministry of Federal Affairs, February 2004). According to the information obtained from the Agricultural Bureau of the Administrative Council, cultivated land, grazing/pasture land, forest and marginal land covers

### 3.3.10.2. Social Issues

#### a) Population

According to the population estimates made by the CSA, as of July 2016, the population of Dire Dawa Administrative Council had been estimated to be 453,000 having 227,000 male and 226,000 female. In the same period, the urban population of the Administrative Council has been estimated as 62.91% while the remaining 37.1% constituted rural population.

According to the 2007 census result, the major ethnic groups of the residents of Dire Dawa administrative council were found to be 45.9% Oromo, 20.2% Amhara, 24.3% Somali, 4.5%, 1.2% Tigray and 3.9% others. Amharic is the working language of the administrative council. From same census, the religious composition of the population of Dire Dawa administrative council indicates that 70.8% were Muslims, 25.7% Orthodox Christians, 2.8% Protestants, 0.4% Catholics, and 0.3% followers of other religious groups (CSA, 2007).

#### b) Tourist attraction sites

The city of Dire Dawa has been considered as one of the tourist attraction sites of the country. Besides, its natural and urban character, the city and its surroundings have several tourist attraction sites as discussed in the following paragraphs (Ministry of Federal Affairs, February 2004).

##### i) Natural Sites

- Dangago landscape scenery, and the fauna and flora of the woodlands located in Geldessa, Gerba Aneneo and Chirmite Kebele Peasant Associations are the potentials of eco-tourism; and,
- Hot Springs: the existence of a hot spring at Gerba Aneno Peasant Association in a stream locally known as Hartu is another potential that serves as healing and resorting (WWDSE, 2003, cited in Ministry of Federal Affairs, February 2004).
ii) Archaeological Sites

According to the study made by the Water Works Design and Supervision Enterprise (2003, cited in Ministry of Federal Affairs, February 2004), the Administrative Council of Dire Dawa has the following two caves with stalactite and stalagmite formations and prehistoric paintings that are situated in the south of the city:

- Laga-Oda ancient caves are located some 38km away from the center of Dire Dawa in the Gunin Feta Peasant Association to the southwest. It consists of prehistoric paintings of human beings and animals. There are also written records on the walls of these caves; and,
- Hinkuftu Cave is located at the proximity of the city in a locality called Addis Ketema.

iii) Historical Sites

- Africans Graveyard- constructed in memory of members of the British Air Force and African soldiers, who sacrificed their lives against the Italian invasion is located close to the center of the city in Keftegna 1, Kebele 05;
- Italian Mosque, built by the Italians during the Italian invasion, located at the foothill of Ganda Gara (Legehare) is also considered as a historical and religious heritage;
- Ancient Catholic Church- that was built 125 years ago is located at Biyo Awale Kebele Peasant Association some 20 km from the city of Dire Dawa to the southeast;
- Ancient Railway Station offering significant economic advantage for the city and the country at large has been viewed as an important tourist site;
- *Kefira* Open Market- located in the south of the city is viewed as a traditional market place that accommodates a wide variety of goods;
- *Camel* Market- located at Keftegna 3, Kebele 13 is fascinating and colorful as *Kefira* Open Market;
• Italian Fort- located on top of *Genda Gara* Hill, is considered as one of the historical sites of the city. Besides to its importance as historical site, it has been serving as an ideal site for viewing the panoramic view of Dire Dawa; and,

• Abeyaziz Mosque- located in Hulul Mojo Peasant Association, some 25km away from the city, is believed to have over 500 years.

**iv) Ethno-Tourism**

Dire Dawa city is inhabited by people of diverse ethnic groups such as Amhara, Oromo, Somali, Harare, Tigraway, Gurage, etc. who are living in harmony with each other. This has brought the co-existence of different cultures of these nations and nationalities, which is also one of the centers of attraction for tourists.

**3.3.11 Addis Ababa City Administration**

**3.3.11.1. Physical Characteristics**

**a) Location and Topography**

Addis Ababa is located at 9°1′48″N latitude and 38°44′24″E longitude. The city is located at the heart of the country at an altitude ranging from 2,100 meters at Akaki in the south to 3,000 meters at Entoto Hill in the North. The average altitude of the city is 2400 meter above sea level. This makes Addis Ababa the third from the high elevation city of the world following La Paz and Quito in Latin America. The city occupies a total area of 540.Km² (Addis Ababa City Administration, no date).
b) Climate of the City

Addis Ababa has a Sub-tropical highland climate (Koppen Cwb). The city has a complex mix of highland climate zones with average temperature differences of up to 12.2° C, depending on elevation and prevailing wind patterns. The high elevation moderates temperatures year-round, and the city's has experienced constant temperatures throughout the year (ibid.).

3.3.1.2. Social Issues

a) Population

As per the projections of the CSA, in 2006 E.C., Addis Ababa city had a male population of 1,515,000 and female population of 1,680,000 with a total of 3,195,000 population (CSA, no date, cited in Addis Ababa City Administration). As capital city of the country, Addis Ababa is a city where almost all-ethnic groups live in. Regarding religion, according to the 2007 census, 74.7% of the population is Orthodox Christians, 16.2% Muslims, 7.8% Protestants, 0.5% Catholics, and 0.8% followers of other religions (CSA, 2007).

b) Heritage and related issues

Addis Ababa City Administration has various tourist attraction sites. These include 270 historical places, 246 heritage sites, 22 museums, 35 galleries and 90 libraries (Addis Ababa City Administration, no date).
4. SOCIO-ECONOMIC IMPACTS and MITIGATION MEASURES

4.1 Introduction

This Chapter of the RPF provides information on the potential impact and likely project affected persons that could be displaced or affected in the course of the Ethiopia off grid Renewable energy and Ethiopia Clean cooking energy programs in the targeted areas of the country. The Off-grid Renewable Energy Program is designed to finance post-scale and post-warranty services for solar products, including battery replacement. It will also help the operation and maintenance of solar technologies, including solar home systems, solar PV mini-grids and solar lanterns. On the other hand, Clean Cooking Energy Program focuses to support the shift from non-renewable biomass to biogas as a cooking fuel. These two programs comprise the sub projects namely, Solar Home system and solar PV mini-grid installation, availing of Solar Lantern and Biogas installation. These programs are designed to be implemented under the supervision of Development Bank of Ethiopia (DBE) in collaboration with Ministry of Water, Irrigation and Electricity (MoWIE), the selected PSEs and MFIs.

The actual implementation sites of these sub projects are not yet known. In this regard, the potential impacts described below are those anticipated at this time and indicative to serve as a guideline for a thorough assessment of environmental and social issues. Given the nature and scale of the sub projects and the respective activities, there will be both positive and negative impacts associated with the mentioned subprojects. Considering the potential sub project activities and small area required within beneficiaries’ homestead, except for the PV mini-grids, the programs could be generally characterized as small scale in nature with minimum environmental and social impacts that generate to the nearby physical and social environment.

The solar lantern (lamp) and the solar home systems do not require land acquisition and Biogas plants are implemented in the beneficiaries homestead and acquire a very small amount of area, which is less than 12 m² for Biogas sub project. For the solar home system, very less active area for roof top solar panel will be used and lantern energy provision will be made at the beneficiary
level. For the solar PV mini-grid, land may be required for the installation of the solar panels, mini-grids and construction of power house to store batteries and equipment.

4.2 Positive Socio Economic Impacts

Broadly speaking, the nature of the proposed two programs are expected to be environmental friendly and socially acceptable. It will benefit the whole nation in general and the target community members in particular. The table below summarizes the anticipated positive socio-economic impacts resulting from the Off-grid Renewable Energy and Clean Cooking Energy Programs.
Table 3: List of positive socio-economic and environmental impacts

<table>
<thead>
<tr>
<th>Positive Impacts/Benefits</th>
<th>Program Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Off grid Renewable Energy</td>
</tr>
<tr>
<td><strong>POSITIVE SOCIO-ECONOMIC IMPACTS</strong></td>
<td>√</td>
</tr>
<tr>
<td>• Poverty reduction by lowering households’ expenditure for kerosene.</td>
<td>√</td>
</tr>
<tr>
<td>• Improve engagement in education by permitting more evening study time for students and</td>
<td>√</td>
</tr>
<tr>
<td>women will be socially more empowered by using free time for education, productive and</td>
<td></td>
</tr>
<tr>
<td>social activities</td>
<td></td>
</tr>
<tr>
<td>• Health benefits-Improve access to reliable lighting and reduce in indoor air pollution</td>
<td>√</td>
</tr>
<tr>
<td>due to soot or particulate matter typically associated with the combustion of firewood</td>
<td></td>
</tr>
<tr>
<td>and charcoal, from kerosene lamps, which resulting health benefits with respect to</td>
<td></td>
</tr>
<tr>
<td>respiratory and eye diseases. Moreover, the reduced expense for kerosene, charcoal and</td>
<td></td>
</tr>
<tr>
<td>fertilizers can now be used to cover medical expenses when required.</td>
<td></td>
</tr>
<tr>
<td>• Create direct or indirect, local or regional job opportunities; thereby create income</td>
<td>√</td>
</tr>
<tr>
<td>generation means for respective communities and support the development of high value</td>
<td></td>
</tr>
<tr>
<td>skills.</td>
<td></td>
</tr>
<tr>
<td>• Improved social interaction, for instance families can spend more time together even</td>
<td>√</td>
</tr>
<tr>
<td>when the sun goes down and have longer time to use charged mobiles phones to interact</td>
<td></td>
</tr>
<tr>
<td>with others.</td>
<td></td>
</tr>
<tr>
<td>• Improve sanitary and health conditions as Biogas plants serve as methods of disposal</td>
<td>√</td>
</tr>
<tr>
<td>for waste and sewage which contributes to a better hygienic situation for the users</td>
<td></td>
</tr>
<tr>
<td>• Improve local market opportunities and living conditions of the community.</td>
<td>√</td>
</tr>
<tr>
<td>• Women’s reduced burden for fuel wood gathering.</td>
<td>√</td>
</tr>
</tbody>
</table>
## Positive Impacts/Benefits

<table>
<thead>
<tr>
<th>Positive Impacts/Benefits</th>
<th>Program Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Increase crop yields by enriching soil fertility and reduce costs to farmers where (synthetic) fertilizers were used originally.</td>
<td></td>
</tr>
<tr>
<td>• Improve access to social services and related service delivery (for instance education and health)</td>
<td>✓</td>
</tr>
<tr>
<td>• Income benefits from access to electricity through new opportunities of work and increased productivity in new home businesses especially in nonfarm activities.</td>
<td>✓</td>
</tr>
<tr>
<td>• Access to mobile phone charging for households without access to the electricity grid, with benefits for study, work, and leisure, domestic benefits of watching/listening TV/radio with implications on enhancing income particularly for those who will engage in certain businesses.</td>
<td>✓</td>
</tr>
<tr>
<td>• Strengthen private sector involvement in renewable energy access, by providing the means for the private sector to become instrumental in the widespread sales of household and community-level renewable technologies in Ethiopia.</td>
<td>✓</td>
</tr>
</tbody>
</table>

### POSITIVE ENVIRONMENTAL IMPACTS

<table>
<thead>
<tr>
<th>Positive Impacts/Benefits</th>
<th>Program Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Reduce waste production by converting manure and household organic wastes into useful biogas and bio-slurry, which is an excellent form of fertilizer.</td>
<td>✓</td>
</tr>
<tr>
<td>• Reduction of cutting of trees for firewood</td>
<td>✓</td>
</tr>
<tr>
<td>• Reduction of air pollution</td>
<td>✓</td>
</tr>
</tbody>
</table>
4.3 Potential Negative Socio-economic Impacts on PAPs and Mitigation Measures

Due to the different construction and operational activities of the proposed sub projects, minimum social impacts are anticipated to affect the nearby biophysical and social environment. Considering the nature of the intended three sub projects under component 3 of ENREP, those impacts that are expected to be generated from the construction and operation phase will be mitigated or avoided through implementation of appropriate means and best practice methods.

4.3.1 Categories of Project Affected Peoples (PAPs)

Implementation of the PV mini-grid may result in land acquisition of PAPs and related negative impacts to different categories of PAPs. This Resettlement Policy Framework considers project affected people as those who stand to lose as a consequence of the project, all or part of their assets, including homes, productive lands, and resources such as perennial and non-perennial crops, trees, commercial properties, and income-earning opportunities. To substantiate, when the natural resource – e.g. land – even if not owned by the affected people was previously cultivated by them and provided with a livelihood, or affected people have established a structure – e.g. temporary shop, in both the instances the policy is triggered. Such impacts may be permanent or temporary. This might occur through land expropriation and restricted or reduced access to important livelihood resources.

The policy framework applies to all economically and/or physically displaced persons regardless of the total number of affected persons, the severity of impact and whether or not they have title deed or not. Particular attention will be paid to the needs of vulnerable groups among those economically and/or physically displaced especially those below the poverty line, the landless, the elderly, women and children or other economically and/or physically displaced persons who may not be protected through Ethiopian’s legislation related to land exploration.

Until the exact sub-project locations are determined, it is not possible to estimate the likely number of people who may be affected and specific impact. However, the likely displaced (economically or physically) persons can be categorized into the following groups:

- Those who have formal legal rights to the land they occupy;
• Those who lack formal legal rights to land, but have a claim to land that is recognized or recognizable under the federal or regional law or traditional means; or,
• Those who have no recognizable legal right or claim to the land they occupy.

The likely displaced persons can further be categorized into the following three groups:

• **Affected individuals:** These are individuals who risks losing assets, investments, land, property and/or access to natural and/or economic resources as a result of a sub-project;
• **Project affected households:** These are groups of PAPs in one household and where one or more of its members are directly affected by the project. These include members like the head of household, male, and female members, dependent relatives, tenants, etc; and,
• **Vulnerable groups of people:** From these households, the project will separately identify the vulnerable members, such as those who are too old or too ill; children including orphans; families affected and/or persons living with HIV/AIDS; vulnerable women; unemployed youth; people with disability; etc. Households headed by women that depend on sons, brothers, and others for supports are especially vulnerable.

4.3.2 Negative Socio-economic Impacts and Mitigation Measures

The negative socio-economic impacts that may be created because of the implementation of the sub-projects are related to land acquisition- temporary or permanent loss of assets and properties, social conflicts, Women’s workload, project ownership and vulnerable groups which are described below with the mitigation measures.

**a) Impacts Related to Land Expropriation**

The anticipated impact during the implementation of the proposed sub projects is temporarily or permanently expropriation of land for stores, installation of equipment, construction of PV mini-grid structures, and core work area. It is assumed that given, the biogas plants, Solar Home Systems and Solar Lanterns are implemented at the beneficiary level and on their own land for the biogas and SHS, no land expropriation is expected for these sub-projects. This was also confirmed during consultations held with pertinent officials at regional, Wereda and local administration levels and beneficiaries of the subprojects. However, for the Solar PV mini-grid
land take might be expected to install the panels, mini-grids and construction of stores to store related equipment.

Land requirement could be temporary or permanent. As a result of land take, the farmers and urban dwellers may lose their crops, houses and other properties. The livelihood of these dwellers might also be affected as due to loss of assets and location change/involuntary resettlement. Since land take cannot be ruled out at this stage, proper planning and implementation is required.

The PAPs to be impacted by any land take are likely to be non-homogenous groups; the risks highlighted in this RPF differentially affect various categories of people. Therefore, avoidance is the first response to risks that should be considered. Recognizing risks upfront and their financial implications is often a powerful stimulus to search for an alternative that eliminate the need for displacement or cuts down its size. Therefore, during implementation of the project, the findings of the social impact assessment will be operationalized to identify the areas or sites where resettlement, due to land acquisition or restriction of access to resources, is likely to have impact.

At that stage, if it is unavoidable, OP 4.12 calls for the preparation of separate stand-alone Resettlement Action Plans (RAPs) consistent with the guidelines provided in this RPF. To mitigate any potential negative social impacts, DBE should ensure implementation of the following:

- Preparation of sub project specific ARAP/RAP, as required;
- Project affected people should be consulted and be involved in decision-making at different stages of the program;
- Compensation for properties and land replacement should be implemented as per Proc. 455/2005, the ARAP/RAPs and WB OP 4.12;
- Compensation shall be paid prior to the start of the construction works; and,
- Select subprojects specific installation/implementation sites with minimum effect on the bio- physical as well as the socioeconomic and cultural environment.
In addition to compensation for their asset losses, the project will prepare Livelihood restoration plan for PAPs, which includes implement the following to improve/restore their livelihood because of implementation of subprojects:

- Provision of capacity building training on businesses which they want to engage;
- Provision of technical support in business plan preparation, and implementation of the businesses;
- Facilitate Micro-finance support (savings and credit), and other small business development activities; and,
- Follow up, supervision and monitoring the implementation of business.

b) Social Conflicts

Potentially adverse social conflict impacts emanated from these two programs are likely to be minimal, and are easily manageable through implementation of socially acceptable best practice methods during design and subproject implementation phase. The possible social impacts that may lead to conflict might result from high demand and lack of fairness in prioritizing households for services, equity of decision-making process in use of solar and biogas at household level; and failure to consider the local work force during the construction of the structures and installation. Therefore, to offset or minimize the anticipated social conflicts, it is advisable to encourage and consider the employment of local labor for semi-skilled and unskilled people including women, ensure that criteria is set for prioritization of likely beneficiary households including poor and female headed ones where there is more demand. Moreover, raising awareness of the target community on effective use of biogas and off grid PV systems for the benefit of all household members and on the expected role of the community/households members in management of the subprojects at their level is vital.

c) More Work load for Women (Biogas)

Bio digesters can increase women’s workload in some localities where water is scarce or where women fetch water from relatively distant areas since bio digesters need water, in addition to the water fetched for regular household uses. In most cases, women are the ones engaged in managing the biogas process and in some instances; husbands may not show willingness to
support their wives in the operation of biogas like undertaking daily task of stirring of dungs, which ultimately increase the workload for women. The target communities need to be aware on what is expected in operating the biogas and the benefit of sharing roles in managing the biogas, by also using role model households. Moreover, households with nearby access to water points need to be targeted for the biogas subproject.

d) Lack of Project Ownership

Although the proposed subprojects are integrated with the individual beneficiaries, it is essential to consult stakeholders including all the community members that reside within the core project area at the outset. Awareness of the community on the benefits, negative impacts, expected roles, management of the subprojects to be implemented at household level and in their villages as well as compensation process particularly by using role model beneficiary farmers is vital.

The level of participation of all relevant stakeholders during project planning and designing has of paramount importance as a buy in process. This improves the level of relevant stakeholder participation and ultimately would enhance the sense of ownership of the project by the locals in general and beneficiaries in particular. It is quite evident that usually poor participation of stakeholders in preparation and implementation of projects would result in absence of sustainability of projects.

e) Occupational health, safety and Child labour

Occupational health and safety issues will possibly arise during the project implementation periods. This might result from improper use and lack of availability of the required Personal Protective Equipment (PPE). To ensure safe handling and use of PPE and to address the occupational health and safety issue, availability and proper use of PPE by the project beneficiaries, contractors, laborer who are engaged in the construction, installation and operation and maintenance of the proposed sub projects shall be in place and regularly monitored by the project coordination unit at all phases of the programs. In addition, fire risks are possible, mainly in biogas installation area and this requires provision of regular training and awareness creation to the beneficiaries. For any incidents of leakage or spill during
installation, temporary containment structure is required to clean-up accidental spills. Orientations will be provided to workers on health and safety issues.

In line with child labor during subproject construction period, the project will ensure that, contractors and other participating companies are not using child labor in any stage of the sub-projects. Contractor will be aware and enforced to respect the national labor Proclamation No. 377/2003 which states that children under age of 14 will not be employed and young workers (14 to 18 years) shall not perform work that is likely to jeopardize their health or safety.

f) Impacts on vulnerable groups

Vulnerable groups include women headed households, child headed households, households made up of the aged or handicapped and whose members are socially stigmatized (as a result of traditional or cultural bias) and economically underserved.

The project will use the following approach in identification of Vulnerable People:

Vulnerable people are people who by virtue of gender, ethnicity, age, physical or mental disability, economic disadvantage, or social status may be more adversely affected by resettlement than others and who may be limited in their ability to claim or take advantage of resettlement assistance and related development benefits. Vulnerable people potentially eligible for specific assistance under this Resettlement Policy Framework are those who are affected by the Project land acquisition, compensation and resettlement activities.

Vulnerable people include:

- Disabled persons, whether mentally or physically;
- Seriously ill people, particularly people living with HIV/AIDS and other illnesses;
- The elderly, particularly when they live alone;
- Households whose heads are children;
- Households whose heads are female and who live with limited resources;
• Widows and orphans; and,
• Any project affected group or population who are underserved socially, economically, and/or culturally and for whom the project needs to pay special attention.

These categories of PAPs are more vulnerable to the above mentioned adverse impacts.

**Assistance to Vulnerable People**

The project will assist vulnerable people are affected by the project related displacement and resettlement process. Such assistance may include the following activities:

• Identification of vulnerable people, how the project makes them more vulnerable and identification of the cause and impacts of their vulnerability, preferably through an identification mechanism devised with, and implemented by the beneficiary community; this step is critical because often vulnerable people do not participate in community meetings, and their disability/vulnerability may remain unknown;
• Identification of required assistance at the various stages of the process: negotiation, compensation, moving;
• Implementation of the measures necessary to assist the vulnerable person; and,
• Monitoring and continuation of assistance after resettlement and/or compensation, if required, and/or identification of those entities, whether Governmental or not, that could sustain the Program’s assistance beyond its period of activity.

Assistance may take the following forms, depending upon vulnerable persons’ requests and needs:

• Assistance in the compensation payment procedure (e.g., specifically explain the process and procedures, make sure that documents are well understood);
• Assistance in the post payment period to secure the compensation money and reduce risks of misuse/robbery;
• Assistance in moving: providing vehicle, driver and assistance at the moving stage, assist the person in identifying his/her resettlement plot;
• Assistance in building: providing materials, workforce, or building houses;
• Counseling in matters such as family issues, health, etc;
• Assistance during the post-resettlement period, particularly if the solidarity networks that the vulnerable person was relying on have been affected: food support, health monitoring, etc.; and,
• Health care if required at critical periods, particularly during moving and transition periods.
5. RAP PREPARATION, REVIEW AND APPROVAL WITH ORGANIZATIONAL PROCEDURES AND RESPONSIBILITIES

5.1 The Implementers

Development Bank of Ethiopia (DBE) is the lead agency in implementing the program. The DBE will be managing the environmental and social issues under the program in collaboration with Private Sector Enterprises (PSEs) and the Ministry of Water Irrigation and Electricity. It also serves as financial intermediary for PSEs. Private Sector Enterprises are approved retailers that can access the credit line to import and commercialize the products while the Micro Finance Institutions (MFIs) provide financing to households or small businesses in rural areas interested in installing biogas plants, SHSs, and the use of Solar lamps. For the Solar PV mini-grids, PSEs get credit from DBE to import, commercialize and facilitate the installation process. The villagers connected to the mini-grid will pay service charges to the PSEs.

Figure 4 Transaction Flow for Market Development for Renewable Energy and Energy Efficient Product

The Special Fund Administration and Rural Financial Intermediation Program (SFA & RFIP) Coordination Directorate within DBE is responsible for managing operations concerning safeguards issues such as managing quality system, evaluating and managing the social and environmental impacts and defining health and safety operations. The Directorate will work to ensure that the subprojects are environmentally and socially sound and sustainable. As part of strengthening the capacity of DBE in social and environmental safeguards, DBE will bring on board the required Environmental and Social safeguards specialists and ensure that they are well trained in the area. In addition to the Environmental and social safeguards specialists, team leaders/loan officers in the SFA & RUFIP Coordination Directorate of DBE will also be trained and involved in reviewing proposals of PSEs in line with the safeguards requirements.
The major task of the Environment and Social officer(s) at DBE include conducting periodic monitoring in sub-projects and operational activities that include Environmental and Social impact Assessment (ESIA) and Resettlement Action Plan (RAP). The officers ensure whether or not the sub-projects are complying with the approved environmental and social management plan and undertaking the appropriate mitigation measures accordingly and also undertake monitoring of identified potential risks on a sample basis in collaboration with relevant regional bureaus and Wereda offices.

DBE will be working closely with the relevant PSEs and the Ministry of Water, Irrigation and Electricity and pertinent regional bureaus in monitoring the implementation of safeguards instruments. Moreover, Wereda Administrations, municipalities and rural Kebele administrations will play key roles during the implementation of the RAP as explained in the forthcoming sections.

5.2 Processes for RAP Preparation, Review and Approval

The conditions of the land acquisition must be documented in the subproject application. RAP/ARAP will be prepared if land needs to be acquired, such that people are displaced from land or productive resources and the displacement results in relocation, the loss of shelter, the loss of assets or access to assets important to production; the loss of income sources or means of livelihood; or the loss of access to locations that provide higher income or lower expenditure to business or persons. The RAP will need to be as detail as possible in order to guide resettlement of relevant sub-projects.

The steps to be undertaken for each individual RAP include a screening process; a socio-economic census and land asset inventory of the area and identification of the investment project Affected Persons (PAPs). This is followed by the development of a Resettlement Action Plan (RAP) or abbreviated RAP, RAP review and approval, implementation of the RAP and monitoring of RAP implementation and success.
5.2.1 The Screening Process

The first step in the process of preparing individual RAPs is the screening process to identify the land/areas that may result in resettlement impacts. The screening process involves the following steps:

- Identification of the intervention (sub-project);
- Identification of the exact sub-project location (defined area);
- Screen each sub-project in relation to defined area based on the proposed sub-project activity. The screening process will be carried out by the loan officers/team of experts from DBE at national level for the PV mini-grid subproject and at MFI level for Solar Home System and Biogas Components. Once the DBE completed the initial social screening process, the safeguards officers or appointed trained person will follow up on the screening process and further action;
- Classification of the impact based on its social impact - does the sub-project involve the acquisition of land? Will displacement or restriction of access result? If the answers to these questions are yes, then the resettlement policy has been triggered. Triggering of the resettlement policy will require further preliminary determination of whether the sub project should be proposed or not, based on an assessment of the intensity of the impact and on the mitigation measures that will need to be developed and proposed; and,
- If screening determines that resettlement is likely, the next step will be to initiate resettlement planning, consultation, socio-economic survey and the preparation of resettlement plans. Basically, the steps to be undertaken for each individual resettlement plans include identification of Project Affected Persons (PAPs), a socio-economic census and asset inventory of the area, identification of impacts and eventual compensation and resettlement of those impacted.

The figure below illustrates steps for Social screening and RAP preparation process.
Figure 5: Steps in Social Screening and RAP Preparation

1. Filling of Social Screening Questionnaire
2. Does the sub-project activity result in any potential social impacts?
   - NO: Proceed with the implementation of sub-projects activity
   - YES: Does the sub-project activity affect more than 200 people (i.e. either complete and/or partial loss of assets and/or livelihood?) and/or
3. Has an abbreviated Resettlement Action Plan (ARAP) been prepared?
   - NO: Prepare a full Resettlement Action Plan (RAP)
   - YES: Prepare ARAP and disclose
4. Is the RAP adequate and disclosed?
   - NO: Strengthen the RAP or consultation process
   - YES: Once disclosed, provide compensation to the PAP or the community as per the RAP
5. Process and proceed with implementation of the sub-project
5.2.2 Preparation of a Resettlement Action Plan (RAP)
If RAP is required, the preparation of a RAP will be done by the relevant PSE (hired consultant by the same) with close follow up by the DBE. The RAP will be prepared in consultation with the affected parties, particularly in relation to the cut-off date for eligibility, disturbances to livelihoods and income-earning activities, methods of valuation, compensation payments, potential assistance and timeframes. DBE will undertake support and supervision in certain localities in due course of preparation and implementation of the RAPs.

The basic elements of a RAP and ARAP are provided in summary in Boxes 1 and 2 below. In order to avoid unnecessarily difficult process, the level of detail and extent of the RAP must be related to the extent of the resettlement impact. If the resettlement activities are minor (e.g. a very small percentage of a person’s land and livelihood is being required and less than 200 individuals affected), a relatively simple abbreviated RAP will be required. Where the resettlement impact is major (e.g. the physical displacement of 200 or more individuals), a more extensive and detailed RAP will be required. The crucial aspect of a RAP process is that a specific, auditable process has been followed, that is appropriate to the impacts and that allows for consultation throughout the process.

Box 1. Contents of RAP

1. Description of the project;
2. Identification of project impacts and affected populations;
3. Legal framework for land acquisition and compensation;
4. Valuation of and Compensation for losses;
5. Description of resettlement assistance and restoration of livelihood activities;
6. Description of organizational responsibilities;
7. Framework for public consultation, participation, and development planning;
8. Description of provisions for complaints and appeals;
9. Detailed budget; Implementation schedule; and,
Preparation of an Abbreviated Resettlement Action Plan

An ARAP must be developed if the loss is a small percentage of the affected party’s livelihood, such as the loss of part of a fence surrounding a property or as is defined in the previous section – when between 1 and 199 individuals are affected. Abbreviated Resettlement Action Plan is the relevant one for the sub-projects under discussion. This needs to include at a minimum those aspects as set out in Box 2 below:

Box 2. Required Elements of an Abbreviated RAP

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>A census survey of displaced persons and valuation of assets;</td>
</tr>
<tr>
<td>2.</td>
<td>Description of compensation and other resettlement assistance to be provided;</td>
</tr>
<tr>
<td>3.</td>
<td>Consultations with displaced people about acceptable alternatives;</td>
</tr>
<tr>
<td>4.</td>
<td>Institutional responsibility for implementation and procedures for complaints and appeals;</td>
</tr>
<tr>
<td>5.</td>
<td>Arrangements for monitoring and implementation; and,</td>
</tr>
<tr>
<td>6.</td>
<td>A timetable and budget.</td>
</tr>
</tbody>
</table>

5.2.3 Review and Submission of the RAP

Following completion of the RAP for a sub-project it shall be submitted to the DBE for review. The DBE will in turn send to the Bank for review and approval. The RAP must take into account the magnitude of the impacts of the sub-project on the affected people and prepared in a manner consistent with this framework for Bank approval. And the project will ensure that no civil work is started before the implementation of the RAP. The resettlement and compensation plans must also include measures to ensure that displaced persons are:

- Informed about their options and rights pertaining to resettlement and compensation;
- Consulted on, offered choices among, and provided with technically and economically feasible resettlement and compensation alternatives;
- Provided prompt and effective compensation at full replacement cost for losses of assets and access, attributable to the project; and,
- Enabled to restore but preferably, to improve upon their pre-project living standards and conditions.
6. VALUATION PROCEDURES

6.1 Organizational Procedures for Delivery of Entitlements
The organizational procedures for delivery of entitlements show the procedures to be adopted in the delivery of entitlements for PAPs. The pertinent PSE will facilitate organizational procedures for delivery of entitlements according to the FDRE Proclamation No. 455/2005 and World Bank Operational Policy on involuntary resettlement (OP 4.12). The principle of replacement cost is based on market values plus transaction costs will apply for the compensation of project affected asset and property.

Wereda Administrations, municipalities and rural Kebele administrations will provide and facilitate all administrative and organizational procedures for the delivery of entitlements for PAPS in consultation with the respective PSEs and DBE. DBE will undertake monitoring, evaluation, follow-up and support on a sample basis on selected localities. Compensation payments will be made either in cash or transferred to their account following agreement to be made with individual PAPs. Disbursements will be ensured and will take place in the presence of the compensation committee.

6.2. Method of Asset Valuation
Land valuations are often done at Wereda and urban administration levels. These local governments establish valuation committees to value private properties (Proclamation No. 455/2005). In the case of publicly owned infrastructure such as electricity and water supply with a designated right-of-way (ROW), the owners of the structures within the ROW would assess the value of properties to be removed. The landholder is entitled to be compensated for the property on the basis of replacement cost based on current market price. Permanent improvements to the land, equal to the value of capital and labour expended (Proclamation No. 455/2005 Article 7), are specified as valid basis for determining replacement value.

For Agricultural Land: Where land used for growing crops or a protected grass or pastoral land is expropriated for public purpose, the possessor of such land shall, as much as possible be provided with a plot of land capable of serving similar purpose. Where a replacement land has been provided, in accordance with article 15 of 135/2007 regulation, with respect to expropriated land use for crops or perennial crop, displacement compensation equivalent to the specified
amount in the regulation shall be paid. The amount of displacement compensation payable with respect to land used for growing crops or perennial crop shall, where it is impossible to provide replacement land in accordance with article 15 of this regulation, ten times the price of the average yield of crops or perennial crops for the last five years obtained from the land will be provided.

**For Urban Land:** Compensation of assets in urban areas will be based on the principle of full replacement cost based on current market price. Replacement land will be provided on areas with similar or improved public infrastructure facilities and services and in the vicinity of the affected land, without any cost of registration and transfer taxes.

**For Houses and Other Structures:** It is the market cost of the materials to build a replacement structure with an area and quality similar to or better than the affected structure. The cost of transporting building materials to the construction site cost of any labour and contactors fees, and the cost of any registration and transfer taxes shall be included.

### 6.3. Basis of Valuation

The basis of valuation is Gross Current Replacement Cost (GCRC). Gross Current Replacement Cost is defined as the estimated cost, based on market value of erecting a building as new having the same gross external area as that of the existing with the site works and services on a similar piece of land and also lost income. The valuation process will also consider the use of “compensation value” for affected properties.

“Compensation value” is defined as “the amount to be paid to the leaseholder, based on current market price at replacement cost, including the costs for the inconvenience caused to the PAPs and to enable the same leaseholders to build slightly better houses than what they currently occupy”

---

77
Compensation Approach

The compensation of lost assets and properties is based on the willingness of owners of a resource to give up their rights to that resource. In general, the issue of compensation will address four questions: what to compensate for (e.g. land, structures, business, fixed improvements or temporary impacts, lost income)? How to compensate? When to compensate? How much to compensate?

Compensation for land structures, business, fixed improvements and other temporary impacts are based on, among other things, market valuation, productivity valuation, negotiated settlements, material and labour valuation, disposition of salvage materials and other fees paid. It should be noted that of legal title will not be a bar to compensation and all PAPs regardless of having legal title will get compensation.

If there is a need to relocate business, or deny access to customers the lost income need to be compensated. In addition, workers losing employment in the process of relocating should get transitional income support. Compensation for temporary impacts should include but not be limited to the following:

- Compensation equivalent to lost income required for the duration of impact;
- Compensation equivalent to lost income required for loss of access; and,
- Physical restoration of assets (or access) required prior to return.

In addition, PAPs will be entitled to transitional assistance which includes moving expenses, temporary residence (if necessary), employment training and income support.

6.4. Establishment of Property Valuation Committees and Compensation Procedures

The relevant regional bureaus in consultation with Wereda Administration Offices and Municipalities (if applicable) shall establish a Property Valuation Committee. The establishment of a property valuation committee will be in line with Proclamation No. 455/2005, Article 10.

In rural areas the valuation and compensation committee members may include:

- Wereda Administrators;
▪ Agriculture and Rural development office heads;
▪ Kebele Administrators; and,
▪ Representative of PAPs.

In urban areas, the valuation and compensation committee members may include:
▪ Head of the municipalities or Urban Administrations;
▪ Town planners/surveyors; and,
▪ Representative of PAPs.

The amount of compensation will be determined according to Proclamation No. 455/2005, Part Three, article 7. The amount of compensation will be paid at a replacement cost and also taking into account World Bank requirements. All compensations will be effected ahead of the civil works.

The PSE/or hired consultant by the same/will carry out household census of project affected persons and identification of the impact and affected property shall be conducted. The following methodology and procedures are suggested for the valuation of compensation rates for crops and trees:
▪ Cash compensation will be paid for loss of crops and trees that are found on the land that has been acquired. The relevant agricultural office of the locality under consideration establishes the compensation rates. The pertinent officials/offices in respective Wereda Administrations, will execute the expropriation and the compensation for the loss of crops and trees in consultation with the PSE. The decisions taken will be, as is the practice, documented with meeting protocols and receipts upon payment. The documents will be available at respective Regions, Wereda administration offices, municipalities and at DBE/PSEs offices;
▪ The amount of compensation for crops shall be calculated by multiplying the amount of yield that would have been collected from the land at maturity by the current market price of the crops and multiply by ten. The owner of ripe crops may lieu of compensation harvest and collect the crops within the period fixed pursuant to article 4 of the proclamation;
▪ Compensation for trees will be based on level of growth of the trees and the current local price per square meter or per unit. The owner of trees may in lieu of compensation cut and collect the trees within the period fixed pursuant to article 4 of the proclamation;
The amount of compensation for a building shall be determined on the basis of the current cost per square meter or unit for constructing a comparable building; and,

Compensation procedures and rates for loss of houses and other structures are established in consultations with municipalities, agricultural offices Wereda Administrations, Kebele administrations and PAPs at the case may be.
7. ELIGIBILITY CRITERIA

7.1. Eligibility Criteria for Various Categories of PAPs

The involuntary taking of land results in relocation or loss of shelter; and loss of assets or access to assets or loss of income sources or means of livelihood, whether or not the PAPs must move to another location or not. Meaningful consultations with the affected persons, local authorities and community leaders will therefore allow for establishment of criteria by which displaced persons will be deemed eligible for compensation and other resettlement assistances.

Both Article 44(2) of the 1995 Constitution and Proclamation No 455/2005 present Ethiopian legal framework for eligibility for compensation to give entitlement only to those who have formal legal rights over their holdings (properties). They will only qualify for the compensation if they occupied the project area prior to a cut-off date established by the Compensation and Resettlement Committees. To ensure the interest of project affected persons and mitigating the negative impacts of the projects, this RPF will be based on the existing national laws on expropriation and compensation payments and World Bank involuntary resettlement policy.

7.1.1. Eligibility for Land

According to Proclamation No. 455/2005, article 8 sub-articles 3 and 4, land for land compensation will be applied to PAPs who might lose their land.

In the same Proclamation, part two, article 3(1), clearly states "A Wereda or an Urban Administration shall, upon payment in advance of compensation in accordance with this proclamation, have the power to expropriate rural or urban land holdings 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 expropriation has been decided by the appropriate higher Regional or Federal government organ for the same purpose".
PAPs who are entitled for compensation under the Ethiopian legislation and OP/BP 4.12 will be compensated for the land they lose, and other assistance ensuring that they are (i) informed about their options and rights pertaining to resettlement, (ii) consulted and provided with technically and economically feasible resettlement and (iii) provided prompt and effective compensation at full replacement cost for losses of assets attributable directly to the project.

The land acquisition by non-land owners may be qualified for alternative forms of assistance. On-owners like renters and business are eligible for relocation and other assistance in finding a new location, compensation at replacement value for any immovable assets, compensation for loss of income during transition, assistance for physical transfer and follow-up services. People without titles or use right (e.g. squatters, encroachers) will be eligible for specific assistance. They typically claim use rights or even ownership after occupation of unused or unprotected land. They are likely to have invested in structures or land improvements that are eligible for compensation.

7.1.2. Eligibility for Community Compensation

It is important to note that the eligibility may also be claimed collectively, e.g. as a community or religious group, when the assets lost are of communal property or use. Individuals or families can claim individual eligibility for loss of assets of a private nature to that individual or household. Communities on communal land that permanently lose land and/or access to assets and or resources under statutory or customary rights will be eligible for compensation. Example of community compensation could be for public toilets, market places, school buildings and health centers, religious centers, or access to alternative source of natural resources to restore their livelihoods. The rationale for this is to ensure that the pre-project socio-economic status of communities where adversely impacted, is also restored.

7.1.3. Eligibility for Loss of Property/Assets

This includes loss of houses, crops and trees, structures, fixed improvements, businesses which should be compensated at market value, negotiated settlements, productivity valuation, material
and labor valuation. PAPs that lose their property or assets will be compensated as per the following national legislations:

1. Proclamation No 455/2005 Expropriation of Landholdings for Public Purposes and Payment of Compensation which establishes the legal principles and framework for expropriation and compensation; and,
2. Council of Ministers Regulations No. 135/2007, on the Payment of Compensation for Property Situated on Landholdings Expropriated for Public Purposes which provide the procedures for application of Proclamation No 455/2005.

According to Proclamation No 455/2005, for PAPs who lose their property, they will be compensated for the property they lost including for permanent improvements made to such land. The amount of compensation for property situated on the expropriated land shall be determined on the basis of replacement cost of the property. Displacement cost will also be compensated for the property situated on the expropriated land.

7.2. Displaced Persons without Legal Title

In order to ensure that displaced persons who do not have legal title are not adversely affected by the project, they will be enabled to maintain their livelihood and assisted to secure accommodation as described below:

- Capacity building training on different technologies, and technical support to participate/engage on different livelihood activities;
- Participate on different income generating/livelihood activities that the project will create; and,
- Create access to finance/credit to participate/engage on different livelihood activities.

Tenants: Assistance will be provided to legal tenants of property affected by the project to maintain their livelihoods and find alternative accommodation. Tenants of private landlords will seek redress from their private lessor or by reference to the terms and conditions of their tenancy and civil law.
Non-owners like renters and business are eligible for resettlement and other assistance in finding a new location, compensation at replacement value for any immovable assets, compensation for loss of income during transition, assistance for physical transfer and follow-up services.

7.3 Severity of Impacts

The respective Weredas in collaboration with other regional entities would implement compensation at replacement costs just according to Proclamation No. 455/2005, article 7, and the policies of the World Bank, to perform proper compensations for all lost asset:

- If a land holder who’s holding is to be expropriated, he shall be entitled to payment of compensation for his property situated on the land and for permanent improvements he made to the land;
- The amount of compensation for property situated on the expropriated land shall be determined on the basis of replacement cost of the property;
- Those PAPs whose livelihoods are land based and who are losing their significant portion of productive agricultural land would be allowed to have options to choose either cash compensation or land to land compensation;
- Where commercial or industrial activities are disrupted following partial occupation of land, the affected enterprise would be entitled to the cost of reestablishing its activities elsewhere; and,
- If partially affected structure can no longer serve its normal function, compensation at replacement cost (including provision of a compatible building site), or compensation for all costs of complete restoration is required.

7.4 Compensation for temporary losses

According to Proclamation 455/2005, Article 8 (2), a rural landholder or holders of common land whose landholding has been provisionally expropriated, shall be paid until repossession of the land, compensation for lost income based on the average annual income secured during the five years preceding the expropriation of the land.
7.5 Cut-Off Dates

The cut-off date is the time when the affected persons and their properties are assessed. Establishing a cut-off date ensures all project affected people understand the date of completion of the census and eligibility. The cut-off date is normally set by Land Acquisition Team as procedures to establish PAPs who are eligible to receive compensation and resettlement assistance by the Project. When persons occupy the Project area/build new structures or grow new crops after cut-off date these new assets are not eligible for compensation and/or resettlement assistance.

No person will be eligible for houses built and crops sown in the project area after the census and inventory of assets. The establishment of a cut-off date is required to prevent opportunistic invasions/rush migration into the chosen land areas thereby posing a risk to the subproject. Therefore, establishment of a cut-off date is of critical importance.

Once the sub-project has been legally approved and a permit provided, a RAP will be prepared (if required) for the sub-project that may result in Involuntary Resettlement. As part of the RAP, a census will be undertaken to identify eligibility for resettlement and compensation. It is key, therefore, that the cut-off date, has been established with regulatory authorities and in consultation with PAP’s, and is fully communicated to all potential PAPs in the project affected areas with sufficient time for these people to ensure their availability for the Census.

The potential PAPs will be informed of the cutoff date through both formal notification in writing and by verbal notification delivered in the presence of the community leaders or their representatives. The PAPs will be informed that no payment of compensation with respect to any construction or improvement to building, any crops sown, perennial crops planted or any improvement on land where such activity is done after PAP’s census and inventory of their assets. This shall be discussed during consultation meetings and minutes of meetings shall be prepared and signed. In the event of project delay for more than two years, between the cut-off date and the actual resettlement, then there will be a need to update the socio-economic survey that was carried out for the RAP.
7.6. Relocation

PAPs will be relocated preferably in their own land holdings or in a place close to the area where they were residing. The RAP will address the requirement for residential plots and will be implemented with full participation of PAPs and the community.

The RAP will address the requirement for residential plots and will be implemented on the basis of providing options for relocation:

- **Option 1**, PAPs may choose self-relocation with compensation for their structures and related assistance; and,
- **Option 2**, the respective Wereda with full participation of PAPs will find access to resettle PAPs on appropriate site.

7.7 Livelihood Restoration

World Bank safeguard principle is that where people are affected by land take, the aim of resettlement should be that the PAPs should be “no worse-off if not better off” after the resettlement has taken place. Where impact on land use is such that people may be affected in the sustainability of their livelihoods, preference will be given to land-for-land solutions rather than sheer cash compensation, in consistency with the Constitution of Ethiopia and with OP 4.12. This applies to people who are not necessarily physically displaced but who are affected by a land loss that affects their sustainability. Where relocation or loss of shelter occurs, the RPF requires that measures to assist the displaced persons be implemented in accordance with the Resettlement Action Plans. Affected people will be monitored in the rehabilitation of their livelihood.

**Special Restoration Measures for Vulnerable Group/PAPs**

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

7.8 Broad Entitlement Categories

Based on the predicted impacts and the broad entitlement framework, the affected persons in each project would be entitled to the following types of compensation and assistance:

- Compensation for loss of land, crops/trees;
- Compensation for structures (residential/commercial) and other immovable assets;
- Assistance for loss of business/ wage income;
- Assistance for relocation and resettlement; and,
- Rebuilding and/or restoration of community resources/ facilities.

7.8.1. Agricultural Title Holders

The majority of the population in the project areas depends on agriculture in that the following will be some of the applicable issues in the process of compensation:

- According to the Constitution of the Federal Democratic Republic of Ethiopia, the right to ownership of rural and urban land as well as of all natural resources, in the Government and in the people of Ethiopia;
- The Constitution guarantees the rights of farmers to obtain agricultural land without payment and the protection against eviction from their possession;
- Agricultural title holders will be entitled for land to land compensation where substitute land is confirmed by the local administrations;
- For those PAPs losing some of their agricultural lands, they will be paid cash compensation for the lost plot of land and keep maintaining their livelihood with the remaining land; and,
- There is also an option of getting full compensation for PAPs losing their agricultural lands permanently for properties situated on the land and permanent improvements made to such land where there is no enough agricultural land to replace.
7.8.2. Non-Agricultural Title Holders

The replacement cost of the residential or commercial structures will be calculated as per the value decided by the property valuation committee that would be established under Proclamation No. 455/2005.

7.8.3. Common Properties

During the design phase, all efforts will be made to avoid acquisition of common properties. However, in unavoidable cases, some common properties indicated below need to be acquired for the project:

- All common properties that can be replaced will be relocated within the localities in consultation with the local communities; and,
- The loss of forest lands, which are impossible to relocate, will be compensated in consultation with concerned department/institution.

7.8.4 Entitlements

An inventory of all affected assets (and related affected people, i.e. owners and users of the said affected assets) located within the footprint of a sub-project shall be undertaken. Only affected assets identified during the census will be eligible for compensation. The relationship between impacts and entitlements are depicted in table 4 while the project entitlement matrix based on Ethiopian laws and the World Bank is pointed out in table 5.
**Table 4: Impact / Entitlement Matrix**

<table>
<thead>
<tr>
<th>Type of Impact</th>
<th>Entitlement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent loss of land (held under rural land holders)</td>
<td>Cash compensation for loss of land as per Ethiopian Proclamation No. 455/2005. Cash compensation for the harvest or product from the affected land or asset, equivalent to ten times the average annual income she/he secured during the five years preceding the expropriation of the land. Or replacement by a similar piece of land (similar in location, potential and size), held under similar tenure arrangements. No cash compensation for loss of rented land.</td>
</tr>
<tr>
<td>Loss of sharecropping rights over a piece of agricultural land</td>
<td>Cash compensation for loss of assets as per Ethiopian Proclamation No. 455/2005. Or Access to similar or better rights (at least sharecropping, or if possible tenancy) over a piece of land of similar agricultural potential.</td>
</tr>
<tr>
<td>Permanent loss of land held under long-term urban lease</td>
<td>Replacement by a similar piece of land (similar in location, potential and size), held under similar tenure arrangements (long-term urban lease); <strong>OR</strong> cash compensation at replacement value, based on price per square meter observed in recent market transactions in the same area for similar types of land.</td>
</tr>
<tr>
<td>Right-of-Way with Restrictions (for example restriction on crops making certain crops impossible)</td>
<td>Depending on the regime of occupation:</td>
</tr>
<tr>
<td></td>
<td>Cash compensation of the loss in value resulting from the restriction (usually in the order of 10 to 30% of the total land value of the affected strip for right-of-way <strong>OR</strong> replacement by a piece of land in compensation for the restriction of use.</td>
</tr>
<tr>
<td>Temporary land take (held under rural or urban lease)</td>
<td>Cash compensation for income lost during the period where plot was not usable by user or Cash compensation for loss of land as per Ethiopian Proclamation No. 455/2005, or replacement by a piece of land of equal or better potential.</td>
</tr>
<tr>
<td>Loss of an uninhabited structure</td>
<td>Cash compensation at replacement value or replacement by a structure or equal or better quality, taking into account market values for structures and materials</td>
</tr>
<tr>
<td>Loss of an inhabited dwelling</td>
<td>Resettlement in similar dwelling in a location with equal or better economic/ agricultural potential. Replacement by a structure of equal or better quality, or cash compensation, taking into account market values for structures and materials</td>
</tr>
<tr>
<td>Loss of annual crop</td>
<td>Cash compensation as per Ethiopian Proclamation No. 455/2005 (Compensation of lost harvest at market price)</td>
</tr>
<tr>
<td>Loss of perennial crops and valuable trees</td>
<td>Cash compensation as per Ethiopian Proclamation No. 455/2005 and Regulation No. 135/2007 (compensation of lost harvest at market price if the crop could not be harvested); <strong>PLUS</strong> Compensation of the cost of planting (seedling plus labor); <strong>PLUS</strong> Compensation of the income lost during the period of time required to re-establish the plantation to a similar level of production (this period of time depends on the species grown, it is generally in the range 1 year – banana or papaya trees for example - to 5 or 6 years for mango trees – to be determined following regional/Wereda practices.</td>
</tr>
</tbody>
</table>
Table 5: Project Entitlement Matrix based on Ethiopian laws and World Bank OP 4.12

<table>
<thead>
<tr>
<th>Land &amp; Assets</th>
<th>Type of Impact</th>
<th>Person(s) Affected</th>
<th>Compensation/Entitlement/Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agricultural Land</strong></td>
<td>Cash compensation for affected land equivalent to market value Less than 20% of land holding affected land remains economically viable.</td>
<td>Farmer/ title Holder</td>
<td>Cash compensation for affected land equivalent to replacement value, taking into account market values for the land.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tenant/lease holder</td>
<td>Cash compensation for affected land equivalent to replacement value, taking into account market values for the land. Cash compensation for the harvest or product from the affected land or asset, equivalent to average market value of last 3 years, or market value of the crop for the remaining period of tenancy/ lease agreement, whichever is greater.</td>
</tr>
<tr>
<td></td>
<td>Greater than 20% of land holding lost, Land does not become economically viable.</td>
<td>Farmer/ Title Holder</td>
<td>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.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tenant/ Lease holder</td>
<td>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. Relocation assistance (costs of shifting + assistance in re-established economic trees + allowance up to a maximum of 12 months while short-term crops mature).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Title holders / business owner</td>
<td>Cash compensation equivalent to average of last 3 years’ market value for the mature and harvested crop, or market value of the crop for the remaining period of tenancy/ lease agreement, whichever is greater. Relocation assistance (costs of shifting + assistance in re-establishing economic trees + allowance up to a maximum of 12 months while short- term crops mature).</td>
</tr>
<tr>
<td></td>
<td>Limited Loss</td>
<td>Business owner is lease holder</td>
<td>Opportunity cost compensation equivalent to 10% of net annual income based on tax records for previous year (or tax records from comparable business, or estimate where such records do not exist).</td>
</tr>
<tr>
<td></td>
<td>Assets used for business severely affected. If partially affected the remaining assets become insufficient</td>
<td>Title holder/business owner</td>
<td>Land for land replacement or compensation in cash according to PAP’s choice; cash compensation to take into account market values for the land. 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</td>
</tr>
<tr>
<td>Land &amp; Assets</td>
<td>Type of Impact</td>
<td>Person(s) Affected</td>
<td>Compensation/Entitlement/Benefits</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------------------------</td>
<td>--------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Land</td>
<td>for business purpose</td>
<td></td>
<td>acceptable to the PAP. Transfer of the land to the PAP shall be free of taxes, registration and other costs. Relocation assistance (costs of shifting + allowance) Opportunity cost compensation equivalent to 2 months net income based on tax records for previous year (or tax records from comparable business, or estimates).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Business person /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. Relocation assistance (costs of shifting) in rental/ lease of alternative land/ property (for a maximum of 6 months) to reestablish the business.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Residual Land</td>
</tr>
<tr>
<td>Land</td>
<td>used for residence partially affected, limited loss. Remaining land viable for present use.</td>
<td>Title holder</td>
<td>Cash compensation for affected land, taking into account market values for the land.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rental/Lease holder</td>
<td>Cash compensation equivalent to 10% of lease/ rental fee for the remaining period of rental/ lease agreement (written or verbal).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Title holder</td>
<td>Land for land replacement or compensation in cash according to PAP’s choice; cash compensation to take into account market values for the land. Land for land replacement shall be of minimum plot of acceptable size under the zoning law/s or 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. When the affected holding us larger than the relocation plot, cash compensation to cover the difference in value. Transfer of the land to the PAP shall be free of taxes, registration and other costs. Relocation assistance (cost of shifting + allowances).</td>
</tr>
<tr>
<td>Building and structures</td>
<td>Structures are partially affected</td>
<td>Owner</td>
<td>Cash compensation for affected building and other fixed assets, taking into account market costs of structures and materials Cash assistance to cover costs of restoration of the remaining structure.</td>
</tr>
<tr>
<td></td>
<td>Remaining structures viable for continued use</td>
<td>Rental/lease holder</td>
<td>Cash compensation for affected assets, taking into account market costs for assets and materials (verifiable improvements to the property by the tenant). Disturbance compensation equivalent to two months</td>
</tr>
<tr>
<td>Land &amp; Assets</td>
<td>Type of Impact</td>
<td>Person(s) Affected</td>
<td>Compensation/Entitlement/Benefits</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>----------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Entire structures are affected or partially affected. Remaining structures not suitable for continued use</td>
<td>Owner</td>
<td>Rental costs.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cash compensation, taking into account market rates, for entire structure, materials, 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. Right to salvage materials without deduction from compensation. Relocation assistance (costs of shifting + allowance). Rehabilitation assistance if required (assistance with job placement, skills training).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Squatter/informal dwellers</td>
<td>Cash compensation for affected structure without depreciation, taking into account market rates for materials. Rights to salvage materials without deduction from compensation. Relocation assistance (cost of shifting assistance to find alternative secure accommodation preferably in the community of residence through involvement of the program). Alternatively, Assistance to find accommodation in rental housing or in a squatter settlement scheme, if available. Rehabilitation assistance if required assistance with job placement, skills training.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Street vendor (informal without title or lease to the stall or shop)</td>
<td>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.</td>
</tr>
<tr>
<td>Standing Crops</td>
<td>Crops affected by land acquisition or easement</td>
<td>PAP (whether owner, tenant or squatter)</td>
<td>Relocation assistance (costs of shifting) Assistance to obtain alternative site to re-establish the business.</td>
</tr>
<tr>
<td>Trees</td>
<td>Trees lost</td>
<td>Title holder</td>
<td>Cash compensation based on type, age and productive value of affected trees plus 10% premium.</td>
</tr>
<tr>
<td>Temporary Acquisition</td>
<td>Temporary acquisition</td>
<td>PAP (whether owner, tenant, or squatter)</td>
<td>Cash compensation for any assets affected, taking into account market values for materials (e.g. boundary wall demolished, trees removed).</td>
</tr>
</tbody>
</table>
8. GRIEVANCE REDRESS MECHANISM

Grievance redressing mechanisms have to be designed in view of the fact that project activities may upset the existing balance in society. The affected people will be given many opportunities to review the survey results and compensation policies during the process of resettlement planning and implementation. However, during implementation, various issues might be encountered if there are adverse social impacts induced by the project. Grievances and disputes that arise during the course of implementation of a resettlement and compensation program may be related to the following issues:

- Disagreement on plot boundaries, either between the affected person and the expropriation agency or between two neighbors;
- Disputed ownership of a given asset (two or more affected people claim that the affected asset is theirs);
- Disagreement on plot/asset valuation;
- Successions, divorces, and other family issues resulting in disputed ownership or disputed shares between inheritors or family members;
- Where affected people opt for a resettlement-based option, disagreement on the resettlement package (the location of the resettlement site does not suit them, proposed housing or resettlement plot characteristics/agricultural potential are not adequate in their view); and,
- Disputed ownership of businesses and business related assets (quite usually, the owner and the operator of a business may be distinct individuals, which give rise to disputes in the event of compensation).

In order to resolve these concerns effectively and timely, a grievance redress mechanism will be set up. The affected people will be notified about such mechanism before the resettlement implementation. Grievances will be actively managed and tracked to ensure that appropriate resolution and actions are taken. A clear time schedule will be defined for resolving grievances, ensuring that they are addressed in an appropriate and timely manner, with corrective actions being implemented and the complainant being informed of the outcome.
Proposed Grievance Management Mechanisms

The grievance procedure does not replace existing legal processes. Based on consensus, the procedures will seek to resolve issues quickly in order to expedite the receipt of entitlements, without resorting to expensive and time-consuming legal actions. If the grievance procedure fails to provide a result, complainants can still seek legal redress.

Registration of Grievances

As long as one of the sub-projects entails resettlement and/or compensation, the implementation agencies will establish a register of resettlement/compensation related grievances and disputes. The existence and conditions of access to this register (where, when, how) shall be widely disseminated within the interested area of the implementation sites as part of the consultation undertaken for the sub-projects in general.

Any grievance that may arise from the Compensation/ resettlement action plan will be filed for First Instance to the implementation agency of the sub-projects, and will be registered by the agency for further action.

First Instance – Amicable Settlement

While there are courts of law for handling grievances, local communities may often be reluctant to expose family members to courts of law, which could trigger the separation of families or worsen conflicts between neighbors. Also, courts of law may be viewed as slow and involving somewhat complicated procedures. People may prefer such matters to be first handled by a “first instance” mechanism, on the model of traditional dispute-resolution mechanisms. In such compensation and resettlement operations, it usually appears that many grievances have roots in misunderstandings, or result from neighbor conflicts, which usually can be solved through adequate mediation using customary rules. Most grievances can be settled with additional explanation efforts and some mediation. This is why a first instance of dispute handling will be set up with the aim of settling disputes amicably, in the form of a locally selected Mediation Committee.
A local Grievance Hearing Committee (GHC) will be established, consisting of representatives from the village or town, municipality, Wereda, or Kebele administration, the displaced persons, elders or influential personalities other than the displaced persons, and religious administration. The Grievances should be settled amicably whenever possible. Positive discussions need to be made to convince the affected PAPs in the presence of the GHC. However, if the resolution of a case requires additional payment or any form of relocation of resources, the report shall be sent to the appropriate administrative executive for consideration. If the administrator agrees to the recommendation, he/she shall instruct the relevant resettlement Unit to implement the amended provision; on the other hand, if the recommendation of the GHC is such that it upsets legal frameworks, the aggrieved party may be advised to pursue the case in a normal law court.

When a grievance/dispute is recorded as per above-mentioned registration procedures, mediation meetings will be organized with interested parties. Minutes of meetings will be recorded. Solutions to grievances related to compensation amounts, delays in compensation payments or provision of different types of resettlement assistance should be pursued directly by the designated RAP team through liaison with the relevant actors. The sub-project RAP team will ensure that community members and in particular PAPs are informed about the avenues for grievance redress, and will maintain a record of grievances received, and the result of attempts to resolve these. All PAPs will be informed about how to register grievances or complaints, including specific concerns about compensation and relocation. The existence and procedural details related with this first instance mechanism will be widely disseminated to the interested population as part of the consultation undertaken for the subprogram in general. In urban areas, a PAP who is dissatisfied with the amount of compensation may complain to an administrative organ and if the PAP is still not satisfied, may appeal to the regular appellate court or municipal appellate court if applicable within thirty days from the date of the decision.

**Appeal to Court**

Whenever misunderstandings and disputes arise between the principal parties (e.g. local government bodies and affected parties) involved in the resettlement and compensation process, the preferred means of settling disputes is through arbitration (*Proclamation No.455/2005*). The
number and composition of the arbitration tribunal may be determined by the concerned parties. Though *Proclamation No. 455/2005* provides for appeals from valuation decision, such action will not delay the transfer of possession of land to the proponent. Courts of law shall be considered as a “last resort”, which in principle should only be triggered where first instance amicable mechanisms have failed to settle the grievance/dispute. However, the Constitution allows any aggrieved person the right of access to court of law.

**World Bank Group (WBG) Grievance Redress Service**

Communities and individuals who believe that they are adversely affected by a WBG supported program, may submit complaints to existing program-level grievance redress mechanisms or the WBG’s Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address program-related concerns. Program affected communities and individuals may submit their complaint to the WBG’s independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WBG non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the WBG’s attention, and WBG Management has been given an opportunity to respond. For information on how to submit complaints to the WBG’s corporate Grievance Redress Service (GRS), please visit [http://www.worldbank.org/GRS](http://www.worldbank.org/GRS). For information on how to submit complaints to the WBG Inspection Panel, please visit [www.inspectionpanel.org](http://www.inspectionpanel.org) or you may download relevant information on how to file a request from the following source: [http://ewebapps.worldbank.org/apps/ip/Documents/Guidelines_How%20to%20File_for_web.pdf](http://ewebapps.worldbank.org/apps/ip/Documents/Guidelines_How%20to%20File_for_web.pdf).
9. PUBLIC CONSULTATION AND DISCLOSURE

9.1 Public Consultation Overview

Public consultation and participation is a continuous process which identifies and discusses the key issues and impacts of the proposed project by the stakeholders. The consultation and participation process has different phases that include preparation and planning of operations, implementation of operations and monitoring and evaluation. The level of information which is disseminated or the issues on which consultation takes place vary with the progress of the project process. The public consultation which includes public and community in general could further be divided into two groups that are public at large in the area of influence; and the affected community in the project area by the proposed sub-project activities.

The public consultation methods include interviews, questionnaires and focus group discussions, community meetings, and public hearings. The guidelines for public consultation include, among others, a requirement of major elements of the consultation program that should be timed to coincide with significant planning and decision-making activities in the project cycle. The consultation program may involve both formal and informal presentations and meetings with the target groups, information dissemination campaigns through fliers, posters, and radio announcements; and an opinion survey. During design and implementation, the PSEs will work closely with the relevant regional and Wereda offices to carry out continued consultation.

The consultation and information dissemination to the key stakeholders will include issues on the following aspects:

- The relevant details of the sub-projects;
- Community’s feedback on the design of the sub-projects;
- Issues of vulnerable groups including gender issues;
- Proposed community support activities for overall social development;
- The resettlement plan and various degrees of project impact;
- Details of entitlements under the resettlement plan and what is required of PAPs in order to claim their entitlements (a copy of the entitlement matrix in local language will be provided to the PAPs as applicable);
Compensation process and compensation rates;
If applicable, relocation and resettlement site development operation in order to obtain agreement and support of affected people in participating in these operations;
Implementation schedule with a timetable for the delivery of entitlements;
Detailed explanation of the established grievance process mechanism;
The implementing agencies shall enlist the help of community leaders and other influential community officials in encouraging the participation of the PAPs in resettlement and community support activities; and,
Finally, they shall attempt to ensure that all vulnerable groups and women understand the process and that their needs are specifically taken into consideration.

9.2 Objectives of the Public Consultations

The main objective of the public consultation is to consult the community about the proposed sub-projects so as to get their support throughout the implementation of the project. The specific objectives of the public consultations on the other hand include the following:

- To share fully the information about the proposed project, its component and its activities with the community;
- To obtain information about the needs and priorities of the communities, as well as information about their reactions to the proposed polices and activities;
- To inform communities about various options on relocation and rehabilitation;
- To obtain cooperation and participation of communities in activities required to be undertaken for resettlement planning and implementation;
- To ensure transparency in all activities related to land acquisition, compensation payment, resettlement and rehabilitation;
- To obtain qualitative as well as quantitative information on viable income generation and livelihood interventions which PAPs could engage themselves, in order to restore their income and livelihood in a self-sustaining manner; and,
- To inform local authorities of all the potential impacts, agreed on a cut-off-date, solicit their views on the project and discuss their share of responsibility for the smooth functioning of the overall project operations.
9.3 Consultation and Participation Process

Relocating or compensating people implies communication or dialogue with the stakeholders. After completion of the design or the design review, PAPs will be consulted individually and in groups depending on the context. The consultation and participation process will include four phases: i) data collection; ii) preparation and planning of operations; iii) implementation of operations; and iv) monitoring and evaluation.

The relevant Wereda administration offices (or relevant departments) are responsible for coordinating the public participation and consultation process. The description of roles related to consultation along with various phases is described below.

9.3.1 Planning Phase

Planning and coordination of the tasks of the various actors is the key to successful implementation of the expropriation /compensation arrangements. PAPs will be encouraged to participate in the planning and implementation of the intended program /project. Community Based Organizations (CBOs) also will take part in the consultation process. The following are the major actors proposed to participate in the planning process.

- DBE safeguards staffs (Monitoring);
- PSE Office/experts;
- Municipality and Wereda Administration (planning);
- PAPs (planning inputs, sounding board and advice-giving);
- Kebele Administration (Rural and Urban as required);
- CBOs locally based; and,
- Other concerned bodies as required.

To achieve that goal, workshops will be organized at Wereda or Kebele level with the relevant stakeholders and government agencies, at project launching and at the commencement of every project identified as having adverse social impacts. The above stakeholders will be requested to participate in the decision making process and provide inputs in the area of their expertise in order to establish a coherent work plan. PAPs will be consulted with an aim to obtain their
positions on issues at stake. The requirements of their work programs/business activities will be incorporated into the expropriation/compensation plans.

The workshops will focus on:

- Taking stock of the legal framework for compensation;
- Settling institutional arrangements and mechanisms for payment of compensation;
- Defining tasks and responsibilities of each stakeholder, and,
- Establishing a work plan.

The capacity of PAPs, Wereda and municipal authorities, and technicians will be developed while participating in relevant workshops.

9.3.2 Data Collection Phase
In the data collection phase, the following organizations and groups are identified as the major actors for its implementation.

- PSE office-expert/safeguards consultant;
- Agriculture and Rural Development Offices located at Wereda level (for agricultural data);
- Wereda Water, Mines and Energy Department;
- Municipalities (housing data);
- Rural/Urban Kebele Administration (household data); and,
- PAPs (provision of other relevant data).

The above actors will constitute the main task force in the data collection phase. This process will include consultations with PAPs and other relevant stakeholders. The data collected will serve as an instrument for the monitoring of the social mitigation measures to be implemented.

PAPs, including Wereda administration and sector offices (Agriculture desk, municipality, the police, and other relevant Offices) will be consulted through individual and group meetings to share information about the project. For example, owners of properties in the right-of-way will be informed about actions to be taken and the rehabilitation or the resettlement measures anticipated in order preparing them for the possible changes. In such meetings, PAPs will be
involved and shall participate in the data collection phase by providing socio-economic information about their livelihoods. Their inputs will be integrated into the project implementation process, from the planning to the evaluation phase.

The data collection phase will include two major processes:
   i) Execution of the social impact assessment (to be initiated/completed at project launching); and,
   ii) Establishment of the presumed RAP for projects that would require it (to be initiated or completed before erection works).

9.3.3 Implementation Phase

As stipulated in the Ethiopian legal framework and the WB Safeguard Policies, development projects should not impoverish the people within the project areas. Rather, the PAPs should gain from the projects and one aspect of their achievement is that adequate compensation should be effected prior to project implementation.

The PSE and the local government administrations (Wereda, municipality, Kebele authorities, Peasant Associations) and other relevant bodies will conduct the execution of the expropriation/compensation operations. PAPs will be consulted about the compensation arrangements prepared. Amount of cash compensation for the affected property and crops will be presented to each eligible PAP for consideration and endorsement before cash payment or land for land compensation can be effected.

On this basis, therefore, the PSE should assign a team that is responsible for the effective and efficient implementation of the compensation estimated as per the valuation methods/techniques.

The major actors in the implementation phase and their roles include:

- DBE Experts (planning, coordination and monitoring);
- The Ministry of Finance and Economic Cooperation (procurement of funds);
▪ The PSEs project office (Execution of compensation);
▪ Wereda administration and municipality (facilitating the process of payment of compensation, valuation and compensation committee meetings, execution of compensation and land for land compensation); and,
▪ PAPs (endorsement of arrangements).

The Ministry of Water, Irrigation and Electricity, the Regional/Zonal Water, Mines and Energy Bureaus and DBE will take part in follow-up, support and monitoring and evaluation aspects.

9.3.4 Monitoring and Evaluation Phase

DBE in collaboration with the MoWIE, pertinent Regional Bureaus and the PSEs will organize project completion workshops (Consultative Meetings) with government agencies, NGOs and representatives of PAPs after completion of the expropriation /compensation operations.

After completion of all expropriation /compensation operations, PAPs will be consulted about their views through a household survey to be carried out by an external consultant employed for the purpose if it is deemed necessary. The objective of the household survey is to assess those mitigation measures taken to address the adverse social impacts and also to assess the implementation of the RAP and compensation payment. In general, the survey will assess the impact created by the project on the livelihood of PAPs.

Likewise, Wereda administration, Peasant Associations and City Administrations as the case may be will also be consulted to provide their assessments of the impacts of the social mitigation measures applied.

Actors:
▪ Relevant experts from the DBE (Energy Team Coordination, Planning, follow-up, monitoring and evaluation);
▪ Ministry of Water, Irrigation and Electricity (Follow-up, monitoring and evaluation);
▪ Regional Water, Mines and Energy Bureaus (Planning, follow-up, coordination, monitoring and evaluation);
▪ Wereda administrations, (planning, coordination, monitoring);
• Relevant departments in City Administrations or Municipalities (Planning, coordination and monitoring);
• Rural Kebele Peasant associations (Planning, coordination and monitoring);
• PAPs and NGO’s or private consultants wherever required (evaluation); and,
• Regional Environmental Protection Bureaus/Offices.

The findings of the survey and the workshops will be presented in the Project Completion Report, which will be facilitated by the DBE and the MoWIE.

9.4 Consultations during the Preparation of the RPF

In the due course of the RPF preparation, views from the consultations were also carried out with community representatives/beneficiaries of similar projects and the regional as well as local officials at Wereda level which is in one way or another would be affected or have interest were consulted. The following methods were used to achieve the consultation objectives and to come up with a sound mitigation plan that will lay stronger foundations for implementation of the subprojects under the proposed two programs:

• Interviews with the individual stakeholders;
• Meetings with the officials and staffs from relevant institutions;
• Direct observation and discussion at the field level; and,
• Data collection from relevant stakeholders.

The consultations were held in SNNPRS and Oromia regions. Stakeholders from the regional offices and Wendo Genet, Hawassa Zuria Wereda (SNNPRS) and Ada Wereda (Oromia region), Wereda Water, Mineral and Energy office representatives, Regional biogas Program coordinators, Omo MFI offices representatives and Households representatives in these communities were part of the consultation (list of consulted people and issues raised are attached in Annexes 1 and 2). During the consultations, brief explanation was made on project’s major objective, terms of implementation, possible environmental and Socio economic impact which may surface during the projects implementation phase.
The consulted beneficiaries pointed out the following benefits from the biogas establishments:

- Access of students for study during the night;
- Reduction/absence of fuel costs and corresponding saving of cost that could otherwise be used for the purchase of charcoal (6 Birr per day in one case);
- Health improvement;
- Use of bio fertilizer through the compost and enhanced yield of sugarcane, lentils, forage, red Teff, papaya, mango and avocado, sugar cane, tomato, chat, maize, forage (see plate 2), etc.;
- Managed to save money that was previously used for the purchase of Urea and DAP;
- Managed to hire plots of land from other persons which among others is due to the availability of compost;
- The immediate area near the slurry is free of mosquito and flies;
- Additional income has been obtained from the sale of slurry i.e. 5 Birr per 20 liter container;
- Created job opportunity for workers including for stirring and for carrying slurry to the field; and,
- Cooking made easy and fast.

*Plate 1: Consultation with officials at regional and Wereda level MFIs – SNNPRS*
In addition to appreciating the benefits, the visited households recommended if there is possibility of availing special Injera cooking stoves and Solar Home Systems for use where only biogas plants are availed. Such households will be targeted for solar home system in the future and the program will work on strengthening the use of biogas technologies such as introduction of Injera cooking stoves.

An attempt has been made to describe the problems associated with institutional/linkage, technology, maintenance and supply of accessories and with beneficiaries of biogases as follows (see table 6).
## Table 6 Problems associated with the biogases, their description and proposed mitigation measures and their description

<table>
<thead>
<tr>
<th>Problems Associated with the Biogases</th>
<th>Descriptions of the Problems</th>
<th>Proposed mitigation measures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A) Institutional/ linkage related problems</strong></td>
<td>• The existing weak link between the MFI branch offices and Regional/ Wereda Water, Mines and Energy Bureaus.</td>
<td>• DBE shall play a major role to strengthen the coordination among participating institution and ensure the implementation of their responsibilities stated in the complementary document- ESMF;</td>
</tr>
<tr>
<td></td>
<td>• Absence of strong coordination/linkage among the different parties including biogas coordination units, regional and Wereda Water, Mines and Energy Bureaus/Offices and micro finance institutions to the desired level.</td>
<td>• The regional biogas program coordination office, the regional water, mines and energy bureaus, and micro-financial institutions at regional level should undertake regular meetings, on the overall progress and evaluation of the tasks DBE by taking the lead;</td>
</tr>
<tr>
<td></td>
<td>• There is absence of consistent follow-up, support, monitoring and evaluation system.</td>
<td>• Put into effect regular follow-up, support, monitoring and evaluation system;</td>
</tr>
<tr>
<td></td>
<td>• Less consideration of preset criteria for loan eligibility and safeguards management</td>
<td>• Ensure the capacity of MFI/ Wereda Water, Mines and Energy offices in the in regular follow up, monitoring and evaluation of the program;</td>
</tr>
<tr>
<td></td>
<td>• Lack of institutional commitment to ensure the capacity and awareness of the program by the experts in of certain Weredas</td>
<td>• Strictly respect the criteria set for the selection of likely beneficiaries;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• The regional entities (The regional biogas program coordination, the regional water, mines and energy bureaus, and micro-financial institutions at regional) should enhance the awareness of their respective employees and ensure their capacity in the implementation of the program at the lowest administrative units including Wereda; and,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Bi-annual regional review meetings will be organized by DBE to address challenges and share best practices, as applicable.</td>
</tr>
<tr>
<td>Problems Associated with the Biogases</td>
<td>Descriptions of the Problems</td>
<td>Proposed mitigation measures</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>-----------------------------</td>
<td>-----------------------------</td>
</tr>
</tbody>
</table>
| B) Problems associated with maintenance and supply of accessories | - Despite the training provided for the users there are occurrence of damage on pipes and cracking of digesters, which usually emanate from improper use/handling of the overall system.  
- There is absence of regular maintenance, which partly led to the reluctance of the beneficiaries to pay their debts.  
- Once the lamps are not functional, there are problems of getting additional lamps on time. As it is the case in one of the beneficiaries in Wendo Genet Wereda, the replacement of lamps took more than 4 months, which is due to absence of adequate supply of lamps on time on one hand and the request by the mason to pay 100 Birr for a single lamp. | - Raise awareness of beneficiaries by the pertinent local staff on the use and handling of the biogas digesters and to pay their loans;  
- Undertake regular maintenance by the beneficiaries and Wereda staff and local masons as per prior defined agreements;  
- The Wereda Mines and Energy Departments will avail lamps at reasonable prices in consultation with distributors; and,  
- Reexamine the memorandum of agreements made between the suppliers and regional entities so as rectify any drawbacks. |
| C) Problems associated with the beneficiaries | - There are problems among some beneficiaries as they participated without adequate attitudinal change and awareness. In such instances, the beneficiaries failed to pay their debt;  
- Use of the money allocated for biogas program to other uses once the supposed beneficiaries received the loan; and,  
- Failure to provide adequate input (dung) on time. | - Enhance awareness of the likely beneficiaries so as to bring about the desired attitudinal changes including the need for the provision of necessary inputs (dungs, water) on time before and after the release of loans;  
- Regular training, awareness and follow-up shall be carried out over the project period to ensure the sustainable implementation of the program without misusing the subproject money; and,  
- Train and educate target households especially women, who are usually responsible for feeding cleaning and maintain the biogas units. |
| D) Problems associated with technology: - | - Absence of variety of designs that could suit to different conditions.  
- Problems related to slurry in urban areas where the residents do not have land (adequate land) to use the slurry/compost which in turn incurs them to suck the slurry every six months; | - Strengthen the current initiative to look for various designs and use the suitable one, as per the local conditions;  
- The experts at Wereda level should get from RWMEB adequate awareness on the positive impacts of the biogas technology in order to |
Problems Associated with the Biogases | Descriptions of the Problems | Proposed mitigation measures
---|---|---
- On part of some experts at Wereda level there are tendencies to underestimate the technology; and,
- In some Weredas there is a failure to understand the technology on the part of the professionals and thus fail to share appropriate knowledge to the beneficiaries. | enhance their commitment;
- The program shall check and enforce all urban/rural subproject beneficiaries to arrange and include the methods for safe final disposal bio-slurry in their sub project proposal;
- Scale up best practices on improved biogas technology/applicability; and,
- Re-examine the relevance/applicability of biogas in urban areas and seriously consider/revise the criteria for constructing biogases in urban areas. |

With regard to Solar Home Systems, the benefits as per the opinions of the beneficiaries include the following:

- Lighting;
- Listening of FM Radio;
- Mobile phone charge;
- Flash player;
- Access of students for study during the night; and,
- There are also benefits in terms of job creation in the private sector including importers, distributors and technicians.

The major issues in the promotion and expansion of biogas and solar energy in the surveyed areas include the following (see table 7):
<table>
<thead>
<tr>
<th>Major issues</th>
<th>Descriptions</th>
<th>Proposed mitigation measures</th>
</tr>
</thead>
</table>
| Promotion and awareness              | • There is gap in awareness. The Wereda Water, Mines and Energy office plays role of promotion and awareness raising at Wereda level along with the masons for the biogas, but with limited number of staff and capacity to reach the community at large. | • Assess and strengthen capacity of the Wereda Water and Mines/MFIs/contractors for effective promotion and awareness of the program;  
• The awareness sessions for the pertinent staff of the Wereda Water, Mines and Energy Office, together with staffs from other participating institution staffs should be organized periodically;  
• In conjunction with the masons/MFI focal persons and Wereda mine energy offices experts use model beneficiaries in the process of awareness raising programs;  
• Aware the target beneficiaries to ensure understanding of the Biogas, solar lantern, Solar Pv Mini-grid, and Solar home system management, benefits, challenges;  
• Provide full information for the beneficiaries on relevant institution responsible for providing maintenance and other operational support; and,  
• Beneficiaries shall be aware and respect their responsibility on the conditions expected from them over the project period. |
| General problems associated with loan repayment | • On the part of the micro financial institutions, they provide credit to other purposes, which are initially assigned for biogases. A case in point is Omo micro finance where credit which was ready for 50 beneficiaries had been allocated to only 20-30 persons while the balance is used for other credit purposes;  
• Failure of officials/experts at various tiers of administration to sensitize the beneficiaries to return loans;  
• Absence of follow-up and support;  
• The resistance of the beneficiaries to pay their loans on the grounds of malfunctioning of the system;  
• Flow of information is also not good and Undertake monitoring with clear feedbacks;  
• Undertake sensitization of beneficiaries through various means including local agents (focal persons) and model beneficiaries;  
• Conduct regular support and follow-up programs through the MFI; and,  
• The MFI/ Regional Water, Mines and Energy Bureaus in consultation with relevant Wereda Offices should facilitate the logistics requirements. |
<table>
<thead>
<tr>
<th>Major issues</th>
<th>Descriptions</th>
<th>Proposed mitigation measures</th>
</tr>
</thead>
</table>
| updated report is not communicated among the various parties;  
• Some beneficiaries consider the technology they received not on credit but provided free of charge for being a Model Farmer; and,  
• The provision of adequate logistics particularly motor bikes is one of the major concerns for providing support, undertaking monitoring, follow-up and Issues associated with logistics and integration. | |  
• Regular support and follow-up to beneficiaries through the staff at Wereda level;  
• Construct and maintain the biogas and its appurtenances as per the requisites; and,  
• The National (Regional) Biogas Program Coordination Units should put in place alternative models of biogas digesters. |
| Specific issues associated with application of biogas technology | • Despite the trainings provided to various stakeholders there is frequent damage on the pipes and biogas digesters. This is particularly serious in localities with black cotton soils as it is the case in Ada Wereda of Oromia where digesters are cracked. This calls for adaptive design that suits to local contexts. To put it differently, the design should not be one and the same for all types of soils; and,  
• With regard to safety, there are slurries without fence. In one of the sites visited slurries have been observed without adequate fence which may cost lives of people particularly children/animals. |  
• Fulfill the demands for solar lanterns/solar home systems through the involvement of capable suppliers;  
• Provision of training including on the job training at certain intervals;  
• RWMEB shall strengthen the coordination with relevant institutions and control illegal trading of equipment; and,  
• Have a system in place to address timely the complaints of beneficiaries on illegal trading. |
| Specific issues associated with solar energy | • Failure to meet the demands for solar lanterns/solar home systems;  
• Illegal trading of equipment used for solar energy with low quality; and,  
• Turnover of employees who are trained in solar energy. |  
• Consideration of gender issues in order to benefit female-headed households; and,  
• Provide special support and arrangement to benefit poor/female headed household from the programs. |
| Targeting poor/ Female Headed households | • Such programs on ECCE and EORE may exclude female headed poor households on accessing loan due to less capacity of fulfilling the preset criteria. |  
• Consideration of gender issues in order to benefit female-headed households; and,  
• Provide special support and arrangement to benefit poor/female headed household from the programs. |
9.5. Public Disclosure

The World Bank Operational Policy requires that the GoE and the World Bank disclose the RPF. The RPF is required to be approved and disclosed prior to appraisal according to Bank policies and normal procedures. The disclosure should be both in GoE where it can be accessed by the public, including affected groups and NGOs, and at the World Bank Info Shop.

The DBE will make copies of the RPF available in selected public places (possibly National and Regional relevant government offices) for information and comments. The sub-projects will be announced through different forms of media. The announcement will include a brief description of the two programs, references to where and when the RPF can be viewed, duration of the display period, and contact information for comments.

For meaningful consultations between the DBE and possible project affected groups, as well as beneficiaries and local NGOs, the DBE, with the pertinent PSE, shall provide a relevant material in a timely manner prior to consultation and in a form and language that are understandable and accessible to the groups being consulted. In this respect, all concerned entities shall prepare/compile the requisite materials beforehand.

To meet the consultation and disclosure requirements of the Bank, the Government of Ethiopia will issue a disclosure letter to inform the Bank of (i) the Government’s approval of the RPF; (ii) the actual disclosure of these documents to all relevant stakeholders and potentially affected persons in Ethiopia, and (iii) the Government’s authorization to the Bank to disclose these documents in its Info shop. The steps towards disclosure of the safeguard documents have to be completed prior to appraisal of the Project as required by the Bank’s Disclosure Policy OP 17.50.
10. MONITORING AND EVALUATION

Monitoring and evaluation will be a continuous process. DBE will continuously take stock of all expropriation compensation reports and discuss it on regular basis.

After completion of the resettlement/rehabilitation operations, it is expected that PAPs will have a better or improved way of life compared to their prior resettlement situation. Therefore, resettlement/rehabilitation operations need to be monitored with regard to performance and compliance of improving the life of the PAPs.

10.1 Purpose of Monitoring

The purpose of monitoring is to provide project management, and directly project affected persons with timely, concise, indicative information on whether compensation, resettlement and other impact mitigation measures are on track to achieve sustainable restoration and improvement in the welfare of the affected people, or that adjustments are needed. In short, monitoring answers the question: Are project compensation, resettlement and other impact mitigation measures on time and having the intended effects?

Monitoring verifies that:

- Actions and commitment for compensation, resettlement, land access, and development in the RAP/ARAP are implemented fully and on time;
- Eligible project affected people receive their full compensation on time, prior to the start of the main project activities on the corridors;
- RAP/ARAP actions and compensation measures have helped the people who sought cash compensation in restoring their lost incomes and in sustaining/improving pre-project living standards;
- Compensation and livelihood investments are achieving sustainable restoration and improvement in the welfare of the PAPs and communities;
- Compliant and grievances are followed up with appropriate corrective action and, where necessary, appropriate corrective actions are taken; if necessary, changes in RAP/ARAP procedure are made to improve delivery of entitlements to project affected people; and,
- Vulnerable persons are tracked and assisted as necessary.
In the case of large-scale resettlement projects, the DBE may conduct the monitoring through a consultant or an NGO who might have experience in the preparation of a Resettlement Action Plan (RAP). The monitoring can be internal or external.

The frequency of monitoring may vary depending on the magnitude and complexity of the operations. Field visits will be conducted at least once a month on a sample basis by PSEs. DBE Environmental and Social safeguards team and relevant DBE officers/experts will undertake monitoring, evaluation, follow-up and support pertaining to the programs on a sample basis at least twice a year. Wereda administrations will conduct their own monitoring through the relevant offices of the Wereda. In certain cases the monitoring and evaluation of the Weredas can be carried out together with the DBE, PSEs and others.

For the sub-project with adverse social impacts, a monitoring and evaluation plan of the mitigation measures will be established. The scope of the plan will, however, take into account the size of the social and environmental impacts to be mitigated while respecting the basic monitoring principles. The plan will describe:

- The internal monitoring process;
- Key monitoring indicators (provide a list of monitoring indicators, which would be used for internal monitoring);
- Institutional (including financial) arrangements;
- Frequency of reporting and content for internal monitoring, process for integrating feedback from internal monitoring into implementation;
- Financial arrangements for external monitoring and evaluation, including process for awarding and maintenance of contracts for the duration of resettlement;
- Methodology for external monitoring;
- Key indicators for external monitoring, focusing on outputs and impacts;
- Frequency of reporting and content for external monitoring and process for integrating feedback from external monitoring into implementation; and,
- Analysis of the environmental and social performance or record of each sub-project.
Following the preparation of the plan, the relevant entities including DBE, PSE experts, MoWIE, Regional Water, Mines and Energy Bureaus, Zonal Water, Mines and Energy Offices (as the case may be), will conduct internal monitoring at various levels.

10.2 Internal Monitoring
All aspects of internal M&E shall be supervised by the federal/and regional DBE teams along with the PSEs and will provide high level evaluation of internal performance and impact monitoring and other reports. The teams will be supplemented by staff with appropriate skills to carry out the following:

- RAP/ARAP project resettlement requirements as defined by RAP/ARAP to be prepared for each sub-projects;
- Gathering and presentation of monitoring indicators to be used;
- Design and implementation of basic technique to be used for collecting information; and, feedback from PAPs; and reporting requirements and formats.

The internal monitoring will look at inputs, processes, and outcome of compensation/resettlement/other impact mitigation measures.

Input monitoring will establish if staff, organization, finance, equipment, supplies and other inputs are on schedule, in the requisite quantity and quality. Process monitoring will:

✓ Assess program implementation strategies and methodologies and the capacity and capability of program management personnel to effectively implement and manage the programs; and,
✓ Document lesson learned and best practices and provide recommendations to strengthen the design and implementation of RAP/ARAP.

Outcome monitoring will establish if agreed outputs are realized on time for:

- Communication with the affected communities;
- Agreed resettlement and compensation policies, procedures and rates;
• Compensation for crops, buildings, and lost business;
• Construction and occupation of infrastructure and housing;
• Livelihood program delivery and uptake;
• Grievance resolution; and,
• Attention to vulnerable people.

Outcome (or effectiveness monitoring) will determine the degree to which the program objectives and performance targets have been achieved.

10.3 External Monitoring and Evaluation
This should be seen in the eye of compliance and impact monitoring. For compliance monitoring, DBE will appoint a consultant to work closely with the PAPs to track the progress of RAP/ARAP implementation. The consultant (s) will be a person (s) with deep experience in the conduct of resettlement, hands on experience in monitoring and evaluation, no previous involvement in this project, and proven ability to identify actions that improve implementation and mitigate negative impact of resettlement.

The consultant will provide support in the proper implementation of resettlement program. He/she should also bring the difficulties faced by the PAPs to the notice of the program so as to help in formulating corrective measures. As a feedback to the DBE and others concerned, the external consultant should submit quarterly report on progress made relating to different aspects of resettlement and livelihood restoration activities.

Compliance monitoring will:
• Determine compliance of RAP/ARAP implementation with RAP/ARAP objectives and procedures;
• Determine compliance of RAP/ARAP implementation with the laws, regulations and applicable;
• Determine RAP/ARAP impacts on standard of living, with a focus on the “no worse-off if not better-off” objective;
• Determine international best practices;
• Verify results of internal monitoring;
• Assess whether the resettlement objectives have been met: specifically, whether livelihood program have restored the livelihood of PAPs and their living conditions have improved;
• Assess the resettlement efficiency, effectiveness, impact and sustainability, drawing lessons for future resettlement activities and recommending corrections in the implementation process;
• Ascerta...nt be appropriate to meet the objectives, and whether the objectives are suitable to PAPs conditions;
• Assess grievance records, to identify implementation problems and status of grievance resolution; and,
• Ensure RAP/ARAP implementation is in compliance with World Bank policy and the national legal requirement.

Impact Monitoring/concurrent evaluation will be carried out simultaneously with the monitoring. For Concurrent Impact Evaluation, the M&E who should have resettlement and social development experience shall:

➢ Verify whether the objective of resettlement have been realized, particularly in the changes in the living standards;
➢ Impact assessment is to be compared with the baseline values for key socioeconomics as given in the RAP/ARAP;
➢ To assess whether the compensation is adequate to replace the lost assets;
➢ Assess the level of satisfaction of the various assets provided as part of the RAP/ARAP implementation;
➢ Based on the impact assessment, suitable remedial measures are to be proposed for any shortcomings; and,
➢ Remedial measures if PAPs are not able to improve their living standards.

Thus, after one year the expropriation has been completed and the assistance to the PAPs has been made, there will be an impact evaluation to assess whether the PAPs have improved their
living conditions in relation with the baseline socioeconomic status established during the socioeconomic studies.

Impact monitoring will cover issues such as:

✓ Public perception of the Project: judgments on the PCUs, project and RAP/ARAP implementation;
✓ Social structures: traditional authorities, community cohesion;
✓ Economic status of PAPs: livelihood restoration and enterprise, employment, land holdings, non-agricultural enterprise;
✓ Cost of market basket of essentials including rental accommodation; and,
✓ Employment: on the project and in the impact area.

Further external monitoring will be conducted through WB supervision missions. The WB supervision mission (twice a year) will be used to monitor progress in the mitigation of adverse social and environmental impacts. This would ensure progress on the ground; strengthened analytical capacity and safeguarding of proper documentation of operations executed and the progress made.

10.4 Indicators to Monitor
Indicators, which will be monitored during the project, may be divided into two categories.

- Process input and output indicators for internal monitoring; and,
- Outcome or impact indicators for external monitoring.

These are highlighted briefly below:
Input indicators include the resources in terms of people, equipment and materials that go into the RAP/ARAP. Examples of input indicators in the RAP/ARAP are the sources and amounts of funding for various RAP/ARAP activities.

Output indicators concern the activities and services, which are produced with the inputs. Examples of output indicators in the RAP/ARAP include (a) a database for tracking individual compensation; and (b) the payment of compensation for losses of assets.
Process indicators represent the change in the quality and quantity of access and coverage of the activities and services. Examples of process indicators in the RAP/ARAP include:

- The creation of grievance mechanisms;
- The establishment of stakeholder channels so that they can participate in the RAP/ARAP implementation; and,
- Information dissemination activities.

Outcome indicators include the delivery of compensation and other mitigation to avoid economic and physical displacement caused by the project. They measure whether compensation is paid and received, whether the affected populations who preferred cash compensation to in-kind resettlement assistance offered to them was able to use compensation payment for sustained income.

Indicators that will be monitored broadly centered around delivery of compensation, resolution of grievance, land access, increase or decrease in PAPs assets, social stability, health, level of satisfaction of PAPs and number of PAPs that benefits from the livelihood restoration programs. Specifically some monitoring indicators for RAPs/ARAPs are outlined in table 8.below.
<table>
<thead>
<tr>
<th>Indicators</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultation Consultation and reach out</td>
<td>Number of people reached or accessing information, information request, issues raised, etc; and, Number of local CBOs participating.</td>
</tr>
<tr>
<td>Compensation and re-establishment PAPs</td>
<td>Physical Progress of Compensation and Assistance; Number of PAPs affected (building, land, trees, crops, etc); Number of PAPs compensated by the type of loss; Amount compensated by type and owners; Number of replacement asset recovered; and, Compensation disbursement to the correct parties.</td>
</tr>
<tr>
<td>Socioeconomic changes</td>
<td>Level of income and standard of living of the PAPs; and, Number of income restored, improved or declined from the pre-displacement levels.</td>
</tr>
<tr>
<td>Training</td>
<td>Number of CRC trained.</td>
</tr>
<tr>
<td>Grievance redress mechanism</td>
<td>Number of cases referred to GRC/CRC; Number of cases settled by GRC/CRC; Number of cases pending with GRC/CRC; Average time taken for resettlement of cases; Number of GRC/CRC meetings; Number of PAPs referred to court; Number of pending cases with the court; and, Number of cases settled by the court.</td>
</tr>
<tr>
<td>Overall Management</td>
<td>Effectiveness of compensation delivery system; Timely disbursement of compensation; Census and asset verification/quantification procedures in place; and, Coordination between local community structures, PAPs, AGP-II IAs, and PCU.</td>
</tr>
</tbody>
</table>

10.5 Reporting Requirement

Monitoring reports of the RPF and RAP/ARAP implementation will be prepared for the following tasks: internal monitoring, expert monitoring, completion audit and compensation. The DBE will prepare regularly (quarterly) performance monitoring report beginning with the commencement of any activities related to resettlement, including income restoration. These reports will summarize information that is collected and compiled in the quarterly narrative status and compensation disbursement reports and highlights key issues that have arisen. As a result of the monitoring of inputs, processes, outputs and outcomes of RAP/ARAP activities, Program management team will be advised of necessary improvements in the implementation of the RAP/ARAPs. Table 9 shows the reporting template to be used for the reporting of the RAP/ARAP implementation.
Table 9: RAP/ARAP Implementation Monitoring Template

### Table ….: Reporting Format on Land Acquisition and property losses

| Name & Location of Sub-project: |
| Project Sponsor: |
| Project cost: |

#### Key Dates of implementation
For example—application, approval, public consultation, court dates, work start dates etc

#### Inventory of Land & Assets Acquired from Private Owners

<table>
<thead>
<tr>
<th>Name of Owners/land user.</th>
<th>Project Component: Area(s) / plots(s) acquired (ha)</th>
<th>Owner’s/user’s % of total land (ha) and %taken</th>
<th>Land use: pasture, agriculture, residence, etc.; Inventory of any structures or other fixed or productive assets (wells, fences, trees, field crops, etc) affected; Indicate if land is rented or informally used by another party; Indicate if non-owner users have assets, trees, crops, etc affected; and, Indicate if land-based activity is primary source of income for owner or land user.</th>
<th>Compensation paid; Other actions taken for renters or users; and, Dates delivered.</th>
<th>Impact on income of owner; and, Impact on lease or informal land users.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Inventory of Public, Community, or State Land Acquired

<table>
<thead>
<tr>
<th>Land parcels for Project Components Area acquired / parcel</th>
<th>Land type / land use: Forest, commons for grazing, other.</th>
<th>Ownership: State, community, other. Structures or other fixed assets.</th>
<th>Compensation, land transfer, or other measures to mitigate impacts on land users. Specify measures and dates of delivery.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Public Awareness, Consultations, and Communication (Report on consultation/meeting process)

<table>
<thead>
<tr>
<th>Concerns raised at the public consultation</th>
<th>Concerns raised outside public consultation</th>
<th>How these concerns were resolved?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Status of land Acquisition

<table>
<thead>
<tr>
<th>Completed</th>
<th>Pending Court decision</th>
<th>ongoing</th>
</tr>
</thead>
</table>

Special Assistance provided beyond cash compensation payment of acquired land

<table>
<thead>
<tr>
<th>Alternative land</th>
<th>Relocation assistance</th>
<th>Livelihood restoration measures</th>
<th>Summary of impact which it addressed</th>
</tr>
</thead>
</table>

Identification of vulnerable groups

For example elderly, disabled, widows, etc

<table>
<thead>
<tr>
<th>Sources of information for vulnerable groups</th>
<th>Methods and channels used to contact them</th>
<th>Assistance provided to them</th>
</tr>
</thead>
</table>

Grievance Redress process

<table>
<thead>
<tr>
<th>Mechanisms available for project impacted persons to register their grievances and complaints.</th>
<th>PAPs awareness of the grievance protocol</th>
<th>Are the Grievance mechanisms and procedures affordable and accessible</th>
<th>Any third party settlement mechanism, involvement of community leaders, NGOs</th>
</tr>
</thead>
</table>

Report on how project monitoring (land acquisition) will be done to preclude any future social issues after the project is completed.

10.6 Completion Audit

The DBE shall commission an external party to undertake an evaluation of RAP’s/ARAP’s physical inputs to ensure and assess whether the outcome of RAP/ARAP complies with the involuntary resettlement policy of the World Bank, and the national legal requirement related to expropriation of landholding and payments of compensation. The completion audit shall be undertaken after the RAP/ARAP inputs. The audit shall verify that all physical inputs committed in the RAP/ARAP have been delivered and all services provided. The report will also be used as a planning instrument to correct pending issues and suggest a post-project monitoring period
with the aim of ensuring that PAPs have not been subject to impoverishment induced by the DBE project operations. It shall evaluate whether the mitigation measures prescribed in the RAP/ARAP have the desired effect. The completion audit should bring to closure DBE liability for resettlement.
11. Budget and Funding Arrangement

As stated in the Constitution of FDRE, people affected by development projects have the rights to be compensated and resettled wherever the situation compels. This forms the bottom line for the commitment of the Government towards compensation and resettlement. Any required physical resettlement will be financed through counterpart funds from the Government of Ethiopia. At this stage where the locations of sub-projects have not yet been determined, and the number of PAPs cannot be identified, it is not possible to provide an estimated budget for the total costs of resettlement that may be associated with the implementation of the sub-project, Solar PV mini-grid.

When these locations are known, and after the conclusion of the site specific socio-economic study, information on specific impacts, individual and household incomes and numbers of affected people and other demographic data will be available, followed by detailed and accurate budget for each RAP. Once the budget is finalized based on the site and sub project specific information for the RAP implementation, it will be approved by WB. Once the budget is approved, the implementation will be undertaken. An indicative RAP budget outline can be found in Table 10 below.

Table 10: Indicative Outline of a RAP Budget

<table>
<thead>
<tr>
<th>Asset acquisition</th>
<th>Amount or number</th>
<th>Total estimated cost</th>
<th>Responsible Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Land Acquisition and Preparation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Land</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Structures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Crops areas and others</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Community infrastructure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Relocations</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Transfer of possessions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Installation costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Economic Rehabilitation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Special livelihood restoration for Vulnerable Groups</td>
<td>Totals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Capital Investments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Monitoring</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Contingency</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#</td>
<td>Item</td>
<td>Costs</td>
<td>Assumptions</td>
</tr>
<tr>
<td>----</td>
<td>----------------------------------------------------------------------</td>
<td>------------------------</td>
<td>-------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>Compensation for loss of Land /hectare</td>
<td></td>
<td>For land acquisition purposes, based on Ethiopian average market cost, or from similar projects.</td>
</tr>
<tr>
<td>2</td>
<td>Compensation for loss of Crops /hectare of farm lost</td>
<td></td>
<td>Includes costs of labor invested and average of highest price of staple food crops and Ethiopian market prices.</td>
</tr>
<tr>
<td>3</td>
<td>Compensation for loss of access to pastoralists If applicable</td>
<td></td>
<td>Those affected would be provided with shared access, or alternate routes (decision agreed through consultation and participation of all).</td>
</tr>
<tr>
<td>4</td>
<td>Compensation for loss of access to fishing resources. If applicable</td>
<td></td>
<td>Data provided from the revised socio-economic study will determine market values of catch, fish products etc.</td>
</tr>
<tr>
<td>5</td>
<td>Compensation for Buildings and Structures If applicable</td>
<td></td>
<td>This compensation may be in-kind or cash. Costs for basic housing needs should include ventilated pit latrines, outside kitchen, and storage.</td>
</tr>
<tr>
<td>6</td>
<td>Compensation for Trees /year/tree</td>
<td></td>
<td>Includes costs of labor invested and average of highest price of trees (and tree products) and Ethiopian market prices.</td>
</tr>
<tr>
<td>7</td>
<td>Cost of Relocation Assistance/Expenses /household</td>
<td></td>
<td>This cost reflects the moving and transportation allowance.</td>
</tr>
<tr>
<td>8</td>
<td>Cost of Restoration of Individual Income</td>
<td></td>
<td>Assumed to be higher than the GDP/capita in Ethiopia.</td>
</tr>
<tr>
<td>9</td>
<td>Cost of Restoration of Household Income</td>
<td></td>
<td>These costs reflect the livelihood restoration program of the RAP.</td>
</tr>
<tr>
<td>10</td>
<td>Cost of Training Farmers, pastoralists and other PAPs</td>
<td></td>
<td>This is a mitigation measure involving capacity building and involves PAPs and affected communities.</td>
</tr>
</tbody>
</table>
REFERENCES

- Addis Ababa City Administration (no date), Finance and Economy Development Bureau, Addis Ababa Socio-Economic Profile, Addis Ababa.
- Dire Dawa Administration (July 2006), Integrated Development Plan (IDP) of Dire Dawa Administration, 2006/7 - 2010/2011, Dire Dawa.
- FDRE (no date), Energy Policy of Ethiopia, Addis Ababa.


▪ **MOFED and EPA** (1997), Environmental Policy of Ethiopia, Addis Ababa.


▪ Programme Design Document form for Small-Scale CDM Programmes of Activities, (Version 04.0).


▪ [https://advocacy4oromia.files.wordpress.com/2014/06/an-overview-of-oromias-tourism-resources.pdf](https://advocacy4oromia.files.wordpress.com/2014/06/an-overview-of-oromias-tourism-resources.pdf)[An Overview of Oromia’s Tourism Resources]
### ANNEXES

**Annex 1 Names of beneficiaries, benefits gained and concerns raised**

<table>
<thead>
<tr>
<th>Se. no.</th>
<th>Region</th>
<th>Wereda</th>
<th>Specific locality</th>
<th>Name of beneficiary visited</th>
<th>Type of energy</th>
<th>Capacit y/no. Of cows</th>
<th>Major benefits</th>
<th>Major concerns raised</th>
<th>Services</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| 1       | Oromia | Ada    | Denkeko area, Alge PAS | W/o Werkitu Gelaso          | Biogas         | 8m³ (10 cows)       | ▪ Reduction of fuel costs;  
▪ Health improvement;  
▪ Use of fertilizer through the compost and enhanced yield of lentils, forage, red Teff, papaya, mango and avocado; and,  
▪ Access of students for study during the night. | ▪ Possibility of stove for making Injera;  
▪ The need to watch television through appropriate technology; and,  
▪ The requirement of a special Stirring equipment for the dung rather than using hand. | One lamp and one stove. | No damage at all. |
| 2       | SNNPRS | Wendo Genet | Wesha Soyema Kebele PAS, Mender 2. | Ato Atnafu Lemma | Biogas         | 6m³                | ▪ Absence of costs for purchase of fuel;  
▪ Use of fertilizer through the compost and a) enhanced yield of sugar cane, tomato, chat, b) improve the fertility of the red soils c) managed to hire land of other persons d); | ▪ A person who installs a biogas should have at least 3000 m² plot of land and a cart for transporting compost/slurry; and,  
▪ If the slurry is not properly covered there may be a danger of being hurt/die. | One lamp and one stove. | ▪ Human wastes are also used;  
▪ Established without credit; and,  
▪ The slurry has no cover at the roof top and on the ground. |
<table>
<thead>
<tr>
<th>Se. no.</th>
<th>Region</th>
<th>Wereda</th>
<th>Specific locality</th>
<th>Name of beneficiary visited</th>
<th>Type of energy</th>
<th>Capacit y/no. Of cows</th>
<th>Major benefits</th>
<th>Major concerns raised</th>
<th>Services</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| 3       | SNNPRS  | Wendo Genet  | Wetera & Kechema PAS, Amberber locality | Ato Getachew H/Meskel (Tel-0912170152) | Biogas         | 8m³                  | ▪ Additional income has been obtained from the sale of slurry i.e., 5 Birr per 20 liter container;  
▪ The immediate area near the slurry is free of mosquito and flies; and,  
▪ Managed to save money that was previously used for the purchase of Urea (Birr 1012.5/year) and Dap (Birr 1132.5/year).  
▪ Cooking and lighting benefits;  
▪ Use of compost/slurry for the production of forage, sugar cane, chat and maize;  
▪ Reduction of fuel costs;  
▪ Health improvement;  
▪ Reduced the cost incurred for the purchase of artificial fertilizers in that it reduced from the purchase of 5 quintals of fertilizer to 1 quintal of Urea only (for chat); and,  
▪ Created job | | | One lamp and one stove. | Managed to return his loan within a year. |
<table>
<thead>
<tr>
<th>Se. no.</th>
<th>Region</th>
<th>Wereda</th>
<th>Specific locality</th>
<th>Name of beneficiary visited</th>
<th>Type of energy</th>
<th>Capacit y/no. Of cows</th>
<th>Major benefits</th>
<th>Major concerns raised</th>
<th>Services</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>SNNPRS</td>
<td>Wendo Genet</td>
<td>Wetera &amp; Kechema PAS, Amberber locality, Mender 01</td>
<td>Ato Tamre Basha (Tel-0916133409)</td>
<td>Biogas.</td>
<td>5 cows</td>
<td>▪ Saving of cost that could otherwise be used for the purchase of charcoal (6 Birr per day); and, ▪ Use of compost for enriching soil fertility.</td>
<td>▪ Problem of getting lamps; ▪ Absence of coordination/communication with the mason; and, ▪ Scarcity of water as the groundwater source in his compound has been collapsed.</td>
<td>One lamp and one stove</td>
<td>▪ The lamp has been broken before 4 months; and, ▪ Failed to pay his loans (has not yet started to pay his debts).</td>
</tr>
<tr>
<td>5</td>
<td>SNNPRS</td>
<td>Wendo Genet</td>
<td>Edo Kebele, Abosa locality</td>
<td>Ato Beyene Shasemo (Tel-0911702456)</td>
<td>Biogas.</td>
<td>6m³ (with 8 cows)</td>
<td>Use of compost/slurry for enriching fertility of soils (for cultivating Enset, Chat, Maize, cabbage and various types of trees).</td>
<td>▪ The society has not yet fully accustomed to buy slurry for their agricultural fields.</td>
<td>One lamp and one stove</td>
<td>It is working well.</td>
</tr>
<tr>
<td>6</td>
<td>SNNPRS</td>
<td>Hawassa Zuria.</td>
<td>Uda Wetate PAS.</td>
<td>Ato Ayana Betiso.</td>
<td>Solar.</td>
<td>60 watt.</td>
<td>▪ Lighting; ▪ Listening of FM Radio; ▪ Mobile phone charge; and, ▪ Flash player.</td>
<td></td>
<td>4 lamps, one television (14 inches).</td>
<td>The model is Stanford Model 10 MLR.</td>
</tr>
</tbody>
</table>
Annex 2 Officials/Experts Consulted during the Fieldwork

<table>
<thead>
<tr>
<th>Ser. no</th>
<th>Name</th>
<th>Region</th>
<th>Town/city</th>
<th>Organization</th>
<th>Responsibility</th>
<th>Tel</th>
<th>Date of consultation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ato Kedir Adem</td>
<td>Oromia</td>
<td>Bishoftu</td>
<td>Oromia Regional Bio-gas Program Coordination Unit</td>
<td>Program Coordinator</td>
<td>0943334810</td>
<td>Nov. 22, 2016</td>
</tr>
<tr>
<td>2</td>
<td>W/o Meseret Moji</td>
<td>&quot;</td>
<td>Bishoftu</td>
<td>Water, Mines and Energy Department of Ada Wereda</td>
<td>Wereda Biomass Energy Expert</td>
<td>0910862992</td>
<td>&quot;</td>
</tr>
<tr>
<td>3</td>
<td>Ato Teketel Mathewos</td>
<td>SNNPRS</td>
<td>Hawassa</td>
<td>Mines and Energy Agency</td>
<td>Vice Manager, and Alternative Energy Development Core Process Owner</td>
<td>0949024736</td>
<td>Nov. 23, 2016</td>
</tr>
<tr>
<td>4</td>
<td>Ato W/Senbet Urkushe</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>Energy researcher</td>
<td>0916076336</td>
<td>&quot;</td>
</tr>
<tr>
<td>5</td>
<td>Ato Zerihun Desalegn</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>Regional Biogas Program Coordinator</td>
<td>0916831959</td>
<td>&quot;</td>
</tr>
<tr>
<td>6</td>
<td>Ato Samuel Kebede</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>Energy Expert</td>
<td>0916826424</td>
<td>&quot;</td>
</tr>
<tr>
<td>7</td>
<td>Ato Alemayehu Hailegiorgis</td>
<td>&quot;</td>
<td>&quot;</td>
<td>Omo Micro Finance Institution (S.C)</td>
<td>Deputy CEO and Finance P/P/A Division Head</td>
<td>0912134442</td>
<td>&quot;</td>
</tr>
<tr>
<td>8</td>
<td>Ato Yeshiwas Alemu</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>Deputy CEO and Saving and Credit Division Head</td>
<td>0911708658</td>
<td>&quot;</td>
</tr>
<tr>
<td>9</td>
<td>Ato Ashebir Alemu</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>Credit Director</td>
<td>0917824443</td>
<td>&quot;</td>
</tr>
<tr>
<td>10</td>
<td>Ato Mekuria Meskele</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>Rural Credit Officer</td>
<td>0924525836</td>
<td>&quot;</td>
</tr>
<tr>
<td>Ser. no</td>
<td>Name</td>
<td>Region</td>
<td>Town/city</td>
<td>Organization</td>
<td>Responsibility</td>
<td>Tel</td>
<td>Date of consultation</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------</td>
<td>--------</td>
<td>-----------</td>
<td>---------------------------------------------------------------</td>
<td>-----------------------------------------------------</td>
<td>--------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>12</td>
<td>Ato Kassu Kubayo</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>Slurry Extension Officer</td>
<td>0916866490</td>
<td>&quot;</td>
</tr>
<tr>
<td>13</td>
<td>Ato Lemma Fiche</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>Coordinator</td>
<td>0972650646</td>
<td>&quot;</td>
</tr>
<tr>
<td>14</td>
<td>Ato Abera Haddis</td>
<td>&quot;</td>
<td>&quot;</td>
<td>Omo Micro Finance Institution (S.C), Wendo Genet Sub Branch</td>
<td>Manager</td>
<td>0911821406</td>
<td>&quot;</td>
</tr>
<tr>
<td>15</td>
<td>Ato Godolias Sebsebe</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>Generalist</td>
<td>0910119947</td>
<td>&quot;</td>
</tr>
<tr>
<td>16</td>
<td>Ato Deresu Botoke</td>
<td>&quot;</td>
<td>Dore Bafana</td>
<td>Hawassa Zuria Wereda Water, Mines and Energy Office</td>
<td>Deputy Head</td>
<td>0911044570</td>
<td>Nov. 25, 2016</td>
</tr>
<tr>
<td>17</td>
<td>Ato Matheos Tun sesa</td>
<td>&quot;</td>
<td>&quot;</td>
<td>&quot;</td>
<td>Hawassa Zuria Wereda Alternative Energy Development Core Work Process Coordinator</td>
<td>0916103298</td>
<td>Nov. 25, 2016</td>
</tr>
</tbody>
</table>
Annex 3: Sample Grievance Procedure Form

Name of Complaint: ____________________________

ID Number: ____________________________

Contact Address:

Wereda _________________; Kebele ________________;
Village ________________; mobile phone______________.

Nature of Grievance or Complaint:

_____________________________________________________________________________
_____________________________________________________________________________

Summary of Discussion with Complaint:

_____________________________________________________________________________
_____________________________________________________________________________

Signature_______________________ Date: ____________

Review/Resolution

Date of Conciliation Session: ____________________________

Was complaint Present? : Yes ☐ No ☐

Was field verification of complaint conducted? Yes ☐ No ☐

Findings of field investigation:

_____________________________________________________________________________
_____________________________________________________________________________
Summary of Conciliation Session Discussion:

_____________________________________________________________________________

_____________________________________________________________________________

Was agreement reached on the issues? Yes [ ] No [ ] If agreement was reached, detail the agreement below:

If agreement was not reached, specify the points of disagreement below:

_____________________________________________________________________________

_____________________________________________________________________________

Name and Signature of GRC Members:

Name _______________________ Signature _______________________ Date ____________

Name _______________________ Signature _______________________ Date ____________

Name _______________________ Signature _______________________ Date ____________

Name and Signature of Independent Observer

Name _______________________ Signature _______________________ Date ____________

Name and Signature of Complaint

Name _______________________ Signature _______________________ Date ____________
ISSUING AUTHORITY AND EFFECTIVE DATES

This Resettlement Policy Framework for Ethiopia Off-grid Renewable Energy Program and Clean Cooking Energy Program shall be effective ________________________

Name of President of DBE ________________________________.

Signature__________________________________________

Date______________________________________________