



Concept Environmental and Social Review Summary

Concept Stage

(ESRS Concept Stage)

Date Prepared/Updated: 07/31/2024 | Report No: ESRSC04416



I. BASIC INFORMATION

A. Basic Operation Data

Operation ID	Product	Operation Acronym	Approval Fiscal Year
P505094	Investment Project Financing (IPF)	DZAP	2025
Operation Name	Digital Zambia Acceleration Project (DZAP)		
Country/Region Code	Beneficiary country/countries (borrower, recipient)	Region	Practice Area (Lead)
Zambia	Zambia	EASTERN AND SOUTHERN AFRICA	Digital Development
Borrower(s)	Implementing Agency(ies)	Estimated Appraisal Date	Estimated Board Date
Republic of Zambia	Smart Zambia Institute	13-Jan-2025	27-Mar-2025
Estimated Concept Review Date	Total Project Cost		
01-Aug-2024	120,000,000.00		

Proposed Development Objective

Increase access to, and inclusive use of, the internet and digitally enabled services

B. Is the operation 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 Activities

The development objective of the Digital Zambia Acceleration Project is to increase access to and inclusive use of the internet and digitally enabled services. The project comprises four components: The first component, Affordable broadband, aims to increase access to high-speed internet for government, industries and individuals and increase regional access. It consists of the following subcomponents (i) Extending the backbone and regional network to underserved and unserved areas in partnership with the private sector (ii) Supplying last mile connectivity to connect public institutions e.g schools, health facilities, and district administrative centers (iii) Strengthening the Enabling Environment through policy and regulations. The second component, Interoperable and secure data platforms, aims to develop the foundational digital layers of the integrated Digital Public Infrastructure. It consists of the following



subcomponents (i) Developing digital ID and trust services, including support for and accelerated roll-out of digital ID and support for data protection and cybersecurity; (ii) Enhancing digital government and services, including re-engineering of the ZamPortal; and (iii) Fostering regional trade facilitation, by working on no-stop borders, a policy framework for cross border data flows and other initiatives. The third component, High impact digital services and productive digital usage, aims to provide end-to-end digitization for key government services and to equip Zambians with advanced digital skills. It consists of the following subcomponents (i) Supporting digitization in selected high-impact services, particularly in those other sectors supported by World Bank lending programs; and (ii) Nurturing employment-ready digital skills, especially in emerging new technologies, such as Artificial Intelligence and Machine Learning. The fourth component, project management and capacity building, will support project implementation, coordination, and capacity building for the project implementation unit (PIU), which will be hosted by the Smart Zambia Institute (SZI).

D. Environmental and Social Overview

D.1 Overview of Environmental and Social Project Settings

The project will have a nationwide footprint, with efforts targeted at expanding access to affordable internet and improve government capacity to deliver digital services. Through the project, regional networks will be expanded, including last mile connections for selected government institutions which also include schools and health facilities. Site selection has not yet been done, however, it is envisioned that planned activities will be undertaken within green and brown fields in both urban and rural areas whose population density and social characteristics will vary. Populations in rural areas are mostly poor, with low literacy rates and limited internet access. These groupings are considered vulnerable and likely to experience exclusion from the project. The environmental conditions are also likely to vary. There will be need to determine how the different environmental settings will be impacted by the project, and to assess if there are sensitive environmental receptors. The project is anticipated to encounter low biodiversity settings as activities such as installation of optic fibers occur will occur in existing way leaves.

D.2 Overview of Borrower’s Institutional Capacity for Managing Environmental and Social Risks and Impacts

SMART Zambia Institute will be the main implementing agency. The institute has a lean structure and does not have presence in other parts of the country where the project activities will be conducted. The project has a nationwide footprint, implying that compliance monitoring for E&S risk management will be challenging and will require enhanced coordination with other government counterparts and private sector particularly in the rural areas. SMART Zambia Institute has no prior experience in implementing World Bank financed operations with corresponding requirements of the Environmental and Social Framework (ESF). Requisite capacity and experience in managing environment and social risks and impacts is also limited within the institution. The PIU will therefore be required to engage qualified Environment and Social Specialists and to consider engaging the services of third-party monitors to enhance compliance levels. The capacity strengthening measures will be indicated in the project’s Environmental and Social Commitment Plan (ESCP). The Bank will also provide support on a needs basis during the preparation and implementation phases, including tailored training to strengthen capacity of the PIU in addressing risks specific to this operation.

II. SCREENING OF POTENTIAL ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC)

Moderate

A.1 Environmental Risk Rating

Moderate

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The environmental risk rating is Moderate. The proposed project activities are envisaged to generate moderate site specific environmental risks and impacts as the project involves construction activities and use of electronic equipment that may generate hazardous waste in the form of electronic waste which when leached into the environment may cause environmental pollution due to its toxic nature. At construction phase, the following E&S risks and impacts are anticipated (i) vegetation loss due to land clearing for installation of ICT facilities, (ii) loss of vegetation, (iii) dust emissions (iv) soil erosion and sedimentation, (v) soil and water contamination from oil and fuel leaks (vi) traffic flow disruptions and traffic safety risks, (vii) GHGs from use of fossil fuels for power generation. OHS risks include (i) exposure of workers to electrical hazards, (ii) falls from height during tower installations, trips and falls into cable trenches (iii) ergonomic risks due to manual handling, (iv) prick injuries associated with handling and laying of optic fibers, exhaustion, (v) working under extreme weather conditions, and (vi) road traffic and safety risks. At operation and maintenance phase, potential EHS risks include (i) increase in energy consumption, (ii) generation of hazardous waste from maintenance of ICT equipment i.e., electronic waste and used oil. There is also a risk of inadequate capacity of the PIU in EHS and risks associated with technical assistance.

A.2 Social Risk Rating

Moderate

The social risk is rated Moderate. The proposed operation seeks to increase inclusive access to the internet and improve the government’s capacity to deliver digital-enabled services in Zambia. The main social risks identified include (i) potential exclusion of vulnerable groups from accessing government digital services due to low literacy levels, limited ICT equipment , non selection for skill-building activities intended to nurture employment and Internet connectivity; (ii) potential risks associated with personal data privacy, especially in relation to the digital ID and trust services if adequate data protection measures are not set in place; (iii) community health and safety risks induced by construction activities particularly during the opening of trenches and the movement of construction machinery; (iv) potential incidences of Sexual Exploitation and Abuse Sexual Harassment (SEA/SH), associated with the presence of contract workers in close proximity to the local population; and (v) potential side effects of access to the Internet, such as unregulated access to inappropriate content by children in schools to be connected to the internet. These risks are not expected to be particularly significant.

B. Relevance of Standards and Policies at Concept Stage

B.1 Relevance of Environmental and Social Standards

ESS1 - Assessment and Management of Environmental and Social Risks and Impacts

Relevant

Key environmental risks and impacts identified for the project include (i) vegetation loss, (ii) indiscriminate disposal of e-waste (iii) dust emissions, noise and vibrations, (iv) generation construction and hazardous waste (electronic), (v) use of fossil fuels for energy generation to support works leading to emission of GHGs, (vi) inadequate capacity of the PIU in EHS and social risks (vii) road related incidents and (viii) theft of oils and solar panels for ICT powering equipment. Social risks and impacts identified for this operation relate to inclusivity, labor, community health and safety, threat to data privacy, land use restrictions and exposure to illicit internet material. Against this background the following standards have been considered relevant; ESS1, ESS2, ESS3, ESS4, ESS5, ESS6, ESS8 and ESS10. The project will be required to prepare an Environmental and Social Framework (ESMF).

ESS10 - Stakeholder Engagement and Information Disclosure

Relevant

Public Disclosure



This project will involve several stakeholders across government institutions, private sector and communities whose needs and interests will have to be considered. To achieve this, a mapping of stakeholders will be conducted, and a plan developed on how identified stakeholders will be adequately consulted during project preparation and during implementation. The consultations will be inclusive and allow for targeted engagement methodologies that are responsive to the different category of stakeholders. The process of engagement will be detailed in the draft Stakeholder Engagement Plan (SEP) to be developed prior to appraisal, and will include a record of the stakeholder engagement activities carried out until then. The draft SEP will also stipulate how grievances arising from the project will be handled, including the resolution process. As a requirement under this standard, all E&S instruments prepared for the project will need to be disclosed using varying methods and platforms.

ESS2 - Labor and Working Conditions

Relevant

The project will engage direct workers, contracted workers, and primary supply workers. SMART Zambia Institute will engage direct workers as part of the Project Implementation Unit (PIU) assigned to operationalize the project. The installation of network infrastructure will be undertaken by contracted workers, whereas equipment required to facilitate last mile connections will be provided by suppliers. An OHS plan based on EHSs, GIIP and national laws will be required that includes hazard identification, risk assessments, method statements especially for workers working at height, emergency prevention and preparedness and response arrangements, OHS training and communication including training on road safety in areas where optic fiber cables will be installed. The project will be required to comply with the requirements of ESS2 and national labor laws following a gap analysis that will be conducted as part of the ESMF. The OHS plan will be annexed to the ESMF.

ESS3 - Resource Efficiency and Pollution Prevention and Management

Relevant

ESS 3 is relevant because project activities could generate at construction phase (i) localized water and air pollution from inadequate management of construction, solid and hazardous waste (asbestos and electronic waste), and operation phase (ii) generation of GHGs, SOx and NOx and particulate matter from use of diesel generators to power telecommunication and ICT infrastructure due to site remoteness and long hours of prime power cuts that the country is facing due to energy deficit, and (iii) the generation of e-waste from irreparable and end of life electronic equipment and solar equipment, The project ESMF will provide a detailed E&S screening tool for the subproject activities, a template for an ESMP, a waste management plan for both solid and hazardous waste (e-waste management plan) and other measures related to manage pollution to air, land and water, habitats, and natural resources, including EHS Guidelines.

ESS4 - Community Health and Safety

Relevant

The project presents the following risks (i) accidents due to open trenches, (ii) dust emissions and noise from movement of construction vehicles, (iii) road traffic incidents, (iv) exposure to water borne diseases through use of water contaminated by construction activities, and (v) exposure to hazardous materials (e-waste), (vi) transmission of communicable diseases (vii) potential incidences of Sexual Exploitation and Abuse or Sexual Harassment (SEA/SH) due to contractor-community interactions; (viii) safety risks related to attempted theft of fuel of ICT equipment. Measures to mitigate these risks will be incorporated in the ESMF, site specific EMSPs including measures to manage SEA/SH risks and aligned with the World Bank EHS.



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

Relevant

While no physical displacement is expected as a result of the project, the proposed activities of infrastructure installation and laying of fiber cables to public facilities may result in land use changes or restrictions, temporary economic disruptions and permanent loss of land, however, these are deemed to be minimal. To the extent possible, the use of existing right of ways will be utilized to minimize impacts and where unavoidable corresponding site specific/stream lined Resettlement Action Plans (RAPs) will be prepared. Guidelines to manage these potential risks and impacts will be documented in the ESMF with recommendations for inclusion in the site specific ESMPs. Further, a screening process to avoid significant impacts will be adopted.

ESS6 - Biodiversity Conservation and Sustainable Management of Living Natural Resources

Relevant

ESS 6 relevant as project activities will involve clearance of vegetation during the installation of telecommunication and ICT infrastructure. However, this will have minimal impact on vegetation loss as works such as installation of optic fibers will be conducted in already existing way leaves. Additionally, works are not expected to be conducted in areas of high biodiversity or protected areas such as Forests and National parks and will therefore not have an impact on critical and natural habitats. Mitigation measures to the risk of vegetation clearance will be included in the ESMF and site specific ESMPs.

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

Not Currently Relevant

ESS8 - Cultural Heritage

Relevant

Excavations works to facilitate laying of fiber cables and construction of network infrastructure may lead to impacts on cultural heritage sites. To address this risk, a Chance Find Procedure will be included in the ESMF to manage risks at known and unknown historical sites and preservation of archeological objects that may be found in the course of project implementation.

ESS9 - Financial Intermediaries

Not Currently Relevant

B.2 Legal Operational Policies that Apply

OP 7.50 Operations on International Waterways

No

OP 7.60 Operations in Disputed Areas

No

B.3 Other Salient Features

Use of Borrower Framework

In Part

The partial reference to the borrower’s framework relates to adherence with the ICT Policy and Electronics Communications and Transactions Act which stipulates requirements for relevant Environmental Project Brief (EPB) and corresponding ESMPs for optic fiber installation and erection of cell towers and this will be in consistent with ESS

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1 and reflected in the ESMF. Labour requirements for the project will be aligned with the Employment Act. A gap analysis will be conducted as part of the ESMF to identify additional measures to close gaps and ensure consistency with ESS2. Gap closing measures will be adopted with provisions included in the ESMPs, tender documents for contractors with requirements for codes of conduct, GRM, Operations Manual, and as ESCP commitments.

Use of Common Approach

No

C. Overview of Required Environmental and Social Risk Management Activities

C.1 What Borrower environmental and social analyses, instruments, plans and/or frameworks are planned or required by Appraisal?

The following instruments will be prepared prior to appraisal:

- Draft Environmental and Social Management Framework (ESMF), including a gap analysis matrix on ESS2 to inform the gap-filling labor management measures to be adopted in the project.
- Appraisal Environmental and Social Risk Summary (ESRS).
- Draft Stakeholder Engagement Plan (SEP).
- Environmental and Social Commitment Plan (ESCP).

The following instruments will be prepared during project implementation:

- Electronic Waste Management Plan (EWMP).
- Final Environmental and Social Management Framework (ESMF), including annexes containing SEA/SH action plan, an OHS plan and a final gap analysis matrix on ESS2 to inform the gap-filling labor management measures to be adopted in the project..
- Finalized version of the SEP.

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III. CONTACT POINT

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IV. FOR MORE INFORMATION CONTACT



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