



# Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 21-Oct-2021 | Report No: PIDC32666



**BASIC INFORMATION**

**A. Basic Project Data**

Country Sierra Leone	Project ID P177077	Parent Project ID (if any)	Project Name Sierra Leone Digital Transformation Project (P177077)
Region AFRICA WEST	Estimated Appraisal Date Apr 11, 2022	Estimated Board Date May 31, 2022	Practice Area (Lead) Digital Development
Financing Instrument Investment Project Financing	Borrower(s) Ministry of Finance	Implementing Agency Ministry of Information and Communications	

**Proposed Development Objective(s)**

To increase digital inclusion and enhance adoption of selected digitalized public services

**PROJECT FINANCING DATA (US\$, Millions)**

**SUMMARY**

<b>Total Project Cost</b>	50.00
<b>Total Financing</b>	50.00
<b>of which IBRD/IDA</b>	50.00
<b>Financing Gap</b>	0.00

**DETAILS**

**World Bank Group Financing**

International Development Association (IDA)	50.00
IDA Grant	50.00

Environmental and Social Risk Classification  
Moderate

Concept Review Decision  
Track II-The review did authorize the preparation to continue



## B. Introduction and Context

### Country Context

1. **Sierra Leone is a small country in West Africa with a total population of 7.9 million<sup>1</sup>.** The country has rich minerals, agricultural and blue resources. However, Sierra Leone is facing multiple development challenges, including poverty, growing youth population and lack of quality employment opportunities, weak institutions, and a North-South ethno-regional divide. About 40 percent of the total population lives under the poverty line (US\$1.9 per day)<sup>2</sup>, and per capita GDP at US\$468<sup>3</sup> remains almost the same level as it was after independence in 1961. Sierra Leone is ranked nearly at the bottom of most development metrics and has the fifth lowest life expectancy globally (54 years). A decade of Civil War and a horrific Ebola epidemic which infected over 13,000 Sierra Leoneans and claimed the lives of at least 4,000 left the country nearly paralyzed economically and socially. Agriculture, which is the backbone of the economy and consists of small holder farmers, was nearly decimated, along with informal jobs. Key sectors such as mining and tourism were adversely affected.

2. **The combination of civil war and 2 pandemics have been especially devastating for Sierra Leone's youth population.** Approximately 40 percent of the total population in Sierra Leone is under 15 year old. Youth under 35 years of age account for 75 percent of the population but much of this cohort spent their formative years in the decade-long war. Undiversified economy remains highly depended on agriculture and natural resources for revenue and the economy has been struggling to diversify labor market, increase productivity, or job creations for youth population. The youth bulge is therefore associated, in part, with low skills and some frustration around unmet expectations, an important source of fragility. The COVID-19 Pandemic has been particularly challenging for youth education and skills development with the closure of educational establishments and limited or no access to on-line educational resources.

3. **Women and girls in Sierra Leone would have higher potential.** Women's economic participation in Sierra Leone historically suffered high girl's dropout rate from the formal education system due to early age pregnancy. Approximately, more than a third (39 percent) of girls are married before age 18, which affects women's education attainment, labor force participation, earning and productivity. Some study shows early marriage and pregnancy causes significant income gap (approximately 25 percent less earning compared to non-teenage mother women). In Sierra Leone, such situation widens the gender access gap (access to services and job opportunities) as well other socioeconomic gaps. There are a few informal vocational trainings for women and girls supported by different initiatives.

4. **Government efforts to rebuild economy are largely successful, albeit potential for reversal due to COVID-19. However, Sierra Leone could take advantage of digital technologies to fast transformation the country.** The Government of Sierra Leone (GoSL) recognizes digital technologies as a key enabler for transforming the country in general, and its economy in particular. Sierra Leone experienced first-hand the importance of digital technologies during the Ebola crisis when mobile phones were instrumental in tracking,

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<sup>1</sup> World Bank, 2020.

<sup>2</sup> World Bank, 2018.

<sup>3</sup> World Bank, 2020.



monitoring and managing outbreaks. The COVID-19 pandemic has further demonstrated the critical need for more robust digital infrastructure to provide essential services as well as trace, monitor and manage the spread of the disease. The crisis, with its social distancing requirements, offers unprecedented demand for digital technologies, as well new opportunities for the global digital economy as a whole.

#### Sectoral and Institutional Context

5. **Despite of all development challenges, the Government of Sierra Leone (GoSL) is committed to leveraging digital economy and realizing the promising benefits of digital transformation for more inclusive growth centered on human capital development.** The high-level vision for digital economy is articulated in the National Innovation and Digital Strategy (NIDS) 2019-2029, which was drafted and launched in 2019 by Directorate of Science, Technology, and Innovation (DSTI) created under the State House. National Digital Development Policy (NDDP) and National Digital Development Strategy (NDDS) are currently being drafted by GoSL and finalized with the support of Digital Impact Alliance (DIAL), which builds on the draft National Digital Transformation Roadmap (NDTR). Set to be finalized by the end of November 2021, these two documents will provide a detailed roadmap and interventions through which the GoSL can realize its vision of inclusive digital economy.

6. **The Digital Economy for Africa (DE4A) country diagnostic study for Sierra Leone**, completed in FY21, examined the current state of digital economy in Sierra Leone by assessing five key digital economy foundational pillars including: Digital Infrastructure, Digital Platforms, Digital Financial Service, Digital Entrepreneurship, and Digital Skills. The country diagnostic confirmed Sierra Leone's potential, as well as its commitment and efforts to leverage digital technologies for transformational growth. However, the diagnostic findings highlighted the significant challenges that Sierra Leone faces compared to regional peers (see details in Annex 2).

7. **Sierra Leone has continued its efforts to improve the resilience, reach, and quality of its digital infrastructure following a decade of civil war.** Sierra Leone was one of the first countries in West Africa to commit to improving the geographical reach of high-speed connectivity to its citizens through direct access to a submarine fiber optic cable, Africa Coast to Europe (ACE), which benefitted from World Bank Group financing<sup>4</sup>. Additional commitments to robust national backbone and access networks to ensure a ubiquitous and affordable connectivity to all citizens included investments in a 660 km terrestrial fiber-optic backbone link from Freetown to the Liberia and Guinean borders, with fiber points of presence (PoPs) in some 28 cities across the country. The World Bank estimates indicate that improved international connectivity through the ACE cable contributed some US\$1 billion annually to the country's GDP between 2011 and 2016<sup>5</sup>. Wholesale prices for fixed broadband E1 capacity dropped by 97 percent from US\$8,000 to US\$174 per Mbit/s per month. Building upon more abundant and affordable international connectivity, the access to internet connectivity has increased rapidly: 70 percent and 75 percent of the population in Sierra Leone are covered by 3G and 4G signals, respectively, as of Q2 2021. Improved connectivity, particularly mobile internet services, proved particularly essential for Sierra Leone during the Ebola crisis when anonymized data from mobile phone records became

<sup>4</sup> US\$ 31m West Africa Regional Communications Program (WARCIP) Sierra Leone APL-1A (P116273,) which closed in Sept. 2016.

<sup>5</sup> The Implementation Completion and Results Report (ICR) for the West Africa Regional Communication Infrastructure Project (WARCIP) Sierra Leone.



instrumental for tracking, treating, and managing the Ebola Virus. More recently, improved internet access is helping nurture a tech ecosystem and provide digital job opportunities for Sierra Leone's burgeoning youth.

**8. Despite the notable progress, overall telecom/broadband sector performance in Sierra Leone lags behind other African countries.** Despite the expansion of internet connectivity in spite of the country's economic, social and institutional challenges, as well as the prolonged civil war and pandemics such as Ebola and COVID-19, about 1.5 million Sierra Leoneans live out of reach from mobile signals and still do not have access to mobile broadband services (Figure 1). Also, data suggests that there is a significant usage gap—those who live in an area covered by a mobile broadband network but are not using the mobile internet—to be addressed in Sierra Leone (Figure 2). According to the World Bank, only 35percent of the population in Sierra Leone are estimated to be subscribed to mobile broadband services in 2020<sup>6</sup>, which is lower than the Africa average of 37percent. Sierra Leone was ranked 153 out of a total of 207 economies for mobile penetration in 2018 and 197 out of a total of 208 economies for internet usage in 2017. Mobile broadband services remain more expensive than in most African countries. According to the Alliance for Affordable Internet (A4AI), Sierra Leone ranked 68 out of 72 countries in the Affordability Drivers Index 2020 and broadband remain expensive as Sierra Leoneans are playing 9.86 percent instead of 2 percent of their monthly income to purchase 1GB equivalent of mobile broadband data<sup>7</sup>. The high hopes that competitive access to international connectivity would stimulate growth of the broadband internet market and lead to more affordable and reliable broadband connectivity in the country have been hampered following delays and policy reversals by the government on the liberalization of international gateway, this, in spite of the Telecommunications Amendment Act of 2006 with its various amendments, providing a regulatory framework for open access to both national and international infrastructure and for sector liberalization.

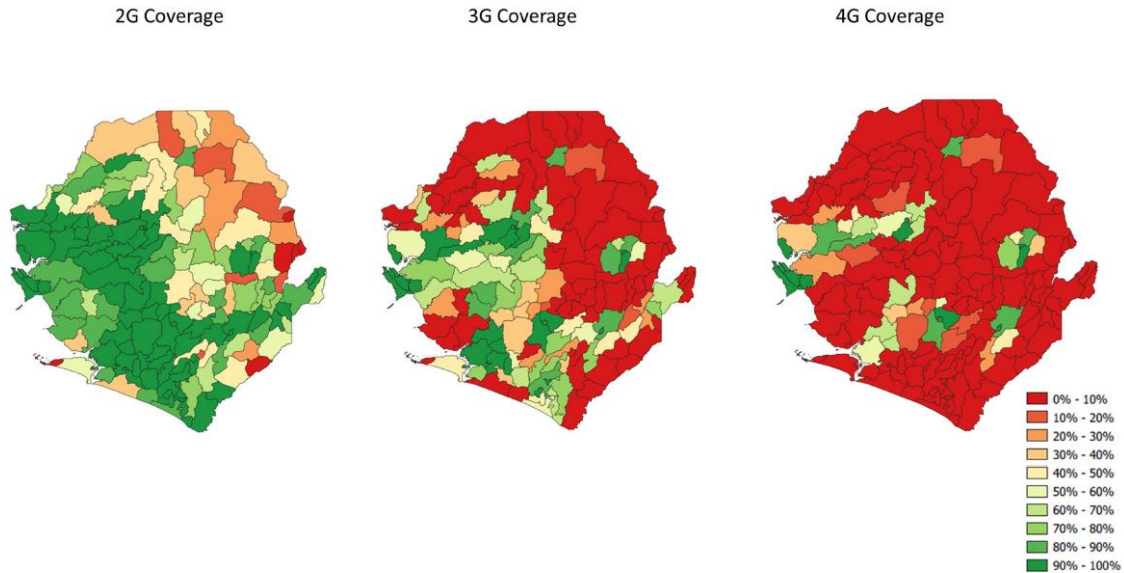
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<sup>6</sup> Unique mobile broadband subscribers per 100 inhabitants were calculated by dividing the number of unique mobile broadband capable subscribers (GSMA) by the total population data (UN) to cross-out multiple SIM registrants.

<sup>7</sup> [https://a4ai.org/affordability-report/data/?\\_year=2020&indicator=INDEX&country=SLE](https://a4ai.org/affordability-report/data/?_year=2020&indicator=INDEX&country=SLE)

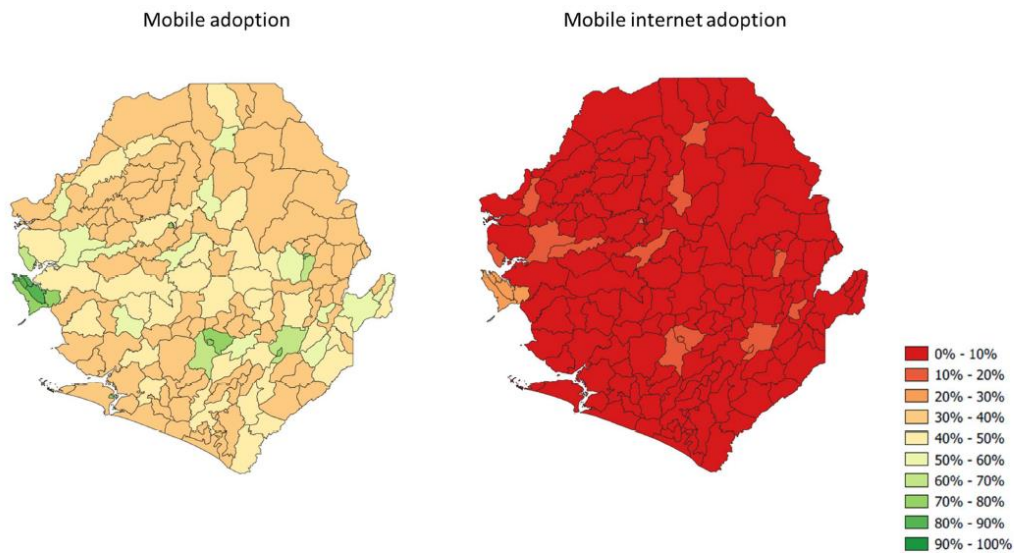


Figure 1. Network Coverage by Technology (2020)



Source: GSMA and World Bank 2020.

Figure 2. Mobile and Mobile Internet Adoption (2020)



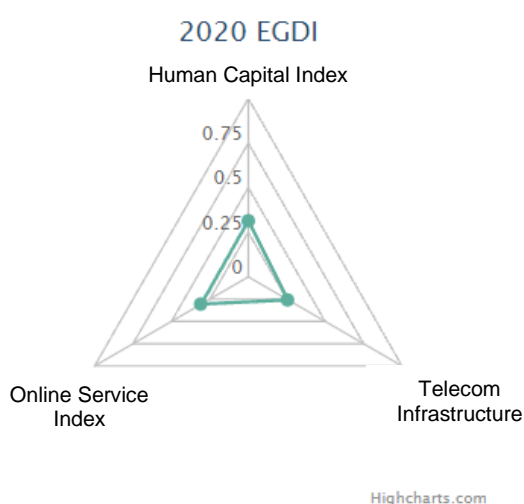
Source: GSMA analysis of data sourced from mobile operators, GSMA Intelligence, UN, WorldPop, CIESIN, Gallup World Poll and Earth Observations Group (VIIRS Nighttime Lights).

9. Along with digital infrastructure, digital transformation in the public sector and the GoSL is at the center of its digital economy vision. The NIDS prioritizes digitalizing government service delivery and citizen engagement along with enabling digital identification of individuals, businesses, and institutions. Similarly, the draft NDTR put forward Electronic Governance (Digital Government) for Enhanced Public Service Delivery as one of the six key pillars on which strategic interventions will be focused.



10. **Sierra Leone’s efforts for digitalizing public sector systems and government services have been hampered a siloed approach.** Sierra Leone ranked 174 out of 193 countries in the UN E-Government Development Index (EGDI) 2020 with the score of 0.2931 (out of maximum score of 1.00), which is below the global (0.5988), African regional (0.3914) and Western Africa sub-regional (0.3574) averages (Figure 3). There is no whole-of-government ICT architecture, integration, and standardization established in Sierra Leone that can ensure interoperability and security of various government systems, which reduces the efficiency-gaining potential of digital public platforms. The lack of clearly defined mandate of the involved Ministries, Departments, or Agencies (MDAs) for facilitating Sierra Leone’s digital platforms is also creating duplication of efforts, adding to inefficiencies stemming from the current fragmented approach. Without a shared government-wide data infrastructure, public sector registries and information systems need to be hosted in sectoral or regional data centers that have different levels of sophistication. Moreover, interoperability issues arise among the infrastructures serving different MDAs. The draft NDTR envisages the establishment of a national data center and private cloud infrastructure, which will enable various MDAs to use shared services such as emailing, antivirus management services, and document management systems in a cost-efficient manner. However, no progress has been made on this target as the NDTR has not been finalized. Furthermore, the digitalization efforts have primarily focused on core government back-office processes to address challenges specific to certain government functions, rather than citizen-facing government services delivery. The government systems, even if digitalized, are lacking service delivery focus. For example, there is a government portal in place that contains information about branches of the government, various public sector entities and public servants; however, there are no transaction-based services available that citizens or businesses can use through the portal. In addition, there is no mechanism in place to determine the quality-of-service delivery aspects of the citizen-facing services.

Figure 3. UN E-Government Development Index (EGDI) 2020 table for Sierra Leone



<b>E-Government (2020 EGDI: 0.2931)</b>	
2020 Rank	174
Group	MEGDI
Rating Class	M1
2018 Rank	174
Change	
<b>E-Participation (2020 EPART: 0.3929)</b>	
2020 Rank	134
2018 Rank	129
Change	+5

Source: UN Public Administration Website: <https://publicadministration.un.org/egovkb/en-us/Data/Country-Information/id/153-Sierra-Leone>





11. **Regarding the safety and security in cyberspace, the GoSL made some significant progress since the completion of Cybersecurity Maturity Assessment (led by Oxford University and ITU) in 2018.** such as establishment of Cybercrime Law (2021), however, continuous attention and urged actions are still required to set up a Cybersecurity Emergency Response Center (CERC) as well as rolling out Cybersecurity Critical Infrastructure Plan.

12. **As such, development of digital economy in Sierra Leone is only embryotic and significant efforts need to be made to tackle the existing challenges for laying the robust foundations of digital infrastructure and platforms.** The proposed project will complement the ongoing initiatives by other development partners who share the similar vision to enable the potential of digital economy for transformational growth in Sierra Leone.

Relationship to CPF

13. **The proposed Sierra Leone Digital Transformation Project is fully aligned with the latest Country Partnership Framework for Sierra Leone (FY21- FY26).** The CPF identified digital technologies as a cross-cutting theme. The CPF supports building a strong foundation for the digital economy. The proposed activities of the project will directly and indirectly contribute to all three Focus Areas. Strengthening of Legal, Regulatory and Institutional Environment for more robust Digital Economy (Component 1) and Leveraging of Digital Technologies to improve Government Services (Component 3) will support **Focus Area 1: Sustainable Growth and Accountable Governance**, by utilizing digital technologies to maximize government functions (objective 1.2) and service delivery (objective 1.1). Expanding Access to Affordable Broadband Connectivity (Component 2) is directly aligned with **Focus Area 3: Economic Diversification and Competitiveness with Resilience** by closing digital access gap and adoption. Also, digital connectivity support for schools and health facilities, as well as digital skills enhancement under the project will contribute to **Focus Area 2: Human Capital Acceleration for Inclusive Growth**. The proposed Sierra Leone Digital Transformation Project has complementarity with the following active and pipeline operations including but not limited to: (i) Sierra Leone Financial Inclusion Project (P166601); (ii) Accountable Governance for Basic Service Delivery (P172492); (iii) Sierra Leone Economic Diversification Project (P164212); (iv) Resilient Urban Sierra Leone Project (P168608); (v) Sierra Leone Free Education Project ( P167897); and (vi) Sierra Leone – Quality Essential Health Services and Systems Support Project (P172102).

14. **The project fits well within the WB's and the Government's effort to respond to the COVID-19-related shocks and mitigate its social and economic consequences.** The proposed intervention activities are closely aligned with the fourth pillar of the WBG COVID-19 Crisis Response Approach paper (FY20): *Strengthening Policies, Institutions, and Investment for Rebuilding Better*. While an array of measures is being undertaken to mitigate the direct health-related impact of the COVID-19 pandemic, the long-term financial and economic consequences are expected to remain for years to come. The proposed activities integrated into Components 1,2, and 3 are designed to support the Government in building resilient and inclusive policies by strengthening its legal and regulatory frameworks, scaling up the citizen-centric digital public service delivery by reinforcing the government portal and relevant MDAs capacity. By enhancing the service delivery infrastructure and platforms, the project will support ensuring continuity of public services in times of crisis.

15. **The project contributes to several other WBG and Government strategies**, such as WBG Gender Strategy (FY16-23), the African Union Digital Transformation Strategy, and the AFW Regional Priorities, 2021 –





2025. The proposed activities will contribute to the WBG Gender Strategy's two pillars (i) Removing Constraints for More and Better jobs by reinforcing women's access to the internet and digital public services, as well as increasing their participation in the digital economy and income-earning opportunities, and (ii) Enhancing Women's Voice and Agency and Engaging Men and Boys by ensuring, inter alia, equal representation of female beneficiaries, sex-disaggregated data monitoring, and confidential mechanism dedicated for women to report complaints. Furthermore, the project activities are aligned with AFW Regional Priorities, 2021 – 2025, for which broadband connectivity is critical for economic transformation and the creation of better jobs for more people. Finally, the proposed project also supports the WBG's Digital Economy for Africa (DE4A) initiative that contributes to the operationalization of the African Union Digital Transformation Strategy, aiming to ensure every African individual, business, and government is digitally enabled by 2030.

### C. Proposed Development Objective(s)

To increase digital inclusion and enhance adoption of selected digitalized public services

Key Results (From PCN)

To increase digital inclusion

- 1) People provided with new or enhanced access to broadband internet
- 2) Number of beneficiaries reached through targeted trainings on digital skills (disaggregated by gender and urban/rural).

To enhance adoption of selected digitalized public services

- 3) Number of public services digitally available, G2G, G2B, G2C (including average transaction per month/quarter/year)

### D. Concept Description

16. **The Sierra Leone Digital Transformation Project is articulated around four mutually reinforcing components with the fifth component dedicated to contingent response to future risks and emergencies.** *Component 1: Strengthening the Enabling Environment for Digital Transformation* will lay the foundational enabling environment for digital economy in Sierra Leone by supporting necessary legal, policy and regulatory, and institutional reforms to foster the emergence of a vibrant, inclusive and safe digital economy. *Component 2: Expanding Digital Connectivity and Increasing Digital Inclusion* will help expand access to affordable, high-speed internet by introducing competition in the first mile (international connectivity) of the broadband value chain, financing the expansion of last-mile connectivity under a Mobilizing Finance for Development (MFD) approach, and increasing the adoption of digital technologies through financing demand side interventions that will contribute to mainstreaming digital solutions for financial inclusion. *Component 3: Establishing e-Government Foundations and Strengthening Public Service Delivery through Digital Solutions* will lay technical foundations to realize Sierra Leone's vision for digital government by upgrading the government infrastructure and establishing a whole-of-government interoperability and data-sharing frameworks based on which



government-to-citizen (G2C) and government-to-business (G2B) e-government services can be designed. Component 4: Project Management and Implementation Support will provide support for the management and implementation of project-associated activities. *Component 5: Contingent Emergency Response Component (CERC)* will allow for agile disbursement of any uncommitted balances in response to eligible crises or emergencies that may arise during the project implementation.

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

Summary of Screening of Environmental and Social Risks and Impacts

**CONTACT POINT**

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**APPROVAL**

Task Team Leader(s):	Kaoru Kimura
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**Approved By**

Country Director:	Abdu Muwonge	26-Oct-2021
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