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ENVIRONMENTAL AND SOCIAL SYSTEMS ASSESSMENT (ESSA)

FOR THE

ETHIOPIA ELECTRIFICATION PROGRAM (ELEAP)

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List of Acronyms

CSA	Central Statistical Agency
DBE	Development Bank of Ethiopia
EA	Environmental Assessment
ECCEP	Ethiopia Clean Cooking Energy Program
EEP	Ethiopian Electric Power
EEU	Ethiopian Electric Utility
EEPCo	Ethiopian Electric Power Corporation
EHS	Environment, Health, Social and Safety
EMP	Environmental Management Program
ENREP	Ethiopia- Electricity Network Reinforcement and Expansion Project
EOREP	Ethiopia Off Grid Renewable Energy Program
EPA	Environmental Protection Authority
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management Systems
FDRE	The Federal Democratic Republic of Ethiopia
GHC	Grievance Hearing Committee
GRS	Grievance Redress Service
IPS	Industrial Projects Services
km^2	Square kilometer
KWp	Kilo Watt Peak
LED	Light-emitting diode
masl	Meters above sea level
MoANR	Ministry of Agriculture and Natural Resources
MoEFCC	Ministry of Environment, Forest and Climate Change
MoWIE	Ministry of Water, Irrigation and Electricity
PAPs	Project affected Peoples
PCRs	Physical Cultural Resources
PCB	Printed Circuit Board
PPE	Personal Protective Equipment
PSE	Private Sector Enterprises
RAP	Resettlement Action Plan
REFA	Regional Environment and Forest Authority
SHS	Solar Home System
SNNPRS	Southern Nations, Nationalities and Peoples 'Regional State
SMP	Safety Management Plan
SPMG	Solar PV Multi-grid
TA	Technical Assistance
ToR	Terms of Reference
WB	World Bank
WME	Water, Mines and Energy
WMEB	Water, Mines and Energy Bureau
WMP	Waste Management Plan

EXECUTIVE SUMMARY

INTRODUCTION

The Government of Ethiopia (GoE) has developed the second phase of the Growth and Transformation Plan (GTP-II) for the period of 2015-2020, which is planned to reach eight (8) million customers mainly households for electricity connections by 2020 and is currently under implementation. The GTP-II puts a strong emphasis on structural transformation, industrialization, urbanization, and export promotion. Massive public infrastructure investment has been at the center of the country's economic strategy, this coupled with implementation of activities under urbanization and industrialization, would result in a demand increase of electric power that required to be covered either from the on grid or off grid system.

The GoE has been investing significant resources in electrification infrastructure throughout Ethiopia, increasing network coverage of towns and villages in the country. However, key challenges remain when it comes to connecting households, businesses, and other institutions in urban and rural areas. Given the challenges, the Government has initiated different programs, including Ethiopia Electrification Program (ELEAP) under energy sector, focusing on connecting households and has shifted the country's energy access paradigm from network access to actual connectivity.

As requested by the GoE, the proposed Ethiopia Electrification Program (ELEAP) would directly support the GoE's National Electrification Program in scaling-up electricity connections in areas within the network reach as well as increasing access to off-grid technologies in areas outside of the network. Strong emphasis will be put on strengthening the capacity of the sector institutions to achieve the targets linked with grid electrification and off-grid, the support will be on planning, technical implementation, financial management, Procurement, Governance, and Safeguards: *social and environmental management*, Gender, skill Development and Financial Viability.

The World Bank is currently working with the Government of Ethiopia to prepare the program called Ethiopia Electrification Program, which will use the "Program for Results (PforR)" financing instrument as lending tool for investment, in accordance with Bank Policy: Program-for-Results Financing.

The Program Development Objective (PDO) is to increase access to electricity in Ethiopia and to enhance institutional capacity for planning and implementation of the Government's electrification program. The PforR instrument innovatively links the disbursement of funds directly to the delivery of defined results and strengthens government program systems.

The proposed ELEAP-PforR will support the implementation of Ethiopian electrification program and its implementation plan in the following three key results areas:

- **Results Area 1: Increase access to electricity connections to households in areas covered by the grid**
- **Results Area 2: Increase access to off-grid electricity**
- **Results Area 3: Sector capacity and institutional reform**

The PforR instrument uses country systems for environmental and social safeguards, procurement, and financial management. An **Environment and Social Systems Assessment (ESSA)** conducted a comprehensive review of systems and procedures followed by Ministry of Water Irrigation and Electricity (MoWIE), as well as Ethiopian Electric Utility (EEU) at national level and regional, zonal and woreda levels EEU and other relevant sectoral institutions who are responsible for environmental, social and safety matters to address social, environmental and safety issues associated with the ELEAP.

The proposed ESSA is crucial to ensure that PforR operations are designed and implemented in a manner that maximizes potential environmental and social benefits. ESSA assesses the borrower's organizational

capacity to achieve the social and environmental objectives associated with the Program and stipulates Program Action Plan, which will be used by the Government of Ethiopia to provide guidance on the implementation of the ELEAP in an environmental friendly and socially acceptable manner. It is also a key instrument, which will enable the World Bank to conduct a focused policy dialogue, provide recommendations for institutional strengthening and address energy sector development issues with specific focus on environmental and social sustainability in the context of implementation of ELEAP.

The purpose of this Environmental and Social Systems Assessment (ESSA) is to: (i) review the environmental and social management rules and procedures and institutional responsibilities that are being used by the Program; (ii) assess the implementing agencies' (EEU's, MoWIE's and other relevant institutions) institutional capacity and performance to date to manage potential adverse environmental and social issues under the Program; and (iii) recommend specific actions for improving the capacity of the main implementing institutions with regard to effective management of environmental, social, health and safety issues during implementation.

The ESSA describes the extent to which the applicable government environmental and social policies, legislations, program procedures and institutional systems are consistent with the six 'core principles' of *Program for Results Financing* and recommends actions to address the gaps to enhance performance during Program implementation. This ESSA report presents summary of findings based on assessment of extent to which the existing program procedures for social and environment meet the applicable core principles, and where they do not, recommends an action plan to address shortfalls. This ESSA report is organized in ten sections, as follows:

Chapter 1 is introduction with background information and objectives of the ESSA. Key points are raised under this section on the need for the capacity assessment of key institutions who are playing a major role in the implementation of the proposed program. **Chapter 2** describes Ethiopia Electrification Program (**ELEAP)** and program development objective attached to the program implementation with anticipated key results. **Chapter 3** discusses about the proposed ELEAP implementation arrangements. **Chapter 4** discusses methodology of the Environmental and Social Systems Assessment process conducted to inform design and preparation of *Program for Results* Operation. **Chapter 5** describes Ethiopia's existing environmental and social management system comprises of applicable policies and legal framework. **Chapter 6** examines the potential benefits and negative environmental and social impacts and risks of the proposed Program and the respective indicative enhancement and mitigation measures. **Chapter 7** presents Ethiopian system's analyses against the six Core Principles of environment and social sustainability outlined in Program for Results Financing. **Chapter 8** presents an assessment of institutional capacity including direct implementers of the program and other institutions responsible for implementation of environment and social safeguards management. **Chapter 9** presents recommendation to strengthen the system performance. **Chapter 10** summarizes the potential Environmental and social risks. **Chapter 11** describes the consultation and public disclosures activities to the ELEAP-PforR ESSA. Additionally, Annexes are attached to the report that supplements information on the ESSA report to be adopted for future consideration by the implementing institutions.

SCOPE AND METHODOLOGY

An Environmental and Social Systems Assessment (ESSA) of the proposed Program was undertaken by the World Bank to understand the Environmental, Social and Safety management policies and practices on the ground and to identify the potential environmental and social benefits, risks, impacts and opportunities in the energy sector. The assessment is also part of the World Bank's preparation in line with the requirements of Program for Results Financing.

The followings methods are employed during the assessment period of February 13 to April 1, 2017. These include: (a) a comprehensive review of government policies, legal frameworks and program documents, , and ESSA reports prepared for other PforR World Bank-financed projects; (b) interviews and consultations were done with relevant experts and officials from Addis Ababa, Oromia, Tigray,

Amhara, SNNP, Benishangul Gumuz regional and district level EEU's offices, and other regional, zonal and woreda levels bureaus, authorities and offices including Water, Mines and Energy Bureau, Environment, Forest, and Climate Change Authority, Land administration and use Bureau, Labor and Social Affairs Bureau, Municipalities, Micro Finance Institutions (MFIs). The ESSA team conducted also consultation with community members and beneficiaries from Benishangul Gumuz, SNNP and Amhara regions; and (c) Site supervisions were conducted at specific sample construction and material storage areas.

FINDINGS OF ESSA

The current status as observed in each region highlighted the quality and performance of the existing capacity of the implementing institutions on environmental, social and safety management practices in the Energy sector. The details are discussed in the below sections.

Environmental and Social Systems

The institutional arrangements for program implementation will be with clear division of tasks and responsibilities from federal government to local level as per the GoE structure and consistent with existing legal provisions, regulations and guidelines. Centrally, the Ministry of Water Irrigation and Electricity (MoWIE) will be responsible for the overall program management and operations. The Ethiopian Electric Utility (EEU) will be the main implementer for on-grid and some components of off grid, particularly for solar mini grid with capacity of greater than 100 KWs nationwide.

The Regional Energy and Mines offices will involve in providing support for the implementation of both on grid and off grid components of the program. Regarding the environmental and social safeguards management, the Regional Environmental authorities and offices will be responsible to supervise the safeguards management, review and clearance of all instruments prepared for projects at regional level. At local level, the zonal and woreda level environmental authorities and offices will be responsible to monitor and provide supports to EEU district offices and Energy and mines offices. EEU as well as Energy and Mines offices will implement the program safeguards instruments and recommended environmental, social and safety management actions with close support from regional and woreda safeguards teams as well as land administration entities. The division of tasks will be clearly outlined in ELEAP Operational Manual to be prepared for the program.

The country has legislative and regulatory basis and institutions to ensure consistency with the six Core Principles of PforR. The ESSA provides an assessment of the current conditions of this system and proposes measures that are built into the Program in order strengthen them. It analyzed and evaluated the Ethiopian system against six (6) core principles of environment and social sustainability as outlined in Bank Policy: Program-for-Results Financing guidelines which are Core Principle 1: General Principle of Environmental and Social Management; Core Principle 2: Natural Habitats and Physical Cultural Resources; Core Principle 3: Public and Worker Safety; Core Principle 4: Land Acquisition; Core Principle 5: Indigenous Peoples and Vulnerable Groups; and Core Principle 6: Social Conflict.

The finding shows that Ethiopia has adequate legal framework, including environment and social regulations. However, the implementation of existing provisions of the environment and social regulations varies from region to region and is generally low. Albeit the legal basis are strongly established, the implementations are not consistently effective in the areas of environmental and social impact assessment (ESIA) preparation, review and approval; Environmental and Social Management Plan (ESMP) implementation; preparation and implementation of safety management plan applicable to the respective activities of the program; preparation and implementation of resettlement action plan, field supervision, monitoring and enforcement on safeguards management; and stakeholder consultation, as required at all levels.

An assessment of environmental and social regulations, policies and procedures, including institutional capacity and practices indicate moderate environmental and social risks associated with the program implementation. The risks mainly relate to lack of preparation and application of safety standards and procedures and limited mechanism and facilities in place for risk screening and implementation of the recommended mitigation measures; lack of coordination among program stakeholders; and lack of human resources, technical and financial capacity.

The ESSA recommendations and actions pursue to ensure that the opportunities identified in this assessment are built on and reinforced to ensure that they can be relied on to deliver the results sought in the ELEAP objectives, particularly in the area of environmental, social and safety assessment and management. The current gaps in the system will be addressed through a set of essential but viable and agreed actions to be adopted by the Government to strengthen the environmental, social and safety management capacity and performance at the national, regional and local levels. This is important in the Environmental, safety and social system and structures to be in place to safeguard and address the impacts due to disposal of hazardous waste, safety precautions, land acquisition, resettlement and any complaints and grievance. Based on the findings, the ESSA identified the following key areas actions to be undertaken during strengthening and establishing of Environmental and Social Management System (ESMS) at MoWIE and EEU, respectively.

The new Ethiopia Electrification program envisioned sound Environmental and Social Management System (ESMS) during project construction and operation phase, to ensure the required Environmental, Social Safeguard, Health and Safety (EHS) measures are applied for sustainable implementation of the program.

The MoWIE and EEU shall establish and strengthen this system through the preparation and implementation of the required safeguards instruments, procedures, manuals and guidelines with the support from MoEFCC at national level. At regional, zonal and woreda levels the implementing partners would seek a support from regional, zonal and woreda levels environmental authorities and offices and land use and administration bureaus to implement the required environmental and social safeguards and safety management measures, as applicable. All the instruments, procedures, and guidelines shall be prepared and available before the commencement of activities at national, regional and district level EEU offices and relevant regional, zonal and woreda government offices to ensure sound implementation of the applicable instruments. The regional and woreda environmental authorities and offices are responsible to provide regular support, and monitor the compliance and effectiveness of the system on safeguards management. The ESMS will include procedures for due diligence, identification of potential environmental and social benefits and impacts, recommended the respective mitigation and enhancement measures, and implementation and monitoring plan, including an annual performance assessment, etc. These will help zonal and woreda staffs to screen projects for their environmental and social effects, and monitor the implementation of any mitigation and enhancement measures.

i. Capacity Building and Technical Assistance

During program design and implementation period, substantive capacity building and technical assistance program shall be designed and implemented on environmental and social safeguards and safety assessment and management practices through provisioning and improving of human and financial resources, provision of trainings and other logistics facilities.

a. ***Human resources*:** The required environmental, social and safety technical personnel are expected to be positioned in the key sector institutions- EEU and MoWIE. The EEU as a main implementer of the major parts of the program and given the sensitive nature of the activities, mainly on safety matters, it is required to have full safeguards staffing on Environment, Social and safety expertise at national level. At regional levels EEU offices, establishment of Environment, Social and Safety unit with relevant specialists of (Environmental and Social

Development specialist (one), and Health and Safety specialists (one)) , who are working with the existing regional EHS coordinators. These specialists and EHS coordinator will work in close collaboration with Ministry of Water, Irrigation, and Electricity – Environment and Climate Change Directorate (MoWIE-(ECCD) and Ministry of Environment, Forest and Climate Change (MoEFCC) at national level and with regional and local levels safeguards team under environmental authorities and offices and other government organizations. The unit shall also be capacitated with full facilities, including logistics, budget, and safeguards monitoring tools and instruments.

b. ***Trainings:*** During the assessment period, the ESSA team identified the existing technical capacity on environment and social safeguards and safety management and implementation of instruments at EEU regional and district levels, the regional and woreda energy bureaus, as well as, woreda and zonal environmental authorities and offices is limited. Therefore, detailed training plan on environmental, social and safety management will be prepared by program effectiveness. Based on the training plan, provision of an induction training, will be conducted before commencement of each activities and consecutive on job training will be provided throughout the program implementation period for staffs at all levels on environmental and social safeguards and safety management.

ii. Annual Performance review and audit on Environment, social and safety management: Annual performance review and assessment on environment and social safeguards and safety management activities has a vital role to ensure the implementation of safeguards as required and minimize and or avoid the potential impacts anticipated during the design phase of the program and contribute to confirm sound implementation of safety management, environmental and social safeguards activities. In this regard, EEU and MoWIE shall take a responsibility to ensure the accomplishment of annual performance review and bi-annual technical review meeting that will be conducted with the engagement of program stakeholders including MoWIE, EEU, WMEB, and other development partners

iii. Use of safety protection material and tools and Personal Protective Equipment (PPE): One of the potential concerns during program implementation period is inadequate availability and use of safety protection material and personal protective equipment (PPE). This ESSA recommends that all contract documents and agreements should include a detail Health and Safety considerations/articles, for all contract procured. The program should provide high priority on the availability of Safety materials and tools and Personal Protective Equipment (PPE) for all staffs and laborers at all levels before the beginning of the construction activities to ensure no or minimum safety impacts during program implementation period.

iv. Increase community awareness on social, environmental and safety impacts of ELEAP sub-projects: The ESSA identified that limited community awareness on environmental, social and safety matters. EEU will conduct trainings and briefings for communities impacted by the Program's sub-project activities on social, environmental and safety impacts at all levels, throughout the program implementation period.

v. Strengthen the Grievance redress system: Over the program implementation period beneficiaries may have complaints related to the program implementation activities. The GRM committee will be established at all levels to receive, review and address complaints in line with loss of livelihood, income or assets, dissatisfaction of the services, etc. In addition, GRM guideline in line with EEU's customer service manual will be developed for the off-grid component and updated for the on grid component followed by orientation for implementers.

vi. Timely and appropriate consultation, compensation, and resettlement of PAPs: The program is dedicated to conduct timely consultation with Program affected peoples over the program implementation

period. EEU and MoWIE will develop/adopt guidelines on resettlement that includes grievance handling, protocol on voluntary contributions, mechanisms to accommodate squatters/illegal settlers and consultation procedures before the commencement of the program by program effectiveness.

The below table E-1 presents the actions which the ESSA recommends should be included in the Program Action Plan (PAP) which is based on the assessment of the Ethiopian country system to improve the management of environmental, social and safety impacts and to strengthen the capacity of the Ethiopian country system of the energy sector. The recommendations and actions on the management of environment and social safeguards and safety matters will be a part of overall Program Action Plan.

Consultations

Stakeholders' consultations with relevant institutions, program affected peoples, and beneficiaries are essential to be considered in the planning process and preparation of the proposed Ethiopian Electrification Program (ELEAP) to ensure successful assessment and identification of environmental, social and safety impacts, recommend appropriate measures and sound implementation of safeguards instruments over the program period.

The ELEAP-ESSA preparation process involved extensive stakeholder consultations and disclosure of the ESSA report following the guidelines of the World Bank's Access to Information Policy. During the course of ELEAP-ESSA preparation, and prior to the finalization of the ESSA, the Bank safeguards specialists (consultants) undertook recurrent meetings and consultations with different stakeholders, including relevant government institutions at National, Regional and Woreda levels, EEU Public Forums, Civil Society Organizations, NGOs, Micro Finance Institutions, and local communities, Program affected people and beneficiaries who are familiar with an ongoing project or likely to be impacted or benefit from the proposed program.

The stakeholder meetings and consultations have been conducted in the form of one to one discussion, focus group discussion and public meetings at all levels during ESSA preparation. The consultation with stakeholders explored the existing knowledge and capacity associated with environmental and social safeguards and safety management and ensures that the proposed ELEAP has taken full account of the priority concerns of program-affected people and other relevant stakeholders.

Moreover, a stakeholder consultation workshop on the draft Environmental and Social Systems Assessment (ESSA) was organized by the World Bank, Ministry of Water, Irrigation and Electricity (MoWIE), and Ethiopian Electric Utility (EEU) held at the Capital Hotel, Addis Ababa, Ethiopia, on July 06, 2017. Fifty-six (56) participants drawn from MoWIE, EEU, MoLSA, MoEFCC, MoWCA, WB, Regional Energy Bureau, Environmental Authority, EEU offices, MFI, CCRDA, ETHIOSOP (customer society), EEU Public Forum Representatives and other NGOs attended the consultation workshop to collect additional information and obtain feedback on the draft ESSA (see annex 8).

During the consultation workshop, presentation on the Bank Policy on Program for Results Financing, the draft ESSA, group discussions on the major findings, and presentation of group discussions findings on key findings of the ESSA. The draft ESSA was publicly disclosed in country and at the WB external website on June 23, 2017, and shared for relevant institutions prior to the July 06, 2017 consultations. The whole afternoon session was dedicated for group discussion to ensure full participation of participants to air their feedback, and express their voice on the proposed findings of the draft ESSA. The group members have discussed on the level of awareness and enforcement of legal frameworks applicable to ELEAP, institutional commitments and current capacity for the implementation of safeguards; major environmental and social impacts and risks and recommended measures/actions stated under the PAP.

The group presentation highlighted limited capacity among implementing institutions (staff, technical knowledge, and financial resources for requirements of the Program for Results Financing) and proposed commensurate mandatory gap filling measure to establish a strong environmental and socials safeguards and safety (EHS) unit at each EEU regional offices before the commencement of the program. In addition,

capacity building including training on environmental and social safeguards and safety management shall be provided to partner implementing entities at all levels of the ELEAP implementation.

The inputs, comments and concerns from the consultation contributed for the improvement and finalization of the draft ESSA and the design of the Program Action Plan (PAP) and Disbursement Linked Indicators (DLIs). comments related to social, environment and safety issues were addressed during the consultations.

The details of public consultation summary including responses to the concerns and comments raised are discussed under Annex 8.

Disclosures

The draft ESSA has been disclosed both in-country and on World Bank's external website on June 23, 2017 before the stakeholders consultation held at the national level on July 06, 2017. Stakeholders drawn from MoWIE, EEU, MoLSA, MoEFCC, MoWCA, WB, Regional Energy Bureau, Environmental Authority, EEU offices, MFI, CCRDA, ETHIOSOP (customer society), EEU Public Forum Representatives and other NGOs representatives attended the consultation workshop. The MoWIE and EEU will re-disclose the final ESSA after the WB clearance. The World Bank will also disclose the final ESSA on the WB's external website after the in-country disclosure.

ENVIRONMNET, SOCIAL AND SAFETY RISKS

The environmental and social risk management process (including risks related to occupational safety) for the ELEAP operations applies throughout the project life cycle. MoWIE and EEU are responsible for Environmental and Social Risk Management (ESRM) during the project implementation period that support and promote higher environmental, social and safety quality in activities under ELEAP through a permanent dialogue among program key implementers, project managers, contractors and counterparts. This management of Environmental and Social risks contributes to improving the environment and social safeguards and occupational safety management quality of the program (compliance with international and national standards) via technical assistance, advice, support and provision of resources.

This risk management mechanism and risk ratings meets the objectives of harmonizing the environmental and social procedures of the national and World Bank that are applicable to the ELEAP and ensure the sound implementation of the program with no or limited risk that will be addressed and mitigated through best management practices. The overall risk rating for the proposed ELEAP on the environmental and social safeguards and Safety management perspective is **Moderate.**

E-1: Recommended Program Action Plan (PAP) on Environment, Social Safeguards and Safety management

No	Action Items	Activities	Progress indicator	Level of application	Responsibility	Schedule/ Time Frame	Out put
Environmental, Social and Safety Management System (ESMS) - *ELEAP-ESSA Disbursement Linked Indicator (DLI)*							
1	Environmental, Social and Safety Management System (ESMS)	Environmental, Social and Safety Management System (ESMS) will be established at Regional and Woreda levels and strengthened at National level (EEU and MoWIE)	Percentage (100 percent) of sub-projects under the Program screened to identify environmental and social safeguards documentation requirements Percentage (100 percent) of safeguards documentation completed Percentage (100 percent) of actions as per prepared safeguards documents prepared	At all levels (National, Regional, and woreda levels)	MoWIE, EEU	The ESMS will be established and functioning by Program effectiveness • The ESMS will be strengthened throughout the Program implementation period.	ESMS established and strengthened
2	Capacity Building: Maintain positions on Environment, social safeguards and safety at national level and regional level.	Environmental and social safeguards specialist and Occupational Health and Safety (OHS) at national level as well as in each EEU's regional offices will be recruited and maintained.	Minimum 1 Environment and Social Safeguards Specialist and minimum 1 OHS Specialist is maintained at national level as well as in EEU's regional offices	National and regional Level	EEU	During Program Implementation (starting effectiveness of the Program)	Staff in place

No	Action Items	Activities	Progress indicator	Level of application	Responsibility	Schedule/ Time Frame	Out put
3	Performance review and Environment, social and safety audit	1. Conduct bi annual technical review 2. Undertake performance review and environment, social and safety audit	1. Number of biannual technical review meetings 2. Reviewed and cleared performance review and audit report	At all levels (National and Regional levels)	MoWIE, EEU, WMEB	1- Bi annual 2- Annually at the end of each fiscal year	1-bi-annual performance review report 2-Annual E&S safeguards and safety Audit Report
4	Use of safety protection material and tools; Personal Protective Equipment (PPE)	Detail Health and Safety considerations/articles will be considered in all program implementation and in the contact agreements, incase if there is any contract procured. Safety materials and tools and Personal Protective Equipment (PPE) will be available to ensure no or minimum safety impacts during program implementation period	1.Percentage (100%) of contract agreement with full consideration of health and safety regulation or articles 2- Percentage (0%) of incidents due to lack of PPE and safety materials and tools	At all levels (National, Regional, and woreda levels)	EEU, MoWIE,	During Program implementation	1.Contract agreement with EHS consideration 2-annual inventory and procurement reports 3-Safety notification report 4-safety audit report
5	Increase community awareness of social, environmental and safety impacts of sub-projects	EEU will conduct trainings and briefings for communities impacted by the Program's sub-projects on social, environmental and safety impacts of the sub-projects.	Percentage of communities briefed on social, environmental and safety impact of the sub projects	At kebele level	EEU	During Program Implementation	Briefing note

No	Action Items	Activities	Progress indicator	Level of application	Responsibility	Schedule/ Time Frame	Out put
6	Strengthen the Grievance redress system (GRM)	GRM committee will be established to receive, review and address complaints in line with loss of livelihood, income or assets, dissatisfaction of the services, etc. Additional GRM guideline in line with customer services will be developed for the off-grid component and updated for the on grid component followed by orientation for implementers	1- Established GRM committee 2. NRM guideline prepared 3.Percentage (100%) of complaints addressed	At all levels (Regional, and woreda level)	MoWIE, EEU, Regional WMEB	1.The first year of the program 2.The first year of the program 3.Throughout the program	1. Developed and updated GRM guidelines 2. Report on GRM process
7	Timely and appropriate consultation, compensation and resettlement for PAPs	1.Develop/adopt guidelines on resettlement that includes grievance handling, protocol on voluntary contributions, mechanisms to accommodate squatters/illegal settlers and consultation procedures 2.Annual review of performance	Percentage (100%) of people compensated	At all levels (Regional, and woreda level)	EEU, MoWIE	1. Guidelines will be developed by program effectiveness 2. Instruments will be prepared before commencement of the sub project	1.Guidelines developed 2.Reports on safeguards

1 INTRODUCTION

1.1 Background

The GoE has embarked on a structural transformation of the economy and society. GoE has completed its first phase of the Growth and Transformation Plan (GTP-I) (2010/11–2014/15), which set a long-term goal for Ethiopia to become a middle-income country by 2025, with a growth rate of at least 11.2 percent per year during the plan period. During 2011-15, Ethiopia grew at a rate of 10 percent. A second phase of the GTP (GTP-II) is under implementation for the period 2015-2020. The GTP-II puts a strong emphasis on structural transformation, industrialization, urbanization, and export promotion. Massive public infrastructure investment has been at the center of the country's economic strategy. Ethiopia was able to achieve a substantial expansion of energy, road, railway, and telecom infrastructure, financed by domestic and external public borrowing. In addition, public investments in basic service provision, such as education and health, have contributed to poverty reduction, as did the introduction of rural safety nets. GTP II continues to commit that woman and youth benefit from and participate in overall economic, political and decision-making processes in Ethiopia.

The past decade has witnessed a major turnaround in Ethiopia's electricity sector**.** The GoE has been investing significant resources in electrification infrastructure throughout Ethiopia, increasing network coverage of towns and villages in the country. However, key challenges remain when it comes to connecting households, businesses, and other institutions in these areas. Given the challenges, the Government has initiated different programs under energy sector focusing on connecting households and has shifted the country's energy access paradigm from network access to actual connectivity.

Under the current GTP II, the Government of Ethiopia (GoE) plans to reach seven (7) million customers by 2020. However, the fast-paced growth of the sector in the past decade created capacity challenges for the vertically integrated utility, Ethiopian Electric Power Corporation (EEPCo). In 2005, the GoE launched the ambitious 'Universal Electricity Access Program' (UEAP) with the specific objective to provide grid-based electrification to rural towns and villages. In 2013, the GoE unbundled EEPCo into two public enterprises: (a) the Ethiopia Electric Power (EEP), responsible for the generation and transmission sub-sectors; and (b) the Ethiopian Electric Utility (EEU), responsible for power distribution and sales. The implementation of UEAP moved from EEP to EEU in January 2016. In addition, the GoE established an independent regulator, the Ethiopian Energy Authority (EEA). While strategic focus on various segments of the electricity sector's value chain has improved, as new agencies, EEP and EEU are continuing to encounter significant challenges related to implementation of numerous large-scale projects, as well as ongoing internal administrative and operational issues.

As part of preparation for scale up, in June 2016, the GoE prepared the National Electrification Strategy (NES), which paved the way for a new Program scaling up electrification in Ethiopia in a more effective and sustainable manner by putting strong emphasis on the need of a rapid scale-up of electricity connections in areas that are already within the immediate and short-term reach of the network. The Government of Ethiopia (GoE) initiated National Electrification Program (NEP), which is the flagship of the implementation of the electrification expansion strategy in a more effective and sustainable manner. GoE has requested the Bank for support to reach its energy access targets by scaling-up electricity connections in areas within the network reach as well as providing financing to increase access to off-grid technologies in areas outside of the network.

Given that several of NES strategic elements will require substantial capacity improvements in all of the three pillars identified, the NEP will be implemented to allow for immediate support to the stringent GTP-II objectives and the urgent need to promote widespread growth in the country. The existing underway activities as part of the NEP include: (i) The establishment of a Directorate of Electrification (DoE) at the Ministry of Water, Irrigation, and Electricity (MoWIE), as well as a National Steering Committee for Electrification comprised of key sector stakeholders; (ii) the preparation of a National Electrification Program Implementation Roadmap to guide the rapid and coordinated roll-out of grid and off-grid connections; and (iii) the establishment of central geospatial planning platform and capacity to inform and monitor NEP's effectiveness and efficiency.

In response to the government's request for support, this program is designed based on the National Electrification Strategy (NES) and is initially proposed to support the GTP-II electrification expansion/connection targets. The Bank and GoE agreed to use the new World Bank financing approach "Program-for-Results (PforR)" for the development and implementation of the planned Ethiopia Electrification Program (ELEAP). ***The PDO is to increase access to electricity in Ethiopia and to enhance institutional capacity for planning and implementation of the Government's electrification program.*** The PforR focuses on EEU services and the proposed Program to be supported by the Bank will contribute to three key result areas formulated in the NES and which are integral to the NEP's objectives of increasing access to electricity through coordinated on- and off-grid activities. These are summarized as follows:

a. ***Results Area 1: Increase access to electricity connections to households in areas covered by the grid.*** The key intermediate indicator would be the number of customers connected to the network. In addition, increased number of kilometers of low-voltage distribution lines erected would also be tracked.

b. ***Results Area 2 Increase access to off-grid electricity.*** The ongoing private sector led market development activities off-grid service delivery will be continued. NEP also envisions scaling-up public sector led off-grid programs. This includes mini-grids and stand-alone solar systems for remote areas of the country where neither the grid, nor the private sector distribution channels will reach in the near-term. While the comprehensive off-grid strategy is under development, the proposed ELEAP will support pilot-scale off-grid service delivery activities, i.e., off-grid electrification of up to 5 communities using renewable energy mini-grids (solar or hybrid) and stand-alone solar systems for households in these communities.

c. ***Results Area 3: Sector capacity and Institutional reform.*** The key indicators for this result area will be determined through the technical, fiduciary and Environmental and Social system assessments to be prepared as part of the program preparation. This could include targets related to improving the technical capacity and the financial sustainability of the sector utilities.

The proposed Ethiopia Electrification Program (ELEAP) under the Energy Sector Global Practice is the first program using PforR instrument in Ethiopia's Energy Sector portfolio. The new Program-for-Results instrument is better targeted to the programmatic approach on the Government's on going electrification efforts. The PforR approach would allow the Bank's intervention to better align with the Government's newly approved strategy and focuses Bank support on helping governments to improve the design and implementation of their programs using program systems and directly linking achievement of results to the disbursement of Bank funds. The Bank task teams work directly with program institutions to strengthen capacity and system performance on a critical input to promoting transparency and accountability in government programs. This paradigm shift requires Bank staff to use their existing skills within a new preparation, appraisal, and implementation framework, with focus moving from the transaction level (as it is the case under Investment Lending projects) to the program level.

As required under Bank's *Program for Results Financing*, the World Bank task team is responsible for conducting a comprehensive Environmental and Social System Assessment (ESSA) of the country systems in place for managing environmental and social effects associated with the proposed set of Program-related investments (in this case ELEAP). The ESSA assessed the Government's institutional capacity, particularly under the targeted institutions (the Ethiopian Electric Utility (EEU) and Ministry of Water, Irrigation and Electricity (MoWIE) and the respective regional offices and city level counterparts, to plan, monitor, and report on environmental and social management measures and address social and environmental issues associated with the Program. The findings of the ESSA are an input for the preparation of the Program Action Plan (PAP) the Government will use to bridge any significant gaps in the existing environmental and social management system with respect to the sustainability principles of the *Program for Results Financing*. In analyzing a program for consistency with the sustainability principles of the *Program for Results Financing*, the ESSA is intended to ensure that programs supported by PforR financing are implemented in a manner that maximizes potential environmental and social benefits and avoids, minimizes, or mitigates adverse environmental and social impacts and risks.

This ESSA PforR study focused on the field level assessments at the five (5) Regions (Benishangul Gumuz, Amhara, Tigray, SNNP, and Oromia) and one City Administrations (Addis Ababa) as well as selected

Zones and woredas within the visited regions. Based on the results of the assessment, the Program Action Plan is developed and will be revised in consultation with the stakeholders. The ESSA provides special emphasis on (a) the existing environmental and social safeguards management capacity under each implementing institution; (b) the institutional arrangements and linkages for the implementation of agreed safeguards actions; (c) the potential impacts that would emanate from the implementation of proposed ELEAP activities and the respective mitigation and enhancement measures; and (d) the challenges and opportunities for improved environmental and social risks management in the Energy sector. The ESSA is expected to inform the design of the ELEAP with regard to inclusion of possible Disbursement Linked Indicators (DLI) on safeguards and/or additional actions in the PAD.

1.2 Rationale for Environmental and Social Systems Assessment

The Program for Results instrument - PforR requires technical, fiduciary, environment and social assessments to be carried out as required under Program for Results Financing. An initial environmental and social screening indicated that the proposed Program is expected to lead to a reduction in negative externalities associated with local pollution and Green House Gas (GHG) emissions (through replacement of use of kerosene lamps for lighting by access to the mainly hydro based electricity on the grid, hybrid mini grid, or solar home systems) and has mainly positive environmental impacts with limited and manageable negative social and environmental impacts. The Program was classified as Environmental assessment "Category B" investment. The safety of workers and community members is the main concern during the construction activities of electric power distribution work within on grid component of ELEAP. However, this concern can be addressed by stipulating conditions on the Borrowers under the program to ensure that the parties engaged in the implementation of activities have basic knowledge about the safety standards and availability of the required Personal Protective Equipment (PPE) and other safety protection equipment/materials. Temporary storage and disposal of used and damaged materials, particularly hazardous wastes like, used battery, solar panel and other solid and liquid wastes including used transformers and cables, leaked oils from both on grid and off grid components activities could have potential adverse impacts to the nearby biophysical and social environment (see photo 2), which requires special attention during implementation of the Program through provision of best and safe waste disposal mechanism and practices.

To avoid and minimize the potential impacts and risks that are anticipated during implementation of ELEAP and to ensure the sustainable implementation of the program in an environmentally friendly and socially acceptable manner, as required under the *Program for Results Financing,* assessments of the existing Government environmental and social management systems is mandatory during the preparation of the proposed ELEAP. Therefore, this ELEAP-Environmental and Social Systems Assessment (ESSA) study is prepared to be used as an instrument to identify the capacity of the country system during implementation of the proposed Program by EEU and MoWIE and to recommend the required action plans.

1.3 Purpose and Objective of ESSA

1.3.1 Purpose

The proposed ESSA is crucial to ensure that PforR operations are designed and implemented in a manner that maximizes potential environmental and social benefits. ESSA assesses the borrower's authority and organizational capacity and performance to date, to achieve the social and environmental objectives associated with the Program and stipulates supplementary actions as necessary.

The ESSA is a World Bank document prepared by Bank staff and consultants to inform the internal review and decision process associated with the new Program-for-Results lending instrument. The findings, conclusions and opinions expressed in this document are those of the World Bank. Any specific action plans, which flow from this analysis, will be discussed and agreed with the Government of Ethiopia counterparts and will become legally binding agreements under the conditions of the new loan.

It is also a key instrument, which will enable the World Bank to conduct a focused policy dialogue, provide recommendations for institutional strengthening and address energy sector development issues with specific focus on environmental and social sustainability in the context of implementation of ELEAP.

The purpose of this Environmental and Social Systems Assessment (ESSA) is to: (i) review the environmental and social management rules and procedures and institutional responsibilities that are being used by the Program; (ii) assess the implementing agencies' (EEU's, MoWIE's and other relevant institutions') institutional capacity and performance to date to manage potential adverse environmental and social issues under the Program; and (iii) recommend specific actions for improving the capacity of the main implementing institutions with regard to effective management of environmental, social, health and safety issues during implementation.

The ESSA provides a comprehensive review of relevant government systems and procedures that address environmental and social issues associated with the Program. The ESSA describes the extent to which the applicable government environmental and social policies, legislations, procedures and institutional systems are consistent with the six 'core principles' of *Program for Results Financing* and recommends actions to address the gaps and to enhance performance during Program implementation. These core principles are:

Core Principle 1: ***General Principle of Environmental and Social Management***. This principle aims to promote environmental and social sustainability in Program design; avoid, minimize, or mitigate adverse impacts; and promote informed decision-making related to the Program's environmental and social impacts.

Core Principle 2: ***Natural Habitats and Physical Cultural Resources***. This principle aims to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the Program.

Core Principle 3: ***Public and Worker Safety***. These principles aim to promote public and worker safety with respect to the potential risks associated with: (a) construction and/or operation of facilities or other operational practices under the Program; (b) exposure to toxic chemicals, hazardous wastes, and other dangerous materials under the Program; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.

Core Principle 4: ***Land Acquisition***. This principle aims to manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement, and assists affected people in improving, or at the minimum restoring, their livelihoods, and living standards.

Core Principle 5: ***Indigenous Peoples and Vulnerable Groups***. This principle aims to give due consideration to the cultural appropriateness of, and equitable access to, Program benefits, giving special attention to the rights and interests of the indigenous peoples and to the needs or concerns of vulnerable groups.

Core Principle 6: ***Social Conflict***. This principle aims to avoid exacerbating social conflict, especially in fragile situations, post-conflict areas, or areas subject to territorial disputes.

1.3.2 **Objectives**

ESSA aims to ensure environmental, social, safety impacts and risks are addressed from an early stage in the process of formulating the safeguards policy and guidelines for the proposed ELEAP, and that the ELEAP PforR implementation is in line with the Bank's Program for Results Financing.

The specific objectives of the ESSA are to:

- establish clear procedures and methodologies for environmental and social planning, review, approval and implementation of the proposed Program;
- evaluate the institutional capacity to manage the likely environmental and social effects in accordance with the country's own requirements under the proposed Program;
- prescribe institutional arrangements for the identification, planning, design, preparation and implementation of the projects under the proposed program to adequately address environmental and social sustainability issues;

- specify appropriate roles and responsibilities, and outline the necessary program management and reporting procedures for managing and monitoring environmental and social concerns related to the proposed program;
- assess the consistency of the borrower's systems with core principles and attributes defined in the *Program for Results Financing*;
- identify the potential environmental and social impacts/risks anticipated due to the proposed ELEAP interventions;
- establish a system to manage Program's risks and environmental impacts and ensure that all project activities under the Program will be subjected to adequate initial screening so that relevant mitigation measures can be identified and the respective instruments will be prepared and implemented;
- recommend specific actions for improving counterpart capacity during implementation of the Program to ensure that they are able to adequately perform their mandate;
- design enhanced stakeholders consultation and participation approaches to mitigate negative impacts and enhance benefits identified;
- ensure public participation and dialogue on energy development planning through a process of wide stakeholder consultations to include community groups especially the weaker and vulnerable sections, other Development Partners, Ministries, Civil Society and Private Sector;
- assess the Program system performance with respect to the core principles of the PforR instrument and identify gaps in the Program's performance;
- determine the training, capacity building and technical assistance needed to successfully implement the provisions of the ESSA; and
- describe actions to fill the gaps that will constitute and input into the Program Action Plan (PAP) in order to strengthen the Program's performance with respect to the core principles of the PforR instrument.

1.4 Scope of ESSA

The PforR financing modality is a different approach to assessing and addressing environmental and social effects related to the Program. With standard World Bank investment lending operations, the borrower is required to comply with the set of World Bank safeguard operational policies applicable to the project or program and prepare the relevant safeguard instruments to avoid, mitigate, and manage the environmental and social impacts of a project or program.

For PforR operations, rather than having the borrower apply the standard set of environmental and social safeguard policies, early in Program preparation, the World Bank task team is responsible for conducting a comprehensive environmental and social system assessment (ESSA) of the country systems in place for managing environmental and social effects (defined as benefits, impacts, and risks) associated with the proposed set of Program-related investments. The ESSA also assesses Government's institutional capacity to plan, monitor, and report on environmental and social management measures. The findings of the ESSA informed preparation of the Program Action Plan that the Government will use to bridge any significant gaps in the existing environmental and social management system with respect to the sustainability principles of the *Program for Results Financing*. The Bank provides implementation support as warranted for the implementation of the agreed Program Action Plan.

In analyzing a program for consistency with the sustainability principles of *Program for Results Financing*, the ESSA is intended to ensure that programs supported by PforR financing are implemented in a manner that maximizes potential environmental and social benefits and avoids, minimizes, or mitigates all adverse environmental and social impacts and risks.

For each ELEAP supported activity, the ESSA reviews the relevant legal and regulatory framework and guidelines, and identified strengths in the system as well as inconsistencies with the six core principles. The ESSA described the potential environmental and social effects associated with the proposed program

activities. The ESSA assessed institutional roles and responsibilities related to ELEAP implementation and describe current capacity of the implementing organizations and their performance to carry out those roles and responsibilities. The ESSA also considers public participation, social inclusion, and grievance redress mechanisms in place and as applied in ELEAP related activities.

This ESSA presents the baseline data used to inform the analysis of the existing systems vis-à-vis the six core principles. Based on the findings of the analysis, the ESSA presents a set of actions to strengthen the existing system proposed for inclusion in the Program Action Plan. These actions are intended to contribute to the Program's anticipated results to enhance institutional performance.

It is imperative to note that the ESSA will be updated based on the feedback received from stakeholders and implementation experience of the PforR operation going forward. The following section presents the program description, process and methodologies used while conducting the ESSA, potential benefits and impacts associated with ELEAP, analysis of the country system with the six Program for Results Financing core principles, institutional capacities of the relevant implementing agencies and action plan to enhance the institutional performance, as per the Assessment.

2 PROGRAM DESCRIPTION

2.1 The Government's Program - NEP

The NEP aims to achieve universal electrification by 2025. The NEP will be carried out in phases, with the initial focus being on the first 5 years of the Program (2018-2023). The NEP is organized into three pillars addressing the dominant challenges of the sector: (i) Pillar 1: On-grid electrification; (ii) Pillar 2: Off-grid service provisioning; and (iii) Pillar 3: Sector capacity and institutional reform. Each of the pillars provides a specific menu of activities to be carried out to reach universal electrification (see Figure 1). The phased focus under the NEP also allows for enhanced technical planning and fund mobilization.

Pillar 1 - On-grid electrification: Given the unique situation of the electricity sector in Ethiopia (sufficiency of supply and vast grid network footprint), the core focus of the NEP in the early years will be around on-grid access provision. The execution will be carried out as follows:

(i) **Densification:** Given the status of the electricity supply as well as grid coverage in Ethiopia, the NEP, in the early years, will be targeting last-mile connections to nearly 5 million households that are in close vicinity to the existing network infrastructure of EEU. These connections mostly require short low voltage (LV) expansion, service drops, and meters.

(ii) **Expansion:** The second phase of the NEP will target connecting new customers who are not proximate to the existing grid. These connections will require both medium voltage (MV) and LV extensions (as well as possible reinforcement of the transmission network and energy generation). Detailed network design for grid expansion will be informed by completion of the comprehensive geospatial least-cost roll-out plan (under development).

Pillar 2 - Off-grid service provisioning: Understanding that the expansion of on-grid service is a multi-decade undertaking, support for sustainable and affordable off-grid service provision (e.g. stand-alone solar systems or mini-grid systems) will be implemented under the NEP alongside the on-grid connections rollout. Pillar 2 of the NEP targets communities for which the grid still represents the optimal technology solution, but would not be reached within the next 5-10 years (pre-electrification beneficiaries) as well as communities and villages for which grid is not the least-cost solution. Two main sub-programs are:

(i) **Stand-alone solar:** Targeting the rollout of solar photovoltaic (PV) systems through a combination of public and private sector led approaches. The private sector would be supported by a combination of market development support and access to finance programs (such as, credit facilities provided by the DBE). In remote areas of the country, where private sector has not established distribution channels, public program will be implemented (for instance, through the EEU or the MoWIE. The implementation modalities for public and private provision of stand-alone solar systems will be defined in the planned off-grid strategy (as part of the NEP).

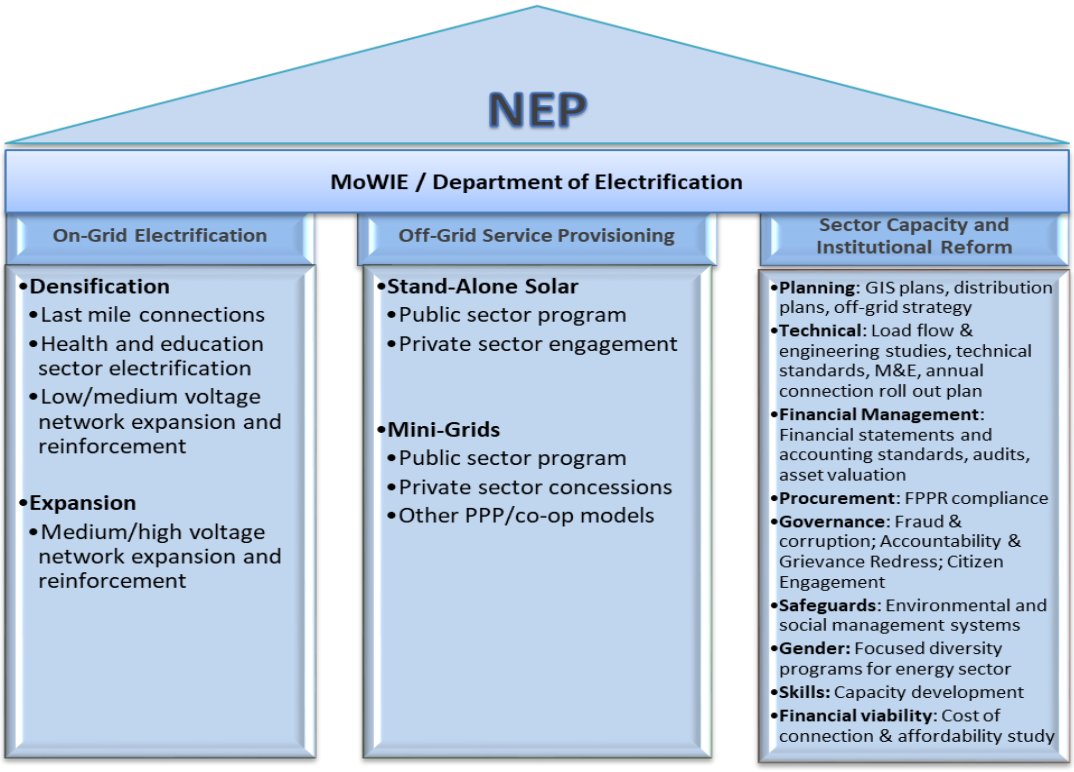
(ii) **Mini-grids:** Targeting the roll-out of micro/mini-grids with local LV networks and powered by appropriate renewable energy resources (solar or hybrid), implemented through a combination of public and private sector led approaches. Deployment of a nationwide mini-grid program in remote areas will require clarity on tariffs, grid integration protocol, quality of service, etc.; these issues will be addressed in the planned off-grid strategy under the NEP.

In addition, the NEP targets to achieve universal access for all social services delivery institutions, especially, in the health and education sector, as well as ensure adequate and reliable services for new established ones. Under the NEP, secondary schools and health centers are expected to achieve universal access by 2022; primary schools and remote health posts by 2025.

Pillar 3 - Sector capacity and institutional reform: Focuses on providing the necessary technical assistance and capacity building support required by the sector institutions to achieve the ambitious targets set under Pillar 1 and Pillar 2 - directly supporting the achievement of outcomes from the first two pillars. This includes a comprehensive program with focus on utility reform and skill development in the following areas: (i) planning capabilities; (ii) technical and commercial capacities; (iii) financial management functions; (iv) streamlining procurement; (v) transparency, accountability, and governance; (vi) safeguarding the environment and society; (vii) gender equity; and (viii) long term sector financial viability.

The GoE has prepared an Implementation Road Map for the NEP (NEP-IRM) for achieving universal access through on-grid and off-grid interventions. It provides an action plan and a timetable, as well as estimates yearly connections rollout (grid and off-grid) for the achievement of universal access by 2025. The NEP-IRM also includes a bankable investment prospectus which can be used for syndication of funds for electrification. Furthermore, the NEP-IRM identifies roles and responsibilities of sector institutions (e.g. DoE, EEU, and others) and stakeholders (e.g. local communities, private sector, and others), as well as technical assistance and capacity building required for the implementation of the NEP. It constitutes the foundational programmatic document that GoE will use to promote coordination and alignment of relevant government agencies and activities, as well as development partners, towards the achievement of the targets and development goals set in under the GTP-II. Under the NEP, the MoWIE will coordinate and provide oversight for the effective and timely execution of all components of the NEP via the Department of Electrification (DoE), with guidance from a Steering Committee. While the DoE will support day-to-day coordination and oversight of the NEP, the Steering Committee, comprised of cross-sectoral leaders and other experts, will provide high-level strategic direction and policy guidance, facilitate effective coordination across the GoE's ministries, departments, and agencies, as well as monitor the sector level 'dashboard' of key indicators of progress and performance.

Figure 1: Comprehensive Electrification Approach under the Three Pillars of the NEP



Source: NEP Implementation Road Map

2.2 Program Development Objectives and Key Results

The Program Development Objective (PDO) of the proposed ELEAP is to increase access to electricity in Ethiopia and to enhance institutional capacity for planning and implementation of the Government's electrification program.

The following outcome indicators will be used to measure achievement of the PDO:

- PDO Indicator 1: Number of people provided with on-grid electricity services;
- PDO Indicator 2: Number of people provided with off-grid electricity services; and

- PDO Indicator 3: Improved planning and implementation capacity of the electricity sector.

The Program includes three Results Areas: (1) Increase access to on-grid electricity in areas covered by the grid; (2) Increase access to off-grid electricity; and (3) Strengthen sector capacity and institutional reform. The Results Chain (Table 1) includes a description of activities within each of the Results Areas which are necessary for achieving the PDO. Indicators and outcomes within each of the Results Areas have been defined to monitor the progress of the Program. A set of these indicators will be used as Disbursement Linked Indicators (DLIs, bolded in Table 1) of the Program, the remaining with be monitored through the Program Results Framework. Technical requirements for achieving the outcomes have been included in the Program Action Plan. Detailed description is presented in sections below.

Table 1: Program Results Chain

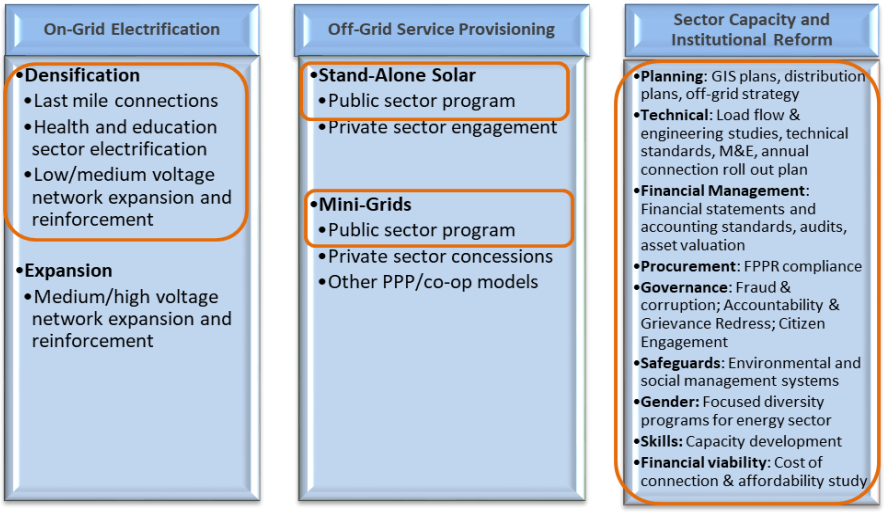
Results Area	***Activities***	***Intermediate Indicators/Outputs***	***Outcomes***
Results Area 1: Increase access to on-grid electricity in areas covered by the grid	• Service drops, including meters, and ready-boards. • LV and MV lines constructed or rehabilitated	• **Establish on-grid electricity connections** • Cumulative number of non-residential grid connections made under the Program • Households connected to the grid under the Program that are female headed	• Number of people provided with access to on-grid electricity services
Results Area 2: Increase access to off-grid electricity	• Preparation of feasibility studies and implementation plans for mini-grids and SAS • Installment of renewable energy/hybrid mini-grids • Installment of SAS	• Households provided with electricity via mini-grids and SAS systems. • **Cumulative number of mini-grids installed.** • **Cumulative number of SAS systems installed.** • Cumulative capacity of renewable energy installed through mini-grid projects under the Program	• Number of people provided with off-grid electricity services
Results Area 3: Strengthen sector capacity and institutional reform	• Staff training & annual capacity building activities • Preparation of studies on: - Affordable customer connection policy - Low cost electrification/technical standards - Long-term financial sustainability - Power system rehabilitation • Establishment of minimum entry conditions for procurement • Preparation of off-grid strategy • Establishment of gender and citizen engagement framework	• **DoE with an integrated M&E system established and maintained** • Least cost GIS expansion updated yearly by MoWIE. • **Annual connection roll-out plans adopted by EEU** • **Audited financial statements (compliant with International Financial Reporting Standards, IFRS) submitted** • **Acceptable performance of procurement processes and audit system** • **Reports on F&C approved by FEACC** • Adoption of accountability and grievance redress mechanisms • Increase in women's employment at EEU • **Reports on CE and gender published**	• **Sector capacity and institutional reform strengthened:** - **Sector institutional capacity (including M&E)** - **Sector planning capacity** - **Fiduciary Systems** - **Gender and Citizen engagement systems** - **Safeguards systems** • Improved cost-effectiveness of Program • Improved skill development • **Increase in customer**

Results Area	*Activities*	*Intermediate Indicators/Outputs*	*Outcomes*
		• **ESMS per adopted guidelines established and maintained**	**satisfaction in key aspects**

2.3 PforR Program Scope

The proposed ELEAP is designed as sub-set of the NEP. It will support significant scale-up in electricity connections in areas within the reach of the existing grid network, under Pillar 1 (densification), as well as in areas where the grid is not expected to reach in the near-term, through pilot-scale implementation of off-grid interventions (public programs supporting stand-alone solar systems and mini-grids), under Pillar 2. The proposed ELEAP will provide strong emphasis on Pillar 3 (sector capacity and institutional reform), being an essential pre-condition for success of the activities under the first two pillars. The proposed ELEAP will finance the activities of the three pillars in three results areas on a country-wide eligibility basis.

Figure 2: Program Boundaries for the Proposed ELEAP



Source: NEP Implementation Road Map

Activities under Results Area 3: Sector capacity and institutional reform: Support under ELEAP will address the key elements of Pillar 3 the NEP with regard to improving capacity of EEU/MoWIE to implement the Program. Under this Results Area, activities will focus on: (i) preparation of annual connection and roll-out plans; (ii) establishment of the DoE with an integrated monitoring and evaluation system; (iii) production of International Financial Reporting Standards (IFRS) compliant audited financial statements (without disclaimer opinion); (iv) performance improvements of procurement processes; (v) production of reports on fraud and corruption; (vi) preparation of reports on citizen engagement and gender; (vii) improvement of customer satisfaction; and (viii) establishment and maintenance of an environmental and social management system.

Program Beneficiaries: Beneficiaries of the Program will include the following:

(i) **Households:** Access to electricity contributes to an improvement in the quality of life, in particular by enabling newly connected consumers to undertake productive and income-generating activities (with less time spent on fetching traditional sources of energy and clean water), and enhanced access to information/communication (through phone, radio, television, etc.). Empirical evidence also points to health benefits thanks to the reduction of indoor air pollution due to reduced kerosene consumption.

(ii) **Social institutions:** Improvements in the quality of public service delivery are expected through increased electricity connections, especially of public facilities such as schools, clinics, hospitals (e.g. for cold chain, vaccine and medicine refrigeration, lighting, sterilization), and water pumping stations (e.g. for safe drinking water) used by poor and vulnerable households.

(iii) **Productive enterprises:** Improved reliability of the electricity supply service and access to the grid will contribute to increased productivity and income of enterprises (particularly for micro/small/medium enterprises) to reduce their dependency on expensive diesel generation that has a substantially higher per unit cost compared to the cost of grid supply. In addition, increased supply reliability will boost productivity and reduce sales and equipment loses.

(iv) **Electricity sector institutions:** The sector institutions, especially MoWIE and EEU, are expected to benefit from the strengthening of planning and implementation capacity of the NEP, which could translate into improved institutional performance as well as cost-effectiveness, efficiency, transparency, and accountability of the sector.

(v) **Gender differentiated benefits:** Providing rural households, social services, and enterprises with new energy access and improved electricity services, has the potential to promote gender equality, create employment and business opportunities for women, and improve development outcomes with regard to, for example, education. Under the proposed ELEAP, gender-differentiated considerations will be included in connection practices.

Excluded activities: The Program will not support activities within programs that pose a risk of potentially significant and irreversible adverse impacts on the environment and/or affected people. The Program will also exclude activities that involve procurement of (i) works, estimated to cost US$50 million equivalent or more per contract, (ii) goods estimated to cost US$30 million or more per contract, (iii) non-consulting services, estimated to cost US$20 million equivalent or more per contract, and (iv) consultant services, estimated to cost US$15 million equivalent or more per contract. Finally, under Results Area 2, it is not foreseen to finance micro-hydro mini-grids.

Program financing: The Program financing consisting of GoE funding of approximately US$45 million per year, connection fees from the 1,080,000 customers in the amount of US$50 per customer,[1] as well as the Bank's contribution of US$375 million (US$250 in IDA Credit and US$125 million in IDA Scale-Up Facility Credit) totaling US$676.5 million (see Table 2).

The proposed ELEAP mobilizes approximately 50 percent of the overall (and nearly 70 percent of the on-grid) financing requirements (estimated to be about US$1,405 million) under the first five-year investment prospectus of the NEP. Many development partners have signaled their interest in making follow-up contributions to the NEP investment prospectus.

Table 2: Program Financing (US$ million)

Source	***Amount***	***Percentage of Total***
GoE	247.5	37%
Connection Fees	54.0	8%
IDA	375.0	55%
Total Program Financing	**676.5**	**100%**

Source: NEP Implementation Road Map

[1] Connection fees are expected to increase over the course of the Program; however for the purpose of the Program Financing conservative estimations were taken into account.

2.4 Disbursement Linked Indicators and Verification Protocols

The disbursement under the proposed ELEAP will be governed by a set of seven DLIs. The selection of the DLIs was guided by the following: (i) consideration of how the selected DLIs would directly provide the incentives for meeting program goals; and (ii) feasibility of measuring, monitoring and verifying the Disbursement Linked Results (DLRs). The choice of DLIs is based on the most relevant output indicators, which signal progress towards achieving the planned outcomes under the Program.

i. **DLI 1: Establish on-grid electricity connections:** This DLI relates to the outcome envisioned under Results Area 1 of increasing access to grid connections within the existing network (i.e. 3 kilometers from the grid) and measures the cumulative number of residential and non-residential grid connections under ELEAP.

ii. **DLI 2: Provide off-grid electricity access:** This DLI relates to Results Area 2 and will be triggered upon commissioning of renewable energy mini-grids and installations of SAS system, following the preparation of related feasibility studies and implementation plans.

iii. **DLI 3: Strengthen sector institutional capacity:** This DLI relates to Results Area 3 and will be triggered upon establishment and maintenance of the DoE within MoWIE to ensure coordination of the NEP, including ELEAP. The DoE will include staff with technical, procurement, FM, safeguards, and M&E capacity.

iv. **DLI 4: Strengthen sector planning capacity:** This DLI relates to Results Area 3 and will be triggered upon adoption by EEU Board of annual EEU connection roll-out plans, necessary to identify resources, staffing and material needs as well as modus operandi in rolling out the envisioned connections for each year.

v. **DLI 5: Improve fiduciary systems:** This DLI is intended to strengthen financial management (FM), procurement, and governance systems to address critical risks noted in the Integrated Fiduciary Assessment (IFA). It is related to Results Area 3 and will be triggered upon achievements of milestones:

- **FM**: Delivery of IFRS compliant audited financial statements by EEU on time and without a disclaimer opinion in the later years of the Program, as capacity improves.
- **Procurement**: (1) *Minimum Conditions*: These entry conditions will include: (i) deployment of the required procurement staff, (ii) establishment of well-functioning award and complaints handling committees, (iii) establishment of independent procurement audit system, (iv) establishment of a procedure for advance orientation of staff in procurement and contract management, and (v) establishment of procurement and contract management and monitoring system. (2) *Performance Measures*: EEU will be required to achieve acceptable performance (as defined in the Program Operations Manual) of procurement processes and internal and external audit systems. Such audits should be accompanied by EEU and MoWIE management response (accountability). The procurement DLI will measure both performance of the procurement auditor (based on time line and quality of the audit) and procurement performance of EEU (based on the findings of the procurement audit).
- **Governance**: MoWIE will submit a yearly report on fraud & corruption allegations and responses related to the Program for approval to the Federal Ethics and Anti-Corruption Commission (FEACC). The report will include a review of staffing (ethics and anticorruption officers or vigilance officers in all relevant offices at all levels) and disclosure of responses (including timing) to grievances of complainants related to power drop/interruption, line connection/meter.

vi. **DLI 6: Improve gender and citizen engagement (CE) systems:** This DLI encompasses efforts to mainstream CE and gender activities at EEU. The EEU will publish an annual report summarizing CE and gender activities each year for the duration of the proposed ELEAP. This DLI is related to Results Area 3 and will be triggered upon (i) the design and adoption of CE and gender work program (as defined in the POM) in the first year, and publication of a report on CE engagement and gender activities for subsequent years of the Program, and (ii) annual customer satisfaction survey showing equal or increased customer satisfaction in key aspects (service, grievance, transparency, dialogue, or others, etc.).

vii. **DLI 7: Strengthen safeguards systems**: This DLI responds to the critical need to strengthen capacity to supervise and monitor the social and environmental impacts of the Program. The existing Environmental and Social Management Systems (ESMS) in EEU needs to be improved, and implemented at the regional and local levels, as well as within the Regional Energy Bureaus (REBs). During the first year of implementation, MoWIE and EEU will establish the ESMS to be implemented at each Woreda and EEU district offices and REBs, based on adopted guidelines. In subsequent years, MoWIE and EEU will ensure adequate implementation of the ESMS, focusing on the adequate screening of sub-projects, the implementation of recommended safeguards measures as well as the functioning of the complaints handling mechanism.

2.5 Capacity Building and Institutional Strengthening

Skill development within the sector institutions is a core aspect of the sustainability of the NEP, and is therefore, a key focus of ELEAP. The continual and rapid expansion of electrification in Ethiopia will require extensive capacity building support for not only the electricity sector institutions, MoWIE and EEU, but also for the broader sector participants such as, academic institutions (universities and vocational training center), and community and other local stakeholders.

Selected NEP activities related to skill development will be supported by ELEAP and/or other Bank operations.

i. **Sector institutions (EEU and MoWIE)**: Comprehensive training, technical assistance, and capacity building support will be provided for sector institutions for technical and planning skills development, program management, monitoring and evaluation, fiduciary systems and safeguards management, as well as for transition to customer-oriented business processes. These activities not only aim to strengthen the technical capacity of the utility and its staff, but also target improving commercial processes and utility performance.
ii. **Academic institutions**: EEU has an ongoing program to recruit and train recent university graduates as well as technical and vocational education and training (TVET) program graduates. Deeper interlinkages will be supported with relevant local universities as well as TVET institutions to prepare a pipeline of skilled labor force for the electricity sector.
iii. **Community and local stakeholders**: Capacity development support will also be provided to broader stakeholders in the electricity sector, such as, community groups, local industry participants, women, and civil society organizations.

3 PROGRAM IMPLEMENTATION

3.1 Institutional and Implementation Arrangements

The MoWIE will be responsible for achieving the targets of the ELEAP. Under the MoWIE, the DoE will be responsible for Program oversight and monitoring progress. The DoE will rely on other sector agencies, including the EEU, to facilitate successful implementation of the goals and objectives of the ELEAP. In addition, a Steering Committee, will provide high-level strategic direction and policy guidance to DoE. The main implementing agency for majority of the ELEAP activities will be the EEU. For Results Area 1 (on-grid access), activities will be implemented by EEU's Retail and Wiring Unit (under the Distribution Department) as well as the UEAP Unit. Results Area 2 (off-grid access) will be implemented by EEU's UEAP Unit (with technical support from relevant MoWIE departments). Activities under Results Area 3 will be implemented either by EEU or by the MoWIE, as relevant. The Program Operations Manual (POM) will be prepared to provide detailed implementation procedures.

3.2 Results Monitoring, Evaluation, and Verification Agencies

While MoWIE (via DoE) will be tasked with the overall coordination and reporting, EEU will report achievements of its tasked activities through the DoE. EEU's Planning Department already monitors utility's key performance indicators (KPIs), while the Quality Control and Process Excellence Department monitors KPIs from each of its regional departments. EEU prepares quarterly and monthly reports for the Board and MoWIE. The EEU also has a grievance handling mechanism in place and carries out routine customer satisfaction surveys. The technical assessment highlighted the weak capacity for M&E systems. Capacity to monitor results will be key to ensure Program success and effectiveness. The proposed ELEAP will support strengthening of the existing M&E system needed to track and monitor progress against the NEP targets. The M&E system will be linked to the GIS planning tool, leading to a comprehensive management information system (MIS). MoWIE will be incentivized to establish an independent M&E unit, including staff, resources and provision of training (DLI 3).

In line with the Bank's policy for PforR, MoWIE will retain independent verification agencies (IVAs) on terms of reference (ToRs) acceptable to the Bank to verify the achievement of DLI results. MoWIE will engage the Central Statistics Agency (CSA) as independent verification agent to conduct surveys with an agreeable sample size for connections to be verified under DLI 1 and 2. CSA will verify that connections comply with acceptable quality standards to as established by EEU, as well as conduct site visits of the commissioned mini-grids and deployed SAS systems. An independent verification agent (most likely a consulting firm - preferably international firm in consortium with a local firm) will be hired to verify achievements of all remaining DLIs 3, 4, 5, 6, and 7. Verification will be carried out on an annual basis. DLI 3 will also further strengthen the verification capacity of the CSA, including by allowing for additional technical expertise needed to verify the quality of electricity connection provided under the Program. During implementation, the Bank will carry out periodic reviews of the CSA and IVA reports, as necessary, and evaluate the overall appropriateness of the verification arrangements, taking mitigation measures, as needed.

3.3 Disbursement Arrangements

Disbursements: IDA Credit proceeds will be disbursed against submission to the Bank of the IVA's Program Results Verification Report on the achievement of DLIs. DoE will present the Program Results Verification Report to the Bank within three months of the end of each fiscal year. The Bank will use the Program Results Verification Report to determine the amount of the eligible disbursements to be made based on the results achieved. MoWIE, EEU, and MoFEC understands that if after the IDA Credit closing date, the Bank establishes that the withdrawn financing balance exceeds the total amount paid for Program expenditures, exclusive of any such amounts financed by any other financier or by the Bank under any credit or grant, the Borrower shall promptly upon notice from the Bank, refund such excess amount of the withdrawn financing balance. The Bank shall then cancel the refunded amount of the withdrawn financing balance.

Advances: An advance of up to 25 percent of the total PforR amount, i.e., up to US$93.75 million, will be disbursed following the effectiveness of the legal agreement for the financing. When the DLIs, against which the advance is disbursed are achieved, the amount of the advance will be deducted (recovered) from the total amount due to be disbursed under such DLIs. The advance amount recovered by the Bank is then available for additional advances ('revolving advance'). The Bank requires that the Borrower refund any advances (or portion of advances) if the DLIs have not been met (or have only been partially met) by the closing date.

Prior results: An amount of up to US$32 million has been allocated for prior results. Of this amount US$30 million is embedded in DLI 1 (on-grid connections), US$1 million in DLI 3 (DLR 3.1 Establishment of the DoE) and US$1 million in DLI4 (DLR 4.1 Adoption of the FY18 connection roll out plan). Disbursements for prior results will be made against the verification of the results following the effectiveness of the Credit.

4 ESSA PROCESS AND METHODOLOGY

The ESSA looks at the social and environmental checks and balances that exist in the policy and guidelines; identifies the risks and gaps; and suggests the possibilities for implementation strengthening. It reviewed the appropriateness of existing institutional mechanisms for planning and monitoring of biophysical and social environments. Looking at the community and institutional mechanisms, overall grid and off grid construction activities, participation, diverse needs and usage, cultural aspects, issues of accountability, transparency and grievance redress mechanism have been covered.

The review seeks to reach an understanding of the environmental and social nuances that affect the viability and sustainability of the proposed programs on the ground. Community perceptions, social and environmental vulnerabilities, challenges of accessibility, operational and management issues linked to social stratification are a part of the study. The process of preparing the ESSA has drawn on a wide range of data and followed the methodologies discussed below:

- **Desk review of policies, legal framework and program documents**: The review examined the set of national policy and legal requirements related to environment and social management in the Energy sector. The review also examined technical and supervision documents from previous and ongoing World Bank projects and programs in the Energy sectors and other Ethiopia World Bank offices projects implemented under P for R arrangements.

- **Institutional analysis**: An in-depth institutional analysis was carried out to identify the roles, responsibilities, and structure of the relevant institutions responsible for implementing the ELEAP-funded activities, including coordination between different entities at the national and local levels. Assessments of key institutions that are implementing ELEAP namely the main implementers EEU and MoWIE, who are also responsible for enforcing environmental and social impact assessment at the national level, are considered. In addition, other government entities that have a role to play during implementation at the regional and local levels were assessed; these include Water, Mine and Energy Bureau (WMEB), Regional Environment, Forest and Climate Change Authority (REFCCA), Land Administration and Use offices, Bureau of Labor and Social Affairs (BOLSA).

- **Interviews**: During February 13 to April 1, 2017, interviews were held with various GoE authorities, including those at the national, regional, and woreda levels as well as technical experts involved with environmental and social impact assessment and management in the Energy sector. Specifically, formal interviews were conducted with relevant experts and officials from Addis Ababa, Oromia, Tigray, Amhara, SNNP, Benishangul Gumuz EEU's regional and selected district offices. Regional, zonal and Woreda levels Water, Mines and Energy bureaus, Environmental authorities, Land Administration and Use entities, Labor and Social Affairs bureaus, Municipalities, MFIs, community members and beneficiaries were also consulted to assess the existing capacity and knowledge of the implementing parties on the available Environment Social Health and Safety (EHS) and other sectoral procedures, standards, approaches and practices applicable to ELEAP implementations. The list of consulted people is annexed in this ESSA (see Annex 6).

- **Assessment of the potential environmental and social impacts/risks of the program:** The potential environmental and social impacts/risks associated with the proposed ELEAP were assessed at various levels to determine the significance level of anticipated impacts and risks and to recommend the corresponding mitigation measures to ensure the implementation of the program is environmentally friendly and socially acceptable.

- **Field visits**: Assessment of the existing system has been conducted during a series of targeted field visits. Field visits to various EEU, UEAP and Energy and Mines and other relevant offices were carried out at regional, zonal and district levels within the sampled regions (Photo 1 and Annex 6). The aim of the field visits was to assess existing environmental and social settings and how the environmental and social management issues are managed by ELEAP implementing agencies. During field visits, consultations with more than 230 individuals including beneficiaries as well as officials and experts from 69 different offices at five regions (Benishangul Gumuz, Tigray, Amhara, SNNP and Oromia), selected zones, woredas and EEU regional and district offices in Addis Ababa were conducted to notify

the preparation of the ESSA, to collect data on the existing experience related to the proposed ELEAP (Annex 6).

- **Stakeholder Consultation and Disclosure Process**

Consultation: Consultations and meetings with key relevant stakeholders at the national, regional and local levels, particularly with those involved in the environmental and social assessment and management as well as planning, implementation and monitoring of projects and programs in the Energy sector were undertaken as part of the current Environmental and Social Systems Assessment (ESSA) for ELEAP during February 13 to April 1, 2017.

Consultations made with EEU, MoWIE national, regional and district offices, Labor and Social Affairs regional and district offices, Environmental protection authorities and Land administration and use offices at region and district levels and Municipalities from Oromia, SNNPR, Tigray, Amhara and Benishangul regions. Consultations have also been made with customers and beneficiaries of EEU (for on grid) at Assosa, Hawassa and Bahir Dar and for off grid component at Bambasi district, Benishangul Gumuz) (photo 1, Annex 6). The points of discussions were to collect information as an input for the followings activities:

- Assessment of relevant environmental and social management systems related to the PforR principles;
- Assessment of the capacity and performance related to the environmental and social management procedures and processes relevant to ELEAP;
- Development of an action plan to enhance environmental and social management capacity and performance of the ELEAP PforR; and
- Development of performance monitoring and implementation support program.

Disclosure: The draft ESSA has been disclosed on MoWIE and EEU websites before stakeholder consultations at the national level on July 06, 2017 prior to appraisal of the program. The EEU and MoWIE shall disclose also the final ESSA, incorporating comments from stakeholder consultations, after appraisal. The World Bank will also disclose the final ESSA report on the WB's external website.






Photo 1 : Consultation with EEU, Stakeholders and Beneficiaries at regional and woreda level

5 ETHIOPIA'S ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEMS

5.1 Introduction

The effects of development projects on the biophysical and social environment should be assessed in order to ensure that all development program and project implementations, as much as possible, must be environmental friendly and comply with the relevant environmental policies, guidelines and procedures. In this regards, policies, legislative frameworks, guidelines and standards have been developed by governmental and non-governmental organizations to contribute for the enhancement of sustainable development.

This section describes the existing environmental and social management system of the various institutions applicable to the proposed program within the nation. It provides an overview of the policy and legal framework and a profile of the various key institutions and their role with respect to the management of environmental and social aspects.

Program for Results Financing requires that all operations function within an adequate legal and regulatory framework to guide environmental and social impact assessment and management. In this context, management of the environmental and social effects of Bank financed activities under ELEAP is assessed based on the existing environmental and social management systems of Ethiopia.

In order to assess the adequacy of Ethiopia's legal and regulatory framework, relevant laws and institutions for environmental and social impact assessment and management are described in this section, along with the roles and responsibilities of institutions involved in the environmental and social assessment and management processes. The assessment of how these systems function in practice is presented in section six along with a structured gap analysis that identifies inconsistencies between the framework and the requirements of *Program for Results Financing*. This section is organized in two subsections: (i) environmental impact assessment and management system; and, (ii) social impact assessment and management system.

5.2 National Environmental Impact Assessment and Management System

5.2.1 Applicable Policies, Regulations and Strategies

This section discusses relevant national and regional environmental Policies, strategies and legislations applicable to ELEAP that needs to be considered during program design and implementation phases. The discussion below provides a list of the key relevant environment legislations and key institutions that are in charge of the implementation of Energy sector projects like ELEAP. The relevance of these requirements to ELEAP is assessed with due consideration of the requirements and guidelines of *Program for Results Financing*.

5.2.1.1 The Constitution of the Federal Democratic Republic of Ethiopia

The constitution of the Federal Democratic Republic of Ethiopia had issued in August 1995 with several provisions, which provides basic and comprehensive principles and guidelines for environmental protection and management in the country. The concept of sustainable development and environmental rights are presented in Articles 43, 44 and 92 of the Constitution.

Article 43- The Right to Development

- The Peoples of Ethiopia as a whole, and each Nation, Nationality and People in Ethiopia in particular have the right to improved living standards and to sustainable development.
- Nationals have the right to participate in national development and, in particular, to be consulted with respect to policies and projects affecting their community.

Article 44- Environmental Rights

- All persons have the right to a clean and healthy environment.
- All persons who have been displaced or whose livelihoods have been adversely affected as a result of State programs have the right to commensurate monetary or alternative means of compensation, including relocation with adequate State assistance.

Article 92- Environmental Objectives

- Government shall endeavor to ensure that all Ethiopians live in a clean and healthy environment.
- The design and implementation of programs and projects of development shall not damage or destroy the environment.
- People have the right to full consultation and to the expression of views in the planning and implementations of environmental policies and projects that affect them directly.
- Government and citizens shall have the duty to protect the environment.

5.2.1.2 The Growth and Transformation Plan (GTP) II

The GTP-II consists of qualitative and quantitative targets in the spheres of macro-economic performance, performance of economic and social sectors (including energy) and crosscutting sectors (including environment and climate change). The GTP-II aims at building a 'Green Economy' and implementing the existing environmental laws as part of the key strategic directions to be pursued during the plan period. Up to the end of GTP II, there are plans to increase the connections to almost 7 million (Table 3).

With regard to alternative sources of energy, the focus areas pointed out in GTP II are the following:

- to build the capacity of stakeholders (Ministry of Water, Irrigation and Electricity, Regional and local levels institutions and others) through development and expansion of alternative sources of energy in a sustainable manner so as to enable the society to use modern energy;
- to strengthen the direction of scaling-up of renewable sources of energy from water, wind, geothermal and solar energy without polluting the environment in a bid to satisfy the energy requirements;
- reducing the need for firewood by improving the energy utilization of the society and introducing and promoting new sources and technologies of energy so as to protect desertification; and,
- to enhance social and economic activities by using wind energy for electric supply and water pumps.

Table 3: Energy related GTP II targets (2016-2020)

Indicator	Unit of measurement	Baseline (2015)	GTP-II targets (by 2020)
Electricity service coverage (towns/villages)	Percent	60	90
Installed power generating capacity	MW	2,386	17,347
Length of power transmission system	Km	16,018	21,728
Number of customers connected to grid power	Number	2,310,000	6,955,000
Annual per capita electricity consumption	kWh	86	1,269
Improved cookstoves and biogas plants	Number	8.9 million stoves and 11,618 biogas plants	11.45 million (including 31,400 improved biogas digesters, 20,000 households' biofuel stoves)
Solar appliances	Number	2 million	3.6 million
Household solar systems	Number	40,000	400,000

5.2.2 **Relevant Environmental and Sectoral policies**

5.2.2.1 Environment Policy of Ethiopia

The first comprehensive statement of Environmental Policy of Ethiopia was approved by the Council of Ministers in April 1997 that was based on the policy and strategic findings and recommendations of the Conservation Strategy of Ethiopia. The policy is aimed at guiding sustainable social and economic development of the country through the conservation and sustainable utilization of the natural, man-made and cultural resources and the environment at large. The overall policy goal is to improve and enhance the health and quality of life of all Ethiopians and to promote sustainable social and economic development through the sound management and use of natural, human-made and cultural resources and the environment as a whole so as to meet the needs of the present generation without compromising the ability of future generations to meet their own needs.

The Specific Policy Objectives among others seeks to:

- ensure that the benefits from the exploitation of non-renewable resources are extended as far into the future as can be managed, and minimize the negative impacts of their exploitation on the use and management of other natural resources and the environment;
- incorporate the full economic, social and environmental costs and benefits of natural resource development into the planning, implementation and accounting processes by a comprehensive valuation of the environment and the services it provides, and by considering the social and environmental costs and benefits which cannot currently be measured in monetary terms;
- prevent the pollution of land, air and water in the most cost-effective way so that the cost of effective preventive intervention would not exceed the benefits;
- conserve, develop, sustainably manage and support Ethiopia's rich and diverse cultural heritage; and,
- raise public awareness and promote understanding of the essential linkages between environment and development.

Specifically, with regard to Energy Resource, the three major relevant policies issued in the Environment Policy of Ethiopia are the following:

- To adopt an inter-sectoral process of planning and development which integrates energy development with energy conservation, environmental protection and sustainable utilization of renewable resources.
- To promote the development of renewable energy sources and reduce the use of fossil energy resources both for ensuring sustainability and for protecting the environment, as well as for their continuation into the future.
- To locate, develop, adopt or adapt energy sources and technologies to replace biomass fuels.

The Government of Ethiopia has recently initiated to update the Environmental policy of Ethiopia. The Technical committee under the Ministry of Environment, Forest and Climate Change was formalized to be in charge of updating the National environmental policy to fulfill and gaps identified in addressing climate change and other environmental issues.

5.2.2.2 Energy Policy of Ethiopia

Ethiopia has energy policy document drafted in 1994.The policy document has encouraged the use of indigenous resources and renewable energy. The general objectives of the National Energy policy are:

- To ensure a reliable supply of energy at the right time and at affordable prices, particularly to support the country's agricultural and industrial development strategies adopted by the government.
- To ensure and encourage a gradual shift from traditional energy sources use to modern energy sources.
- To streamline and remove bottlenecks encountered in the development and utilization of energy resources and to give priority to the development of indigenous energy resources with a goal toward attaining self-sufficiency.

- To set general guidelines and strategies for the development and supply of energy resources.
- To increase energy utilization efficiency and reduce energy wastage.
- To ensure that the development and utilization of energy is benign to the environment.

Currently, the National Energy Policy is under review to identify the gaps between what is stated in the 1994 National energy policy and the existing status, as well as the anticipated energy resource development. The potential areas that are considered for updating the Ethiopia National Energy policy (1994) include current technological levels, bottlenecks in the energy development including cross cutting issue, etc.

5.2.2.3 EEU'S Environmental and Social Policy and Procedures

The draft Policy statement on 'Environment & Social" along with stated 'Objectives' was developed and framed by the EEU. Environmental and Social Office of EEU has developed its corporate Environmental and Social Policy and Procedures (ESPP) to address the environment and socio-economic issues arising from its activities based on the basic principles of Avoidance, Minimization and Mitigation.

EEU is committed to the goal of sustainable development and conservation of nature and natural resources, while continually improving its management systems by accessing specialised knowledge and technology. EEU shall strictly follow the basic principles: of Avoidance, Minimization and Mitigation in dealing with environmental and social issues. Where imperative, Restoration and Enhancement shall be undertaken and strive to become Africa's hub of green and clean energy by following excellent standards and benchmarks. The objectives of the Policy are as follows: -

- To avoid operation in environmental eco-sensitive areas, forests, sanctuaries, national park etc.
- To minimize adverse impacts on natural environment;
- To mitigate the damage; and
- To facilitate harmonious relationship between EEU and the community through mutual cooperation.

The ESPP outlines EEU's approach and commitment to deal with environmental and social issues relating to its generation plants, transmission system and distribution network. This document is a dynamic and living document, which shall be further upgraded in the light of the experiences gained from field implementation and other relevant factors. The main aim of ESPP is to give a human face to corporate functioning and move away from the classical cost-benefit approach to the larger realm of corporate social responsibility, while mainstreaming the environmental and social concerns.

This first ESPP document has been developed, based on desk research, consultations with the Environmental Monitoring Office of the former EEPCo, on the regulatory framework and analysis of the domestic laws of the land, consistent international regulations, guidelines, etc.

The major issues are presented as under.

Environment

- Avoid operations in environmentally sensitive areas.
- Consider environmental implications of the utility and mitigate where necessary.
- Abate pollution in all activities and operations.

Social

- Encourage consultation with communities in identifying environmental and social implications of the service.
- Guarantee compensation to affected people in accordance with the policy.
- Share information with local administrators and communities about environmental and social implications of the EEU.
- Always maintain highest standard of health and safety and adequately compensate affected persons in case of any eventuality.

EEU has established the Environment Heath Safety and Quality and Process Excellence directorate (EHS&Q, PE), comprises of three units, namely 1) Environment and Social (ES), 2) Health and Safety (HS) and 3) Quality and Process Excellence (Q&PE) units. The ES and HS units under EHS&Q, PE have

the main responsibility to focus on environmental, social and safety matters during program and project implementations. The detail mandates of the Environment, Social, Health and Safety (EHS) units are as follows:

- policy formulation on EHS;
- drafting and finalization of the EHS manual, procedures and guideline;
- coordinating within the organization for building the internal system capability and implementing the required training of staff for the successful implementation of the EHS measures;
- coordination within the relevant government organizations, like MoWIE, MoEFCC;
- monitoring and Evaluation of the implementation of safeguards under the Program;
- data collection and reporting to the funding organizations in the agreed format at agreed intervals; and
- coordination with the funding organizations and review of safeguards instruments of the development programs under EEU.

5.2.3 **Strategies**

5.2.3.1 The National Conservation Strategy (1995)

The National conservation strategy takes a holistic view of natural and cultural resources and seeks to present a coherent framework of plans, policies and investments related to environmental sustainability. With regard to development of alternative energy resources and their utilization, the relevant strategies include the following:

- Develop alternative energy sources (e.g. solar power, wind, biogas, agricultural bio-fuel, liquid bio-fuel or small hydroelectric plants) for towns and villages remote from the national grid;
- Acquire, develop, test and disseminate appropriate and improved energy use technologies (e.g. improved stoves, charcoal kilns, solar powered cookers and heaters); and,
- Demonstrate and support the use of other energy sources (e.g. geothermal, solar, etc.) in the various economic sectors where it is currently little used such as in transportation, irrigation, crop-drying, food processing, fish drying, and thermal heating.

The Strategy consists of five volumes including the Natural Resource Base, Policy and Strategy, Institutional Framework, the Action Plan and Compilation of Investment Program.

A number of proclamations and supporting regulations contain provisions for the protection and management of the environment and put into effect the principles of the Constitution and the Environmental Policy. Specifically, the Environmental Impact Assessment Proclamation No. 299/2000 contains provisions designed to ensure sustainable development while Proclamation 299/2002 makes Environmental Impact Assessment mandatory not only for development projects but also for policies, plans and programs.

5.2.3.2 Ethiopia's Climate-resilient Green Economy Strategy

The Government of the Federal Democratic Republic of Ethiopia has initiated the Climate-Resilient Green Economy (CRGE) initiative to protect the country from the adverse effects of climate change and to build a green economy that will help realise its ambition of reaching middle-income status before 2025.

Ethiopia's green economy plan is based on the following four pillars:

- Improving crop and livestock production practices for higher food security and farmer income while reducing emissions;
- Protecting and re-establishing forests for their economic and ecosystem services, including as carbon stocks;
- Expanding electricity generation from renewable sources of energy for domestic and regional markets; and,
- Leap frogging to modern and energy-efficient technologies in transport, industrial sectors, and buildings.

5.2.4 **Regulations, Proclamations and Procedural Guidelines**

5.2.4.1 Environmental Impact Assessment Proclamation (Proclamation No. 299/2002)

Environmental Impact Assessment is used to predict and manage the environmental effects of a proposed development activity as a result of its design sitting, construction, operation, or an ongoing one as a result of its modification or termination, entails and thus helps to bring about intended development.

The proclamation is an effective means of harmonizing and integrating environmental, economic, cultural and social considerations in to the planning and decision making processes thereby promoting sustainable development. Moreover, it serves as a basic instrument in bringing about administrative transparency and accountability, to involve the public and the communities in particular, in the planning and execution of development programs that may affect them and their environment. The objective of undertaking the assessment study is to ensure the impacts of a development project and the incorporated mitigating measures for the adverse significant impacts, and policy programs are adequately considered while decisions are put into effect.

5.2.4.2 Environmental Pollution Control Proclamation (Proclamation No. 300/2002)

This proclamation is aimed at eliminating or, when not possible, to mitigate pollution as an undesirable consequence or social and economic development activities. It has also an objective of protecting the environment and safeguarding of human health, as well as the maintaining of the biota and the aesthetic value of nature are the duty and responsibility of all citizens. The Proclamation, among others has considered control of pollution; management of hazardous waste, chemical and radioactive substances; management of municipal wastes; the importance and need to respect environmental standards; and punitive and incentive measures.

5.2.4.3 *A Proclamation to Provide for the Establishment of Environmental Protection Organs (Proclamation No.* 295/2002)

The first objective of this proclamation is to assign responsibilities to separate organizations for environmental development and management activities on the one hand, and environmental protection, regulations and monitoring on the other, which is instrumental for the sustainable use of environmental resources. The second objective is to establish a system that fosters coordinated but differentiated responsibilities among environmental protection agencies at federal and regional levels.

5.2.4.4 Solid Waste Proclamation (Proclamation 513/2007)

Solid Waste Management proclamation aims to promote community participation to prevent adverse impacts and enhance benefits resulting from solid waste management. It provides for preparation of solid waste management action plans by urban local governments.

5.2.4.5 Prevention of Industrial Pollution Regulation (Proclamation 159/2008)

Proclamation 159/2008, Prevention of Industrial Pollution Regulation: As a follow up to Proclamation 300/2002, a regulation to prevent industrial pollution was developed by the Federal Environmental Protection Authority to ensure compatibility of industrial development with environmental conservation. This Proclamation includes comprehensive industrial pollution standards for a range of industrial and mining activities.

5.2.4.6 Water Resources Management Proclamation (197/2000)

The purpose of the Proclamation is to ensure that the water resources of the country are protected and utilized for the highest social and economic benefits of the people of Ethiopia, to follow up and supervise that they are duly conserved, ensure that harmful effects of water are prevented, and that the management of water resources is carried out properly.

5.2.4.7 Environmental Impact Assessment Procedural Guidelines Series (Series 1 and 2)

In order to facilitate the implementation of Environmental Impact Assessment Proclamation (Proclamation 299/2002), the then Environmental Protection Authority had formulated four procedural guidelines, namely, Review Guideline Series 1: Guidelines for Review Approach; Review Guideline Series 2- Guidelines for Contents and Scopes of Report; Review Guideline Series 3- Checklist of Environmental

Characteristics and Review Guideline Series 4- Review Criteria. Review Guideline Series 1 and 2 will be elaborated to a certain extent.

A) Procedural Guideline Series 1 -Guidelines for Review Approach

This guideline pointed out roles and responsibilities of EPA and Regional Environmental Agencies, the proponent, consulting firm, interested and affected parties, and the licensing agency. In the guideline, the EIA processes and requirements, and comprehensive description of the EA process has been stated. It also outlined projects which may have adverse and significant environmental impacts, and may, therefore, require full EIA (Schedule 1), projects whose type, scale or other relevant characteristics have the potential to cause some significant environmental impacts but not likely to warrant an environmental impact study (Schedule 2) and projects which would have no impact and does not require environmental impact assessment (Schedule 3)

B) Procedural Guideline Series 2 - Guidelines for Contents and Scopes of Report

This guideline among others indicates structure and content of the Environmental Impact Study Report and describes the contents including the administrative, legal and policy requirements, assessment and mitigation measures. The guideline indicates the following main types of mitigating measures, which need due considerations:

- Preventing, reducing or minimizing impacts before they occur;
- Eliminating an actual impact over time by incorporating appropriate maintenance measures during the life of the project;
- Rectifying an impact by repairing, rehabilitating or restoring the affected environment;
- Compensating for an impact by replacing or providing substitute resources or environments as well as contingency plans in case of emergencies;
- Maximizing beneficial impacts through specific additional actions

5.2.4.8 Environmental guideline and plan

Guideline for Environmental Management Plan (draft), May 2004 outlines measures for preparation of an Environmental Management Plans (EMP) for proposed developments in Ethiopia and institutional arrangements for implementation of EMPs.
EIA Procedural Guideline (draft), November 2003: This guideline outlines the screening, review and approval process for development projects in Ethiopia and defines the criteria for undertaking an EIA.
EIA Guideline, July 2000: The EIA Guideline Document provides essential information covering the following elements:

- Environmental Assessment and Management in Ethiopia
- Environmental Impact Assessment Process
- Standards and Guidelines
- Issues for sector environmental impact assessment in Ethiopia covering agriculture, industry, transport, mining, dams and reservoirs, tanneries, textiles, hydropower generation, irrigation projects and resettlement
- The guideline contains annexes that:
    - Identify activities requiring a full EIA, partial measure or no action
    - Contain sample forms for application
    - Provide standards and guidelines for water and air

5.2.4.9 Waste Handling and Disposal Guideline, 1997:

The Waste Handling and Disposal Guidelines have been in use since 1997. The Guidelines are meant to help industry and local authorities handle medical waste situation at the local level.

5.2.4.10 EIA Directive 1/ 2008, Directive to Determine Projects Subject to Environmental Impact Assessment

This directive was issued to determine the categories of projects subject to the Environmental Impact Assessment Proclamation 299/ 2002. To this end, the Environmental Impact Assessment Proclamation is to be applied to the types of projects listed under these directives. The types of projects subject to EIA in

the urban sector include roads, solid waste facilities, water supply schemes, which are part of the ELEAP program.

5.2.5 Institutional Roles and Responsibilities for Environmental Impact Assessment and Management

The below discussions is summarizing the roles and responsibilities of institutions involved in environment and social management in Ethiopia. Identification of institutional roles and responsibilities takes into account potential environmental implications of supported activities and the requirements of *Program for Results Financing*.

5.2.5.1 The Ministry of Environment, Forest and Climate Change (MoEFCC)

As per proclamation 916/2015, The Ministry of Environment, Forest and Climate Change have bestowed among others with the following powers and duties:

- Coordinate activities to ensure that the environmental objectives provided under the Constitution and the basic principles set out in the Environmental Policy of the Country are realized;
- Establish a system for evaluating and decision making, in accordance with the Environmental Impact Assessment Proclamation, the impacts of implementation of investment programs and projects on environment prior to approvals of their implementation by the concerned sectoral licensing organ or the concerned regional organ;
- Coordinate actions on soliciting the resources required for building a climate resilient green economy in all sectors and at all Regional levels; as well as provide capacity building support and advisory services;
- Establish an environmental information system that promotes efficiency in environmental data collection, management and use;
- Enforcing and ensuring compliance to the EIA proclamation which currently is being implemented through delegated authority provided to sector ministries;
- Reviewing EIAs and monitoring the implementation of EIA recommendations which is also in part being implemented through delegated authority provided to sector ministries;
- Regulating environmental compliance and developing legal instruments that ensure the protection of the environment;
- Ensuring that environmental concerns are mainstreamed into sector activities; and
- Coordinating, advising, assessing, monitoring and reporting on environment-related aspects and activities

Sector environment units: The other environmental organs stipulated in the Environmental Protection Organs Establishment Proclamation (295/2002) are 'Sector Environmental Units' which have been established in some of the line Ministries, including MoWIE. These Sector Environment Units have the responsibility of coordinating and implementing activities in line with environmental protection laws and requirements (Article 14, Proclamation 295/2002).

Article 13 of the EIA Proclamation 299/2002 requires that public instruments undertake EIA. To this end, Sector Environmental Units play an important role in ensuring that EIA is carried out on projects initiated by their respective sector institution. However, capacity of these units is limited

5.2.5.2 The Ministry of Water, Irrigation and Electricity (MoWIE)

The Ministry of Water, Irrigation and Electricity (MoWIE) will provide oversight and coordination of the proposed ELEAP-PforR. MoWIE is responsible for facilitating energy development, providing stimulus for private investment initiatives, and promoting effective regulation, monitoring and coordination of the sector. Specifically, MoWIE supervises implementation of the energy policy, which is the primary regulatory driver for change in the energy arena in Ethiopia. MoWIE also facilitates mobilization of resources into areas where market forces fail to ensure adequate energy services.

The roles and relationships of the different actors in the sector, including MoWIE, regulators and operators, are determined by legislation, which provides the basis for the regulatory functions of the sector, ensuring that operators will be licensed, markets and performance monitored, and necessary regulatory measures applied.

According to Proclamation no. 916/2015, the mandates of The Ministry of Water, Energy and Electricity include promoting the development of water resource and electricity and promoting the growth and expansion of the country's supply of electric energy.

The Ministry of Water, Irrigation and Electricity shall have the powers and duties to:-

- Promote the development of water resource and electricity;
- Undertake basin studies and determine the country's ground and surface water resource potential in terms of volume and quality, and facilitate the utilization of same;
- Determine conditions and methods required for the optimum and equitable allocation and utilization of water bodies that flow across or lie between more than one Regional States among various uses and the Regional States;
- Undertake studies and negotiation of treaties pertaining to the utilization of boundary and trans-boundary water bodies, and follow up the implementation of same;
- Cause the carrying out of study, design and construction works to promote the expansion of medium and large irrigation dams;
- Administer dams and water structures constructed by federal budget unless they are entrusted to the authority of the relevant bodies;
- In cooperation with the appropriate organs, prescribe quality standards for waters to be used for various purposes;
- Support the expansion of potable water supply coverage; follow up and coordinate the implementation of projects financed by foreign assistance and loans;
- Promote the growth and expansion of the country's supply of electric energy;
- Issue permits and regulate the construction and operation of water works relating to water bodies referred to in paragraph (c) and (d) of this sub-article; and
- Ensure the proper execution of functions relating to meteorological service.

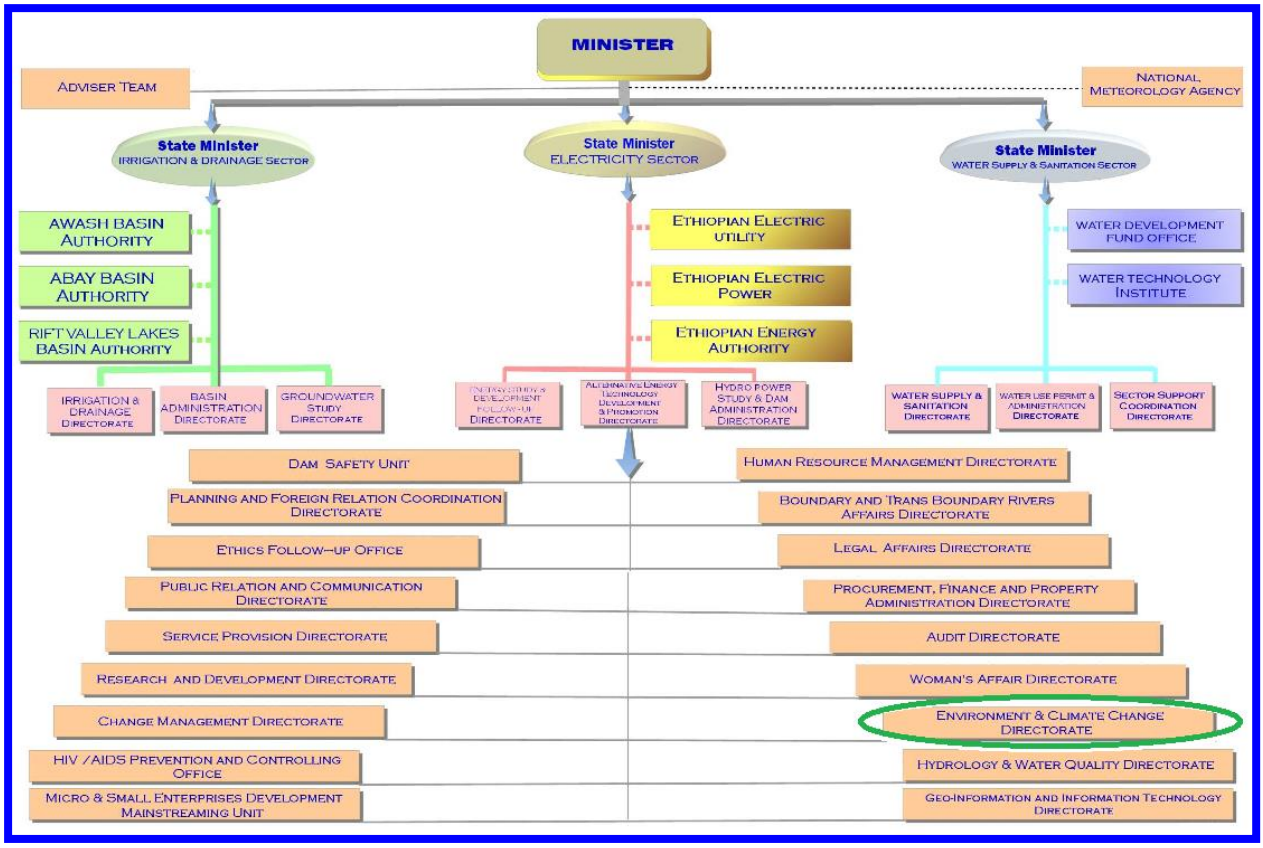
The power and duties given to the Ministry of Water, Irrigation and Electricity by the provision of the other laws, currently in force, with respect to water and resource and electricity, are hereby given to the Ministry of Water, Irrigation and Electricity.

The Ministry has an Environment and Climate Change Directorate so as to manage issues related to environment and climate change of the sector.

- Prevent and control pollution of water resources
- Enforcing and ensuring the compliance of Energy sector program activities to the EIA proclamation which currently is being implemented;
- Reviewing EIAs and monitoring the implementation of EIA recommendations which is also in part being implemented through Water, Irrigation and Electricity sectors;
- Regulating environmental compliance and developing legal instruments that ensure the protection of the environment;
- Ensuring that environmental concerns are mainstreamed into sector activities.

Delegated authority: The Federal Environment Protection Agency has delegated authority to sector institutions to ensure implementation of EIAs in their sector and to undertake EIA reviews. For instance, the Federal Ministry of Water, Irrigation and Electricity is responsible for ensuring that an EIA is undertaken on water and energy projects and to review the EIA. This delegation has been communicated to sector ministries through an official letter sent by the Federal EPA dated December 2010.

Figure 3: Organizational Structure of MoWIE



5.2.5.3 Regional Environment, Forest and Climate Change Authority (REFCCA).

At regional level, there are environmental bureaus to implement environmental related issues including the preparation of policies, legal framework and directives and within their respective regions.

Proclamation 295/2002 requires regional states to establish or designate their own regional environmental agencies. The regional environmental agencies are responsible for coordination formulation, implementation, review and revision of regional conservation strategies as well as environmental monitoring, protection and regulation. Relating to EIA specifically, Proclamation 299/2002 gives regional environmental agencies the responsibility to evaluate EIA reports of projects that are licensed, executed or supervised by regional states and that are not likely to generate inter-regional impacts. Regional environmental agencies are also responsible for monitoring, auditing and regulating implementation of such projects. The institutional standing of regional environmental agencies varies among regions. In some regions, they are established as separate institutions, while in others they are within Regional Sector Bureaus (e.g., Bureau of Agriculture).

5.2.5.4 Zona and Woreda level Environmental, Forest and Climate change authority

The ESSA team identified that institutional structure at regional, zonal and woreda level are varied from regions to regions. In some regions, the environmental organs are embodied within the Environmental protection and land use administration bureaus, whereas others are kept the same standalone structure with the national level, i.e., Environment, Forest and Climate Change Authority. In both arrangements, the roles and responsibilities of the local environmental organs are the same. These are safeguards document review and clearance and monitoring of environmental management, as delegated by the regional bureau only for category B project, like the proposed ELEAP program having limited impacts and managed with best practice methods. However, the existing capacity to manage the environmental safeguards at local level is very limited and required a capacity development program to improve the existing capacity in these matters. Among other the responsibilities of Zonal and Woreda level Environmental organs are:

- Coordinate activities to ensure that the basic principles set out in the Environmental Policy of the Country are realized;
- Establish a system for evaluating and decision making, in accordance with the Environmental Impact Assessment Proclamation, the impacts of implementation of investment programs and projects on environment prior to approvals of their implementation by the concerned sectoral licensing organ or the concerned regional organ;
- Enforcing and ensuring compliance to the EIA proclamation which currently is being implemented
- Reviewing EIAs and monitoring the implementation of EIA recommendations;
- Regulating environmental compliance that ensure the protection of the environment;
- Ensuring that environmental concerns are mainstreamed into sector activities; and
- Coordinating, advising, assessing, monitoring and reporting on environment-related aspects and activities

5.2.5.5 Ethiopian Electric Utility (EEU)

The Ethiopian Electric Utility (EEU) is responsible for the implementation ELEAP, particularly for full on grid components of the project and Mini grid from Off grid components.

The EEU established as a new utility institution during 2013. The regulation endorsed for the establishment of the Ethiopian Electric Utility was on the date of December 27, 2013. Council of Minsters Regulation No. 303/2013 to provide FOR THE ESTABLISHMENT OF THE ETHIOPIAN ELECTRIC UTILITY- Ministers Regulation: Page 7126, Regulation, stated the purposes for which the EEU is established are as follows:

- construct and maintain electric distribution networks; to contract out the distribution networks construction to contractors as required;
- administer electric distribution networks, to purchase bulk electric power and sell electric energy to customers;
- initiate electric tariff amendments and, upon approval, to implement same;
- in line with directives and policy guidelines issued by the MoFED, to sell and pledge bonds and negotiate and sign loan agreements with local and international financial sources; and
- undertake any other related activities necessary for the attainment of its purposes.

5.2.5.6 Regional Water, Mines and Energy Bureaus (RWMEB)

Regional Water, Mines and Energy Bureau (RWMEB) **are** an autonomous body under MWIE and will be the lead implementing agency for the program at the regional level. The respective main roles under these regional bureaus are to promote and facilitate improved access to modern energy services, particularly for off grid energy sources in rural areas of the nation. These bureaus are the key actors in promoting and facilitating the provision of rural energy development by working in partnership and collaboration with other relevant sectors, Microfinance institutions, private sector actors, NGOs, and community based organizations (CBOs). The main functions of RWMEB are the following.

- Promote the alternative energy systems by using different means including media;
- Coordinate and support the design, implementation and supervision of Power transmission, rehabilitation and upgrading construction activities;
- Awareness creation on the on grid and off-grid energy components of programs for the pertinent government energy sectors in zones and Woredas and the relevant private sector (micro finance institutions, distributors of solar energy systems, technicians for the installation of solar energy systems) in their respective regions;
- Provide training on technical aspects of off grid system like installation and maintenance of solar lanterns, solar home systems at zone and Woreda levels including for technicians graduated from TVET;
- Control the distribution and installation of illegal solar energy equipment in collaboration with other government sectors;
- Support, follow-up, monitor and evaluate the overall implementation of the alternative sources of energy at hand in their respective regions;
- Avail accessories on time in consultation with the relevant bodies;

- Sensitize the beneficiaries to return loans in collaboration with zonal and Woreda administrative bodies;
- Ensure that all lenders finish their construction on fixed time of construction and install the solar systems within a specified period of time;
- Ensure that all the necessary appliances are provided on time;
- Make sure that the solar systems are functional;
- Organize quarterly field visit with the micro finance institutions and respective Woreda officials/experts for joint supervision and support;
- Report to the MoWIE on a monthly, quarterly, biannually and annually basis.
- Promote, stimulate, facilitate, and improve modern energy access for productive uses in rural areas in order to stimulate rural economic and social development; and
- Promote rational and efficient production and use of energy, and facilitate identification and development of improved energy projects and activities in rural areas.

Zonal Water, Mines and Energy Offices

- Create awareness on the overall aspects associated with the alternative sources of energy for Woreda officials/experts;
- Undertake follow-up, monitoring and evaluation of the programs in their respective zones together with Woreda officials/experts;
- Establish necessary integration with Zonal sector offices including Agricultural and Natural Resources Departments, Women's Affairs Offices, Police Offices;
- Report to Regional Water, Mines and Energy Bureaus/Agencies on the overall progresses and problems encountered on the programs on a monthly basis;
- Facilitate overall implementation of the project and safeguards within their boundary; and,
- Support Woredas in both disbursement and repayment of loans.

Woreda Water, Mines and Energy Offices

- The Woreda Water, Mines and Energy Offices (or other related institutions) which are the major actors at Woreda level have the following responsibilities:
- Create awareness and registration of possible beneficiaries;
- Undertake screening and evaluate the eligibility of the beneficiaries;
- Send the names and addresses of the eligible users to microfinance institutions and Woreda administrations;
- Assist the micro finance institutions on the repayment schedule;
- Ensure that all the construction/installation works finish on time;
- Establish necessary integration with Woreda sector offices including Woreda Agricultural and Natural Resources Departments, Women's Affairs Offices, Microfinance Institutions, Police Offices, Peasant Associations, etc.;
- Provide necessary support in the installation and maintenance of the systems in collaboration with the different parties;
- Undertake support, monitoring and evaluation of the programs;
- Report monthly, quarterly, biannually and annually on the progress of the programs to Zones (or Regions as the case may be); and,
- Coordinate and follow-up of the masons at Woreda level.

Woreda Administration

- Follow-up and assist the project implementers, PSI and micro finance institutions on the implementation of program activities under on grid and off grid components of the program;
- Establish a task force/steering committee at Woreda level;
- Organize meetings and chair the Woreda taskforce/steering committee for meeting related to the implementation of the programs, credit disbursement and repayment; and,
- In cases of land expropriation, facilitate the process of valuation and compensation committee meetings and payment of compensation.

5.3 Social Impact Assessment and Management System

5.3.1 Social Impact Assessments and Management system

Although environmental management, as the term is used in Ethiopia, covers social issues, there are specific social issues of concern that justify particular attention**.** Social benefits cannot be guaranteed, and there is a requirement to ensure that projects are planned, constructed and operated in a manner, which maximizes benefits. The program activities are likely to deliver significant social benefits, if they are planned in an inclusive manner, and they are designed to ensure distribution of benefits to vulnerable groups including the elderly, youth, women, and the poorest. The program will also consider social effects such as nature/scale of involuntary resettlement or land acquisition required, potential impacts on vulnerable communities, changes in resource access and impacts on underserved groups.

While the scope and scale of works under the Program are not expected to cause significant adverse impacts, the current EIA procedures in Ethiopia require that all investments be screened for negative impacts that are sensitive, adverse, or unprecedented on the environment and/or affected people. In addition to screening for significant negative impacts, works involving physical relocation of more than 200 people will be ineligible for financing under the ELEAP, details of ineligible activities can be found under Annex 7.

In order to assess the adequacy of the social management system, relevant policies, laws, and regulations as well as the roles and responsibilities of related institutions are summarized below.

5.3.1.1 Land Acquisition

Historically, the 1975 Proclamations of Public Ownership of Rural Land 31/1975 and Urban Land 47/1975 abolished the 1960 Constitutional decree that recognized private ownership of land. Currently, all land in Ethiopia is a considered public property. Ownership of land is now vested in the State and Ethiopian citizens have only a usufruct right over the land. 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.

The abolishment of private ownership was enshrined in the 1995 **Constitution of Ethiopia**, Article 13(2), and Article 40(3)). According to these decrees, land is public property and cannot be subject to sale or other means of transfer or exchange. Article 40 recognizes the right of farmers to land and right of pastoralists to free land for grazing and cultivation. The Constitution states that the state has the power to expropriate land in the interest of the public by paying compensation in advance commensurate to the value of the expropriated property. Article 44 of the Constitution states the right of displaced persons to financial or alternative means of compensation including relocation with adequate state assistance.

The 1995 Constitution, Article 40(2), 40(4), 40(5) and 40(8), includes legal frameworks that protect citizen's rights to private property and sets conditions for expropriation of such property for state or public interests. Regarding immovable property built on land, the Constitution states that every citizen shall retain full right to immovable property built on the land and to improvements s/he brings about on the land by her or his labor or capital. Hence, the State owns all land, but citizens have a use right and full ownership of developments and improvements built on state land. This includes the right to alienate developments, to remove them or claim compensation for expropriation of property.

Based on the framework provided by the Constitution, two Proclamations were issued: 1) Expropriation of Land Holdings for Public Purposes and Payment of Compensation Proclamation and 2) Rural Land Use and Land Administration.

Proclamation 455/2005 Expropriation of Land for Public Purposes and Payment of Compensation. The general condition for which land and property can be expropriated is for public purpose defined as use of land by the appropriate body with urban structure plan or development plan to ensure the interest of citizens to acquire direct or indirect benefits from the use of the land and to consolidate sustainable socio-economic development.

Priority to land- to- land compensation

The Proclamation provides for expropriation of and compensation for land in both rural and urban areas. According to the Proclamation, land-to-land compensation is considered where possible and provision of compensation for displaced persons with lost assets, as well as provision of some assistance.

Eligibility. Compensation should be paid to any landholder that includes individual, government, or private organization or any other organ that has legal personality and lawful possession over the land to be expropriated and owns property situated thereon.

According to Article 7(1) and (2), a landholder whose holding has been expropriated shall be entitled to compensation for her or his property situated on the land and for permanent improvements s/he has made to the land. The amount of compensation for property shall be determined on the basis of the replacement cost of the property. Thus, Proclamation 455/2005 determines that only legal landowners with crops, perennial crops or other property are eligible for compensation.

Land Asset Classification, Valuation, and Compensation

Land assets are classified as movable and immovable. For movable assets, compensation will be paid for inconvenience and other transition costs. Immovable properties could be classified as urban and rural. In urban areas, this category of properties includes residential houses, business installations, institutional structures, stores, fences and public service providing installations. In rural areas, this category of properties may include seasonal crops, perennial fruit trees, timber trees and other cash crops.

A rural landholder whose landholding has been permanently expropriated shall be paid displacement compensation, in addition to compensation payable for property situated on the land and for permanent improvements made to such land, which shall be equivalent to ten times the average annual income s/he secured during the five years preceding expropriation of the land.

Where substitute land, that can be easily ploughed and generate comparable income, is available, compensation shall be equivalent to the average annual income secured during the five years preceding expropriation of the land.

Urban landholders whose land holding has been expropriated will be provided with a plot of urban land the size of which is determined by the urban administration to construct a house. Such persons are also entitled to displacement compensation equivalent to the annual rent of the demolished dwelling house or be allowed to reside free of charge for one year in a comparable dwelling house owned by the urban administration.

On the basis of Proclamation 455/2005 Article 7(2) for expropriation of land holdings for public purposes, compensation will be made at replacement cost. With this method of valuation, depreciation of structures and assets will not be taken into consideration. Compensation rates and valuation of properties will be based on a nationally set formula based on data collected from local market assessments. Compensation is commensurate with loss of assets; however, replacement cost does not consider location value.

In urban areas, minimum compensation should not be less than the current cost of constructing a single room low cost house in accordance with the standard set by the concerned region. Compensation for permanent improvements to land shall be equal to the value of capital and labor expended on the land. The cost of removal, transportation and erection shall be paid as compensation for a property that can be relocated and continue its service as before.

Valuation of property will be done by certified institutions or individual consultants on the basis of a valuation formula determined at the national level or, where such capacity does not exist, by a committee composed of five persons (rural) designated by the Woreda or city administration. Procedures for valuation are to be determined by specific Directives. Detailed directives on compensation are provided in **Council of Ministers Regulation 135/2007 "Payment of compensation for property situated on landholding expropriated for public purposes".** The regulation provides the procedures for application of proclamation No 455/2005. The regulation provides for compensation payment for property situated on expropriated land for public benefit.

The type of properties and assets identified to be eligible for payments of compensation include buildings, fences, crops, perennial crops, trees, protected grass, improvement made on rural land; relocated property,

mining license and burial grounds. The regulation also provides guideline and formula for calculating the amount of compensation payable for lost assets due to development project. For example, Part Two- Article 3 (1 to 4) of the regulation states compensation for buildings shall be determined on the basis of the current cost per square meter or unit for constructing a comparable building including patios, septic tanks, and other attached service facilities, estimated cost for demolishing, lifting, reconstructing, installing and connecting utility lines of the building. The owner of a building shall have the right to claim compensation for the entire building by surrendering the total land in his possession where part of the building is subject to be removed.

Furthermore, compensation for fences is, suggested to be determined through calculating the current cost per square meter or the unit cost required for constructing a similar fence, for trees shall be determined on the basis of the level of growth of the trees and the current local price per square meter or per unit and the amount of compensation for a relocated property to be determined by computing the estimated costs of labor, material and transport to be incurred at market value for removing, transferring and installing the property.

The regulation prohibits payment of compensations for any construction or improvement of a building, any crops sown, perennial crops planted or any permanent improvement on land, where such activity is done after the owner of the land is served with the expropriation order.

Public Utilities-According to Proclamation 455/2005, valuation of fair compensation required to replace utility lines owned by government or parastatal organizations is determined by the utility provider. Valuation must be done within 30 days upon receipt of the expropriation order and the land must be vacated within 60 days after compensation is paid.

Procedures for Expropriation-The law requires that the expropriation order has to be given prior to relocation. Such order shall not be less than 90 days before relocation; however, if there is no crop or perennial plant, farmland could be expropriated within 30 days of receipt of the expropriation order. The law regulates that compensation has to be paid before relocation.

Grievance Redress-Complaints are addressed by a grievance committee established by the Woreda or city administration. The second level of grievance is the Woreda or municipal appellate court and the decision of the court will be final. According to the law, execution of an expropriation order will not be delayed due to complaint regarding compensation payments.

Proclamation 456/2005 Rural Land Administration and Land Use

This regulates use and administration of rural land and recognizes farm, pastoral, semi-pastoral and communal land holdings. It outlines a grievance mechanism and dispute resolution system. The law requires that all land holdings be issued a certificate in the name of both wife and husband or the name of all joint holders and should be registered in a database. Previously, land registration at the household level often meant registering land holdings exclusively in the name of the traditional head of household until joint titling among spouses was introduced. Land title certificates have been reissued with the names of husbands and wives giving women land use rights previously denied to them.

The law provides for the obligation to pay compensation to landholders if the holder is displaced or to provide replacement land with compensation for lost assets. The Proclamation requires that rural landholders expropriated for federal projects must be compensated based on federal compensation laws or, if displaced for regional projects, they must be compensated according to regional regulations. The Proclamation also states that the holder of rural land who is evicted for purposes of public use shall be given compensation or shall be given substitute land.

Disputes arising from land holding rights are resolved amicably through agreement (an arbitration body to be elected by the parties to the dispute) or in accordance with rural land administration laws of the regional state. The Ministry of Agriculture and Natural Resources is responsible for implementation of this law while regional states are expected to pass region-specific laws with detailed provisions for implementation and appropriate institutional arrangements for application of the regional provisions.

Regional Proclamations on Land Acquisition and Compensation

These proclamations allow regional councils to issue their own land use and administration laws and directives to implement the Federal expropriation laws and regulations. The Amhara, Oromia, SNNPR and

Tigray regional states have passed laws on land acquisition and compensation. In these four regions, the process of land registration and certification has been taking place. All regional laws and directives are consistent with national laws with slight variations relevant to their respective contexts

Institutional Arrangements for managing Land Administration and Use

The **Ministry of Agriculture and Natural Resources (MoANR)** is responsible for implementation of the Rural Land Administration and Land Use Proclamation (456/2005). The Ministry is also responsible for developing new policies and amendments to existing ones as well as establishing information exchange on rural land use and administration issues.

The Ministry of Urban Development and Housing is responsible for overseeing implementation of urban Land Administration and Use in Ethiopia. Regional states have the responsibility to enact rural land administration and land use laws with detailed provisions on implementation and to establish institutions to support implementation of these laws. Following establishment of the Federal Environmental Protection Authority (EPA), regional governments established the Environmental Protection, Land administration and Use Authority (EPLAU) initially vested with responsibility of the administering rural land. Currently, there are certain variations among regions in the arrangement of Land Administration and Use offices, for instance in Amhara Land Administration and Use is independent bureau, that is Bureau of Rural Land Administration and Use (BoRLAU),for Southern Nations Nationalities and People(SNNP) region ,it is a department under Bureau of Agriculture and Natural Resources (SBOANR), in Benishangul Gumuz it is Bureau of Environment, Forestry and Land Administration (*BoEFLA*) while in Tigray it is Agency, *Tigray* Environmental Protection, Land Administration And Use Agency(TEPLAUA).These offices areresponsible for providing technical and administrative support as well as carrying out a review and monitoring function for implementation of regulations related to land acquisition.

Woreda, Kebele, and City administrations are key players in implementation of the land acquisition regulation and related guidelines. The woreda administration in rural areas and the city administrations in urban areas have the power to expropriate rural or urban holdings for public purposes. They are responsible for setting up a resettlement committee, valuation committee and effecting compensation payments. The woreda administration is also responsible for establishing Kebele level implementation committees; clarifying policies and operational guidelines of Kebele compensation committees; establishing standards for unit rates, coordinating and supervising implementation by Kebele compensation committees and ensuring that appropriate compensation procedures are followed.

According to Proclamation 455/2005, the implementing agency is any government agency or public enterprise that undertakes or causes to be undertaken development works with its own force or through contractors. Ethiopian Electric Utility (EEU) the government implementer that will be responsible for paying compensation related to land acquisition as long as it directly finances project activities such as Mini-grids and grid extensions. Regional government will be responsible if there are project activities financed from regional budgets. The law requires that the implementing agency prepare detailed information on the land required for the work at least a year before commencement of the work and pay compensation in accordance with the Proclamation.

For Federal government financed project activities, the MoWIE and EEU will ensure proper consultation is conducted and grievance mechanisms established in accordance with the law. The implementers will also ensure that assets are valued properly and compensation calculated according to legal requirements and paid in full and on time. The implementers must also ensure that construction activities take place only after due process for land acquisition is completed. The woreda administration has the responsibilities to pay or cause payment of compensation and provide rehabilitation support to the extent possible.

5.3.1.2 Health and Safety of Workers

Article 42(2) of the FDRE Constitution states that "workers have the right to a healthy and safe work environment," signifying the fundamental obligations of an employer/government to take all necessary measures to ensure that workplaces are safe, healthy, and free of any danger to the well-being of workers.

Labor Proclamation 377/2003

A related proclamation in Ethiopia that states detail procedure about workers is the Labor proclamation 377/2003. The proclamation requires employers to provide good working environment to workers in order to safeguard their health and provide compensations in cases of work place injuries and death.

The proclamation includes regulations about working conditions for women and young workers. According to article 89, sub-article 1 of the Proclamation, "Young worker" means a person who has attained the age of 14 but is not over the age of 18 years. As per article 89, sub-article 2 of the proclamation it is prohibited to employ persons less than 14 years of age. In sub-article 3, it is stated, "it is prohibited to employ young workers which on account of its nature or due to the condition in which it is carried out, endangers the life or health of the young workers performing it." Besides, the law regulated the situation of female employees from two angles. The first is providing flat protection available to all female workers by virtue of being female. According to Article 87(1) of the Labor Proclamation, Women shall not be discriminated against as regards to employment and payment, on the basis of their sex. The second provides special provision for women under particular circumstances such as pregnancy and maternity (Arts. 87 (3), (4), (5) & 88 of Labor Proclamation).

In Part Seven of the Proclamation- "Occupational Safety, Health and Working Environment", article 92, i.e. Obligations of an Employer, as employees are the most exposed part of society to the project operations risks. Based on the proclamation an employer shall take the necessary measure to safeguard adequately the health and safety of the workers. Employer's liability in this connection has two levels; the level of prevention and of remedial. At the level of prevention, the employer is duty bound to prevent risks. For this purpose, it is required to provide safety equipment and train how and when to make use of them (Art. 92). Nevertheless, it is worth noting that the employee has also a corresponding duty at the level of prevention. He/she is required to make use of the protective tools appropriately and at appropriate time and place (Art. 93). Furthermore, he/she is obligated to obey all health and safety instructions. Hence, prevention demands the care of both parties (i.e. bilateral care).

In cases of employment injury occurrences remedial regulations such as taking compensatory measures after the damage has already been sustained is required. The proclamation indicates that employer's liability is not limited to the stage of prevention. Once the accident is sustained, the employer is expected to cover cost of medication including the cost for any necessary prosthetic or orthopedic appliances. Hence, for work related injury, the employer is required to cover medical cost and further obligated to provide disability benefit to the employee and pay dependent's benefit to the dependents of the deceased in cases of death. This proclamation needs to be followed as Project workers will be exposed to various dangerous and hazardous environment during project implementation.

The proclamation has also included sections on labor dispute and how it can be resolved by labor court. Under part nine on labor dispute, the labor proclamation has employed an illustrative listing of what constitutes individual labor dispute and what constitutes a collective one (Arts.138 (1) &142 (1) respectively. As per the indication in the section, the labor dispute can be resolved at regional first instance court, labor division of the regional appeal at court or labor division of the federal high court depending on whether it is individual or collective and if unresolved at regional courts.

The 2003 Occupational Health and Safety Guideline, developed as a follow-up to the labor Proclamation, provides guidance on occupational health and safety requirements.

Institutional Roles and Responsibilities

Ministry of Labor and Social Affairs (MoLSA). MoLSA plays an overarching role and the applicable sectors also take responsibility for health and safety issues in their specific areas. In the case of ELEAP, the implementers, Ministry of Water Irrigation and Electricity (MoWIE) and Ethiopian Electric Utility (EEU) are responsible for ensuring implementation of the Occupational Health and Safety Guideline and adhere to the labor proclamation.

5.3.1.3 Vulnerable Groups

The 2014 Ethiopia Poverty Assessment described the main sources of vulnerability reported by households in Ethiopia and their impact on consumption. Findings revealed that unexpected events that cause ill health,

a loss of assets, or a loss of income play a large role in determining the fortunes of many people. Findings also revealed that poorer households are less able to use their assets to manage risk, and mutual support also has its limits. Shocks often hit poorer households and disadvantaged individuals harder.

Vulnerable Groups and Historically Underserved Peoples

ELEAP is a nationwide project, covering all regions of Ethiopia, which include number of vulnerable groups and underserved people. Individuals may be part of more than one group and experience multiple vulnerabilities (e.g., a pastoralist woman with mobility issues), which compound their difficulties in accessing and using services. Below is the description on some of the vulnerable groups.

Low income and food Insecure-People in this group are often geographically remote. In highland areas they are typically subsistence farmers, usually living on less than 0.5 ha of land, and largely dependent on rain-fed agriculture. In lowland areas, they are pastoralists or agro-pastoralists. They are often labor-poor and have little access to credit. This group is often most severely affected by climate change and other shocks. Their remoteness, socio-economy, and history make them more vulnerable than others: it is not that their needs are different from others', but that their vulnerabilities are more serious.

Geographically remote community. Ethiopian citizens living in geographically remote and isolated areas often have limited infrastructure such as roads, schools, electricity and markets and thus limited opportunities for livelihood diversification. They need increased basic services and infrastructure to promote market engagement and reduce vulnerability. Geographically remote communities also have less access to labor markets, a primary determinant of poverty and vulnerability in Ethiopia.

Pastoralists. Pastoral and agro-pastoral groups have historically been among the most underserved communities in Ethiopia, their access to basic services is limited due to various reasons. An estimated 8-10 million people, 10% of the country's total population, practice pastoralism as their predominant mode of livelihood across the lowlands of Ethiopia. The rangelands in pastoral areas represent two-thirds of the total national land area. Pastoral and agro-pastoral populations belong to some 29 ethno-linguistic groups.

Ex-pastoralists or pastoral "dropouts" Ex-pastoralists are herding groups who were predominantly involved in pastoral pursuits, and can hence be described as well off by local standards of wealth and social stratification. However, they have over the years lost their livestock wealth to recurrent droughts, veterinary diseases, and intergroup conflicts to the point of being ejected from the pastoral livelihood system. Impoverished and desperate, the ex-pastoralists move from distant pastoral areas looking for survival alternatives in the surroundings of small woreda towns.

Women in male-headed and female-headed households. Experiences of vulnerability in Ethiopia are highly gendered. Women play a significant role in agricultural productivity (carrying out an estimated 40-60% of all agricultural labor) but have unequal access to resources and capacity-building opportunities. Female-headed households are more vulnerable to shocks and face multiple challenges that hinder their productivity, including differences in the levels of productive factors used and the returns that these factors generate. The draft Ethiopia Energy Sector Gender Profile (2017) by World Bank states that Female Headed Households (FHH) are most likely widows, older than Male Headed Households (MHH) and less educated than MHH. Household farm labor is less available to female headed-households, and they have competing household responsibilities; poorer-quality land, lower returns from farm inputs, and less knowledge of farming practices (World Bank, 2014). Specific to energy sector, the country Gender profile states that female-headed households in urban areas have lower access rates to the grid than male-headed households. In the rural area, male-headed households rely on safer, cleaner and less time-consuming alternative energy sources than female-headed households. Furthermore, rural FHH, and women in general, spend more time a day collecting cooking fuels than MHH.

Women in polygamous marriage are also vulnerable and disadvantaged as limited resources need to be shared among different households and the women or the unfavored wife may not have a say in decision and use of the resources. A finding of Gender Analysis study in Ethiopia revealed that women who live in polygamous families in Afar and East and West Harerge are most vulnerable, since their lives depend on the favor of their husbands and husbands tend to share the limited resources they can access during the drought with the family they favor the most(Oxfam,2016).

Unemployed and underemployed rural youth. Unemployed rural youth includes boys and girls who have dropped out of school for various reasons at secondary or preparatory levels. Others are youths who have returned to live in their natal villages because of not finding work after completing technical and vocational training or university/college education. They live with their parents, mainly assisting in farming activities that no longer fully engage them because of the ever-declining land-to-person ratio. The problems are most evident where land scarcity and land fragmentation are at their highest. In years past when household size was not a concern, father and sons worked and lived together on household plots, which supported the entire family. However, as the size of households grew and the sons old enough to marry left the family, fathers had to share with them parts of the plots. In this process, household plots continued to be divided among a growing number of young household heads, with the result that the piece of land shared out became too small to feed a household. This has led to deepening poverty and food insecurity in the kebele.

Vulnerable Children. Vulnerable groups of children include children who migrate alone to towns, children affected by HIV and AIDS, orphans, street workers, children affected by trafficking internally and across borders, and children exploited sexually. They are found mainly in urban areas and are more likely than other children to be engaged in employment.

People with Disability. Over 6 million people in Ethiopia—7.6 percent of the total population—are disabled. The underlying causes of physical disability are often misunderstood in rural Ethiopia, often thought of as *'a curse from God.*' As a result, disabled people's access to education is a challenge and rejection by family and society is common. Health care challenges also mean that mobility aids are not widely available; those who are unable to walk unassisted have no choice but to crawl.

Elderly. Elderly people are treated with respect in Ethiopia. Their accumulated knowledge and experience is recognized. In times of need, the elderly receives strong support and assistance from their families and communities. However, when families or communities themselves face problems, it is difficult for older persons to get the support and assistance they need. Some elderly persons who lack a social support network and cannot find work may turn to begging. It is also recognized that the Ethiopia's long-standing culture of intergenerational solidarity and mutual support may be declining, and a result is increasing vulnerability, particularly among older persons.

Chronically ill and people living with HIV/AIDS. Chronic illness and HIV/AIDS cause labor shortages in resource-poor households, preventing them from diversifying income activities. These people endure extended periods of pain and suffering and face high costs for treatment and medication, which may erode savings and make them dependent on family and friends. The chronic illness leads to the loss of their ability to earn a livelihood and support themselves.

Policies

Article 39 of the Constitution of Ethiopia recognizes the rights of groups identified as "Nations, Nationalities and Peoples," defined as "a group of people who have or share a large measure of common culture or similar customs, mutual intelligibility of language, belief in a common or related identities, a common psychological make-up, and who inhabit an identifiable, predominantly contiguous territory." The Constitution recognizes their right to self-determination, including the right to secede; speak, write and develop their own languages; express, develop, and promote their cultures; and preserve their history; and their right to self-government (including the right to establish institutions of government in the territory that they inhabit and equitable representation in state and federal governments). The Ethiopian Constitution also recognizes the rights of pastoral groups inhabiting the lowland areas of the country. Article 40 (4) states, "Ethiopian pastoralists have a right to free land for grazing and cultivation as well as a right not to be displaced from their own lands." Article 41 (8) also affirms, "Ethiopian…pastoralists have the right to receive fair prices for their products, that would lead to improvement in their conditions of life and enable them to obtain an equitable share of the national wealth commensurate with their contribution." This objective guides the State in the formulation of economic, social, and development policies.

The GoE has designated four of the country's regions—Afar, Somali, Benishangul-Gumuz, and Gambella, which have limited access to socioeconomic development and historic underserved status—as ***Developing***

Regional States. In this respect, Article 89 (2) states, "The Government has the obligation to ensure that all Ethiopians get equal opportunity to improve their economic situations and to promote equitable distribution of wealth among them." Article 89 (4) states: "Nations, Nationalities and Peoples least advantaged in economic and social development shall receive special assistance."

One of the objectives of the ***1997 Cultural Policy of Ethiopia*** is to enable the languages, heritage, history, handicraft, fine arts, oral literature, traditional lore, beliefs, and other cultural features of the various nations, nationalities, and peoples of Ethiopia to receive equal recognition and respect; and to preserve and conserve them and pass them on to future generations.

In November 2014, the GoE approved a ***Social Protection Policy*** that lays out a vision for social protection in Ethiopia. The policy identifies five key strategic focus areas: (a) social safety nets; (b) livelihood and employment promotion; (c) social insurance; (d) access to health, education, and other social services; and (e) addressing violence, abuse, and neglect and providing legal protection and support. Overall, the policy commits the government to move beyond the partial, and fragmented, provision of social protection to establish a social protection system. The policy also provides a framework for the coordination and provision of social protection services in Ethiopia. It defines the roles and responsibilities of the government at the federal, regional, and local levels in managing the social protection system to progressively fulfill the constitutional rights of citizens. The policy defines the vulnerable people to include children, older people, people with disabilities, and the chronically ill.

The National Policy on Ethiopian Women (1993) underlines key issues like improving working and health conditions for women; protecting women from harmful traditional practices; empowering women in education and property rights, especially land rights; and engaging them in decision-making. It also underlines the need to draw on women's knowledge, skills, and labor for the overall development of the country. The policy requires and emphasizes that government policy, laws, regulations, plans, programs and projects should

- Ensure participation of women in the formulation of government policies, laws, regulations, programs and projects that directly or indirectly benefit and concerns women
- Support and encourage participation and involvement of women in implementation and decision making processes
- Guarantee equal access of men and women to the country's resources

Institutional Roles and Responsibilities

The Directorate of Equitable Development within the ***Ministry of Federal and Pastoral Development Affairs (MoFPDA)*** is responsible for coordinating multi-sectoral support to promote equitable development, with emphasis on delivering special support to the developing regions. The Directorate is also replicated at the regional and woreda levels in the four developing regions.

The ***Ministry of Labor and Social Affairs (MoLSA)*** is responsible for coordination and implementation of the 2014 Social Protection Policy The ***Ministry of Women and Children Affairs (MoWCA***) is responsible for following up on the implementation of international conventions and national laws pertinent to women and children; conducting research and preparing policies and guidelines; collaborating with organizations working on women's, youth, and children's issues; and performing capacity-building activities to ensure the equal participation of and benefit by women and youth in the political, economic, and social spheres and the protection of children's rights and security. MoWCA also has regional bureaus in all the regions of Ethiopia.

Coming to ELEAP implementing institutions, there is Women and Children Directorate at MoWIE and EEU that are mandated to ensure gender mainstreaming. The responsibilities of MoWIE Women's directorate include following up gender mainstreaming initiatives and activities in water, irrigation and electricity development and management. EEU has Women department at corporate level and focal points at its' regional offices. The adoption of a Gender Mainstreaming Policy and the establishment of a Women's Affairs Department are among the major steps taken by EEU after its unbundling from EEP few years back. There is a strong willingness in these institutions to work on gender issues, but assignment of staff, capacity building of existing ones and resources seem to lack to work on gender-related issues as per their plan.

ELEAP aims to provide regionally tailored approaches that ensure distributional, gender balanced and culturally appropriate access to off-grid and on-grid energy and related services. With the program to be implemented in both urban and rural areas including least advantaged, underserved and pastoralist communities, special and culturally appropriate assistance will be provided to the target communities. Moreover, further effort will be exerted to identify other vulnerable groups by improving capacity at city and regional level to work on identification of vulnerable groups; improve training and capacity building of such groups through extensive consultation and identification of benefits; and, make effective use of women's and other groups to address demand side barriers based on the context.

5.3.1.4 Grievance Redress Mechanisms

Policies

The Constitution provides a broad framework for systematizing the grievance redress mechanism (GRM) concept, with its emphasis on respect for human rights and fundamental freedoms, especially the right of access to justice, rule of law, and democratic governance. The Civil Service Reform Program (CSRP) (1996) influenced reforms to the federal and regional state administrative systems, providing the stimulus for the GRMs that are being implemented in various jurisdictions, particularly in the regional states. Subsequently, the GoE pushed the GRM concept even further toward sustainability by making grievance redress a key goal of the Business Process Reengineering (BPR) initiative. The handling of citizens' grievances was given an important place in the BPR package that was distributed to regional and woreda governments, and a draft grievance handling guideline was circulated as part of the BPR package. Thus, the BPR provided the impetus and the initial template for the establishment of GRMs in a number of regional states and municipalities, most notably Tigray, SNNPRS, Benishangul-Gumuz, and Addis Ababa. The GRM covers a wide range of sector-specific grievances across national and subnational governments.

Proclamations, Regulations, and Guidelines

Proclamation No.211/2000 provided for the Establishment of the Ethiopian Institute of Ombudsman (EIO), a federal-level institution accountable to Parliament.

A number of regional states (most notably Amhara and Tigray) have begun creating grievance procedures based on global best practice standards, provide citizens with a forum to complain about governmental maladministration and seek redress for any harm. Amhara has grounded its grievance redress mechanism in legislation approved by the regional cabinet council. Tigray used Amhara's GRM procedures as a benchmark for its draft regulation and procedures manual. Other regional states—SNNPR, Benishangul-Gumuz, and Oromia—used the GRM from the two regional states as a model for strengthening their existing GRMs. Relevant to this review, the Amhara National Regional State (ANS)Directive No. 7/2002 provides for an expeditious decision-making system with regard to expropriation of urban land. It sets out the composition of the jury members: a justice officer as chairperson, two residents of the town where the land is located, and two representatives of government offices. The decision of the Appeals Court regarding basic land expropriation issues is final; however, an appellant could take the cases related to the amount of compensation, delays in payment, or similar cases all the way up to the High Court.

Institutional Roles and Responsibilities

Ethiopian Institution of Ombudsman (EIO), with six regional branches, is a federal entity accountable to the Parliament. It ensures that citizens' constitutional rights are not violated by the executive organs; conducts supervision to ensure the executive carries out its functions according to the law; and receives and investigates complaints about, and seeks remedies for, maladministration.

Regional Public Grievance Hearing Offices (PGHOs) are regional entities, accountable to their regional presidents that receive appeals, complaints, and grievances related to public services and good governance, investigate, and give recommendations and decisions to redress them. Most regions have established their PGHOs and have branches at zonal, woreda, and kebele levels that are accountable to their respective chief administrator. There are wide variations in the availability and application of GRMs in the regional states.

The Civil Service Charter of sector offices was designed by the Ministry of Civil Service in 2012 to serve as government institutions' mechanism to address citizens' complaints. Other internal complaint handling mechanisms of sector offices/agencies—project management committees, focal persons—exist at the woreda level.

Information and Complaint Handling Desks exist in woreda or city administration offices, in some cases as pooled offices, to serve as information and complaint handling centers in accordance with the guideline on woreda good governance.

Urban and Rural Social Courts as Complaint Resolving/Reconciling Bodies are responsible for hearing and redressing grievances. Disputes between employer and workers are also treated at such courts. However, the courts are normally inaccessible and usually inappropriate for complaints about service delivery, maladministration, and improper hiring practices for selecting candidates for government employment.

Sector-Specific Handling and Voicing Mechanisms - Ethiopian Electric Utility(EEU) has grievance procedures, based on the procedures, customers submit their complaints on the spot for district level customer services unit, using call centers and/or for the regional office grievance units. At regional level, EEU has a grievance handling unit and has established grievance handling committee with Grievance unit being the head. Public forum, a consultation forum led by EEU, is also used to share complaints, however there is gap in timely responsiveness. EEU has written procedure on Grievance handling in its Customer Service Policy and Procedure Guideline as well as Public Liability Insurance Policy to facilitate compensation payment to Third Party, customers and the community.

Citizen Engagement by EEU

Ethiopian Electric Utility (EEU) has established different citizen engagement mechanisms, one of which is creating public forums across all regions and prepare customer charter in line with change army manual by the Ministry of Public Service during the past year to ensure organized public participation for promoting good governance, transparency, and accountability. EEU has recognized the customer forum as an essential activity, which could have significant positive influence on the achievement of its goals and objectives.

The public forum has been established at different levels of the EEU structure. The forum has been formed from different customer categories, representatives from the governmental administrative bodies, association like, youth, small and micro enterprise agencies and women affairs. There are also sub committees organized at woreda and sub-city level to monitor closely with admin officials and EEU managers in the case for Addis Ababa. The published **citizens' charter** by EEU is believed to create understanding between the citizen and the company. Successful implementation of the charter can have improved service delivery; create transparency, accountability, and customer satisfaction.

5.3.1.5 Sector Specific Directive in the ELEAP supported implementations

Directive on Clearance of Overhead Electric Lines No. EEA/1/2005

The previous Ethiopia Electricity Agency (EEA), established in 2014 as an autonomous organ with naming Ethiopian Energy Authority (EEA), is responsible for setting standards and specifications for electricity projects related activities. The Council of Minsters Regulation No 308/2014 gave way to the establishment of the Ethiopian Energy Authority as an autonomous federal government organ. The Energy Authority is accountable to the Ministry of Water, Irrigation and Energy. The Directive on Clearance of overhead electric lines was issued by the then Ethiopian Electricity Agency pursuant to the authority vested in it by Articles 55, 67 and 69 of Electricity Operations Council of Ministers Regulations No. 49/1999. The objective of the Directive is to set standards for the clearance spaces associated with transmission and distribution lines for the purpose of the protection of persons from risk and property from damage, as well as to specify the quality of supply voltage.

Article 6, 7 and 8 of the directive include the minimum standard distance corresponding to electric lines from ground for a road accessible to vehicular traffic, a building or structure, track of a small gauge railway/tramway system and clearance from vegetation as well as other lines. For ELEAP activities mainly involve works on low and medium voltage up to 33kv. According to the Agency directives of overhead electric line clearance 5 m wide ROW is required for overhead electric lines, not exceeding 33 kV and growing of trees under electric lines shall not be allowed. The land beneath these overhead lines can continue to be used normally by the owner for grazing and plowing. The ROW is required to ensure the safe construction, maintenance and operation of the power line.

6 ENVIRONMENTAL AND SOCIAL BENEFITS, IMPACTS AND RISKS OF THE PROGRAM

6.1 Introduction

The proposed Ethiopia Electrification Program (ELEAP) intends to support the construction, upgrading, installation, and maintenance of key *off grid and on grid* projects, which are likely to have impacts due to activities under construction and operation phase. The On-grid component of the program focuses on the last mile connections that energizes millions of households and the Off-grid component is designed to finance a number of sub projects, including construction of Solar Mini-grid, Solar Lantern, Solar Home System, including battery replacement.

The proposed program being a national development agenda in the energy sector has immense benefits that could save the country losses in terms of power allocation and frequent outages. Given the nature and scale of the proposed program, both positive and negative impacts could be emanated from the off grid and on grid program activities that ultimately benefit the community and affect the nearby biophysical and social environment. The environmental and social benefits will be derived from substitution of electricity for household and business energy sources and increased reliance on renewable energy sources and access to electricity. However, poor planning and implementation of the proposed energy program could also affect the environment that supports a number of citizens through the potential hazards generated from such activities and pose to the nearby biophysical and social environment.

These potential adverse environmental and social impacts of the Program are likely to be associated with program activities, including upgrading of substations, construction and rehabilitation of medium and low-voltage distribution lines and installation of MV-LV transformers, construction of solar mini grid, and disposal and replacement of spent lead-acid batteries from solar home systems. Whereas, the potential adverse social impacts are likely to be associated with land acquisition for mini grid and acquisition of way leaves (rights of way) for MV-LV distribution lines.

Overall, the anticipated impacts are expected to be minimum and most of them may stem from ground disturbance due to vegetation clearance and excavation/digging for pole erection; masonry activities to reinforce the electric pole; onsite concrete mixing; transportation and distribution of solar panel and solar lantern; installation of equipment; and waste management within and around the core activities area. These are also not anticipated to be of large scale but could affect individual project-affected persons (PAPs) that lose assets including structures, crops and trees, and the use of portions of their land. It is anticipated that most of the adverse effects, associated with the construction and operation will be reversible in nature and there are no impacts that will lead to irreversible negative permanent change.

The ESSA identifies the key measures to be taken for improved environmental and social due diligence in the Program and is intended to help the Government and implementing agencies in overcoming gaps with regard to environment, social, and safety aspects of the program and improvements of the implementing agencies system on safeguards managements. The potential positive and negative impacts associated with the two Programs have been discussed below.

6.2 Environmental and Social positive and negative impacts

This section is a detailed outline of the potential environmental and social impacts that generated from the implementation of the proposed ELEAP- PforR. The potential environmental and social impacts were identified through reviewing relevant documents, comprehensive stakeholder consultation process and field visit of the existing beneficiaries and potential sites in selected regions/localities.

Social benefits will result from increased access to electricity. Activities of ELEAP include on grid component service drops, that incorporates pre-paid meters and ready-boards, LV and MV lines construction or rehabilitation for on grid and access for Solar lantern and home system as well as Solar PV mini-grid in rural villages for the off grid.

6.2.1 **Positive Environmental and Social impacts**

The nature of the proposed Program is expected to be environmental friendly and socially acceptable, which is attributed by their characteristics to provide benefits to the nation and, in particular, to the community members who are beneficiaries of the proposed Program. In general, an increased distribution of electricity to the project area population will ease the pressure on the use of fuel wood that is rampant in the area and is ultimately would help to conserve the fragile and diminishing forest cover of the country by providing an alternative source of energy. The Program's Environmental and social Benefits are substantial and long-term and are summarized as follows.

Potential Environmental Benefits

a) Benefits from Provision of on-grid electricity

- Reduction in use of diesel or gasoline-powered generators and other equipment such as grain mills, pumps, leading to reduced emissions of air pollutants, greenhouse gases (GHG), and noise
- Reduction in consumption of kerosene for lighting and other uses, resulting in improved indoor air quality

b) Benefits from power generation using renewable energy sources:

- Reduce deforestation and forest degradation in areas where non-renewable biomass is used as a source of fuel, which implies that the demand for firewood and charcoal is reduced.
- Reduction in use of diesel or gasoline-powered generators and other equipment such as grain mills, pumps, leading to reduced emissions of air pollutants, greenhouse gases (GHG), and noise
- Increase in generation capacity with avoided GHG emissions
- Public goods benefits, such as increased security and lower environmental contamination.

Potential Social Benefits

a) Benefits from provision of electricity to households: Generally, quality of life will be improved due to access to electricity. There will be reduction in indoor air pollution from kerosene and other sources of energy. Electricity will be used for refrigeration, cooking stoves, entertainment, mobile charging and communication, lighting for students to study and have family quality time. Vulnerable groups and underserved people in pastoral and remote communities will also benefit from access to off-grid electricity services such as stand-alone solar systems and mini grids.

b) Benefits to business: Business opportunities will be created for women and men in the local community with higher productivity and longer working hours. Besides, existing businesses will transform their products and services after the access to electricity.

c) Benefits employment opportunities: Temporary employment opportunity will be created for skilled and unskilled labor during construction and operation. During the construction period of the projects, it is expected to hold a workforce that can be employed in the construction works of the distribution line and mini grid related activities. As the result, the labours recruited from the community area and its immediate surroundings will drive income and employment opportunities for themselves and their families

d) Improvement in social facility services: Improvement in operation of schools, health facilities, and government offices is among the benefit of the project. Insufficient or unavailability of electric power supply is among the reason that affects social service provision. It is therefore clear that the provision of electric power supply would mean the availability of light to provide efficient education services at day and night classes. The implementation of the projects would encourage students to continue their education in the nearby schools. Regarding health services, health institutions face problems associated to electric power supply mainly for sterilization of medical appliances, refrigeration of vaccines and other medicines, cold storages/ preservation of medicines and medical laboratory tests. There will be better health care translated into safer deliveries, better care for children and other community members. Hence, the implementation of envisioned program will contribute to detain the stated limitations and therefore expected to bring improvements of health services in the areas. Overall, the implementation of the program will bring improvements in the functions of various social facilities in the targeted sites, such as education, health, water supply and other social facility services currently existing or planned to be under taken in the area.

e) Reduce Women's Burden: The availability of power supply will anticipate in easing the burden of women. The electrification process will in turn facilitate the setting up of grind mills in the vicinities, promoting the use of improved technology for the preparation of food using electric stoves, the initiation and development of motorized water pumps, etc. which will contribute to improvement in women's quality of lives in the proposed project target areas. It is also believed to facilitate communication and interaction of women in the project area using mobile phone service.

6.2.2 Negative Environmental Impacts

Due to the construction and operational activities of the proposed programs, limited negative environmental and social impacts are anticipated to affect the nearby biophysical and social environment. However, considering the nature and limited scale of the intended subproject activities under the ELEAP, those impacts that are expected to be generated from the construction and operation phase will be mitigated and/or avoided through implementation of appropriate best management practices. The anticipated negative environmental effects of the Program are not expected to be significant provided waste management, vegetation clearance and other activities are implemented in a manner consistent with Core Principle 1 and 2. The following adverse impacts are foreseen to occur during the preconstruction, construction, and operation phase of the program.

6.2.2.1 Impacts from substation upgrading, Power line transmission, distribution and rehabilitation activities

Construction of Access Roads: The construction of access roads can affect the environment through vegetation clearance, compaction of land, dust pollution and impact on natural habitats. To avoid/minimize the anticipated impacts, temporary access roads shall be rehabilitated and existing roads/trails are used for access, the impact is not expected to be significant.

Construction of Right of Way (ROW): Possible interference with or fragmenting of land uses along the ROW will be the causes for opening of remote lands to human activities such as settlement, agriculture and vegetation. These effects can be significant if natural habitats such as wetlands and national parks are affected. To offset the impacts from ROW construction, the Employer/Contractor shall identify well-established routes corridors with minimum impacts that help for transport of goods and ensure the cumulative effects from the program are not to be significant.

Establishing/Pegging final alignment of Transmission Line (TML)/ Distribution Line (DL)

The first site activities before mobilization of equipment will be final survey and soil investigations required for design of line and tower foundations. After determining tower locations and before commencement of civil works the Contractor will make a terrain reconnaissance, which may include rock-drilling tests at each tower location. This provides a final opportunity to make minor realignments to the route to avoid any further environmental and social impacts. In appropriate establishing/pegging of final alignments of TML/DL is contributing an effect on the program area environmental and social settings during stringing, pole/tower erection, MV transformer installation and other construction activities of TML/DL. Therefore, care should be taken during the design phase of the final alignment and it is essential to consider at least the followings points.

- Avoid sitting transmission line through protected areas, environmentally sensitive areas or through protected forest areas.
- Avoid cultural and heritage sites.
- Site transmission line towers on high points of land such that conductors can be strung over valleys thereby eliminating the need to remove trees.
- Locate transmission lines along the base of mountain slopes, rather than down the center of valleys where large birds could be exposed to conductors.
- Locate transmission lines to avoid running through villages and instead run lines behind villages.
- Consult the community members regarding location of valued village resources and locate transmission lines to avoid these features.
- Situate transmission lines not far away from roads, as per standard, but behind roadside-forested areas to minimize visual intrusion.
- Minimize the need to construct new access tracks wherever possible. Use existing access roads and tracks wherever available.

- Ensure minimum clearance distances between conductors and ground, waterways, road crossings, buildings, communication systems etc.

Construction of Transmission Line Towers/Distribution Line Pole

Clearing of vegetation, site compaction and land acquisition has the potential to change land use patterns. However, the area required for each tower and pole erection for the transmission/distribution line is not expected to have a major adverse impact on land use patterns. Efforts will be made during the identification of the transmission and distribution line routes to ensure that the paths are routed in areas with no/minimal settlement, vegetation area and natural habitats as possible to avoid land acquisition or displacement and further compensation and significant impacts to the nearby environment.

6.2.2.2 Impacts from other on grid and off grid program activities

Loss and Destruction of Vegetation cover/crop and Habitat

The anticipated route for the transmission/distribution lines, particularly in rural areas are mostly covered by agricultural land where the following variety of crops including Avocado trees, Tomato, Mango trees, Pepper, Eucalyptus Trees, Cactus tree, Papaya trees among others are present. These crops and trees may be required to be removed to pave way for the construction of the transmission/distribution line, which includes the towers, pole erection, and installation of transformers and creating the Right of Way and for the installation of solar PV mini grid. However, the area required for PV mini grid, Tower installation and ROW for the transmission/distribution line is not expected to have a major adverse impact on land use patterns. In addition, Activities like excavation and digging works particularly for upgrading substation, clearing of way leave for distribution and transmission lines that cannot be located in the road reserve, pole erection, installation of MV-LV transformers, Solar mini-grid and Home System equipment establishment, will involve the followings impacts

- clearing and loss of existing vegetation cover which may contribute for loss of plant cover and biodiversity;
- disturbance of top soil that promotes of soil erosion;
- plant material removed from site causes GHG emissions and air pollution if burned; and
- obstruction of bird movements

In order to minimize and/or avoid the negative impacts, the Employers, Contractors, implementing bodies and beneficiaries shall implement the followings measures:

- Avoid and/or minimize cutting of big trees, particularly care should be given for indigenous trees, plan for replanting of trees, etc.
- Careful attention shall be given to threatened tree species, avoid open burning of plant material.
- Any impact on clearing of field and tree crops is expected to unavoidable and the crops destroyed will be compensated in accordance with the national law before any construction works commence. The compensation and resettlement process will be prepared and clearly discuss in a RAP/ARAP that will be used as an instrument to address such impacts.
- As per the national standards, limit the ROW at the recommended width for both 33 kV and 15 kV. However, the undergrowth in the ROW should be allowed while only leaving a narrow strip to be completely cleared to allow stringing of the line conductors.
- Strictly define ROW clearing activities in the contract specifications and in the Environmental and Social Management Plan (ESMP).
- String conductors under tension to minimize potential damage to remaining ground vegetation.

Air quality

Open burring of vegetation and other wastes would contribute a potential impact on the Air Quality, which ultimately pollute the air resulting in increases in bronchial and eye disorders. Dust and exhaust emissions from concurrent construction activity with multiple crews operating off and on road equipment. General construction, structure foundation excavation, structure delivery and setup, wire installation, and fugitive dust from travel along the ROW could each occur simultaneously on any given day of the construction period. The impacts can be reduced if all program activities are implemented in an environmental friendly with best management practices, considering watering of the road regularly, regular vehicle maintenance,

etc. Community members and contractor's staff shall be advised and enforced to avoid such open burning that result smoking and pollution of air.

Aesthetics and visual related impacts- visual intrusion on the landscape

Construction works especially during erection of Tower are likely to cause visual related impacts mainly by having activities out of touch with the natural environment in some cases. The tower structures are regarded as being the most visually intrusive component of transmission lines. It is anticipated that the construction of transmission lines will impose a visual impact on the immediate surrounding area and affect the aesthetic quality of the community residing nearby, which required using towers with low degree of view obstruction.

In addition, Solar Mini-grid and Panel installation and excavation of soil for Pole erection could result in minor change of the land aesthetics of the project areas. This may also affect the visual amenity of nearby houses and surrounding communities. To minimize interruption of visual quality, solar panel should be placed at the right direction (north –south) and with no reflection of light that affect the neighbors' visual quality. In all activities within the core area, indiscriminate disposal of excavated soils, unused concrete, wooden timber, cables, electric equipment, empty oilcans, nails and liquid wastes should be managed and disposed of in appropriate way to ensure safe and acceptable aesthetic beauty to the workers and residents.

Water Resources

The construction of towers may interfere with the natural drainage systems and modify flow of surface water, and these changes can contribute to soil erosion, flooding, channel modification, downstream scouring and sedimentation in streams and other drainage channels. The contractor should follow the design to keep the construction activities to areas of lower elevation as much as possible, in order to minimize the potential erosion impacts associated with the proposed transmission lines. The contractor and Employer shall also develop a program of afforestation/tree planting and water and soil conservation activities, as required, in areas where erosion is aggravated due to activities associated with the program.

Storage and Management of solid waste

Waste management at the core sub project area shall be efficient and required to be implemented in an environmentally friendly manner. Indiscriminate disposal and/or storage of solid and liquid wastes (Photo 2) including recycled batteries, used/burned transformers, other used and/or damaged solar panel and lantern parts, packages, and left over construction materials and cements, have the potential to generate an adverse impact on the nearby environment and health and safety of the workers, local community and the beneficiaries. Solid waste materials during the construction include paper wrapping, scrap metal, excavated soils, polythene, plastic and metal will cause pollution and littering of the immediate and localized environment.

This should be addressed promptly and wisely, through best practice methods for waste management and disposal in and around the program site and these are:

- Conduct regular awareness creation and sensitization program for the proponent and community reside in the area about the potential negative impacts, health and safety risks, and proper waste management practices.
- Segregate and store properly with no impacts to be generated from the storage area.
- Final domestic and/or other nonhazardous wastes, after proper segregation, have to be disposed of safely at the designated waste disposal site.
- The contractor should engage a refuse handling company to remove the wastes from the site to the recommended dumping site.
- The contactor should erect warning signs against littering and dumping sites within the construction site.
- Excavated top soil should be used as backfill by the contractor.
- The contractor shall develop a waste management plan in line with the national policies, standards and guidelines as well as international standards, including World Bank/IFC Environmental, Health, and

Safety (EHS) Guidelines GENERAL EHS GUIDELINES: ENVIRONMENTAL WASTE MANAGEMENT[2].

Photo 2: Point source pollution from improper storage of used materials and transformers

Risks from poor maintenance of solar home systems: battery replacement

The lack of technical person to maintain solar home systems is one the existing problem highlighted during the field visit that ultimately resulted significant impacts on the surrounding community health and natural resources. Improper disposal of leftover materials leads to potential water pollution and health risk. Informal battery recycling by burning battery cases to extract lead causes air pollution and serious health risk for those involved in the practice or living in the vicinity. Therefore, the program shall provide:

- Appropriate training for local technical persons, beneficiaries and other parties engaged in the solar home system.
- Develop a waste management plan to ensure safe disposal of battery and other hazardous wastes.
- Develop the safeguards instruments as per the national standards and international policies and standards, including WB/IFC procedure and guidelines Environmental, Health, and Safety (EHS) Guidelines General EHS Guidelines: Environmental Hazardous Materials Management[3] and enforce the implementation of the standards and guidelines for sound management and disposal of used solar batteries
- The program shall expedite and provide the required support for the preparation of the national Policy framework on used battery disposal and/or recycling that will be prepared by WB financed-ENREP AF project under DBE and adopt and implement the implementation of this framework to ensure best disposal and recycling management practices over the project period.

Fugitive Dust and Noise

Noise resulting from access road and transmission line construction may disturb neighboring communities and local fauna. This impact will be of a temporary nature and can be minimized by adopting appropriate mitigation measures including maintaining equipment and vehicles to manufacturers' standards and limiting operating times to daylight hours.

Dust will be an issue during the construction of access roads and clearing of vegetation along the ROW, especially since it is recommended that construction take place during the dry season. However, as most construction activities will be undertaken remote from residential areas, the impact is not expected to be major.

Fugitive dust will be localized and experienced only in the specific areas where the construction of access roads, excavation for installation of tower and substation, earth working for solar mini grid and may be emitted from activities e.g., excavations and stockpiles of materials, machinery and truck traffic during the

[2] http://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/ehs-guidelines

[3] http://www.ifc.org/wps/wcm/connect/47d9ca8048865834b4a6f66a6515bb18/1-5%2Bhazardous%2B materials %2B Management.pdf?MOD=AJPERES

construction phase. This could cause health related impacts to the communities around and workers in the program site. Dust impacts from vehicular movement on gravel roads could lead to dust pollution in some areas during dry conditions. This impact would be of a short duration during the construction phase. Dust pollution could also take place during maintenance and inspection of the power lines. This impact will be localized and of a short duration, and is anticipated to be low significance. Therefore, to minimize and/avoid the anticipated impacts the contractor shall consider and implement the followings:

- The dirt roads and exposed construction areas should be moisturized during the dry season to prevent or minimize the fugitive dust emissions.
- Proper location of material stockpiles, especially sand and soil downwind from the commercial, residential and other establishments will be required.
- Frequent wetting of the stockpile and working area.
- Screening of or providing wind breaks for stockpiles.
- Workers in the program site must be equipped with the necessary and required Personal Protective Equipment (PPE) prescribed by the construction industry to mitigate dust impacts.
- Routing of the lines should preferably not be in close proximity to residential dwellings.
- The construction schedule should be communicated with potentially affected parties.
- Construction timeframes should be discussed with property owners.
- Dust-suppression techniques should be used along gravel roads, when required.

Chemical impact

The potential emissions associated with solar energy could be GHG emissions, mercury and cadmium emissions. These elements are used in making solar components. However, there is no evidence that these elements are released from solar panels, except during disposal. Therefore, care should be taken during disposal of solar panel and other related accessories. The proponent shall design best practice method to implement the disposal practice in consultation with the relevant institutions and ensure no impacts are resulted to the surrounding social and biophysical environments. Moreover, as a good practice, it is essential to identify suppliers that have products, particularly solar panels and inverters that comply with ISO or other industry best practice standards.

Soil Erosion

During the construction phase, activities involving preparation, stripping, grading, soil removal, backfilling, compacting, disposal of surplus and excavation of the earth surface to pave way for the installation of the "substations" and erection of the towers will lead to localized soil erosion and run off during torrential rains.

The building of foundations for transmission line towers, solar PV mini grid, can potentially exacerbate soil erosion. In addition to the loss of productive land due to soil erosion and land acquisition for tower construction, soils can be impacted because of disposal of waste materials, and compaction with heavy machinery used for the establishment of towers and the transmission line. This impact is only expected to occur in the areas where excavation works will be carried out either to construct a substation or erect a tower. These impacts can be managed by restricting the use of heavy machinery and vehicles to designated work areas and installing soil protection works in areas sensitive to erosion prior to construction. The followings mitigation measures are expected to be implemented by the Contractors/Employers

- During site preparation, disturbed soils should be compacted immediately.
- Prevented windblown erosion by soil compaction and wetting the ground to prevent rising of soil particles.
- Include an adequate drainage channel that should facilitate drainage and avoid flooding in final site leveling within the substations.
- A site drainage plan should be developed to protect against erosion.
- Protecting stockpiles with silt fencing and reduced slope angles should be used to minimize soil erosion during construction.
- Design and construct transmission line towers with staggered legs to eliminate the need to excavate a level pad into slopes on which to construct towers.
- Clear only a narrow path to facilitate pulling the nylon rope between towers to string conductors.

- Use existing access roads and tracks wherever available.
- Decommission and rehabilitate excess temporary access tracks as soon as they are no longer required.
- Where access is required across agricultural lands use temporary access paths during the dry season involving placement of geo-textile over aggregates where necessary.
- Minimize the need for access tracks whenever possible.
- Construction to proceed in the dry season if possible to minimize soil erosion and mass wasting and to limit loss of crops (which are not grown in the dry season); where construction is required in the rainy season, potentially unstable slopes to be avoided.

Heat or Light Reflection

In case of improper sitting of the solar Panels, it may affect the neighboring community members due to sunlight reflection from the panels, particularly if the panels are angled towards windows, doors or active service area of the neighbors. If this is not corrected immediately, the reflection affects the neighbors and other communities living nearby for a prolonged period of the year and become a source of grievance and social conflict. Therefore, the implementing bodies of the subproject should follow the standard of placing the roof top solar panel in north-south direction and conduct regular monitoring of the impacts, if any non-conformity exists.

Biodiversity

Activities during upgrading of substation, stringing of transmission line, opening of Right of Way (ROW), installation of solar mini-grid would require clearance of vegetation within the area of interest. Although it is not significant, installation and Roof Top solar system will have a case to remove where big trees that obstruct the use and efficiency of solar panels. Such clearance of vegetation will result an impact on the existing fauna and flora species and ultimately affect the biodiversity of the area. Generally, the anticipated impacts will not have potential adverse impacts on terrestrial and/or aquatic biodiversity. However, it is essential to consider and ensure the flowing measures:

- Assess the status and presence of sensitive species in the area.
- Check no sensitive fauna and flora species are found within and around the construction area that are affected by the program activities
- Plan accordingly to minimize or avoid the sources of impacts during preconstruction phase.
- Make sure that pruning should only practice to remove branches that are associated with efficiency of the solar energy system

6.2.2.3 Occupational health and safety (OHS)

Occupational health and safety issues are among the main concern of the program, which the ESSA identified during site visit and consultations that were conducted at regional and local levels. The significant concern of OHS will arise during the program implementation periods, predominantly during stringing, erection of Tower, operation of equipment and machinery during construction, operation and installation of mini-grid, which causes a likelihood of accidents occurring especially to the workers. The potential for accidents and hazards occurring in the "substation" during the operation of the equipment is a likely adverse impact that could lead to loss of life or injury to the workers. These work places and health and safety risks include:

- Electrocution hazard during operation of generating plants and installation and maintenance of power distribution lines.
- Injury from falls when working at heights or from falling objects.
- Injury or fatality from heavy construction equipment.
- Improper use and lack of availability of the required Personal Protective Equipment (PPE).
- Injury or fatality from explosion and fire at gasification plants.
- Injury during excavation for mini grid structure, tower erection, etc.

All Environmental and social management procedures and processes recommended to be implemented during program implementation period are in consistent with Core principle 3, which are designed to protect public and worker safety against the potential risks associated with:-

- construction and/or operations of facilities or other operational practices developed or promoted under the program;
- exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials; and
- reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards. This will be implemented in line with core principles 3 and national and WB/IFC-Environmental, Health, and Safety (EHS) Guidelines GENERAL EHS GUIDELINES: OCCUPATIONAL HEALTH AND SAFETY[4].

Specifically, to avoid these safety hazards and risks, the following measures need to be considered during program implementation period.

- Ensure safe handling and use of PPE.
- Ensure the availability and proper use of PPE by the program beneficiaries, contractors, laborer who are engaged in the construction, installation and operation and maintenance of the proposed program
- Monitor regularly the use and availability of PPE and other protective tools and materials by the program coordination unit at all phases of the programs.
- All workers entering the construction site must be equipped with PPE including goggles, safety shoes, overalls, gloves, dust masks, among others. The PPE should be those that follow the international standards of PPE.
- ONLY competent workers and staff should be allowed to operate any machinery and equipment to reduce the incidents of accidents.
- During the construction, the program site should be completely sealed off and warning signs erected informing the public to keep off the construction site when construction is in progress.
- Personal protection gear applicable to the activities must be provided and its use made compulsory to all.
- Fire risks are possible due to improper storage facilities and lack of fire drill and this requires provision of regular training and awareness creation to the workers and the community around.
- For any incidents of leakage or spill during installation, temporary containment structure is required to clean-up accidental spills.
- Provide regular OHS induction training for staffs before mobilization to work
- Create awareness to the community reside nearby and ensure their understanding of the potential safety and health impacts and respective measure
- Personal protection gear will be provided and its use made compulsory to all. The entire workforce should be trained in the use of protective gear, handling of chemical products and acid storage cells, electric safety equipment, procedures for entering enclosed areas, fire protection and prevention, emergency response and care procedures.
- Training given to the employees should be backed by regular on- site training in safety measures.
- Machines and Equipment must be operated only by qualified staff and a site supervisor should be on site at all times to ensure adherence.
- The contactor must develop workers' Health and Safety Manual for which all the workers should be conversant with for response in case of accidents.
- At tower positions where occasional flooding may cause damage to towers or foundations, protective embankments shall be erected or the Contractor shall propose alternative measures.

During construction period, the contractor and other parties may use child labor due to lack of awareness on the proclamation and the negative impact of child labor. Therefore, contractors and other participating companies are not allowed to use child labor at any stage of the sub-projects implementation. Contractor will be aware to enforce and respect the national Proclamation No. 377/2003 which states that children under the 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.

[4] http://www.ifc.org/wps/wcm/connect/9aef2880488559a983acd36a6515bb18/2%2BOccupational%2BHealth%2Band%2BSafety.pdf?MOD=AJPERES

6.2.2.4 Cultural Heritage

Cultural resources include archeological sites, historic buildings, and sacred places. Potential impacts to cultural resources could occur in two ways: 1) ground disturbing activities could result in the loss of or damage to archeological artifacts or unmarked burial sites; or 2) the views and site lines to or from an important historical site could be adversely affected by the physical presence of a substation upgrading and TML activities. Both of these potential impacts must be considered when final selection of program sites and distribution or upgrading power lines is conducted.

The proposed ELEAP should not affect any cultural heritage. During program preparation and implementation period, it is important to ensure that the proposed program activities do not have an effect on a place or building having aesthetic, anthropological, archaeological, architectural, cultural, religion, historical or social significance or special value for present and future generations. In order to minimize or avoid such impacts, all-necessary measures should be considered at the design phase and due attention should be paid during screening of the subprojects in consultation with relevant institutions and activities shall be implemented in a manner consistent with Core Principle 2- **Environmental Considerations – Natural Habitats and Physical Cultural Resources**

6.2.2.5 Polychlorinated biphenyls (PCBs) Impacts

PCBs used to be widely used as insulators in electrical equipment, including transformers, capacitors, switches, voltage regulators etc. They are of concern because they are powerful toxins, even at low concentrations, and they persist and bio-accumulate in the environment creating adverse health impacts and adverse ecological changes. Refurbishment of any substations and upgrading/rehabilitation work of the power line will need to check whether any such old transformers/equipment will be replaced and appropriate safeguards taken. This is not an issue with new transformers, as they will not contain PCBs.

6.2.2.6 Health Effects of Electromagnetic Fields (EMF) Impacts

Electric and magnetic fields (EMF) are invisible lines of force that surround any electrical device. Power transmission lines, electrical wiring, and electrical equipment all produce EMF. There are many other sources of EMF as well. Electric fields are produced by voltage and increase in strength as the voltage increases. Magnetic fields result from the flow of current through wires or electrical devices and increase in strength as the current increases. Most electrical equipment has to be turned on, i.e., current must be flowing, for a magnetic field to be produced. Electric fields are often present even when the equipment is switched off, as long as it remains connected to the source of electric power. In summary, voltage produces an electric field and current produces a magnetic field. Electric fields are shielded or weakened by materials that conduct electricity, even materials that conduct poorly, including trees, buildings, and human skin. Magnetic fields, however, pass through most materials and are therefore more difficult to shield. However, both electric fields and magnetic fields decrease rapidly as the distance from the source increases. As a precautionary measure, ELEAP will adopt nationally accepted standards for ROW develop by the EEA and the respective institutions, and if required, in some area international standard for ROW will be effective along the high voltage transmission lines. All habitation and structures are excluded from the ROW to ensure safety of people and animals from EMFs as well as from direct electric shocks and "flashover."

With respect to substations, in general, the strongest EMF outside of a substation comes from the power lines entering and leaving the substation. The strength of the EMF from equipment within the substations, such as transformers, reactors, and capacitor banks, decreases rapidly with increasing distance. Beyond the substation fence or wall, the EMF produced by the substation equipment is typically indistinguishable from background levels

6.2.2.7 Fire risk

The risk of fire outbreaks during bad weather e.g. storms, winds etc. cannot be overruled especially when the towers/pole crash or if electrical faults occur in the "mini" substations. Also failure to maintain the ROW could cause the overgrowth of nearby trees that could end up crashing on the lines during poor weather and hence cause fire outbreaks of black outs. The followings are the mitigation measures to be considered by Employer and the Contractors

- A robust fire prevention program and fire suppression system should be developed by the contactor for use in each Substation and work areas.
- All of the site must contain firefighting equipment of recommended standards and in key strategic points. This should include at least, Carbon dioxide systems, Detection/alarm systems, and portable fire extinguishers among others.
- A fire evacuation plan must be posted in various points of the cabins including procedures to take when a fire is reported.
- The Program should continuously ensure that the ROW is kept clear by regular trimming of trees and maintenance.

6.2.2.8 Bird Strikes/Collusions

Transmission and distribution networks are known to be a potential source of bird strikes that get entangled to the lines causing their injury or even instant death. This is especially more significant when large flock of birds migrates from one point to another and usually get struck by these transmission or distribution lines. Although the transmission and distribution line anticipated causing increased risk of collision of birds in flight, however considering the proposed program, this risk is expected to be minimal since the power line distribution and upgrading route does not pass through any known migratory bird routes. However, the program closely works with the MoEFCC and other organization like Ethiopian Wildlife and Natural History Society (EWNHS), Ethiopian Institute of Biodiversity (EIB) and MoANR to identify the potential birds' migration route within the program area, if available and ensure implementation of sound mitigation measure to avoid and/or minimize the anticipated impacts.

6.2.3 **Negative Social impacts**

The anticipated negative social impacts of the Program are not expected to be significant provided that land and ROW acquisition are conducted in a manner consistent with Core Principle 4. The main social risks include the following:

Risks from provision of electricity to households and businesses:

There is possibility of safety risks with project activities that will have negative impact in the community if not properly addressed. Risk of electrocution from substandard internal wiring, meter tampering, illegal connections, or lack of knowledge of electrical systems is among the concern for future action. Safety threats also include the collapse of distribution poles, especially wooden ones during storms.

Risks from land and RoW acquisition:

Project Affected People (PAPs) might lose part of their livelihoods in the process of clearing vegetation for the ROW, such as their cash crops including coffee plants, false banana (*incet*), mango, eucalyptus and other trees. Moreover, during construction foundation, erection as well as stringing of distribution lines can involve movement of machinery, which may cause damage to crops that impact agricultural activities, and the livelihoods of PAPs.

PAPS may also lose part of their land under various use or other properties. The proposed route options may have impacts on the existing land use, both temporarily and permanently Land might be acquired for access roads, workers camp, workers' residence, solar panel installation. If the village from the solar or mini grid is to be connected to the main grid, ancillary features, including access roads and power transmission lines to connect a project to an existing electrical grid, can result in significant land use disturbances.

The PAPs may not be able to replace land or assets required, if there are cases of inadequate amount of compensation or pressure to contribute land voluntarily that results in diminished quality of life for the people affected.

Risk that vulnerable groups will not share equitably in project benefits provision of electricity to communities:

Women embrace disproportionately large number of poor in most countries due to gender discrimination. The situation limits the women to have an access to resources, opportunities, and public services necessary to improve the standard of living for themselves and their families. In majority of rural areas of Ethiopia, women's economic activities are limited to household management and some major farm practices like

weeding and so on. Female-headed households may be disadvantaged in obtaining access to electricity Persons with low income – the poor, elderly, or with disability – may not be able to afford the cost of connections or of proper internal wiring. Underserved people and vulnerable groups may not be able to benefit fully from the provision of electricity due to their life style (for instance pastoralists). Projects may also be located in an area with the potential for containing tangible cultural resources

Risks related to Labor Influx

The in-migrant people for job opportunities will bring both positive and negative impacts to the local people. Some of them will have different cultural backgrounds that might be important for the culture of the local communities and will bring more social interactions, skill transfer, and other socio-cultural developments. Labor influx in line with ELEAP might be minimal, the mini grids component will target remote villages, and workers will be moving to these villages. Though limited numbers of workers are believed to move to these villages, there might be possible negative impact by labor influx in such areas. Workers' accommodations may need to be constructed on-site. Workers' accommodations require provision of potable water and availability of wastewater, and solid waste disposal services. This may result in impacts on community infrastructure, health, and safety. The influx of labor to the construction areas and their interactions with the local communities may create access for the spread of communicable diseases and price increases in the area. Food prices on local markets might increase, security and smuggling issues might arise and women from local communities might be at risk of Sexually Transmitted Diseases (STDs) and unwanted pregnancies.

Preparation and implementation based on Labor Influx Management Plan is vital. The mitigation plan should take an approach to control the spread of STIs. Health education programs, control of illegal/illicit drugs and prostitution, and other socially condemned activities near the project site need to be included. Moreover, mechanisms need to be put in place to prevent and minimize Gender Based Violence(GBV) and Violence Against Children(VAC).Such mechanism should include working with the contractors to prevent sexual harassment in the workplace and GBV and VAC in the project affected communities(for example through code of conducts),strengthening grievance redress and other monitoring mechanisms to ensure safe and ethical reporting systems to alert cases of GBV and VAC and assure them to access adequate response.

Risk that community benefits are not Sustainable-Power available for the extension to the grid may be insufficient, resulting in black-outs. Demand may exceed supply, especially in some of the villages and small towns that will eventually grow into big urban centers due to large scale infrastructure development such as roads.

To conclude, most of these risks can be mitigated,

- Through awareness on hazards of electricity to the community, customers,
- Working based on Ethiopia Energy Authority standards and house wiring inspections, and programs to assist the vulnerable groups.
- Ensuring participation of project affected people that incorporate vulnerable groups and underserved communities in ongoing consultation throughout the design and implementation of the project.
- Establishing effective Grievance Response Mechanism and equitable and fair benefit sharing
- Carrying out acquisition of land and ROW processes in accord with, the national system and Core Principle 4, using a resettlement guideline that includes the required procedures.
- Using local workers as much as possible to minimize influx. Furthermore, it is vital to prepare and use labor influx management plan to manage related risks.

7 ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEMS ANALYSIS AGAINST CORE PRINCIPLES

7.1 Introduction

This section assesses the arrangements for managing environmental and social risks and benefits associated with the program in a manner consistent with the *Program for Results Financing*. These principles are intended to guide comprehensive assessment of existing borrower Program systems as well as their capacity to plan and implement effective measures for environmental and social risk management.

Based on a review of the documentation, field observations, detailed analysis of the environmental and social effects of the Program and consultations and discussions with stakeholders, the analysis is organized by the six Core Principles outlined in *Program for Results Financing* and synthesizes the main findings using the SWOT (Strengths-Weaknesses-Opportunities-Threats) applied to the PforR context in the following way:

- **Strengths** of the system, or where it functions effectively and efficiently and is consistent with *Program for Results Financing core principles*.
- Inconsistencies and gaps ("**weaknesses**") between the principles adopted in *Program for Results Financing* and capacity constraints.
- Actions ("**opportunities**") to strengthen the existing system.
- Risks ("**threats**") to the proposed actions designed to strengthen the system.

The data collection and analysis of the existing institutional capacity is mainly focused on the main implementers-, *EEU and MoWIE*- of the proposed program. The WB team had also assessed the inter-agency coordination practice and existing capacity of relevant organizations on environmental and social management including MoEFCC, MoLSA, at national level and Land Administration and Use, Mine and Energy and Environmental authorities, Labor and social affairs bureaus at Regional and local levels and Municipalities, who participate in the implementation of environmental, social safeguards and safety management of the proposed program.

7.2 Summary of System Assessment

The key findings of this Environmental and Social Systems Assessment (ESSA) acknowledge that the country has the legislative and regulatory basis and the institutions to ensure consistency with the six Core Principles of PforR. Albeit the legal basis are strongly established, the implementations are not consistently effective in the areas of environmental and social impact assessment (ESIA) preparation, review and approval; Environmental and Social Management Plan (ESMP) implementation, preparation and implementation of safety management plan applicable to the respective business of the program, Resettlement Action plan(RAP) preparation and implementations, addressing complains, equitably sharing benefits, field supervision, monitoring and enforcement on safeguards management; and stakeholder consultation, as required at all levels.

As stated in the above sections, the ESSA identified potential anticipated environmental and social impacts associated with the proposed program; measures to mitigate the underlying risks and impacts, which primarily relate to the lack of technical personnel, knowledge, budget and other facilities for the overall safeguards management, particularly at local level and regional level of EEU offices and Woreda Mines and Energy Bureaus (WMEB). In addition, there is no or limited training for Environmental and social safeguards officers/focal persons and other experts drawn from regional, zonal and woreda level relevant government institutions.

7.3 Findings of Environmental and Social System Assessment

Core principle 1-General Principle of Environmental and Social Management

Coverage of Social Impact Assessment and Management in EIA **-** The EIA Proclamation No. 299/2002 made impact assessment a legal prerequisite for the implementation of major development projects, programs, and plans. This proclamation is a proactive tool and a backbone to harmonizing and integrating environmental, economic, cultural, and social considerations into the decision-making process in a manner

that promotes sustainable development. The EIA Guideline deals with socioeconomic impacts in detail. The guideline considers issues such as:

- Falling living standards, particularly of the poor, which could possibly risk the start of a vicious circle that could produce further environmental degradation while dealing with management of social impacts.
- Living and working conditions that may deteriorate as a result of resettlement, cultural shocks, risks to health and safety among others.
- Different impacts on men and women, and also between social groups, especially where rights to land and other natural resources are differentiated.
- In-migration related to project development, which could trigger significant social changes in a community.

While several aspects of the social management system related to land acquisition, compensation, and grievance redress fall under the umbrella of core principles 1 and 4 that are captured by Ethiopia's EIA Proclamation, other core principles—particularly those related to vulnerable peoples—are beyond the EIA in Ethiopia and are addressed in the sections below. The social aspects of EIA generally receive less attention.

Timely Dissemination of program information and stakeholders' consultation-The assessment findings revealed that timely dissemination of information to project affected people is one of the areas to be strengthened. In the case of on-grid, PAPs are not fully aware about projects in their area and the grievance redress mechanism available in cases of any complaints. For the off-grid Solar Home System and Lantern use, the consultation with PAPs in remote Kebele showed that the PAPs have limited information on use and maintenance of Solar Home Systems (SHS) and lanterns and no information in line with the Grievance redress mechanism in cases of issues and complaints they have in line with SHS and Solar lanterns operation and maintenance among others.

There are some initiatives by EEU to aware the community (customers) using posters posted at district customers' centers and sponsoring TV shows. EEU has also started facilitating public forums where different categories of customers and other stakeholders participate. These initiatives are promising and need to be publicized to the community and conducting meaningful consultations with Project Affected People is vital for the success and sustainability of project activities.

Grievance Redress mechanisms (GRM) related to on-grid and off-grid Services

On grid- EEU -Based on EEU's complain handling procedure, customers submit their complaints on the spot at district level for customer services focal person, using call centers and at the regional office grievance offices. Public forum is also used as one mechanism to share complaints; however, there is gap in responsiveness to complaints forwarded by customers. The GRM procedure is distributed to regional grievance units, EEU district offices have customer policies and procedures document that includes Complaint handling section. There is also a general guide on compensations (for damages sustained due to power fluctuation), Public Liability Insurance Policy in cases of accident and damage of materials on customers, /the community due to electricity problem.

There is however, gap in application of written procedures and responsiveness, with hotlines that lack response, gaps in awareness among customers on GRM procedures as well as requirements for compensations, limited staff, and the nature of some challenges faced which are beyond the district or regional offices. The third person liability procedure/compensation procedure lacks updates and detail guidance. The existing GRM and related guidelines need to be updated considering the current conditions and applicability. Staff trainings and community awareness is also vital.

***Grievance Redress mechanisms (GRM) for* off grid services Energy and Mines offices**

There is lack of organized Grievance handling /responding system/ mechanism in place for the off-grid component. Effort is made to manage Solar Home System related Grievances. There are cases where the woreda energy and mines inform complaints from PAPs to their respective zonal or regional offices to reach the PSEs. Example shared by Amhara energy and mines office is blocking 10% of PSEs payment based on prior agreement so that they can maintain Solar Home Systems for the given guarantee periods, so farmers submit complaints to the woreda energy and mines and this office facilitates next steps to resolve

the issue However there is no written procedure or staff trainings to manage grievance in a systematic way. The response to complaints is very much delayed or none existent for the PAPs in some context. There is lack of written procedure clarifying the role and applications to handle, Grievance clarifying the role Energy and Mines offices and PSEs in the process and durations for timely response is critical.

Key areas for Social Management system strengthening

Awareness raising to Project Affected People *–Context specific communication and awareness strategies need to be designed.* Using Media (such as community radio programs, TVs, EEU website, brochures and posters, public forums, community care collations) to aware the community/Customers, considering specific contexts of each region, working closely with the woredas admins who closely consult with the community at grassroots level are among the mechanisms.

Strengthening Public Forums- by allocation of required resources, having guiding procedures for public forum consultations that incorporates inclusion of vulnerable community groups (such as women, the elderly, people with disability, vulnerable children and youth) and undertaking of culturally sensitive consultations, and documentation. It is important that the public forums are also used to aware citizens on the charter, related challenges to implement as per the charter and the way forward. Having such forums that are transparent and followed by actions to solve issues raised on the same and regular documentation of the respective forum details and action items for follow up are steps that strengthen the forum and build trust among citizens.

Develop GRM policy and Procedure (for Off-grid), updating GRM policies and procedures (for on Grid)

- Have applicable written grievance handling procedure in place for Off-grid
- Update guidelines and policies on GRM including detail, updated applicable procedures for customer/community compensations in line with EEU services and accidents (on-grid).

Distribute updated policies and guidelines and train assigned staffs/focal persons at national, regional and district levels for application of responsive grievance management practices

Aware PAPs on GRM and what is expected from customers, PAPs

Strength staffing on GRM at EEU national and regional offices and have the structure at national level for guidance, follow up and support, have a working structure and follow up mechanism for the off-grid

Core Principle 2: Natural Habitats and Physical Cultural Resources

Ethiopia possesses a relatively sufficient legal and policy framework to ensure that natural habitats and physical cultural resources are protected: the FDRE Constitution, 1997 Environmental Policy of Ethiopia, and the Cultural Heritage Proclamation No.209/2000.

Natural Habitats

A natural habitat in the context of the core principles refers to important habitats, flora, and fauna for which conservation has been recognized to be important. It includes critical natural habitats registered with the IUCN. Special measures are usually required to ensure that natural habitats such as game parks are preserved. Recognized natural habitats often have a buffer zone around them, as one of the conservation measures. However, these buffer zones are frequently not respected, and in many cases are used for cattle grazing and farming. Many natural habitats in Ethiopia are classified as protected areas and are the responsibility of the regional governments.

Physical Cultural Resources (PCR)

There is an overlap in responsibilities for safeguarding PCR between the MoEFCC and the Ministry of Culture and Tourism, and coordination between them is weak. Because the Ministry of Culture and Tourism is often left out of the EIA loop, there is a lack of cultural heritage specialists in the EIA domain, and PCR is typically inadequately covered in the EIA process.

The capacity constraints facing EIA implementation apply to PCR. However, the environmental and social management frameworks and other relevant safeguards instruments and that will be prepared and used particularly at woreda level for large programs such as the Ethiopia Electrification Program (ELEAP) do include coverage of PCR, requiring liaison with the woreda cultural office, particularly for reporting chance finds during construction period. This is particularly important in Ethiopia, where a great deal of the

cultural heritage is not registered, is frequently underground, and will therefore not be identified by the EIA process unless a particular effort is made.

Key Areas to strength the system for Natural Habitats and Physical Cultural Resources

Physical Cultural Resources

- Establish a joint approach between the Ministry of Culture and Tourism and MoEFCC to ensure that physical cultural resources are adequately covered in the EIA process.
- Provide trainings for safeguards officers and technical persons on the definition and identification of PC and the approach to incorporate PCR in EIA.
- Create awareness of the importance of chance finds procedures, particularly for small projects at the woreda level.
- Establish and strengthen the coordination among different institutions on the sustainable management of PCR and safeguard to protect from any anticipated adverse impacts due to project implementation activities.

Natural Habitats

- increase awareness among safeguards officers, technical staffs, community members, officials on the management of natural habitats
- Consider natural habitats during screening of programs, projects and subprojects for potential impacts on the existing natural habitats.
- Establish and strengthen the coordination among different institutions on the sustainable management of natural habitats to protect from any anticipated adverse impacts due to project implementation activities.

Core Principle 3: Public and Worker Safety

Ethiopia has national proclamations and guidelines addressing public and worker safety and covering a range of important aspects, including environmental pollution control, labor laws, occupational health and safety regulations, and standards for workplace environmental emissions and discharges (described in Chapter 4).

- ***Guideline and staffing:*** EEU has a unit at corporate level and a manager as well as Environment, Health and Safety coordinators at some of the regional EEU offices to oversee all health and safety aspects of its project. EEU has framed detailed guidelines/checklists for workers' safety.
- ***Awareness:*** There is a general lack of awareness among workers and public on health and safety issues, particularly in relation to exposure to electrical and chemicals hazards as well as workplace and community safety aspects in hazard-prone areas. Accidents happen on people and materials damage occurs as the result of works that do not go in line with safety and health standards due to quality material shortage, weather conditions, and gap in awareness among community members.
- ***Safety tools and PPEs***-There is lack of tools and Personal Protective Equipment (PPEs) and gap in knowledge and awareness on the use of PPE.
- Capacity Implementation and enforcement of health and safety requirements at operational sites is inadequate, primarily because of insufficient capacity at the woreda and regional levels.

Key Areas for public and workers Safety Systems Strengthening

- **Improve implementation Capacity**-There is a need to improve the implementation capacity of regulatory agencies for improved standards of worker safety during construction, operation, installation of equipment, maintenance of physical infrastructure, and spraying dangerous chemicals.
- There is a need to **incorporate health and safety considerations into contractual documents**, which also applies to the site selection and construction practices of proposed construction activities and installation of equipment.
- **Having the appropriate guidelines** at the different levels and application of Health, Social and Safety guidelines will be key input to manage and mitigate risks.
- **Awareness creation and practical training** on safety for workers and decision makers.

- **Availing appropriate tools and PPE**.
- **Awareness creation for the community on safety issues.**
- **Have strong monitoring mechanism in** place, conduct safety inspections and follow on actions to ensure procedure is adopted appropriately.

Core Principle 4: Land Acquisition

The assessment findings show that Ethiopia has proclamations and regulations on land acquisition procedures that, if carefully followed, would result in outcomes generally in line with Core Principle 4, with certain exception such as livelihood restoration and eligibility issues on squatters/illegal settlers, which require additional attention and action.

In practice, acquisition of rights of way for MV and LV distribution lines relies heavily on 'voluntary contributions' of land and land based assets (crops and trees), while it avoids personal and public structures. There is gap on proper documentation on the processes of voluntary contributions made including consultations conducted with the project-affected people.

Assessment of impacts of land taking, including on those without titles

Land laws in Ethiopia do not give direct land ownership rights to citizens. With the issuance of Proclamations 31/1975 and 47/1975, ownership of land is vested in the State and Ethiopian citizens have usufruct rights over land. Article 40 (3) of the 1995 Constitution recognizes land as a common property of the Nations, Nationalities and Peoples of Ethiopia, and prohibits sale or any other form of exchange of land. Article 40 (5) stipulates 'Ethiopian pastoralist have a right to free land for grazing and cultivation as well as a right not to be displaced from their own lands'. Articles 40(4) and 40(5) of the Constitution provide for free land without payment for farmers and pastoralists. Furthermore, Proclamation 89/1997 confirms 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. In connection with land acquisition and property rights, Constitution Article 40(8) empowers government to expropriate private property for public purposes subject to payment in advance of compensation commensurate to the value of the property.

As presented in Section 4, the power to expropriate landholdings belongs to a woreda (rural local government) or urban administration for a development project (Proclamation 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 expropriation (Proclamation 455/2004, Article 4). Land valuations are done at the woreda and urban administration levels. These local government units establish valuation committees to value private property (Proclamation 455/2005). The landholder is entitled compensation for property on the basis of replacement value. Permanent improvements to the land, equal to the value of capital and labor expended (Proclamation 455/2005, Article 7) are specified as a valid basis for determining replacement value. It is also required that the cost of removal, transportation and construction be paid as compensation for a relocated property.

Compensation will also be based on current cost, cost of demolishing, lifting, and reinstalling. The valuation formula is provided by Proclamation 455/2005, Article 7. In addition to compensation, according to Proclamation 455/2005, Article 7, displacement compensation shall be paid equivalent to ten times the average annual income s/he secured during the five years preceding expropriation of the land (Proclamation 455/2005, Article 8(3)). Compensation will be in an amount sufficient to reinstate displaced citizens to their economic position prior to displacement. The relevant regional administration is required to give another piece of land to any citizen who has lost her or his land in favor of a public project (Proclamation 455/2005).

Eligibility. The legal framework recognizes only legal titles and some quasi-legal titles (such as customary right over land and communal land) as well tenants in government housing in urban areas. The law does not cater to citizens without legal rights to use the land. These citizens are therefore ineligible for compensation. There are certain cases in practice where those with informal or undocumented rights, and those without titles or use right (e.g. squatters, encroachers) are eligible for specific assistance. Informal usufruct rights are likely to have structures or land improvements eligible for compensation, as stated in Proclamation 455/2005.

Compensation at replacement cost and assistance to restore livelihoods, including those without titles

Ethiopian law has clear procedures for landholders and generally extends eligibility for compensation to recognized or customary land users or occupiers lacking full title, but does not recognize tenants, squatters or encroachers as being entitled to assistance or any allowances for transportation, disturbances, etc. The requirement for compensation for land at market price is implicit in the local procedure for evaluation of losses. Restoration of livelihoods for those affected is not mandated as an objective in the local laws.

The ESSA indicate that woredas and cities have established guidelines and systems for valuation and compensation that follows the government regulation. The relevant entities also conduct initial screening to determine the extent of land acquisition and its impact on citizens. However, the quality of the screening varies across woredas mainly due to capacity constraints and there is lack of practice in screening of projects for MV and LV distribution lines as well as mini grids.

Budget constraints and the fact that valuations are not done by independent evaluators, the impact of projects on land and private assets tends to be underestimated in terms of valuation, compensation, and payments delayed. Compensation for lost assets is based on replacement cost. However, such replacement costs are based on costs that are not independently assessed or determined and these may not reflect current market prices. The ESSA review found that, partly as a result of this, grievances over compensation amounts are common. With respect to land registration and certification processes, this is an ongoing process in most regions. Consultation with Project Affected Peoples (PAPs) is not conducted systematically and grievance handling mechanisms are often inadequate and delayed.

Grievance redress

The formal system for grievance is the legal system with courts, which is open to all citizens regardless of what grievances or sectors. At operational level, grievances are reported and resolved with local city managers and woreda offices in line with resettlement. There is no formal recording requirement or a fixed timeframe for resolution. Considering the limited impacts and small scale of investments, this informal system seems to be sufficient. In connection with dispute resolution and grievance mechanisms, if misunderstandings and disputes arise between the principal parties involved in the resettlement and compensation processes, the preferred means of settling disputes is through arbitration (Proclamation 455/2005). The number and composition of the arbitration tribunal may be determined by the concerned parties. A complaint related to the amount of compensation shall be submitted to the regular court having jurisdiction (Proclamation 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 High Court (Regulation 51/2007). Similarly, if the land holder is not satisfied with the decision of the compensation grievance review committee, the case may be referred to the High Court (Regulation 51/2007).

Key Areas for Land Acquisition Systems Strengthening

- ***Timely Compensation***-It is good practice for social screening and follow on compensation to be completed before the start of the project's civil works, construction, stringing or related activities
- ***Accommodation for squatters or illegal Settlers***-Ethiopian law does not make any specific accommodation for squatters or illegal settlers, other than recognition of some use-rights, as when settlers can claim rights to the land. Detail process to accommodate such groups need to be included in the resettlement guideline and applied.
- ***Consultation with PAPs and related documentation*** -Affected communities should be consulted regarding project implementation and resettlement, which also needs to be documented. For voluntary land or land based asset donations by the community, it needs to be documented using clear procedures, which will be part of the resettlement guideline for ELEAP implementers. Affected communities should also receive the opportunity to participate in, implement, and monitor resettlement. However, Ethiopian law states that, when it is determined that a right-of-way must be established, the State's expropriation rights take precedence, although the Constitution protects the individual's use-rights.
- ***Accommodations for potentially vulnerable groups***-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 of negative effects due to land acquisition and resettlement, and should receive special

consideration to assure that they can maintain at least the same standard of living after displacement takes place.

- ***Avoid or minimize involuntary Resettlement***-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. This will be clearly indicated in relevant guidelines and applied.
- ***Strengthen Grievance Handling Mechanisms***- The ESSA review found that, grievances for not being compensated are common and at times reported for EEU district offices. Consultation with Project Affected Peoples (PAPs) is not conducted systematically and documented; grievance-handling mechanisms are often inadequate and delayed where applied.
- ***Institutional Capacity strengthening of implementing MOWIE and EEU, ELEAP Resettlement guideline as well as staffing and relevant trainings need to be in place***-In order to meet Core Principle 4. Required staffing, resettlement Guideline and systematic procedure on voluntary land or land based asset donations protocol and how to address the illegal settlers be included and guideline to be in place and used by the implementing agency EEU and MoWIE as applicable to guide its staff in acquiring land and rights of way. There is staffing gap at EEU/UEAP on social safeguards, there is no Social Development Officer and safety officer at corporate level, currently only Environment and Social Manager, Safety Manager and Environment Officer at corporate level and EHS Coordinators at regional level whose main engagement is on safety issues. With UEAP, there is no safeguards staff on government financed activities. The specialists where available especially at regional level are not trained or qualified to handle tasks in social and environmental safeguards management because the assignment and focus of such staff differ from the safeguards. The social issues need to be more visible in the unit and applied in EEU safeguard activities. Environment and Social Policy and Procedure by EEU and the Resettlement Policy Framework, developed for the seven towns rehabilitation and upgrading project are useful resources to use in preparing or adapting the resettlement and other relevant guideline for ELEAP.

Core Principle 5: Indigenous people and Vulnerable Groups

There is a general understanding in Ethiopia that all people in the country are indigenous. However, there are people who are **vulnerable and underserved and need special assistance especially in the emerging regions**. Chapter 4 outlines the Constitutional provisions on the rights of groups identified as "Nations, Nationalities and Peoples," pastoral groups, and Developing Regional States. It also outlines the 1997 Cultural Policy of Ethiopia; the 2014 Social Protection Policy, which defines the vulnerable as children, older people, people with disabilities, and the chronically ill.

Both through the Constitution and through the designation by regional governments of Special Woredas, Ethiopia acknowledges ethnic minorities' right to a degree of self-determination. The indications are that these Special Woredas have a greater degree of authority to create their own policies. They are organized around traditional homelands of an ethnic minority, with distinct languages and unique identities, and are outside the usual hierarchy of the region. Special Woredas gained autonomy from multiethnic zones on the basis that inhabitants were culturally and linguistically different from other groups of the zone. They report directly to the region and therefore do not fit within a zone.

Affordability

Vulnerable groups such as the poor, women, people with disability and the elderly may not afford payments for new connections. ESSA consultations finding shows that the cost for new connection is beyond the payment for connection service that may include costs for pole/s installations among others and the ones that afford get the services, while the poor continue to be on the waiting list. This is especially an issue when the connection is further away from the existing grid. A detailed assessment will be made, in the context of ELEAP, on affordability followed by appropriate subsidy mechanism for vulnerable group of new connection customers

Grievance Redress - Pillar 6 of the (2010) Growth and Transformation Plan commits the Government of Ethiopia to enhancing "good governance," hearing and redressing grievances. The Constitution of the FDRE provides a broad framework for systematizing the GRM concept with its emphasis on respect for human rights and fundamental freedoms, especially the right of access to justice, rule of law, and democratic governance. Chapter 4 describes the evolution of GRM under the 1966 Civil Service Reform

Program and later under the Business Process Reengineering initiative, which provided the impetus for the establishment of GRMs in a number of regional states and municipalities. In reality, however, many Ethiopians, especially those living in rural and remote areas, are not aware of the grievance redress system.

Citizen Engagement **-** In Article 50(4), the Constitution of Ethiopia provides that "adequate power shall be granted to the lowest units of government to enable the people to participate directly in the administration of such units." To ensure organized public participation for promoting good governance, transparency, and accountability Ethiopian Electric Utility(EEU) has creating public forums across all regions and prepared customer charter in line with change army manual by the Ministry of Public Service during the past year. The forum participants are from different customer categories, representatives from the governmental administrative bodies, association like, youth, small and micro enterprise agencies and women affairs. This is a good start, which has created common understanding among stakeholders where the forum has been conducted consecutively and followed by actions to resolve issues raised.

Key Areas of Vulnerable Groups Systems Strengthening

The measures identified in the ESSA to achieve the objectives of Core Principle 5 are mainly for ELEAP EEU to **develop policy and procedures to ensure that the possible presence of vulnerable groups and underserved people** is considered when potential investments are appraised and that if any are likely to be affected, *programs to* ***assist vulnerable groups and the principles of free prior informed consultation will also be applied.***

Build capacity on identifying vulnerable groups**-** EEU should also include in its policies and procedural manuals to ensure equitable treatment of vulnerable groups that may be affected by its grid-extension activities and to guide screening to detect the presence of vulnerable groups and measures for consultation and participation.

There is a need to ***improve consultation for the most vulnerable groups*** and in their communities so that they benefit even more from the program services. More effective use can be made of women's groups, youth groups and community conversations targeting women, traditional leaders, and other vulnerable groups. Involving these groups in public forums is also useful.

It is also important to strengthen the social side of EIA and ensure capacity building directed specifically at the management of impacts and effects on vulnerable people and the design of projects to best meet their needs. *Better coordination and communications* between energy sector implementers and Offices of Land administrations and Use, Offices of Labor and Social Affairs as well as Women and Children Affairs can help identify vulnerable groups and underserved people in potential project areas.

Targeted Awareness raising- Improved communications materials should be aimed specifically at vulnerable and historically underserved groups.

Citizen Engagement Strengthening – Allocation of required resources, Production of Guidelines for Public Consultations, including how to undertake culturally sensitive consultations at various levels (region, woreda, and kebele) is vital - Undertake awareness raising, based on the guidelines, for both decision makers and technical staff will also facilitate implementation

Key Areas for Grievance Redress Systems Strengthening - Strengthen innovative communications approaches (including use of multimedia) and increase operational costs to equip offices with necessary materials.

- GRM systems should be strengthened with an emphasis on intake, response, and investigation.
- GRM officers/focal persons at the woreda level should receive training in working with illiterate and vulnerable community members to ensure that their grievances are documented and addressed, to build confidence in the GRM system, and to post and publicize examples of successful GRM cases, so that citizens become aware that the system is working.
- Create awareness in the most vulnerable and underserved communities about the procedures for accessing GRM, understanding how the GRM functions, timelines, etc., and ensure that communications materials are adapted to meet the needs of the most vulnerable citizens.

Core Principle 6: Social Conflict

The proposed program will not exacerbate social conflict nor will it operate in a fragile state context, a post conflict area, or areas subject to territorial disputes. The program is also designed to yield significant social benefits to all citizens and to improve distributional equity. However, there can be issues of distributional equity by the community in extension of electric service in rural areas that could lead to conflict. It was noted during the ESSA that there are cases where existing project by-pass certain villages and leave them out while distribution lines pass over the villages without providing electricity to those villages. Acquiring land or resources without compensating the people in such villages may affect and threaten their peace. Having meaningful consultations with the community and timely compensations based on government regulations need to be applied to mitigate such impacts.

The issue of civil unrest is another area that may pose implementation risk. There was civil unrest in the country during the past year, which led to the government's declaration of the six months State of Emergency on October 9, 2016. This created lack of access to some areas in the country. The situation then stabilized, while local grievances regarding broad governance issues, land use and land conversions remain. Such disturbances are not directly related to the program and outside of the scope of influence by the Bank. Mitigation measures will include consultation, communication and enhanced transparency in ELEAP supported activities.

7.4 Description of Assessments of ELEAP System consistency with Core Principle of Program for Results Financing

7.4.1 Core Principle 1: General Principle of Environmental and Social Management

Environmental and social management procedures and processes are designed to (a) promote environmental and social sustainability in Program design; (b) avoid, minimize or mitigate against adverse impacts; and (c) promote informed decision-making relating to a program's environmental and social effects.
Program procedures will: • Operate within an adequate legal and regulatory framework to guide environmental and social impact assessments at the program level. • Incorporate recognized elements of environmental and social assessment good practice, including (a) early screening of potential effects; (b) consideration of strategic, technical, and site alternatives (including the "no action" alternative); (c) explicit assessment of potential induced, cumulative, and trans-boundary impacts; (d) identification of measures to mitigate adverse environmental or social impacts that cannot be otherwise avoided or minimized; (e) clear articulation of institutional responsibilities and resources to support implementation of plans; and (f) responsiveness and accountability through stakeholder consultation, timely dissemination of program information, and responsive grievance redress measures.
Applicability- Applicable to the proposed program • **Core Principle 1** is considered in terms of environmental and social safeguards management (ESSM) for the Energy sector during implementation of both on grid and off grid components of the proposed program, as a key instruments to establish and strengthen the existing environment and social management systems under the implementing agencies (MoWIE and EEU). • Provision of measures to strengthening the system in place for enhanced accountability and oversight mechanisms. • The proposed program components (off grid and on grid) could generate environmental and social impacts during main construction and other ancillary activities, like power line rehabilitation, distribution and upgrading, stringing, pole erection, transformer installation, solar PV mini grid installation, and materials and equipment storage and transportation. The potential impacts would be haphazardly disposal of wastes and effluent discharge, electrocution, occupation health and safety for workers and community members, as well as air and water pollution due to construction and operation activities.

- Conducting Environmental and Social Assessment and preparation and implementation of Environmental and Social Management Plan and other safeguards instruments, including safety management plan and waste management plan will be key instruments to avoid/minimize/mitigate the anticipated environmental, social and safety impacts associated with the program.

Summary of Findings

- Ethiopia has adequate national environmental policy and regulatory framework, including standards and technical guidelines for environmental and social due diligence with respect to managing the potential impacts of the proposed Program.
- Regional level proclamations and guidelines on waste management, EIA implementation, pollution control, etc. have been prepared and enacted to ensure sound environmental and social safeguards management during implementation of development programs, including the proposed ELEAP.
- Regarding the proposed programs there are environmental and social safeguards instruments, sector specific policy, standards and procedures under existing World Bank-funded programs that are believed to be satisfactory for the management of safeguards during the design and implementation of the proposed Program activities.
- However, given the existing limited capacity on environmental and social safeguards management, mainly at regional and district offices of EEU, WMEB, UEAP, Local Environmental authorities and offices, which is reflected by inconsistent implementation of safeguards instruments in line with legal frameworks, standards and procedures particularly, lack of monitoring instruments, budget, and technical persons.
- Insufficient resources are also one of the findings during the ESSA study period and among others no or limited financial and human resources, skills and technical expertise on the preparation and implementation of ESIA and overseeing and monitoring implementation of impact management measures.

System Strengths:

- The EIA Proclamation (Proclamation No. 299/2002), EIA Review guideline, Environmental Protection Organs Establishment (Proc No. 295-2002), and other guidelines, proclamations, standards and procedures established there by MoEFCC provide the basis for full achievement of objectives defined in for this core principle.
- Environmental legislation at the national and regional level referring the conservation and management of natural resource and the environment as a whole, safeguarding degradation and land clearance, pollution management are in place. The institutional structures for the implementation of these legislations are formalized. Procedures and clearances required for environmental protection are well defined at all level. Existing legislation also support to avoid, minimize, or mitigate possible adverse impacts on the natural habitats, archaeological sites and cultural resources.
- The environmental policy of Ethiopia under *section 3.5* stated about the energy sector policy emphasized on adopting inter-sectoral process of planning and development which integrates energy development with energy conservation, environmental protection and sustainable utilization of renewable resources; to promote the development of renewable energy sources and reduce the use of fossil energy resources both for ensuring sustainability and for protecting the environment, as well as for their continuation into the future;
- One of the MoWIE functions is to promote sustainable development and clean energy in Ethiopia, and it has recently been gaining experience on the assignment to review environmental and social management instruments and compliance to small solar mini-grids.
- The existing policies at national and state level ensure that the legal frameworks for social inclusion are in place. Overall improved service in renewable energy sectors, considering the local situations, is likely to have a very beneficial impact on the nearby biophysical environment, human health and the overall quality of life of the rural population.
- With regard to the institutional structure at all tiers, the responsibilities are well defined for safeguards instruments review, clearance, and implementation. Therefore, as per the delegation made by

MoEFCC in December 2010, for the proposed program the MoWIE is responsible for reviewing and clearance of Environmental and Social safeguards instruments prepared for program projects at national level. At regional and local level, the regional environmental Bureaus and Authorities are responsible for review and clearance of environmental and social instruments, particularly for *category A/Schedule one projects*, whereas, regional bureaus delegated zonal and woreda level environmental authorities and offices for the review, clearance and monitoring of implementation of instruments prepared for projects less impact and classified under category B and C The Ethiopia Electric Utility (EEU)- Environmental, Social, Health and Safety, Quality and Process excellence (EHS,QP) at national level has gained experience in environmental and social safeguards management for on grid programs through implementation of environmental and social safeguards instruments like, ESIA and ESMP prepared for previous Bank financed energy sector programs, including –transmission, substation and power line distribution and rehabilitation by EEP, which were operational by currently under EEP and EEU.

- EEU established EHS unit at national level and assigned eight (8) EHS regional focal persons out of 15 regional EEU offices. The regional EHS focal persons provided EHS trainings to district EEU office staffs, conduct regular EHS supervision, and monitoring during construction and operation phase to ensure the sound implementation of environmental and social safeguards instruments.
- GRM guideline available within EEU customer policy and procedure to address customer's complaints including new connection related issues.
- Availability of Public Liability Insurance Policy by EEU in cases of accident and damage of materials due to electricity problem
- EEU started public forums to aware and engage citizens EEU has put in place Citizen Charter to inform citizens

Gaps

Although policies and procedures are in place, the implementation of the overall environmental and social safeguards management is not satisfactory at almost all level within EEU. These include, ESIA and ESMP preparation, regular and systematic inspection, monitoring and enforcement.

Major gaps identified during the ESSA study are:

- Limited institutional and technical capacity within EEU/ UEAP, at all level and WMEB at regional and local level;
- Limited capacity on environmental and social safeguards management with in environmental authorities and offices at zonal and woreda level.
- Inadequate resources, including personnel**,** training, technology, and equipment, mainly within EEU.
- EEU/UAEP, WMEB and woreda environmental authorities have limited experience on the preparation and supervision of safeguards instruments like ESIA and ESMPs, which needs to be considered during implementation of the program, mainly at local levels;
- Weak coordination among stakeholders, including EEU, MoWIE, Regional and local energy bureau and environmental authorities and offices , land administrations and labor and social affairs on the day to day environmental safeguards management activities which is applicable to the program at the different level.
- Public disclosure: Although the disclosure for safeguards instruments is not applicable for the proposed programs, as it is categorized under "environmental assessment category B," the need for consultation with PAPs and relevant stakeholders is inevitable. ESSA identified that the existing culture of disclosure is not satisfactory and inconsistent consultations practices with project-affected communities and other stakeholders.
- Staffing limitation on social and environmental safeguards at EEU corporate level, UEAP, Regional EEU district office and other relevant implementing agencies
- No mechanism and facility for the disposal of hazardous wastes
- No procedural guidelines on Waste management plan, considering the risks of hazardous wastes
- Gap in updating and applicability of the GRM by EEU, lack of systematic guide or procedure for the off grid

Actions and Opportunities

There is opportunity to strengthen the capacity for EEU, MoWIE, and other relevant regional and local level bureaus, including WMEB, REFCCA, BOLSA, through:

- provision of training on the reparation, review and approval producers of ESIA and other safeguards instruments;
- assign Environment, Social. Health and Safety (EHS) focal points at all EEU's regional offices. EEU shall fill vacant positions on Social Safeguards and Safety at corporate level. Regionally, each EHS unit shall be staffed with three (3) specialists namely environmental specialist, social development specialists and safety officer;
- establish and strengthen coordination among national, regional and local levels of EEU, and other sectoral institutions including energy and environmental institutions;
- provision of continuous training on environmental, social and safety management instruments preparation and implementation;
- provide guidance during implementation of Ethiopian environmental impact assessment procedural guidelines, manual, including for the process and need of stakeholder consultations in impact assessments.
- Development of technical guidelines for environmental screening and implementation of ESMP,
- Identification of appropriate temporary storage facilities near the core activities area, particularly for hazardous waste and transportation to appropriate final disposal sites, if available.
- Development of hazardous and other waste disposal management plan that works for all regions, as per the international and national policy and guidelines.
- Putting in place updated written procedure, responsive GRM policies and procedures including compensation procedures, timely and appropriate response for grievances
- Distribute updated policies and guidelines and train assigned staffs for implementation
- Strengthen awareness raising for project affected people and customers on different issues including GRM, safety precaution using easily accessible media and considering the local context of the targets
- Develop GRM Procedure for the Off-grid component
- Use public forum and other media to aware citizens on the EEU charter and current challenges
- Develop guideline on public consultation and documentation process

Risks

- Potential environmental and social impacts of ELEAP will not be identified, mitigated, and monitored.
- Activities under this program will be designed and operated without adequate attention to existing environmental settings, related ecological and social risks and impacts.
- No mechanism for solar panel and its battery systems that will proliferate without provision for safe and environmentally sound disposal of spent lead-acid batteries.
- Off-grid and On-grid extension projects will not receive adequate consideration on environmental and social management, supervision, and monitoring.
- Social benefits of grid extension may be curtailed by insufficient power, or non-payment for service to government facilities (schools, clinics, etc.).
- Stakeholder concerns will not be consistently taken into account in environmental, social and safety issues.
- Inability to capitalize the opportunities to address the gaps in a timely fashion will lead to localized and regional environmental problems among the community members and environmental pollution in areas.
- No efficient applications may be operationalized for the provisions of the ELEAP to address the key gaps identified through the ESSA analysis

- Staffing and skills mix at the regional, zonal and woreda levels is inadequate to handle environmental, social and safety management.
- Specific actions included in the PforR Program Action Plan may not be fully designed and implemented.
- No or limited dedicated Bank implementation support be available for ELEAP during implementation of safeguards requirements.
- Risks are deemed moderate to significant and should be mitigated through a combination of dedicated enforcement of national legislation and existing guidelines at all levels
- Inadequate or no budget will be allocated for environmental, social and safety management and no safeguards precaution and managements are applied.

7.4.2 **Core Principle 2: Natural Habitats and Physical Cultural Resources (PCR)**

Environmental and social management procedures and processes are designed to avoid, minimize, and mitigate against adverse effects on natural habitats and physical cultural resources resulting from program.

As relevant, the program to be supported:

- Includes appropriate measures for early identification and screening of potentially important biodiversity and cultural resource areas.
- Supports and promotes the conservation, maintenance, and rehabilitation of natural habitats; avoids the significant conversion or degradation of critical natural habitats, and if avoiding the significant conversion of natural habitats is not technically feasible, includes measures to mitigate or offset impacts or program activities.
- Takes into account potential adverse effects on physical cultural property and, as warranted, provides adequate measures to avoid, minimize, or mitigate such effects.

Applicability

The provisions in Core Principle 2 are considered as part of the ESIA process analyzed under Core Principle 1. The Program will not support investments that would either affect or convert critical natural habitats and will avoid conversion of natural habitat.

This Core Principle is applicable to the ELEAP program, because the clearance of power line way leaves and installation of small mini-grid could affect natural habitat and result in chance finds of physical cultural resources, and operation of small mini-grids will may have certain impacts on aquatic and terrestrial ecosystems, which might ultimately affect the natural habitat and cultural heritage around, in case available.

Summary findings,

- Core Principle 2 is considered in terms of safeguarding the natural habitats and any physical cultural resources that might be existed within the program implementation area. The proposed program components (off grid and on grid) could potentially affect the natural habitats, particularly those activities that will be implemented nearby aquatic habitats like wetland, lakes, national parks due to leakage of oils from used or damaged transformers, EEU storage area, etc.
- During excavation works, known or unknown physical cultural resources like antiquities, relics of cultural and religious valued resources might be identified and be affected. To address this and safeguards those valuable resources, the team identified that there are limited knowledge and budget are available, which need to get attention during the preparation and implementation of safeguards instruments for the program.

System Strengths

- National proclamation and EIA procedure guidelines are consistent with the principle of environmental protection, which is highlighted the need of assessment of environment with consideration of cultural values in a manner that promotes sustainable development.
- Screening criteria for projects in national parks and areas containing endangered flora and fauna are established
- Aside from the provisions of the national environmental policy and guidelines, sectoral policies like, Forest Policy 2007, Wildlife Policy 2007, water policy 2002, and Energy policy 1994, are among others relevant regulatory policies that applicable for safeguarding the natural habitats and PCRs
- The GoE is enacted the National Biodiversity Strategy and Action Plan of 2005 to be able to consider natural habitats, which will contribute to strengthened by the establishment of a national coordinating body that will oversee all aspects, from environmental safeguards to information dissemination.
- The Council of Ministers of FDRE endorsed the cultural policy of Ethiopia in October 1997 and issued the Research and Conservation of cultural Heritage proclamation NO.209/2000.
  The proclamation No.209/2000/annex 1 has regulated Research and conservation of Ethiopian cultural heritage. It has also established the Authority for Research and Conservation of Cultural Heritage within the Ministry of Information and Culture (now Ministry of Culture and Tourism).
- There are no significant inconsistencies between *Program for Results Financing* and Ethiopian's policies, laws, and regulations related to natural habitats and physical cultural resources.

Gaps

- Although there are well defined environmental regulations, documents, policies and procedures are in place, the level of implementation to ensure no impacts to occur on the natural habitats and PCRs is very limited. existing guidelines does not clearly define proposed program related environmental concerns,
- Existing monitoring mechanisms are weak, and guidelines for environmental sound decision-making still need to be strengthened.
- Limited capacity to assess the potential impacts on the natural habitats and physical cultural resources.
- Although, Environment specific capacity building activities is presently insufficient and nodal environmental officers to ensure compliance to required environmental standards with the implementing agencies are not there
- Limited knowledge and experience in considering PCRs during the preparation of EIA, review EIAs and implementation of the recommended measures as stated in the EMP to safeguards both terrestrial and aquatic habitats
- Existing resource constraints, lack of enforcement level and mechanisms, inadequate public consultations and participation, lack of environmental monitoring equipment and tools, lack of training and incentives.
- No or limited resources to implement the chance find procedures

Actions and Opportunities

The opportunities and actions identified for strengthening the system for Core Principle 1 are applicable to Core Principle 2. In addition, chance finds procedures will be included in all construction contracts; environmental assessments for proposed projects under the ELEAP will consider identifying the potential impacts and respective mitigation or avoidance measures to ensure no impact on the existing habitats within and around the core area, like downstream hydrology, aquatic ecology, wetlands. The program will exclude projects that would degrade or convert natural habitat and affect physical cultural resources.

The Program provides an opportunity to develop and strengthen appropriate guidance through manuals and checklists for improved managements of natural habitats and PCRs. This will have a major positive outcome on the national biodiversity conservation practices and promoting the tourism with reduced impacts both on natural resources and PCRs. Suitable guidelines for management and conservation of natural habitats and physical cultural resources can also be developed for implementing the proposed programs through sustainable practices and without causing irreversible damage to the environment. Strengthening the capacity of EEUs, MoWIE regional and local level relevant offices for environmental management in the Program, will help ensure overall improved the environmental settings within and around the project area.

Risks

- The risks identified for strengthening the system for Core Principle 1 are applicable to Core Principle 2. In addition, there is the risk that natural habitat will be degraded or converted in the course of excavation and any earth works for the implementation of on-grid and off-grid program activities.
- Physical cultural heritage is not well understood or listed and could be lost unintentionally
- No significant risk that areas of biodiversity will not be identified
- Lack of awareness among implementing agencies on existing environmental regulations or poor capacities of implementing agencies at the local level.
- Program activities may lead to possible adverse impacts on degradation of natural habitats and physical and cultural resources.

7.4.3 **Core Principle 3: Public and Worker Safety**

Environmental and social management procedures and processes are designed to protect public and worker safety against the potential risks associated with (a) construction and/or operations of facilities or other operational practices developed or promoted under the program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.

- Promotes community, individual, and worker safety through the safe design, construction, operation, and maintenance of physical infrastructure, or in carrying out activities that may be dependent on such infrastructure with safety measures, inspections, or remedial works incorporated as needed
- Promotes use of recognized good practice in the production, management, storage, transport, and disposal of hazardous materials generated through program construction or operations; and promotes use of integrated pest management practices to manage or reduce pests or disease vectors; and provides training for workers involved in the production, procurement, storage, transport, use, and disposal of hazardous chemicals in accordance with international guidelines and conventions.
- Includes measures to avoid, minimize, or mitigate community, individual, and worker risks when program activities are located within areas prone to natural hazards such as floods, hurricanes, earthquakes, or other severe weather or climate events.

Applicability

Core Principle 3 is applicable to the Program as it finances construction activities as well as facilities where high voltage electricity is present. Rehabilitation, construction, and operation of project activities may expose the public, as well as the workers to risks. The provisions in Core Principle 3 are considered as part of the ESIA process analyzed under Core Principle 1.

Strengths

The Ministry of Labor and Social Affairs and Regional bureaus of Labor and Social Affairs are responsible to ensure the health and safety of the public. The EIA proclamation and its regulations contain several provisions for public and worker safety, which are consistent with and aligned with core principles 1.

The EEU has EHS policy that contains robust procedures for worker safety, requiring plans for accident prevention as well for health and safety of workers and communities, which are also part of contracts for civil works. The EEU's safety instructions cover workplace and electrical safety.

Ethiopia has guidelines that enforce best practices, monitors, and enforces occupational health and safety regulations with regard to construction works. The guideline require that contractors must maintain accident registers, provide workers with protective gear, and standards for construction sites and post warning signs visible to the public and workers awareness about requirements, use and knowledge for personal protective equipment.

Existence of the following set of Proclamations and guidelines as system strengths:

- Environmental Pollution Control Proclamation 300/2002.
- Labour Proclamation 377/2003.
- Occupational Health and Safety Guideline (2003).

These cover a range of important aspects including environmental pollution control; labor laws; occupational health safety regulations; and standards for workplace environmental emissions and discharges food, medicine and health care administration and control; management of public health emergencies and national hazards (e.g., droughts). There is sector specific guideline on health and safety management. There is sector specific guideline on health and safety management by EEU.

Gaps

Public and worker safety are adequately covered in the MoLSA regulations and there are no major inconsistencies between the system and Core Principle 3. However, the worker and public safety provisions are not always included in civil works contracts.

- Limited or no devotion to and enforcement of safety rules such as use of personal protective equipment by work contractors and sub-contractors.
- Weak or no supervision on safety management
- No or limited capacity with technical person, safety materials provision, budget to conduct regular supervision on the compliance of national and international safety standards.
- Lack of awareness on public health and safety issues, particularly in relation to exposure to electrical and chemical hazards and workplace safety aspects in hazard prone areas

Other gaps identified in Core Principle 1 are also applicable to Core Principle 3

Actions and Opportunities

Actions identified for strengthening the system for Core Principle 1 are applicable to Core Principle 3.

Capacity building for EEU, MoWIE, Regional and district labor and social affairs bureaus, and Zonal and District environmental officers will be required through:

- training in workplace health and safety procedures,
- Provision of adequate budget, logistic facilities and technical persons for regular supervision,

- efficient and scaling up the enforcement level to improve the health and safety provisions during the construction and operation phase of the program and to allow standard procedures during implementation of project activities
- aware the community on safety issues
- Have a system for regular monitoring and inspection for timely prevention and remedial actions
- Improve implementation capacity of regulatory agencies to improve standards of labor safety during construction, operation, and maintenance of physical infrastructure
- Incorporate health and safety consideration into contract agreements

Risks

No or limited availability of Safety protection materials at work site

No PPE available for workers

No or limited awareness on safety precautions and management among staffs and officials

Inability to ensure public and worker safety that can result in injuries and loss of life. In addition, the risks identified for strengthening the system for Core Principle 1 are applicable to Core Principle 3. The overall risks are deemed to be moderate

7.4.4 **Core Principle 4: Land Acquisition**

Land acquisition and loss of access to natural resources are managed in a way that avoids or minimizes displacement, and affected people are assisted in improving, or at least restoring, their livelihoods, and living standards.

As relevant, the program to be supported:

Avoids or minimizes land acquisition and related adverse impacts;

- Identifies and addresses economic and social impacts caused by land acquisition or loss of access to natural resources, including those affecting people who may lack full legal rights to assets or resources they use or occupy;
- Provides compensation sufficient to purchase replacement assets of equivalent value and to meet any necessary transitional expenses, paid prior to taking of land or restricting access;
- Provides supplemental livelihood improvement or restoration measures if taking of land causes loss of income-generating opportunity (e.g., loss of crop production or employment); and
- Restores or replaces public infrastructure and community services that may be adversely affected.

Applicability

Some of the project operations under On grid, Grid Extension, and Off Grid power generation may require land and would affect crops, livelihoods, and possibly even structures. Activities for the on-grid include limited construction of medium-voltage (MV) distribution lines, installation of low voltage lines (LV). Some of these activities could require land or could affect livelihoods of PAPs. The impact will be minimal given that these lines are passing mainly through rural areas and will be limited. Nonetheless, given the project covers all regions in the Country and in each of the grid extension can be substantial, this is one of the risks that need mitigation. For the off-grid EEU or power producers may need land for access roads and small buildings and, in the case of solar power generation, approximately 2 ha/MW of cleared and graded land for the panels, Right of Way(RoW) will be required to connect the plants to the national grid or to mini-grids.

Most impacts will be related to trees and crops, land (agricultural and residential), and some small structures. There are cases where PAPs lose fraction of their land or permanent crops and trees such as Eucalyptus trees, or are not direct beneficiaries of the project, or both. Loss of access to natural resources

is a low risk, given that the lines do not constitute a barrier to passage. Relocation will not be an impact except possibility of few cases in line with mini-grids.

Strength

- Land acquisition, especially of individual holdings, is usually the last option when land is required for public purposes. Ethiopian peasants and pastoralists have right not to be evicted from their landholdings. (FDRE Constitution Article 40 (4), (5)). This constitutional guarantee can only be overridden for public purpose upon payment of commensurate compensation.
- Land is state-owned, and citizens have only a usufruct right over their landholding.
- A legal landholder whose holding has been expropriated is entitled to compensation at replacement cost for assets on and any permanent improvements to the land, based on the provisions of Proclamation No. 455/2005 and Regulation No. 135/2007.
- Some regional states have issued their own directives to implement these federal laws. However, as there is no sufficient budget allocated for the purpose of payment of compensation, there have been complaints about the amount of compensation payments in most of the regional states
- Compensation payment includes only lawful occupants of the land, but lawful occupant may not necessarily mean holder of land use right certificate. Those who customarily occupied land is legible to get payment

Gaps

- Excessive work load and capacity limitations of committees of experts assigned by local authorities (kebeles) for valuation of assets lead to delays
- Consultations with project-affected people are not conducted systematically, and grievance handling mechanisms are slow to resolve disputes
- It is common to take land without compensation (although this is done voluntarily), under the guise that projects are highly demanded by the people and no documentation on such procedures. Unlike the proclamations and regulation, in practice the target villages that are demanding electricity, provide land 'voluntarily' for the RoW in recognition of the benefits of electricity.
- In addition to compensation issue there is gap in restoring livelihoods of the PAPs where applicable
- Lack of proper documentation of the consultation procedures
- Delayed compensation of High-risk groups such as women, children, the elderly, ethnic minorities, indigenous people, the landless, and those living under the poverty line should receive special consideration to ensure that they can maintain at least the same standard of living after displacement takes place.
- It is vital to have clear budget or source of finance for paying compensation as it will not be a challenge when it comes to project implementation
- Replacement payment (in kind payment, e.g., land-for-land) is conditional on the availability of land in the vicinity
- Land can be expropriated before relocation sites are ready, forced eviction is possible after expiry of notice period
- There is a dispute resolution and grievance mechanism through compensation review committees, arbitration tribunals, and the court system.

Actions

For the acquisition of the wayleave, the ESSA recommends measures to ensure that Core Principle 4 is met.

- The existing procedure need to be strengthened to include restoration of livelihoods of project affected people. This could be done by coordinating with other schemes of the government at city or district level that focuses on income restoration
- Affected communities should be consulted and such consultations documented

- Compensation and the provision of relocation assistance, transitional support, civic infrastructure, need to be completed before the start of the project's civil works, construction, or activities.
- High-risk groups such as women, children, the elderly, ethnic minorities, indigenous people, the landless, and those living under the poverty line should receive special consideration to ensure that they can maintain at least the same standard of living after displacement takes place.
- It is vital to have clear budget or source of finance for paying compensation as it will not be a challenge when it comes to project implementation
- The program will try to avoid any structure, rerouting the RoW when necessary to do so.
- Preparation of a detailed procedural Resettlement Guideline for ELEAP basing available polices and frameworks and which ensures among others
- Document the process of compensation and related data including sex disaggregated ones
- The program will try to avoid any structure, rerouting the RoW when necessary to do so.
- Preparation of a detailed procedural Resettlement Guideline for ELEAP basing available policies and frameworks and which ensures among others
    - Greater transparency needed when land and livelihoods are involved
    - Special care in managing voluntary land contributions with voluntary land donation protocol including well-defined and transparent criteria and clear documentation of transactions when land is provided voluntarily for section of villages to be connected
    - Mechanisms to accommodate squatters or illegal settlers
- Strong and readily accessible grievance redress mechanism, Institutional Capacity strengthening of implementing sector, including EEU-Resettlement guideline well as staffing and relevant trainings required

Risks: The risk is relatively low for minimal land acquisition but the impact on individual livelihoods could be severe. For mini grid solar power plants and ancillary facilities (workshops, access roads and transmission lines), there will be more land acquisition which can be approximately 2 ha per MW for solar), which requires that PAPs are compensated by EEU or developers and site selections considers avoiding major impacts. Inability to consult with, rehabilitate and adequately compensate affected people while acquiring land for the project activities will adversely affect livelihoods and living standards of displaced people. Given the limited scope of investment activities, **these risks are deemed to be moderate**.

7.4.5 **Core Principle 5: Indigenous Peoples and Vulnerable Groups**

Core Principle 5-Vulnerable Groups

Due consideration is given to the cultural appropriateness of, and equitable access to, program benefits, giving special attention to the rights and interests of indigenous peoples and to the needs or concerns of vulnerable groups.

As relevant, the program to be supported:

- Requires free, prior, and informed consultations if indigenous peoples are potentially affected (positively or negatively) to determine whether there is broad community support for the program.
- Ensures that indigenous peoples can participate in devising opportunities to benefit from exploitation of customary resources or indigenous knowledge, the latter (indigenous knowledge) to include the consent of the indigenous peoples.
- Gives attention to groups vulnerable to hardship or disadvantage, including as relevant the poor, the disabled, women and children, the elderly, or vulnerable ethnic groups. If necessary, special measures are taken to promote equitable access to program benefits

Applicability

There are people who are vulnerable and underserved who need special assistance in various regional states.

System strength

- The Constitution recognizes the existence of many ethnic groups, including historically disadvantaged and vulnerable groups, as well as the right to their identity, culture, language, customary livelihoods, socioeconomic equity, and justice.
- The Constitution provides (Article 50(4)) that: "adequate power shall be granted to the lowest units of government to enable the people to participate directly in the administration of such units." Devolution of decision making powers to the lowest units of government (woreda and kebele levels) encourages the management and coordination of provision of basic services in their areas.
- Establishment of a federal special support board consisting of sector ministries under the Prime Minister's office to ensure better coordinated cross-sector affirmative support to the four regions that need special attention.
- Creation of an Equitable Development Directorate under the Ministry of Federal and Pastoralist Development Affairs focusing on gathering data on existing gaps in capacity, social and economic development, governance, gender and environment.
- Twinning each of the four immerging regions requiring special attention with better performing regions.

Gaps

- Identification of vulnerable groups
- Vulnerable groups such as the poor, women, people with disability and the elderly may not afford payments for new connections. ESSA consultations finding shows that the cost for new connection is beyond the payment for connection service that may include costs for pole/s installations among others
- Inclusion of vulnerable groups and meaningful consultation and documentation
- Provision of special support and consideration
- Accessible GRM for underserved people and vulnerable groups

Actions

- Application of procedures for equitable and fair treatment of vulnerable groups
- Improve training and capacity of vulnerable groups through extensive consultations so that they can benefit from the project
- Detail assessment need to be made on affordability for new connections followed by appropriate subsidy mechanism for vulnerable group and underserved people.
- Effective use of Community Care Collations (CCCs), women groups, youth groups and other community forums to facilitate community conversations in targeting special groups such as women, traditional leaders and other vulnerable groups
- Ensure that women's groups and women in the community are adequately represented in the arrangements for the provision of compensation GRM officers/focal persons at district level should be provided with training in working with illiterate and vulnerable community members to ensure that their grievances are documented and addressed, to build confidence in the GRM system, and to post and publicize examples of successful GRM cases so that citizens become aware that the system is working.
- Prioritize the training of women, land administration staff, and community members on the need for and benefit of women's and other vulnerable groups involvement in compensation and livelihood restoration process as applicable

- Awareness raising on GRM to the Community-There is a need to create awareness in most vulnerable communities about the procedures for accessing GRM, understanding how the GRM functions, timelines, etc.
- Produce Guidelines for Public forum/ Consultations, including how to undertake culturally sensitive consultations at region, woreda, and kebele levels, and related documentations.
- Build capacity on identifying vulnerable groups and application of procedures for equitable treatment of such group- EEU should also include in its policies and procedural manuals to ensure equitable treatment of vulnerable groups that may be affected by its grid-extension activities and to guide screening to detect the presence of vulnerable groups and measures for consultation and participation.
- Undertake awareness raising, based on Guideline and updates, for both decision-makers and technical staff who will use the guides.

Risks: Inability to improve the inclusion of poor and vulnerable groups The design will consider concerns of vulnerable groups and underserved people, as a minimum access condition for the local government, **these risks are deemed to be low to moderate**. appropriate level of consultation with underserved and vulnerable communities and application of procedures for equitable treatment of vulnerable groups will also be part of risk management action

7.4.6 **Core Principle 6: Social Conflict**

Avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes.

Considers conflict risks, including distributional equity and cultural sensitivities

Applicability:

The program is designed to yield significant social benefits to all citizens and to improve distributional equity. However, there can be issues of distributional equity in extension of electric service and gap in compensation payments. Cases noted where the existing project by-pass certain villages and leave them out while MV and LV lines pass over these villages without providing electricity to those villages or compensation for the RoW and consultations This may aggrieve the community, become a reason for complaints and conflicts.

There have been local grievances regarding broad governance issues, land use and land conversions in some areas of the country. Social tensions can significantly affect the capacity of the program to deliver services in particular in the regions with the highest social tensions.

Strength

The ones listed with respect to Core Principle 4 and 5 will apply.

Areas for Strengthening and Mitigation

The ones listed with respect to distributional equity under Core Principle 4 and 5 will apply.

Risks: If citizens do not receive compensation for asset losses and support to restore livelihoods, there could be conflict, vandalism of infrastructure, causing delays in project implementations and become obstacle for sustainability. Where the distribution line goes through a village and that village is not benefiting from the project, the residents could resist the lines construction and hence delay. Mitigation will be consultation, communication and enhanced transparency in ELEAP supported activities.

8 CAPACITY AND PERFORMANCE ASSESSMENT OF KEY PROGRAM IMPLEMENTING PARTNERS

8.1 General

The proposed PforR operation is designed as a programmatic results-based approach in the Ethiopia Energy sector. The Program is based on the Government fiduciary systems and practices, including contract and financial management, governance and anti-corruption systems, social and environmental regulations and systems, and technical capacities as demonstrated over the past years in implementing World Bank supported projects/programs in the energy sector.

Governmental institutions at federal, regional, local and city level are responsible to take key roles on supporting, directing, and monitoring of the proposed program to ensure sound implementation of the required environmental, social and safety management practices during the implementation of the ELEAP. MoWIE as an umbrella institution for the proposed ELEAP is responsible to oversee and ensure sustainable management during the implementation for both on grid and off grid components of the program under ELEAP. Whereas, EEU is direct implementer mainly for on-grid components and some parts of solar mini grid from off grid renewable energy program component. Both EEU and MoWIE are required to comply with the wider environmental and sustainability objectives of the Constitution and other sectoral policies. In addition, it is quite evident that the various stakeholders will play also direct or indirect roles in the implementation of national energy programs, as well as the required safeguards policies. The degree of influence of the various actors to bring change and ensure the sustainable implementation of the proposed energy programs do vary both in terms of temporal and spatial dimensions. The different key actors expected during implementation of the proposed programs are the following:

- Ministry of Water, Irrigation and Electricity (MoWIE)
- Ethiopian Electric Utility (EEU)
- Ethiopia Energy Authority(EEA)
- Ministry of Environment, Forest and Climate Change (MoEFCC)
- Ministry of Labor and Social Affairs (MoLSA)
- Relevant Regional Governments Bureaus (WMEB, BoLSA, Land Administration and Use Bureaus, EFA)
- Zonal and woreda level Water, Mines and Energy Offices
- City Administrations and Municipalities
- Woreda Administration
- Micro Financial Institutions
- Private Sector Enterprises

The importance of integration and coordination of these key actors and timely follow-up coordination and efficiency is significantly acknowledged for sound implementation of the new Ethiopia Electrification Program (ELEAP). The roles and responsibilities of the above institutions and their performance and capacity related to implementation of activities under the proposed program, particularly on the management of environmental, social and safety matters are discussed below. This section summarizes the assessment of the capacity of the relevant institutions to effectively implement the program's environmental and social management system as defined in various rules, procedures, and implementation guidelines.

8.2 Institutional Roles and Responsibilities of Key actors for ELEAP Implementation

The existing institutional mechanisms and frameworks that are being used for the implementation of other ongoing energy sector programs are the basis for this assessment. The following sections describe the relevant organizational responsibilities and their capacity towards ensuring sound implementation of ELEAP. The MoWIE and EEU will be the main drivers of implementation of the Ethiopian Electrification Program_-PforR and they are responsible for the overall program design and implementations at all levels. Regarding the implementations of environmental and social safeguards, apart from the two main implementers, various parties are engaged directly or indirectly for review and clearance of the safeguards instruments, oversee and support the overall project component activities to be in an environmentally friendly and socially acceptable.

The Environment and Climate Change Directorate (ECCD) under the MoWIE and the Environment and Social, Health and Safety and Quality and Process Excellence (EHS, Q&PE) directorate under EEU will take the major role and responsibilities to guarantee sound implementation of environmental and social safeguards during implementation of the ELEAP. The key directorate and departments under different institutions and their roles, responsibilities and existing capacities on the implementation of environmental and social safeguards are discussed as follows:

8.3 Federal level Key Institutions for ELEAP implementation

8.3.1 Ministry of Water, Irrigation and Electricity (MoWIE)

The Ministry of Water, Irrigation and Electricity (MoWIE) is a sectoral institution for Water, Irrigation and Electricity development programs. The Ministry of Environment, Forest and Climate Change (MoEFCC) delegated the MoWIE, dated December 2010, for review and clearance of environmental and social safeguards instruments, which are prepared for the energy and water sector development projects. This delegation provided power to enforce the national proclamations and regulation related to environmental and social safeguards at all phases of project implementation. Concerning the proposed ELEAP, the Ministry is responsible to check and oversee the program activities compliance with the environmental and social safeguards policies of the country and World Bank Program for Results Financing. The overall roles and responsibilities of the Ministry are discussed under section four of this ESSA.

Vis-à-vis the existing capacity of the Ministry on environmental and social safeguards management during project implementation period, the Environment & Climate Change Directorate (ECCD) established under the MoWIE is responsible to ensure the enactment of environmental and social safeguards legal frameworks and adequate care has been taken by the program implementers at all phases of the program execution.

The ECCD was established in the Ministry of Water, Irrigation, and Electricity in 2011 to bring environmental protection and sustainable development, secure public welfare, benefit and participation and facilitates development activities within the scope of the program.

The ECCD has two sections (Climate Change and EIA unit) and both units are staffed with fifteen (15) staffs having different disciplines like environmentalist and sociologists, etc. (Figure 4).

The Roles and Responsibilities of Environment & Climate Change Directorate are:

- Plan the tasks in the Directorate, monitor the implementation, report timely to the concerned stakeholders;
- Coordinate development plans/programs/projects/initiatives of the CRGE in the Water, Irrigation & Electricity sectors of the Ministry;
- Evaluate and comment Policy, Proclamation, regulations, strategies, programs, plans, ranks & rules of Water, Irrigation & Electricity sectors; monitor implementation;
- Coordinate efforts that secure the benefits from Clean Development Mechanisms, Renewable Energy Sources & other facilities in the Water, Irrigation & Electricity sectors; monitor implementation;
- Prepare awareness creation programs for the concerned stakeholders;
- Develop Database & publicize to stakeholders;
- Evaluate, approve & give clearance based on environmental Impact Assessment documents of the planned developmental projects of the Water, Irrigation & Electricity sub-sectors;
- Coordinate compensation, resettlement & public participation works of Water, Irrigation & Electricity sub-sectors development plans jointly with other stakeholders;
- Monitor the implementation of management plan of ESIA documents of Water, Irrigation & Electricity sub-sectors during the implementation of the development plans;
- Identify & create awareness about the influence of climate change on Water, Irrigation & Electricity sub-sectors and encompass in the environmental study documents;

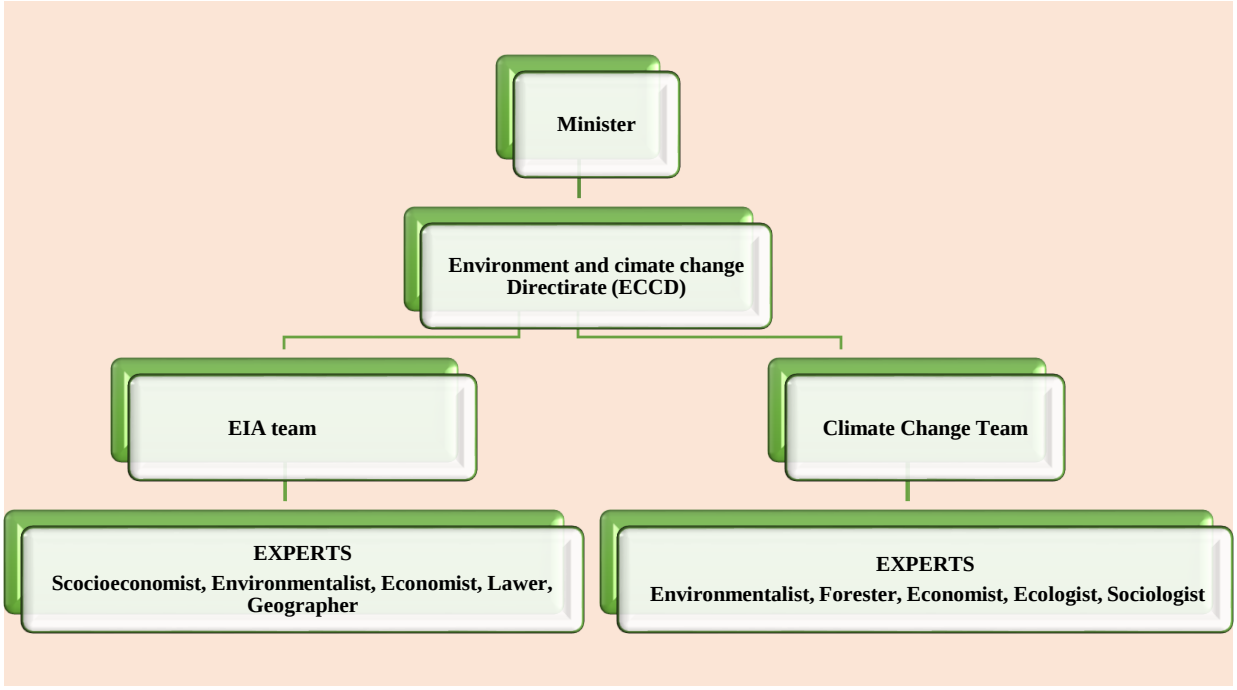
- Give support and Work jointly with regional and other stakeholders; and
- Participate in international climate change negotiations.

The ESSA team had a consultation with the ECCD and highlighted that the Ministry through the ECCD has an adequate knowledge on environmental and social safeguards management through review, clearance and monitoring of safeguards instruments. However, due to the scale, nature and large number of development projects that are implemented under the Ministry, the existing capacity of the ECCD to provide the required services and support on safeguards for the respective development projects are limited. This will be the case for the ELEAP also that require a day-to-day support from the directorate during implementation, unless the capacity of the directorate is improved. In addition, ECCD has limited knowledge and experience in managing impacts associated with on grid and off-grid power generation projects, which requires a capacity development program to design, implement, and improve the existing capacity of the directorate, particularly in the area of safeguards management for on grid and off grid projects.

The followings are major challenges and gaps identified during the assessment of the Ministry's capacity:

- Limited or lack of facilities to supervise ongoing development projects as required;
- Limited logistics facilities for field supervision;
- Limited staffing at Rural Electrification Fund for safeguards management;
- Limited Knowledge and experiences in managing safeguards issues, particularly on grid and off grid power generation projects;
- Limited budget allocated for the ECCD that encumber the provision of the required safeguards support through review, clearance and regular monitoring and advise during implementation of the respective development projects; and
- Lack of field supervision equipment, tool, and appliances required for environmental monitoring.

Figure 4: Environment and Climate change directorate under MOWIE Organogram



8.3.2 **Ethiopian Electric Utility (EEU)**

The Ethiopian Electric Utility (EEU) is responsible for the implementation of ELEAP, particularly for on grid components by large and off-grid (stand-alone solar systems and mini grid). The EEU was established as a new utility in 2013 and the details of the utility roles and responsibilities are discussed under section four (4) above.

The national regulation was endorsed for the establishment of the EEU on the date of December 27, 2013 "*Council of Minsters Regulation No. 303/2013 to provide for the establishment of the Ethiopian Electric Utility-Ministers Regulation: Page 7126"*. The Regulation stated that the purposes for which the EEU is established are as follows to:

- construct and maintain electric distribution networks;
- contract out the distribution networks construction to contractors as required;
- administer electric distribution networks, to purchase bulk electric power and sell electric energy to customers;
- initiate electric tariff amendments and, upon approval, to implement same;
- in line with directives and policy guidelines issued by the Ministry of Finance and Economic Development, to sell and pledge bonds and to negotiate and sign loan agreements with local and international financial sources; and
- undertake any other related activities necessary for the attainment of its purposes.

EEU has established the Environment, Health, Safety and Quality and Process Excellence directorate (EHS&Q, PED), comprises of three unit include environment and social, health and safety and quality and process excellence (Figure 5). The EHS team main responsibility is working on environmental, social and safety matters, which the major responsibilities of the unit are the followings:

- Policy formulation one EHS
- Drafting and finalization of the EHS manual, procedures and guideline
- Coordinating within the organization for building the internal system capability and implementing the required training of staff for the successful implementation of the EHS measures
- Establish and strengthen coordination among the relevant government organizations, like MoWIE, MoEFCC, MoLSA
- Monitoring and Evaluation of the implementation of safeguards under the Program
- Data collection and reporting to the funding organizations in the agreed format at agreed intervals
- Coordination with the funding organizations and review of safeguards instruments of the development programs under EEU.

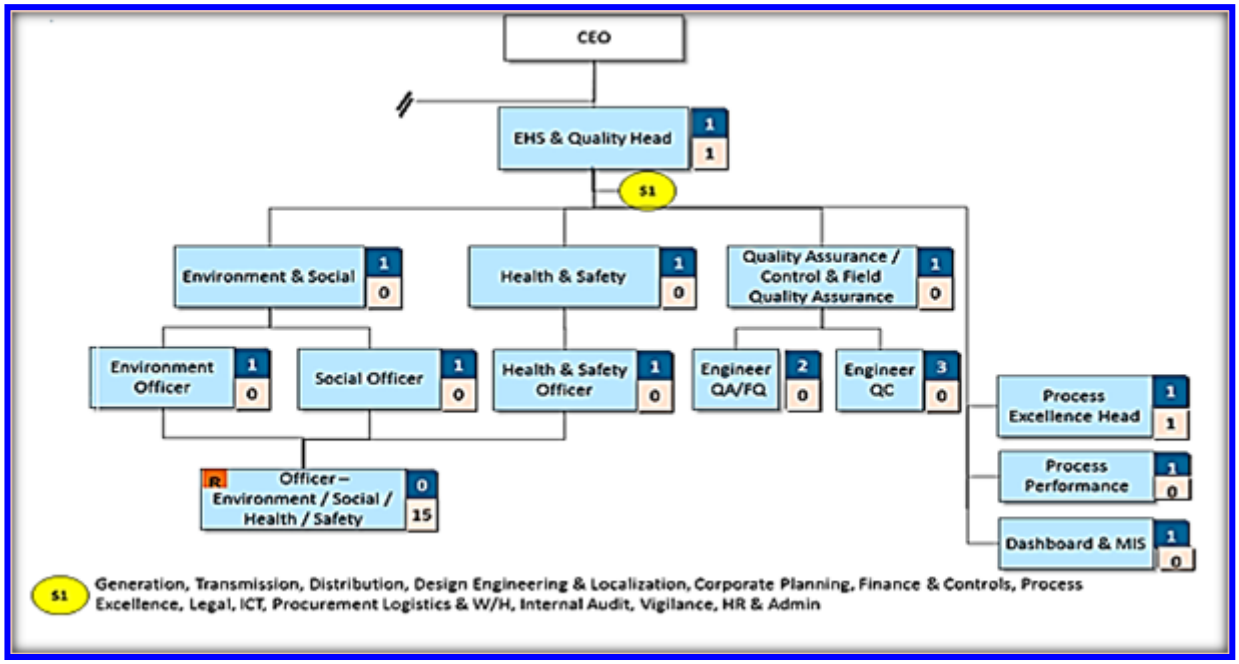
Consultation has been conducted with EEU-EHS&Q, PE directorate to (i) inform the objectives and scope of the ESSA study, (ii) plan the consultation process at regional and district level, (iii) select the sample regions for consultations from the fifteen EEU regional offices, and (iv) obtain relevant information and data important for the capacity assessment study of EEU, particularly the unit in charge of environmental, social safeguards and safety management, which is EHS unit under EHS&Q, PE directorate. During the assessment period, the ESSA highlighted that the existing capacity of EEU is limited to conduct all the necessary environmental, social safeguards and safety management practices that are required to address environmental, social and safety matters during the implementation of ELEAP.

The followings are challenges and gaps highlighted during the assessment period:

- Limited knowledge and technical capacity to ensure projects' compliance with Environmental, Social and Safety measures and standards.
- Lack of awareness on Environment, Social, Health, and Safety (EHS) at regional and local levels.
- Limited staffing, no environmental and social safeguards specialists, and safety officers in place.
- No or limited coordination with different organizations on environmental, social and safety management agendas to resolve any issues that might arise during ELEAP implementation period.
- Limited awareness by the regional and district offices on the understanding of the roles and responsibilities EHS&Q, PE directorate.

- Language barrier, the available safeguards instruments are not translated to local language to provide full information for workers, stakeholder and community members.
- Lack of capacity for the disposal and management of hazardous wastes
- Limited knowledge and training gaps on environmental, social and safety management.
- Gap in consultation with PAPs and compensation provisions
- Occupational safety hazards: due to the sensitivity and nature of the proposed ELEAP, occupational safety hazards are the prevailing risks highlighted during the assessment period. Some of the capacity gaps, which require serious attention are:
    - No adequate availability of Personal Protective Equipment (PPE).
    - No or limited knowledge of safety protective materials during construction.
    - Language barriers between expatriate contractors and EEU supervisors.
    - In adequate availability of safety protection material and tools at work site.
    - Limited awareness of safety precaution and management by all parties.
    - Inadequate consideration of quality of materials and equipment (cable, transformer, insulators, etc.) required for operation and safety management, etc.
    - Inadequate logistics facilities and limited budget allocated for safety, environment, and social safeguards management and monitoring at all levels that are influenced the regular inspection and monitoring of the program activities.

Figure 5: Organigram of EEU's EHSQ Directorate



8.3.3 Ministry of Environment, Forest and Climate Change (MoEFCC)

At a federal level, the lead environmental protection organization is the MoEFCC. The former Environmental Protection Authority (EPA), which is transferred to MoEFCC was established in 1995 under Proclamation 9/1995, as an independent agency reporting to the Council of Ministers. The mandates, which previously indicated for the former Federal EPA, have been transferred over to the MoEFCC. MoEFCC is required to implement measures to ensure that the environmental objectives of the Constitution are realized and that social, economic and environmental justice is promoted. They also have responsibilities for building a climate resilient green economy and for ensuring the implementation of international environmental agreements.

The key objective of the MoEFCC is to formulate policies, strategies, laws and standards, which foster social and economic development in a manner that enhance the welfare of humans and the safety of the environment, and to spearhead in ensuring the effectiveness of the process of their implementation. The Ministry roles and responsibilities discussed section four.

The MoEFCC, the Former EPA, delegated the respective development Ministries, including the MoWIE to review and provide clearance on the environmental and social assessment report prepared for Energy sector programs. Therefore, the MoWIE is the responsible to ensure the compliance of the proposed program to the required environmental and social management policies and legal framework stated under section four (4) and other relevant international policies and standards, including WB OP 9.0 core principles applicable for the ELEAP. The MoEFCC is also responsible to check and evaluate the MoWIE's decision on environmental assessment process and clearance through the regular consultation with MoWIE and clearance reports of the MoWIE on safeguards instruments.

The MoEFCC is responsible to provide guidance, technical support, and capacity building on safeguards management for regional environmental authorities; preparation of guidelines and procedures appropriate to the programs/projects, and create awareness towards sound management of environmental and social safeguards.

The ESSA identified that no direct involvement of the MoEFCC in reviewing and clearance of the safeguards instruments prepared by ELEAP. As the department of EIA under the MoEFCC has an extensive experience in reviewing, decisions for safeguards instruments approval and clearance, and project site auditing, no capacity limitation was identified during the assessment, except the following:

- Lack of specific technical expertise on powerline substation, distribution, and rehabilitation, solar home system and solar Mini-grid projects to align with the safeguards management
- Limited budget for regular auditing of the project site
- Limited logistics and other facilities to capacitate and provide technical support for regional and local level environmental experts and units.

8.3.4 Universal Electricity Access Program (UEAP)

Universal Electricity Access Program (UEAP) is currently under EEU. It was previously implemented by Ethiopia Electric Power (EEP) until its transferring to EEU in 2016 to facilitate coordination on access expansion. Following handover of the MV and LV network extension by UEAP, the EEU distribution department has the responsibility to undertake the downstream task of designing and rolling out the low voltage lines from the distribution transformer to connect households and social institutions. For ELEAP, UEAP will become the implementing agency for mini-grids developments as well.

Consultations have been made with UEAP National and regional offices to learn more on safeguards management practices of government funded operations. UEAP has planning and environmental management unit at national level, similar structure exists at the eight (8) regional levels offices. Such units incorporate Environmentalists, Sociologist, and Economists who are mainly engaged in feasibility study to ensure accessibility for project operations and impact assessments to learn more on the benefits and how to maximize the same. Coming to initial assessment, screening, safeguards instrument preparation and implementation there is gap, UEAP needs capacity strengthening in line with safeguards, staffing, budget, and trainings for management of environmental and social impacts as these are among limitation for social, environment and safety management for ELEAP. The program requires social and environmental guidelines to be in place for guiding safeguards staffs in the detail implementation process.

8.4 Regional, Zonal and Woreda levels key actors for ELEAP

8.4.1 Regional, Zonal and Woreda level Water, Mines and Energy Bureaus (WMEB)

The regional Water, Mines and Energy Bureaus are the major stakeholders to support EEU during implemntation of the ELEAP at the regional and local level (Zone and Woreda). The team consulted five regional bureau (Amhara, SNNP, Tigray, Oromia and Benshangul Gumuz) and noted that their roles and responsibilities, as stated under section four of this ESSA, contributes for sound implemntaion of the proposed programs, particularly for off grid component of ELEAP.

With regard to the capacity of regional bureaus to implement the environmental, social and safety guidelines, procedures and safeguards instruments during implementation of the program is limited. Overall some of the sampled regions like Amhara, Tigray have their own EIA guideline, proclamations for

pollution, environmental protection, and other. Although it is limited, almost all regions have experiences on screening of projects, implementation, follow-up and monitoring of safeguards instruments.

Regarding the local WME offices, the overall capacity on implementation of safeguards, almost none or very limited capacities and this required a strong capacity development program focusing on the environmental, social and safety management during project installation, construction and operation phases.

The WB team highlighted the following gaps and challenges, which is applicable for most of regions during the filed visit. These are: -

- Limited capacity to carry out safeguards management.
- No or limited budget allocated and logistic arrangements for safeguard instruments preparation, implementation and management.
- No experience and coordination existed to regular EHS supervision and monitoring during construction.
- Lack of awareness and training on EHS, particularly safety protection.
- No EHS focal person is assigned.
- Lack of regular training.
- Weak coordination with other organization like, national and regional environmental institutions, BoLSA.

8.4.2 **Regional and District Ethiopian Electric Utility Offices**

The ESSA team visited six (6) out of fifteen (15) EEU regional offices to assess the existing capacity and performance on safety, environment and social management system, particularly focusing on institutional capacity, structure, practices, procedures, mechanisms and effectiveness of implementation. The ESSA team had a discussion with officials and experts. During consultations, Retail and Wire business managers, Grievance heads, EHS focal persons, Customer service heads, Enforcement head, etc. were participated and provided their technical experience and information:

Points of discussions were:

- existing experience or activities undertake by the regional and district EEU offices,
- potential impacts anticipated during implementation of ELEAP,
- recommended measures to mitigate the anticipated impacts implemented during the upcoming ELEAP implementation period,
- procedures and guideline available at the regional level, particularly those related with managements of environmental, social safeguards and safety matters, and applications where available
- Coordination mechanism internally (with UEAP) and externally with other institutions

As per the discussions and site visit conducted, the ESSA team learnt that the existing capacity on safety, environmental and social management system is very limited. In some places, this is even reflected by absence of capacity on safeguards management. There is also inconsistent and insufficient implementation of environment and social risks mitigation measures, which can be traced by lack of capacity and technical knowledge for effective implementation and management of environmental, social and safety issues.

The followings are the major capacity gaps and challenges highlighted during the assessment period.

- Demand for electric power is increasing from time to time and the regional and local EEU's capacity is limited to satisfy service requested by its customers.
- Lack of sufficient amount and quality of equipment and materials, like poles, meter, wire, cable, etc.
- Poor quality of these materials and tools that affect the durability, which ultimately aggravate customer complaints and cause safety and environmental impacts. For instance, customers are forced to pay for poles and other materials which exacerbate affordability for the poor
- Gap in following standards in Electric utility line related operations
- Transformer locations and Utility Line operations not being in line with city master plans
- Lack of updated policy and procedure to address complaints

- Lack of awareness raising for the community on EEU services, projects, GRM, safety and other relevant issues
- Although eight (8) regional offices of the fifteen (15) have assigned the Environment Health and Safety(EHS) focal persons, their capability to provide environmental, social and safety management technical support during project construction and operation phase is limited and/or not satisfactory.
- EHS focal persons were not assigned for other seven (7) EEU regional offices, which create a substantial gap to offset/avoid/minimize the anticipated impacts related to safety, environment and social matters.
- No or Limited capacity, particularly no or minimum efforts to provide logistics facilities for safeguards including emergency response
- No or limited allocation of budget for safeguards management
- No or limited training to EHS staffs and focal person regularly
- No or limited mechanism to coordinate with other stakeholders in safeguards management, i.e. BOLSA, EFCCA, BWME, Municipality, woreda admin. etc.
- The required safety, environmental and social safeguards policies almost unavailable at the visited regional and local offices except for complaint handling procedures
- There is gap in guidance on how to handle grievance related to electricity accident on the community
- Lack of safety tools and PPEs
- Lack of knowledge on the use of safety material and PPE
- Delayed compensation for accidents due to power fluctuations and safety
- Gap in conducting consultations and implementation of compensation for project affected people due to RoW for MV line.

7.1.1 Regional and Local Environmental Protection Authorities

Proclamation No.295/2002 (The Environmental Protection Organs Establishment Proclamation) empowers each regional state to establish its own independent environmental agency. The Tigray, SNNPR, and Benishangul Gumuz regional States have established the Environmental Protection Core Process Unit under the Environmental Protection, Land Administration, and Use Bureau (EPLAUB). Whereas, the Oromia and Amhara Regional states have a standalone regional environmental authority align with the MoEFCC.

The major activities of these organs are responsible for: formulating regional policies, strategies and guidelines; regulating development projects in order to minimize environmental damage; initiating environmental laws; environmental auditing and collecting environmental data. The Amhara and Tigray regions have endorsed the EIA proclamation and guidelines that all environmental and social safeguards management under project activities aligned with.

The Environmental protection departments and units at all regions are responsible to monitor, review and provide clearance of safeguards instruments prepared for projects implemented at regional level, particularly for category A projects. For Category B and C projects, which applies for ELEAP, the regional authorities and respective core processes delegated for zonal and woreda level environmental authorities and offices and authorities to monitor and follow-up the implementation of safeguards instruments. No clearance is provided at zonal and woreda level, except for simple ESMP that is prepared for projects with minimum impacts.

The zonal and woreda level capacity assessment related to environment and social management was assessed during the study period by the ESSA team. The team highlighted that in most of visited woreda the required staffs were assigned, but the capacity to safeguards implementation is very limited as well as their involvement in environmental and social impact assessment, management, or monitoring is also negligible.

Overall, the ESSA identified that the existing capacities to implement, the required safeguards instrument preparation, review, clearance, and monitoring, particularly at woreda and zonal level, is very limited and require to design and implement a substantial capacity development program.

The followings are some of the gaps and challenges that barricade the sustainable implementation of safeguards.

- In some regions, like SNNPR no regional EIA guideline is prepared and endorsed that is important to align and safeguards management with local environmental, cultural and social settings
- Lack of adequate technical staffs, which ultimately affect the regular implementation of mitigating measures and onsite monitoring, as planned
- Weak coordination among the different parties
- Lack of awareness on environment, social and safety management during the program implementation period
- No designated disposal area for hazardous waste and the respective technical knowhow on the management of hazardous wastes to minimize the exposure and impact level to the nearby biophysical and social environment
- Limited technical capacity on energy project related safeguards management
- Lack of safety protection materials and tools, as per the standard
- Insufficient Monitoring/Auditing: Most bureaus do not check if investments are complying with the environment and social requirements set out in the Federal and the respective regional EIA Procedural Guidelines.
- Limited transportation and other facilities
- Limited technical expertise and budget for regular Review of EIA Reports
- Inefficient coordination between the various oversight bodies, sectoral offices.
- Limited technical knowledge on ESMP and other safeguards instruments implementation and monitoring

8.4.3 **Regional and District Land Administration and Use (LAU) Institutions**

Regional states have the responsibility to enact rural land administration and land use laws with detailed provisions on implementation and to establish institutions to support implementation of these laws. Following establishment of the Federal Environmental Protection Authority (EPA), regional governments established the **Environmental Protection, Land administration, and Use Authority (EPLAU)** then vested with responsibility of the administering rural land. Currently, there are certain variations among regions in the arrangement of Environment and Land Administration and Use offices, for instance, Amhara Land Administration and Uses (LAU) is independent bureau accountable to Regional Councils; while others are embedded in the Bureau of Agriculture and are responsible for providing technical and administrative support as well as carrying out a review and monitoring function for the implementation of regulations related to land acquisition.

The land Administration and Use department of EPLAU or the LAU bureau is responsible for providing technical and administrative support as well as carrying out a review and monitoring function for implementation of regulations related to land acquisition .During the assessment, regional consultations made with representatives from Amhara Land Administration and Use Bureau (BoALAU), South (SNNP) region land Administration and Use department under Bureau of Agriculture and Natural Resources (SBOANR), Benishangul Gumuz Bureau of Environment, Forestry and Land Administration (*BoEFLA*) and Tigray Environmental Protection, Land Administration And Use Agency(TEPLAUA). The land Administration and Use departments of these offices are responsible for providing technical and administrative support as well as carrying out a review and monitoring function for implementation of regulations related to land acquisition

During the assessment, four offices on land administration and Use and selected woredas for the same structure were consulted. From the field observation, Amhara region Land Administration and Use Bureau has currently four departments, namely rural land valuation compensation and resettlement, rural lands plan development, rural land holding, registration and Cadaster process and land investment. The registration and Cadaster process has prepared land coverage image for the region remaining with 25%. There will be full information in the near future on the coverage, which can be shared to stakeholders for use.

The rural land compensation resettlement and rehabilitation unit has included livelihood restoration, as one of its major agenda, it has revised the structure to include staffs who work on livelihood restoration and

has prepared guideline on the same. In addition to the region, there is institutional structure for resettlement and rehabilitation at selected Metropolitan cities of the Amhara Regional State (including Gonder, Bahir Dar, Dessie and Kombolcha) as well as zonal, woreda and kebele level structures. Staffs are fully trained at regional level except for livelihood restoration. The regional office has a well-established staffing structure that goes down to kebele level including assignment of valuation experts at each woreda.

Though the new structure has been introduced, filling staffing gap specially for livelihood restoration and other vacant posts is still on process. The Regional State has adopted and endorsed guideline no. 5/2003E.C on expropriation and resettlement basing the federal proclamation no.455/2005 and Regulation No. 135/2007 on compensation. Additional guidelines that include the procedure for livelihood restoration has been developed to facilitate the work.

With the rest of the consulted regional offices, there is similarity in the structure and capacity. In Tigray the Land administration and use has three case team namely land administration, land use and GIS case team. Compensation and rehabilitation is under this case team. At region level there are four experts working under the unit and one compensation and investment expert at woreda level. There is staffing structural gap especially at lower levels. Only one staff trained on compensation, moreover there is training need on compensation for woreda experts as only orientation has been given so far.

For south region Land administration is under Natural Resources and Land Administration and Use Department, the department incorporates Land use and administration units. The structure at zone and woreda follows similar pattern. There is only one trained staff on land compensation and valuation at regional level with high staff turnover in the offices at different levels. The office has revised regulation, which is waiting for approval. There is only one staff working on compensation at regional level, there is staffing gap in assignment or replacement at zone and woredas. Where staffs are available there is training gap. South region has revised regulation but not approved.

At Benishangul regional office, the case teams are Investment and land administration, Land use and registration and GIS case team. The land administration and registration case team has 3 experts on land admin and registration as well as a lawyer, a woreda level land management staff assigned. Similar structure at zone level. Benishangul is using the national proclamations and guideline, the region regulation is under preparation. The office has prepared a resettlement manual to guide its activities. It is worth noting that regional guideline and the federal regulations address resettlements and compensate only to those PAPs who have legal entitlement for the land or property lost.

City level consultations indicate that cities are drawing attention to restore livelihood of farmers affected due to city expansion. Specific to energy projects, the consultation with municipalities has reflected the gaps in screening and management of social impact in the energy projects. Coordination gap between municipality and EEU/project offices, not using/following city master plans, and lack of consultation with the community in the project implementation areas are among the challenges raised. Staffing limitations and coordination gap is also observed between energy sector offices and woreda offices that include the land administration structures.

Generally, the assessment finding indicates that capacity gaps exists in the visited, cities, regions and woredas responsible for expropriation and compensation with degree varying from region to region, with the capacity being weaker on managing social issues at lower levels. Staffing, trainings, budget allocation are among the measures needed to fully capacitate responsible bodies on land administration including land expropriation and compensation. The valuation and compensation exercises at Woreda and other administration require appropriate and trained personnel, and financial capacities. The lack of coordination between the land administration organs and the Energy sector implementers including EEU, Energy, and Mines is also another are of improvement for ELEAP to successfully mitigate and manage social impacts.

Below are summary points on gaps and challenges in compensation and resettlement

- Gap in implementation as per regional or national regulations
- No or lack of community consultations, removing trees, vegetation without consultation with community and compensation payment that results in conflict and court cases
- Gap in documentation of consultations
- Lack of documentation on community contributions
- Delayed compensation, starting construction operation without compensating the PAPs

- Coordination gap between energy sector and land administration organs (for instance municipalities)
- Gap in livelihood restoration of PAPs
- Gap in valuation estimation, lack of professional valuators
- Gap in grievance handling
- Lack of screening practice for electricity related projects
- Small amount of compensation payment
- Site value not considered in compensation
- Lack of information for PAPs on livelihood restoration once compensated
- Awareness gap among community members on the proclamations and regulations
- Lack of special support for vulnerable groups- Lack of guidance and Management for Vulnerable Groups in resettlement compensation, rehabilitation, and grievance handling. There are exceptions like Afar region that enacted directives on the issue of land acquisition. The EPLAU of the Afar Regional State issued Directive No. 2/2006 E.C. that prohibits land acquisition for whatever purpose if that piece of land belongs to orphans, disabled persons, elders, or female-headed households.

8.4.4 **Bureaus of Labor and Social Affairs (BoLSA)**

Bureaus (agency in some regions) of labour and social affairs have been established in the nine regional states and two city administrations. The Bureau of Labour and Social Affairs (BoLSA) is mandated to manage social, labour and health and safety issues. These regional offices coordinate the implementation of the (2014) Social Protection Policy. BoLSA/Agency of Labour and Social Affairs are also responsible for supervising the implementation of occupational health and safety standards during construction. In cooperation with concerned stakeholders, they undertake and facilitate the implementation of studies on ensuring and improving the social well-being of citizens, particularly related to creating enabling conditions for persons with disabilities to benefit from equal opportunities and full participation, as well as providing care to the elderly and encouraging their participation

The labour, health and safety activities are managed by the harmonious industrial relations and employment services promotion departments of the labour and social affairs offices. Regionally the similar unit /structure manages labour and worker safety activities with staffing structure at zone and woreda/district level as well. For the ESSA, consultations were made with SNNPR, Agency of Labour and Social Affairs (ALSA), Tigray (BoLSA), Benishangul Gumuz (BOLSA) and Amhara (BoLSA).

The labour relation and employment service department of SNNPR has Organizational Safety and Health (OSH), labour relation and industrial relations board as well child labour and trafficking sections. The structure is similar for other regions, there is also staffing at zone and woredas, however woreda level staffing is very limited, based on field observations only one expert per woreda in the case of visited woredas in Benishangul and Tigray. Generally, when staffing capacity is seen though it varies from region to region, there is staffing gap for regular inspection, follow up and training provisions. The consulted regional offices in Tigray and Amhara informed that they provide trainings on labour proclamations, as well as other health and safety issues, as they are trained by the ministry and other non-governmental agencies. They also conduct inspections. These offices are willing to provide trainings on Health and Safety to other stakeholders like EEU upon request.

The consulted ALSA/BoLSA offices coordination with EEU is minimal, there are cases where utility staffs go to BoLSA/ALSA offices for liability compensation and rights issues. Overall, Labour and social affairs offices are among the key stakeholders for EEU, ELEAP. Staffing is one of the major gap in terms of capacity and need to be strengthened for successful implementation and follow up activities by the regional offices.

9 RECOMMENDED MEASURES TO STRENGTHEN SYSTEM PERFORMANCE

9.1 Introduction

The Ethiopian Electrification Program ESSA analysis presented above identified strengths, gaps, opportunities and risks in Ethiopia's environmental and social management system with respect to effectively addressing the environmental, social and Safety risks associated with the proposed Program. This section discusses the possible ways to transform these gaps and opportunities into a viable strategy to strengthen environmental and social management capacity and performance at the national, regional and local level particularly that counts for the implementation of ELEAP and related Ethiopian Energy Projects.

The ESSA recommendations and actions depicted here pursue to ensure that the opportunities identified in this assessment are built on and reinforced to ensure that they can be relied on to deliver the results sought in the ELEAP objectives, particularly in the area of environmental, social and safety assessment and management. The current gaps in the system are addressed through a set of essential but viable actions to be adopted by Government to strengthen the environmental, social and safety management capacity and performance at the national, regional and local levels. This is important in the Environmental, safety and social system and structures in place and with regard to disposal of hazardous waste, safety precautions, land acquisition, resettlement and grievance mechanisms as the major gaps identified and which could prevent Program objectives from being fully realized.

The ESSA Program Action Plan presents points associated with the Core Principles, which the main areas for actions are: strengthening of the environmental and social assessment system; institutional capacity enhancement measures, reporting procedures, coordination, awareness creation and resource allocations. In some instances, improvements may be enhanced by the adoption of national and regional regulations these have been highlighted, although outside the responsibility of ELEAP to influence.

The ESSA Action Plan will be embedded into the Program Action Plan. It is presented here to facilitate planning of action implementation and provision of Bank implementation support. World Bank implementation support through the PforR financing vehicle is available to assist the client in the following manner: (i) Helping the client to resolve implementation issues associated with specific actions in the Plan and to carry out institutional capacity building; and, (ii) monitoring the performance of Program systems, including the implementation of the Program Action Plan.

The analysis identified the following main areas for action in order to ensure that the Program interventions are aligned with the Core Principles 1, 2, 3, 4, 5 and 6 of *Program for Results Financing*. These further clarified during the consultation process and during implementation, as required. The ESSA therefore highlighted the following key recommendations to be taken for sound environmental, social and safety due diligence in the Program.

9.2 Recommendations

To manage potential impacts/risks, and to strengthen the country system for environmental, social and safety management, particularly at all levels, the ESSA suggests the following measures/actions. These actions are applicable for all implementing institutions by large, particularly those at regional and local levels, as they have almost similar status on the existing capacity. The recommendations are specifically for the two major implementing institutions; these are MoWIE, and EEU. However, other organizations who have stake on the implementation of the ELEAP and linked with safeguards management will also be considered to bring their level of capacity at acceptable level. The recommendations to address the identified risks and impacts and improve the performance of the program are listed under table 4.

vii. Establishing Environmental and Social Management System (ESMS)

The new Ethiopia Electrification program envisioned sound Environmental and Social Management System (ESMS) during project construction and operation phase, to ensure the required Environmental, Social Safeguard, Health and Safety (EHS) measures are applied for sustainable implementation of the program.

The MoWIE and EEU shall establish and strengthen this system through the preparation and implementation of the required safeguards instruments, procedures, manuals and guidelines with the support from MoEFCC at national level. At regional, zonal and woreda levels the implementing partners would seek a support from regional, zonal and woreda levels environmental authorities and offices and land use and administration bureaus to implement the required environmental and social safeguards and safety management measures, as applicable. All the instruments, procedures, and guidelines shall be prepared and available before the commencement of activities at national, regional and district level EEU offices and relevant regional, zonal and woreda government offices to ensure sound implementation of the applicable instruments. The regional and woreda environmental authorities and offices are responsible to provide regular support, and monitor the compliance and effectiveness of the system on safeguards management. The ESMS will include procedures for due diligence, identification of potential environmental and social benefits and impacts, recommended the respective mitigation and enhancement measures, and implementation and monitoring plan, including an annual performance assessment, etc. These will help zonal and woreda staffs to screen projects for their environmental and social effects, and monitor the implementation of any mitigation and enhancement measures.

viii. Capacity Building and Technical Assistance

During program design and implementation period, substantive capacity building and technical assistance program shall be designed and implemented on environmental and social safeguards and safety assessment and management practices through provisioning and improving of human and financial resources, provision of trainings and other logistics facilities.

c. ***Human resources*:** The required environmental, social and safety technical personnel are expected to be positioned in the key sector institutions- EEU and MoWIE. The EEU as a main implementer of the major parts of the program and given the sensitive nature of the activities, mainly on safety matters, it is required to have full safeguards staffing on Environment, Social and safety expertise at national level. At regional levels EEU offices, establishment of Environment, Social and Safety unit with relevant specialists of (Environmental and Social Development specialist (one), and Health and Safety specialists (one)) , who are working with the existing regional EHS coordinators. These specialists and EHS coordinator will work in close collaboration with Ministry of Water, Irrigation, and Electricity – Environment and Climate Change Directorate (MoWIE-(ECCD) and Ministry of Environment, Forest and Climate Change (MoEFCC) at national level and with regional and local levels safeguards team under environmental authorities and offices and other government organizations. The unit shall also be capacitated with full facilities, including logistics, budget, and safeguards monitoring tools and instruments.

d. ***Trainings:*** During the assessment period, the ESSA team identified the existing technical capacity on environment and social safeguards and safety management and implementation of instruments at EEU regional and district levels, the regional and woreda energy bureaus, as well as, woreda and zonal environmental authorities and offices is limited. Therefore, detailed training plan on environmental, social and safety management will be prepared by program effectiveness. Based on the training plan, provision of an induction training, will be conducted before commencement of each activities and consecutive on job training will be provided throughout the program implementation period for staffs at all levels on environmental and social safeguards and safety management.

ix. Annual Performance review and audit on Environment, social and safety management: Annual performance review and assessment on environment and social safeguards and safety management activities has a vital role to ensure the implementation of safeguards as required and minimize and or avoid the potential impacts anticipated during the design phase of the program and contribute to confirm sound implementation of safety management, environmental and social safeguards activities. In this regard, EEU

and MoWIE shall take a responsibility to ensure the accomplishment of annual performance review and bi-annual technical review meeting that will be conducted with the engagement of program stakeholders including MoWIE, EEU, WMEB, and other development partners

x. Use of safety protection material and tools and Personal Protective Equipment (PPE): One of the potential concerns during program implementation period is inadequate availability and use of safety protection material and personal protective equipment (PPE). This ESSA recommends that all contract documents and agreements should include a detail Health and Safety considerations/articles, for all contract procured. The program should provide high priority on the availability of Safety materials and tools and Personal Protective Equipment (PPE) for all staffs and laborers at all levels before the beginning of the construction activities to ensure no or minimum safety impacts during program implementation period.

xi. Increase community awareness on social, environmental and safety impacts of ELEAP sub-projects: The ESSA identified that limited community awareness on environmental, social and safety matters. EEU will conduct trainings and briefings for communities impacted by the Program's sub-project activities on social, environmental and safety impacts at all levels, throughout the program implementation period.

xii. Strengthen the Grievance redress system: Over the program implementation period beneficiaries may have complaints related to the program implementation activities. The GRM committee will be established at all levels to receive, review and address complaints in line with loss of livelihood, income or assets, dissatisfaction of the services, etc. In addition, GRM guideline in line with EEU's customer service manual will be developed for the off-grid component and updated for the on grid component followed by orientation for implementers.

xiii. Timely and appropriate consultation, compensation, and resettlement of PAPs: The program is dedicated to conduct timely consultation with Program affected peoples over the program implementation period. EEU and MoWIE will develop/adopt guidelines on resettlement that includes grievance handling, protocol on voluntary contributions, mechanisms to accommodate squatters/illegal settlers and consultation procedures before the commencement of the program by program effectiveness.

The below table 4 presents the actions which the ESSA recommends should be included in the Program Action Plan (PAP) which is based on the assessment of the Ethiopian country system to improve the management of environmental, social and safety impacts and to strengthen the capacity of the Ethiopian country system of the energy sector. The recommendations and actions on the management of environment and social safeguards and safety matters will be a part of overall Program Action Plan.

Table 4: Recommended action plan to address the potential environmental, social and safety risks/impacts

No	Action Items	Activities	Progress indicator	Level of application	Responsibility	Schedule/ Time Frame	Out put
Environmental, Social and Safety Management System (ESMS) - *ELEAP-ESSA Disbursement Linked Indicator (DLI)*							
1	Environmental, Social and Safety Management System (ESMS)	Environmental, Social and Safety Management System (ESMS) will be established at Regional and Woreda levels and strengthened at National level (EEU and MoWIE)	Percentage (100 percent) of sub-projects under the Program screened to identify environmental and social safeguards documentation requirements Percentage (100 percent) of safeguards documentation completed Percentage (100 percent) of actions as per prepared safeguards documents prepared	At all levels (National, Regional, and woreda levels)	MoWIE, EEU	The ESMS will be established and functioning by Program effectiveness • The ESMS will be strengthened throughout the Program implementation period.	ESMS established and strengthened
2	Capacity Building: Maintain positions on Environment, social safeguards and safety at national level and regional level.	Environmental and social safeguards specialist and Occupational Health and Safety (OHS) at national level as well as in each EEU's regional offices will be recruited and maintained.	Minimum 1 Environment and Social Safeguards Specialist and minimum 1 OHS Specialist is maintained at national level as well as in EEU's regional offices	National and regional Level	EEU	During Program Implementation (starting effectiveness of the Program)	Staff in place

No	Action Items	Activities	Progress indicator	Level of application	Responsibility	Schedule/ Time Frame	Out put
3	Performance review and Environment, social and safety audit	1. Conduct bi annual technical review 2. Undertake performance review and environment, social and safety audit	1. Number of biannual technical review meetings 2. Reviewed and cleared performance review and audit report	At all levels (National and Regional levels)	MoWIE, EEU, WMEB	1- Bi annual 2- Annually at the end of each fiscal year	1-bi-annual performance review report 2-Annual E&S safeguards and safety Audit Report
4	Use of safety protection material and tools; Personal Protective Equipment (PPE)	Detail Health and Safety considerations/articles will be considered in all program implementation and in the contact agreements, incase if there is any contract procured. Safety materials and tools and Personal Protective Equipment (PPE) will be available to ensure no or minimum safety impacts during program implementation period	1.Percentage (100%) of contract agreement with full consideration of health and safety regulation or articles 2- Percentage (0%) of incidents due to lack of PPE and safety materials and tools	At all levels (National, Regional, and woreda levels)	EEU, MoWIE,	During Program implementation	1.Contract agreement with EHS consideration 2-annual inventory and procurement reports 3-Safety notification report 4-safety audit report
5	Increase community awareness of social, environmental and safety impacts of sub-projects	EEU will conduct trainings and briefings for communities impacted by the Program's sub-projects on social, environmental and safety impacts of the sub-projects.	Percentage of communities briefed on social, environmental and safety impact of the sub projects	At kebele level	EEU	During Program Implementation	Briefing note

No	Action Items	Activities	Progress indicator	Level of application	Responsibility	Schedule/ Time Frame	Out put
6	Strengthen the Grievance redress system (GRM)	GRM committee will be established to receive, review and address complaints in line with loss of livelihood, income or assets, dissatisfaction of the services, etc. Additional GRM guideline in line with customer services will be developed for the off-grid component and updated for the on grid component followed by orientation for implementers	1- Established GRM committee 2. NRM guideline prepared 3.Percentage (100%) of complaints addressed	At all levels (Regional, and woreda level)	MoWIE, EEU, Regional WMEB	1.The first year of the program 2.The first year of the program 3.Throughout the program	1. Developed and updated GRM guidelines 2. Report on GRM process
7	Timely and appropriate consultation, compensation and resettlement for PAPs	1.Develop/adopt guidelines on resettlement that includes grievance handling, protocol on voluntary contributions, mechanisms to accommodate squatters/illegal settlers and consultation procedures 2.Annual review of performance	Percentage (100%) of people compensated	At all levels (Regional, and woreda level)	EEU, MoWIE	1. Guidelines will be developed by program effectiveness 2. Instruments will be prepared before commencement of the sub project	1.Guidelines developed 2.Reports on safeguards

10 ENVIRONMENTAL AND SOCIAL RISK RATINGS

The environmental and social risk management process (including risks related to occupational safety) for the ELEAP operations applies throughout the project life cycle. MoWIE and EEU are responsible for Environmental and Social Risk Management (ESRM) during the project implementation period that support and promote higher environmental, social and safety quality in activities under ELEAP through a permanent dialogue among program key implementers, project managers, contractors and counterparts. This management of Environmental and Social risks contributes to improving the environment and social safeguards and occupational safety management quality of the program (compliance with international and national standards) via technical assistance, advice, support and provision of resources.

This risk management mechanism and risk ratings meets the objectives of harmonizing the environmental and social procedures of the national and World Bank that are applicable to the ELEAP and ensure the sound implementation of the program with no or limited risk that will be addressed and mitigated through best management practices.

Based on the findings of the ESSA, the following table 5 aggregates the risks discussed above, and proposed measures to mitigate those risks. These will also be included in the Program's integrated risk assessment.

The overall risk rating for the ELEAP for the environmental and social safeguards perspective is **MODERATE.**

The overall risk rating in accordance with the program activities are described under the following tables 5, 6 and 7

Table 5: Environmental and Social Risk Rating for ELEAP

Risk Description	Risk Management	Risk Rating
Activities under this program will be designed and operated without adequate attention to existing environmental settings and related ecological and social risks and impacts. Potential environmental and social impacts of the program are not identified, mitigated, and monitored	Program Operations Manual and the required E&S safeguards management instruments will be prepared for ELEAP to provide guidance to national, regional and woreda implementing entities that is consistent with GoE systems and with World Bank Policy and principles. Technical staffs in national region and woreda levels will be required to have the required knowledge and skill sets to implement the program operational manual.	Low
Environmental and Social report approval process may delay the program implementation under ELEAP.	The program will identify bottlenecks in the approval process. Currently under the MoWIE, there are well-established review and clearance procedures. Further consultations will be held with MoWIE-ECCD and other relevant institutions to streamline approval processes while maintaining oversight.	Low
Lack of staffing and technical capacity: Staffing and skills mix at the national, regional, zonal and woreda levels is inadequate to handle environmental and social management.	ELEAP will assess capacity needs for environmental and social management at national, regional and woreda level and ensure that nationally as well as all regions and woredas have adequate staff as part of the Annual Capacity and Performance Assessment. Regional and woreda levels focal points will appointed to prepare project implementation reports and undertake screening in order to facilitate determination of whether the investment is in the second schedule and hence requires partial EIA study	Medium

Risk Description	Risk Management	Risk Rating
	or EMP. EEU shall establish Environment Social Safety unit at each regional offices with relevant specialist of environmentalist, social development specialist and safety officer. For off grid components, MoWIE and EEU/UEAP shall also assign the safety, environment and social safeguards officers at national level	
Inadequate budget allocated to environmental and social safeguards and Safety management	The program will incentivize the government to provide adequate resources to environmental and social management, as a minimum condition to access the ELEAP finance. The program capacity building will include training on site specific environmental and social safeguard instruments, such as, ESIA, RAP/ARAP. Given the regions, zones and woredas performance on safeguards management, they will be rewarded through the performance measures and related allocation system.	Low
Annual Performance Audit does not include technical expertise to assess environmental and social management performance	ToRs for annual performance assessment will ensure that the assessment team includes environmental and social management specialists	Very Low
Inability to ensure public and worker safety that can result in injuries and death	Incorporate public and worker safety requirements and guidelines in the civil works contacts Ensure adoption and application of occupational health and safety guidelines and compliance with Labor and Social Affairs requirements pertaining to health and safety practices	Medium
Risks of loss of income and livelihood for the program affected people due to inadequate land acquisition, resettlement and compensation	Improve capacity to conduct and document consultations, voluntary land/asset contributions Employ participatory approaches where communal land is used and voluntary contribution is made The operational manual will include voluntary asset and land contribution protocols and mechanism to accommodate squatters and illegal settlers in ELEAP resettlement guideline Provide systematic training on social management procedures based on the relevant guidelines including, resettlement, GRM, consultation guideline of the program Undertake annual performance review on implementation of environment and social management activities	Medium
Inclusion of resource poor and vulnerable groups	Have procedures to ensure equitable and fair treatment of resource poor and vulnerable groups	Low

Risk Description	Risk Management	Risk Rating
	Build capacity in identifying vulnerable groups and underserved peoples Conduct consultations document including specific actions taken for equitable treatment	
There have been local grievances regarding broad governance issues, land use and land conversions in some parts of the country. Social tensions may affect the capacity of the program to deliver services in particular in the regions with the highest social tensions.	The current social tension is beyond the scope of the program. Mitigation measures will include consultation, communication and enhanced transparency in ELEAP supported activities.	Low
Lack of mechanism for safe and environmentally sound disposal of spent lead-acid batteries of solar panel and accessories and other appliances of solar panel	The program shall adopt the national policy framework for battery despising or recycling, which is under preparation by Development Bank of Ethiopia Credit line project (ENREP AF) for off grid components. The program also initiates the development of guideline and waste management plan for hazardous wastes. This will be used as an instrument to avoid/minimize and mitigate the potential impacts and ensure the best used battery collection mechanism in the program area, in case off grid component.	Low
Lack of PPE and safety protection materials and tools available during construction, No or limited awareness for workers and community members about safety precaution and management	• Awareness creation and training in workplace health and safety procedures • Avail all the required safety materials and PPE • Provision of adequate budget, logistic facilities and technical persons for regular supervision, • Scale up the enforcement of health and safety provisions during construction and operation phase of the program and • Follow standard procedures during implementation of program activities	Medium
Overall Risks	**MODERATE/MEDIUM**	

Table 6: Risk classification

Likelihood of Harm	Severity of Harm		
	Slightly Harm	Moderate Harm	Extreme Harm
Very Unlikely	Very Low Risk	Very Low Risk	High Risk
Unlikely	Very Low Risk	Medium Risk	Very High Risk
Likely	Low Risk	High Risk	Very High Risk
Very Likely	Low Risk	Very High Risk	Very High Risk

Table 7: Risk Categorization

Category of risk	Evaluation of tolerability	Guidance on necessary action and timescale
Very low	Acceptable	These risks are considered acceptable. No further action is necessary other than to ensure that the controls are maintained.
Low	Risks that should be reduced so that they are tolerable or acceptable.	No additional controls are required unless they can be implemented at very low cost (in terms of time, money and effort). Actions to further reduce these risks are assigned low priority. Arrangements should be made to ensure that the controls are maintained.
Medium	Risks that should be reduced so that they are tolerable or acceptable.	Consideration should be given as to whether the risks can be lowered, where applicable, to an acceptable level, but the costs of additional risk reduction measures should be taken into account. The risk reduction measures should be implemented within a defined time period. Arrangements should be made to ensure that the controls are maintained, particularly if the risk levels are associated with harmful consequences.
High	Risks that should be reduced so that they are tolerable or acceptable.	Substantial efforts should be made to reduce the risk. Risk reduction measures should be implemented urgently within a defined time period and it might be necessary to consider suspending or restricting the activity, or to apply interim risk control measures, until this has been completed. Considerable resources might have to be allocated to additional control measures. Arrangements should be made to ensure that the controls are maintained, particularly if the risk levels are associated with extremely harmful consequences and very harmful consequences.
Very high	Unacceptable	These risks are unacceptable. Substantial improvements in risk controls are necessary, so that the risk is reduced to a tolerable or acceptable level. The work activity should be halted until risk controls are implemented that reduces the risk so that it is no longer very high. If it is not possible to reduce risk the work should remain prohibited.

11 CONSULTATION AND DISCLOSURE

11.1 Consultations

Stakeholders' consultations with relevant institutions, program affected peoples, and beneficiaries are essential to be considered in the planning process and preparation of the proposed Ethiopian Electrification Program (ELEAP) to ensure successful assessment and identification of environmental, social and safety impacts, recommend appropriate measures and sound implementation of safeguards instruments over the program period.

The ELEAP-ESSA preparation process involved extensive stakeholder consultations and disclosure of the ESSA report following the guidelines of the World Bank's Access to Information Policy. During the course of ELEAP-ESSA preparation, and prior to the finalization of the ESSA, the Bank safeguards specialists (consultants) undertook recurrent meetings and consultations with different stakeholders, including relevant government institutions at National, Regional and Woreda levels, EEU Public Forums, Civil Society Organizations, NGOs, Micro Finance Institutions, and local communities, Program affected people and beneficiaries who are familiar with an ongoing project or likely to be impacted or benefit from the proposed program.

The stakeholder meetings and consultations have been conducted in the form of one to one discussion, focus group discussion and public meetings at all levels during ESSA preparation. The consultation with stakeholders explored the existing knowledge and capacity associated with environmental and social safeguards and safety management and ensures that the proposed ELEAP has taken full account of the priority concerns of program-affected people and other relevant stakeholders.

Moreover, a stakeholder consultation workshop on the draft Environmental and Social Systems Assessment (ESSA) was organized by the World Bank, Ministry of Water, Irrigation and Electricity (MoWIE), and Ethiopian Electric Utility (EEU) held at the Capital Hotel, Addis Ababa, Ethiopia, on July 06, 2017. Fifty-six (56) participants drawn from MoWIE, EEU, MoLSA, MoEFCC, MoWCA, WB, Regional Energy Bureau, Environmental Authority, EEU offices, MFI, CCRDA, ETHIOSOP (customer society), EEU Public Forum Representatives and other NGOs attended the consultation workshop to collect additional information and obtain feedback on the draft ESSA (see annex 8).

During the consultation workshop, presentation on the Bank Policy on Program for Results Financing, the draft ESSA, group discussions on the major findings, and presentation of group discussions findings on key findings of the ESSA. The draft ESSA was publicly disclosed in country and at the WB external website on June 23, 2017, and shared for relevant institutions prior to the July 06, 2017 consultations. The whole afternoon session was dedicated for group discussion to ensure full participation of participants to air their feedback, and express their voice on the proposed findings of the draft ESSA. The group members have discussed on the level of awareness and enforcement of legal frameworks applicable to ELEAP, institutional commitments and current capacity for the implementation of safeguards; major environmental and social impacts and risks and recommended measures/actions stated under the PAP.

The group presentation highlighted limited capacity among implementing institutions (staff, technical knowledge, and financial resources for requirements of the Program for Results Financing) and proposed commensurate mandatory gap filling measure to establish a strong environmental and socials safeguards and safety (EHS) unit at each EEU regional offices before the commencement of the program. In addition, capacity building including training on environmental and social safeguards and safety management shall be provided to partner implementing entities at all levels of the ELEAP implementation.

The inputs, comments and concerns from the consultation contributed for the improvement and finalization of the draft ESSA and the design of the Program Action Plan (PAP) and Disbursement Linked Indicators (DLIs). comments related to social, environment and safety issues were addressed during the consultations.

The details of public consultation summary including responses to the concerns and comments raised are discussed under Annex 8.

11.2 Disclosures

The draft ESSA has been disclosed on June 23, 2017 before the stakeholders consultation held at the national level on July 06, 2017. Stakeholders drawn from MoWIE, EEU, MoLSA, MoEFCC, MoWCA, WB, Regional Energy Bureau, Environmental Authority, EEU offices, MFI, CCRDA, ETHIOSOP (customer society), EEU Public Forum Representatives and other NGOs representatives attended the consultation workshop. The MoWIE and EEU will re-disclose the final ESSA after the WB clearance. The World Bank will also disclose the final ESSA on the WB's external website after the in-country disclosure.

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13 ANNEXES

Annex 1: Environmental Impact Assessment Process in Ethiopia

1.1: Environmental Impact Assessment Process

Proclamation 299/2002 states that an EIA is a mandatory requirement for implementation of any project likely to generate adverse environmental impacts. Project developers seeking a permit follow the EIA process as outlined in the Proclamation, the steps for which are outlined below.

These steps, which are stipulated in the EIA Procedural Guideline (2003), largely follow the standards for environmental management procedures and processes under *Program for Results Financing*.

Screening: As per the EIA Procedural Guideline (2003), the screening process enables the Competent Authority to decide on the:

- Need for and level of assessment required
- Level of government responsible for the project (Federal or Regional)
- Necessary permits or approval processes required (e.g. rezoning)
- Merit-based acceptability of the consultant to assist the proponent
- Public participation process
- Total life-cycle of the project

The proponent is required to submit a screening report to the Authority, based on which a decision will be made as to whether an EIA is required and the type of EIA required (full, partial/preliminary).

Scope of an EIA

The EIA Procedural Guideline (2003) indicates that a detailed plan of study for the scoping exercise should be prepared. This plan of study is important in ensuring that where public consultation is required, the relevant parties are identified.

The plan of study for EIA should contain the following:

- Description of the environmental issues identified during scoping that may require further assessment
- Description of baseline information of Bio-physical and socio-economic environment of the project site
- Description of feasible alternatives identified during scoping that may be further investigated Indication of additional information required to determine the potential impacts of the proposed activity on the environment
- Description of the proposed method of identifying these impacts
- Description of the proposed method of assessing the significance of these impacts

After the approval of the Competent Authority, an EIA is then conducted in accordance with the findings of the scoping exercise. Taking into account the baseline study which includes the social, economic, physical, ecological, socio-cultural, and institutional environment in the project area, an EIA is undertaken which identifies and predicts impacts and evaluates their significance.

The EIA must include the contents listed in Part III of the EIA proclamation and the EIA Procedural Guideline (2003), including the following elements of *Program for Results Financing* (see below TOR template for EIA preparation):

- Consideration of **Project alternatives** including the project site, design and technologies and reasons for preferring the proposed site. Note that the 'without project' alternative is also explicitly stated in this guideline.
- Consideration of **Cumulative Impacts, which** should be assessed along with overall environmental and social impacts in the EIA.
- Consideration of **Trans-regional impacts**

Impact Mitigation Measures

Part III of the EIA proclamation explicitly states that 'an environmental impact study report shall contain a description of measures proposed to eliminate, minimize, or mitigate negative impacts.

Monitoring and Reporting

Part IV of the EIA Proclamation states that:

- The Authority or the relevant regional environmental agency shall monitor implementation of an authorized project in order to evaluate compliance with all commitments made by and obligations imposed on the proponent during authorization
- When the proponent fails to implement the authorized project in compliance with commitments entered into or obligations imposed upon him/her, the Authority or the relevant regional environmental agency may order him/her to undertake specified rectification measures
- Any other authorizing or licensing agency shall, in tandem with the Authority's decision to suspend or cancel any authorization to implement a project, suspend or cancel the license it may have issued in favor of the project

Consultation and Disclosure

Part V of the EIA proclamation stipulates that the Authority or the relevant regional environmental agency shall:

- Make any environmental impact study report accessible to the public
- Ensure that comments made by the public and communities likely to be affected by implementation of a project are incorporated into the environmental impact study report as well as in its evaluation

Grievances

There is a procedure for grievance in the EIA proclamation, which states:

- Any person dissatisfied with the authorization or monitoring or any decision of the Authority or the relevant regional environmental agency regarding the project may submit a grievance notice to the head of the Authority or the relevant regional environmental agency.
- The decision of the head of the Authority or relevant regional environmental agency shall be issued within 30 days following the receipt of the grievance.

1.2: Sample Terms of Reference (ToR) for ESIA Preparation

Based on the screening and scoping results, ESIA terms of reference will be prepared. The terms of reference will have the following contents. *Please refer to "Ethiopia's Environmental and Social Safeguards Framework for the CRGE Initiative" (MEF, 2015) for detail information on the ESIA process steps (Screening, Scoping, Impact study, Reviewing, Decision-making, Monitoring and reporting, and Auditing and Reporting). Further, please refer to the Guideline Series Documents for Reviewing Environmental Impacts Study Reports (EPA, 2003) for detail information on contents and descriptions of ESIA report (EPA, 2003).*

I. **Objective of the TOR:** This section should state the scope of the ESIA in relation to the screening category and the proposed program activities. It needs to stipulate the process and the timing of the ESIA preparation and implementation stages in order to adequately address the safeguards requirements of the GoE and the World Bank.

II. **Introduction and Context:** The ToR needs to provide information on program activity objective, the name of the program activity proponent, the rational for conducting the ESIA, specific components of the program activity, program activity area with location map, short briefing of social, and environment of settings and applicable national and international safeguard policies.

III. **Location of the study area and likely major impacts:** State the area involved and the boundaries of the study area for the assessment. Identify adjacent or remote areas which should be considered with respect to impacts of particular aspects of the program activity.

IV. **Mission/Tasks:** The ESIA study team/consultant should clearly execute the following tasks.

Task A: Description of the proposed program activity: Describe the location, size and nature of the program activity, environmental assessment category, brief description of program activity alternatives, time schedule for phasing of development (i.e. preconstruction, construction, operation/maintenance, decommissioning), and resources (finance, human, material and technology) required for the program activity, among others.

Task B: Baseline information/Biophysical and social-economic description: Describe the baseline/biophysical and socio-economic characteristics of the environment where the program activity will be implemented; and area of influence. Include information on any changes anticipated before the program activity commences.

Task C: Administrative and legal Policy framework: In addition to the required administrative and institutional setup for the implementation of the program activity, this part needs to identify pertinent policies, regulations and guidelines pertinent to the study that include:

- ✓ National laws and/or regulations on environmental and social assessments;
- ✓ Regional environmental and social assessment regulations;
- ✓ Environmental and social assessment regulations of any other financing organizations involved in the program activity;
- ✓ Relevant international environmental and social agreements/conventions to which
- ✓ Ethiopia is a party; and
- ✓ World Bank safeguards policies.

Task D: Identification of potential impacts of the program activity: Identify all potential significant impacts that the program activity is likely to generate. Assess the impacts from changes brought about by the program activity on baseline environmental conditions as described under Task B. The analysis should address both the positive and negative impacts of the program activity. Wherever possible, describe impacts quantitatively, in terms of environmental and social costs and benefits.

Task E : Propose program activity alternatives: Alternatives extend to site, design, technology selection, construction techniques and phasing, and operating and maintenance procedures. Compare alternatives in terms of potential environmental and social impacts; capital and operating costs; suitability under local conditions; and institutional, training, and monitoring requirements.

Task F: Preparation of an Environmental and Social Management Plan (ESMP): Describe the mitigation measures for adverse environmental and social impacts, staffing/institutional and training requirements, schedules, and other necessary support services to implement the mitigating measures. Provide environmental and social protection clauses for application by contractors and consultants, if any. The ToR should state that the concerned and affected parties should agree on the proposed mitigating measures before they are included in the ESMP.

Task G: Monitoring Plan: This organizes a comprehensive plan to monitor the implementation of mitigating measures and the impacts of the program activities. It should also address an estimate of capital and operating costs and a description of other inputs (such as training and institutional strengthening) needed to implement the plan.

V. Qualification of the ESIA study team/Consultant: The ToR should provide clear guidance on the qualification of the ESIA study team.

VI. Duration of the ESIA Study: This should be determined according to the type of the program activity.

VII. Preparation of the final Report: The ESIA study team/consultant will produce the final report one week after receiving comments from program activity proponent and concerned stakeholders. The final report will include comments from these institutions.

VIII. Suggested Contents of the ESIA Report: *Please refer to the "Guideline Series Documents for Reviewing Environmental Impacts Study Reports" (EPA, 2003) to get detail information on the contents of ESIA report (EPA, 2003). The contents of the ESIA report should contain the following elements.*

- ➢ Executive Summary

- Introduction
- Methodology
- Administrative, legal and policy requirements
- Description of program activity (need, objectives, technical details, size, location input and other relevant requirements)
- An outline of the main development alternatives
- Description of baseline information/environmental and socio-economic conditions
- An account of the prediction and assessment of each impact at all stages of the program activity cycle for each alternative
- Description of the methodology and techniques used in assessment and analysis of the program activity impacts
- Description of environmental and social impacts for program activity
- Environmental and Social Management Plan (ESMP) for the project including the proposed mitigation measures**;**
- Institutional responsibilities for monitoring and implementation; Summarized table for ESMP.
- Conclusions and recommendations
- References
- Annexes
    - ✓ List of Persons/Institutions met
    - ✓ List of the ESIA study team members
    - ✓ Minutes of consultations

Annex 2: Environmental and Social Screening Checklist for Screening of Potential Environmental and Social Impacts

This section outlines the selection criteria and associated Environmental and Social Assessment procedures to be applied when screening subprojects. This form is to be used by the MoWIE and /EEU to screen all proposed subprojects under the two programs.

Annex 2.1: Subproject information for screening potential safeguards impacts (Form 1)

I: Basic Data:

Name of the Program:

Sub-projects Name:

Sub-projects Location:

Name of the Beneficiary:

Address:

Civil Works to be constructed:

Proposed Date for Commencement of Work:

MoWIE/EEU Team Representative and Address:

Site Selection:

II: Site Description

Site Features	**Description**
Physical description of the site	
Proximity to existing water points, wells and other water resources	
Presence and type of vegetation	
What is the current land use?	
Who identified the site?	
Who is the owner of the land?	
Who occupies the land?	

Completeness of Subproject Application:

Does the subproject application document contain, as appropriate, the following information?

Issues to be considered	**Yes**	**No**	**N/A**
Description of the proposed subproject and where it is located			
Reasons for proposing the subproject			
The estimated cost of construction and operation			

Issues to be considered	Yes	No	N/A
Information about how the site was chosen, and what alternatives were considered			
A map or drawing showing the location and boundary of the subproject including any land required temporarily during construction			
The plan for any physical works (e.g. layout, buildings, other structures, construction materials)			
Any new access arrangements or changes to existing road layouts			
Any land that needs to be acquired, as well as who owns it, lives on it or has rights to use it			
A work program for construction, operation and decommissioning the physical works, as well as any site restoration needed afterwards			
Construction methods			
Resources to be used in construction and operation (e.g. materials, water, energy)			
Information about measures included in the sub-projects plan to avoid or minimize adverse environmental and social impacts			
Details of any permits required for the subproject			

Annex 2.2: Subproject eligibility checklist for EEU/MoWIE at the National/Regional/Woreda/Kebele level (Form 2)

Name of the Program:

Name of the subproject:

Location of the subproject: Region: _____ Zone: _____Woreda: _____

Kebele:_____

Person(s) who did the eligibility checklist

Name	Organization	Signature	Date
1.			
2.			

Answer the following questions to determine whether the subproject is eligible or not*		
Will the subproject	**Yes**	**No**

Cause physical relocation of more than 200 people		
cause large-scale physical disturbance of the site or the surroundings		
block the access to or use of water points etc. used by others		
located in protected areas and other ecologically sensitive ecosystems		
create encroachment and/or cause significant adverse impacts to critical natural habitats (e.g., wildlife reserves; parks or sanctuaries; protected areas; forests and forest reserves, wetlands, national parks or game reserve; any other ecologically/environmentally sensitive areas)		
significant impact on physical cultural resources (archaeological sites; religious monuments or structures; natural sites with cultural values; cemeteries; graveyards; graves; and other sites of significance)		
Have risk on and/or exclude some members of a community, including vulnerable and minority groups		
Contravene international and regional conventions on environmental and social issues		

***** *Please see Chapter 6&7 (and relevant government proclamations and standards) to avoid any subjective impact analysis of subprojects. This simple checklist can be used by MoWIE/EEU as a format for fast track eligibility checking of identified program activities (see also Annex 1).*

Eligibility Recommendations:

It should be noted that if your answer is "**YES**" to any of the questions above, your subproject is not eligible and has to be rejected unless the features can be avoided by change of design and/or other appropriate mitigation measures.

Subproject is eligible and approved: ☐

Subproject is not eligible and rejected, and requires further action: ☐

Screening supervised and approved by:

	Name	Position	Signature	Date:
1.	_____	_____	_____	_____

Annex 2.3. Screening checklist for subprojects with environmental and social concerns (needing special attention) (Form 3)

Name of the Program:

Name of the subproject:

Location of the subproject: Region: _____ Zone: _____Woreda: _____

Kebele:_____

Person(s) who did the eligibility checklist

Name	Organization	Signature	Date
1.			
2.			

A. Subprojects of environmental and social concern

Feature of environmental and social concern: Will the subproject	Yes	No	Comments
Involves land acquisition, or loss of assets, or access to assets on the land			
Have chemical wastes, disposal and pollution issues			
Displace individuals, families or businesses			
Encroach any sensitive area, like wetlands, national parks			
Located in or near an area where there is an important historical, archaeological or cultural heritage site			
Have risk of causing the contamination of drinking water			

If the subprojects have any of the above features ('Yes' answers), the concerned focal person/expert, within the EEU in collaboration with those concerned (WMEB), notifies the MoWIE, Regional and Woreda Environmental offices to make sure that the necessary procedures and guidelines are followed as per chapters 5. In addition, the subprojects have to be screened for any potential environmental and social concern as per the checklist given below (Annex 2.2).

Recommendations

Sub-project needs special attention: ☐

Sub-project does not need special attention: ☐

Additional comments

_____

Screening supervised and approved by:

Name	Position	Signature	Date:
1_____	_____	_____	_____

B. Checklist for environmental and social impact rating for subproject activities or subprojects of environmental and social concerns.

Impact rating will be considered both in terms of consequence of impacts and probability of impacts as depicted in Chapter 6 of this report so as to avoid subjective impact analysis.

No.	Type of activity – Will the sub-project:	If Yes, Rate of Impacts				
A		None	Low	Medium	High	Unknown
1	Build or rehabilitate any rural roads?					
2	Build or rehabilitate any electric energy system?					
3	Build or rehabilitate any structures or buildings?					
4	Support agricultural activities?					
5	Be located in or near an area where there is an important historical, archaeological or cultural heritage site?					
6	Be located within or adjacent to any areas that are or may be protected by government (e.g. national park, national reserve, world heritage site) or local tradition, or that might be a natural habitat?					
7	Depend on water supply from existing reservoirs, weir, or other water diversion structure?					
B	**Environment – Will the sub-project:**	**If Yes, Rate of Impacts**				
		None	**Low**	**Medium**	**High**	**Unknown**
8	Have risk of causing the contamination of drinking water?					
9	Cause poor water drainage and increase the risk of water-related diseases such as malaria or bilharzias?					
10	Be located within or nearby environmentally sensitive areas (e.g. intact natural forests, mangroves, wetlands) or threatened species?					
11	Create a risk of increased soil degradation or erosion?					
12	Produce, or increase the production of, solid or liquid wastes (e.g. water, medical, domestic or construction wastes)?					

13	Affect the quantity or quality of surface waters (e.g. rivers, streams, wetlands), or groundwater (e.g. wells)?					
14	Result in the production of solid or liquid waste, or result in an increase in waste production, during construction or operation?					
C	**Environment – Will the sub-project:**	**If Yes, Rate of Impacts**				
		None	**Low**	**Mediu m**	**High**	**Unknow n**
15	Require that land (public or private) be acquired (temporarily or permanently) for its development?					
16	Use land that is currently occupied or regularly used for productive purposes (e.g. gardening, farming, pasture, fishing locations, forests)					
17	Displace individuals, families or businesses?					
18	Result in the temporary or permanent loss of crops, fruit trees or household infrastructure such as granaries, outside toilets and kitchens?					
19	Result in the involuntary restriction of access by people to legally designated parks and protected areas?					

***To avoid subjective analysis of impact significance (low, medium or high), please use the criteria given below on "Summary of site sensitivity".*

When considering the location of a sub-project, rate the sensitivity of the proposed site in the following table according to the given criteria. Higher ratings do not necessarily mean that a site is unsuitable. They do indicate a real risk of causing undesirable adverse environmental and social effects, and that more substantial environmental and/or social planning may be required to adequately avoid, mitigate or manage potential effects. The following table should be used as a reference.

Summary of site sensitivity

Issues	**Site Sensitivity**		
	Low	**Medium**	**High**
Sensitive Natural habitats (Wetland, national parks)	No natural habitats present of any kind, No critical hot spot biodiversity area, fragile ecosystem	No critical natural habitats; other natural habitats occur	Presence of critical natural habitats present. hot spot biodiversity area, fragile ecosystem with in declared protected area
Water quality and water resource	Water flows exceed any existing demand; low intensity of water	Medium intensity of water use; multiple water	Intensive water use; multiple water users; potential for conflicts is high; water quality issues are important

Issues	Site Sensitivity		
	Low	**Medium**	**High**
availability and use	use; potential water use conflicts expected to be low; no potential water quality issues	users; water quality issues are important	Intensive water use; multiple water users; potential for conflicts is high; water quality issues are important
Natural hazards vulnerability, floods, soil stability/ erosion	Flat terrain; no potential stability/erosion problems; no known volcanic/seismic/ flood risks	Medium slopes; some erosion potential; medium risks from volcanic/seismic/ flood/ hurricanes	Mountainous terrain; steep slopes; unstable soils; high erosion potential; volcanic, seismic or flood risks
Cultural property Physical cultural resources	No known or suspected cultural heritage sites	Suspected cultural heritage sites; known heritage sites in broader area of influence	Known heritage sites in project area
Involuntary resettlement	No economic or physical displacement	If it displaces less than 200 people	If it displaces greater than 200 people
Land acquisition	No land acquisition	If the activity takes less than 20% of households land	If the activity takes more than 20% of households land

Summary of assessment (based on field visit):

_____

_____

Environmental Category (B or C) of the subproject activity/ subproject (with justification):

_____

_____

Recommendation

☐ **The sub-project can be considered for approval.** The application is complete, all significant environmental and social issues are resolved, and no further sub-project planning is required: **Approved without condition** (*Project activity is not of environmental and social concern and approved*)

☐ **Safeguards instrument(s) required: Partial ESIA, ESMP or others (please specify)**

☐ **ESMP required:**

Issues	Site Sensitivity		
	Low	Medium	High

☐ **Rejected; reasons for rejection:**

☐ **Others (specify):**

☐ **A field appraisal is required.**

CERTIFICATION

I/We certify that I/we have thoroughly examined all the potential adverse effects of this sub-project. To the best of our knowledge, the sub-projects plan as described in the application and associated planning reports (e.g. ESMP, RAP/ARAP,), if any, will be adequate to avoid or minimize all adverse environmental and social impacts.

A Field Appraisal report will be completed and added to the sub-project file.

Name of desk appraisal officer (print): ……...

Signature: ……Date: ……

MoWIE/Regional/Woreda Environmental offices representative

Name:……..

Position:……

(signature): **……**

Date: ……

Desk Appraisal by Review Authority:…….

Note: *A field appraisal must be carried out if the sub-project:*

- *Needs to acquire land, or an individual or community's access to land or available resources is restricted or lost, or any individual or family is displaced.*
- *May restrict the use of resources in a park or protected area by people living inside or outside of it.*
- *May affect a protected area or a critical natural habitat.*
- *May encroach onto an important natural habitat, or have an impact on ecologically sensitive ecosystems (e.g. rivers, streams, wetlands)*
- *May adversely affect or benefit an underserved and vulnerable people.*
- *Involves or introduces the use of pesticides.*
- *Involves, or results in: a) diversion or use of surface waters; b) construction or rehabilitation of latrines, septic or sewage systems; c) production of waste (e.g. slaughterhouse waste, medical waste); d) new or rebuilt irrigation or drainage systems; or e) weirs, reservoirs or water points.*
- *Any others to be clarified/checked at the subproject site (please mention them):*

Annex 3: Suggested Environmental and Social Field Appraisal Form for a Subproject

Name of the Program:

NAME OF SUB-PROJECT: Application Number:

PART 1: IDENTIFICATION

1. Subproject Name: (…….)

2. Subproject Location: (……)

3. Reason for Field Appraisal:

4. Date(s) of Field Appraisal:

5. Field Appraisal Officer and Address:

6. Extension Team Representative and Address:

7. Community Representative and Address:

PART 2: DESCRIPTION OF THE SUBPROJECT

8. Subproject Details:

_____

_____

—

PART 3: ENVIRONMENTAL AND SOCIAL ISSUES

9. Will the subproject:	Yes	No
* Need to acquire land?	☐	☐
* Affect an individual or the community's access to land or available resources?	☐	☐
* Displace or result in the involuntary resettlement of an individual or family?	☐	☐

If "Yes", tick one of the following boxes:

☐ The Resettlement Action Plan (RAP/ARAP) included in the sub-project application is adequate. No further action required.

☐ The RAP/ARAP included in the sub-project application must be improved before the application can be considered further.

☐ An RAP/ARAP must be prepared and approved before the application can be considered further.

10. Will the subproject:	**Yes**	**No**
* Encroach onto an important natural habitat?	☐	☐
* Negatively affect ecologically sensitive ecosystems?	☐	☐

If "Yes", tick one of the following boxes:

☐ The Environmental and Social Management Plan (ESMP) included in the sub-project application is adequate. No further action required.

☐ The ESMP included in the sub-project application must be improved before the application can be considered further.

☐ An ESMP must be prepared and approved before the application can be considered further.

11. Will this subproject involve or result in:	**Yes**	**No**
* Diversion or use of surface waters?	☐	☐
* Production of waste?	☐	☐
	☐	☐

* New or rebuilt irrigation or drainage systems?

If "Yes", tick one of the following boxes:

- ☐ The application describes suitable measures for managing the potential adverse environmental effects of these activities. No further action required.
- ☐ The application does not describe suitable measures for managing the potential adverse environmental effects of these activities. An ESMP must be prepared and approved before the application is considered further.

12. Will this subproject rely on water supplied from an existing reservoirs or weir?

Yes ☐ **No** ☐

If "Yes", tick one of the following boxes:

- ☐ The application demonstrates that a dam safety report has been prepared, the dam is safe, and no remedial work is required. No further action is required.
- ☐ The application does not demonstrate that a dam safety report has been prepared, the dam is safe, and no remedial work is required. A dam safety report must be prepared and approved before the application is considered further.

15. Are there any other environmental or social issues that have not been adequately addressed?

Yes ☐ No ☐

If "Yes", summarize them:

.....

And tick one of the following boxes:

- ☐ Before it is considered further, the application needs to be amended to include suitable measures for addressing these environmental or social issues.
- ☐ An ESMP needs to be prepared and approved before the application is considered further.

PART 4: FIELD APPRAISAL DECISION

- ☐ **The sub-project can be considered for approval.** Based on a site visit and consultations with both interested and affected parties, the field appraisal determined that the community and its proposed project adequately address environmental and/or social issues.

- ☐ **Further sub-project preparation work is required before the application can be considered further.** The field appraisal has identified environmental and/or social issues that have not been adequately addressed. The following work needs to be undertaken before further consideration of the application:

<u>All required documentation such as an amended application, ESMP, RAP/ARAP, will be added to the sub-projects file before the sub-projects is considered further.</u>

Name of field appraisal officer (print): .....

Signature: .....**Date:** ……

Annex 4:Guideline for the preparation of site specific ESMP

ESMPs should demonstrate that proposed environmental and social management and monitoring activities will encompass all major impacts and how they will be integrated into subproject supervision. The ESMP should also describe proposed measures, methods, and actions to facilitate public consultation. It is important that the ESMP identify linkages to other social and environmental safeguards plans relating to the subproject, such as plans dealing with resettlement issues. Given the scale and nature of the subproject and the significance of the potential anticipated impacts, Regional Water, Mines and Energy Bureaus in collaboration with Woreda Water, Mines and Energy Offices are responsible for preparing a sub project specific ESMP for identified subprojects in a format suitable for inclusion as technical specifications in the contract of each subproject beneficiaries, if applicable and required. ESMPs should be finalized and approved after taking into account comments from the Ministry of Water, Irrigation and Electricity (MoWIE) at the national level and Regional and Woreda Environmental offices at regional and Woreda level. The World Bank safeguards team will review and provide comments on draft site-specific instruments (if required) and monitor safeguards compliance, among others. Given below are the important elements that constitute an ESMP:

i) **Description of the sub project**: Scale nature and type of subprojects implemented under the proposed programs are summarized.

ii) **Description of Subproject implementation area:** The Biophysical and social environmental setting of the specific subproject implementation area are summarized

iii) **Impacts:** Predicted adverse environmental and social impacts (and any uncertainties about their effects) for which mitigation is necessary should be identified and summarized.

iv) **Description of Mitigation Measures**: Each measure should be briefly described in relation to the impact(s) and conditions under which it is required. These should be accompanied by and/or referenced to designs, development activities (including solar home system and biogas equipment descriptions), operating procedures, and implementation responsibilities. Proposed measures and actions to facilitate public consultations should be clearly described and justified. Feasible and cost-effective measures to minimize adverse impacts to acceptable levels should be specified with reference to each impact identified. Further, the ESMP should provide details on the conditions under which the mitigation measure should be implemented. The ESMP should also indicate the various practicable measures applicable to the proposed subprojects at each project phases (design, construction and/or operation). Efforts should also be made to mainstream environmental aspects wherever possible.

v) **Description of monitoring program:** The ESMP identifies monitoring objectives and specifies the type of monitoring required; it also describes performance indicators which provide linkages between impacts and mitigation measures identified in the ESA report, parameters to be measured (for example: national standards, extent of impacted area to be considered, etc.), methods to be used, sampling location and frequency of measurements, and definition of thresholds to signal the need for corrective actions. Monitoring and supervision arrangements should be agreed by the Bank and the borrower to: ensure timely detection of conditions requiring remedial measures in keeping with best practice; provide information and the progress and results of mitigation and institutional strengthening measures; and, assess compliance with National and World Bank environmental safeguard policies

vi) **Institutional arrangements**: Institutions responsible for implementing mitigation measures and for monitoring their performance should be clearly identified. Where necessary, mechanisms for institutional coordination should be identified, as often, monitoring tends to involve more than one institution. This is especially important for subprojects requiring cross-sectoral integration. In particular, the ESMP specifies who is responsible for undertaking the mitigation and monitoring measures, e.g., for enforcement of remedial actions, monitoring of implementation, training, financing, and reporting. Institutional arrangements should also be crafted to maintain support for agreed enforcement measures for environmental protection. Where necessary, the ESMP should propose strengthening the relevant agencies through such actions as: establishment of appropriate organizational arrangements; appointment of key staff and consultants.

vii) **Implementing schedules:** The timing, frequency and duration of mitigation measures and monitoring should be included in an implementation schedule, showing phasing and coordination with procedures in the overall subproject implementation/operations manual. Linkages should be specified where implementation of mitigation measures is tied to institutional strengthening and to the subproject legal agreements, e.g. as conditions for loan effectiveness or disbursement.

viii) **Reporting procedures**: Feedback mechanisms to inform the relevant parties on the progress and effectiveness of the mitigation measures and monitoring itself should be specified. Guidelines on the type of information required and the presentation of feedback information should also be highlighted.

ix) **Cost estimates and sources of funds:** Implementation of mitigation measures mentioned in the ESMP will involve an initial investment cost as well as recurrent costs. The ESMP should include cost estimates into the sub-project design, bidding and contract documents to ensure that the contractors will comply with the mitigation measures. The costs for implementing the ESMP will be included in the sub-project design, as well as in the bidding and contract documents. It is important to capture all costs – including administrative, design and consultancy, and operational and maintenance costs – resulting from meeting required standards or modifying subproject design.

To ensure unique identification and to cater for changes in administrative borders or names, the ESMP further requires entering of GPS coordinates of the location, if applicable.

For each potential impacts of the subproject, corresponding mitigation measures, and who is responsible for implementation is indicated. For each potential environmental and social impact, there can be more than one mitigation measure. Responsibility for implementation of mitigation measures will typically rest with the contractor or beneficiary during construction and operation of the biogas and solar home systems.

The monitoring section of the ESMP prescribes indicators for monitoring the environmental and social impact and the effects of mitigation measures. The responsibility for this will typically rest with the EEU, MoWIE, and Regional and Woreda Water, Mines and Energy Bureaus/Offices, in collaboration with the respective pertinent institutions. A template for ESMP is depicted in annex 5.

Annex 5: Suggested Environmental and Social Management Plan (ESMP) Template for a Subproject

Subproject identification					
Subproject title/Name					
Region		***Zone***		***Woreda***	
Kebele/community		***Location GPS coordinates***			

Description of the subproject activity
Description of potential environmental and social impacts;
Description of planned mitigation measures and monitoring along with institutional responsibilities and capacity/training requirements

Environmental and Social Management Plan-Mitigation					
Project Phase	**Project activity**	**Environmental Impacts**	**Mitigation/ enhancement measures**	**Institutional responsibilities**	**Cost**
Pre-construction					
Construction					
Operation and maintenance					
Total mitigation costs					

Environmental and Social Management Plan-Monitoring							
Project Phase	**Mitigation measures**	**Parameters to be monitored**	**location**	**measurements**	**frequency**	**Institutional responsibilities**	**Cost**
Pre-construction/ activities							
Construction/ activities							
Operation and maintenance/ activities							
Total monitoring costs							

Annex 6: Summary for List for consulted people

No.	Region	Woreda	Organization	No. of participants		
				Male	**Female**	**Total**
1	**National**		MoWIE	1	2	3
			EEU	3		3
			EEU (NAAR) Regional Office	7	1	8
			EEU District Office No. 2	4		4
		Total		**15**	**3**	**18**
2	**SNNP**	**Hawassa**	South Bureau of Agriculture and Natural Resources (SBOANR)	2		2
			City Administration	2		2
			Labor and Social affairs	3		3
			Omo MFI	3		3
			EEU/UEAP	4		4
			EEU-Customer	4		4
			Environment Authority	3		3
			WMEB	2		2
			EEU Regional Office	3	1	4
			Hawassa EEU district Office	2	1	3
		Dilla	EEU District Office	2	1	3
		Total		**30**	**3**	**33**
3	**Tigray**	**Mekele**	EPLUA	4		4
			City Administration	1		1
			Mines and Energy Bureau	9		9
			DECSI	1		1
			BoLSA	1	1	2
			EEU Regional Office	4	1	5

No.	Region	Woreda	Organization	No. of participants		
				Male	Female	Total
			EEU District Office	5		5
		Wukero	Land Adm. Use	3		3
			Water Resource	1		1
			Municipality	3		3
			Urban dev. Tran. Industry office	1		1
			EEU District Office	5		5
		Total		**38**	**2**	**40**
4	**Amhara**	**Bahirdar**	EEU Customers	3		3
			City Administration	8	1	9
			BORLAU	2		2
			BOLSA	5		5
			EEU district office	2		2
			EEU-Regional Office	11		11
			WMEB	1		1
			REFA	3		3
			ACSI	1		1
		Gondor	Zonal Land Admin. and Use	2		2
			City Administration	1	1	2
			EEU/UEAP	5	1	6
			Energy Bureau	3		3
			Environment Protection Office	3	3	6
			EEU District office	3		3
		Total		**53**	**6**	**59**
5	**Oromia**	**Gomma**	WMEB	4		4
			EFCCA	1		1

No.	Region	Woreda	Organization	No. of participants		
				Male	Female	Total
			Agaro EEU District office	3		3
		Jimma	EEU Regional Office	4		4
			EEU District Office	2		2
			Zone EFCCA	2		2
			Zone WMEB	2		2
			Municipality	2		2
		Bule Hora	EEU District Office	4		4
			Zonal EFCCA	2	1	3
			Bule Hora Construction	1		1
			Municipality	1		1
			W/Guji Zone WMEO	2		2
		Total		**30**	**1**	**31**
6	**Benishangul Gumuz**	**Assosa**	EEU Customers	4	1	5
			BOEFLA	1	1	2
			City Administration	2	1	3
			EEU/UEAP	4		4
			BOLSA	4	1	5
			EEU District Office	4		4
			Regional WMEB	1		1
			EEU Regional Office	5		5
		Bambasi	Woreda Administration	1		1
			Women's office		2	2
			Health office	1		1
			Water offices	1		1
			Municipality	1		1

No.	Region	Woreda	Organization	No. of participants		
				Male	**Female**	**Total**
			Meneder 55 community members	12	2	14
		Total		**41**	**8**	**49**
		G.Total		**207**	**23**	**230**

Annex 7: Environmental and Social Exclusion List

	Environmental and Social Exclusion List **ELEAP Activities with the following impacts are not eligible for financing**
1	Cause significant physical and economic relocation (more than 200 people and greater than 10% or their landholding)
2	Cause large-scale physical disturbance of the site or the surroundings
3	Block access to and/or use of water points etc.
4	Located in protected areas and other ecologically sensitive ecosystems
5	Create encroachment and/or cause significant adverse impacts to critical natural habitats (e.g., wildlife reserves; parks or sanctuaries; protected areas; forests and forest reserves, wetlands, national parks or game reserve; any other ecologically/environmentally sensitive areas)
6	Significant impact on physical cultural resources (archaeological sites; religious monuments or structures; natural sites with cultural values; cemeteries; graveyards; graves; and other sites of significance)
7	Have risk on and/or exclude some members of community, including vulnerable groups, underserved peoples and ethnic minorities,
8	Can instigate social tension or conflict
9	Contravene international and regional conventions on environmental and social issues

Annex 8: Summary of Public Consultation on ELEAP-ESSA (July 06, 2017)

1-Introduction

Stakeholders' consultations with institutions and beneficiaries are important in the planning process and preparation of the proposed Ethiopian Electrification Program (ELEAP). Regular consultations with stakeholders is pertinent to ensure successful assessment and identification of environmental, social and safety impacts, recommendations of appropriate measures and sound implementation of safeguards instruments over the program period. The most important step during planning and screening process that helps to identify key issues and to determine how the concerns of all parties will be addressed is proper handling and implementation of stakeholder consultations with relevant institutions, local communities and all other interested/affected parties. In this regard, MoWIE and EEU who are the main implementing institutions are responsible to ensure effective participation of relevant stakeholders through public consultation and mechanisms that facilitate the participation of stakeholders for sustainable implementation of the ELEAP and to achieve the programs objectives that benefit the communities residing within the program area in particular and the nation in general. Therefore, MoWIE and EEU are required to establish a platform for coordination among stakeholders to strengthen and improve the efficiency and transparency of the execution of the program, which is supported by the Constitution and other proclamation of the country.

The Constitutions and other legal frameworks highlighted the need and importance of consultation, which is The FDRE Constitution, Article 92 stated, "People have the right to full consultation and to the expression of their views in the planning and implementation of environmental policies and projects that affect them directly."

Besides, Article 89 (6, 7) states that the GoE shall at all times popularize the participation of the People in the design and implementation of national development policies and programs; it shall also have the obligation to provide the required support to the initiatives of the People in their development endeavors. Likewise, the Government makes commitment to ensure the participation of women in equality with men in all economic and social development activities.

The FDRE Constitution further stressed that, the consultation and participation of women to ensure fair benefit of development ventures and resource share. In this regard, Article 35 (6) states that '*Women have the right to full consultation in the formulation of national development policies, the designing and execution of projects, and particularly in the case of projects affecting the interests of women*.'

The Environmental Impact Assessment Proclamation (299/2002), Article 15 specifics the modalities for public participation, including; ensuring access to environmental and social impact study to the public and seek feedback, and incorporate such comments, made by the public and in particular by the communities likely to be affected by the implementation of a project are incorporated into the environmental impact study report as well as in its evaluation.

The ELEAP-ESSA preparation process involved extensive stakeholder consultations and disclosure of the ESSA report following the guidelines of the World Bank's Access to Information Policy. For the preparation of ELEAP-ESSA, Bank safeguards specialists (consultants) undertook recurrent meetings and consultations with different stakeholders, including government institutions at National, Regional and Woreda levels, NGOs, and local communities/beneficiaries that either have familiarity with an ongoing project or are likely to be impacted or benefit from this proposed program.

The stakeholder meetings and consultations have been conducted at various levels during ESSA preparation to assess the existing knowledge and capacity associated with safeguards management and ensures that the proposed ELEAP has taken full account of the priority concerns of program-affected people and other relevant stakeholders. Both EEU and MoWIE and other respective regional and woreda level bureaus and offices are aware of the potential benefits and adverse impacts of the program and any concerns attached to the program raised by the stakeholders.

This ESSA drafted based on a consultative process comprising of key stakeholders at the national, regional, zonal and Woreda levels and sought their feedback. Key institutions, including MoWIE, EEU, MoEFCC, MoLSA, etc. have been consulted to obtain their views and broad support on the ESSA. Further public

consultation on the draft ESSA conducted before appraisal on July 06, 2017 with a large group of stakeholders drawn from national and regional institutions (See Tables 8 and 9 and Photo 3) to collect additional information and perception of the public and to obtain a feedback on the draft ESSA. These inputs and comments are instrumental that contribute for the improvement and finalization of the draft ESSA and in designing and revising the Program Action Plan (PAP) and Disbursement Linked Indicators (DLIs).

This public consultation event conducted on July 06, 2017 at capital Hotel, Addis Ababa provided a room for effective participation of stakeholder and participants and promoting greater awareness and understanding of safeguards issues raised so that the program is carried out effectively within the program period to the satisfaction of all concerned parties and achievement of the Program development objectives. The public consultation was designed to:

- develop and maintain avenues of communication between the program and stakeholders to ensure that their views and concerns are incorporated into program design and implementation with the objectives of reducing or offsetting negative impacts and enhancing benefits from the program;
- inform and discuss about the nature and scale of adverse impacts and to identify and priorities of the remedial measures for the impacts in a more transparent and direct manner;
- include the attitudes of the community and officials who will be affected by the program so that their views and proposals are mainstreamed to formulate mitigation and benefit enhancement measures;
- agree on the DLI and program action plans (PAP) stated in the ESSA;
- create a sense of the concerns, priorities and aspirations of the stakeholders and implementing parties as they implement the proposed measures and actions;
- increase public awareness and understanding of the program, and ensure its acceptance; and
- inform relevant authorities of the impacts, solicit their views on the program and discuss their share of the responsibility for the smooth functioning of the overall program operations.

2-Minutes of the Public Consultation Meeting

Considering the above objectives, a public consultation workshop was held in July 06, 2017 at the Capital Hotel, Addis Ababa, Ethiopia to improve the draft ELEAP-ESSA report through gathering concerns and additional information and to incorporate outstanding comments and views presented and forwarded by the participants drawn from different institutions at the national and regional levels, including EEU's regional offices. About forty seven (47) representatives composed of EEU officials and experts, EEU's regional retail business managers, officials and experts from national and regional institutions and representatives from NGOs attended the full day workshop representing the major stakeholders (see table 8, Figure 6 and photo 3). This consultation summary outlines the outputs of the full day consultation workshop activities. The comments and outputs of the group discussions are also captured to ensure all deliberations and inputs are included in the appropriate sections of the ESSA.

Table 8: Number of Participants by Region and Organization

Region	Organization	No of participants	Region	Organization	No of participants
National	EEU	4	Addis Ababa	EEU	4
	MoWIE	2		customer	2
	MoLSA	1	Soamli-Ethiopia	EEU	1
	MoWCA	2		customer	1
	EEP	1	Afar	EEU	1
	MoEFCC	1		WMEB	1

Region	Organization	No of participants	Region	Organization	No of participants
	ETHIOSOP (customer society)	1		customer	2
	CCRDA	1	Diredawa	EEU	1
Amhara	EEU	1		EFCCA	1
	WMEB	1	SNNPR	EEU	1
	EFCCA	1		EFCCA	1
	customer	1	Gambella	EEU	1
OROMIA	EEU	2		WMEB	1
	WMEB	1		EFCCA	1
	customer	1		customer	1
Tigray	EEU	1	Benishangul Gumuz	EEU	1
	EFCCA	1		EFCCA	1
	customer	1	Harari	EFCCA	1
G.Total		**47**			

2.1-Opening Remark and Introductory Session

The agenda for the consultation workshop was introduced to the participants by the organizers from the World Bank Ethiopia Office. The first half of the morning session was dedicated to the opening ceremony. The program task team leader (TTL) from the World Bank took the opportunity to convey a welcoming remarks and an introduction of the Ethiopian electrification program. During his speech highlighted that the program is basically implementing the Government's National Electrification Program (NEP), aligned with GTP II, which has been developed from the draft National Electrification Strategy (NES). The TTL further emphasized about the design of electrification program, which is in the programmatic approach with an outlay of US$375 Million from the World Bank that covers portions of the financial need of the Program, where other development partners will participate to achieve the universal electrification target by 2025.

Following that, an opening remark was delivered by the Ministry of Water, Irrigation and Electricity (MoWIE), Director of Energy Study and Development Directorate under the delivered an opening remark. He thanked the participants for their attendance from remote and adjacent areas and stressed the major points on the importance of the proposed program (ELEAP) to achieve the GTP II plan in accessing energy to the millions of rural households, as stated in the GTPII plan. He also mentioned about some of the additional benefit of the program to the community through improved access to electricity. The Director also forwarded additional points to the participants focused on the need to implement proper management of environmental, social and safety matters to ensure no/minimum impacts to the nearby biophysical and social environment due to the program activities. If occurred, on time management of safeguards is inevitable through the implementation of best practice methods. Besides, the Task Team Leader-World Bank and Director-MoWIE invited the workshop participants to provide special consideration to the public

consultation session on the draft ESSA report and make their valuable contributions during their deliberations in the workshop.

2.2. Presentations

Following the official opening of the consultation on the draft ESSA, in the first half of the morning session, three presentations were delivered to the participants with Q&A. These three presentations were focused on the PforR and brief note of ESSA (presentation-one) and the other two presentations were on the overall content of the draft ESSA comprises of the following topics. These are introduction, program description, methods and objectives of ESSA, anticipated environmental and social impacts and risks, and respective mitigation and enhancement measures, analysis of institution performance against six core principles, and key findings and recommendations of the draft ESSA report. For ease of understanding and full deliberation inputs by the participants, the organizer advised the participants about the mode of communication during the workshop to be in Amharic, the national official language, whereas the presentation slides is in English. This arrangement facilitated the participants to express effectively their input and comments with no language barriers that could hamper the understanding of the technical terms and ensure successful participations of the stakeholders as required. The presentations are briefly summarized as below.

i. Presentation one-Briefing of PfoR financing and ESSA

The first presentation was on PforR and general ESSA briefing, which was presented by the Social Development Specialist- the World Bank, Ethiopia office. The presenter started his presentation by explaining about the World Bank Group and made a brief statement on the Mission of WBG, which is "to end extreme poverty: by reducing the share of the global population that lives in extreme poverty to 3 percent by 2030. to promote shared prosperity: by increasing the incomes of the poorest 40 percent of people in every country".

The focus of his presentation was to introduce the participants with the overall policy and processes of PforR and the need for preparing ESSA under the PforR programs like ELEAP. The presentation outlined introduction, World Bank's approach for environmental and social management in P for R operations, the definition of ESSA and the core component and objectives to conduct an ESSA, the six core principles (*Core Principle one: General Principle of Environmental and Social Management; Core Principle two: Natural Habitats and Physical Cultural Resources; Core Principle three: Public and Worker Safety; Core Principle four: Land Acquisition; Core Principle five: Vulnerable Groups; and Core Principle six: Social Conflict)* and the implementation support that would be provided by the World Bank during the program implementation period.

The presenter stated about the World Bank's environmental and social management approach focus on the environmental and social effects in PforR operations, as it uses country systems, requires specific actions during preparation and implementation stages. In detail, he expressed the program preparation stage entails the undertaking of a system assessment against PforR financing core principles and key planning elements as well as the program implementation involves (i) implementation of the agreed actions; (ii) monitoring the system's performance and completion of the necessary agreed actions; and (iii) adapting management practices as may be necessary in response to poor performance or unanticipated challenges to effective implementation.

He also stated that the commitment of the Bank remains consistent to environmental and social sustainability and avoidance of adverse effects under the PforR arrangements. These are through the institutional capacity to manage risks, rather than on individual transactions or investments; a comprehensive approach to environment and social risk management using system assessments, and remedial measures; assessments guided by core principles consistent with investment lending environmental and social safeguard policies, but with greater procedural flexibility. This also include the concern that the assessment plays whether the management system mitigates adverse impacts, provides transparency and accountability, and generally performs effectively in identifying and addressing environmental and social risks.

The presenter briefly delivered information to the participants about ESSA, which is the Bank Task Team's responsibility based on data and information obtained from the client and other stakeholders. He also

mentioned that ESSA includes a description of the proposed program, likely risks and impacts, Client's environmental and social risk management system, capacity for effective management in light of performance to date and the management system against the PforR six core principles and key planning tasks briefly discussed by the presenter that underlines each core principles relevancy to the program and the required tasks to be performed.

Before finalizing his presentation, he mentioned about the World Bank's implementation support that comprises the approach, which shift from *compliance to helping resolve issues* on monitoring, provision of technical support for systems improvement and monitoring implementation of any agreed actions to improve performance. In addition, review monitoring results and/or system audits with key counterparts and stakeholders and carry out a periodic site visits to ensure environmental friendly and socially acceptable implementation of the program as part of the Bank's implementation support over the program period.

ii. Presentations on the draft ELEAP- ESSA

The draft ELEAP-ESSA presentations were divided in two sections and presented by two consultants (Environmental Specialist and Social Development specialist). The first section of the draft ELEAP-ESSA presentation was made by the Environment Specialist (Consultant-World Bank).) outlined different topics, including Introduction of the program, Program description, ESSA objective and Methodologies, Ethiopia's environmental management systems- *applicable environmental policies and legal frameworks to ELEAP-ESSA*, Anticipated positive and negative environmental impacts, Capacity and performance assessment with three Core principles (*Core Principle one: General Principle of Environmental and Social Management; Core Principle two: Natural Habitats and Physical Cultural Resources; Core Principle three: Public and Worker Safety*) focused on environment and safety issues and finally Environmental risks and rating. The second presentation comprises of positive and negative social impacts, Ethiopia's social management systems- applicable social policies and legal frameworks to ELEAP-ESSA, anticipated positive and negative social impacts and risks, Capacity and performance assessment with other three Core principles focused on social issues, and ESSA Recommendations and Action plans was carried out by Social development specialist (Consultant-World Bank).

- **Section one of ELEAP- ESSA presentation**

The second presenter, Environment Specialist (Consultant-World Bank) commenced his presentation by thanking the participants for their unlimited support during filed assessment and data collection period from February 13-April 1, 2017 and attendance to this ESSA public consultation workshop. He also briefly introduced the participants on the outline of the ESSA presentation as stated above.

During this session, the presenter introduced the participants with the broad range of environmental issues and risks that were highlighted in the draft ESSA report. As an introductory remark, He briefly explained the anticipated ELEAP activities, which this ESSA work based on and followed by the presentation of the following topics, including ESSA objectives, program description and ESSA process and methods. Some of the basic points like the Banks complementary financing instruments (Investment Project Finance, Program for Results, Development Policy Finance), the PforR processing cycle and the status of ELEAP preparation, which is at assessment phase and preparing to proceed for appraisal, the main component of ESSA and program development objectives were also discussed under introduction part of his presentation. The presenter delivered a brief information on the program development objectives and the respective indicators associated with the achievement of the program development objectives. He also highlighted about the National Electrification Program (NEP) and National Electrification Strategy (NES) drafted by the MoWIE, on grid and off grid components and activities of the program and the draft implementation arrangement that specifies the responsibilities of each institution along with the components of the program.

Following this, he discussed about the ESSA Process and Methodology ESSA focus on the social and environmental checks and balances existed in the country policy and guidelines, anticipated environmental risks and gaps and the respective mitigation and enhancement measures to strengthen the current capacity of the major implementing institutions. The presenter also highlighted the basic methodologies adopted during the ESSA preparation and these include: applicability of existing institutional policies and legal frameworks review; assessment of the mechanisms for planning and monitoring of risk management on

the biophysical and social environments; site visit from February 13 to April 1, 2017 at various reginal and local levels; interviews with staffs and officials from various government authorities, local communities and beneficiaries. The ESSA team consulted 230 officials, staffs as well as beneficiaries from 69 different offices and community groups in five regions (Benishagul-Gumuz, Tigray, Amhara, SNNP and Oromia), selected zones, woredas and EEU regional and district offices in Addis Ababa (see photo 1 and annex 6).

In addition to the applicable environmental policies and legal frameworks pertinent to ESSA, the anticipated positive and negative environmental impacts that could be generated due the implementation of both on grid and off grid components of ELEAP *(construction and rehabilitation of medium and low-voltage distribution lines and installation of MV-LV transformers, construction of solar mini grid, and disposal and replacement of spent lead-acid batteries from solar home systems)* of the ELEAP activities were thoroughly discussed during this session.

Then, the Environmental Specialist-Consultant presented the national policies and legal framework applicable to the program and briefed the participant on the applicable national environmental policies and proclamation relevant to the program and further implementation of these legal frameworks and policies and its importance to the program to ensure environmentally friendly implementation of the program. The basic responsibilities of the major implementing institutions like MoWIE, EEU, regional and woreda level Mines and Energy bureaus and Environment, Forest and Climate Change Authorities were briefly discussed. He also discussed the findings of the ESSA towards identification of gaps attached with these institutions, which is very limited capacity towards managing environmental safeguards, and the identification and implementation of the potential measure to fill these gaps.

The next briefing was on the assessment of the existing Environmental Management Systems against the three core principles (*Core Principle 1: General Principle of Environmental and Social Management, Core Principle 2: Natural Habitats and Physical Cultural Resources (PCR) and Core Principle 3: Public and Worker Safety*). His presentation focused on the assessments of the existing arrangements for managing environmental risks and to enhancing the benefits associated with the program in a manner consistent with the *Program for Results Financing*. Information about these principles are intended to guide comprehensive assessment of existing borrower Program systems as well as their capacity to plan and implement effective measures for environmental and social risk management, and further analysis is organized by the core Principles outlined in *Program for Results Financing* and synthesizes the main findings using the SWOT (Strengths-Weaknesses/Gap-Opportunities/Actions-Threats/Risks) applied to the PforR context. The applicability of each three-core principles, focused on environmental and safety matters, to the program (ELEAP), identified gaps, the current strength of the institutions, ESSA findings during the assessment period, potential risks and respective action plans/recommendations to avoid/minimize these anticipated risks and impacts or to fulfill the gaps were discussed in detail. Finally, He conveyed the message to the participants about the anticipated environmental risks and respective ratings to be further discussed during group discussion and provided final concluding remarks on the management of environment and safety matter associated with the program.

- **Section Two of ELEAP-ESSA Presentation**

Section two of the ELEAP-ESSA was presented by Social Development Specialist (consultant) World Bank Ethiopia office. The presentation outlined anticipated social benefits and risks, the potential management mechanism to offset or minimize these risks/impacts, applicable social policies and legal framework to the program, analysis of the existing system with three core principle *(Core Principle 4 Land Acquisition, Core Principle 5 Underserved People and Vulnerable Groups, and Core Principle 6. Social Conflict)* and ESSA observation and recommendations to fill gaps.

Concerning the benefits of the program, The Social Development Specialist (Consultant) pointed out the potential benefits of the program to the community, which include provision of electricity to households, businesses-higher productivity and longer working hours, employment opportunities, improvement in basic social services facilities, and reduce women's burden. She mentioned also the anticipated social risks that will result from the program implementation. These are safety risks, risks from land accusations and clearance, risks that vulnerable groups will not share equitability in the program benefits, and risks related with labor influx. The potential mechanism to manage these risks among others encompass, awareness, adhering to standards, carrying out acquisition of land and ROW in accordance with government regulation and core principle 4, provision of special support to vulnerable groups and underserved people, sound labor

influx management and strengthen capacity of implementers towards managing the risks also discussed. The presentation continued to introduce the workshop participants with the applicable social policies, legal frameworks, and its relevance to ensure the implementation of the program is social acceptable with minimum or no social impacts. The next topic was about the three core principles attached to social management encompasses the applicability of each core principles to the program, area of strengthening, and gaps identified during the assessment process, which was underlined no or limited capacity associated with main implementing institutions MoWIE and EEU.

Her presentation regarding the overall observation of ESSA mentioned the presence of adequate legal framework in Ethiopia, including a robust environment and social regulations; institutions, court system; and accountability provisions in-built into system. Some of the gaps identified during assessment were inadequacy of implementation of existing provisions of social regulations, Risks relate to implementation including lack of standard procedures for risk screening and implementation of mitigation measures, lack of coordination among agencies; and lack of human, financial and other resources and gaps in Environment and Social Management System by the program implementer.

To minimize, avoid or fulfil the identified impacts, risks and gaps, the presenter delivered information on the potential recommendation and Program Action Plan, and these include (1) Establishing Environmental and Social Management System (ESMS): *capacity building and technical assistance, human resources-assign safeguards staffs (Environmentalist, Social Development Specialist and Safety Officer) at EEU, technical guidance and implementation capacity mainly for EEU-EHS and MoWIE –ECCD, addressing resource constraints*; (2) Strengthen Coordination and Awareness raising among key stakeholder; (3) Annual performance review and audit on environment, social and safety management; (4) Grievance and redress system; and (5) Evidence of implementation that implementers shall require to generate evidence (for independent verification) that all programs in previous Fiscal Year were screened against the set of environment and social criteria in the planning stage. Regarding the capacity-building program, the presenter underlined to the participants that EEU shall recruit two personnel- Environment and Social Safeguards Specialists, and Safety Specialist- to be placed all regional EEU offices and working with the Regional EHS coordinators to support the local team safeguards management aspects through provision of regular trainings and onsite site supervision and monitoring.

- **<u>Summary on Question and Answer (Q&A) Session</u>**

AS per the Agenda, the next session was Q&A and moderated by Environmental Specialist –The World Bank Ethiopia office. During this period, the participants raised the following questions and the respective response presented below.

Questions	**Suggestion/Answers**
• Please explain in detail what core principle 6-social conflict entail as relates to the proposed ELEAP?	Core Principle six aims to avoid exacerbating conflicts, especially in fragile states, post conflict areas, or areas subject to territorial disputes. Its analysis considers conflict risks, including distributional equity and cultural sensitivity. The prosed ELEAP program will not acerbate social conflict nor will it operate in a fragile state context, a post conflict area, or areas subject for territorial disputes. The program is designed to yield significant social benefits to all citizens and improve the distributional equity of access to electricity.
• What will the Bank will differently do through ELEAP to improve the low compensation bar in Ethiopia? Specifically, for permanent loss of use rights and impact on assets, what measures are intended?	The Bank will ensure compliance to the relevant country proclamations and entitlements and supplement the gaps regarding this through systems capacity building and proposed gap filling measures in the Program Action Plans.

• There is common difference regarding payment of compensation for different programs (private investment, government financed, development partners financed). How does ELEAP will ensure such variation will not be reflected?	The Bank will ensure adherence to agreed standards and gap filling measures as part of the proposed Program Action Plan in the systems strengthening and establishment relevant for ELEAP.
• Given the multidimensional impacts of resettlement, how does ELEAP will ensure that vulnerable groups of potential PAPs?	Specific measures for vulnerable groups are included in the ESSA. Relevant institutions are consulted in the process including identification of relevant gap filling measures included in the Program Action Plan.
• The review and proposed actions on Occupational Health Safety should reflect, the current national policy and guidelines including consultation with labor unions, insurance companies, CSOs? Besides, there are relevant policies, which provided reasonable coverage of the OHS issues, including National Policy on Health, Science, and Technology, and the national social protection policy. Please also consider using 'occupational safety, health and work environment, which Ethiopia has adopted. Based on a national study, the three key hazardous sectors are transport, energy, and construction, which require focused awareness/preventive work.	Noted. The current national occupational health and safety policy was reviewed for the ESSA preparation process. As suggested during the stakeholder consultation the final ESSA will consider other pertinent guidelines and national policies associated with the Program. As the draft document was publicly disclosed (for comment any additional comments are also welcome).
• Institutional arrangement at national and regional level may differ from region to region? Please consider that? It is also vital to ensure the role of the respective institutions (coordinating, implementing, clearance and review) etc.?	Noted.
• As this will be a last mile connection support, the compensation for the damages due to electricity connection and fluctuation, including failures at the back bone should be covered well.	Noted.
• The ESSA operations manual should consider provisions on the sustainable use of money from compensation (based on experience in other programs, people lose the compensation money due to low financial literacy and fall in to impoverishment traps. Thus, inclusion of financial literacy and management capacity building will help benefit potential program affected people.	Noted. If the any of the ELEAP program activities require land, the payment of compensation will be complemented by Livelihood Restoration Plan (LRP) commensurate with the scope of impact or capacity building on financial literacy.
• The EEU/MoWIE GRM procedure should be popularized to communities for ELEAP program area and aligned with the Ethiopian Social Accountability Program.	Noted

• Site specific environmental and social impact assessments should be prepared by licensed professionals to ensure standard document quality and avoid delays in review and clearance processes.	This will be monitored during program implementation period and the client will follow the laws and regulation stated by each mandated institution, including MoEFCC.
• The ESSA should include lessons from different energy programs including the electrification and the universal electricity access program.	Noted. Already the preparation of the ESSA considered relevant experiences and implementation lessons during the draft ESSA preparation.
• Affordability Fund: there is disconnect between access and connectivity in Ethiopia. It would be good to establish affordability fund for communities to access as revolving to ensure universal access and making sure that no one will be left out due to affordability	Noted. The ELEAP has included actions to conduct affordability study to determine the scope and feasibility of establishing a mechanism.

2.3. Group Discussion

The whole afternoon session was dedicated to group discussions to ensure the full participation of all participants and provide inputs and comments on the draft ESSA. Two groups were formed with workshop participants from different institutions and advised to nominate chairperson and secretary, where one of them will present the output of the respective group discussions findings (see photo 3).

Before the planned group session started, the Environmental Specialist (Consultant-World bank) briefly discussed about the followings topics and protocol of the group, which every group shall present the outcome of the discussion at the end.

Topics of group discussions

i. Level of awareness and enforcement of legal frameworks applicable to ELEAP
ii. Institutional commitments and current capacity for the implementation of safeguards
iii. Major Environmental and social impacts and risks
iv. Recommended measures/actions

Following this briefing, the group discussion started and participants were took three (3) hours to identify the potential issues as per the topics and reflected their opinions, points and agreements that will be incorporated in the final ESSA. The overall discussion and points raised by each groups are summarized as below.

i. Group Discussion: Group one

Discussion point 1: Level of awareness and enforcement of legal frameworks applicable to ELEAP

- Low awareness on legal frameworks, policy and guidelines, limited operational capacity. However, this varies across the board (national, region, woreda, and kebele level), likewise the compliance, and operationalizing commitment and adherence.
- Inadequate capacity to enforce legal frameworks.
- Inadequate matching of between EEU's and National compensation rules and regulation, which hamper sound implementation of the program and causes of raising grievances and complains.

Discussion point 2: Institutional commitments for the implementation of safeguards

- Lack of commitment to enforce and implement the required safety tools.

- Ensure adequate awareness raising to consumers as the connection to electricity is new introduction, may lead to unprecedented shocks and injuries.
- Capacity building should be need based to identify issues at different levels.
- Input quality and certification: to improve quality of connections and consumer satisfaction EEU should move from conditional acceptance of inputs to third party certified input use.
- Lack of coordination between basic service organizations such as electricity, water, road and telecom
- Limited structural arrangement, resources for safeguards implementation.
- It is recommended to have environmental and social safeguards unit within EEU.

Discussion point 3: Major Environmental and social impacts and risks

- ***Positive***
    - Increased productivity: reduced time spent on fuel wood collection (spare time will be used for other productive engagements)
    - Healthy and productive citizens
    - Encouragement of new business opportunities
    - Improve awareness of community members on energy uses
- ***Negative***
    - Land acquisition induced impacts would lead to weakened social networks and relationships
    - Occupational health and safety during construction, operation and maintenance phases

Discussion point 4: Recommended measures/actions to be taken

- Awareness for all stakeholders
- Institutional capacity building (human resources, finance, logistics, appropriate technology)
- Focus on low Environmental and social impact technologies and use of better quality inputs
- Clearly spell out roles, responsibilities of institutions including developing operational code of conduct to follow
- Develop mitigation plan for unforeseen impacts
- Establish and strengthen coordination among stakeholders
- Provision of strong environmental and social management system that focused on time supervision, monitoring and evaluation
- Experience sharing from other well performed energy related programs
- Lesson learned from own experience (UEAP)

Placing enforcement of legal framework **Discussion point 2: Institutional commitments for the implementation of safeguards**

- Lack of commitment to enforce and implement the required safety tools.
- Ensure adequate awareness raising to consumers, as the connection to electricity is new introduction may lead to unprecedented shocks and injuries.
- Capacity building should be need based to identify issues at different levels.
- Input quality and certification: to improve quality of connections and consumer satisfaction EEU should move from conditional acceptance of inputs to third party certified input use.
- Lack of coordination between basic service organizations such as electricity, water, road, and telecom.
- Limited structural arrangement, resources for safeguards implementation.
- It is recommended to have environmental and social safeguards unit within EEU.

Discussion point 3: Major Environmental and social impacts and risks

- ***Positive***
    - Increased productivity: reduced time spent on fuel wood collection (spare time will be used for other productive engagements).
    - Healthy and productive citizens.

- Encouragement of new business opportunities.
- Improve awareness of community members on energy uses.

- ***Negative***
  - Land acquisition induced impacts would lead to weakened social networks and relationships.
  - Occupational health and safety during construction, operation, and maintenance phases.

Discussion point 4: Recommended measures/actions to be taken

- Awareness program for all stakeholders.
- Institutional capacity building (human resources, finance, logistics, appropriate technology).
- Focus on low Environmental and social impact technologies and use of better quality inputs.
- Clearly spell out roles, responsibilities of institutions including developing operational code of conduct to follow.
- Develop mitigation plan for unforeseen impacts.
- Establish and strengthen coordination among stakeholders.
- Provision of strong environmental and social management system that focused on time supervision, monitoring, and evaluation.
- Experience sharing from other well performed energy related programs.
- Lesson learned from own experience (UEAP).
- Placing enforcement of legal framework.

ii. <u>Group Discussion: Group Two</u>

Discussion point 1: Level of awareness and enforcement of legal frameworks applicable to ELEAP

- Limited awareness on legal frameworks
- Gaps on enforcing the available legal framework, rules and regulations

Discussion point 2: Institutional commitments for the implementation of safeguards

- Although there are some initiatives, lack of commitments to implement and enforce the rules and regulation in sustainable way. This manifested and aggravated by the existing gaps associated with the required human resources, infrastructure, technology, culture, and limited capacity to be committed

Discussion point 3: Major Environmental and social impacts and risks

- Reduce deforestation
- Required no interruption of electricity supply
- Occupational safety impacts particularly associated with new customers, as there might be low level of awareness on the use of electric power and the connected safety matters

Discussion point 4: Recommended measures/actions to be taken

- Establish Strong Coordination with relevant stakeholders
- Based on the need assessment, develop the capacity building program and implement on time, if possible before commencement of the program and continued through program implementation period
- Availability of safety protection material, PPE, at the required amount and quality
- Enforce the use of safety protection materials, tools and PPE
- Conduct regular awareness at various level on safety matter and other program associated risks and impacts
- Establish and develop a system for quality assurance of safety protection material, tools and PPE
- Allocate enough amount of budget for safeguards management

Overall observation of the group members

In general, participants within the two groups highlighted that there are limited capacity in the major implementing institutions and the need for establishing a strong environmental and socials safeguards and safety (EHS) unit at each EEU regional offices is mandatory. Therefore, the program shall ensure the establishment of these units before the commencement of the program. In addition, for other relevant program implementers and technical support stakeholders, like MoWIE, MoLSA, Regional WMEB, Regional and woreda Environmental institutions, the program shall support to build their capacity through provision of the required training on environmental and social safeguards and safety management, to ensure no or minimum impacts/risks and implementation of best practice methods for both on grid and off grid components of the proposed program over the program implementation period.

2.4. Conclusion

The final closing remark made by Head of the Environment and Social, Health and Safety, Quality and Process Excellence (EEU-EHS, Q&PE) department with in EEU. The Head of EEU-EHS, Q&PE thanked the World Bank for organization this public consultation workshop and the presentation made during the sessions and participants for their full day unreserved deliberation and participations, and valid inputs for the final ESSA. He also made a conclusion that the recommendations made in the ESSA report are relevant and practical to strengthen the Environment and Social safeguards and Safety Management System at EEU, MOWIE and other relevant offices at national, regional and local levels, which contribute to minimize or avoid the anticipated risks and impacts and to enhance the benefit from the program. He also acknowledges the participants for the broad consensus on EHS measures stated in the ESSA and that will be captured in the program design and be implemented during program implementation period, including staffing, capacity building, technical trainings, monitoring, coordination and awareness creation, annual audit, and verification, without any objection. The deliberations of the public consultation workshop officially closed by this remark at around 6.00 PM in the afternoon.

Photo 3: ELEAP-PforR-Stakeholder Consultation workshop, July 06, 2017, at Capital Hotel Addis Ababa, Ethiopia

	
ESSA SH Consultation July 6,2017	**Participants from EEU, EEP, MOWIE, MOLSA RWMEB, REFCCA, MoEFCC, CCRDA, etc.)**

	
Welcoming and introduction speech by WB	**Opening speech by MoWIE**
	
Briefing on ESSA	**Presentation On ELEAP-ESSA_Environment**
	
Presentation On ELEAP-ESSA_Social	**Q&A**

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<tr><td>  </td><td>  </td></tr>
<tr><td colspan="2">Group Discussion</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Group presentation</td><td>Closing Remark-EEU</td></tr>
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Figure 6: Scanned copies of workshop participants attendance

Ethiopia Electrification Program -PforR

Consultation Workshop on Environmental and Social System Assessment (ESSA)

Attendance Sheet

No.	Name	Region	Organization/Responsibility	Telephone	Email	Signature: Morning	Signature: Afternoon
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Ethiopia Electrification Program -PforR

Consultation Workshop on Environmental and Social System Assessment (ESSA)

Attendance Sheet

No.	Name	Region	Organization/Responsibility	Telephone	Email	Signature	
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