Ministry Of Innovation and Technology

Digital Foundation Project (DFP)

Environmental and Social Impact/Risk Assessment Screening Guideline for Sub-Project Activities in all Beneficiary MDAs

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Acronyms

BoE	Regional Bureau of Education
BoH	Regional Bureau of Health
CRGE	Climate Resilient Green Economy
ECA	Ethiopian Communication Authority
EDFP	Ethiopia Digital Foundation Project
EFCCC	Environment, Forest, and Climate Change Commission
EHS	Environmental Health and Safety
EPA	Environmental Protection Authority
EPFCCA	Environmental Protection and Forest and Climate Change Authority
E & S	Environmental and Social
ESCP	Environmental and Social Commitment Plan
ESF	Environment and Social framework
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standards
EPE	Environmental Policy of Ethiopia
EthERNet	Ethiopia Education and Research Network
GBV/SEA	Gender-based Violence/Sexual Exploitation and Abuse
GDP	Gross Domestic Products
GoE	Government of Ethiopia
ICT	Information Communication Technology
IDA	International Development Association
IRU	Indefeasible Right of Use
JCC	Job Creation Commission
LMP	Labor Management Plan
MDA	Ministries, Departments and Agencies
MInT	Ministry of Innovation and Technology
MoE	Ministry of Education
MSME	Micro, Small and Medium Enterprises
OHS	Occupational Health and Safety
PDO	Project Development Objective
PIU	Project Implementation Unit
REPA	Regional Environmental Protection Authorities
RFP	Request for Proposal
RoW	Right of Way
SEP	Stakeholders Engagement Plan
SOE	State-Owned Enterprise
TVET	Technical and Vocational Education and Training
WBG	World Bank Group

Executive Summary

The Ethiopia Digital Foundation Project (EDFP) has wide-ranging stakeholders that are affected by or have an interest in the project. the lead project and sub-project implementing, and partner institutions are the Ministry of Innovation and Technology (MInT), Ethiopia Communication Authority (ECA), Ministry of Education (MoE) through Ethiopia Education and Research Network (EthERNet), Ministry of Labor and Skills, Digital ID under Prime Minister Office, and Ministry of Finance (MoF) regions, woredas, the public, and digital entrepreneurs. The partner institutions are the Ministry of Trade and Regional Integration and Ministry of Industry who are members of the Project Steering Committee (PSC) but are not direct beneficiaries.

The purpose of this guideline is to introduce the overall activities that are going to be undertaken by the project and sub-project activities to be implemented by partners /beneficiary institutions, the positive and negative Environmental and Social Risks/Impacts of the subproject activities supported by Ethiopia Digital Foundation Project (EDFP) through the components. The Environmental and Social Risks/Impact management and the institutional arrangements for the implementation of the Environmental and Social Management Framework (ESMF) are discussed as well.

Moreover, the procedures and processes to be applied and followed for the Environmental and Social screening/scoping of subproject activities and the E and S risk mitigation implementation monitoring and reporting with roles and responsibilities for each focal person assigned by partner/beneficiary institutions and PIU Environmental & Social specialists have been stated.

Introduction/Background

Ethiopia is in the Horn of Africa and is a land-locked country with an area of 1.1 million km^2. Ethiopia is the second-most populous country in Sub-Saharan Africa with a population of 110 million; based on projections of the census conducted in 2007. It has a high percentage of the young population with 46% of the population being under 15 years of age. The gender disaggregation is 50% with slightly higher women (51%) in urban areas. The average household size in Ethiopia is 4.6 persons. It is a diverse and multi-cultural nation and a home for over 90 ethnic groups.

Ethiopia remains one of the least connected countries in the world. The level of internet and mobile phone penetration remains low in Ethiopia. Recent figures show that about 20.6% or 23.96 million people have internet connections while 38.5 percent of the population or 44.86 million mobile services. The number of internet users in Ethiopia increased by 2.8 million (13%) between 2020 and 2021 (DATAPORTAL 2021). The telecom infrastructure is largely absent in rural areas and there is generally low access and irregular supply of power to rural areas where most of the population resides.

While the Government of Ethiopia (GoE) sets out on its vision to transform Ethiopia from a largely agrarian low-income country to an industrialized lower-middle-income country by 2030, the initiative gives special emphasis to sectors such as agriculture, manufacturing, mining, tourism, and information and communication technology (ICT). The GoE has also initiated reforms characterized by market liberalization–opening the private sector for competition and foreign participation–with partial and/or full privatization of selected State-Owned Enterprises (SOEs) planned in key strategic sectors, including telecommunications, energy, aviation, and logistics. As a foundation for such reforms, the Ethiopian Government also identified digital services development to transform the economy, reduce poverty, create jobs, and achieve the ambitious objective of improving Ethiopian competitiveness in the digital age, through increased inclusions, affordability of digital services, and digital job creation. To achieve the project development objective the Ethiopia government launched the Ethiopian Digital Foundations Project (EDFP) with the support of the World Bank under the Ministry of Innovation and Technology (MInT). The project is intended to develop Ethiopia's digital economy through the expansion of the digital market and regulatory environment and improve its infrastructure and expand digital service coverage. The project will enable citizens, businesses, and Government to reap digital dividends in the form of faster growth, lower transaction costs, more jobs, and greater efficiency to develop Ethiopia's digital economy. It will support the necessary steps to introduce market competition, private sector participation, foreign investment, and independent sector regulation. The EDFP is a five-year project (2021 to 2026) financed by the World Bank Group with a total amount of 200 million USD (IDA Credit).

The Ethiopia Digital Foundation Project is intended to develop Ethiopia's digital economy through the expansion of the digital market regulatory environment and improve its infrastructure and expand digital service coverage. The project will enable citizens' businesses and governments to reap digital dividends in the form of faster growth, lower transaction costs and more jobs, and greater efficiency.

The Project Development Objective (PDO) of the Digital Foundation Project is to improve access and affordability of digital services by strengthening market competition, private sector participation in the telecommunication sector, and effective independent sector. It also increases government capacity to provide digital services and promotes digital entrepreneurship and digital business.

To achieve the above Project Development Objective (PDO), the project will be implemented through the following five components: independent sector. It also increases government to provide digital services and promote digital entrepreneurship and digital businesses.

- Component-1: Digital Economy and Enabling Legal and Regulatory Environment, it consists of three sub-components.
    - ✓ Sub-component 1.1: Partial privatization of Ethio-Telecom
    - ✓ Sub-component 1.2: Strengthening independent ICT sector regulation.
    - ✓ Sub-component 1.3: Supporting the development of the digital economy.
- Component – 2: Digital Government and Connectivity

- ✓ Sub-component 2.1: Digital government and COVID 19 response.
- ✓ Sub-component 2.2: Connecting targeted public institutions to broadband across the country.
- ✓ Sub-component 2.3: Connecting Selected educational institutions to broadband.
- Component-3: Digital Business and Entrepreneurship
    - ✓ Sub-component 3.1: Grants to digital start-ups and digital businesses (Window 1 and 2).
    - ✓ Sub-component 3.2: Technical Assistance to the Ministry of Innovation and Technology.
- Component-4: Project Management
- Component-5: Contingent Emergency Response Component.

According to the Stakeholder Engagement Plan the lead project and sub-project implementing and partner institutions and stakeholders' governmental institutions (MInT, ECA, MoE (EthERNet), National Digital ID, Ministry of Labor and Skills, and MoF) regions, woredas, the public, and digital entrepreneurs. Their involvement Modalities are also identified and discussed in the SEP document. Sub-project 1.1 partial privatization of Ethio-Telecom through the recruitment of transaction advisor and sub-project 1.2 strengthening regulatory structures are being implemented by MoF on behalf of the project. The ECA will be partnering with the MInT as implementing agency for sub-component 1.2, while EthERNet will partner with the MInT as implementing agency for activities on digital government and COVID19 response through sub-component 2.1, on connected targeted public institutions to broadband across the country through sub-component 2.2, and on connected targeted higher education center through sub-component 2.3. The MInT will work closely with Digital ID on the coordination of legal and regular support for digital ID under sub-component 1.3. Sub-component 3 is on Digital Business Entrepreneurship implemented in two windows 1and 2. As the project involves a lot of stakeholders as beneficiary/partner institutions (MDAs), regions, woredas, and the public and the community, the Environmental and Social Management Framework (ESMF) has been developed to ensure that the investments under the proposed EDFP are implemented in accordance with the World Bank's Environmental and Social Standards and the national laws, regulations, and directives which require that investments should be implemented in an environmentally sustainable and socially acceptable manner.

Objectives of the Guideline

The objectives of the Guideline are to:
- ✓ Create awareness on the Environmental and Social risks of the project and sub-project activities implemented by the partners/beneficiary institutions, MDAs, and provide guidance in devising feasible arrangements for screening of subproject activities implemented by the respective beneficiary institution.
- ✓ Implement Environmental and Social Management plans and mitigation measures in course of subproject activities.
- ✓ Introduce the monitoring activities to be implemented by focal persons of beneficiary institutions at different stages of the project.

Project Target Beneficiaries

All Regions of the Country will benefit from the project implementation. The project will be implemented in all regions of the country including the federal, regional, and woreda levels. The project benefits the public by creating new opportunities for digital transformation in government and education institutions and new opportunities for innovation and entrepreneurship. Ultimately, the project enables citizens, businesses, and governments to reap digital dividends in the form of faster growth, lower transaction costs, more jobs, and greater efficiency.

Government Ministries, Departments and Agencies (MDAs), Government Officials and Staff, the technical assistance benefits government ministries (MInT and ECA) in their role as policy and regulatory bodies. Government officials and staff at federal, regional, and Woreda levels will be targeted for digital skills training for effective use and operation of digital services, for coordination and service delivery. Training will aim for equal participation of female employees and government officials. Moreover; (MDAs) at federal, regional, and woreda levels will benefit from capacity-building activities for the digital government (eg. Consolidated portal and e-services) to enable remote working and facilitation of communication through the installation of communication rooms in 50 selected educational centers.

Education and Research Institutions will benefit from high-speed internet and broadband services. Higher Educational institutions (Universities and TVETs, Colleges) will be targeted for high-speed internet broadband and Wi-Fi to be able to access educational resources and open learning platforms and library resources. Education institutions benefit from improving online and face tuitions necessitated by the closure of schools because of the COVID-19 pandemic. Improving connectivity for educational institutions is critical to empowering the next generation of digital leaders for the private sector and Government. The project also targets youth community associations and secondary cities for improved digital connectivity. These institutions will eventually serve as an anchor tenant for wider geographical service provision.

Students, Academia, and Researcher: the project targets 30 universities and 40 TVETs from all regions of the country with the aim of nationwide coverage including 200 schools. The specific institutions are to be selected by regional authorities. The students and academia will benefit from access to library and learning platforms and open sources. The universities will also facilitate access to affordable digital devices smartphones and laptops to access internet services. Girls are targeted to benefit equitably from the skills training and access to digital services by educational institutions.

Start-ups and Digital Businesses: Startups are targeted to benefit from project co-investment grants, training and coaching activities. Established digital businesses will receive grants to provide training, digital device and outreach activities to suppliers, MSMEs, and contractors. Grants are incentivized to extend inclusive services and reach women and rural farmers, to sell products via e-commerce for higher income.

Service Users: The project targets the public (such as farmers, rural residents, underserved communities, businesses, women) is expected to benefit from a wide range of activities that ultimately improved digital infrastructure, improved connectivity, and increased affordability of services and digital devices and from improvement in government e-service.

Potential Environmental and Social (ES) Risks/Impacts of sub-project Activities

In order to sustain the anticipated development and to maximize the benefits, the environmental risks of the envisaged project must be avoided, minimized, and/or mitigated. To implement the project in accordance with Environmental and Social Standards (ESS), the project developed the Environment and Social Commitment Plan (ESCP) which sets out material measures or actions, specific documents or plans as well as timing for each of these. Based on this commitment plan the project developed E & S risk management tools, such as Environment and Social Management Framework (ESMF),), Stakeholder Engagement Plan (SEP), Labor Management Plan (LMP), that helps to anticipate and address the potential risks/impacts before and during the implementation of the project. According to the Environmental and Social Management Framework (ESMF) conducted for the EDFP project confirmed that overall, E & S risks involved in the sub-project activities with Ethiopia Digital Foundation Project (EDFP) will be site-specific and generating risks/impacts that are of moderate and localized which can be mitigated.

Positive Impacts of the Project: The EDFP will have an overall significant positive social impact on the country's population, as it is expected to (i) reduce costs and enhance the reliability of digital access (ii) increase efficiency of public service delivery through the support of digitization of public services (iii)

allow digitization of higher education and thus raising graduate's preparedness for the digital world (iv) promote affordable internet coverage in rural areas with low access to communications infrastructure and services; and (v) support an enhanced digital business environment potentially leading to more well-paid jobs in the sector. National and Regional State Governments will also be benefitted through lower costs, higher-quality access to the internet within public institutions, and the ability to launch new digital services. The potential E & S impacts of the project are embedded in the sub-project activities which are anticipated in the implementing beneficiary MDAs, partners and the public are:

Environmental Risks of Sub-Project Activities Supported by EDFP

- **Technical Assistance Sub-Project Risks (Directly Supported Subprojects):**

The Digital Economy and Enabling Legal and Regulatory Component (component- 1): involves sub-project activities that will hire local and international consultants and procurement of electronic (IT) goods, and office furniture to beneficiary institutions. The EDFP will provide technical assistance support to the sector for general capacity building and regulatory strengthening, capacity building of senior government officials, notably in MInT and ECA to design, implement and evaluate policies and regulations for the development of the digital economy as well as in developing standards and procedures regarding potential risks on siting, design, construction, and operations of digital infrastructure, including the need for small-scale land acquisition and community health and safety.

The Digital Government and Connectivity (**Component-2**): this component involves sub-project activities that will develop e-portal and data centers for the government MDAs, digitalization of MDAs selected services, and the installation of about 50 communication rooms, as well as connecting selected educational institutions to high-speed broadband internet service.

The potential environmental risks likely to occur from such directly supported sub-project activities and the corresponding mitigation measures are:

- ✓ Noise and dust were released during building modifications, excavation of trenches, and installation of the new electronic facilities as well as equipment.
- ✓ The generation and disposal of demolition wastes during building modifications, as well as equipment.
- ✓ The generation and disposal of demolition wastes during building modifications, as well as the release of packaging wastes during equipment installation will cause potential solid waste risks to the environment.
- ✓ Operationalizing the government MDA e-portals and digital services as well as the communication rooms will entail expanded use of servers, computers, printers, large screens, speakers, microphones, WiFi Routers, and associated furniture, which at the end of its lifetime will join the e-waste stream.
- ✓ Occupational health and safety, as well as community health and safety risks, are also likely to occur by the subproject activities during construction and operation phases.
- ✓ Environmental Health and Safety (EHS), solid waste from the equipment packaging, and e-waste after shelf life are the solid waste environmental risks.
- ✓ Violation of ESS2 of the ESF of the WB could be a risk or a concern in consultant hiring.
- ✓ The development of appropriate standards and guidelines for the proper management of e-waste generation and disposal will pose potential public health risks, as well as the development of adequate e-waste service providers. During the development of these standards considerations of relevant national environmental and social legislation as well as requirements should be made and would need to be thoroughly consulted to ensure that the standards provide for adequate protection of sensitive habitats and heritages such as national parks, sanctuaries, wetlands, as well as archeological, cultural, and historical heritage sites found across the Country.
- ✓ The recruitment of consultants to be paid by the project should comply with the requirements of ESS2 and EHS aspects should be included in the terms of reference and should also be properly

monitored. The telecommunication reform should include consideration of how it should be done to properly address potential E & S impacts and risks. Thus, the Technical Assistance (TA) work and related should include ES considerations. Potential examples could be the development of proper ES regulations, standards, and guidelines, such as e-waste management, tower siting, etc. forms to enhance the development of adequate e-waste service providers in the country, and inclusion of ES aspects in bids and contracts. Technical assistance activities will be undertaken following the requirements of OESRC's Advisory Note Technical Assistance and ESMF.

- **Indirect Environmental Risks of Activities Financed by EDFP:**

The tendering and procurement of digital connectivity and pre-purchase of internet bandwidth from the private sector operators through direct financing of the EDFP is likely to have no potential environmental and social risks. However, reform of the telecommunications sector and the opening of the market to new operators could lead to infrastructure development for the expansion of services (such as the construction of data centers and cell towers).

- ✓ The implementation of activities such as the roll-out of fiber-optic networks and 4G/5G mobile networks to enhance and provide mobile and internet connectivity across the country is likely to necessitate the undertaking of construction activities that are usually carried in the telecommunication sector.
- ✓ If at any point this assessment would be revised based on an adaptation of the project design, instruments would be developed for these facilities under this project and the ESCP revised accordingly to ensure that these works would be subject to compliance with relevant WBG Environment, Health, and Safety Guidelines and ESF standards.
- ✓ Respective due diligence will be conducted regularly during the Bank's Implementation Support Missions or ad hoc based on a request by MInT.
- ✓ The potential EHS risks associated with TA activities shall be managed in compliance with the applicable World Bank standards and EHS incidents, if any, will be recorded, reported, responded to, and followed up following the requirements of the Bank's Environment and Social Incident Response Toolkit.

The environmental and social risks likely to arise from the telecom sector construction activities include:

- ➢ Territorial and aquatic habitat alteration,
- ➢ Use of hazardous materials, generation of construction wastes and limited hazardous material wastes,
- ➢ Noise and air emissions,
- ➢ Visual impacts,
- ➢ Electric and magnetic fields,
- ➢ Occupational health and safety aspects include electric safety, elevated and overhead work, fall protection, confined space entry, and motor vehicle risks
- ➢ Community health and safety aspects with a focus on structural safety issues.
- ➢ There are also potential environmental risks associated with towers, access roads, and Right of Way (RoW) maintenance (e.g vegetation control).
- ➢ The details of these risks, their significance, and recommended mitigation measures are already in the ESMP of table 8 in the ESMF document.

- **Environmental Risks of Grants for Digital Start-Ups and Digital Businesses:**

As the size of the maximum matching investment financing allowed by the grant windows appears to constitute medium or larger size business enterprises (US 100,000) there will occur environmental risk concerns in relation to waste generation from its activities. The type of waste to be generated during the operation phases of these enterprises will mainly constitute.

✓ Packaging wastes and e-wastes from the new digital entrepreneurs supported through grant window-1 and from the dissemination of digital devices by the digital businesses acting as suppliers of goods/services to be supported by grant window-2

✓ Construction-related wastes from any start-up and expansion work.

✓ Recommended management strategies to address the waste management risks including the e-waste stream include the inclusion of requirements for submission of "Waste Management Plan" as one of the criteria for evaluation and selection of eligible digital entrepreneur start-up matching fund beneficiaries and private investors. The inclusion of these criteria into the evaluation and selection process can be done by inserting the criteria in the Project Implementation Manual.

Social Impacts/Risks: The Social Impacts/Risks for the Project Intervention

✓ **The exclusion of underserved communities and vulnerable groups due to lack of infrastructure,**

✓ **Weak institutional capacity and other barriers**

✓ **Risk of exclusion of women and girls from project benefits**.

✓ **Digital Identification System:** Digital identification system is an important aspect of the digital foundation project. It is also a risk factor for privacy and unintended profiling for individuals who need to trust the system to collect and store personal information. The project will support (with additional financing in 2023) an ongoing effort to develop a national identification system including the introduction of a general data protection law and the establishment of an independent data protection commission that could potentially mitigate these risks.

✓ **Risk of Loss of Land and Other Assets:** Due to the nature of the sub-projects directly financed by the EDFP, most of the construction and refurbishment activities do not require permanent loss of assets or properties. All physical investments directly financed by the EDFP are expected to be carried on government-owned/used land or property in existing education, health, and government office facilities and sites. The EDFP is also going to provide technical assistance for ECA to adopt regulatory standards on sitting, design, construction, and operation of telecommunication infrastructure which will be imposed on private sector operators. The technical assistance to the ECA will also involve the preparation of the RFP.

✓ **Vulnerable and Disadvantaged Groups:** Women and female-headed households have less time available for participation in project consultations and information sessions and can be missed during targeting for project benefits such as training and access to digital devices. Persons with disabilities have much lower access to ICT, accessible devices (for visual, hearing, and speech impairment), and women with disabilities are even less opportunity in this respect. Poverty and illiteracy and lack of basic skills all are hindrances to benefiting from the project.

✓ **Gender-Based Violence (GBV):** The project services such as improved internet access, Wi-Fi, and broadband services can be misused and facilitate acts that may cause GBV/SEA through stalking, bullying, sexual harassment, defamation, hate speech, and exploitation. In rural areas, there is a potential for increased misuse of digital technology to recruit young boys, girls, and children for human trafficking. The GBV/SEA risk within the project scope is considered moderate. To mitigate these moderate risks, the project should ensure close monitoring of GBV/SEA in the project implementation. It should develop a clear code of conduct and ensure that its staff and contracted workers sign to it.

✓ **Other Community Health and Safety Risks**. Since it appears that the project involves the provision of service to communities, ESS4 states that the Borrower will establish and implement appropriate quality management systems to anticipate and minimize risks and impacts that such services may have on community health and safety. In such circumstances, the borrower will also apply the concept of the Universal Service Fund Framework, which was technically and financially feasible.

Applicable National Policies, Standards, Strategies, Legal and Institutional Frameworks

Constitution of Ethiopia

The constitution (1995) of Ethiopia is supreme law on which the environmental policy is dependent, has captured the most important aspects of sustainable development. This has been sufficiently reflected in the provisions that govern the right to development (under Article 43, 44, and 92), proclaim where people have the right to:

- ✓ Improved living standards and to sustainable development,
- ✓ Participate in the national development and be consulted with respect to policies
  And projects affecting their community, and
- ✓ Enhanced capacity for development and meeting their basic needs are boldly recognized
- ✓ Live in a clean and healthy environment, and
- ✓ Proper compensations, including relocation with adequate State assistance, are recognized.

Environmental Policy of Ethiopia (1997 GC)

The country has approved an environmental policy in 1997. The overall policy goal is to improve and enhance the health and quality of life of Ethiopians through sound management of natural and man-made resources and with the objective of sustainable development. Environmental Policy of Ethiopia (EPE) contains several pertinent policy elements related to industrial pollution prevention and control. The policy radiates the two basic principles applicable to pollution control, namely, the "polluter pays principle" and the "precautionary principle" it also provides for the adoption of cost-effective environmental standards and the establishment of a system for monitoring compliance with the standards. The policy further stipulates the promotion of waste minimization processes, including the efficient recycling of materials, where possible.

Applicable Proclamations, Regulations, and Procedural Guidelines Forming the National Environmental Management System

Environment Impact Assessment Proclamation (No 299/2002)

This proclamation requires that major development programs, plans, and projects of the private and public sectors are subject to ESIA before their approval. This proclamation also provides a legal base to harmonize and integrate environmental economic, cultural, and social considerations into the planning and decision-making process and thereby promotes sustainable development.

The ESIA Proclamation is used to predict and manage the environmental effects of a proposed development activity as a result of its design, siting, 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 into 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 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 incorporation of mitigating measures for the adverse significant impacts. The ESIA law and associated guidelines clearly define:

- ✓ Why there is a need to prepare ESIA's
- ✓ What Procedure is to be followed to implement ESIA
- ✓ The depth of environmental impact studies
- ✓ Which project requires full ESIA studies
- ✓ Which project needs partial or no ESIA studies
- ✓ To whom the report must be submitted

a. Environmental Impact Assessment Procedural Guidelines Series (Series 1 and 2)

In order to facilitate the implementation of the Environmental Impact Assessment Proclamation (Proclamation 299/2002), the MoEFCC (now EPA) had formulated four procedurals 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. These widely applied draft environmental impact assessment guidelines were under review to enhance the documents in light of the experiences gained so far and to publish it for official use after endorsement by the Ministry. The review process is still ongoing and yet to be completed during the current 2018/2019 fiscal year. Review Guideline Series 1 and 2 will be elaborated to a certain extent here and any further updates made to the documents will apply after the official publication of the reviewed guidelines.

b. Procedural Guideline Series 1 -Guidelines for Review Approach

This guideline pointed out the roles and responsibilities of the former MoEFCC (now called EPA) and Regional Environmental Agencies, the proponent, consulting firm, interested and affected parties, and the licensing agency. In the guideline, the ESIA 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 ESIA (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).

c. Procedural Guideline Series 2 - Guidelines for Contents and Scopes of Report

This guideline among others indicates the structure and content of the Environmental Impact Study Report and describe 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:

- ✓ Prevent reducing or minimizing impacts before they occur
- ✓ Eliminating an actual impact over time by incorporating appropriate mitigation 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

d. Environmental Management Plan

Guideline for Environmental Management Plan (draft), May 2004: outlines measures for preparation of Environmental Management Plans (ESMP) for proposed developments in Ethiopia and institutional arrangements for the implementation of ESMPs.

ESIA 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 ESIA. ESIA Guideline, July 2000: The ESIA 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, agriculture, industry, transport, mining, dams and reservoirs, tanneries, hydropower generation, irrigation project, and resettlement.
- ✓ The guideline contains Annexes that:

➢ Identify activities requiring full ESIA, partial measures on no actions.
➢ Contain sample forms for application.
➢ Provide standards and guidelines for water and air.

The Environmental Pollution Control Proclamation (No 300/2002)

This proclamation aims at eliminating or when not possible, mitigating pollution as an undesirable consequence of social and economic development activities. It further requires among other things for:

✓ Control of pollution,
✓ Management of hazardous waste, e-waste, chemical, and radioactive substances,
✓ With respect to environmental standards,
✓ Punitive and incentive measures etc. are included in the proclamation

Solid Waste Management Proclamation (No 513/2002)

The objectives of this proclamation are to enhance, at all levels, capacities to prevent the possible adverse impacts while creating economically and socially beneficial assets out of solid waste. Some of the important provisions include general Obligations of Urban Administrations, Solid Waste Management Planning, and Inter-Regional Movement of Solid Waste. It also aims to promote community participation to prevent adverse impacts and enhance benefits resulting from solid waste management. It provides for the preparation of solid waste management action plans by urban local governments. Ethiopia lacks an appropriate legal framework for e-waste management, the absence of e-waste recycling and refurbishing centers, and the lack of a regulatory framework including standards and certification addressing environmental impacts from optical fibers and related telecommunications equipment and materials.

Hazardous Waste Management and Disposal Control Proclamation (No 1090/2018)

This is one of the recently introduced environmental legislation that specifically deals with hazardous wastes, the proclamation in its preamble elucidated hazardous waste as one of the most crucial environmental problems in Ethiopia. It stated the importance of prevention and control of these types of wastes and emphasized the need for the creation of a system to control the generation, storage treatment, recycling, and reuse as well as transportation and disposal of hazardous wastes to prevent harm to humans and animal health as well as the environmental. The proclamation defined "hazard" as the inherent characteristics of a substance, agent, or situation having the potential to cause diverse effects or damage to human or animal health, the environment, biodiversity, and property. The categorization of hazardous waste is indicated in Annex-I and II of the proclamation.

The objectives of this proclamation are stated:

✓ Create a system for environmentally sound management of hazardous waste and disposal of hazardous waste.
✓ Prevent the damage to human and animal health, the environment, biodiversity, and property due to the mismanagement of hazardous waste

Further its scope of application is also stated as:

✓ Waste that belongs to any category contained in Annex One of this Proclamation, and waste possesses any of the characteristics contained in Annex Two; as well as on those wastes that might be categorized as hazardous waste by the directive to be issued by the Ministry.
✓ A person who generates, reuses, recycles, stores, transports, or disposes hazardous waste at large in the nation.
✓ The proclamation within its 24 articles has dealt with all character and management of hazardous wastes.

Sectoral Legal Requirements

Public Health Proclamation (No 200/2000)

Prohibits discharging of untreated liquid waste generated from septic tanks, seepage pits, and industries into water bodies, or water convergences and, prohibits the disposal of solid or liquid or any other wastes in a manner which contaminates the environment or affects the health of the society, etc.

Water Resource Management Proclamation (No 197 2000)

Article 22 sub. Article 1 reads charge shall be paid by the permit holder for discharge or release of waste into water resources.

Climate Resilient Green Economy

The Climate Resilient Green Economy (CRGE, 2011) is Ethiopia's overarching framework and a national strategy towards a green economy. The Green Economy Strategy is believed to provide an opportunity to promote sustainable development in Ethiopia. Currently, it builds on an investment plan of over 60 initiatives that are, or can be, turned into financed projects. For this to happen, there is a strong need to reform the economy. The CRGE is envisioned to be the main driver for this transformation. The CRGE has three complementary objectives: i) fostering economic development and growth, ii) ensuring abatement and avoidance of future GHG emissions; and iii) improving resilience to climate change. To achieve these objectives, CRGE sets out to tap into international climate finance, seize opportunities for innovation and new technologies and create competitively advantages via sustainable resource use and improving productivity.

FDRE National Occupational Safety and Health Policy and Strategy

The National Policy and Strategy on Occupational Safety and Health (OSH) was endorsed by the FDRE Council of Ministers in July 2014. The OSH policy and strategy was prepared to implement the rights of Labor as stipulated in article 42(2) of the Constitution and implement the requirements of International Conventions on Occupational Health and Safety (No.155) to which Ethiopia is a signatory. The overall objective of the national OSH Policy and strategy is to avoid, prevent or minimize occupational and health hazards by providing effective OSH services in all working places and thereby contribute to the socio-economic development of the Country.

The guiding principles of the National OSH policy and strategy are stated as the following:

- ✓ Occupational safety and health services are basic rights of workers
- ✓ Occupational safety and health services are necessary in all working places
- ✓ Occupational accidents and health hazards can be prevented
- ✓ Tripartite and bipartite cooperation and coordination are key instruments for the national OSH policy and strategy.

Communication Services Proclamation (No 1148/2019)

The Communication services proclamation have been promulgated to establish the Ethiopian Communications Authority, which is an independent, transparent, and accountable regulatory Authority, to achieve the Government's policy of restructuring the telecommunications market and introducing competition. The main objective of the Authority includes promoting the development of high quality, efficient, reliable, and affordable communications service; and to promote a competitive service and market for the achievement of these goals throughout the nation. The communication services proclamation, under Article 32, stipulates the rights of telecommunications operator to use land and buildings by paying a usage fee. Article 32 sub-article (1) states that: Any telecommunications operator before ten days of entering to any land or building, upon giving written notice to the lessee or possessor of the land or owner of the building may conduct the following activities.

- ✓ Pass telecommunications lines in or upon land or over, the building and establish same

- ✓ Put up any pole, which may be required for support of a telecommunications line,
- ✓ Fasten or attach to anything growing on that land a bracket or other support for a telecommunication
- ✓ line Cut down any tree or branches that are likely to injure, impede or interfere with any telecommunications line.

The proclamation also states that: telecommunication operators shall ensure that as little damage as possible is caused to the land or building and to the environment and shall pay fair and adequate compensation to the lessee or possessor of the land or owner of the building for any damage or loss sustained by reason thereof.

The labor Law Proclamation (No 1156/2019)

The Proclamation repealed and substituted the former Labor Proclamation No.377/2003. But much of the provisions of the previous labor law were retained with some improvements and additions. One of the important improvements made is on protecting child labor by increasing the minimum age for young workers to be 15 years old (versus the previous 14 years) and have introduced a new sub-article (14h) prohibiting Sexual Harassment or Sexual Assault at the workplace to prevent GBV. Proclamation 1156/2019 covers health and safety at work, harmonious industrial relation and minimum workplace standard and addresses workplace vulnerability. Article 92-93 of the proclamation defines the obligation of employers and employees in the workplace including the assignment of safety officers and committees. The Labor Proclamation mandates employers to protect occupational safety, health and create a better working environment for their workers. Article 92 states that "The employer shall take the necessary measure to safeguard adequately the health and safety of the workers…"

The law requires employers to i) take appropriate steps to ensure that workers are properly instructed and notified concerning the hazards of their respective occupations and the precautions necessary to avoid accident and injury to health; ii) ensure that directives are given and also, assign safety officer; establish an occupational, safety, and health committee of which the committee's establishment shall be determined by a directive issued by the Minister; iii) provide workers with protective equipment, clothing, and other materials and instruct them of its use; etc. In addition to enacting its labor codes, Ethiopia is also a signatory to the international UN conventions and has ratified the major international human rights instruments. Ethiopia has also ratified the following ILO conventions:

Forced Labor Convention No.29 /1930.
Freedom of Association and Protection of the Right to Organize Convention, No.87/1948
employment Service Convention, No.88/1948
Right to Organize and Collective Bargaining Convention, No.98/1949.
Abolition of Forced Labor Convention, No.105/1957.
Minimum Age Convention No. 138 /1973.
Occupational Safety and Health Convention, No.156/1981.
Termination of Employment Convention, No.158/1982.
The Rights of the Child Convention (1989); and
The Worst Forms of Child Labor Convention No.182/1999.

Proclamation on Persons with Disabilities and Vulnerable Groups (No 568/2008)

Proclamation No. 568/2008 Rights to employment for Persons with Disabilities makes null and void any law, practice, custom, attitude, and other discriminatory situations that limit equal opportunities for persons with disabilities. It also requires employers to provide an appropriate environment for work, training and take affirmative measures particularly when employing women with disabilities.

Council of Ministers Regulation (No 472/2020)

This regulation is issued by the Council of Ministers pursuant to Article 5 of the definition of powers and duties of the Executive Organs of the Federal Democratic Republic of Ethiopia proclamation No 1097/2018

and payment of compensation proclamation No 1161/2011 article 26 (1). This regulation may be cited as "Expropriation and Valuation, Compensation and Resettlement Council of Ministers Regulation No 472/2020.

Applicable International Conventions Endorsed by Ethiopia

Ethiopia has ratified several international/multilateral environmental conventions and many of the principles and provisions in those conventions have been well addressed in the national environmental policies and regulations. Accordingly, Article 9(4) of the constitution of the Federal Democratic The Republic of Ethiopia provides that once an international agreement is ratified through the accepted or established procedure, it automatically becomes an integral part of the law of the land. Therefore, the following international conventions and protocols are relevant to the proposed EDFP operation.

UN Framework Convention on Climate Change

It provides a framework for international cooperation to combat climate change by limiting average global temperature increases and the resulting climate change and coping with its impacts. The objective of this convention is to stabilize greenhouse gas concentrations in the atmosphere at a level that will prevent dangerous interference with the climate system. Ethiopia ratified this convention through proclamation No 97/1994 on May 2/1994. This convention considers the fact that climate change has transboundary impacts.

The United Nations Convention to Combat Desertification

The objective of the convention is to combat desertification and mitigate the effects of droughts in countries experiencing serious drought and desertification, particularly in Africa. Ethiopia has ratified the convention through its proclamation No 80/1997.

Convention on Biodiversity

The convention of Biodiversity has three goals:
- ✓ Conservation of Biodiversity
- ✓ Sustainable use of components of biodiversity
- ✓ Fair and equitable sharing of benefits arising from the use of genetic resource

Convention for World Cultural and Natural Heritage, Paris, 23 Nov 1972

Kyoto Protocol to the United Nations Framework Convention on Climate Change

Legally binds developed parties to emission reduction targets

Applicable World Bank Environmental and Social Standards

The applicability of the World Bank ESSs depends on the nature and scale of the subproject activities and the applicable WB ESSs are the following:
- ✓ ESS-1 Assessment and Management of Environmental and Social Risks and Impacts.
- ✓ ESS-2 Labor and Working Conditions
- ✓ ESS-3 Resource Efficiency and Pollution Prevention and Management.
- ✓ ESS-4 Community Health and Safety
- ✓ ESS-6 Biodiversity Conservation and Sustainable Management of Living Natural Resources.
- ✓ ESS-7 Indigenous peoples and sub-Saharan African Historically Underserved Traditional Local Communities.
- ✓ ESS-8 Cultural Heritage.
- ✓ ESS-10 Stakeholder Engagement and Information Disclosure

Environmental and Social Risk/Impact management and Institutional Arrangements for the Implementation of the ESMF

According to the World Bank, Environmental and Social Standards projects supported by the Bank through Investment Project Financing are required to meet the Environment and Social Standards (ESS). The ESS is designed to help the implementing agency and implementing partners (i.e MInT, ECA, MoE/EthERNet, and other Partners) to manage the risks and impacts of a project and improve their environmental and social performance through risk management and outcome-based approach. The implementing agency and partners are required to manage environmental and social risks and impacts of the project and sub-project activities throughout the project life cycle in a systematic manner proportionate to the nature and scale of the project and the potential risks and impacts.

For the anticipated risks and impacts of the project and subproject activities, an Environmental and Social Commitment Plans (ESCP) have been prepared by MInT and MOF outlining detailed commitments to support compliance with the ESS of Environmental and Social Framework (ESF) of the Bank. The ESCP described the different management tools that EDFP/MInT will use to develop and implement the agreed measures and actions. These management tools include Stakeholder Engagement Plan (SEP), Labor Management Plan (LMP), and GRM and /or GBV code of conduct or action Plan. In the context of the present EDFP project, as the specific sites for the implementation of the subproject activities have not been identified at this stage ESMF has been prepared as an E & S management tool for the project. However, during the implementation stage, the site-specific risk management instruments (ESMP, ESIA) will be prepared to mitigate risks associated with the subproject activities after the subproject activities pass through the ES screening checklist in Annex-A.

The lead responsibility for the overall coordination and implementation of the EDFP lies on the Ministry of Innovation and Technology (MInT) where a Project Implementation Unit (PIU) is established. The PIU and its environment and social risk management staff will be in charge of implementing the ESMF process in all applicable EDFP financed subprojects. The PIU environmental and social risk management specialists will also be responsible to supervise the environmental and social risk management issues in relation to all EDFP financed sub-projects. The PIU E & S specialists will need to work in close collaboration with the E & S focal persons in a partner as well as beneficiary institutions.

As the EDFP is going to be implemented throughout Ethiopia resulting in a potentially large number of subproject activities spread all over the country, it will be important that EDFP implementing partners and beneficiary Government institutions (such as EthERNet (MoE), ECA, regional BoH, and BoE) and the private sector telecom operators, who will be awarded Indefeasible Right of Use (IRU) contracts, should assign focal persons for environmental and social risk management. For purposes of the practical application of the latter, it is important to include an environmental clause that demands the deployment of an environmental and social risk management focal person.

Roles and Responsibilities of the Environmental & Social Focal Persons in the Beneficiary Institutions

The EDFP is a project which consists of a series of sub-project activities to be identified and implemented in several places across the country, the risks and impacts cannot be determined until the subproject location and design details have been identified. For such projects as EDFP involving multiple small projects, that are identified, prepared, and implemented, the projects should pass through screening/scoping procedures and categorize the subprojects, based on the WB or national guidelines.

In coordination with the E & S specialist at EDFP the Focal Persons are expected to:

✓ The focal persons from the respective partner/ beneficiary institutions shall actively participate in the identification of the subproject's activities supported by EDFP.

- ✓ The PIU environment and social risk management specialists will coordinate with the focal persons assigned by the partner and beneficiary institutions and private sector telecom operators and will ensure the implementation of subproject activities in compliance with the requirements of the ESMF.
- ✓ The focal persons are also participated in categorizing the subproject activities into high risk, substantial risk, moderate risk, low risk, or into schedule I, II, III according to the WB or national standards respectively
- ✓ The focal persons from the beneficiary institutions shall actively participate in the screening/scoping processes of their respective subproject activities supported by EDFP as it is illustrated in the Annex-A of the same guideline.
- ✓ Participate in the decision-making of the need for the preliminary Environmental and Social Impact Assessment for those specific subprojects undergone the screening process and fall under schedule II.
- ✓ Participate in the TOR preparation and selection processes of the consultant who is going to conduct preliminary ESIA.
- ✓ Follow up on the review and approval processes of the Environmental Protection Authority on the preliminary Environmental and Social Impact Assessment.
- ✓ Participate in the monitoring activities of the EDFP financed subproject activities and on the implementation of the ESMF requirements.

Figure 1. Institutional Arrangement for the ESMF Implementation
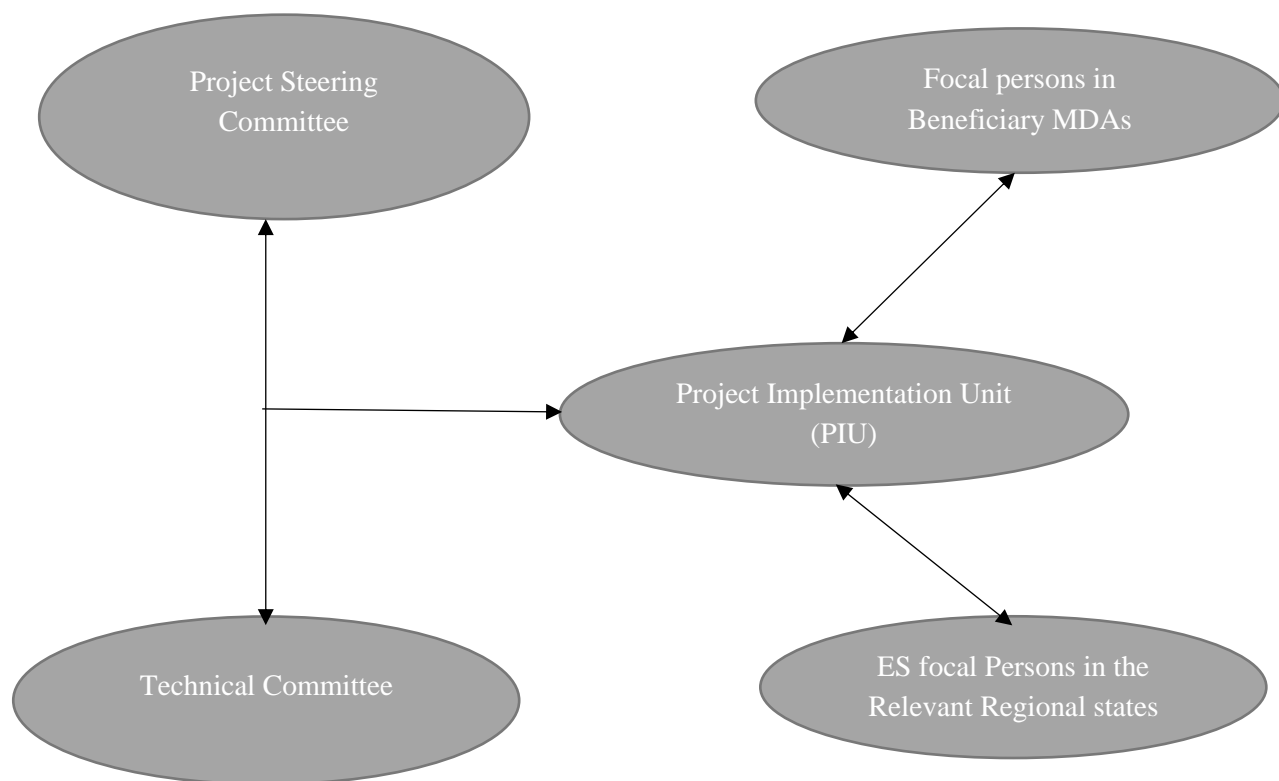
Environmental and Social Screening/Scoping Procedure for Sub-project Supported by EDFP

As EDFP is generally categorized as a "Moderate Risk" project and hence EDFP/MInT will be required to undertake the appropriate environmental and social assessment of subprojects in accordance with the

national law and any requirements of the ESSs that are deemed relevant to the sub-projects. Accordingly, the most important National guideline that defines the categorization of subprojects into various schedules is the EIA Procedural Guideline issued by the Federal Environment, Forest, and Climate Change Commission in November 2003. The ESIA Procedural Guideline Categories all development projects into three Schedules of activities or projects. The full list of Schedule I, II and III subprojects of the EIA procedural guideline (2003) is provided in Annex- B. It should also be noted that the relevant ESSs that are likely to be triggered by the EDFP are broadly assessed and outlined in section 9 of the same document above, however, need to be customized and applied based on the nature and scale of the subproject.

Under the EDFP, it is anticipated that the majority of Component 2 & 3 subproject activities will fall into Schedule II subprojects and may require Preliminary ESIAs. However, it is also possible that certain subprojects crossing through environmentally sensitive areas and ecosystems such as the National Parks, areas with rare/endangered plants and animals, wetlands, and National Heritage sites may fall under Schedule I (i.e., High risk). Under such circumstances, re-sitting, redesigning, or rerouting of subproject sites should be made to avoid impacts on the sensitive areas and ecosystems. If the risk rating of a subproject is classified as substantial or higher risk as per the World Bank ESF classification, EDFP/MInT will notify the World Bank to update both the ESCP and ESMF as appropriate and apply the relevant requirements of the ESSs.

Processes and Procedures for Sub-Project Screening/Scoping

Step-1 Identification of Sub-Project

Subproject refers to the set of activities derived from the EDFP component and sub-component activities including technical assistance studies and consultancies for which support through investment project financing is sought by EDFP/MInT. One procurement contract be a subproject or can multiple subprojects be part of one contract. Identification of subprojects is carried through the consultative process by the lead implementing agency (EDFP/MInT), the partner institutions such as EthERNet, MoP, and ECA, regional states (e.g: Health and Education sector Offices), and in collaboration with other beneficiary MDA offices. If the identified subprojects are reviewed and approved as an annual action plan by the PSC, shall be eligible for E & S screening.

Step-2 Screening and Scoping

Screening is a key environmental and social management process aiming at determining appropriate full follow-up that might be required for sub-project activities. The screening aims at categorizing the sub-projects into one of the environmental and social categories consistent with National EIA Guidelines and the ESS of the WB. The screening will be carried out on the specific project activities once they have been identified during the planning phase of the EDFP. As required in the ESMF document, all relevant EDFP subprojects having specified site location as well as supported by relevant technical assistance should be screened/scoped for social and environmental impacts. Screening/scoping will be required where investments will be made on refurbishment of existing infrastructure, or on development of new infrastructure subprojects included in the endorsed action plan of EDFP.

To achieve the requirements of the World Bank ESS-1 and National EIA guidelines, the environmental and social screening/scoping will follow two stages. Initially, a screening/scoping of subprojects will be carried to categorize it into one of high, substantial, moderate, or low risk. During this first stage, the subproject in focus will be screened/scoped using the scoping/screening form attached in Annex-A. Under EDFP, it is anticipated that most subproject activities will fall under moderate or low risk (in line with the overall categorization of the EDFP as "Moderate" risk rating) and no "High Risk" sub-projects are expected. In the event that a sub-project screening/scoping results in a "High risk" rating it will be necessary to exercise re-sitting, redesigning, or rerouting of the

subproject sites to avoid the adverse impacts and lower the risk rating to moderate risk. As general guidance, if the risk rating of a subproject increases to a higher risk rating, EDFP/MInT will notify the World Bank to update the ESCP as appropriate and apply the relevant requirements of the ESSs. Once the subprojects are screened/scoped and confirmed to fall on or below the substantial risk category, then further categorization will be carried by applying the national screening system to identify the schedule of activities into which the subproject will fall (Schedule I, II & III). Based on the nature and scale of EDFP subprojects it is expected that most will fall under schedule II or III which may require preliminary ESIA or no ESIAs. The PIU environment and social specialists in collaboration with the environmental and social focal persons of partner and beneficiary institutions will initiate the screening/scoping process by completing the form contained in Annex A. The aim of the scoping/screening form is to assist in identifying potential environmental and social impacts based on field investigations in the subproject site. The checklist in the form helps to determine the characteristics of the prevailing local biophysical and social environment with the aim of assessing the potential impacts of the construction and rehabilitation activities on the environment by the subproject. The screening/scoping exercise should also involve the cultural heritages and resettlement aspects of the subproject. Based on the nature and size of the subproject, the PIU environment, and social risk management staff can seek assistance from other members of the technical committees while carrying the environmental and social screening. The outcome of environmental screening/scoping will classify the proposed EDFP subproject into one of the Substantial, Moderate, or Low-risk categories and Schedule I, II, III activities. The Screening/Scoping report to be produced will describe:

- ✓ The proposed subproject and its potential impacts
- ✓ Characteristics of locations (sensitivity of the area)
- ✓ Size (small, medium, or large scale)
- ✓ Degree of public interest,
- ✓ Main environmental impacts and mitigation considerations,
- ✓ Categorization of the subproject (substantial, moderate, or low risk and schedule II or III)

The completed screening/scoping report will be submitted first to the PIU coordinator for internal review and approval. It will then be submitted to the relevant Regional or Zonal EPFCCA and for Federal EFCCC (now EPA) with an official application letter for review and approval. For subprojects implemented in Addis Ababa and Dire Dawa City Administrations, the E & S screening report will be submitted to the respective City level environment Protection offices. The regional or Zonal EPFCCC offices will review the Screening/ Scoping Report and will:

- ✓ accept the document with conditions relating to implementation
- ✓ accept the document with required and /or recommended amendments or
- ✓ Reject the document with comments as to what is required to submit an acceptable screening report.

Following the approval of the subproject environmental screening report by Federal or Regional EPA, the subproject will be fed into one of the following processes based on its approved Categorization.

- ✓ Schedule II subprojects will require a partial or preliminary ESIA and will necessitate the inclusion of environmental and social mitigation and enhancement measures in the design and implementation of subprojects.
- ✓ Schedule III projects are not subject to environmental assessment as no potential impacts are anticipated. Thus, no further action is required. However, the environmental guideline for construction contractors will be applicable.

Step-3 Schedule 3 Subprojects ad Preliminary ESIA Preparation

If the outcome of the E & S screening/scoping finally results in categorizing the subproject as schedule-II activities, the following actions need to be pursued. Schedule II projects will be subject to a limited Environmental and Social Impact Assessment that could be carried out with the help of registered and licensed environment and social consultants. Schedule II subprojects are required to

prepare "Preliminary" or also otherwise called "Partial" ESIAs in which the depth of the information requirement can be defined in consultation with the relevant Federal, Regional or Zonal level EPFCCA.

Generally, the scope of ESIA for the schedule II project may vary, but it is narrower than that of Schedule-I ESIA. Like Schedule I ESIA, it examines the project's potential negative and positive environmental impacts and recommends any measures needed to avoid, minimize, mitigate, or compensate for adverse impacts and improve environmental performance which will be summarized in the ESMP. Undertaking the preparation of the Preliminary ESIA involves:

- ✓ Field assessment of the subproject area to identify likely environmental and social impacts,
- ✓ Consultation with the beneficiaries and affected communities,
- ✓ Preparation of an ESMP

During the study of the Partial Environmental and Social Impact Assessment, the PIU environment, and social risk management staff, and beneficiary or partner institutions, focal persons will have to ensure the quality of the assessment by conducting an interim review of draft Preliminary ESIA report submissions. The partial Environmental and Social Impact Assessment will then be presented by the PIU to the PSC for further executive review and approval. Following that, the preliminary ESIA will be sent to the World Bank Country office for review and clearance/ no-objection. Finally, the Preliminary ESIA will be submitted by the PIU and/or environment focal persons in partner/beneficiary institutions to the relevant Regional or Zonal level EPFCC office with an official application for review and approval. The national ESIA system does not have a fixed table of content for preliminary ESIA but is usually determined through discussion during the early screening/scoping phase with the EPFCC officers or one can use the World Bank table of content for preliminary ESIA or for ESMP.

If, on the other hand, the outcome of the E & S screening/scoping finally results in categorizing the subproject as schedule-III activities, no further actions to carry Environmental Assessment will be needed. Based on the nature of the schedule-III subproject, if deemed necessary, a distinct ESMP will be prepared to address and mitigate the expectedly few and minor environmental and social impacts of the subproject and attach it with the E&S screening report for further implementation.

Step-4A Review and Decision

The relevant Federal, Regional or Zonal EPFCC will review the Preliminary ESIAs submitted to it by the PIU and/or environment focal persons in partner/beneficiary institutions. The purpose of the review is to examine and determine whether the Preliminary ESIA is an adequate assessment of the environmental effects of the EDFP subproject under consideration and of sufficient relevance and quality for decision-making. Reviewing by the competent Regional or Zonal level EPFCC may include considerations of the adequacy of:

- ✓ The examination of alternatives, assessment of impacts appropriateness of mitigation measures and monitoring schemes as well as implementation arrangements.
- ✓ The extent of public involvement and reflection of community/stakeholders concerns and,
- ✓ The presence of adequate information is required in the report.

The outcome of the review of the preliminary ESIA by the regional or zonal level EPFCC will result in either one of the following:

- ✓ Accept the document, with conditions relating to implementation.
- ✓ Accept the document, with required and /or recommended amendments or.
- ✓ Reject the document with as to what is required to submit an acceptable ESIA and ESMP.

Step-4B Information Disclosure

While in the review and approval process, as required by the World Bank guidelines and the National ESIA proclamation, the Preliminary ESIA documents must be disclosed for public review at a place accessible to local people (e.g. at a local government office i.e. kebele council, City/town, and regional bureaus, at the Regional/Federal EPFCCA, EDFP/MInT website, e.t.c), and made available and accessible,

and in the language, they can understand. Disclosure of the Preliminary ESIA in the World Bank's info shop is also a requirement for the EDFP. The approved Preliminary ESIA will be sent finally to the World Bank Country office for further disclosures in the info shop. The ESMPs will be disclosed following the requirements of the Bank.

Step-5 Implementation and Supervision or Monitoring

When approval has been given to the Preliminary ESIA, implementation of mitigation measures and systemic follow-up is needed for the sub-project. In order to enforce the implementation of recommended mitigation measures, there is a need to include an environmental clause in the contract agreements to be signed with the construction contractors and telecom operators. The environmental the clause should demand the construction contractor and telecom operator to implement and monitor all proposed mitigation measures in the ESMP that are applicable during the construction phase and beyond. The PIU will also be required to enforce the implementation of proposed mitigation measures proposed in the ESMP by all responsible institutions and stakeholders.

Internal monitoring to ensure the compliance of EDFP subproject implementation activities against the mitigation measures set out in its ESMP, will be carried out by the environment and social risk the management staff of the PIU, focal person of the partner/beneficiary institutions who are responsible for environmental and social management as well as the supervisory engineer at the construction site. The PIU environment and social risk management staff in collaboration with the partner/beneficiary institution focal persons will have the primary responsibility for carrying out regular monitoring visits on the subprojects, and pursuing the corrective measures as required. Periodic monitoring reports should be prepared quarterly by the environment and social risk management staff and submitted to the PIU and then to the PSC as part of the regular EDFP M&E process.

The implementation of the recommended mitigating measures will also be monitored by the Regional, or Zonal level EPFCC offices. The PIU risk management staff and/or focal persons in the partner institutions will have to collaborate in the planning for external compliance monitoring and inspections that will be conducted by the relevant Regional and Zonal EPFCC offices. The planning for external compliance monitoring/inspection could be initiated by the regional and zonal EPFCC itself or (if that is not coming forward from EPFCCC (now EPA) side) by the PIU and partner/beneficiary institution environment focal persons.

Compliance monitoring comprises site-inspection of construction activities to verify that measures identified in the ESMP and those included as environmental clauses in the contractual agreements for contractors are being implemented. Compliance monitoring and supervision of the ESMP covers:

- ✓ Determine whether the project is carried out in conformity with the environmental risk management instruments and legal agreement.
- ✓ Ensure that the anticipated impacts are maintained within the level of prediction.
- ✓ Identifying problems as they arise during implementation and recommending means to resolve
- ✓ Seeing that the un-anticipated impacts are managed and or mitigated before they become problems,
- ✓ Recommending changes in project concept/design, as appropriate, as the project evolves or circumstances change; and
- ✓ Realizing and optimizing the benefits expected, and
- ✓ Providing information for a periodic review and alteration of the environmental management plan and enhance environmental protection through good practice at all stages of the project.

It is, therefore, necessary that the Environmental and Social Management Plan, full or condensed Resettlement Action Plan, including Cultural Resource Management Plan, (if applicable and prepared) is supervised, monitored, and reported on together with other progress of the subprojects.

Step-6 Environmental and Socia Risk Management Monitoring Report

Quarterly, biannual, and annual environmental and social risk management monitoring reports must be prepared by PIU in collaboration with environment focal persons in partner/beneficiary institutions. The environmental and social risk management monitoring reports should be submitted to the project steering committee, to the Regional EPFCCA, and the World Bank for review. The purpose of this report is to provide:

- ✓ A record of EDFP subproject activities, experience, and issues running from year-to-year throughout the EDFP that can be used for identifying difficulties and improving performance; and
- ✓ Practical information for undertaking an annual review.

Step-7 Annual review

ESMF implementation will also be supported by conducting annual environmental and social performance audit (including audit of the implementation of Preliminary ESIA/ESMPs, and CHMPs as appropriate) that will be carried out by a third party. The third-party annual environmental and social performance audits will be conducted on the EDFP subproject activities to evaluate the overall implementation of the ESMF. The annual environmental and social performance audits will be considered to be the principal source of information to Project management for improving environmental and social performance. It is expected that these annual performance audits will be carried out by a registered and licensed independent consulting firm that is not otherwise involved in the Project. The purpose of the annual performance audit includes:

- ✓ To assess compliance with ESMF procedures, learn lessons, and improve future ESMF performance; and
- ✓ To assess the occurrence of, and potential for, cumulative impacts due to Project-funded and other development activities.

Figure-2 Diagram Showing ESMF Process Flow

```
┌─────────────────────────────┐
│ Step-1 Subproject           │
│ Identification and          │
│ Eligibility Checking        │
└─────────────────────────────┘
             │
             ▼
┌─────────────────────────────┐
│ Step-2 Subproject           │
│ screening/scoping using     │◄──────────────────────────┐
│ Annex-A screening checklist │                            │
│ by PIU ES staff and focal   │                            │
│ persons from partner and    │                            │
│ beneficiary institution     │                            │
└─────────────────────────────┘                            │
             │ YES                                          │
             ▼                                              │
┌─────────────────────────────┐    NO    ┌─────────────────────────────┐
│ Step-3 Review and approval  │─────────►│ Resetting, redesign or      │
│ of screening/scoping        │Amendment │ reroute the subproject or   │
│ reports by PIU and relevant │          │ reject for financing        │
│ EFPCC offices (now EPA)     │          └─────────────────────────────┘
└─────────────────────────────┘                            ▲
             │                                              │ PIU
             ▼                                              │
┌─────────────────────────────┐    NO                      │
│ Step-4 Preliminary ESIA     │◄───────────────────────────┤
│ preparation by              │                            │
│ registered/licensed         │                            │
│ consultant                  │                            │
└─────────────────────────────┘                            │
             │ YES                                          │
             ▼                                              │
┌─────────────────────────────┐          ┌─────────────────────────────┐
│ Step-5 Review and approval  │─────────►│ Amendment and rectification │
│ ESIA ARAP/RAP reports by    │          │ of ESIA, ARAP/RAP reports   │
│ relevant EPFCC offices      │          │ as per comment              │
│ (now EPA)                   │          └─────────────────────────────┘
└─────────────────────────────┘
             │
             ▼
┌─────────────────────────────┐
│ Step-6 E & S monitoring and │
│ compliance inspection by    │
│ subproject                  │
│ contractors/supervisors     │
└─────────────────────────────┘
             │
             ▼
┌─────────────────────────────┐
│ Step-7 E & S compliance     │
│ reporting for PSC MInT      │
│ quarterly, biannually, and  │
│ annually by PIU E & S staff │
└─────────────────────────────┘
             │
             ▼
┌─────────────────────────────┐
│ Step-8 annual review of     │
│ E & S performance by        │
│ registered or licensed      │
│ external firm               │
└─────────────────────────────┘
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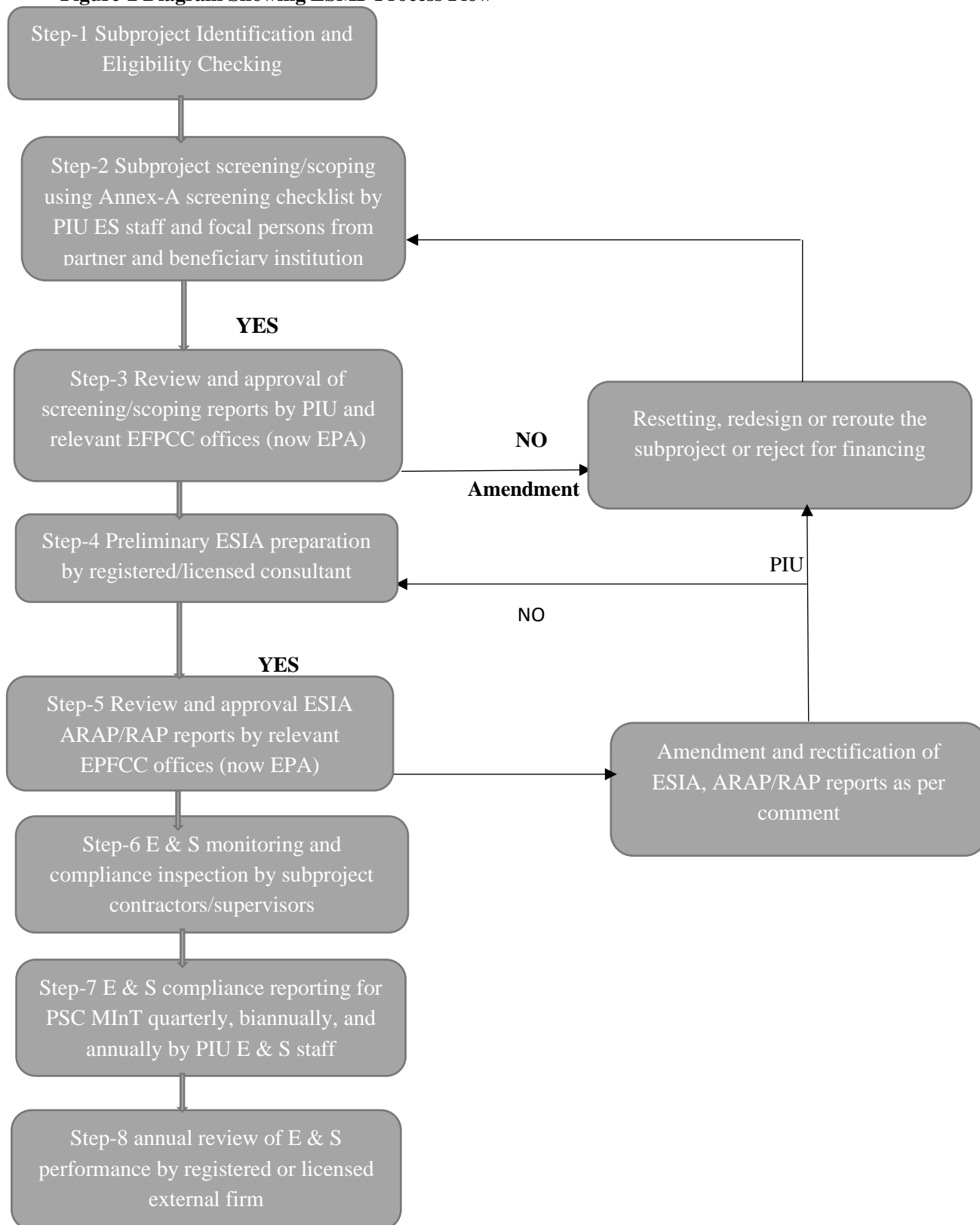
Table -1 Outline the Roles and Responsibilities of the ESMF Implementation

Activity	Lead Role for Preparation and/or Implementation	Lead Role for Review, Approval, and Monitoring
Completion of using the form in Annex A: Screening Form	E & S staff of the PIU in collaboration with the focal persons to be deployed by each partner/beneficiary institution	Federal EPA, Regional, zonal, or city level EPFCCCs, and the World Bank, for review and clearance of preliminary ESIA documents.
And Preparation of preliminary ESIA, CHMP Environmental &Social Audit	Preliminary ESIA, and E & S Audit preparation by registered/ licensed consultant/firm (ESMP for schedule III), CHMP preparation by focal persons to be deployed by partner/beneficiary institutions.	
Implementation monitoring of preliminary ESIA, ESMP, CHMP	PIU E&S risk management specialists in collaboration with the focal persons to be deployed by partner/beneficiary institutions, contractors/supervisors	
Environmental and Social Audit by a licensed and independent consultant.	External registered/ licensed Environmental and Social consultancy in collaboration with the PIU.	

Sub-Project Requiring a Special Procedure and Guideline

As the EDFP subcomponent activities are likely to involve sub-project activities with leaner infrastructure development, acquiring small plots of land and/or usage of properties, and activities to re-designing or refurbish existing buildings it is likely that it can pose an impact on historical buildings and cultural heritage sites. Therefore, it is important that the environmental and social assessment consider direct, indirect, and cumulative sub-project-specific risks and impacts of the proposed activities of the project on cultural heritage will be determined.

The EDFP subproject activities should consider avoiding impacts on cultural heritage. When avoidance of impacts is not possible, it should identify and implement measures to address impacts on cultural heritage in accordance with the mitigation hierarchy. The mitigation measures will need to be integrated into the ESMP to avoid damage to cultural properties. Based on the nature (i.e. whether affecting National or World Heritage sites) and scale of impacts, where appropriate, it will also develop a Cultural Heritage Management Plan (CHMP).

The mitigation plan in the ESMP/CHMP should be consistent with Proclamation No 209/2000 on Research and Conservation of Cultural Heritage, the World Bank ESS8 for Cultural Heritage, and should take into account institutional capabilities relating to the management and preservation of physical cultural resources. Mitigation measures include, for example,

- ✓ Consultation with the appropriate authorities and local inhabitants to identify known or possible sites during sub-project planning,
- ✓ Relocating the subproject to avoid identified sites,
- ✓ Relocating or modifying the physical footprint of the project,
- ✓ Conservation and rehabilitation in situ,

- ✓ Relocation of cultural heritage,
- ✓ Establishment of the monitoring system to track the progress and efficacy of these activities,
- ✓ Establishment of an implementation schedule and required budget for the identified mitigation measures; and cataloging of finds,

In case of the chance find of heritage encountered during subproject implementation activities, the procedures that should be followed are stipulated under article (41) "Fortuitous Discovery of Cultural Heritage" of the Proclamation No 209/2000 which includes:

(i) Any person who discovers any Cultural Heritage in the course of an excavation connected to mining explorations, building works, road construction or, other similar activities or in the course of any other fortuitous event shall forthwith report same to the Authority, and shall protect and keep same intact, until the Authority takes delivery thereof.

(ii) 'The Authority' shall, upon receipt of a report submitted pursuant to Sub-Article (I) hereof, take all appropriate measures to examine, take delivery of, and register the Cultural Heritage so discovered.

(iii) Where the Authority fails to take appropriate measures within six months in accordance with Sub- Article (2) of this Article, the 'person who has discovered the Cultural Heritage maybe released from his responsibility by submitting, a written, notification with a full description of the situation to the Regional government official.

(iv) The Authority shall ensure that the appropriate reward is granted to the person who has handed over a Cultural Heritage discovered fortuitously in accordance with sub-Articles (I) and (2) of this Article. And such person shall be entitled to reimbursement of expenses if any, incurred while discharging his duties under this Article.

(v) A complete chance find procedure incorporating the above procedure of the proclamation enriched with other necessary good practice procedures is presented in Annex C.

ES risk assessment procedures and standards for tower siting, access roads, land acquisition, etc. are going to be prepared by ECA supported by TA of EDFP subcomponent 1.1. Thus, it is expected that the standards will reflect the special procedures required there. Similarly, the e-waste management guideline recommended in the ESMP will outline the special procedures required.

References

1. EPA, 2000, Environmental Impact Assessment Guideline Documents, Addis Ababa, Ethiopia.

2. EPA, 2003, Technical Guidelines on the Environment Standards for Ethiopia, Addis Ababa, Ethiopia.

3. Dominik.R, et.al, 2010, Evaluation of the Environmental Policy and Impact Assessment Process in Ethiopia, Addis Ababa, Ethiopia.

4. MinT, 2021, Environmental and Social Management Framework, Addis Ababa, Ethiopia.

5. MinT, 2021, Stakeholder Engagement Plan, for Digital Foundation Project, Addis Ababa, Ethiopia

6. UNEP, 2011, e-waste, "Take Back System

ANNEXES

Annex-A Environmental and Social Screening/Scoping Form

Introduction

This Environmental and Social Screening Form (ESSF) has been designed to assist in the evaluation of construction and refurbishment/rehabilitation activities under EDFP. The form will assist the sub-project implementers and reviewers to identify environmental and social impacts and their mitigation measures if any. It will also assist in the determination of requirements for further environmental work (such as environmental and social management plans) if necessary. The form helps to determine the characteristics of the prevailing local biophysical and social environment with the aim of assessing the potential impacts of the construction and rehabilitation activities on the environment by the sub-project. The ESSF will also assist in identifying potential socio-economic impacts that will require mitigation measures and/or resettlement and compensation.

Guidelines for screening

The evaluator should undertake the assignment after:

1. Gaining adequate knowledge of baseline information of the area.
2. Gaining knowledge of proposed project activities for the area.
3. Having been briefed/ trained in environmental and social screening.

The form is to be completed by consensus of at least two people, knowledgeable of the screening process.

Guideline: Site Inspection of Project Site. The Evaluation results to be a consensus of at least three officials.

Project Name:				District/City:				
Project Location:				Nature/Size:				
Type of Activity: (e.g new construction, rehabilitation, periodic maintenance)								
Name and Signature of Evaluator 1. ………………………………. 2. ……………………………….				Date of Field Evaluation ……………………………….. ………………………………..				
		Appraisal	Risk Significance Rating					
		Yes/No	None	Low	Moderate	Substantial High		Unknown
1.	**Environmental Screening (ESS-1)**							
	Will the project generate the following impacts							
1.1	Loss of Tress							
1.2	Soil erosion/ siltation in the area							
1.3	Pollution to land, diesel, oil							
1.4	Dust emission							
1.5	Solid and Liquid wastes							
1.6	Burrow pits and pools of stagnant water							
1.7	Rubble/heaps of excavated soils							
1.8	Demolishing waste from building							
1.9	Long term depletion of water							

1.10	Nuisance from noise or smell							
1.11	Incidence of Flooding							
1.12	Cross through, located within or nearby environmentally sensitive are (e.g National Parks, intact national forests, or wetlands, etc.)							
1.13	Cause poor water drainage and increase the risk of water-related diseases such as malaria, bilharzia, etc.							
1.14	Will certain ES risks and adverse impacts be difficult to avoid, or minimize or mitigate? because: • The project involves a technology that is new and/or complex and, the risks and/or impacts of this technology are not fully understood and/or • The project involves complex mitigation measures that its implementation success is not fully assured							
1.15	Does the scale of the project have the potential to cause diverse and multiple ES risks and impacts extended over large areas? This applies to both direct and indirect risks and impacts.							
1.16	Does the project have associated facilities (as in paragraph 11 of ESS1) that could lead to wide-ranging ES risks and impacts? Does the project design take into consideration such associated facilities?							
2.	**Labor and Working conditions and community safety**							
2.1	Risk of Exposing the workers to extremely hazardous working conditions including concern of structural safety.							
2.2	Will the development project have the potential for immigration workers or persons seeking employment (e.g seasonal transient)? Is there potential for employment of community workers?							
2.3	Is there an institutional impediment to fair treatment, non-discrimination, and/or equal opportunity?							
2.4	Is there a risk of potential for the employment of child labor and/or forced labor?							

2.5	Could the project expose communities to emergency events or hazards that involve health or safety risks or impacts?							
2.6	Do project activities, civil works, or buildings locate in the area prone to natural disasters or extreme weather events?							
2.7	Will the project result in potential traffic and road safety risks to workers, communities, or road users throughout the project life cycle?							
2.8	Does the project involve a potential for community exposure to water-borne, water-based, water-related, and vector-borne diseases and communicable and non-communicable diseases?							
2.9	Risk of workers to extreme exposure for GBV							
2.10	Spread of HIV/AIDS and other STI							
3.	**Resettlement Screening (ESS-5)**							
	Will the project generate the following social and economic impacts?							
3.1	Loss of land to households							
3.2	Loss of properties- houses, structures							
3.3	Loss of trees, fruit trees by households							
3.4	Loss of crops by people							
3.5	Loss of access to rivers, forests, and grazing land							
3.6	Conflicts over the use of local water resources							
3.7	Disruption of important pathways, footpaths, and roads.							
3.8	Loss of communal facilities like churches							
3.9	Loss of livelihood system							
4.	**Cultural Heritage Screening**							
4.1	Important Heritage site, and graveyard lands.							
4.2	Will the project activity involve excavations, demolition, earth movement, flooding, and change to the physical environment that could affect cultural heritage value?							
4.3	Do project activities likely to affect tangible and/o intangible cultural heritage as defined in ESS8 (e.g archeological sites that comprise of a combination of any structural remains, artifacts, human ecological elements and may be located							

	entirely beneath, partially above or entirely above the land or water surface)?							
4.4	Are project activities being in legally recognized and/or legally protected areas, or defined buffer zones designated for the protection of cultural heritage?							
4.5	Will the project activities affect cultural heritage in non-designated or legally recognized areas or protection zones?							
4.6	Will the project affect cultural heritage assets that are movable (e.g rare books manuscripts, paintings etc.) that could be endangered by the project?							
5.	**Gender, vulnerable and disadvantage group screening**							
5.1	Does the project present risks to or impact on individuals or groups who, because of their circumstances may be disadvantaged or vulnerable due to their: ➢ Age, gender, ethnicity, or race ➢ Religion or belief systems ➢ Socio cultural grouping or nationality ➢ Sexual orientation and identity ➢ Climate change and seasonal factor							
5.2	Is the project likely to affect disadvantaged and vulnerable individuals or groups who would require specialized approaches to participation or consultation for the project?							
5.3	Is the project likely to face any barriers to information disclosure, transparent sharing of project information among stakeholders, or other aspects that could affect meaningful consultation?							
5.4	Is there a potential for prejudice or discrimination in accessing project benefits for those who may be disadvantaged or vulnerable?							

Categorization and Recommendations

After compiling the above, determine which risk category the subproject falls under based on the environmental categories High, Substantial, Moderate, and Low risk. If the subproject falls under "Substantial, Moderate or Low" risk categories, proceed to identify the category of the subproject (i.e Schedule I, II, or III) based on the national EIA procedural guideline issued by the Federal Environment, Forest, and Climate Change Commission (FEFCCC) now it is called EPA.

a. World Bank ESF

High Risk If the subproject falls under a 'high risk' E & S assessment should be conducted with The WB ESF, ESS

Substantial Risk If the subproject falls under 'substantial risk' the E & S assessment should be conducted in accordance with the national laws and any ESS, that the Bank deems relevant to Such subproject

Moderate Risk E & S assessment will be conducted according to national laws and any ESS that the Deems relevant for such project

Low Risk Subproject is not subjected to E & S assessment as no potential impacts are anticipated However, preparation, the inclusion of ESMP or environmental guideline for construction Contractors will be accepted.

*Please Tick in the Applicable Box

b. National EIA Procedure Guideline (2003) Categorization

Schedule I EDFP subprojects are highly unlikely to fall under schedule I in the unlikely event that, the subproject is fed Fed into standard ESIA process determined by federal and regional EPFCCC (now EPA).

Schedule II Subproject will require partial or preliminary ESIA and will necessitate the preparation of preliminary ESIA/ESMP.

Schedule III Subproject is not subjected to E & S assessment as no potential impacts are anticipated

***Please Tick in the Applicable Box**

1. Note that the Federal EIA procedural Guideline (2003) is widely applied in many regions as it is. However, Regional EPFCCCs such as Amhara EFWPPDA have issued ESIA guideline Directive 01/2010 that outlines the projects to be reviewed and approved at different levels of its Zonal and Woreda offices. Thus, it is advisable to consult such regional guidelines while determining the screening Category in addition to the Federal EIA procedural guideline.

2. Note that based on the national ESIA procedural guideline, "Telecommunication" is generally put in schedule III under the "Economic Infrastructure Service" section without specifying details of the type of facilities and activities involved. However, it was noted during the consultation discussion held with the Federal EPFCCC (now EPA) EIA Directorate that the draft EIA Procedural guideline was prepared in 2003 and some of the development activities involved in the telecommunication sector in the past two decades have brought in new telecom infrastructures with the advancement of technologies in the sector. Such new telecom infrastructure includes underground fiber optic cable and cell towers, the environmental and social impacts of construction and installation which may not have been considered. Thus, it will be important to weigh the nature, anticipated size, and significance of potential impacts of the subproject under consideration in deciding the categorization into the schedule of activities.

Reviewer and Approver

Name:

Signature:

Date:

Annex B: National EIA Procedural Guideline for Schedule of Activities
Schedule I List of Projects that Needs Full ESIA

1. **Agriculture**
✓ Water Management projects for agriculture (drainage, irrigation)
✓ Large scale monoculture (cash and food crops)
✓ Pest control projects
✓ Fertilizer and nutrient management
✓ Land development schemes covering an area of 500 hectares or more to bring forest land into agricultural production
✓ Agricultural programmers necessitating the resettlement of 100 families or more.
✓ Development of agricultural estates covering an area of 500 hectares or more.
✓ Construction of dams, man-made lakes, and artificial enlargement of lakes with surface areas of 200 hectares or more.
✓ Introduction of a new breed, species of crops, seeds, or animals
✓ Surface water fed irrigation projects covering more than 100 hectares
✓ Groundwater fed irrigation projects more than 100 hectares
✓ River's diversion and water transfers between catchments.
2. **Livestock and Range Management**
✓ Large scale livestock movement
✓ Introduction of new breeds of livestock
✓ Introduction of improved forage species
✓ Large-scale open range rearing of cattle, horses, sheep, etc.
✓ Large scale livestock production in urban areas
✓ Large scale slaughterhouse construction

- ✓ Ectoparasite management (cattle dips, area treatment)
- ✓ Intensive livestock rearing units

3. Forestry Activities
- ✓ Timber logging and processing
- ✓ Forest plantation and afforestation and introduction of new species
- ✓ Selective removal of single commercial tree species
- ✓ Pest management
- ✓ Conversion of hill forest land to other land use
- ✓ Logging and conversion of forest land to other land use within the catchments area of reservoirs used for municipal water supply irrigation or hydropower generation or in areas adjacent to parks
- ✓ Logging with special emphasis for endangered tree species
- ✓ Large scale afforestation, reforestation, monoculture forest plantation project which use exotic tree species
- ✓ Conversion of forest areas which have paramount importance of biodiversity conservation for hunting and capturing
- ✓ other land use
- ✓ Resettlement programs in natural forest and woodland area

4. Fishery activities
- ✓ Medium to large scale fishery
- ✓ Artificial fisheries (Aquaculture for the fishery, algae, crustacean shrimps, lobster, or crabs
- ✓ Introduction of new species in water bodies, commercial fishery

5. Wildlife
- ✓ Introduction of new species
- ✓ Wildlife catching and trading
- ✓ Hunting
- ✓ Wildlife ranching and farming
- ✓ Zoo and sanctuaries

6. Tourism and Recreational Development
- ✓ Construction of resort facilities and hotels along the shoreline of lakes, rivers, islands, and oceans
- ✓ Hilltop resort or hotel development
- ✓ Development of tourism or recreational facilities in protected or adjacent areas (national parks, marine parks, forestry reserve etc.) on islands and in surrounding waters
- ✓ Hanting and capturing
- ✓ Camping activities, walkways, or trails etc.
- ✓ Sporting or race tracts/sites
- ✓ Tour operation

7. Energy Industry
- ✓ Production and distribution of electricity, gas, steam, and hot water
- ✓ Storage of natural gas
- ✓ Construction of offshore pipeline in excess of 50 km in length
- ✓ High power transmission line
- ✓ Construction of combined cycle power station
- ✓ Thermal Power development (i.e coal or nuclear)
- ✓ Hydro-electric power
- ✓ Bio-mass power development
- ✓ Windmill power development
- ✓ Solar (i.e impact due to pollution during manufacturing of solar devices, acid battery spillage, and improper disposal of batteries)

✓ Transportation of petroleum products

8. Petroleum Industry
✓ Oil and gas fields exploitation and development, including the construction of offshore or onshore pipelines
✓ Construction of oil and gas separation, processing, handling, and storage facilities
✓ Construction of oil refinery
✓ Construction of product deposits for the storage of petrol, gas, diesel, tar, and other products within commercial, industrial, or residential areas
✓ Transportation of petroleum products

9. Food and Beverage Industries
✓ Manufacturing of vegetable, animal oil and fat
✓ Oil refinery and ginneries
✓ Processing and conserving of meat
✓ Manufacture of dairy products
✓ Brewing, distilling, and malting
✓ Fish meal factories
✓ Slaughterhouse
✓ Soft Drinks
✓ Tobacco processing
✓ Canned fruits and sources
✓ Sugar factories
✓ Other Agro-processing industry

10. Textile in Industries
✓ Cotton and synthetic fiber
✓ Dye for cloth
✓ Ginneries

11. Leather Industry
✓ Tanning
✓ Tanneries
✓ Dressing Factories on beach fronts
✓ Other cloth factories

12. Wood, pulp, and paper industries
✓ Manufacturing of veneer and plywood
✓ Manufacturing of fiber board and of particle board
✓ Manufacturing of pulp, paper, sand board, cellulose mills

13. Building and Civil Engineering Industries
✓ Industrial and housing estate
✓ Major urban project (multi-story building, Motor terminals, markets etc.)
✓ Tourist Installation
✓ Construction and expansion/ upgrading of roads, harbor, shipyards, fish harbor, airfields (having an airstrip of 2500m or long), and railways and pipelines
✓ River drainage and flood control works
✓ Hydro-electric and irrigation dams
✓ Reservoir
✓ Storage of scrap metal
✓ Military installation
✓ Construction and expansion of the fishing harbor
✓ Developments

14. Chemical Industries

- ✓ Manufacture, transportation, use, and storage pesticide or other hazardous and toxic chemicals
- ✓ Production pharmaceutical products
- ✓ Storage facilities for petroleum, petrochemical products (i.e filling station)
- ✓ Production of paints vanishes etc.

15. Extractive Industry
- ✓ Extraction of petroleum
- ✓ Extraction and purification of natural gas
- ✓ Other deep drilling-boreholes and well
- ✓ Minning
- ✓ Quarrying
- ✓ Coal Minning
- ✓ Sand Dredging

16. Mineral extraction and Processing
- ✓ Metallic minerals such as Iron, Lead, Copper, Nickel
- ✓ Industrial minerals such as Kaolin, Diatomite
- ✓ Construction minerals
- ✓ Mineral water
- ✓ Thermal water
- ✓ Extraction of salt from brine

17. Non-Metallic Industries (Products)
- ✓ Manufacture of cement, asbestos, glass, glass-fiber, glass-wool
- ✓ Processing of rubber
- ✓ Plastic industries
- ✓ Lime manufacturing, ceramics, and tiles

18. Metal and Engineering Industry
- ✓ Manufacture and assembly of motor vehicles
- ✓ Manufacture of other means of transport (trailers, motorcycles, motor vehicles, bicycles-cycles)
- ✓ Bodybuilding
- ✓ Boiler making and manufacture of reservoirs, tanks, and other sheet containers
- ✓ Foundry and forging
- ✓ Manufacture of non -ferrous product
- ✓ Iron and steel
- ✓ Electro-plating

19. Waste Treatment and Disposal
a. Toxic and hazardous waste
- ✓ Construction of incineration plant
- ✓ Construction of recovery plant (off-site)
- ✓ Construction of Wastewater Treatment Plant (off-site)
- ✓ Construction of secure landfills facility
- ✓ Construction of storage facility
- ✓ Collection and transportation of waste
- ✓ Installation for the disposal of industrial waste

b. Municipal Solid waste
- ✓ Construction of incineration plant
- ✓ Construction of composting plant
- ✓ Construction of recovery or recycling plant
- ✓ Construction of municipal solid waste landfill facility

- ✓ Construction of the waste depot
- ✓ Collection and transportation

c. Municipal Sewage
- ✓ Construction of Wastewater Treatment Plant
- ✓ Construction of marine outfall
- ✓ Night soil collection, transport, and treatment
- ✓ Construction of sewage system

20. Water Supply
- ✓ Canalization of Watercourses
- ✓ Diversion of normal flow of water
- ✓ Water transfer scheme
- ✓ Abstraction or utilization of ground and surface water for bulk supply
- ✓ Water treatment plants
- ✓ Construction of dams, impounding reservoirs, with a surface area of 100 has
- ✓ Groundwater development for industrial, agricultural, or urban water supply of greater than 4000m3 per day
- ✓ Drainage plans in towns close to water bodies

21. Transport
- ✓ Trans-regional and international highways
- ✓ Upgrading or rehabilitation major rural roads
- ✓ Airports with a basic runway

22. Health Projects
- ✓ Vector control projects (malaria, bilharzia, trypanosome)

23. Land Reclamation and Land Development
- ✓ Rehabilitation of degraded lands
- ✓ Dredging of bars, geryone, dykes, estuaries
- ✓ Spoil disposal

24. Resettlement/relocation of people and animals
- ✓ Resettlement plan
- ✓ Establishment of refugee camps

25. Multi-sectoral Projects
- ✓ Agro-forestry
  - ➤ Dispersed field-tree intercropping
  - ➤ Alley cropping
  - ➤ Living fences and another linear planting
  - ➤ Windbreak/shelterbelt
  - ➤ Taungya system
- ✓ Integrated conservation and development programs e.g protected areas
- ✓ Integrated Pest Management (e.g IPM)
- ✓ Diverse construction- public health facilities, schools, storage building, tree
- ✓ Nurseries, facilities for ecotourism and field research in protected areas, enclosed latrines, small enterprises, logging mills, manufacturing furniture carpentry shop, access road, well digging, camps, dams, reservoirs
- ✓ River basin development and watershed management projects
- ✓ Food aid, Humanitarian relief

26. Trade: Importation and Exportation of the following
- ✓ hazardous Chemicals/Waste
- ✓ Plastics
- ✓ Petroleum products

- ✓ Vehicle
- ✓ Used materials
- ✓ Wildlife and wildlife products
- ✓ Pharmaceuticals
- ✓ Food
- ✓ Beverage
- ✓ GMOs and GMO based products

27. Public Instruments

- ✓ The decision to change the designated status
- ✓ Family planning
- ✓ Technical assistance
- ✓ Development strategies
- ✓ Urban and rural land use development plans e.g master plan
- ✓ Structural adjustment
- ✓ National Budget
- ✓ Policies and Programs formulations etc.

28. All projects in environmentally sensitive areas should be treated as equivalent to Schedule I activity irrespective of the nature of the project.

Schedule II List of Projects that Require Preliminary Environmental and Social Impact study

List of Small-Scale Activities and Enterprises

- ✓ Fish culture
- ✓ Beekeeping
- ✓ Small animal husbandry and urban livestock keeping
- ✓ Horticulture and floriculture
- ✓ Wildlife catching and trading
- ✓ Production of tourist handicrafts
- ✓ Charcoal production
- ✓ Fuelwood harvest
- ✓ Wooden furniture and implement making
- ✓ Basket and other weaving
- ✓ Nuts and seeds for oil processing
- ✓ Bark for tanning processing
- ✓ Brewing and distilleries
- ✓ Biogas plants
- ✓ Bird catching and trading
- ✓ Hunting
- ✓ Wildlife ranching
- ✓ Zoo, and sanctuaries
- ✓ Tie and dye-making
- ✓ Brick making
- ✓ Beach sailing
- ✓ Seaweed farming
- ✓ Salt pans
- ✓ Graves and cemeteries
- ✓ Urban livestock keeping
- ✓ Urban agriculture
- ✓ Fish landing station

- ✓ Wood carving and sculpture
- ✓ Hospitals and dispensaries, Schools, Community center and social halls, playgrounds
- ✓ Woodworks e.g. boat building
- ✓ Market places (livestock and commodities)
- ✓ Technical assistance
- ✓ Rainwater harvesting
- ✓ Garages
- ✓ Carpentry
- ✓ Blacksmith
- ✓ Tile Manufacturing
- ✓ Kaolin manufacturing
- ✓ Vector control projects e.g malaria, bilharzia, trypanosome
- ✓ Livestock stock route
- ✓ Fire belts
- ✓ Tobacco curing kilns
- ✓ Sugar refineries
- ✓ Tanneries
- ✓ Pulp plant
- ✓ Oil refineries and ginneries
- ✓ Artisanal and small-scale mining
- ✓ Rural road
- ✓ Research has the potential to affect ecosystems functions, use, or the health and welfare of the society.
- ✓ Rural water supply and sanitation
- ✓ Land drainage (small scale)
- ✓ Sewage system

Schedule III: Lists of Projects That May Not Require Environmental Impact Assessment

1. **Social Infrastructure and Services**
   - ✓ Educational facilities (small scale)
   - ✓ Audiovisual production
   - ✓ Teaching facilities and equipment
   - ✓ Training
   - ✓ Medical centers (small scale)
   - ✓ Medical supplies and equipment
   - ✓ Nutrition
   - ✓ Family planning
2. **Economic Structure and Services**
   - ✓ Telecommunication
   - ✓ Research, small scale
3. **Production Center**
   - ✓ Irrigation
     - ➢ Surface water fed irrigation projects covering less than 50 hectares

Groundwater fed irrigation projects covering less than 50 hectares

   - ✓ Agriculture
     - ➢ All small-scale agricultural activities
   - ✓ Forestry

> ➢ Protected forest reserves (small scale)
> ➢ Productive forest reserves (small scale)

✓ Livestock
✓ Rearing of cattle (< 50 heads), pigs (<100 heads), poultry (<500 heads)
> ➢ Livestock fattening project (small scale)
> ➢ Bees keeping project (small scale)

✓ Fisheries
> ➢ Artesian fisheries (small scale)

✓ Industry
> ➢ Agro- industries (small scale)
> ➢ Other small-scale industries have no impact on the environment

✓ Trade
> ➢ All small-scale trades except trade in endangered species and hazardous materials

✓ Financial assistance
> ➢ Program assistance
> ➢ Non-project or special country support
> ➢ Food aid and not involving GMOs based food

✓ Emergency operations
> ➢ Assistance to refugee returned or displaced persons

All projects involved in environmental enhancement programs

Annex-C: sample chance Find Procedure

Cultural, historical, natural, or archeological heritage may be damaged or lost during excavations and ensuring construction work activities. In addition, chance finds of heritage during excavations would be at risk of loss, unless due measures are taken to protect and save this heritage. Chance finds procedures will be an integral part of the project ESMP and civil works contracts. If the contractor discovers archeological sites, historical sites, remains, and objects, including graveyards and/or individual graves during excavation or construction, the contractor shall:

Chance Find Procedure	
Step- 1	Stop the construction activities in the chance find
Step- 2	Delineate the discovered site or area
Step- 3	Secure the site to prevent any damage or loss of removable objects
Step- 4	In cases of removable antiquities or sensitive remains, a nightguard shall be arranged until the responsible authority for culture and tourism, or the Federal Authority for the Research and Conservation of Cultural Heritages takes over.
Step- 5	Notify the Subproject beneficiary/ implementing institution, E & S focal person, and project Supervisory Engineer who in turn will notify the responsible local authorities for culture and tourism or the Federal Authority for Research and Conservation of Cultural Heritage (within 24 hours or less)
Step- 6	The responsible local Authorities for Culture and Tourism or the Federal Authority for Research and Conservation of Cultural Heritages would then oversee protecting and

	preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by the archeologists of the local/regional or Federal Authorities. The significance and importance of the findings should be assessed according to the various criteria relevant to proclamation No. 209/2000 on research and conservation of cultural heritage.
Step- 7	Decision on how to handle the finding shall be taken by local authorities for Culture and Tourism or the Federal Authority for Research and Conservation of Cultural Heritages. This could include changes in the layout (such as when finding irremovable remains of cultural or archeological importance) conservation, preservation, restoration, and salvage.
Step- 8	Implementation for the authority decision concerning the management of the finding shall be communicated in writing by the relevant authority.
Step- 9	Construction work may resume only after permission is given by the relevant local/regional or Federal Authorities concerning the safeguard of the heritage.

Note: According to Article 41 proclamation No. 209/2000 on research and conservation of cultural heritage, the measures to be taken during the chance finding of heritages (i.e Fortuitous Discovery of Cultural Heritage) are the following:

I) Any person who discovers any Cultural Heritage during an excavation connected to mining exploration, building works, road construction, or other similar activities or in the course of any other fortuitous event, shall forthwith report same to the authority and shall protect and keep same intact until the authority takes delivery thereof.

II) 'The Authority' shall, upon receipt of the report submitted pursuant to sub-article (1) hereof take all appropriate measures to examine, take delivery of, and register the Cultural Heritage so discovered.

III) Where the authority fails to take appropriate measures within six months in accordance with sub-article (2), the person who has discovered the Cultural Heritage may be released from his responsibility by submitting, a written, notification with a full description of the situation to the Regional Government Official.

IV) The authority shall ensure that the appropriate reward is granted to the person who has handed over a Cultural Heritage discovered fortuitously in accordance with sub-article (1) and (2) of this article. And such person shall be entitled to reimbursement of expenses, if any, incurred in course of discharging his duties under this Article.