Concept Environmental and Social Review Summary

Concept Stage

(ESRS Concept Stage)

Date Prepared/Updated: 11/17/2019 | Report No: ESRSC00851
## BASIC INFORMATION

### A. Basic Project Data

<table>
<thead>
<tr>
<th>Country</th>
<th>Region</th>
<th>Project ID</th>
<th>Parent Project ID (if any)</th>
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<tr>
<td>Ethiopia</td>
<td>AFRICA</td>
<td>P171034</td>
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**Project Name**: Ethiopia Digital Foundations Project

**Practice Area (Lead)**: Digital Development

**Financing Instrument**: Investment Project Financing

**Estimated Appraisal Date**: 8/3/2020

**Estimated Board Date**: 9/24/2020

**Borrower(s)**: Ministry of Finance and Economic Development, Ethiopian Communications Authority, Ministry of Innovation and Technology (MinT), EthERNet -- Ethiopian Research and Education Network

### Proposed Development Objective(s)

The Project Development Objective is to improve Ethiopia’s competitiveness in the digital age in the areas of increased inclusion, quality and affordability of digital services.

### Financing (in USD Million)

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<th>Amount</th>
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<tbody>
<tr>
<td>Total Project Cost</td>
<td>303.00</td>
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### B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?

No

### C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]

Component 1 -- Digital Economy, enabling legal and regulatory environment -- seeks to strengthen the analog foundations of the digital economy, in particular, policy-making, regulation, and skills. The WBG has been supporting the Ministry of Finance with the reform of the telecommunication sector, in particular, the passage of the new...
Communications Services Regulation Proclamation, the creation of an independent sector regulator, the partial privatization of the incumbent operator and the opening of the market to new operators. To implement these reforms, the Government has received a project preparation advance (PPA) that is being used to hire a transaction advisor to assist with the partial privatization of Ethio Telecom. The Government has also invited IFC to act as a transaction advisor for the award of two new full-service telecom licenses.

Component 2 -- Digital Connectivity and Skills -- seeks to assist Ethiopia in extending affordable broadband internet access to all firms, citizens and government entities by 2030 and doubling broadband penetration by 2021. Leveraging the moves towards market opening should help with reducing the digital divide and extending broadband coverage, under a Maximizing Finance for Development (MFD) approach. But private sector investment alone may not be sufficient to cover all of rural Ethiopia and some level of capital expenditure may be necessary. Government can act as an anchor tenant to stimulate investment in new infrastructure and rural coverage of mobile broadband. This component will seek to improve the level of internet connectivity to Government ministries, departments, and agencies, to the higher education sector, and to rural areas. It will also aim to build up digital literacy and skills among senior government officials and university students, and in rural areas.

Component 3 - Nurturing digital entrepreneurship. This component aims to address the bottlenecks of the digital entrepreneurship ecosystem and includes both demand and supply side measures. The interventions under this component are designed to: improve the digital literacy of citizens at large, foster adoption of digital technologies by small business owners, develop ICT skills of university students, and support the piloting of high-impact digital businesses. Since Ethiopia is starting from a relatively low base, piloting some possible paths for digital businesses to survive and flourish can have solid demonstration effects. This component will also identify and address key policy and regulatory constraints as pilots are implemented. The constraints and lessons learned under this component can then be used to inform subsequent lending and Technical Assistance engagements. An impact evaluation to capture the effects of new digital businesses on economic and labor market is planned.

A project implementation unit will be established initially in the Ministry of Finance, and will work in close collaboration with the Ethiopian Communications Authority (ECA), the Ministry of Innovation and Technology (MInT), the Ethiopian Network Research and Education Network (EthERNet), the Commercial Bank of Ethiopia (CBE) and the Development Bank of Ethiopia (DBE) as implementing agencies. The Channel One Programs Coordinating Directorate (COPCD) is acting as a transitional PIU during the preparation phase.

D. Environmental and Social Overview

D.1. Project location(s) and salient characteristics relevant to the ES assessment [geographic, environmental, social] This project will be implemented throughout Ethiopia including in rural and urban centers. However, specific locations where sub-projects will be implemented are not yet identified. The project activities will therefore be implemented under different environmental conditions. Ethiopia has considerable geographical diversity and as a result, Ethiopia is endowed with great diversity of plant, animal and microbial genetic resources. Ethiopia also encompasses different World Heritage Sites. Ethiopia has a substantial endowment of water, but this water is distributed unevenly in space and time. The variability of the water resources is characterized by multi-weather systems rainfall of the country. Most of the river courses become full and flood their surroundings during the three main rainy months. Ethiopian Rivers such as Abay, Baro-Akobo, Omo-Gibe, and Tekeze receive much rainfall. According to the current knowledge, the country has about 124.4 billion cubic meter (BCM) river water, 70 BCM lake water, and 30 BCM groundwater.
resources. It is expected that the Project’s physical footprint will be limited to small-scale capital investments in rural areas. Construction in critical habitat would not be eligible under this project. Equally it will ensure not to endanger natural habitats or cultural sites.

D. 2. Borrower’s Institutional Capacity

The Government of Ethiopia has overall considerable experience in managing environmental and social risks associated with Bank Projects. The country can also rely on an appropriate legal framework and established institutions for environmental and social risk management. However, experience from other Bank financed projects highlight that the capacity to manage environmental and social risks still requires considerable improvement. Specifically to the Digital Foundation project, the Bank has so far not engaged with EthioTelecom and thus a detailed assessment of its institutional capacity will be prepared during the preparation phase. The enterprise’s reform process will also be used to pro-actively collaborate on its wider E&S system. The regulatory framework including standards and certifications addressing environmental impacts from optical fibers and their installation may not be well developed and need to be improved. To address the capacity gaps and manage environmental and social risks associated with this project, the client will prepare relevant environmental and social risk management tools to the satisfaction of the Bank.

II. SCREENING OF POTENTIAL ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC) Substantial

Environmental Risk Rating Substantial

Partial privatization of the telecommunication sector and the opening of the market to new operators could lead to infrastructure development (such as construction of data centers) which may be financed by the private sector. The project could also stimulate public sector investment in new infrastructure. The likely negative impacts associated with telecommunications could include environmental risks associated with: (i) land clearing for installation of telecommunication facilities; (ii) installation of telecommunications systems (e.g. antenna/mast erection, cable laying, telephone pole erection, construction of exchange buildings); and (iii) operation and maintenance of the telecommunications systems (e.g., energy consumption, generation of electronic wastes) (the World Bank 2017).

Telecommunications processes do not normally require the use of significant amounts of hazardous materials. However, the operation of certain types of switching and transmitting equipment may require the use backup power systems consisting of a combination of batteries (typically lead-acid batteries) and diesel-fueled backup generators for electricity. Operations and maintenance activities may also result in the generation of electronic wastes (e.g. nickel-cadmium batteries and printed circuit boards from computer and other electronic equipment as well as backup power batteries). The operation of backup generators and service vehicles may also result in the generation of used tires, and waste oils and used filters. Transformer equipment may potentially contain Polychlorinated Biphenyls (PCBs) while cooling equipment may contain refrigerants (potential Ozone Depleting Substances [ODSs]). Although there is public and scientific concern over the potential health effects associated with exposure to Electric and magnetic fields (EMF) (not only high voltage power lines and substations or radio frequency transmissions systems, but also from everyday household uses of electricity), there is no empirical data demonstrating adverse health effects from exposure to typical EMF levels from power transmissions lines and equipment. In sum, the environmental risk of the project to be Substantial because of the following potential risks:
i. Terrestrial habitat alteration (land clearing for installation of telecommunication facilities). Terrestrial habitats may be altered primarily during the construction of communications infrastructure depending on the type of infrastructure component and proposed location. Potential impacts to habitat may be more significant during construction and installation of linear infrastructure, such as long-distance fixed line cables, as well as access roads to other types of infrastructure along previously undeveloped land.

ii. Hazardous materials and wastes. Telecommunications processes do not normally require the use of significant amounts of hazardous materials. However, the operation of certain types of switching and transmitting equipment may require the use backup power systems consisting of a combination of batteries (typically lead-acid batteries). Operations and maintenance activities may also result in the generation of electronic wastes (e.g. nickel cadmium batteries and printed circuit boards from computer and other electronic equipment as well as backup power batteries).

iii. Emissions to air. Emissions from telecommunications projects may be primarily associated with the use of backup power generators, and the use of cooling and fire suppression systems. Cooling equipment may contain refrigerants (potential Ozone Depleting Substances).

iv. Client’s capacity. Experience from other Bank financed projects shows that the client’s capacity to manage environmental and social risks requires considerable improvement.

Social Risk Rating

Substantial

The project will have an overall positive impact on the country’s population, as it is expected to (i) reduce costs and enhance reliability of digital access; (ii) increase efficiency of public service delivery through support of digitalization of public services; (iii) allow digitalization 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. Overall the activities connected with the Digital Foundation Project will be site specific and generating impacts that are of moderate significance that can be mitigated. The Project will support the sector in developing standards and procedures regarding potential risks by digital infrastructure, including need for small-scale land acquisition and community health and safety for instance, construction of cell towers in rural areas.

The most significant risk of adverse social impacts relates to the Project’s support of a partial privatization of Ethio Telecom. Next to support for such a transaction and parallel improvement of management and efficiency, this includes the development of a retrenchment plan for reducing workforce and outsourcing non-core activities. Comparison with other countries in the region suggest potentials of reducing more than a third of the current workforce. It will be essential to ensure that a retrenchment, if necessary, will be implemented in a socially responsible manner, ensuring that workers who lose their jobs will be supported in transitioning to a new form of income. Engagement with workers but also wider stakeholders will be important, and a respective plan will be established (see below). From a social inclusion perspective, as noted above, the project is actively supporting increased access to broadband also in rural areas. Furthermore, the client will need to develop approaches to address risks of an increased digital divide; e.g. by opening channels to for digital-supported agriculture, which can be supported by the project.

B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered

B.1. General Assessment
ESS1 Assessment and Management of Environmental and Social Risks and Impacts

**Overview of the relevance of the Standard for the Project:**

As indicated in the preceding section, partial privatization of the telecommunication sector and the opening of the market to new operators could lead to infrastructure development (such as construction of data centers). Such infrastructure will not be financed by the Project; except small-scale investments in component 2.3.

Environmental issues in telecommunications projects primarily include the following: Terrestrial habitat alteration, visual impacts, hazardous materials and waste, electric and magnetic fields, emissions to air and noise. Terrestrial and aquatic habitats may be altered primarily during the construction of communications infrastructure depending on the type of infrastructure component and proposed location. Potential impacts to habitat may be more significant during construction and installation of linear infrastructure, such as long-distance fixed line cables, as well as access roads to other types of infrastructure along previously undeveloped land. Emissions from telecommunications projects may be primarily associated with the operation of vehicle fleets, the use of backup power generators, and the use of cooling and fire suppression systems. Telecommunications workers may be exposed to occupational hazards from contact with live power lines during construction, maintenance, and operation activities. The principal source of noise in telecommunications facilities is associated with the operation of backup power generators. Workers involved in fiber optic cable installation or repair may be at risk of permanent eye damage due to exposure to laser light during cable connection and inspection activities.

The project’s focus on the reform and strengthening of the sector will allow to engage in the strengthening of the client’s Environmental and Social Management Systems (ESMS). As part of project preparation, the client will therefore prepare an Environmental and Social Management Framework (ESMF) outlining its ESMS, which can also serve as basis for management of any potential environmental and social risks originating from the project. In addition, the client will prepare Resettlement Policy Framework (RPF) for acquisition (if any). The RPF will guide the process for preparing, reviewing, approving, and implementing subsequent (Abbreviated) Resettlement Action Plans (RAPs) where necessary and prior to the commencement of any civil works. Both frameworks will be further established, prior to appraisal. Further, dependent on the type of activities in the emerging regions and pastoralist areas, an SA proportional to the activities under the project will be prepared. All instruments will be reviewed, cleared and disclosed before project appraisal. Besides, a stakeholder engagement plan (SEP), which serves as a guiding tool for consultations and dialogue, will be prepared by the client. Finally, labor management procedures (LMPs) will be prepared. It will include a procedure to further add details to the social plan related to retrenchment closer to its implementation. Respective requirements will equally be included in the Environmental and Social Commitment Plan (ESCP – see below). Screenings and site-specific management plans will be prepared in accordance with the procedures to be specified in the ESMF for physical interventions. The project will also follow the WBG EHS Guidelines for Telecommunications so as to address environment, health and safety risks.

Regulations and procedures to be established to regulate the telecommunications sector, applicable to Ethio-Telecom but also to new private service providers, must be in line with ESF provisions, and above all shall ensure modern data protection, rule of law, and avoidance of non-discrimination toward vulnerable groups, including women, ethnic groups, LGBTQI etc.

**Areas where “Use of Borrower Framework” is being considered:**

This project will not use partially or entirely the Borrower’s framework. Therefore, it will not consider using Borrower’s framework for E&S aspects.
ESS10 Stakeholder Engagement and Information Disclosure

The project will require inputs from different stakeholder groups, including those who will be directly affected as well as those who have other interests in the project interventions. In consultation with the Bank team, a Stakeholder Engagement Plan (SEP) will be developed (before appraisal) with specific provisions for the different project components. The SEP will outline the characteristics and interests of the relevant stakeholder groups and timing and methods of engagement throughout the life of the project. The project will ensure that the needs and voices of vulnerable people (female-headed households, elderly, youth, people with disabilities) are heard through inclusive consultation and participation to ensure that they can equally participate and benefit from the project. The project will also ensure that respective provisions on gender equality and the mitigation of gender-based violence in digital businesses will be implemented; to avoid potential adverse impacts but also to ensure strong participation of women in the development of the country’s digital sector. The establishment of project level Grievance Redress (GR) will be undertaken, targeting integration with existing GR structures in the respective communities and the client. Application of the standard will be closely monitored and reported on through the project life-cycle. The SEP will also address the issue of retrenchment ensuring stakeholder engagement starting from the reform design throughout implementation to understand how to implement respective measures in a way to ensure input by affected people towards a sustainable replacement livelihood.

B.2. Specific Risks and Impacts

A brief description of the potential environmental and social risks and impacts relevant to the Project.

ESS2 Labor and Working Conditions

Telecommunications workers may be exposed to occupational hazards from contact with live power lines during construction, maintenance, and operation activities. Workers involved in fiber optic cable installation or repair may be at risk of permanent eye damage due to exposure to laser light during cable connection and inspection activities. The client will prepare labor management procedures (LMP) proportional to the activities, risks and impacts which provide detailed information on the work terms and conditions including explicit prohibition of child labor. Differentiated provisions will be provided to the different workers under the project, i.e. civil servants, specific PIU staff and consultants, and others. The addressed risks encompass standard provisions on child and forced labor to codes of conduct and occupational health and safety. Retrenchment is an option during privatization but as such not agreed on yet. Therefore, preparation of the retrenchment plan will depend on the time frame and the development of the privatization plan, including decisions on if or what kind of retrenchment will be implemented. The project will assign the responsibility of the plan to the privatization transaction advisory contract. Thus, a framework will be committed prior to appraisal, including the requirements as noted above in terms of communication, job market integration support, etc. and in case the time frame may be expedited, the social plan can be further developed already or included in the ESCP. Finally, the LMP will also outline the establishment and availability throughout the project life cycle of labor-specific grievance redress mechanisms accessible to the different range of workers.

ESS3 Resource Efficiency and Pollution Prevention and Management

The operation of certain types of switching and transmitting equipment may require the use backup power systems consisting of a combination of batteries (typically lead-acid batteries) and diesel-fueled backup generators for
electricity. Operations and maintenance activities may also result in the generation of electronic wastes (e.g. nickel-cadmium batteries and printed circuit boards from computer and other electronic equipment as well as backup power batteries). The operation of backup generators and service vehicles may also result in the generation of used tires, and waste oils and used filters. Transformer equipment may potentially contain Polychlorinated Biphenyls (PCBs) while cooling equipment may contain refrigerants (potential Ozone Depleting Substances [ODSs]).

The project could likely increase use energy resource for the telecommunication facilities which need to be sourced and used following measures described in the Good International Industry Practices (GIIPs). The fiber optics will follow resource efficiency standards. Operation and maintenance of the telecommunications systems could also lead to an increase in generation of electronic wastes which should be managed appropriately.

**ESS4 Community Health and Safety**

Community health and safety issues identified during the construction phase include exposure to construction vehicles and transports, and exposure to dust, noise and vibrations caused by constructions works. These hazards are common to most typical construction sites.

Digital infrastructure, including resulting electromagnetic fields, are likely to have no significant impact on communities’ health and safety, though to date research has been inconclusive. However, due attention will be paid to potential risks of communities’ exposure. Specific provisions for workers, including in the digital industry, will be included in the LMPs as outlined under ESS2.

**ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement**

Involuntary loss of assets and properties are expected to be limited. However, some of the activities may involve financing of digital infrastructure in rural areas which may require small-scale land acquisition. Therefore, the project will follow the mitigation hierarchy, i.e. avoid, minimize, mitigate and/or compensate potential impacts from the design to the implementation. Because the project’s footprint is unknown at this stage, the client will develop a Resettlement Policy Framework (RPF), in consultation with relevant stakeholders and disclosed before appraisal. The RPF will provide guidance on the process for preparing, reviewing, approving, and implementing subsequent (Abbreviated) Resettlement Action Plans (RAPs) where necessary and prior to the commencement of any civil works. The RPF also provides guidance on the process of public consultations, establishment of a functional grievance handling mechanism, and disclosure requirements.

**ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources**

This standard is relevant to ensure that the project activities will have no adverse impact on sensitive areas and to ensure that relevant procedures for protection of the natural resources will be included in the ESMF. Though the scale could be small, construction telecommunication facilities/infrastructure by the private or public sector could affect sustainable use of natural resource. Potential impacts on habitats will be assessed during the preparation of the ESMF. Terrestrial and aquatic habitats may be altered primarily during the construction of communications infrastructure depending on the type of infrastructure component and proposed location. Potential impacts to habitat may be more significant during construction and installation of linear infrastructure, such as long-distance...
fixed line cables, as well as access roads to other types of infrastructure along previously undeveloped land. Recommended measures to prevent and control impacts to terrestrial habitats during construction of the right-of-way include: Site fixed line infrastructure (e.g. fiber optic cable) and other types of linear infrastructure rights-of-way, access; roads, lines, and towers to avoid critical habitat through use of existing utility and transport corridors, whenever possible; Avoidance of construction activities during the breeding season and other sensitive seasons or times of day; Revegetation of disturbed areas with native plant species.

ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities
The project will be implemented country-wide, including in emerging regions and in areas where large part of the population follows pastoralist livelihood systems. Dependent on the type of activities in the emerging regions and pastoral areas, Social Assessment (AS) proportional to the activities under the project will be prepared and disclosed prior to appraisal.

ESS8 Cultural Heritage
This standard has been considered as relevant for precautionary reasons. Although large scale infrastructure development is not anticipated, the small scale infrastructure development activities such as data centers may have impact on cultural heritage. The environmental and social assessment will confirm if there any potential risks associated with the project on tangible or intangible cultural heritage. Construction contracts, if any, will include a “Chance Find” procedure for cultural property sites.

ESS9 Financial Intermediaries
No financial intermediary will be involved.

B.3 Other Relevant Project Risks
No other risk has been identified at this stage.

C. Legal Operational Policies that Apply

OP 7.50 Projects on International Waterways
No

OP 7.60 Projects in Disputed Areas
No

III. WORLD BANK ENVIRONMENTAL AND SOCIAL DUE DILIGENCE

A. Is a common approach being considered?

Financing Partners
none
B. Proposed Measures, Actions and Timing (Borrower’s commitments)

Actions to be completed prior to Bank Board Approval:

The following E&S risk management documents will be prepared before appraisal:

(i) an Environmental and Social Management Framework (ESMF) with screening forms and ESMP templates,
(ii) a Resettlement Policy Framework (RPF),
(iii) Social Assessment including Social Development Plan
(iv) Labor Management Procedures (LMP),
(vi) Social Development Plan as part of the Retrenchment Framework (if applicable)
In addition, an Environment and Social Commitment Plan will be agreed on between the client and the Bank.

Possible issues to be addressed in the Borrower Environmental and Social Commitment Plan (ESCP):

The Environmental and Social commitment plan will among others include borrower’s commitment to:

i. Establishment of a function E&S risk management system including deployment of qualified staff
ii. Prepare site specific environmental and social risk management tools such as ESIAs/ ESMPs, (A)RAPs when required under the RPF prior to any physical impacts
iii. Establishment of a social plan for eventual retrenchments in Ethio Telecom
iii. Commitment to an appropriate compliance monitoring and reporting system
iv. Reporting procedures for (a) regular status updates and (b) immediate notifications on any significant accident or incident to the Bank.

C. Timing

Tentative target date for preparing the Appraisal Stage ESRS 29-Nov-2019

IV. CONTACT POINTS

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<tr>
<td>World Bank</td>
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Public Disclosure
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VI. APPROVAL

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Practice Manager (ENR/Social) Robin Mearns Recommended on 30-Oct-2019 at 11:19:11 EDT
Safeguards Advisor ESSA Nathalie S. Munzberg (SAESSA) Cleared on 17-Nov-2019 at 09:32:1 EST