



Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 01-May-2022 | Report No: PIDA33722



BASIC INFORMATION

A. Basic Project Data

Country Mozambique	Project ID P176459	Project Name Mozambique Digital Acceleration Project	Parent Project ID (if any)
Region AFRICA EAST	Estimated Appraisal Date 25-Apr-2022	Estimated Board Date 24-Jun-2022	Practice Area (Lead) Digital Development
Financing Instrument Investment Project Financing	Borrower(s) Republic of Mozambique	Implementing Agency Ministry of Transport and Communications	

Proposed Development Objective(s)

To increase digital adoption and inclusion, and to support the foundations for accelerated digital transformation

Components

- Component 1: Digital Access and Inclusion
- Component 2: Foundations for Accelerated Digital Transformation
- Component 3: Project Management, Institutional Coordination and Citizen Engagement
- Component 4: Contingent Emergency Response Component

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	200.00
Total Financing	200.00
of which IBRD/IDA	200.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	200.00
IDA Grant	200.00



Environmental and Social Risk Classification

Substantial

Decision

The review did authorize the team to appraise and negotiate

B. Introduction and Context

Country Context

With a Gross Domestic Product (GDP) per capita of US\$449 in 2020, Mozambique is among the poorest countries in the world and faces a number of structural constraints that hinder its socio-economic development.¹ The economy is vulnerable to commodity price fluctuations and is relatively undiversified, concentrated in capital-intensive mega projects and low-productivity subsistence agriculture.² The population is predominantly rural and geographically spread out,³ creating significant infrastructure gaps and challenges in providing public services. High exposure to natural disasters, high population growth rates, limited livelihood opportunities, weak public services, limited administrative capacity, as well as vulnerability to exogenous economic shocks exacerbate and reinforce fragility.⁴

Ongoing violence creates challenges for Mozambique's post-conflict transition and economic development. Since the end of the civil war in 1992, the country has experienced periodic armed confrontations and outbreaks of violence. Mozambique is now also grappling with conflict in the northern province of Cabo Delgado, resulting in a significant humanitarian and displacement crisis.⁵ The flow of Internally Displaced Persons (IDPs), particularly across the northern regions, has put additional pressure on the limited infrastructure available amidst growing demand for access to services.

The COVID-19 pandemic reached Mozambique at a vulnerable time, though signs of a nascent recovery are appearing. Mozambique's previous high growth rate trajectory⁶ was interrupted in 2016 with the discovery of undisclosed public debts.⁷ The ensuing crisis more than halved the growth rate and led to unsustainable levels of external debt and constrained fiscal space. The economic situation further deteriorated in 2019 after tropical cyclones Idai and Kenneth caused massive damage to infrastructure and livelihoods.⁸ The COVID-19 health crisis thus hit Mozambique at a particularly vulnerable time. GDP contracted by 1.3 percent in 2020, though the economy has since begun to recover with GDP growth of 2.2 percent in 2021

Mozambique's development model has been driven by extractive-led, capital-intensive sectors, with limited linkages to the local economy. As a result, growth has not translated into broad poverty reduction. The country ranks

¹ IMF, 2020.

² The agriculture sector employs about 75 percent of the population and accounts for 25 percent of the GDP. It remains the primary source of livelihood in rural Mozambique, but productivity and value addition are low.

³ 63 percent of the population residing in rural areas in 2020. World Bank, 2020.

⁴ Eligibility Note for Access to the Prevention and Resilience Allocation for Mozambique, World Bank, 2021.

⁵ The conflict has left nearly 4,000 people dead and 1.3 million in need of humanitarian assistance, with approximately one-third of the province population displaced from their homes. The UN Migration Agency (IOM), 2021.

⁶ GDP growth averaged 8 percent from 2001 until 2015, driven by large scale investments in the extractive industry.

⁷ Non-concessional debt of US\$1.3 billion accumulated between 2009 and 2014 by issuing guarantees to state-controlled companies.

⁸ More than 1.7 million people were affected, with damages and losses amounting to US\$ 3 billion. GoM, Post Disaster Needs Assessment, 2019.



181st out of 189 countries in the UN's Human Development Index for 2020, reflecting the poor provision of basic services in critical areas such as education and health. There are significant geographic disparities, with development outcomes in the Northern and Central regions significantly lagging. Likewise, poverty levels are exceptionally high in rural areas, reaching 65 percent, compared with 34 percent in urban areas⁹.

Pressing ahead with the structural reform agenda will be critical to support a resilient and inclusive recovery. Policies to support economic transformation and job creation, and to strengthen key drivers of inclusion are crucial in the recovery phase. In the longer term, efforts are needed to diversify away from megaproject-driven growth toward a more interconnected and competitive economy, and to spread the benefits of socio-economic development more evenly, including by harnessing the power of digital technologies.

Sectoral and Institutional Context

Mozambique's digital economy remains nascent.¹⁰ The country ranks relatively low compared to the rest of the world and the African continent, in terms of connectivity and accessibility, digital use, e-administration, and e-commerce: 151/170 on GSMA's 2019 mobile connectivity index, 150/176 on ITU's 2017 Information and Communications Technologies (ICT) Development Index, 163/193 on UNDESA's 2020 e-Government Index, and 136/152 on UNCTAD's 2020 e-Commerce Index. The foundational building blocks needed to propel digital transformation remain underdeveloped. In particular, the country's performance across connectivity enablers (infrastructure, affordability, consumer readiness, and content and services) is below the regional average. Low levels of broadband adoption by consumers, businesses, and the government mean that the country is not yet equipped to leverage digital technologies and that the digital economy has thus far had a limited impact on growth, job creation, and service delivery.

While growing quickly, overall broadband penetration remains low, with a significant digital divide along gender, urban-rural and socio-economic lines. Mobile broadband penetration reached 30 percent in 2020, more than doubling since 2015. However, this implies that more than two-thirds of the population still do not have access to the Internet and are therefore locked out of the digital economy and associated services, jobs and prosperity. Fixed broadband penetration, critical for higher speed and higher productivity use, remains very low, with a household penetration rate of under 2% in 2018 (TGI,2019). Access is particularly limited among disadvantaged groups and remote communities.

The landing of a new submarine cable in the North and South of the country provides an enormous opportunity, if gaps in middle and last mile access can be solved. To date, backbone links have been concentrated primarily in major urban areas and inter-city routes, with fiber reach limited in the rest of the country. Broadband coverage is limited to provincial capitals, major cities and development and tourism centers along the coast, while rural areas are un- or under-served. 3G or higher network signals reached only around 61 percent of Mozambique's population in Q1 2021.¹¹ About 200 villages, representing a total population of approximately 1.97 million people, still have no cellular coverage,¹² and the Northern provinces are particularly underserved.

Several demand-side barriers also explain low service adoption and low demand for digital infrastructure and services expansion. While Internet data tariffs are trending downward, affordability remains a challenge given low

⁹ National Institute of Statistics

¹⁰ World Bank, Mozambique Digital Economy Assessment, 2019.

¹¹ GSMA Intelligence, 2021.

¹² List of villages provided by MTC, 2020.



purchasing power. The price of 1 GB of data as a share of the average monthly income was 6.8 percent in 2020¹³ representing a major barrier to access for most users. Prices of Internet-compatible devices are also unaffordable to most Mozambicans. Low basic digital literacy is also a significant deterrent of digital adoption.

Many of the barriers mentioned above are starker for Mozambique's lowest-income households, women, and other vulnerable groups. In addition to the lack of infrastructure in rural areas, the primary determinants of digital exclusion are education and income.¹⁴ The lack of affordability of broadband services and digital devices relative to household incomes is more severe for those at the bottom of the pyramid. As women are over-represented among the poor and have lower rates of access to education, secure livelihood/income generation opportunities, they are less likely to reap the benefits of digital technologies. Negative gender stereotypes compound the problem.

Digital tools and services can play a key role in modernizing Mozambique's public administration and service delivery, but only if the essential building blocks are put in place. These include broader access to robust and reliable connectivity among public institutions and at public service delivery/access points, as well as digital safeguards to create the trust and security required to move critical operations and services to the digital realm. Gaps in these critical building blocks partially explain why digital government is underdeveloped, as they directly impede the way government works, shares information, and delivers services to external and internal customers.

C. Proposed Development Objective

To increase digital adoption and inclusion, and to support the foundations for accelerated digital transformation

D. Project Description

The proposed Mozambique Digital Acceleration Project is designed to increase broadband internet access, promote increased digital inclusion, and accelerate country-wide digital transformation, focusing on critical digital foundations and enablers

Component 1: Digital Access and Inclusion

Component 1 aims to expand digital access and inclusion to ensure that all Mozambicans can benefit from the digital revolution – by (i) making Mozambique a more attractive and competitive place for digital investment, and (ii) expanding availability, affordability and uptake of digital services and technologies, particularly in rural areas, underserved communities and among disadvantaged groups. Interventions under this component will target both the *supply side*, through broadband market reforms in support of increased access and affordability as well as targeted investments to boost last-mile network coverage, and, in parallel, the *demand side*, through local access schemes to tackle the major barriers that hamper greater uptake and growing demand of digital tools and services.

Subcomponent 1.1: Enabling environment for digital investment, inclusion and resilience

This subcomponent aims to strengthen the enabling environment for the telecom/broadband market to drive competition, investment, service quality and affordability while strengthening climate resilience and mitigating the climate and environmental impact of digital infrastructure, services and devices. It includes support for strengthening legal, regulatory and policy frameworks governing the telecoms sector, better analytics on the barriers

¹³ Alliance for Affordable Internet, 2020.

¹⁴ International Development Research Centre (IDRC), After Access research project, 2019.



to access and development of strategies to address them and development of climate informed (resilience and mitigation) policy and regulation of the ICT sector.

Subcomponent 1.2: Rural digital connectivity and access

This subcomponent aims to address last mile broadband network infrastructure and services gaps in rural areas and among underserved and vulnerable communities. It will complement the measures to increase sector competitiveness and private network investment through regulatory and other 'soft' mechanisms under subcomponent 1.1, by leveraging public financing to encourage private sector investment and business model innovation under a Maximizing Finance for Development (MFD) approach. It is expected to help close geographic disparities and improve resilience and access to services and livelihoods opportunities in the targeted areas. It includes support for competitive, market driven subsidy schemes for expansion of mobile broadband networks in rural areas and provision of broadband services to targeted public access points in rural areas.

Subcomponent 1.3: Digital inclusion initiatives

This subcomponent will aim to accelerate broadband uptake and increase participation and inclusion in the digital economy, by addressing demand-side barriers that hamper greater access to and demand for digital tools and services. Particular attention will be given to ensuring that the most impoverished communities, including in remote rural areas as well as women, and marginalized groups, are prioritized. It will include support for development and execution of internet connected device affordability schemes, along with digital awareness, literacy and skills development programs targeting disadvantaged communities and groups.

Component 2: Foundations for Accelerated Digital Transformation

Component 2 aims to build the critical digital foundations for the government, economy and jobs of the future, including (i) spurring development of digital infrastructure, (ii) better utilization of data for policymaking and service delivery, (iii) improving trust and security of online transactions, sensitive data and infrastructure, and (iv) leveraging digital connectivity and technologies to improve learning outcomes and impart students with digital skills.

Subcomponent 2.1: Core digital service infrastructure

This subcomponent will aim to increase the geographic reach, capacity, reliability, and security of GovNet to improve public administration and digital service delivery, while simultaneously using the government's purchasing power to spur private investment to develop a unified, robust, open access backbone infrastructure across the country. It will include support for purchase of connectivity and enterprise services for ministries, departments and agencies (MDAs), upgrade of local area networks (LANs) and strengthening of the GovNet Network Operations Center (NOC).

Subcomponent 2.2: Data governance, data protection and cybersecurity

This subcomponent will aim to (i) improve national data governance arrangements to ensure secure, cost-effective and sustainable data management practices, (ii) strengthen the Government cloud environment to enhance data hosting, accessibility, and integration capabilities, while stimulating development of the data infrastructure and cloud services market, and (iii) enhance cybersecurity. It will include support for development of a data governance framework including associated legal, policy, regulatory and procedural reforms, support for operationalizing a data protection office, establishment of a Government Cloud and migration of key government data, information systems



and services to a cloud environment, and strengthening cybersecurity resilience and critical information infrastructure protection.

Subcomponent 2.3: Digital solutions for improved learning and digital skills development

This subcomponent will support digital transformation of the national education and higher education systems. The objective is twofold: (i) improving the efficiency and efficacy of education services delivery, through incorporation of ICTS in teaching and learning, while boosting resilience by ensuring continuity of service delivery through distance learning in case of shocks and; (ii) improving the digital competencies of students to prepare them for future workforce opportunities. It will support provision of broadband connectivity for secondary schools, technical and vocational training institutions, and higher education institutions, financing schemes to support affordable access to internet connected devices for teachers and higher education students, updates to the curriculum to better reflect digital competencies and to utilize digital tools for learning, teacher training and support for access to digitized educational content.

Component 3 Project Management, Institutional Coordination and Citizen Engagement

Component 3 will support project management and implementation functions and strengthen the GoM's coordination and management capacity. It will also include support for public communications and citizen engagement.

Component 4: Contingent Emergency Response Component (CERC)

This component will support the GoM in swiftly responding to an eligible crisis, including climate or natural disasters and public health emergencies. It provides flexibility for an agile response to unforeseen emergencies through quick disbursement of uncommitted balances from other components.

Legal Operational Policies

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

Summary of Assessment of Environmental and Social Risks and Impacts

Environmental and Social (E&S) Risks and Impacts: The overall E&S risks are deemed Substantial. The main E&S risks are related to: the project implementation team’s shortage of existing expertise with regard to the World Bank’s E&S Framework (ESF), including project specific topics such as Gender Based Violence (GBV), Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH) prevention and response, and labor standards; risks and impacts associated with occupational health and safety concerns; the investment in infrastructure activities, which might result in land acquisition, involuntary resettlement and labor influx issues; risks of GBV/SEA/SH; community health and safety; and social inclusion aspects, such as issues related to new digital services accessibility.

The environmental risk rating is Substantial. Key environmental risks and impacts expected during construction phase are associated with (i) occupational health and safety concerns, including physical and biological hazards, injuries and



accidents; (ii) community health and safety issues including road traffic and communicable diseases (e.g., HIV, COVID-19); (iii) vegetation clearing, habitat loss and fauna disturbance; (iv) air pollution and dust emissions from vehicle fleet and generators; (v) noise and vibration; and (vi) construction waste management. During the implementation phase there are also occupational risks specific to optical fiber cables such as eye damage due to exposure to laser light during cable connection and inspection activities; and likely exposure of workers to microscopic glass fiber shards. Some of these risks and impacts are expected to be significant but mostly are temporary, predictable and/or reversible with lower effects on areas of high value or sensitivity. Other risks and impacts stemming from Components 1 and 2 are associated with the collection, transport and disposal e-waste during construction and operation phases and hazards like fire and electric shock risks due to presence of flammable materials and electrical cables or e-waste from promoting smart device access and affordability and from improving learning and digital skills development. These impacts are however, expected to be mostly temporary, predictable, site-specific and manageable through E&S mitigation measures.

The social risk rating is Moderate. The overall project will have positive social impacts. However, there are potential adverse social risks and impacts attributable to project activities under Components 1 and 2, which are mainly related to: i) the investment in infrastructure activities, which might result in land acquisition, involuntary resettlement and labor influx and cultural heritage issues; ii) labor influx risks; iii) risks of GBV/SEA/SH; iv) workers and community health and safety; v) risks and impacts on cultural heritage as the exact location of project interventions are yet to be determined; and vi) social inclusion aspects, such as issues related to new digital services accessibility, and elite capture of benefits. There is also an institutional risk, particularly regarding limited capacity of the implementing agencies to manage social risks. A screening of the risks related to SEA/SH has been conducted utilizing the World Bank online screening tools resulting in moderate risk. An in-depth GBV/SEA/SH assessment will be developed as part of the ESMF to further assess these risks and propose mitigation measures to address them in a specific GBV/SEA/SH Action Plan. The project will seek to actively address digital inclusion of vulnerable or marginalized populations through proactive targeting of specified groups under broadband and digital device access, digital skills and digital services programs as well as high level efforts to extend broadband and digital services to rural and underserved areas. In this vein, the project will also ensure that the needs and voices of vulnerable people are heard through inclusive participation.

E&S instruments and institutional set up. To address the afore-mentioned risks and impacts, the Borrower will prepare the following instruments: i) an Environmental and Social Commitments Plan (ESCP); ii) a Stakeholder Engagement Plan; iii) an Environmental and Social Management Framework (ESMF); iv) Labor Management Procedure (LMP); and v) Resettlement Policy Framework (RPF). The ESMF will include, among others, GBV/SEA/SH Risk Assessment and Mitigation Action Plan; Labor Management Procedure (LMP); Codes of Practice for e-Waste Management; Resource Efficiency and Pollution Prevention and Management Plan; Chance Finds Procedure (CFP); Occupational Health and Safety Plan (including COVID-19 Protocol); Emergency Response Plan (ERP); and Security Risk Assessment (SRA). During implementation stage, site specific Environmental and Social Impact Assessments (ESIAs) and Environmental and Social Management Plans (ESMPs) will be developed based on the screening guidance and risk level of each specific activity.

E. Implementation

Institutional and Implementation Arrangements



The proposed arrangements include a high-level Project Steering Committee (PSC) – whose role is oversight, decision-making, and coordination. Activities will be closely coordinated with other ongoing projects, with inter-related implementation arrangements and governance oversight.

Overall project implementation will be supported by a project implementation unit (PIU), supporting all project technical stakeholders and housed at the Ministry of Transport and Communications (MTC). The single PIU will be shared across all IDA financed projects housed at MTC to capture efficiencies and enable sharing of procurement, financial management, safeguards, communications and other functions and procedures. In addition to the shared positions across the PIU, the project will have a dedicated project coordinator, deputy coordinators and technical specialists embedded in the shared PIU, as will the other projects.

The PIU will work closely with a number of technical stakeholder Ministries, Departments and Agencies (MDAs) outside of MTC which will have technical leadership for the project components and activities that fall within their technical mandate. These include MCTES, INCM, FSAU, INAGE/MoRENET, INTIC and MINEDH. For components and activities with technical responsibility falling across multiple technical stakeholders, ad hoc technical committees will be formed to provide coordination and oversight.

CONTACT POINT

World Bank

Casey Torgusson
Senior Digital Development Specialist

Borrower/Client/Recipient

Republic of Mozambique

Implementing Agencies

Ministry of Transport and Communications
Horacio Parquinio
National Communications Director
tarquiniomz@yahoo.com.br



FOR MORE INFORMATION CONTACT

The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 473-1000
Web: <http://www.worldbank.org/projects>

APPROVAL

Task Team Leader(s):	Casey Torgusson
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Approved By

Practice Manager/Manager:		
Country Director:	Zviripayi Idah Pswarayi Riddihough	02-May-2022