The World Bank
Rwanda Digital Acceleration Project (P173373)

Concept Environmental and Social Review Summary

Concept Stage

(ESRS Concept Stage)

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BASIC INFORMATION

A. Basic Project Data

Country	Region	Project ID	Parent Project ID (if any)
Rwanda	AFRICA	P173373	

Project Name	Rwanda Digital Acceleration Project

Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Digital Development	Investment Project Financing	9/7/2020	11/30/2020

Borrower(s)	Implementing Agency(ies)		
Ministry of Finance and Economic Planning	Rwanda Information Society Authority (RISA)		

Proposed Development Objective(s)

To increase digital inclusion, improve the efficiency of public service delivery, and strengthen Rwanda's digital innovation and entrepreneurship ecosystem.

Financing (in USD Million)	Amount
Total Project Cost	**100.00**

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]

Rwanda has distinguished itself as a country that is deeply committed to leveraging digital transformation as a means to accelerate growth and reduce poverty, but challenges remain in unlocking related benefits. The government is committed to using digitally enabled solutions, wherever possible, to leapfrog traditional approaches and support innovation in service delivery. Beginning as early as 2000, Rwanda began charting an ambitious course for achieving rapid digitization, through a series of five-year plans. These policies have resulted in the progressive roll-out of digital infrastructure, impressive public e-services expansion (though from a very low base), as well as initiatives to support digital skills and to position Rwanda as a regional ICT hub, underpinned by government institutions and leadership

Public Disclosure

committed to this agenda. Today, Rwanda continues to articulate ambitious strategies in relation to many of these areas. While substantial progress has thus been made, Rwanda still has a long way to go in terms of accelerating digital transformation and fostering the emergence of an advanced digital economy. Key challenges include:

- Boosting digital adoption and access. Rwanda has set the bar high regionally in terms of mobile network coverage, which provides "last-mile" access to broadband for most existing users. However, big gaps remain in the uptake of high-speed internet services. Official figures put internet penetration at 58.3 percent, yet actual use is estimated to be much lower, based on the number of active subscribers reported by mobile network operators (MNOs). Lingering connectivity gaps are characterized by larger gaps in access for rural communities (which make up a majority of Rwandan households), women, the elderly, and persons with disabilities. Several barriers hamper further uptake of broadband connectivity, and along with it access to other digital services that require users to first be connected.

- Expanding access to services using technology and digital platforms. The Government of Rwanda (GoR) is keen to move towards a "24-hour, self-service, cashless and paperless government" and have taken decisive steps to build out its e-service capabilities yet is still far from achieving government-wide digital transformation, and uptake of existing e-services is still limited.

- Supporting digitally-enabled innovation and productivity gains. While Rwanda is viewed as a regional innovation leader, boasting one of the most favorable business environments on the continent and a handful of successful digital start-ups, digital-enabled business development is nascent.

The proposed project is designed to accelerate country-wide digital transformation, as well as facilitate Rwanda's integration in the emerging regional digital market. The project seeks to both strategically position Rwanda to capitalize on future-oriented digitally-enabled growth, innovation, and enhanced serviced delivery while ensuring that all Rwandan are equipped to participate and leverage the opportunity afforded by the emerging digital economy in Rwanda. The project will expand digital adoption, bringing more Rwandans online by addressing the major barriers that dampen demand for digital services, by spearheading a series of interventions that promote digital inclusion. The project will also enable Rwanda to leverage critical enabling digital platforms and data-driven solutions to expand the adoption of digitally-enabled services that span the public and private sector. Finally, the project will also increase Rwanda's capacity to support digitally-enabled innovation and productivity-gains, by strengthening the local entrepreneurship ecosystem, supporting tech firms to move from startups to growth and the adoption of digital technology in key sectors.

The project has been designed around four integrated and mutually reinforcing components, which span the foundational pillars of the digital economy, but also support the overall goal of creating digitally-enabled citizens, businesses, and government:

- Component 1: Digital Inclusion ($40m). This component has four sub-components that include; i) Increasing access to affordable mobile devices (via financing schemes, outreach, regulation), ii) Supporting basic 'Digital Literacy for All' (including scale-up of a revamped Digital Ambassadors Program), iii) Expanding last-mile connectivity and access (connecting schools, hospitals, local government offices, higher education with broadband and creating public wifi hot-spots) and iv) Enabling broadband market development, in favor of access, affordability, service quality and sustainability (technical assistance on regulatory matters).

• Component 2: Digitally-enabled public service delivery ($40m). This component has three sub-components that include; i) Developing digital ID and trust services (including integration with e-services), ii) Enhancing data ecosystem development (legislation, data hub, big data analytics capability, data-driven solutions, and flag-ship data analytics projects), iii) Developing data-driven solutions in key sectors (expanding e-services).

• Component 3: Digital Innovation and Entrepreneurship ($15m) This component has two sub-components that include; i) Positioning Rwanda as a regional digital entrepreneurship hub (improvement of local ecosystem support organizations, attract regional accelerator, early-stage / angel financing), ii) Boosting next-generation capabilities for the digital economy (including scale-up of the Rwanda Coding Academy (RCA), Center of Excellence for Artificial Intelligence (AI), and boot camps).

• Component 4: Program Management ($5m) This component will finance project management and coordination, including procurement, financial management, monitoring, and evaluation, as well as environmental and social safeguards management. This will include funding consultancy support for the implementation of the project and the institutional strengthening of implementing agencies.

While the proposed project will contribute to several objectives of the FY21-25 WBG Country Partnership Framework (CPF) with Rwanda, it is first and foremost aligned with CPF objective 3, focused on expanding access to infrastructure and the digital economy.

D. Environmental and Social Overview

D.1. Detailed project location(s) and salient physical characteristics relevant to the E&S assessment [geographic, environmental, social]

Rwanda is a small, landlocked country, located in East Africa, characterized by a predominantly rural population and heavy economic reliance on agriculture. The country is densely populated, with approximately 12 million people in a total area of 26,338 km. Rwanda's population is young (60 percent are under the age of 25) and increasingly urban (with an urban growth rate of 5.5 percent per year), though most Rwandans continue to reside in rural areas. Agriculture continues to account for close to 70 percent of total employment and about 33 percent of GDP, though the service economy is growing.

Rwanda's landscape is characterized by hills, high slopes, wetlands, and valleys. The country sits at 3,000 ft (914 m) above sea level. The central and western parts of the country are dominated by a portion of the Albertine Rift Mountains that give way to forests, savannahs, plains, and swamps as you move eastward. Numerous lakes dot the landscape, with Lake Kivu being the largest, which makes up most of Rwanda's western border. The land is thus vulnerable to both erosion and flooding.

Rwanda has been identified as highly vulnerable to climate change due to weak adaptive capacity. It is ranked # 153 in the world, according to the Notre Dame Global Adaptation Index. Rwanda has been exposed to rising temperature levels, above the global average, as well as increased precipitation in recent decades. Rwanda's vulnerability to climate change also stems from heavy reliance on low-productivity subsistence agriculture, in turn, shaped by agro-ecological variations across the country. Eastern and southeastern parts of the country are most affected by seasonal

droughts; whereas the northern and western regions experience intense rainfall, erosion, flooding, and landslides. Relative to 1970, precipitation is expected to rise by 5 to 10 percent by the 2030s, which would heighten the risk of flooding and landslides. Seasonal droughts are also expected to be longer, exacerbating drought-risk in the east and south-east.

The proposed project has a national geographic scope and will include both rural and urban project locations. For example, the footprint of both the device affordability and national digital literacy schemes, proposed under component 1, will be national-wide. Last-mile connectivity initiatives will target unconnected areas, which are expected to be predominately rural, and will be grounded in an assessment of underserved areas (e.g. mapping of coverage, demand and present level of investment (public and private), as well as factors affecting financial sustainability and costing). Related initiatives are expected to target public offices, including schools and hospitals, all the way down to cell-level (the smallest administrative unit in Rwanda) where the public can access e-services via citizen service access points. Specific locations are yet to fully identified. The impact of activities implemented under component 2, targeting improvement to the Government's e-service capability, is also expected to trickle down to cell-level. However, the project is also expected to support enhanced centralized data collection and processing capacity, which is likely to target key public agencies in Kigali. Activities under component 3, focused on improving support for start-ups will primarily target and seek to improve existing facilities in Kigali, but will endeavor to expand support offered beyond urban hubs. While the new Centre of Excellence proposed is expected to be in Kigali, expansion of the Rwanda Coding Academy is expected to cover all provinces.

In sum, project activities will thus be implemented under a variety of environmental and social conditions. However, the project is not anticipated to have significant adverse impacts on people or the environment. The scope of the physical project activities is limited to small- to moderate-scale civil works. More on this below.

D. 2. Borrower's Institutional Capacity

A Special Project Implementation Unit (SPIU) will be operationalized within the Rwanda Information Society Authority (RISA) – the implementing arm of the Ministry of ICT and Innovation (MINICT) – charged with overseeing overall project design, coordination, and management, in close collaboration with other key stakeholders. Several Ministries, Agencies, and Departments (MDA) are expected to play a role in supporting implementation, and some may even help lead on designated sub-components. Notable examples include the Rwanda Utilities Regulatory Authority (RURA) and the National Identification Agency (NIDA), which both have benefitted from past World Bank technical assistance.

However, the lead agency lacks experience in implementing WB-financed projects. While the GoR does have prior experience in implementing Bank-financed projects in this sector – namely, the eRwanda Project (P098926) and Regional Communications Infrastructure Program - Phase 2 (RCIP-2) - Rwanda Project (P106369) – the project size is now considerably larger and being implemented under a new institutional set-up. Both projects were implemented through the then Rwanda Information Technology Authority (RITA), which was later merged into the Rwanda Development Board (RDB). While the lead agency does have a track record of implementing numerous donor projects and working effectively across government, RISA has no prior familiarity with WB procedure, including the World Bank's Environmental and Social Framework (ESF) and its 10 standards.

The GoR is yet to establish an SPIU at RISA with the requisite capacity. RISA thus does not yet have any environmental and social (E&S) risk management staff. Based on initial stakeholder consultation, a large capacity injection will thus be required to mitigate any E&S-related risk identified and manage ESF requirements. Capacity needs and gap-filling

measures will be further assessed and addressed during project preparation. Appropriate mitigation measures will also be integrated into the final project design.

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

A. Environmental and Social Risk Classification (ESRC)   Moderate

Environmental Risk Rating   Moderate

Although the project will be implemented at the national scale, the potential adverse risks and impacts on human populations and the environment are not likely to be significant, based on the results of the initial project screening, with a low probability of serious adverse effects. The majority of activities currently included in the project are mostly investments in "soft", as opposed to "hard" digital infrastructure.

The potential environmental risks identified mainly relate to planned activities under Components 1 and 3, including:
•   Deployment of last-mile connectivity solutions, under sub-component 1.3. While the specific technology and approach of this component are yet to be defined, relevant connectivity technologies that will be used to connect hospitals, schools, and other government offices, etc. are likely to include a mix of technical solutions including mobile/wireless (3G, 4G, Point-t-Point WiMax) networks, fiber (either areal or terrestrial cables), or areal (balloons/drones) solutions. The connectivity technology selected will depend both on commercial and geographic feasibility, as well as consider potential site-specific E&S risks. In weighing connectivity options, the risk mitigation hierarchy will be applied, with consideration paid to e.g. the availability of electricity, avoiding construction on hilly terrain, limiting exposure of communities, and avoiding sensitive habitats. Overall, this activity is however not expected to include large-scale physical infrastructure and civil works.

•   Rehabilitation of existing facilities, allowing them to be fit-for-purpose. At this stage, no new construction is anticipated. The project plans to rely on existing infrastructure and facilities, which will be upgraded and equipped to accommodate distinct project activities. Examples include the establishment of training facilities, supporting the roll-out of a national digital literacy program (under sub-component 1.2), the establishment of a central data collaborative hub in government (under sub-component 2.1) and the scale-up / establishment of the Rwanda Coding Academy (at the provincial level) and the Center of Excellence for Artificial Intelligence (under sub-component 3.2).

•   Indirect risks of hazardous waste, increased e-waste generation, and energy use. The project is expected to significantly increase the circulation of smartphones, and purchase a substantial amount of IT equipment (e.g. computers, servers). Mobile phones, end-of-life backup power batteries, and old IT equipment will need to be safely disposed of. The project seeks to proactively support sustainable e-waste management through the inclusion of related Technical Assistance (TA) under sub-component 1.4. Related management and planning may include the piloting of e-waste management programs and e-recycling centers (to be determined during project preparation). The Client is also committed to ensuring that all equipment procured via the project has a minimal climate footprint by, for example, incorporating high-energy efficiency requirements in all bidding documents to offset rising electricity demand associated with the increasing use of digital devices and systems. The project will also encourage the use of green energy (e.g. using solar-based solutions to power cell-tower base stations and other digital equipment), wherever feasible, and directly funded by the project. The project will also incorporate provisions for the buy-back and safe disposal of e-waste in all tenders.

• Potential occupational risks may arise (depending on the technology selected) from the expansion of the last-mile connectivity, under sub-component 1.3 (See ESS2).

Social Risk Rating   Moderate

The anticipated social risk associated with the project is expected to be site-specific and of moderate significance, based on the results of the initial project screening. Moreover, risks identified can and will be mitigated. Overall, the expected social impact stemming from the project is expected to be positive, as it will enhance access to digital tools and services, as well as facilitate improved public service delivery by leveraging digital solutions and stimulate growth in digital entrepreneurship.

The potential social risks identified mainly relate to:

• Avoiding social and economic exclusion, driven by a lingering digital divide. As the access to social and economic opportunities will increasingly rely on digital access, it will be paramount to address the present (and any future) digital divide, by encouraging universal access to broadband. Supporting universal digital adoption and participation in the digital economy will require all Rwandan's to be equipped with the means to get online, including those who may be more disposed to digital exclusion –i.e. low income and rural households, women, the elderly and disabled. The project is actively looking to address this risk under component 1, by adopting a multi-pronged and tailored approach sensitive to marginalized groups by inter alia tackling digital literacy barriers, promoting access to affordable smart devices through new schemes, expanding last-mile connectivity to underserved areas across Rwanda and stimulating broadband market development and reform in favor of improved access, services quality, and affordability. The project is also adopting an inclusive and user-focused approach to other key project components. For example, user-centric and inclusive e-services design infuses the project's approach to component 2, to ensure universal access to public services delivered digitally.

• Harassment and discrimination. In addition to occupation risks noted above, other labor-related risks include the potential for harassment and discrimination. Staff recruited under the SPIU and by contractors could potentially face discrimination issues, as well as sexual exploitation and abuse (SEA), and sexual harassment (SH). Labor-related issues will be addressed through the Labour Management Procedures (LMP) prepared.

• Small-scale land acquisition and temporary disruption to economic activity. Overall, involuntary loss of assets and properties is expected to be limited, as the scale of civil works is likely to be small and temporary. The deployment of last-mile connectivity infrastructure, under sub-component 1.3, may require small-scale land acquisition (e.g. to accommodate tower base-stations) or involve temporary disruption to economic/social activities (e.g. in connection with the installation of equipment or possible deployment of sub-terrestrial fiber).

At this early stage of project preparation, the Client has demonstrated a commitment to proactively manage both environmental and social risks and impacts. However, as mentioned in the section above, the Borrower's capacity will require further assessment and strengthening. Notably, E&S specialists will need to be hired and trained as part of project preparation. In terms of the national systems, Rwanda has established adequate E&S governance structures and effective legislation to support the establishment of a basic E&S risk management structure for the project, in a manner that is consistent with the Environment and Social Standards (ESSs). Moreover, component 4 of the project

will support institutional and human capacity building in relation to the Bank's E&S risk management framework for RISA, and other key institutions directly involved in project implementation.

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:

The potential risks identified above will need to be assessed further during project preparation, and actively mitigated throughout the project's lifecycle. The project is likely to generate moderate direct and indirect environmental and social risks to workers, surrounding communities, and impacts on natural habitats. A key environmental risk identified includes the risk of e-waste, particularly under sub-component 1.1, due to the short lifespan of mobile devices, but also stemming from the anticipated purchase and upgrading of hardware supporting project activities envisioned under both component 2 and 3.

Deployment of last-mile connectivity solutions, under sub-component 1.3, is expected to involve both environmental and social risks. Depending on the connectivity solutions adopted potential environmental risks are likely to include site-specific and limited habitat modification, noise and air pollution from power back-up generators, as well as exposure to electromagnetic fields given community proximity to transmitting antennas. Occupational risks are also expected, associated with the deployment/maintenance of various connectivity solutions, including fiber optical cables (such as permanent eye damage caused by exposure to laser light or microscopic glass fiber shards), but also associated with working at heights or in confined spaces. Other health and safety-related risks identified include the risk of fire, due to the presence of flammable materials, as well as motor vehicle safety. The scale of civil works is likely to be small and temporary but could involve small-scale land acquisition and temporary disruption to economic/social activity while being completed.

To avoid and manage the risk of discrimination under this standard, the project will be designed around the principle of digital inclusion, supporting universal digital adoption and participation in the digital economy, with a focus on low income and rural households, women, the elderly and disabled (who constitute vulnerable populations). The Environmental and Social Management Framework (ESMF) developed will include a screening mechanism that will inform the design of all project activities. As it stands, literacy, income, and gender, etc. are all likely to be key determinants of digital access in Rwanda. Notably, lingering connectivity gaps are characterized by larger gaps in access for rural communities. For example, the gap in mobile device ownership between urban and rural communities was 22 percentage points in 2017, with rural penetration at 56 percent versus 88 percent in urban areas. Several studies also point to a gender gap in access to both digital tools and services.

The project will therefore also be gender-informed. A gender analysis will be conducted during project preparation to further assess gender disparities present in reference to digital adoption and access. The project will include specific activities aimed at bridging gaps identified. Dedicated results indicators will track progress on related commitments, and gender-disaggregated data will be collected wherever possible.

During project preparation, relevant measures to avoid, reduce, or mitigate risks and adverse impacts on the environment and vulnerable populations will be identified. As part of the overall project Environmental and Social

Assessment (ESA) process, the project will utilize the WBG's Environment, Health, and Safety Guidelines (EHSGs) for telecommunication and general EHSGs. An Environmental and Social Management Framework (ESMF) will be elaborated and agreed upon with the Borrower and disclosed before Project Appraisal. As not all the activities under the project have been fully defined at this stage, the project will prepare an ESMF to guide the screening and preparation of site-specific ESAs and other instruments, as relevant. The ESMF will include an assessment of e-waste (in part to inform the proposed TA on e-waste management) to identify hazardous waste that will be generated by the project (directly or indirectly). A Resettlement Policy Framework (RPF) will also be developed to manage the potential risks of land acquisition and involuntary resettlement. All this will be included (together with follow up actions) into the project Environmental and Social Commitment Plan (ESCP).

The ESMF will include provisions on pollution management (ESS3), habitat protection (ESS6), labor and working conditions (ESS2), Community Health and Safety (ESS4), and a chance find procedures to respond to ESS 8. During implementation, site-specific ESAs and ESMPs, (where required) Resettlement Action Plans, along with LMP & GBV action plans will be developed, based on the screening guidance and risk-level of each specific activity. These measures will be implemented, and their status of implementation will be reviewed as part of ongoing project monitoring and evaluation. In addition, the task team will ensure that the Client is familiar with the World Bank's incident reporting and management framework should related incidents occur (which will be included as a requirement in the ESCP).

Areas where "Use of Borrower Framework" is being considered:

The use of Borrower Framework is not being considered.

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 project interventions proposed. Relevant stakeholders include, but are not limited to:

•   Government authorities (the Ministry of ICT and Innovation (MINICT), the Rwanda Utilities Regulatory Authority (RURA), the Ministry of Finance and Economic Planning (MINECOFIN), the Ministry of Local Government (MINALOC), the National Identification Agency (NIDA), the Rwanda Development Board (RDB), the National Institute of Statistics of Rwanda (NISR), and the National Commission of Science and Technology (NCST), as well as line ministries responsible for agriculture, gender, health, education, and youth, with RISA assuming overall project coordination responsibility);
•   Development partners;
•   The private sector, including industry association such as the Private Sector Federation, operators in the telecoms sector, financial service and private education providers, etc;
•   Consumer associations; and
•   Local communities.

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 as well as the timing and methods of engagement envisioned throughout the project lifecycle. The project will ensure that the needs and voices of vulnerable people (e.g. female-headed households, elderly, youth, people with disabilities, etc.) are heard through inclusive consultation and participation to ensure that

they can equally participate and benefit from the project. The project will also include consultations with civil society organizations (CSOs) and other relevant parties on how to improve access to project benefits to people with disabilities. 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 project will establish digitally-enabled Grievance Redress Mechanism (GRM), integrated into existing GRM structures in communities targeted and with those already managed by the Client, wherever possible.

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

The project is likely to engage various types of works, including direct project workers, community workers and primary suppliers. All these types of workers will be explicitly covered in the Labour Management Procedures (LMP).

As noted above, workers could be exposed to various occupational hazards (e.g. when coming into contact with live power lines) during construction, maintenance, and various operational activities – particularly when supporting the deployment of last-mile connectivity solutions under sub-component 1.3. At this stage, depending on the technology used to expand last-mile connectivity, under sub-component 1.3, risks may theoretically include (i) exposure to electromagnetic fields stemming from proximity to transmitting antennas emitting radio waves and microwaves; (ii) working at heights for overhead cables and antennae installation; (iii) working in confined spaces during trenching; (iv) risks related to handling optical fiber cables such as eye damage due to exposure to laser light during cable connection and inspection activities, (v) exposure of workers to microscopic glass fiber shards/glasses that can penetrate human skin, eyes; and (vi) general hazards of working with electrical equipment, including fire risks due to the presence of flammable materials in high-powered laser installation areas. During preparation, a specific set of Occupational Health and Safety (OHS) measures, appropriate to the final project design, will be identified and included in E&S compliance documentation developed moving forward.

Staff recruited under the SPIU and by contractors could potentially face discrimination and harassment issues, including sexual exploitation and abuse (SEA), and sexual harassment (SH).

The Client will prepare an LMP proportional to the activities, risks, and impacts identified, which provides detailed information on the work terms and conditions, including the explicit prohibition of child labor. Differentiated provisions will be included pertaining to the different types of workers expected under the project, i.e. civil servants, specific SPIU staff and consultants, and others. The risks that will be addressed by the LMP will span standard provisions on child and forced labor to codes of conduct (CoC) and occupational health and safety. Finally, the LMP will also outline the establishment and availability of labor-specific GRMs accessible to the different types of workers involved in the project, throughout the project's lifecycle.

ESS3 Resource Efficiency and Pollution Prevention and Management

As noted above, the project is expected to generate potentially hazardous e-waste. The operation of certain types of switching and transmitting equipment may require the use of backup power systems, consisting of a combination of batteries (typically lead-acid batteries) and diesel-fueled backup generators for electricity. Operational and maintenance activities envisioned may also result in the generation of electronic wastes (e.g. old cell phones, nickelcadmium batteries and printed circuit boards from computers 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]).

Energy resources will be required. Large-scale IT equipment and telecommunication facilities are likely to consume substantial energy resources, which need to be sourced and used following measures aligned with Good International Industry Practices (GIIPs). However, as noted above, all equipment and infrastructure deployed and procured, including fiber optics, will follow resource efficiency standards. Operation and maintenance of telecommunications infrastructure, as well as increased access to digital devices and systems could also lead to an increase in the generation of electronic waste, which should be managed appropriately. As noted above, the project will include TA targeting e-waste management (under sub-component 1.4), and potentially other activities, which will be informed by the E&S due diligence process conducted during project preparation.

Overall, the project is expected to yield a reduction of CO_2 emission. Based on the nature of anticipated project activities, the project may result in multiple small and diverse sources of emissions, yet individual emissions are not likely to be significant. However, this will be offset by the overall impact expected. By expanding digital adoption and last-mile connectivity (under component 1) and supporting the expansion of end-to-end digital public services delivery (under component 2), the project will reduce the need for physical presence and associated travel (e.g. by car or motorbike), subsequently reducing CO_2 emissions. The project will also consolidate the use of existing digital systems and technology used by various government agencies, under sub-component 2.2., which is expected to yield significant efficiency gains based on the re-use of shared infrastructure and thus minimize climate impact. At this stage, it is estimated that GHG calculations may not be required for the project, which will be confirmed during preparation.

ESS4 Community Health and Safety

Community health and safety issues identified include traffic and road safety, and exposure to dust, noise, and vibrations caused by construction works, potentially associated with the rehabilitation of facilities, installation, and deployment of IT equipment and last-mile connectivity infrastructure. 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 research to date has been inconclusive on this matter. Due attention will thus be paid to the potential risks associated with community exposure. Specific provisions for workers, including in the digital industry, will be included in the LMPs as outlined under ESS2. There is a possibility of the use of security personnel to be hired by the contractors during the installation of telecommunication infrastructure. During preparation, the project team will assess risks posed by these security arrangements to those within and outside the project site, as per the ESS4 requirements.

There may also be a potential risk for increased gender-based violence (GBV) due to an influx of workers at various project sites. Risks related to SEA/SH will be mitigated by requiring contractors and workers to sign a workers' CoC. A GBV Action plan will also be prepared proportionate to the GBV risks identified during project preparation.

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

Involuntary loss of assets and properties is expected to be minimal, as the scale of civil works is likely to be small and temporary. As noted above, the deployment of last-mile connectivity infrastructure, under sub-component 1.3, may require small-scale land acquisition (e.g. to accommodate tower base-stations) or involve temporary disruption to economic/social activity (e.g. in connection with the installation of equipment or possible deployment of fiber). Therefore, the project will follow the mitigation hierarchy - i.e. to avoid, minimize, mitigate and/or compensate potential impacts associated with the design and implementation of this sub-component. As the project's footprint will depend on the connectivity solutions chosen, which is unknown at this stage, the Client will develop a Resettlement Policy Framework (RPF), in consultation with relevant stakeholders and disclosed this before the 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 will also provide guidance on the process required for public consultations, the establishment of a functional GRM, and disclosure requirements.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

This standard is considered as relevant, on a precautionary basis. While the project has a nation-wide impact, the project is only likely to involve small-scale civil works in a rural setting (under sub-component 1.3), where the project seeks to expand rural last-mile connectivity. This standard is likely to be more applicable if said activities require the physical deployment of fiberoptic cable. As noted above, the choice of last-mile connectivity solutions deployed will be further evaluated during project preparation, however, it will be attuned to E&S considerations. For example, the project will maximize the utilization of existing road corridors and position any new antennae/masts erected to avoid ecologically sensitive areas. The purchase of natural resource commodities, such as food, timber, and fiber is not likely to be required. At this stage, specific provisions for the management of primary suppliers under this standard are not considered to be relevant.

Site-specific ESMPs conducted will assess and mitigate risks related to ESS6 to ensure that project activities do not cause any undue harm to or alter habitats. The overall project ESMF will also include a screening mechanism allowing the project to avoid any sensitive ecological areas (including wetlands). It will also provide guidance for the development of sub-project ESMPs.

ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

ESS 7 is not relevant at this stage. Further assessment will be undertaken during project preparation when the project sites are identified to confirm the applicability of this standard.

ESS8 Cultural Heritage

This standard has been considered as relevant for precautionary reasons. Although large scale infrastructure development is not anticipated, small scale infrastructure development activities such as data centers may have an 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

At this stage ESS 9 is not relevant to this project.

B.3 Other Relevant Project Risks

Data protection and privacy. The GoR has drafted a Bill on Data Protection and Privacy, but it is yet to be adopted. The accelerated use of digital technologies and the increasing number of state and non-state actors who are using said technologies to collect, store and process data, of and about individuals, raises a number of data protection, privacy, and consent issues. The absence of rigorous data protection and privacy regime may thus jeopardize the integrity / allow for the misuse of data generated by the project. It has therefore been flagged as a risk, which will be proactively addressed through upfront technical assistance (TA) during project preparation as well as during implementation. The project includes TA activities related to legal, regulatory, and policy matters pertaining to the data-driven economy, with a special focus on data protection and privacy. The project will actively support a stronger digital trust environment in Rwanda, establishing data rights, regulating the processing of personal data, incorporate privacy-by-design in all activities financed, and invest in interventions that enhance cybersecurity etc.

C. Legal Operational Policies that Apply

OP 7.50 Projects on International Waterways   No

The project does not include activities, which may affect international waterways (e.g. the lake Victoria basin).

OP 7.60 Projects in Disputed Areas   No

The project is not located in a disputed area.

III. WORLD BANK ENVIRONMENTAL AND SOCIAL DUE DILIGENCE

A. Is a common approach being considered?   No

Financing Partners

Not applicable

B. Proposed Measures, Actions and Timing (Borrower's commitments)

Actions to be completed prior to Bank Board Approval:

The Client will prepare the following instruments prior to appraisal:
i.   Environmental and Social Management Framework (ESMF) with screening forms and ESMP templates;
ii.   Resettlement Policy Framework (RPF);

iii.   Labor Management Procedures (LMP);

iv.   Stakeholder Engagement Plan (SEP);

v.   A detailed institutional capacity assessment, including a capacity building plan; and

vi.   A draft Environment and Social Commitment Plan (ESCP) will be agreed, between the Client and the Bank.

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

The ESCP is likely to include the Borrower's commitment to:

i.   Establish a functional E&S risk management system, including recruitment of qualified E&S 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 interventions;

iii.   Implement an appropriate compliance monitoring and reporting system;

iv.   Adopt reporting procedures for (a) regular status updates and (b) immediate notifications on any significant accident or incident to the Bank, and

v.   Develop gender-based violence (GBV) Action Plan.

C. Timing

Tentative target date for preparing the Appraisal Stage ESRS   04-Sep-2020

IV. CONTACT POINTS

World Bank

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Borrower/Client/Recipient

Borrower: Ministry of Finance and Economic Planning

Implementing Agency(ies)

Implementing Agency: Rwanda Information Society Authority (RISA)

V. FOR MORE INFORMATION CONTACT

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VI. APPROVAL

Task Team Leader(s):	Isabella Hayward, Casey Torgusson
Practice Manager (ENR/Social)	Robin Mearns Recommended on 15-May-2020 at 08:19:35 EDT
Safeguards Advisor ESSA	Nathalie S. Munzberg (SAESSA) Cleared on 18-May-2020 at 09:37:32 EDT