



Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 14-Oct-2020 | Report No: PIDC27129



BASIC INFORMATION

A. Basic Project Data

Country Kenya	Project ID P170941	Parent Project ID (if any)	Project Name Kenya Digital Economy Acceleration Project (P170941)
Region AFRICA EAST	Estimated Appraisal Date Jan 25, 2021	Estimated Board Date Mar 25, 2021	Practice Area (Lead) Digital Development
Financing Instrument Investment Project Financing	Borrower(s) National Treasury	Implementing Agency Ministry of ICT	

Proposed Development Objective(s)

Expanding digital inclusion and fostering development of the digital infrastructure, institutions and capabilities for the economy, jobs and government of the future

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	350.00
Total Financing	350.00
of which IBRD/IDA	350.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	350.00
IDA Credit	350.00

Environmental and Social Risk Classification

Concept Review Decision



Substantial

Track I-The review did authorize the preparation to continue

B. Introduction and Context

Country Context

Prior to the COVID-19 pandemic, Kenya was exhibiting relatively steady growth. A stable macroeconomic environment, friendly business climate, strong infrastructure spending and regional trade helped propel growth by 5.6% in 2019, continuing a decade long trend. The total population reached 51.4 million in 2019, having increased rapidly over the last 30 years. Population growth has averaged 2.7 percent annually since 2000, with the urban population growing at 4.4 percent, now reaching over 27% of the total.

The digital economy is helping propel Kenya's economic growth. The information and communications technology (ICT) sector contributed to economic development, with has averaged nearly 11% annual growth since 2016. Kenyans have rapidly embraced mobile communications technologies and have become a world leader in adoption of digital payments. Internet use is rising, powering increasing uptake of e-commerce and digital services. An entrepreneurial and innovative spirit and supportive business environment have spawned a wide range of digitally enabled startups and investments by leading multinational tech companies, burnishing the country's reputation as the "Silicon Savannah" and helping fuel services led growth. However, the ongoing spread of COVID-19 and the measures to contain it will weigh heavily medium-term prospects across a range of sectors and the broader economy.

Poverty rates have been on a long-term decline, though some reversal is expected as a result of the pandemic. The incidence of extreme poverty assessed against the international poverty line of US\$1.90 per day declined from 33 percent in 2006 to an estimated 24.4 percent in 2016. However, persistent inequality exists, with the bottom 40% accounting for only 13% of consumption and a stark divide between rural and urban living standards. Kenya ranks slightly higher than peers on the World Bank's Human Capital Index, yet a child born today would only be 52% as productive when they grow up as they could be if they experienced complete education and full health.

In addition to the shock of COVID-19, Kenya faces long term challenges of resilience. The Country is highly exposed to natural hazards that are amplified by climate change, such as floods, droughts, extreme temperatures and locust infestations. Rural populations that are dependent on rain-fed agriculture or livestock, urban poor that are sensitive to spikes in food prices, and households with limited assets to draw upon during lean times are impacted most severely by these shocks.

Vision 2030 aims to transform Kenya into a "newly industrializing, middle-income country providing a high quality of life to all its citizens by 2030 in a clean and secure environment." The economic pillar of the Vision 2030 plan aims to achieve and sustain an average economic growth rate of 10 percent per annum until 2030. Achieving this ambitious vision and building the resilience of the economy, businesses and individuals will not be possible with business as usual. Increased adoption of digital technologies presents an opportunity to help close the gap between these aspirations and the current trajectory.



Sectoral and Institutional Context

Aiming to accelerate digital transformation and consolidating the country's reputation as the "Silicon Savannah", Kenya has launched in 2019 its Digital Economy Blueprint, outlining a vision and roadmap for the creation of "a nation where every citizen, enterprise and organization has digital access and the capability to participate and thrive in the digital economy." Building on this blueprint, the country is also developing a Digital Economy Strategy emphasizing the need for digital inclusion. The Blueprint identifies five priority pillars: digital business, infrastructure, digital government, innovation-driven entrepreneurship, and digital skills and values. The Digital Economy strategy identifies key risks of a digital divide relating to connectivity, skills, access to digital devices and affordability, and proposes prioritizing policy and regulations focused on addressing these challenges. Achieving this ambitious vision will require significant private and public investments and reforms to close the broadband connectivity divide. It will also require focused efforts to improve uptake, accessibility and user experience for e-government services. Likewise, the growing privacy and security risks of the digital era will need to be mitigated to boost digital businesses. Highlights of the key challenges to be tackled and opportunities to be harnessed are outlined below:

Closing the broadband connectivity divide

Further efforts on both the supply and demand side are needed to close the broadband access divide. Approximately 85% of the population is now covered with a 3G or higher signal and broadband uptake has risen to 42.8%, primarily through mobile subscriptions. The country was an early mover in liberalizing the sector, unlocking a wave of private investment in mobile networks. Strategic public investments in the national fiber optic backbone infrastructure (NOFBI) and one of the first submarine cables on Africa's East coast (EASSY) helped increase network reach and bandwidth and dramatically reduced the costs for wholesale international and domestic transit services. These impressive achievements have helped position Kenya as a digital leader, but they mask significant geographic and demographic disparities and challenges ahead:

- *Regulation has struggled to keep pace with rapid technology and market evolution.* This creates risks of slowing down private sector investment, holding back competition and innovation.
- *Affordability of broadband and digital devices continue to lock out many of the poor.* While prices have continued to fall, on average, 1GB of mobile data costs 4 percent of GNI per capita
- *Network coverage and capacity/quality is a growing bottleneck, particularly in secondary cities and rural areas.* Less than 50% of schools and health centers have access to fixed broadband.
- *Despite advances in internet usage across all categories, gender gaps remain.* 32 percent of women report use of mobile internet compared with 49 percent of men, with affordability a key barrier.
- *Digital literacy remains a significant barrier to access.*

Improving uptake, accessibility and user experience for e-government services

Government can better leverage increased broadband connectivity and digital technologies to improve public services and the efficiency and resilience of internal operations. This is particularly critical to support contactless services and transactions and to support remote operations of government in the COVID-19 pandemic. Kenya has made significant progress in increasing the number of digital services on offer. The primary challenge is now to improve uptake, accessibility and user experience of these services. While the array of underlying challenges is complex, a few areas stand out:



- *The government’s digital infrastructure is increasingly constrained.* The Government Common Core Network (GCCN) is in need of upgrading as bandwidth demands have grown rapidly. Many public institutions are not yet connected, particularly at the county level.
- *The value proposition of digital public services needs to be improved to drive uptake.* Services can be developed or re-engineered with a user-centric, digital first mindset, taking advantage of opportunities for automation or elimination of low value processing steps.
- *Digital capacity gaps in government are holding back public sector modernization innovation and creating security vulnerabilities.* The lack of a unified, secure and modern communications platform limits productivity and efficiency and makes continuity of operations during a crisis such as a pandemic more difficult.

Boosting Digital Business and Skills

More can be done to enable Kenya’s private sector and its citizens to take advantage of the digital economy and to mitigate risks. The impressive performance in churning out innovative new startup stage digital ventures needs to be matched with a higher success rate of graduation to growth stage – generating the enterprises that will have a bigger impact on overall economic growth and job creation. Individuals will need to be equipped with the technical and soft skills to succeed in an increasingly digitized workforce and to mitigate the impacts of an expected acceleration of automation. Trust in online transactions will need to grow to bring more consumers online and allow governments to take advantage of digital tools without compromising security. The range of underlying challenges is broad and deeply intertwined, but a number of pain points stand out:

- *Kenya’s human capital needs an upgrade for the 21st century.* Building a digitally savvy workforce is key to harnessing opportunities in digitally enabled high growth sectors, supporting employment, and job growth.
- *Creating clear data policies and regulations would encourage private investment in data-driven services and infrastructure and foster greater trust in online transactions.*
- *Reducing the costs and complexity of last mile delivery would boost development of e-commerce and logistics firms.* The lack of a formal addressing system in Kenya significantly raises costs and reduces reliability of e-commerce deliveries.

Relationship to CPF

The proposed project will support Kenya to take advantage of its digital opportunities, as per its Digital Economy Blueprint which is outlining a vision and roadmap for the creation of “a nation where every citizen, enterprise and organization has digital access and the capability to participate and thrive in the digital economy.” The project is fully aligned with the Kenya Country Partnership Strategy (CPS). The project supports several CPS outcomes, most notably Outcome 1 - “Enhanced Infrastructure and Logistics for Sustainable Growth”, through investments in digital infrastructure and reforms to spur private infrastructure investment. The project also expands on CPF Outcome 7 – “Greater Citizen Feedback on the Quality of Service Delivery in Key Sectors” by improving the efficiency, accessibility and user experience with digital services across a wide range of sectors.

The proposed project is also directly aligned with the World Bank’s Digital Economy for Africa (DE4A) initiative, which is supporting the operationalization of the African Union’s Digital Transformation Strategy for Africa. The Digital Transformation Strategy for Africa sets out a bold vision to ensure that every African individual, business and government is digitally enabled by 2030.



Moreover, the COVID-19 emergency has illustrated the role that digital tools and platforms can play in boosting economic resilience and supporting government, individuals and businesses to cope with social distancing, ensure business continuity, and prevent service interruptions. The project will provide a key contribution to the WBG’s support for the medium and long-term response to COVID-19 in Kenya.

C. Proposed Development Objective(s)

Proposed MPA Program Development Objective (PrDO): To support the digital transformation of the Kenyan Economy and Government as a driver of growth and job creation, resilience and improved public service delivery

Proposed Project Development Objective (PDO)

Phase 1 (FY 2021): Expanding digital inclusion and fostering development of the infrastructure, institutions and capabilities for the economy, jobs and government of the future

Phase 2 (FY 2024): Contributing to a technology and data enabled transformation of public services and spurring digitally enabled innovation and commerce in strategic sectors

Key Results (From PCN)

Phase 1 PDO will be measured by the results indicators below:

- a. People provided with new or enhanced access to internet (of which, % female)
- b. Percentage of schools with access to internet for pedagogical purposes
- c. Percentage of health centres with access to internet
- d. Percentage of secondary school graduates demonstrating intermediate digital skills competency (of which, % female)
- e. Adoption of shared service architecture framework within MDAs
- f. Percentage of civil servants utilizing the Unified Communication System for official communications

Phase 2 PDO will be measured by the results indicators below:

- a. % of users satisfied with digital services (citizen engagement indicator – results will feed back into service refinements)
- b. Volume of transactions on shared digital services platform (#)
- c. Number of government agencies with internet-based online services
- d. Use of geospatial addressing database for businesses

D. Concept Description

The proposed program (MPA) harnesses opportunities to develop a vibrant, safe and inclusive digital economy in Kenya as a driver of growth and job creation and leverage digital technologies to improve service delivery and resilience. It also supports efforts to promote digital inclusion and mitigate growing digital era risks of data protection and cybersecurity to ensure that every individual and business has the opportunity to engage in the digital economy confidently, safely and securely. The proposed MPA is structured as two phases running sequentially. Phase I focuses on closing the gaps in Kenya’s digital infrastructure, skills and institutions, with an emphasis on resilience and inclusion to build back better from



the COVID pandemic and to ensure that no one is left behind in the digital revolution. Phase II aims to build on these foundations, supporting a technology and data driven transformation of public services and spurring digital innovation and job creation within strategic sectors. Phase II would be prepared in the second half of phase I with the aim to be launched as soon as the foundational digital infrastructure, institutions and capabilities are in place to enable scale-up of integrated digital public services, with potential overlap near the end of phase I.

Phase I (FY21 – US\$350 million): Expanding digital inclusion and fostering development of the digital infrastructure, institutions and capabilities for the economy, jobs and government of the future

Component 1: Broadband Access, Affordability and Quality

The aim of this component is to increase access to high speed internet for individuals, industry and government – the “foundation of the foundations” of a digital economy. It leverages public infrastructure investments to connect critical public institutions and service locations such as healthcare facilities courts and schools, helps unlock private infrastructure investments to better serve rural areas and lays the foundation for deployment of next generation connectivity infrastructure and services. This component includes (a) Upgrading the National Optic Fiber Backbone Infrastructure (NOFBI); (b) Connectivity for Judiciary; (c) Connectivity for Health Centers (Connected Health); and (d) Connectivity for Schools (School Net) and (e) Next Generation Regulation, Policy and Institutions.

Component 2: Digital Government Services Infrastructure, Architecture, Data Privacy and Security

The objective of this component is to better utilize digital technologies and enhanced connectivity to improve public service delivery and support public sector modernization, innovation and resilience. It will support better integration and utilization of existing digital platforms and systems across central and county governments and invest in the foundational digital infrastructure, institutions and policies needed to transform the way the government communicates and conducts its internal operations. This component includes: (a) Government Cloud Infrastructure, Unified Communications System and Shared Services Architecture; (b) Upgrading and expansion of the Government Common Core Network (GCCN) (c) Establishment and Operationalization of the Office of the Data Protection Commissioner.

Component 3: Digital Capabilities

This component aims to build the digital skills needed to support innovation and readiness for jobs of the future. The sub-components include supporting the digital Learning Program (digital labs, teacher training, educational content) and support for connecting individuals to digitally enabled employment/income generating opportunities through the Ajiira platform.

Component 4: Project Management

This component will support project implementation, coordination and capacity building. It will include support for dedicated project managers and technical specialists, procurement and financial management specialists, environmental and social safeguards and communications specialists. It will also provide support for office equipment, incremental operating costs, and audits.

Phase II (FY24 – US\$150 million proposed): Contributing to a technology and data enabled transformation of public services and spurring digitally enabled innovation and commerce in strategic sectors (building on the interventions from Phase I of the program)



Component 1: Data Driven Public Service Delivery

Integrated Digital Public Services Platform, Customer-Centric re-design and digitization of key public services/transactions and upgrades to government cloud infrastructure.

Component 2: Digitization of Strategic Sectors: Transformation of public sector operations and data driven analytics as well as unlocking private sector innovation in strategic sectors including but not limited to Health, Agriculture and Judiciary

Component 3: Digital Innovation, Jobs and Commerce Enablers: Strengthening cybersecurity, supporting a National Address System, and digital jobs training linked with the Ajiira platform.

Component 4: Project Management: This component will support project implementation, coordination and capacity building.

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

The summary of climate and disaster risk screening and impact report is as follows:

On net the project is expected to reduce carbon emissions and improve the country’s resilience to climate risks as well as economic or other shocks including pandemics. Digital infrastructure developed under the project is at risk due to flooding and extreme weather events. This will be mitigated through design features including network redundancy, automated backup of sensitive data and strengthening of the cloud environment. Increasing access to the internet and moving public services online will reduce vehicle trips to engage in commercial purposes and to access services and therefore reduce carbon emissions. Specifications and use of green infrastructure for power generation will ensure maximum energy efficiency of network and data infrastructure. In the event of a natural disaster or economic shock, citizens will be able to access services including cash transfers, health and education digitally, helping mitigate the impacts on livelihoods and socio-economic development.

CONTACT POINT

World Bank

Casey Torgusson, Benqing Jennifer Gui
Senior Digital Development Specialist



Borrower/Client/Recipient

National Treasury

Implementing Agencies

Ministry of ICT
Jane Munga
Policy Advisor
info@ncs.go.ke

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, Benqing Jennifer Gui
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Approved By

Country Director:	Keith E. Hansen	21-Oct-2020
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