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URBAN ECONOMIC GROWTH IN AFRICA

A CASE STUDY OF NAIROBI CITY COUNTY, KENYA

James Gachanja | John Karanja | Jacob Nato | Rose Ngugi | Humphrey Njogu | Brian Nyaware | Charity Mbaka | Shadrack Mwatu | Melap Sitati

Urban economic growth in Africa: A case study of Nairobi City County, Kenya

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Africa Growth Initiative | Global Economy and Development

AUTHORS

James Gachanja, Senior Policy Analyst, KIPPRA
John Karanja, Principal Policy Analyst, KIPPRA
Jacob Nato, Policy Analyst, KIPPRA
Rose Ngugi, Executive Director, KIPPRA
Humphrey Njogu, Principal Policy Analyst, KIPPRA
Brian Nyaware, Policy Analyst, KIPPRA
Charity Mbaka, Policy Analyst, KIPPRA
Shadrack Mwatu, Policy Analyst, KIPPRA
Melap Sitati, Policy Analyst, KIPPRA

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Aloysius Uche Ordu, Senior Fellow and Director,
Africa Growth Initiative
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Africa Growth Initiative

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Acronyms

AGI	Africa Growth Initiative
AGPO	Access to Government Procurement Opportunities
AU	African Union
BRS	Business Registration Service
CBD	Central Business District
CBET	Competency-Based Education and Training
CDF	Constituency Development Fund
CFSP	County Fiscal Strategy Paper
CSA	Climate-Smart Agriculture
CTICC	Cape Town International Convention Center
EAC	East African Community
ECDE	Early Childhood Development Education
GDP	Gross Domestic Product
GESIP	Green Economy Strategy and Implementation Plan
HELB	Higher Education Loans Board
HFA	Hyogo Framework for Action
ICT	Information and Communications Technology
IDDRSI	IGAD Drought Disaster Resilience and Sustainability Initiative
IGAD	Intergovernmental Authority on Development
ILO	International Labour Organization
IRT	Integrated Rapid Transit
KCSAS	Kenya Climate Smart Agriculture Strategy
KETRB	Kenya Engineering Technology Registration Board
KIHBS	Kenya Integrated Household Budget Survey
KIPPRA	Kenya Institute for Public Policy Research and Analysis
KNBS	Kenya National Bureau of Statistics
KRA	Kenya Revenue Authority
KYEOP	Kenya Youth Employment and Opportunities Project
LFPR	Labor Force Participation Rate
LVC	Land Value Capture
MSME	Micro, Small, and Medium Enterprise
NCCRS	National Climate Change Response Strategy
NDMA	National Drought Management Authority
NDMU	National Disaster Management Unit
NDOC	National Disaster Operations Centre
NEET	Not in Employment, Education and Training
NEPAD	New Partnership for Africa Development
NMS	Nairobi Metropolitan Services
NPDRM	National Platform for Disaster Risk Management
NUTRIP	National Urban Transport Improvement Project

OCOB	Office of the Controller of Budget
OECD	Organization for Economic Co-operation and Development
OSR	Own Source Revenue
PDU	President's Delivery Unit
PFM	Public Finance Management
PPP	Public-Private Partnership
PPR	KIPPRA Public Policy Repository
PSIP	Public Service Internship Program
PSV	Public Service Vehicle
RIA	Regulatory Impact Assessment
SDGs	Sustainable Development Goals
SIP	Strategic Investment Project
SME	Small and Medium-sized Enterprise
TDA	Transport and Urban Development Authority
TVET	Technical Vocational Education and Training
U.N.	United Nations
UNISDR	United Nations International Strategy for Disaster Reduction
VAT	Value-Added Tax
VCR	Volume-to-Capacity Ratio

Policy takeaways

Key policy takeaways from “Urban Economic Growth in Africa: A Case Study of Nairobi City County, Kenya” are outlined in this section.

Productive jobs

- Strengthen partnerships among training institutions and industry.
- Technical Vocational Education and Training (TVET) should provide training in skills consistent with emerging technologies.
- Provide TVET in modules to help informal laborers upskill.
- Adopt a culture that promotes workplace health and safety standards.
- Nurture emerging sectors, including the informal sector, by providing capital for job creation.

Accessibility

- Adhere to land zoning, resolve land grabbing and pending land conflicts, and update the land registry and valuation systems.
- Develop a land value index to guide compensation for compulsory acquisition of land for government projects and investments—Land Value (Amendment) Act of 2019—and create a government land bank[1].
- Improve road conditions, expand road networks within the city county, and improve transport connections with intermediate cities.
- Leverage urban planning strategies and tools such as land readjustment, urban renewal, and land value sharing to create more public spaces, harmonize development that caters to users’ needs and is sustainable, and provide incentives and programs to encourage private open spaces like schools and sports clubs to open their facilities for public use.
- Revise building codes to adapt to the changing needs.
- Strengthen resilience in planning, design, and execution of road infrastructure.

Business environment

- Expand infrastructure for incubation labs to support skills development.
- Enhance incentives for tertiary education enrolment.

[1] Land banks are quasi-governmental entities created by counties or municipalities to effectively manage and repurpose an inventory of underutilized, abandoned or foreclosed property. Through land banks, the government can hold known geo-referenced pieces of land for easy access by investors and government projects.

- Harmonize and unify the digital platforms for business registration and tax payment.
- Expand the road network in the city and extend street lighting to markets and business centers.
- Provide incentives to enterprises in the city to invest in clean sources of energy.
- Coordinate with county governments/other stakeholders to implement business reforms.

Public governance

- Invest in setting up proper and working governance structures that will enable the city to effectively undertake all its functional and fiscal responsibilities.
- Tap into the county's revenue potential to help overcome fiscal deficits and pending bills, especially by enhancing compliance and enforcement of payments to the county and automate revenue systems to close revenue loopholes.
- Consider other forms of revenue mobilization, including making use of land value capture (LVC), for example idle land tax and other forms of private capital.
- Put in place the legal and institutional framework required to access credit or debt markets and financial markets and to tap into LVC and other resource mobilization strategies.
- Enhance collaboration with Africities and UN-Habitat which can offer an opportunity to benchmark and learn from other fast-developing cities in Africa.
- Encourage a prudent use of public resources.
- Fully implement the Public Finance Management Act of 2012 by providing regular public finance management training to county staff.

Executive summary

This report examines the challenges faced by Nairobi City County's urban population when it comes to enhancing the Kenyan capital's contribution to the national economic growth. The city of Nairobi has the potential to address these challenges, which include a scarcity of productive jobs, low levels of access to infrastructure services, and high costs relative to the level of development. This study focuses on four major objectives: generating productive jobs, linking workers to firms, connecting firms to markets, strengthening public governance, and a review of policy initiatives for Nairobi to enhance the city's economic growth.

Chapter one describes the context that guides the framing of this study. It provides the objectives and relevance of the study. A general description of Nairobi City County, including geographic and population information, is provided. In addition, the chapter outlines the approach adopted to undertake the study.

Chapter two focuses on the creation of productive jobs. This chapter notes that the Kenyan government has put in place initiatives to ensure people can access better jobs as a way for greater inclusivity and economic growth. However, the challenge of high unemployment persists. Overall unemployment among the working age group in Nairobi (people 15 to 64 years of age) was estimated at 40 percent, with the youth (people 15 to 34 years of age) constituting 48 percent of the total unemployed workforce (KNBS 2019a). This challenge can be addressed through improving human capital by providing education and allowing youths to acquire the skills needed for productive work. Evidence has shown that education is associated with greater productivity and earnings thus education and skills matter. Training with a mix of policies that address the economic and business environment will play a critical role in the creation and promotion of productive jobs. Nairobi City County has 46.5 percent proportion of youths who have stayed the longest as youths Not in Employment, Education and Training (NEET) compared to the national average of 43.8 percent. Nairobi City County should undertake efforts to expand the number of productive jobs in new or existing firms and raise productivity and earnings in existing jobs.

The chapter notes that employment shifts in the economy are more informalized thus insufficient to provide decent standards of living. The limited job growth in the formal sector has resulted in an increasing demand for jobs in the informal sector in Nairobi City County. Due to the importance of the informal sector, policies to increase labor productivity in Kenya should be tailored to this sector while encouraging formalization. Additionally, the need for upskilling and recognition of skills or learning acquired through experience or informal training is key.

About 31 per cent of people in Nairobi City County have tertiary education qualifications. The tertiary sector is key to the development of a set of skills that will attract appropriate and relevant investment in the labor market. Therefore, Nairobi City County should ensure the tertiary institutions provide training and skills that are consistent with emerging technologies. This will equip the informal sector with the technical capability required to transform into small- and medium-sized enterprises, thus enabling them to integrate into the modern economy.

Chapter three focuses on accessibility both within and between cities in order to understand how well the city of Nairobi connects workers to firms and firms to markets. Accessibility is central to the relationship between urbanization, the benefits of agglomeration, and economic growth. Conceptually, intracity accessibility is the ease of getting to and from key destinations within a city, while intercity and international accessibility refer to the ease of linking a city to outside markets. Intracity accessibility has two components, transport and land use, which can be used to improve accessibility within a city. Intercity and international accessibility capture whether cities have access to the required physical infrastructure that can allow firms to trade both domestically and internationally.

This chapter notes that land use trends in Nairobi City County have changed over the years, with preference skewing in favor of residential and commercial areas. Therefore, planning that considers population growth and other emerging issues is essential to ensure balanced development. The discrepancy in zoning and land use has contributed to a shortage of land particularly for public infrastructure, leading to delays in projects and the demolition of buildings and structures. The county is faced with increasing land scarcity leading to unplanned infrastructure development and this calls for updating the land register land appraisal system and quickly resolving pending land conflicts. In terms of public open spaces, Nairobi City County has 5.32 percent of urban land allocated to public open spaces which is below the threshold of 15 percent to 20 percent for successful cities (UN-Habitat 2020).

Further, the chapter observes that a higher percentage of good and fair paved roads are located in the central part of Nairobi, compared to other parts of the city. There are several roads under construction, including the link roads in the city that are encountering challenges due to land encroachment. There is a high concentration of poor unpaved roads on the east and far west of Nairobi. The city's railway network coverage is 298 km connecting 10 functional railway stations that are unevenly distributed. There are four commuter train services in Nairobi. The total commuter train passenger volumes in Nairobi increased by 10.3 percent between 2017 and 2019 (Kenya Railways, 2017-2019). The main means of transport in the city are public service vehicles (PSVs), commonly referred to as *matatus* or shared taxi (58.7 percent), walking (17.1 percent), private car (9.7 percent), motorbike (3.9 percent), and bus (3.7 percent). Majority of jobs are inaccessible within an hour by foot or minibus (70 percent to 100 percent of jobs are accessible by car).

Chapter four focuses on the business environment and specifically on labor and human capital, the regulatory environment and services, and infrastructure in the city of Nairobi. On the labor and human capital pillar, the findings indicate that enterprises are likely to transition from micro to medium and large as levels of education attainment rise. Other observations include medium and larger enterprises in the city engage in more specialized and complex economic activities which require an adequately skilled workforce with specialized skills. Basic income increases as workers transition from secondary to tertiary levels of education, while workers with a diploma and below work for relatively more hours per week but earn relatively less in average basic monthly income. In contrast, workers with bachelor's and post-graduate levels of education work for relatively fewer hours but earn a relatively higher average basic monthly income.

The chapter notes that the main obstacles faced by a majority of businesses in the city's regulatory environment include access to licenses and permits, finance, land, rigid labor regulations, inefficiency in tax administration, transport, crime, theft, and disorder. The majority of these obstacles are experienced by medium enterprises (51 to 100 employees) but access to land is an obstacle facing small enterprises (10 to 50 employees). Further, the main types of crime experienced in Nairobi include muggings, burglaries and break-ins, possession of narcotic drugs, and robberies.

On the services and infrastructure front, the chapter indicates that it takes an average of 87 days for a business in Nairobi to secure an electricity connection with the duration being longest for small enterprises (325 days) and shortest for large (50 days) and medium (32 days) enterprises. On average, firms in Nairobi spent Ksh 12.70 million on electricity annually with the expenditure being highest among larger enterprises (Ksh 42 million) and lowest among microenterprises (Ksh 0.08 million). The share of informal gifts offered to secure electricity connections is highest among large enterprises, while the use of unreliable forms of electricity connections is most common among medium enterprises. Overall, enterprises in Nairobi obtain 29.1 percent of electrical energy from their own generators with medium enterprises leading in utilization of energy from generators. Overall, 75.7 percent of enterprises in Nairobi use mobile money services with the majority utilizing the service to receive payments from customers (86.6 percent) and pay suppliers (33.8 percent). The use of mobile money to pay employees, suppliers, and utility bills; receive payments from suppliers; and access loans in the city is highest among small enterprises. Lastly, a firm in Nairobi loses an average of Ksh 2.3 million per year due to power outages with the loss among large firms being as high as Ksh 5 million.

Chapter five focuses on public sector governance in the city of Nairobi as a key indicator of urban development. Public sector governance focuses on two key indicators: distribution of fiscal and functional responsibilities between different levels of government and the capability of government agencies to carry out their duties. This chapter notes that Nairobi City County, like the other 46 county governments in Kenya, has 14 functions as per the Fourth Schedule of the 2010 Kenya Constitution. Among these functions is county planning and management. County governments are mandated to collect their own source revenue (OSR). Nairobi City County collects the largest percentage of OSR vis-à-vis other counties—28.9 percent of the total OSR for all the 47 counties which was Ksh 34.44 billion. The equitable share from the national government has been on an upward trend, rising from Ksh 9.51 billion in FY 2013/14 to Ksh 15.79 billion in FY 2018/19, before dipping to a low of Ksh 11.45 billion in FY 2019/20 (mainly because of the COVID-19 pandemic), but later recovering in FY 2020/21 to stand at Ksh 19.42 billion.

The chapter notes that Nairobi City County has had high rates of absorption for recurrent expenditure with low absorption rates for development expenditure. The low absorption rates for development expenditure could be attributed to the fact that the capital city receives support from the national government on various development projects, which could reduce its need to utilize its development expenditure. Other challenges facing the county include accumulation of bills, fiscal deficits, and delays in funds disbursement from the national government. The chapter proposes several recommendations for public sector governance of the city.

Chapter six focuses on policy initiatives in terms of productive jobs, accessibility, business environment, and public sector governance for the city of Nairobi. The chapter notes that Kenya has made good progress on job creation, especially in the emerging sectors such as the digital and gig economies. However, employment in Kenya faces challenges that are evident from the 12.7 percent unemployment rate, 21 percent underemployment, and the fact that 46 percent of those employed work in poor conditions. The employment challenge is heightened by rapid population growth at 3 percent per annum, a youth bulge of 67 percent of the adult population, low and unsustained economic growth, and structural rigidities. This calls for creating policy interventions to nurture the emerging sectors for job creation as well as develop a culture to improve workplace health and safety conditions. The chapter notes that some good progress has been made in infrastructure development in the urban areas and, therefore, increasing the level of accessibility and delivery of infrastructure services. However, Kenya lacks local-based action plans to inform the master plan for investment and inclusion. Further, Kenya experiences frequent building collapses and the cost of maintaining road infrastructure is high. Kenya relies on outdated building codes from the 1960s that have not embedded the resilience concept in planning and development of infrastructure. There is a need to revise the infrastructure development policy guidelines for robust local-based plans, safety, and reliability of infrastructure in the county.

The chapter notes that the principles of good governance have become the foundation upon which Kenya's economy thrives. As a result, public administration should provide a structure that monitors, among other things, resource fraud. The Public Finance Management Act of 2012 governs the prudent use of resources. However, problems with the misappropriation of public funds remain widespread in the public sector, limiting efforts to improve the prudent use of public resources in county governments. Strengthening governance structures in county government is critical to bolstering Kenya's OSR mechanism, as well as revenue collection and administration capacities. In addition, the chapter indicates that firms are required to register with the Business Registration Service under the Business Registration Act 2015 and obtain various licenses from the county government to conduct formal business in Kenya. The Kenyan government has undertaken reforms in the business environment to make doing business in the country easier. However, a lack of coordination on the implementation of business reforms between the national and county governments has resulted in multiple regulations on licenses and intercounty charges for businesses. As a result, the intended benefits of business reforms to ease business operations are not fully realized.

Finally, the chapter notes that despite a rigorous process of enacting policies, laws, and regulations, Kenya is still experiencing some challenges when it comes to participation by all relevant actors. For instance, in 2021, the High Court of Kenya suspended more than 20 laws because they lacked input from the Senate. Some of these laws are instrumental in providing direction to leadership, governance of the urban areas, and the provision of critical services, including transport. Further, there is a need to carry out a comprehensive Regulatory Impact Assessment to inform the crafting of effective policies, laws, and regulations.

Chapter seven includes the conclusion and summary of key recommendations to enhance the productivity as well economic growth of Nairobi City County with the goal of creating jobs.

1 Study context and methodology

1.1 Background information

Urbanization is a key feature of the structural transformation that drives economic growth in low-income economies. As countries urbanize, workers move from rural to urban areas in search of more productive and better-paid jobs. Similarly, entrepreneurs locate their firms in cities where agglomeration economies increase their productivity. The productivity gains created by scale, density, and economic interaction are substantial for cities in developed economies and may be even larger for cities in developing economies (Glaeser and Xiong 2017).

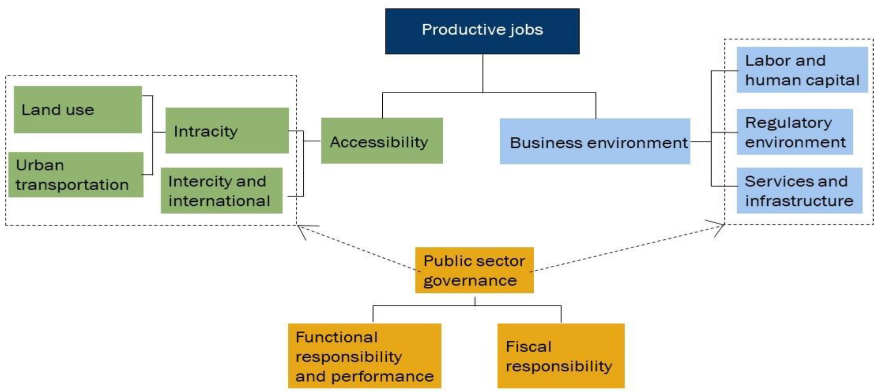
Cities encourage connections between groups of firms through forward and backward linkages, between firms and workers, and between firms and consumers. Urban labor markets reduce search costs, giving firms a larger pool of workers to choose from; proximity also makes it easier for workers to match their skills with potential employers and to learn from each other. Innovation spreads faster across firms in heavily urban and densely populated environments. The productivity gains from urbanization are substantial. Cities are better places to undertake most sorts of investment, to start new businesses, and to create jobs. No country has moved from low-income to high-income levels without urbanization.

Africa faces the most pressing set of urban problems faced by low-income countries. Its cities are growing rapidly and are fragmented and disconnected. Urban costs for African countries are higher than for countries at similar levels of development, making African cities less globally competitive. Because firms are scattered, specialization is limited and few clusters of manufacturing and tradable services firms have developed. African cities are less productive than urban areas in other regions. Newman et al. (2016) note that as cities continue to grow in Africa and across the world, it will be vital to identify and address the constraints to their productivity growth and their ability to contribute to the diversification and sophistication of production, as well as to enhance their ability to contribute to national economic growth.

The Africa Growth Initiative (AGI) of the Brookings Institution has developed a framework that seeks to understand the factors that may limit a city's ability to contribute to economy-wide growth. The AGI framework focuses on the city as the unit of analysis and recognizes that cities need to be seen in the context of the larger national economy, and the constraints to its growth thus require local or national action. The analytical framework complements the broader national constraints assessment, which may identify urban areas that are underperforming, and focuses on issues that are particular to a given city. A country's macroeconomic environment, for example, may have a profound impact on a city's ability to generate productive jobs, but is neither a city-specific issue nor one that can be addressed through urban policy (Lall, Henderson, and Venables 2017).

The primary objective of the AGI framework is to identify strategies for generating productive jobs. Productive jobs are not only good for structural change, but they are also important for reducing poverty and inequality. Analysis of why African cities often fail to create productive jobs helps identify constraints to a city's ability to benefit from agglomeration and generate productive jobs—accessibility, the business environment, and public sector governance, as shown in Figure 1-1.

Figure 1-1 Africa Growth Initiative analysis framework



Source: AGI Framework (2020)

Accessibility is central to the relationship between urbanization, the benefits of agglomeration, and economic growth. Accessibility—both within and between cities—indicates how well a city connects workers to firms and firms to markets. Conceptually, intracity accessibility is the ease of getting to and from key destinations within a city, while intercity and international accessibility refer to the ease of linking a city to outside markets. Intracity accessibility has two components—transport and land use—which can be used to improve accessibility within a city. Intercity and international accessibility capture whether cities have access to the required physical infrastructure that can allow firms to trade both domestically and internationally.

The **business environment** is an important determinant of firms' costs, which affect firms' abilities to compete in international markets. The AGI framework focuses on issues that can be addressed at the city level or jointly in conjunction with the national government. Given this consideration, the framework identifies labor and human capital, the regulatory environment, and services and infrastructure as important components of the business environment.

Public sector governance determines the ability of a city to respond to the objectives of generating productive jobs, linking workers to firms, and giving firms access to markets. Most African countries have fragmented institutional responsibilities and a complex relationship among the multiple bodies responsible for the city. In addition, in general, the fiscal capacity of most African cities is very limited. These issues reduce the ability of local governments to coordinate expectations among investors, enforce property rights, and provide services and infrastructure, thus contributing to failure of urban development. The AGI framework analyzes the distribution of fiscal and functional responsibilities between different levels of government, as well as the capability of government agencies to carry out their duties.

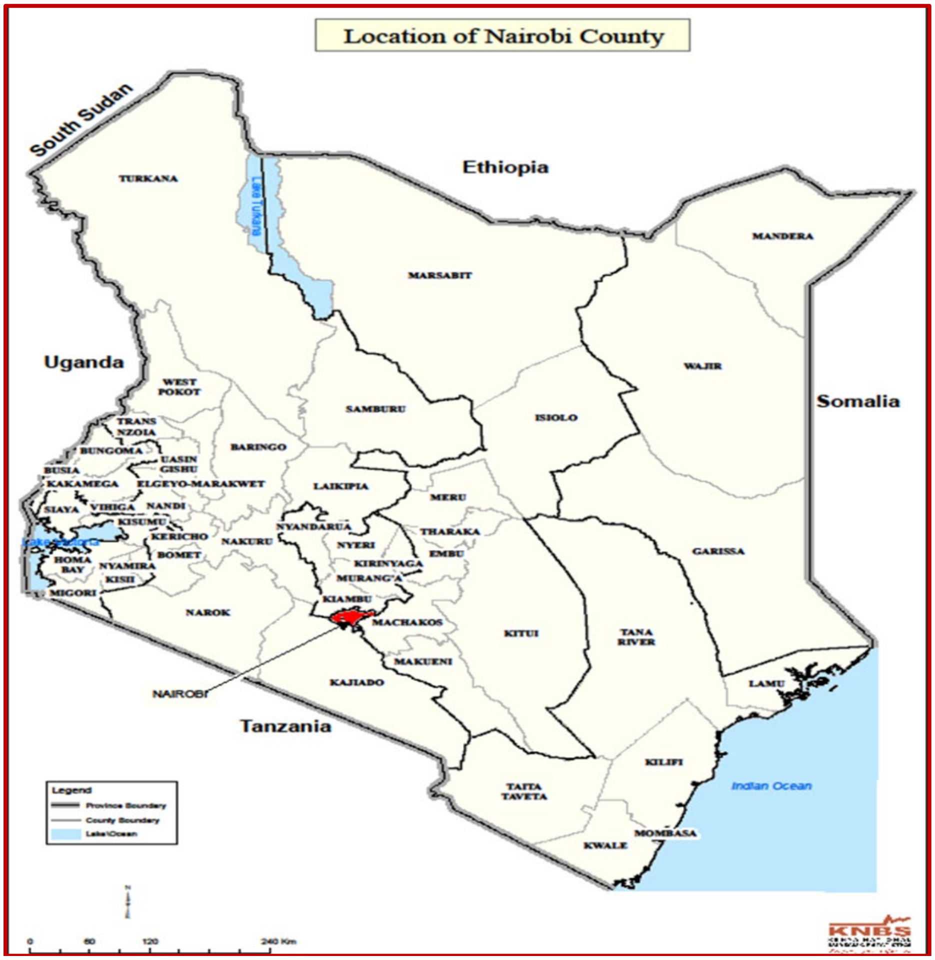
Africa has an opportunity to address its current urban challenge by making its existing cities more productive. In doing so, it can also enhance cities' contribution to national economic growth and structural change. Public actions can help build more connected and productive African cities by focusing on three major objectives: generating productive jobs, linking workers to firms, and connecting firms to markets. Achieving these objectives requires making progress in three areas: accessibility, the business environment, and public sector governance.

1.2 Overview of Nairobi City County

Nairobi City County is one of the 47 counties in the Republic of Kenya and it enjoys primacy as the capital of Kenya. It borders Kiambu County to the north and west, Kajiado County to the south, and Machakos County to the east. The primary urban areas of these counties, which correspond with the county name, have strong linkages with Nairobi. The nature of spatial interaction between Nairobi and these urban areas relates to functions: accommodation, source of jobs and employment, raw materials, food, industries and source of finished goods, land, and information and communications technology (ICT).

Nairobi City County accounts for 80 percent of total industries in Kenya. In 2013, the estimated total number of jobs in Nairobi City County stood at 1,813,000, of which about 1 million were formal jobs, according to an estimation based on Nairobi City County's business registration data (NIUPLAN, 2014).

Figure 1-2 Location of Nairobi City County in Kenya



Source: Nairobi City County Integrated Development Plan 2018

Administrative units: Nairobi City County is divided into 17 electoral constituencies, 85 wards, and 11 sub-counties as shown in Table 1.1.

Table 1-1 Nairobi City County's 17 constituencies

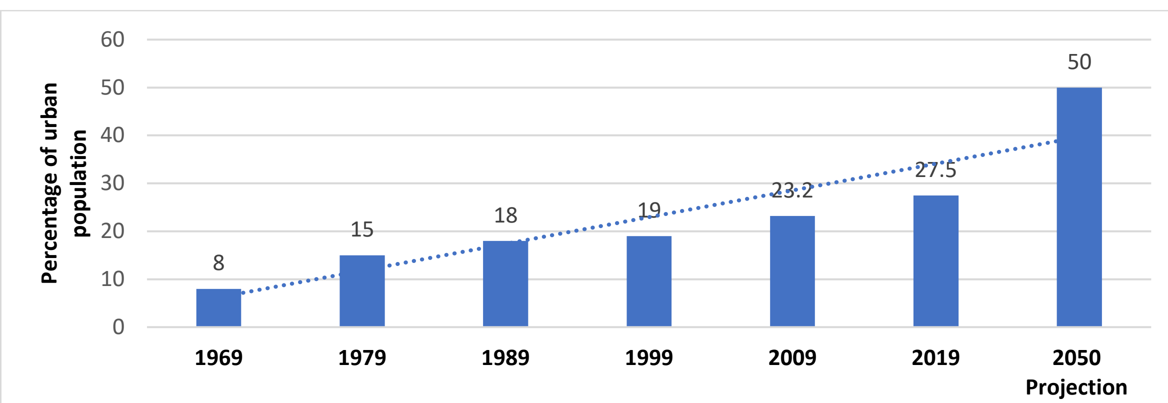
Constituency number	Constituency name	Wards
0289	Starehe	Nairobi Central, Ngara, Pangani, Ziwani/Kariokor, Landimawe, and Nairobi South
0288	Kamukunji	Pumwani, Eastleigh North, Eastleigh South, Airbase, and California
0280	Kasarani	Clay City, Mwiki, Kasarani, Njiru, and Ruai
0279	Roysambu	Githurai, Kahawa West, Zimmerman, Roysambu, and Kahawa
0281	Ruaraka	Babadogo, Utalii, Mathare North, Lucky Summer, and Korogocho
0287	Makadara	Maringo/Hamza, Viwandani, Harambee, and Makongeni

0282	Embakasi South	Imara Daima, Kwa Njenga, Kwa Reuben, Pipeline, and Kware
0283	Embakasi North	Kariobangi North, Dandora Area I, Dandora Area II, Dandora Area III, and Dandora Area IV
0284	Embakasi Central	Kayole North, Kayole Central, Kayole South, Komarock, and Matopeni/Spring Valley
0285	Embakasi East	Upper Savannah, Lower Savannah, Embakasi, Utawala, and Mihango
0286	Embakasi West	Umoja I, Umoja II, Mowlem, and Kariobangi South
0275	Dagoretti North	Kilimani, Kawangware, Gatina, Kileleshwa, and Kabiro
0276	Dagoretti South	Mutu-ini, Ngando, Riruta, Uthiru/Ruthimitu, and Waithaka
0277	Lang'ata	Karen, Nairobi West, Mugumoini, South C, and Nyayo Highrise
0274	Westlands	Kitisuru, Parklands/Highridge, Karura, Kangemi, and Mountain View
0278	Kibra	Laini Saba, Lindi, Makina, Woodley/Kenyatta Golf Course, and Sarang'ombe
0290	Mathare	Hospital, Mabatini, Huruma, Ngei, Mlango Kubwa, and Kiamaiko

Source: Kenya National Bureau of Statistics

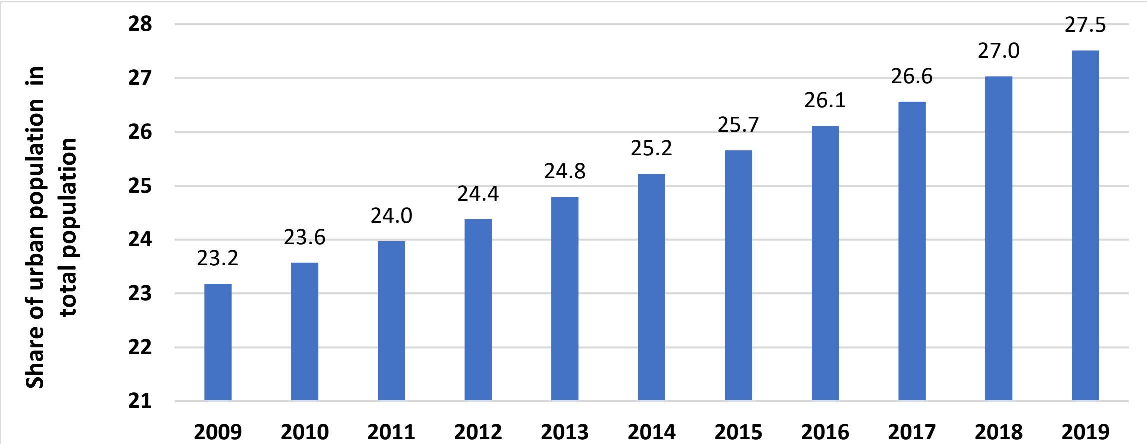
The urban population in Kenya has grown over the last 50 years (Figure 1-3), and the rate of urbanization has registered an increasing trend of 4 percent from 1999 to 2009 and from 2009 to 2019. Kenya's population grew from 28.7 million in 1999 to 47.6 million in 2019.

Figure 1-3 Kenya urbanization trend, 1969 to 2019



Source: Kenya National Bureau of Statistics Census reports (1969,1979,1989,1999,2009,2019),

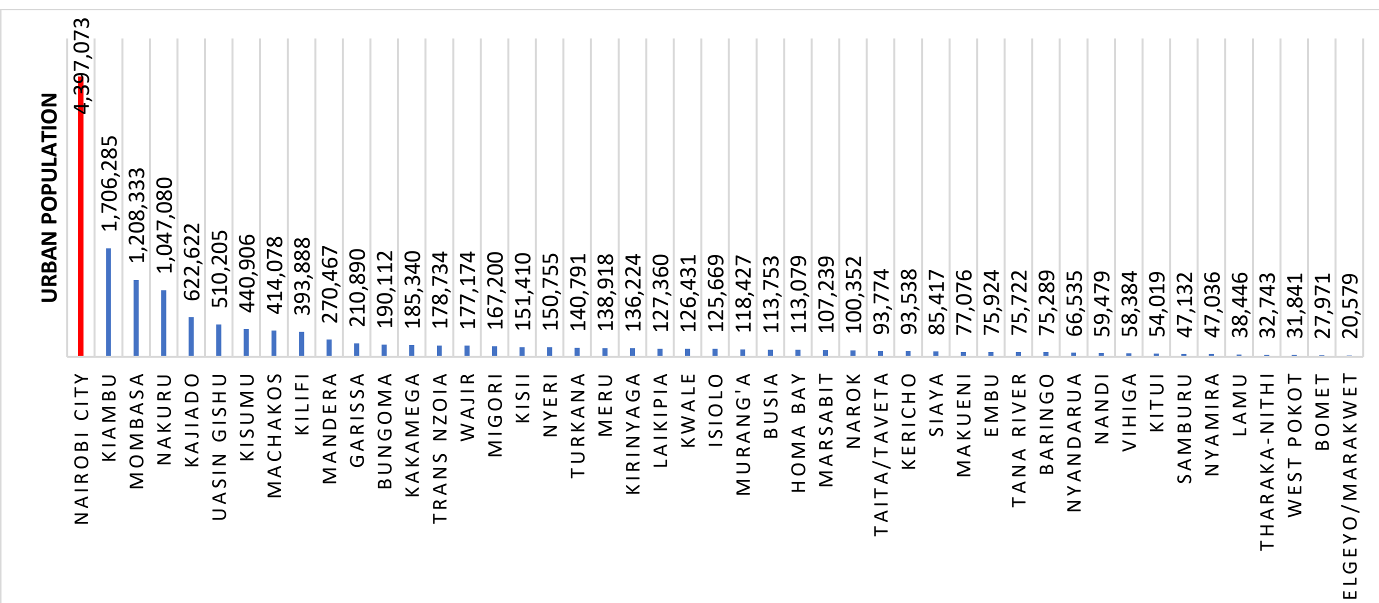
Figure 1-4 Urbanization in Kenya from 2009 to 2019



Source: Statista 2020

Nairobi's population makes up more than 30 percent of Kenya's urban residents; with an estimated 4,397,073 people, it is three times larger than the second-largest city, Mombasa (Figure 1-5). Disparities show across the counties in the composition of the urban population with Elgeyo Marakwet, Bomet, and West Pokot registering low urbanization. The increasing urban population growth in Kenya is attributable to rural-to-urban migration. With at least 50 percent of its population living in urban areas by 2050, Kenya's urbanization rates are expected to remain high and continue to pose a challenge in access to basic infrastructure. This will stagnate socio-economic progress and affect the population's well-being.

Figure 1-5 Distribution of urban population across counties in Kenya



Source: Kenya National Bureau of Statistics 2019a

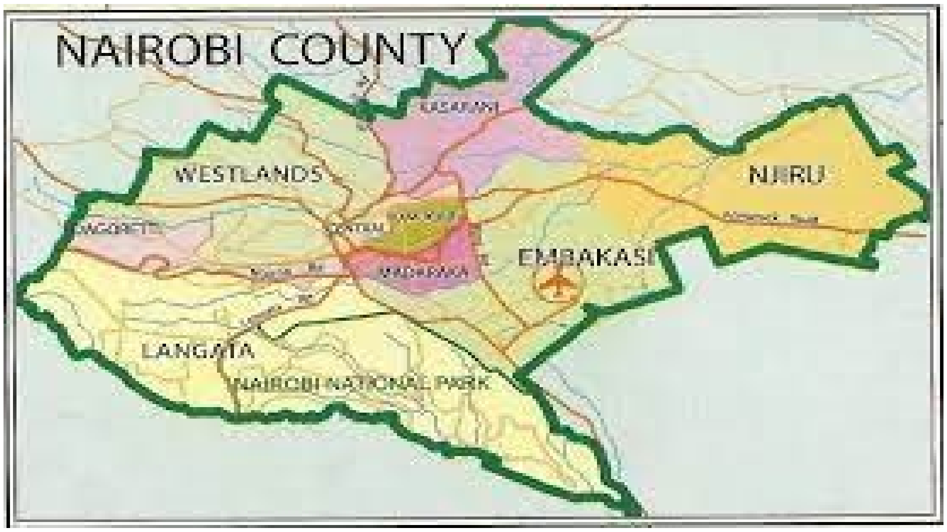
The expanding urban population in Nairobi City County is being absorbed in informal settlements and slums with poor living conditions, poor infrastructure, and high poverty rates. Rapid urbanization in Nairobi City County in tandem with poor planning has resulted in huge backlogs in critical infrastructure and basic services, leading to the emergence of sprawling, overcrowded, and impoverished informal settlements. According to the Kenya National Bureau of Statistics (KNBS), 36 percent of Nairobi City County's residents live in slums that are overcrowded and exhibit high persons per square kilometer (sq. km) population density (Table 1-2) (KNBS 2019a). Figure 1-6 shows a map of Nairobi City County and its sub counties.

Table 1-2 Distribution of population by sex, number of households, land area, population density, and sub county in Nairobi City County

Sub counties in Nairobi City County	**Total**	**Households**		**Land area sq. km**	**Density persons per sq. km**
		Conventional	Group quarters		
Nairobi City County	**4,397,073**	**1,494,676**	**12,212**	**704**	**6,247**
Dagoretti	434,208	154,949	140	29	14,908
Embakasi	988,808	346,462	1,493	86	11,460
Kamukunji	268,276	83,680	685	11	25,455
Kasarani	780,656	268,611	2,679	86	9,063
Kibra	185,777	61,651	39	12	15,311
Lang'ata	197,489	60,187	2,052	217	911
Makadara	189,536	70,080	281	12	16,150
Mathare	206,564	74,967	-	3	68,940
Njiru	626,482	204,492	71	130	4,821
Starehe	210,423	66,108	3,281	21	10,205
Westlands	308,854	103,489	1,491	98	3,167

Source: KNBS 2019a

Figure 1-6 Map of Nairobi City County and its sub counties



Source: Nairobi Integrated Urban Development Plan (2014)

Eleven metropolitan areas are identified by Kenya Urban Support Program (KUSP) as key blocks under housing and urbanization in Kenya. These areas include Nairobi and its environs, Mombasa, Kisumu-Kakamega, Nakuru, Eldoret, Wajir, Garissa, Mandera, Kitui, Mwingi, and Meru. Kenya Urban Support Program (KUSP) is anchored on Kenya Vision 2030. To actualize the urban agenda, the Medium Term Plan (II) which implemented the Vision 2030 between 2013 and 2018 further grouped the 11 metro areas into six metropolitan regions: Nairobi, Mombasa, Kisumu-Kakamega, Nakuru-Eldoret, Wajir-Garissa-Mandera, and Kitui-Mwingi-Meru.

1.3 Objectives of the study

This study applies the AGI framework in Nairobi City County (Kenya's capital), to analyze challenges faced by urban populations in Nairobi that include lack of productive jobs, inadequate housing, low levels of accessibility, and high costs relative to the level of development. To address these issues and better generate productive jobs, Nairobi City County must improve its business environment to become competitive in global markets and better link workers to firms and firms to markets. This study aims to develop a framework detailing the primary constraints to Nairobi City County's ability to benefit from agglomeration and generate productive jobs—accessibility, the business environment, and public sector governance. The specific objectives of the study are:

a) Establish Nairobi City County's potential to create productive jobs.
b) Determine the level and distribution of accessibility within Nairobi City County.
c) Review the business environment and constraints in Nairobi City County.
d) Review the public governance environment and constraints in Nairobi City County.
e) Review policy initiatives that support urban growth in Nairobi City County.

1.4 Methodology and data

The Kenya Institute for Public Policy Research and Analysis (KIPPRA) adopted a four-stage approach to undertake this study. These four stages are discussed below.

1.4.1 Mobilization and inception

KIPPRA held inception meetings with the AGI team. These meetings were used to discuss and firm up the envisioned approach to the study. The inception meetings provided an opportunity to review the AGI framework, its applicability to Nairobi City County, to respond to the local realities of the county. An inception report was prepared detailing the agreed upon methodology to be adopted, the work plan with weekly schedules, key deliverables, and reporting relationships.

1.4.2 Data collection

Given the purpose of this study was to measure the level of urban development in Nairobi City County, the research design adopted was the non-experimental time series design, using both quantitative and qualitative data to address the study's objectives. The design was most feasible given that Nairobi City County has been in existence since Kenya's independence and is now constituted as a county government, being run by the Nairobi Metropolitan Services (NMS). Furthermore, secondary data was sought from existing reputable sources like KNBS, KIPPRA repository, World Bank, UN-Habitat, among others. Desktop research was applied to identify and review the policy and legal frameworks that support urban growth in Nairobi City County. In addition, based on desktop reviews, the study established key economic activities that support job creation in Nairobi City County, as well as gaining insights on Nairobi City County's accessibility, business environment, as well as public governance.

1.4.3 Analytical framework and study report development

Data was analyzed based on the AGI framework (Figure 1-1) to understand the city's potential and challenges with an ultimate goal of proposing strategies for generating productive jobs.

1.4.4 Finalization

The aim of this stage was to validate the outcome of the study to key stakeholders, obtain input, and prepare a final study report for dissemination. The report benefited from the feedback received during the launch of the project and input from the validation at the 9th Africities Summit held in Kisumu, Kenya, in May 2022. The final report will be launched in Nairobi on 17th February 2023.

2 Creating productive jobs in Nairobi City County

2.1 Introduction

The Sustainable Development Goal 8 (SDG 8) aims to promote productive employment and decent work (United Nations n.d.). The International Labour Organization (ILO) has been on the front line in championing the concept of decent work giving attention to quality employment, decent pay, sense of security in the workplace, and social protection for families (ILO 1999 and 2001). There is evidence that a majority of productive jobs are found in urban cities and towns (Page et al. 2020). Therefore, people tend to migrate to towns and cities in search of jobs, housing, or better education which in turn results in urban growth. Urban growth is an increase in the absolute size of an urban population due to the movement of people from rural to urban areas that have high economic activities and infrastructure, among others. However, urban growth in sub-Saharan African cities, including Nairobi, is higher than the pace as economic growth. Therefore, the concern about urban growth should focus on employment generation, improvement of working conditions, enterprise development, and many other aspects related to productive jobs.

Productive employment refers to all employment, whether as self-employed or wage earner, that provides decent income opportunities to allow the worker and their dependents to obtain a material standard of living above the poverty line (ILO 2012). From literature, productive jobs are found in tradable sectors (Page et al. 2020). Lall, Henderson, and Venables (2017) identified manufacturing, wholesale and commission trade, and business services (such as travel agencies, transport, financial intermediation) as tradable activities. On the other hand, they classify construction, local services, retail trade, health and social work, and other local activities as non-tradable.

In Kenya, employment in tradable and non-tradable sectors is interlinked. For the purpose of this study, productive jobs in Nairobi City County are analyzed collectively across sectors. The focus on productive jobs is motivated by the high poverty levels, high unemployment, a rising youth bulge, and rapid urbanization. The increasing need to reduce poverty and provide employment opportunities is key, hence there is a need to address the rise in unemployment in a way that fosters the creation of productive jobs for inclusive growth.

2.2 Key labor force statistics for Nairobi City County

Kenya's economic growth has been relatively strong albeit the wide variability in the size of the economy across counties. In 2020, Nairobi City County accounted for 27.5 percent of the total national economy with gross domestic product (GDP) valued at Ksh 2,669,829 (KNBS 2021).

Nairobi City County is the most populous county in Kenya. The population of Nairobi City County was estimated at 3,814,871, accounting for more than 30 percent of Kenya's urban residents, according to the 2019 Population and Housing Census (KNBS 2019a). In 2019, the county had a total of 1,506,888 households and an estimated population growth rate of 4.1 percent. Nairobi's population is notably youthful with 49 percent between 15 and 36 years.

The data in Table 2-1 shows that Nairobi's economically active population was 2.23 million in 2019, comprising the working (1.81 million) and those seeking work (422,000) in 2019. Females accounted for 43.12 percent of the total working population. Nairobi's working population make up 48 percent of the city's population, 11 percent are seeking work, and 41 percent are persons outside the workforce and include full-time students, homemakers, retirees, incapacitated persons, and those who are either too young or too old to work.

Table 2-1 Distribution of population age five years and above by activity status, sex, county, and subcounty (persons in the labor force)

	Total	**Working**	**Seeking work/no work available**	**Persons outside the labor force**	**Not stated**
NAIROBI CITY	**3,814,871**	**1,812,311**	**422,288**	**1,578,696**	**1,576**
Male	**1,888,886**	**1,030,840**	**203,434**	**653,821**	**791**
Female	**1,925,799**	**781,389**	**218,822**	**924,806**	**782**
DAGORETTI	378,448	182,767	40,294	155,215	172
EMBAKASI	857,691	411,983	101,012	344,410	286
KAMUKUNJI	229,722	96,482	31,149	101,952	139
KASARANI	675,307	328,353	71,977	274,754	223
KIBRA	161,903	69,420	19,254	73,180	49
LANG'ATA	173,427	83,422	14,024	75,905	76
MAKADARA	168,569	82,935	21,994	63,598	42
MATHARE	179,170	84,898	22,837	71,332	103
NJIRU	542,946	255,777	54,134	232,796	239
STAREHE	174,671	78,295	19,418	76,805	153
WESTLANDS	273,017	137,979	26,195	108,749	94

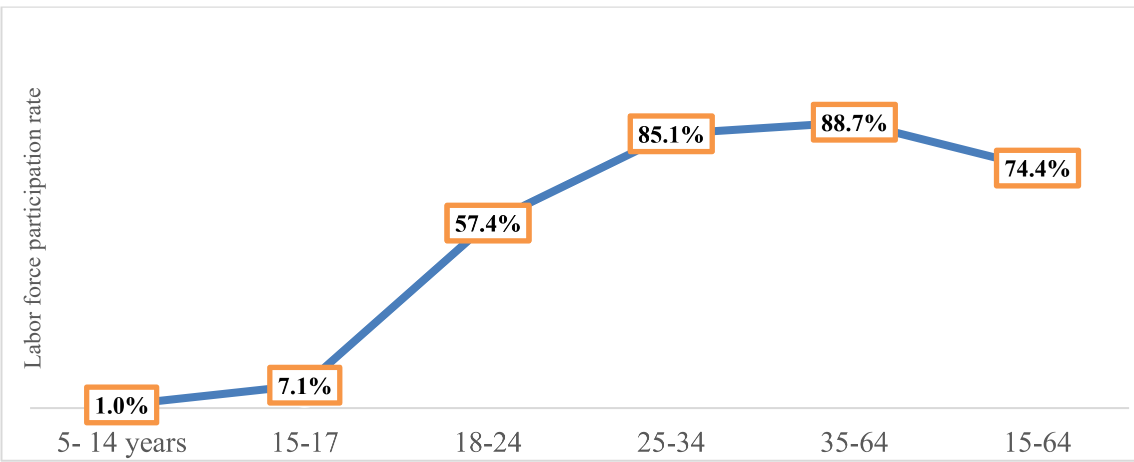
Source: KNBS 2019a

2.2.1 Labor force participation rate

The labor force participation rate (LFPR) represents the share of the working-age population that is actively engaged in the labor market by either being employed or unemployed. LFPR is a measure of labor supply, and it is useful for understanding the labor market behavior of individuals and in making projections about the future supply of labor.

According to the 2019 Kenya Population and Housing Census (KNBS 2019a), the total LFPR for Nairobi City County was estimated at 74 percent. Out of the total labor force between the ages of 15 and 64, only 60 percent are working. Those between the ages of 15 and 34 accounted for 51 percent of Nairobi's population with just half of them working (52 percent), indicating that there is low LFPR among the youths in this age group which could be attributed to the fact that they are in school. It is important to note that schooling in Kenya is compulsory up to age 17 and that youths between the ages of 18 and 24 are expected to be in tertiary education. At the age of 18, a person acquires an identification card that is a requirement for formal employment.

Figure 2-1 Labor force participation rate for Nairobi City County



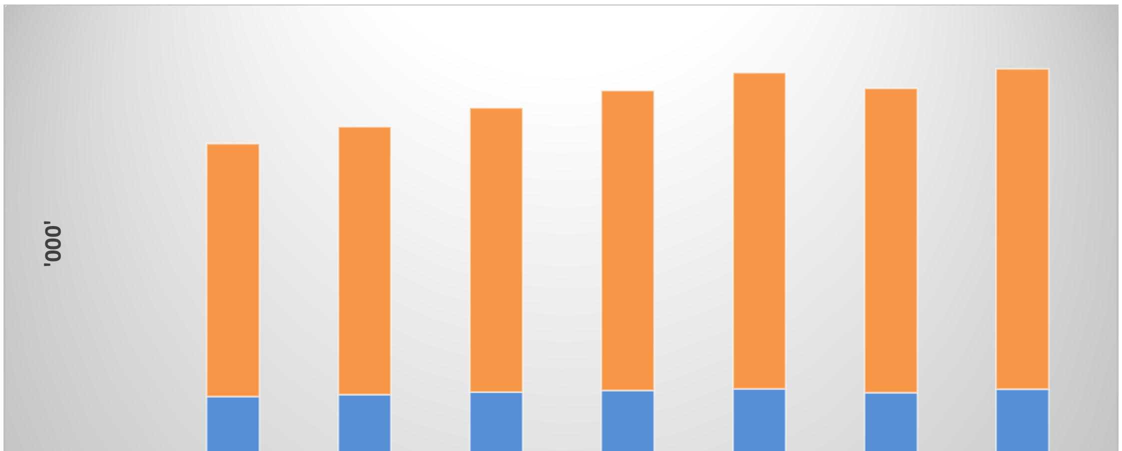
Source: KNBS 2019a

2.2.2 Employment in Nairobi City County

Kenya's economic structure is dual, characterized by shrinking formal employment opportunities and an informal sector that is increasingly expanding and accounts for 83 percent of total employment opportunities (KNBS 2022). Employment in the formal sector has been slow to expand over the last two decades. Similarly, job creation, which has been a key development objective for most countries including Kenya, is not in tandem with Kenya's rapidly growing working age population. Roughly 15.3 million people worked in informal conditions in 2022, whereas 3.1 million were employed in the formal sector in 2022, suggesting that the informal sector constitutes an important part of the Kenyan economy, related to creation of employment, production, and income generation.

Nairobi city county commands the largest share of employment in Kenya with a total of 1,812,311 people working. A large segment of Nairobi's labor force (about 3.5 times those in wage employment) is self-employed largely in the informal sector. A more rapid growth in informal employment may have implications for the quality of new jobs.

Figure 2-2 Total employment in Kenya from 2015 to 2021, by sector (in 1,000s)



	2015	2016	2017	2018	2019	2020	2021
Informal	12,037	12,750	13,540	14,284	15,052	14,508	15,262
Formal	2,722	2,816	2,932	3,012	3,091	2,897	3,071

Source: KNBS Economic Surveys, various years 2015, 2016, 2017, 2018, 2019b and 2022

As earlier discussed, 49 percent of Nairobi's population is youthful. Unemployment is still prevalent. The formal sector's failure to generate sufficient wage employment to accommodate all entrants to the labor force has led to many individuals seeking employment in the informal sector.

The informal sector covers small-scale activities that are semi-organized, unregulated, and use low and simple technologies while employing few people per establishment. The ease of entry and exit into the informal sector, coupled with the use of a low level of technology makes it an easy avenue for employment creation, especially for the youths. The main sectors that spur jobs in Nairobi city are the service sector and food distribution in the informal sector. Generally, the rural population accounts for most of the employment in the informal sector. In 2019, 9.7 million people were engaged in informal employment in the rural areas as opposed to 5.3 million in the urban areas (KNBS 2020a). The shrinking decent employment opportunities for youths in the formal sector are a predictor of inequality and social ills which constrict economic growth and further restrict young people's access to opportunities. High productive jobs are associated with high human capital.

2.2.3 Skills for productive employment

Human capital development, which involves education, skills, knowledge, and good health, is globally recognized as an engine and foundation for long-term economic growth. As a result, the investment by both government and households in human capital is aimed at accumulating a critical mass of human capital to drive a country's economic growth, enhance private individuals' incomes, and confer other social benefits that are attendant to an educated and healthy human resource.

Individuals with high levels of education have high labor force participation rates. Low educational achievement and limited skills contribute to difficult transitions into the labor force and limited employment mobility. Schooling is a good predictor of an individual's eventual occupation, but the quality of education also matters for productivity. Kenya has made great strides in providing education. For instance, the education sector takes the largest share of the government's budget—about 25 percent of the overall budget ceiling. This is a sign of the importance that the government accords to the education sector as the primary provider of the skills required for actualizing the economic and social goals of Kenya Vision 2030. Education is primarily a national government responsibility except for early childhood development education (ECDE) and vocational training which are decentralized to counties. The number of private institutions, in proportion to public institutions, is higher as presented in Table 2-2.

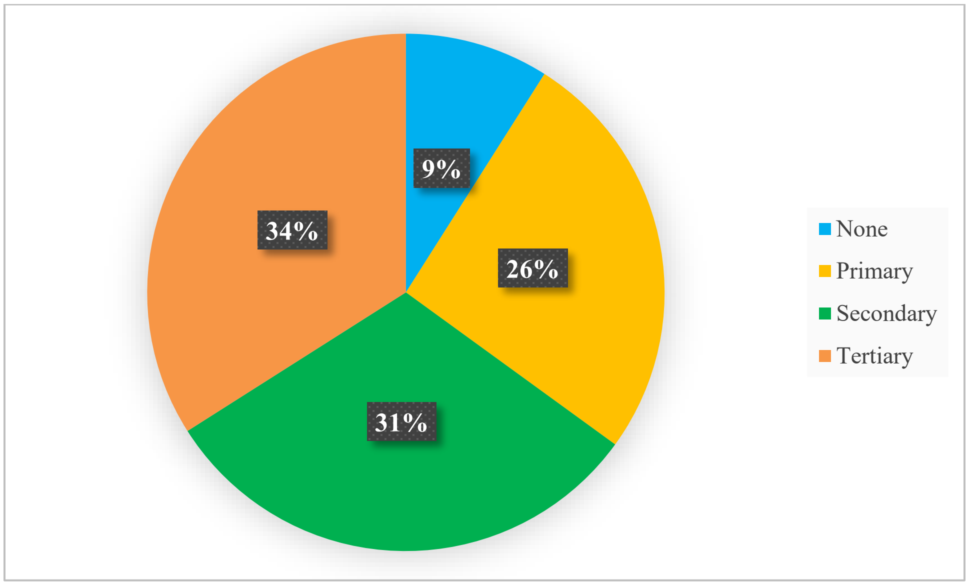
Table 2-2 Number of basic education institutions in Nairobi city county

Nairobi	Public	Private	Total
Pre-primary	220	768	988
Primary	205	645	850
Secondary	103	283	386

Source: Ministry of Education 2021

As shown in Figure 2-3, majority of people in Nairobi city county have a tertiary education qualification followed by secondary education. This is attributed to the notable gains made toward enhancing tertiary education access, such as construction of new tertiary institutions, infrastructure expansion, allocation of student loans and bursary, implementation of Competency-Based Education Training (CBET) curriculum, a policy on the recognition of prior learning, and Technical Vocation Education and Training (TVET) rebranding among others. Tertiary level of education is a key subsector that produces a pool of skills that will attract appropriate and relevant investment in the labor market.

Figure 2-3 Education levels for Nairobi City County



Source: KNBS 2015/16 survey data

Earnings depend strongly on educational attainment, standing at 158 percent for those who have completed tertiary education, compared to 27 percent for those who have completed secondary education (KNBS 2015/16).

2.2.4 Youths not in employment, education, or training

SDG 8, Target 6 aims to substantially reduce the proportion of youths aged 15 to 24 years not in employment, education or training (NEET) by the year 2020. Youth NEET is the proportion of young people who are not in education, employment, or training to the population of the corresponding age group. Article 260 of Kenya's Constitution (2010) refers to youths as all individuals falling in the age bracket of 18 to under 35 years (GoK 2010). Schooling in Kenya is compulsory up to age 17. The official school age is classified as follows: 3 to 5 years for ECDE, 6 to 13 years for primary level education, 14 to 17 years for secondary education, and 18 to 24 years for tertiary education.

A lower NEET value signifies a healthy transition from school to work (OECD 2013). NEET can be used to show the barriers hindering youths from transiting to the labor market, accessing education and training, as well as retention in the labor market. Some of these barriers include skills mismatch, lack of job opportunities, lack of information on available opportunities, and disinterest, youths who have given up looking for work or who are unwilling to join the labor market, just to mention but a few. Education leads to an improvement in the quality and level of production which is associated with a higher average level of human capital formation and lower wage inequality.

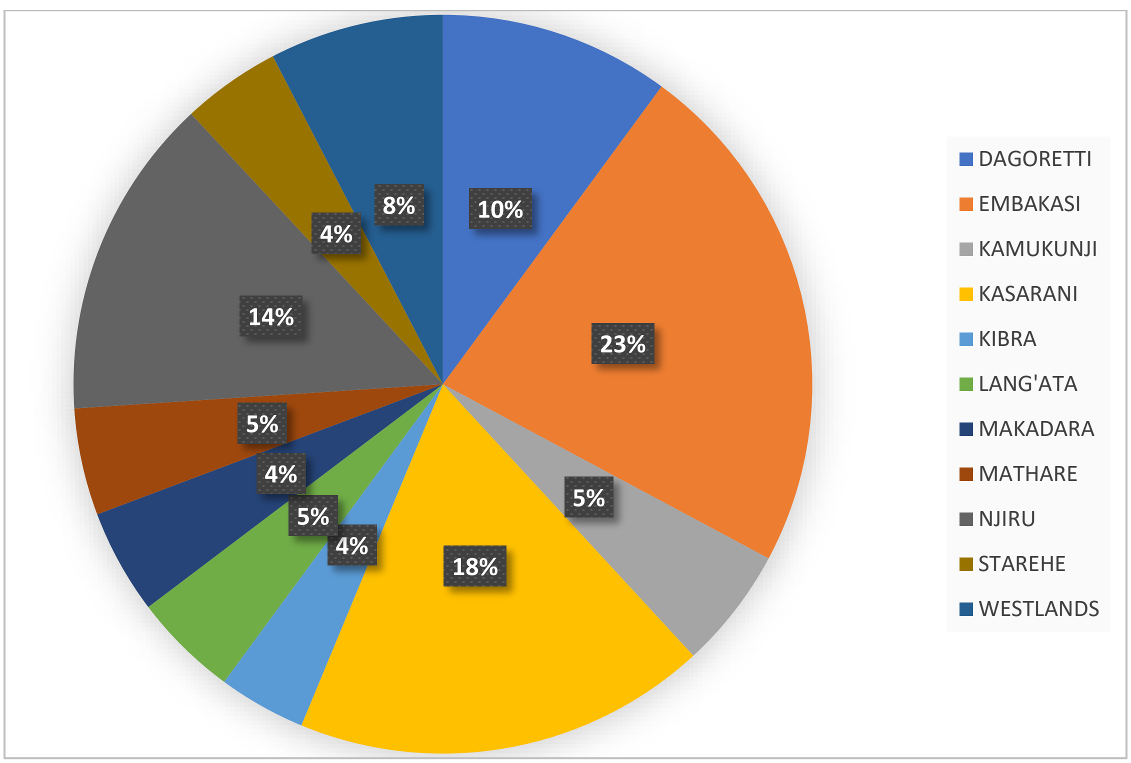
Youths choose to remain in school based on rational benefits and costs that include a return on investment after netting out indirect and direct costs of schooling. The benefits of schooling have to be comparable with the foregone earnings. Therefore, with a high NEET, the consequence is no skills development or experience thus the risk of labor market and social exclusion (ILO 2012). Policymakers should, therefore, focus on addressing these barriers.

Whereas the overall rate of unemployment of the working age group (15 to 64 years) in Nairobi was estimated at 40 percent, that for youths (15 to 34 years) was 48 percent in 2019. Nairobi City County has 46.5 percent of youths who have stayed the longest as NEET compared to the national average of 43.8 percent (KNBS 2020a). There is a need to strengthen the linkages between education and training through collaboration between the training institutions and labor market.

2.2.5 Key employment sectors in Nairobi City County

From the statistics in Figure 2-4 we can see that majority of the Nairobi city working population are from Embakasi accounting for 23 percent followed by Kasarani and Njiru sub-counties at 18 percent and 14 percent respectively.

Figure 2-4 Distribution of working population in Nairobi City County by sub county



Source: KNBS 2019a

Broad sectors identified as most important for job creation in Nairobi City County are: manufacturing, wholesale and retail trade, accommodation and food services, horticulture, financial services, transport, and storage construction and real estate. In 2021, the manufacturing industry accounted for the highest wage employment in the county at 25.1 percent followed by trade, restaurants, and hotels. The construction, transport, and communications industries also play key roles in generation of wage employment (KNBS 2021).

According to the *Gross County Product 2021* report, Nairobi City County was found to be leading in manufacturing activities, contributing 36.4 percent of total manufacturing output in Kenya (KNBS 2021). Other industries which comprised of construction, mining and quarrying, waste collection, electricity, gas, steam and air conditioning, and treatment and supply averaged 30.2 percent as a share of national output. This was attributed to the vibrant construction activities and high electricity consumption in the county. Similarly, Nairobi City County contributed to a relatively higher share of services in the economy at 36.1 percent on average (KNBS 2021). These results are consistent with the identified leading tradable sectors for job creation.

Figure 2-5 Nairobi City County's contribution as a share of national total output (%)

Source: Kenya National Bureau of Statistics 2021

Munga et al. (2021) found that agriculture and services including agro-processing, tourism, information and communications technology (ICT), transport, and education have the highest potential to create employment for youths in Kenya. However, in some sectors, such as horticulture and financial services, the jobs created are mainly in the informal sector. Further, there are constraints related to infrastructure, regulations, skills development, and exports that need to be addressed to realize the employment potential of these sectors.

2.2.6 Government Interventions to ensure youths get productive jobs

The Kenya Youth Employment and Opportunities Project (KYEOP) is among the various projects implemented as part of the Kenyan government's efforts to create jobs. The KYEOP is a Ksh 15 billion national project funded by the World Bank and the Kenyan government. It has four distinct components: supporting job creation, improving youth employability, strengthening youth policy, and market information. The project is implemented in 16 counties in Kenya: Nairobi City, Bungoma, Kakamega, Kiambu, Kilifi, Kisii, Kisumu, Kitui, Machakos, Mandera, Migori, Mombasa, Nakuru, Nyandarua, Turkana, and Wajir.

The Ajira Digital Programme is a key deliverable designed to empower young people to access digital job opportunities. This program seeks to position Kenya as a choice labor destination for multinational companies as well as encourage local companies and the public sector to create digital work. More than 82,000 youths in both the universities and TVET have undergone training; 42 Ajira Digital Clubs have been established in universities across the country; and, more importantly, job opportunities have been created for more than 870 youths who have been hired in the judiciary (courts) doing transcription and data entry.

Implementation of the Public Service Internship Program (PSIP), which started in 2019, has resulted in the admission of more than 3,000 interns every year into the civil service for on-job experience and training so they can acquire the skills necessary to find employment. Similarly, the Presidential DigiTalent Programme engages ICT interns who are fresh graduates from university in various institutions so they can learn ICT skills.

Other job creation programs and projects intended especially for youths include the National Employment Authority; the affirmative action funds, which include a component of the Youth Enterprise Development Fund; the Access to Government Procurement Opportunities (AGPO) program, which has set aside 30 percent of government procurement opportunities for enterprises owned by youths, women, and persons living with disability; as well as empowering youths to be self-employed or engaged through various government programs such as Kazi Mtaani, a response to job losses caused by the COVID-19 pandemic.

Youths by their sheer numbers are an important constituency in Kenya. Coupled with the fact that Kenya's and indeed the county's future lies in their hands makes it imperative for the Nairobi City County government to engage youths in the development agenda of

Nairobi City County. Nairobi City County youth policy proposes to allocate at least 2 percent of its annual budget to the programs and activities within the Department of Youth to be implemented at the ward level.

As part of the Youth Empowerment Project, Kenya launched the Ninaweza (I can) program in 2011. Ninaweza was an eight-week training program designed to provide life and ICT skills which were relevant to the market to women from poor areas who were between 18 to 25 years old, had secondary education qualifications, were unemployed, and resided in one of the six informal settlements in Nairobi (Azevedo, Davis, and Charles 2013).

Despite such interventions and relatively strong economic growth since the early 2000s, unemployment, underemployment, and inactivity are still a major challenge in Kenya. The constraints to productive employment relate to labor supply vis-à-vis demand. Demand-side constraints reflect low demand for labor in sectors, firms, and occupations that pay relatively better and thus offer more productive employment. Some of the constraints to job creation include skill deficits, gaps in infrastructure development, high cost of energy and transport, high tax rate, high number of procedures required to start a business, burden of customs procedures, and low value addition (Munga et al. 2021).

2.3 Conclusion

The main objective of urban policy in Africa should be to encourage the growth of productive jobs in cities. Nairobi City County is a vital commercial and financial regional hub; it is home to the regional headquarters of various major international companies and organizations. However, employment shifts in the economy are more informal and insufficient to provide decent standards of living. Labor productivity in Nairobi City County has been declining, yet productivity growth is one of the key drivers of economic transformation. It is imperative for policymakers to recognize the important role of the informal economy and that steps should be taken to improve productivity and conditions in this sector while encouraging formalization. This study recommends the national and Nairobi City County governments enhance the productivity of the informal sector through a well-balanced mix of economic and social policies that will make a remarkable contribution to the improvement of labor and living conditions for the majority of Kenyans.

The informal economy is huge and expanding rapidly in Kenya. In 2021, 754,000 new jobs were created in the informal sector compared to 174,000 new jobs in the formal sector. In the past 10 years alone, employment in the informal sector has grown by 6 million, while employment in the formal sector has grown by 1 million. The growth of informal sector employment is attributed to the stagnant growth of formal sector employment. The living standards of Nairobians will improve further if the productivity and employment conditions of informal employment improve. Informal sector employees are likely not protected by existing labor regulations. Some of the issues faced by employees in the informal sector include the lack of a safe working environment, security of tenure, health insurance, and social security. As a result, these employees are exposed to work-related injuries and arbitrary layoffs, overworked, have poor access to health care, and do not have the cushion of retirement plans. Ideally, one should be able to earn an income that grants them a decent standard of living which is above the poverty line. However, this is not the case for majority of Nairobi workers who are in the informal sector.

In the recent past there has been a rise in unemployment rate in Nairobi city. With unemployment comes a loss of income, and many families are left without sufficient incomes to meet living expenses. Low employment rates among youths are driven primarily by a slowdown in job creation, especially in the formal sector. On the other hand, Nairobi city has the potential in creating productive jobs particularly in the manufacturing and services sectors, both formal and informal. Policymakers in Nairobi City County should strengthen partnerships with and across training institutions and industry as well as enhance programs that combine on-the-job and in-class training.

The TVET budget has doubled in the last three years from Ksh 7 billion in 2018/19 to Ksh 15.21billion in 2020/21(MOE 2021 Sector Report). It is evident that there is increased development in TVET which is a key subsector contributing to the production of a pool of skills that will attract appropriate and relevant investment in the labor market. Education institutions, in particular TVET, should provide training in skills consistent with emerging technologies. This will equip the informal sector with the technical capabilities required to transform into small and medium-sized enterprises (SMEs), thus enabling them to integrate into the modern economy. The need for upskilling, recognition of skills, and learning acquired by experience or informal training is key.

The Kenyan government needs to absorb 1 million youths who are joining the job market every year. The majority of these youths are in Nairobi City County. Further, Nairobi City County commands the highest proportion of the country's labor force.

2.4 Policy recommendations

Based on the findings from the study, the following are the policy recommendations for creation of employment in Nairobi city county are proposed:

1. To produce more quality jobs, Nairobi city county in collaboration with the Ministry of education to continually invest in skills development needed to be productive

and adaptive to changing skill demands to future entrants in the labor force. This could be implemented through strengthening partnerships among training institutions and industry.

2. Nairobi city county government to ensure Technical Vocational Education and Training (TVET) is offered in modules to help informal laborers to upskill.
3. Nairobi city county government to ensure TVET provides training in skills consistent with emerging technologies.
4. Nairobi will need to boost both formal quality job creation and informal sector productivity to generate sufficient quality jobs. The informal sector which emerged originally as a response to problems of economic survival associated with rapid urbanization and urban poverty, is now being recognized as an important sector for employment creation, income generation, poverty reduction and economic growth. Nairobi County to implement regulations that will ensure the informal sector challenges are tackled. This may include provision of employee health insurance, social security and security of tenure. In addition, programs and awareness strategies of the informal sector on employer obligations and workers' rights to be put in place.
5. Nairobi city to provide a comprehensive social protection system, reliable and affordable public transport for workers, affordable housing, accessible and affordable health care and universal education are other interventions that are recommended to enable individuals earn a decent standard of living.

3 Assessment of accessibility levels and distribution in Nairobi City County

3.1 Introduction

Measures of accessibility both within and between cities help us understand how well a city connects workers to firms and firms to markets. Intracity accessibility captures how well workers and firms are connected. It consists of two components, transport and land use, both of which can be used to improve accessibility within a city. Intercity and international accessibility captures whether cities have access to the necessary physical infrastructure that allows firms to trade both domestically and internationally.

This chapter analyzes Nairobi's accessibility and spaces. Under accessibility, we will look at intracity, intercity, and international accessibility. We shall examine land use within Nairobi's boundaries and compare it to the city's zoning policy while highlighting land use challenges as part of the intracity subsection. The city's different types of transport infrastructure, their distribution, and routes will also be explored. These will inform proximity and accessibility to jobs, economic opportunities and amenities by residents. The quality of transport and logistic infrastructure, like airports and ports, will also be investigated and compared to that in other countries when looking into intercity and international accessibility. Finally, access to public spaces will be assessed based on distribution and categories. From the sub-sections' findings, we will draw conclusions that will inform policy recommendations.

3.2 Nairobi's accessibility and spaces

3.2.1 Intracity accessibility

3.2.1.1 Land use

Nairobi City County, as the capital city of Kenya and financial and economic hub of East Africa, has competing interests. The county faces competing land uses, necessitating the need for a policy to balance these interests. The highest share of land use in Nairobi is open spaces at 56.75 percent, followed by residential areas at 16.84 percent (Table 3-1). This has left little space for public purposes and public utility usage which is contrary to the zoning policies of the city that seek to ensure a balanced use of land. Agriculture and forests take up large share of open spaces (Figure 3-1). The shortage of public land is a challenge partly caused by illegal acquisitions. Forest cover is the only land use maintained according to the city's zoning policies. The mismatch in zoning and land use and illegal acquisitions of public land have contributed to a shortage of land, especially for public infrastructure. As a result, there have been demolitions of buildings and structures erected on public land and road reserves and delays in infrastructure projects.

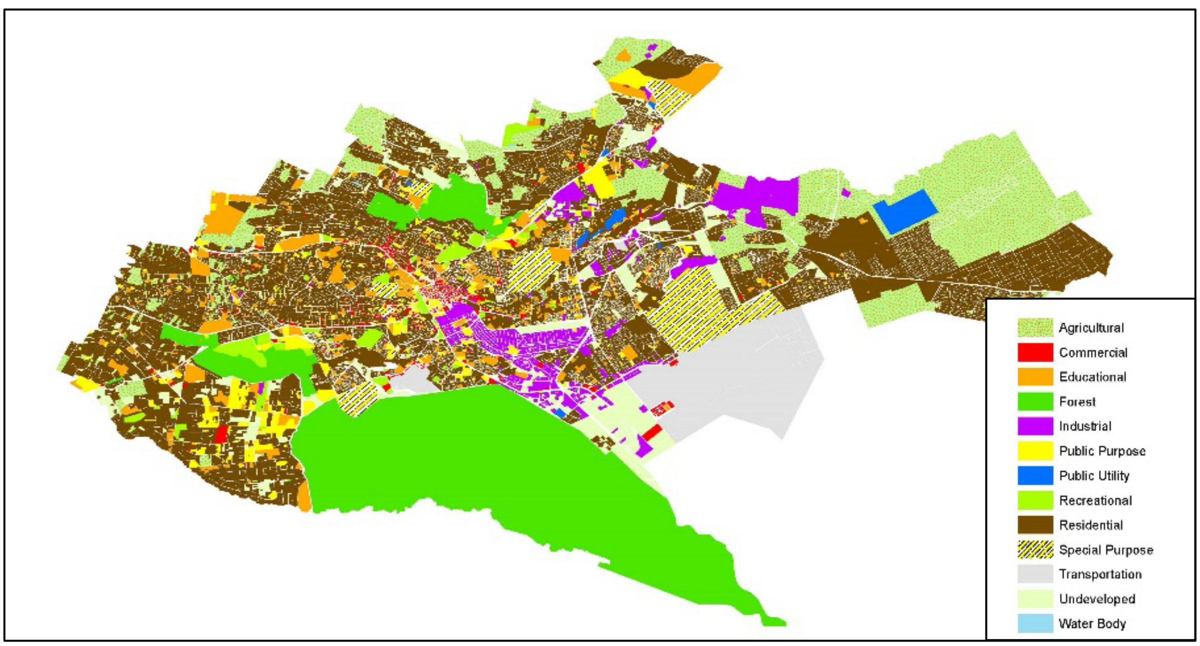
As land use trends in Nairobi have changed over the years with a preference for residential and commercial developments, there is a need for planning that is cognizant of population growth and other emerging issues.

Table 3-1 Land use acreage in Nairobi City County

Land use	Acreage	Share of total space (%)
1. Open space	87,345	56.75
2. Residential	**25,924**	**16.84**
3. Unknown	10,921	7.10
4. Institutional	9,820	6.38
5. Industrial	5,564	3.61
6. Transportation	3,851	2.50
7. Water	2,989	1.94
8. Recreational	2,143	1.39
9. Informal settlement (slum)	**1,915**	**1.24**
10. Commercial	1,466	0.95
11. Mixed residential and commercial	1,102	0.72
12. Mixed commercial and institutional	878	0.57
Total	153,918	100

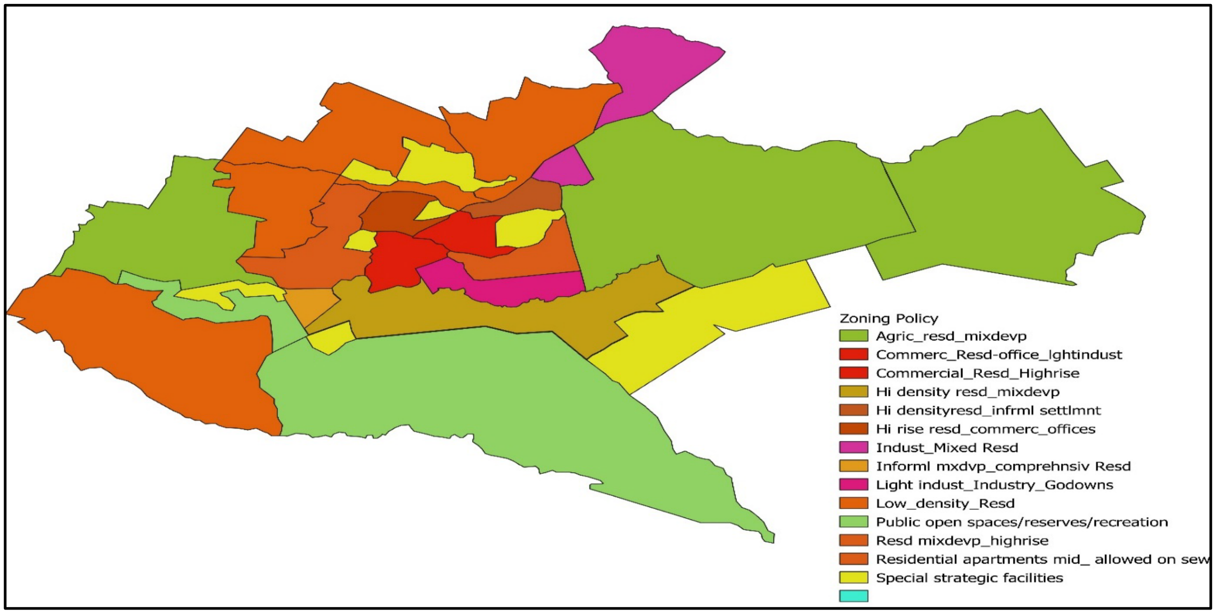
Source: Center for Sustainable Urban Development, Columbia University, 2010

Figure 3-1 Land use share of total space in Nairobi City County



Source: Center for Sustainable Urban Development, Columbia University, 2010

Figure 3-2 Zoning policy for Nairobi City County



Source: Zoning policy, Nairobi City Council, 2022

Other challenges related to land use include fragmented development of neighborhoods especially when land use is disconnected from key infrastructure and services such as transport, sewers, roads, and public amenities. Informal settlements cover 5 percent of the total residential land area of the city, but they are inhabited by about 70 percent of the city's population. There has been a notable expansion of informal settlements occupying prime urban land since 1960 (UN-Habitat, 2006). On a wider scale, 60 percent of those living in Kenya's informal settlements are in Nairobi. The city has among the highest annual population growth rates in Africa and with high urbanization the number of informal settlement residents is estimated to double in the next 15 years. A third of these informal settlement residents are considered poor. They face poor access to services and infrastructure, poor quality of housing, overcrowding, environmental degradation, susceptibility to floods, insecurity, and land ownership disputes. Poor access to infrastructure and the distant locations also limit their chances to get employment opportunities and extends the poverty cycle for some.

Still other challenges include inadequate implementation of land use planning policies and regulations due to insufficient funding, lack of political will, political interference, and corruption. This eventually leads to land grabbing, encroachment, squatter invasion, land use incompatibility, and degradation, particularly of waterfront sanctuaries, wetlands, and parks. In addition, there is poor management of the land register, which was paper based until 2021.

Zoning policy is a critical tool for planning in Nairobi City County as it entails aspects of the development ordinances that every property developer in the city requires to set up any form of development—residential, commercial, industrial, institutional, or religious. With the continued high rate of urbanization, Nairobi City County has a duty to use planning controls to ensure that development is allowed only where it is needed while ensuring that the character and amenity of the area are not adversely affected.

Due to rapid urbanization, low-density residential zones are experiencing a radical shift through a rising demand for high-rise developments as a result of growing demand for housing near various business enclaves and work areas mostly located in Nairobi's Upper Hill neighborhood, Westlands, Ngong Road, Lang'ata Road, and even the Central Business District (CBD). Consequently, the city is in the process of reviewing its development control policies, a process being steered by the Nairobi Metropolitan Services (NMS) to harmonize development with current user needs while still ensuring a sustainable development balance is attained in the short and long term.[2] The instrumental document under review is the "Nairobi City Council: A Guide of Nairobi City Development Ordinances and Zones (City Council of Nairobi, 2004)," which was developed in 2004 by the now defunct City Council of Nairobi.

Other land issues in Nairobi include the high presence of squatters, mostly in informal settlements; absence of an updated valuation toll; land conflicts; uncontrolled development due to a lack of adherence to spatial plans and grabbing of public land; and public insecurity of land tenure, since land used by the majority of the poor is not titled (Nairobi CIDP 2018-2022 and the Nairobi County Annual Development Plan 2021/22).

Table 3-2 Land shortage challenge in Nairobi City County

Issue	Cause(s)/characteristics	Course of action	Responsible persons
Shortage of land	Scarcity of public land Changing land use patterns Illegally acquired public utilities Prevalence of land disputes Delay in development of the developed land as per the land management information system Insecure land tenure	Land reforms Fast-track responsive land management information system. Repossess illegally acquired public utilities and land.	Governor's Office Land subsector Ministry of Lands, Public Works, Housing, and Urban Development National Land Commission Ethic and Anti-Corruption Commission

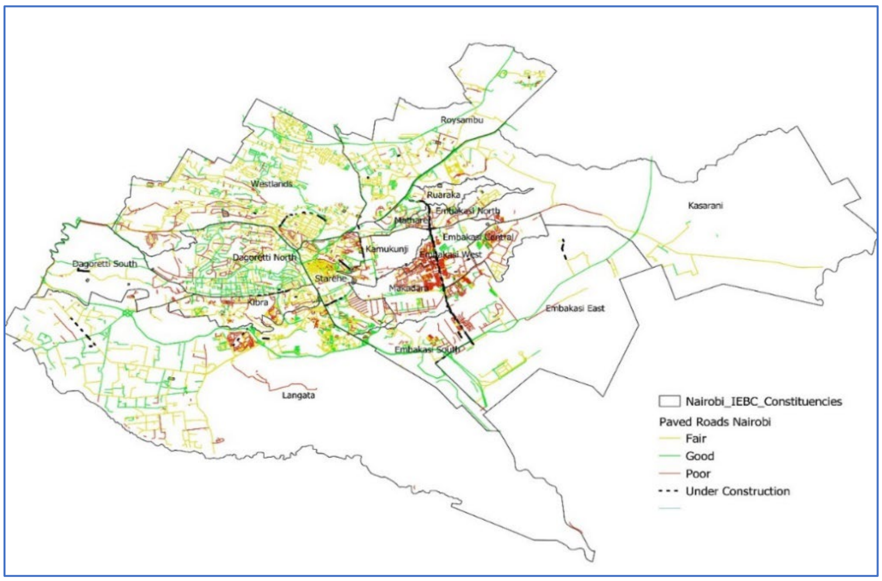
Source: Nairobi County Annual Development Plan 2021/22

[2] This is intended to harmonize some of the provisions of the policy document with what has been provided in the Nairobi Integrated Urban Development Master Plan (NIUPLAN) (2014-2030).

3.2.2 Transport infrastructure in Nairobi

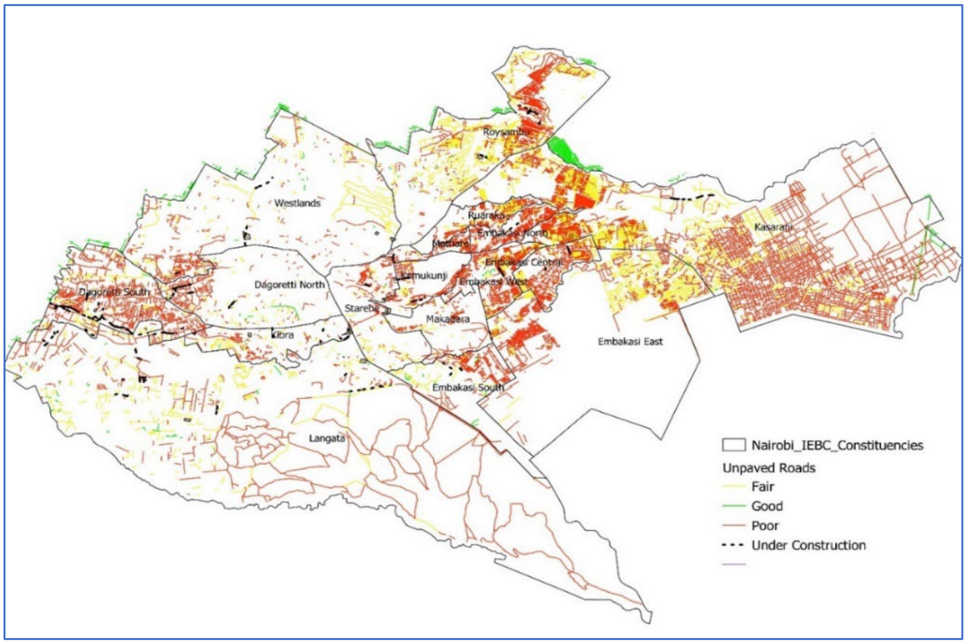
According to the Kenya Roads Board's Road Inventory and Condition Survey 2019, Nairobi City County has a total of 4,731 km of classified road network. Approximately 30.8 percent of the paved road network is in good condition, 43.8 percent is in fair condition, and 22.5 percent is in poor condition. While 0.8 percent of the unpaved road network is in good condition, 26.5 percent is in fair condition and 70.1 percent is in poor condition (Figure 3-3). It is worth noting that most of the county's paved roads are located within the city, especially in the high-end residential and commercial areas, while the informal settlements mainly have roads that are in poor condition. Most paved and unpaved roads in the central part of Nairobi are in good or fair condition. There is a greater concentration of poor unpaved roads as you move east and at the far west of Nairobi, in Dagoretti South, where there are mainly informal settlements. Link roads in the city whose wayleaves were occupied by illegal buildings are among those being constructed.

Figure 3-3 Condition of paved roads in Nairobi City County



Source: Kenya Roads Board -Road Inventory and Condition Survey (2019)

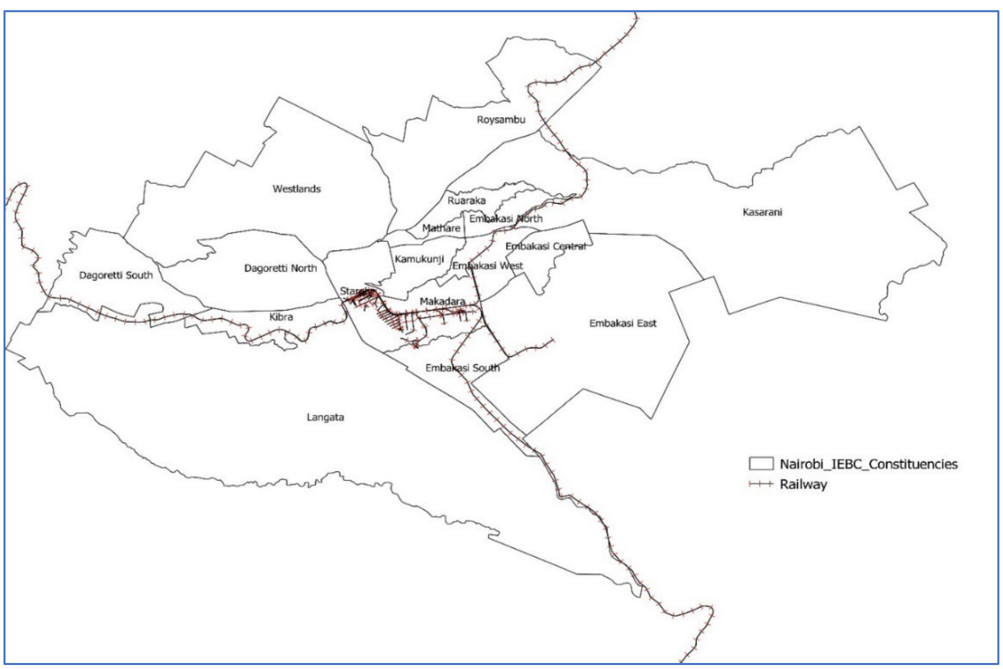
Figure 3-4 Condition of unpaved roads in Nairobi City County)



Source: Kenya Roads Board -Road Inventory and Condition Survey (2019)

Nairobi City County is also served by rail commuter services as depicted in Figure 3-5. The railway network in the city covers 298 km and includes 10 functional railway stations.

Figure 3-5 Rail network in Nairobi City County

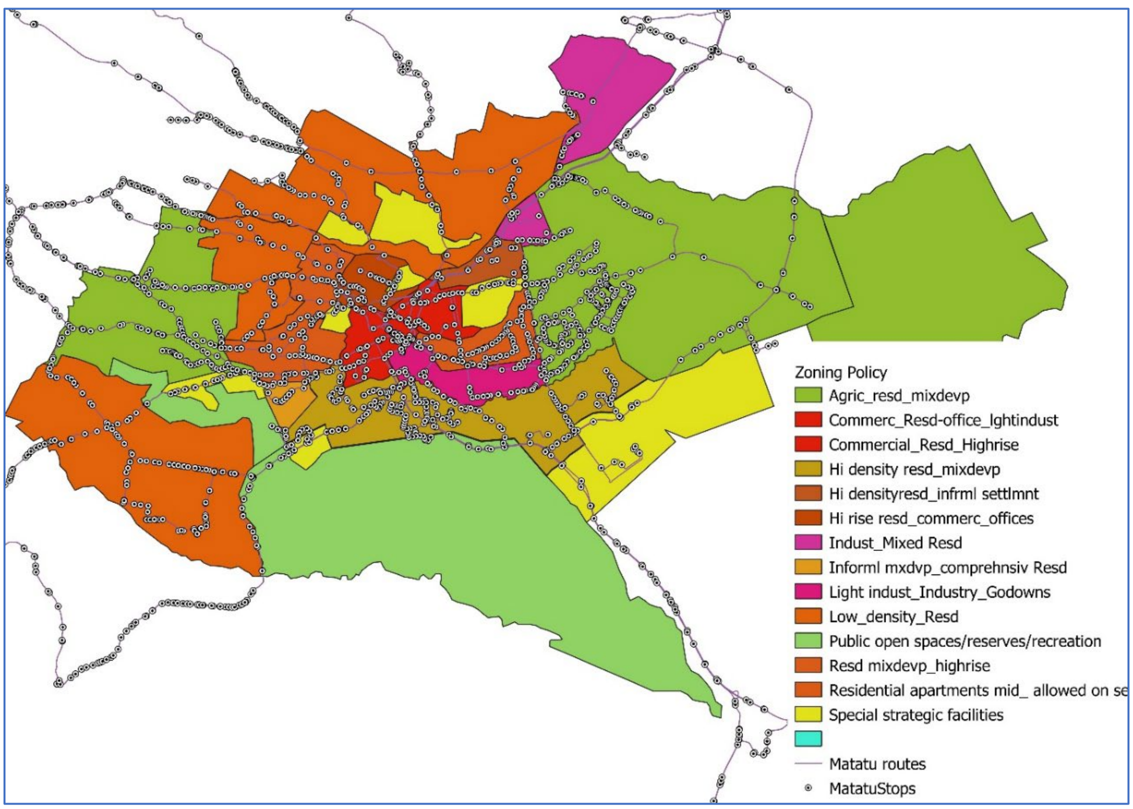


Source: Japan International Cooperation Agency (JICA) 2013

The rail network in Nairobi City County is unevenly distributed and covers only a few sub-counties and wards when compared to the other modes of transport like road. Therefore, the low volume of commuter rail passengers registered in the past years is attributable to low connectivity and accessibility of the rail network.

The main means of transport in Nairobi City County are mini-bus public service vehicles (PSVs), popularly known as *matatus,* at 58.7 percent, followed by walking at 17.1 percent, private cars at 9.7 percent, motorbikes at 3.9 percent, and buses at 3.7 percent. There is varying locational access to jobs for people living in various areas that has led to spatial inequality as discussed by Babijes (2016). It is observed that while nonmotorized modes of transport and PSVs are the predominant modes of transport, private car users have better access to employment opportunities. Using the overall average travel time per trip in Nairobi of 47 minutes, car users could access 58 percent of employment opportunities.

Figure 3-6 Public service routes and stops by zone in Nairobi City County



Source: Japan International Cooperation Agency (JICA) 2013

The matatu stops and routes are multiple, more far reaching, and accessible compared to rail. This makes matatus the more convenient mode of transport for most Nairobi residents. More stops are concentrated in the central part of Nairobi, a sign of the fact that travel destinations are concentrated here as well. These destinations may include schools, work, home, social, shopping, businesses, or others (JICA 2013).

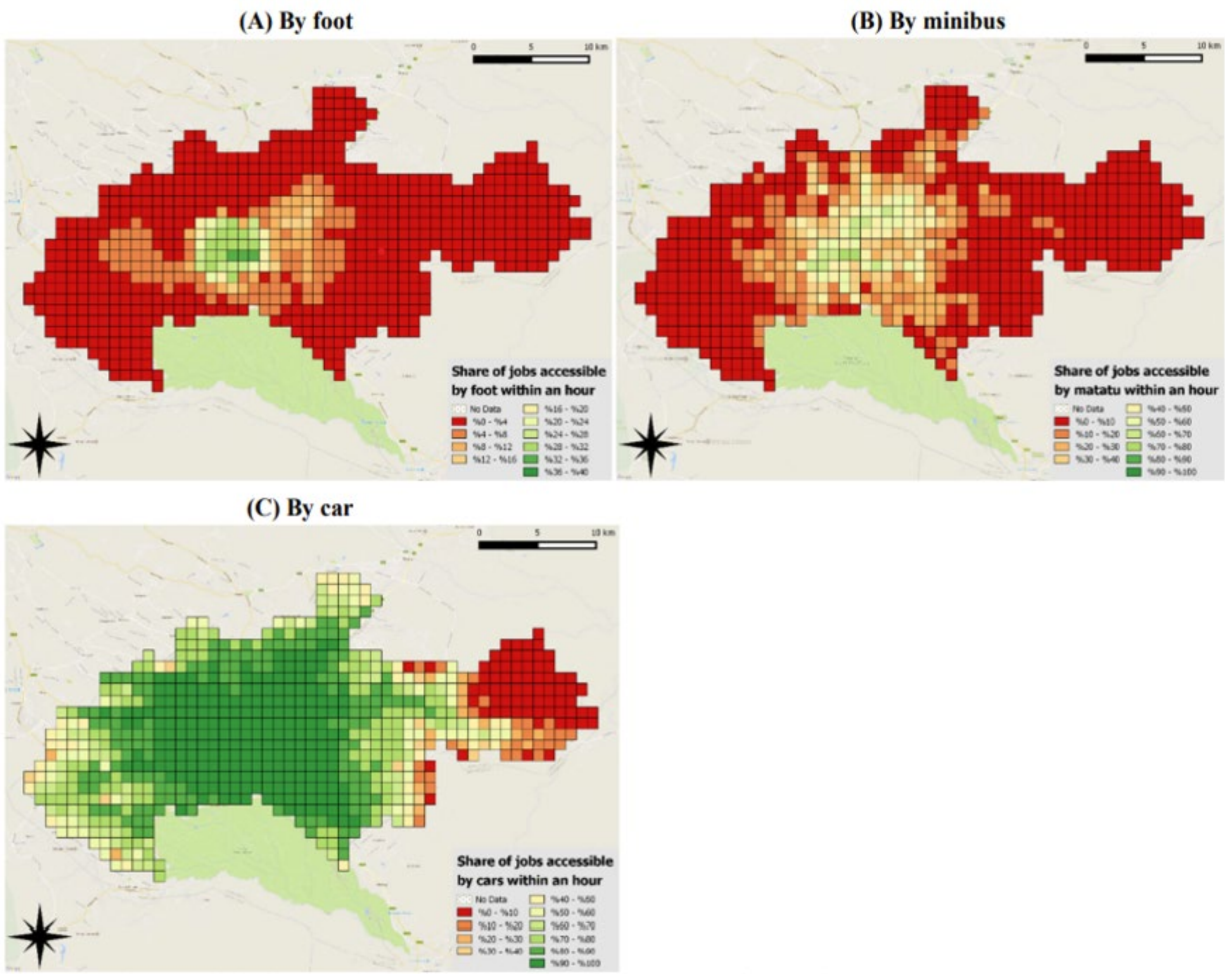
Table 3-3 Commuter train passenger volumes

Routes (000)	**2017**	**2018**	**2019***
Nairobi-Kahawa	657	690	724
Nairobi-Syokimau	833	874	918
Nairoib-Ruiru	1,136	1,192	1,252
Nairobi-Kikuyu	393	413	433
Nairobi-Embakasi	1,061	1,115	1,170
Nairobi-Dandora	236	247	260
Total passengers (000)	**4,315**	**4,531**	**4,758**

**Data collected is not for the full year*
Source: Kenya Railways annual reports (2017-2019)

Most jobs cannot be accessed by foot or minibus within an hour. Between 36 percent to 40 percent of the jobs accessible by foot are centrally located. Majority of jobs that can be accessed by minibus within an hour are located in the central part of Nairobi. However, the trend is different for job accessibility by car—70 percent to 100 percent of jobs are accessible by car in most parts of Nairobi, with lower shares in the east. This coincides with the distribution of paved and unpaved roads in Nairobi. In the far western part of Nairobi, where there are mostly poor unpaved roads, a lower number of jobs can be accessed by car, foot, or minibus.

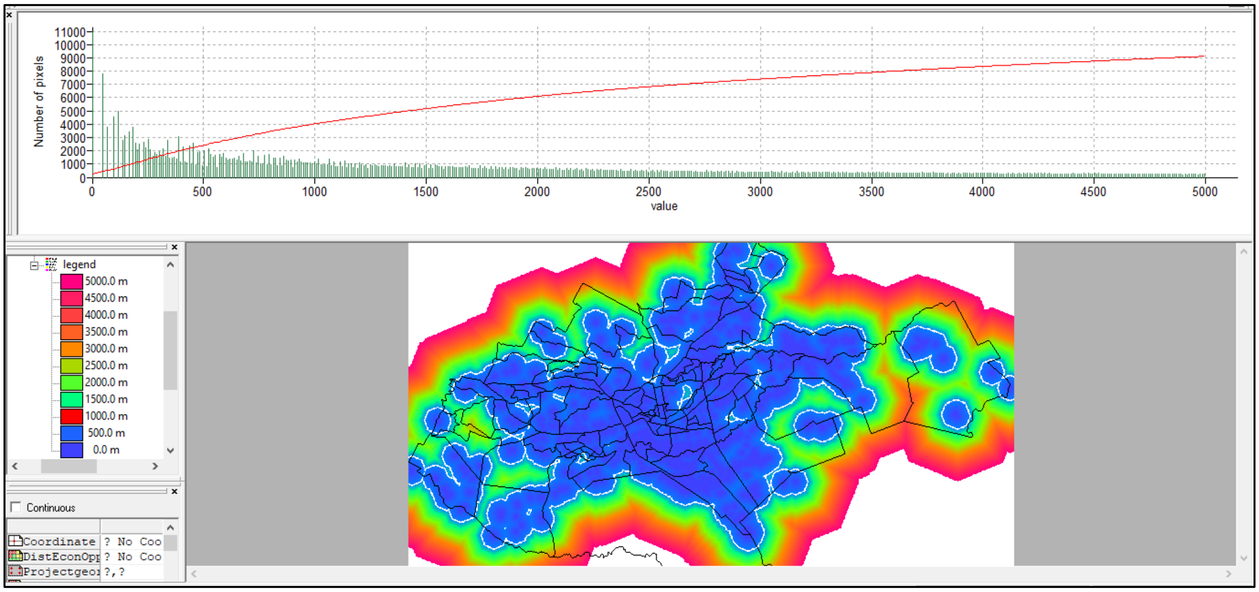
Figure 3-7 Share of accessible jobs within 60 minutes by mobility mode in Nairobi City County



Source: World Bank 2018

Areas with closer proximity to jobs and economic opportunities were captured in Figure 3-8 as areas within the city near commercial and industrial land uses. The proximity map shows that there are more pixels (spatial area covered) within 2 km of jobs/economic opportunity zones. There is spatial differentiation in locational access to jobs indicating spatial inequality. However, the map does not consider road network routes or residents' mode of transport choice or options due to data limitations.

Figure 3-8 Proximity to jobs and economic opportunities in Nairobi City County

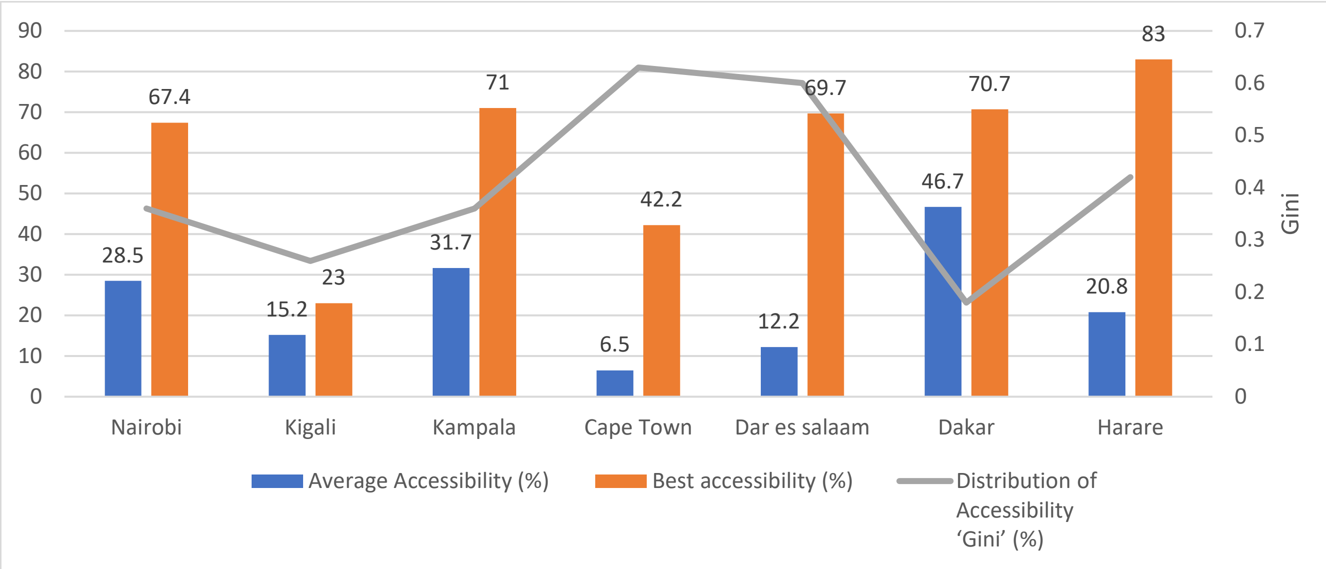


Source: Authors' calculation using GIS software.

According to a World Bank study by Tatiana, Tamara and Pablo (2019) on accessibility to employment opportunities in some African countries, the average accessibility in Nairobi is lower (28.5 percent) compared to other cities like Kampala (31.7 percent) and in Dakar that had the highest in the srudy (46.7 percent). Harare had best access level at 83 percent followed by Kampala at 71 percent. For Nairobi, this number was 67.4 percent. Average accessibility refers to the percentage of estimated employment opportunities accessible to an average person within an hour, while best access level (accessibility) is the highest percentage of jobs accessible from the single best-positioned location. The percentage of jobs accessible to each population percentage group is the distribution of accessibility, also called the Gini coefficient.

The Gini coefficients ranging from 0.36 to 0.42 are marked by relative linearity in terms of access distribution amongst the population and show substantial differentiation only at the higher levels of access, affecting relatively small proportions of the population.

Figure 3-9 Accessibility metrics for Nairobi and comparators



Source: World Bank -Tatiana, Tamara and Pablo (2019)

Table 3-4 Accessibility metrics for Nairobi based on World Bank 2019 study

City	Average accessibility	Best access level	Distribution of accessibility Gini
Nairobi	28.5%	67.4%	0.36

Source: World Bank- Tatiana, Tamara and Pablo (2019)

The distribution of access shows the percentage of jobs accessible by each percentage of the population (Table 3-5). The results show cumulative accessibility, which is the percentage of jobs accessible by each percentage of the population, at 5 percent intervals. In Nairobi, 51 percent of the population has access to at least 30 percent of the job opportunities and 0 percent of the population has access to more than 65 percent of the job opportunities.

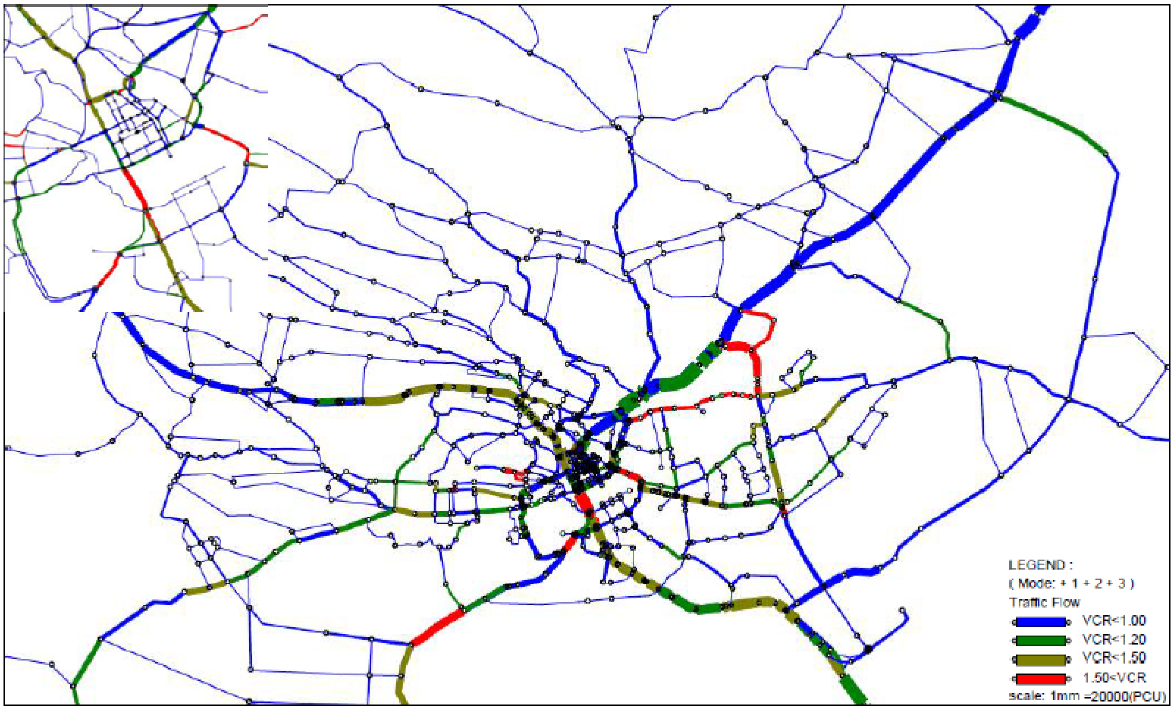
Table 3-5 Percentage of the population with access to x% of opportunities in Nairobi

Percentage of jobs accessible by each percentage of the population, at 5% intervals	Percentage of the population (cells) with access to x% of jobs (rows) in each urban area
	Nairobi
>0%	100%
>5%	85%
>10%	78%
>15%	71%
>20%	64%
>25%	58%
>30%	51%
>35%	43%
>40%	35%
>45%	22%
>50%	11%
>55%	4%
>60%	1%
>65%	0%
>70%	0%
>75%	0%
>80%	0%
>85%	0%
>90%	0%
>95%	0%
100%	0%

Source: World Bank 2019

Traffic congestion affects accessibility by causing variability in travel speed and times. According JICA (2013), the average travel speed in Nairobi was 40 km/hr. Figure 3-10 shows traffic congestion on the road network and measures the volume of traffic to capacity of the road network ratio (volume-to-capacity ratio; VCR). The average VCR for the road network in Nairobi was 0.69.

Figure 3-10 Traffic volume-to-capacity ratio for Nairobi (2013)

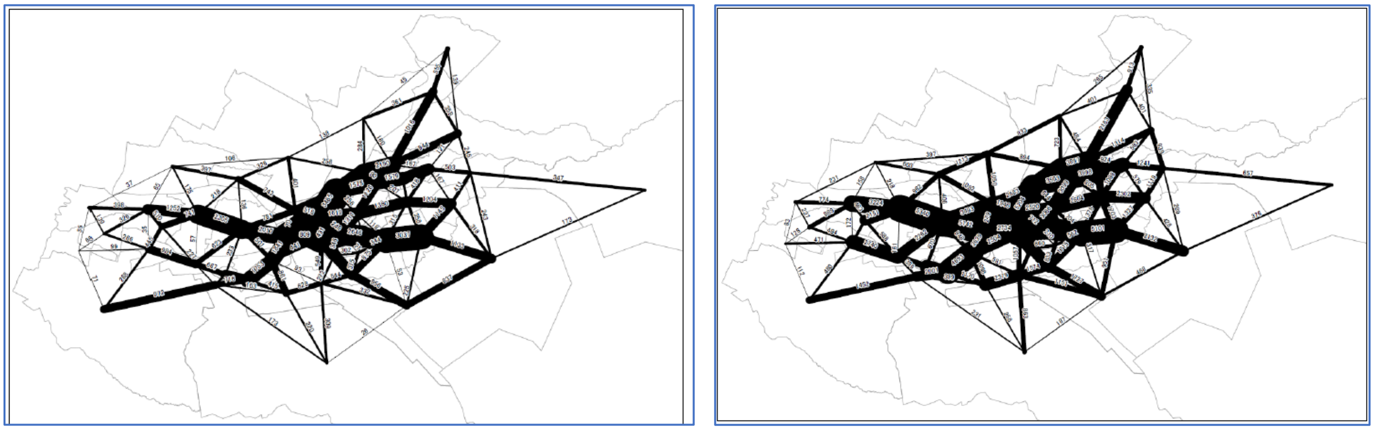


Source: JICA 2013

As exhibited by the darker lines in Figure 3-11, a majority of the flows (spatial interaction) in 2013 were toward the central and northwestern areas of Nairobi. The lines represent trip direction and distribution with the trips into the city center being more in 2013 and forecasted to increase by 2030. These lines also show the city transport network and its compact nature, especially at the city center as seen in figure 3-6. Metropolitan areas outside Nairobi's core depicted low levels of flows with lesser concentrations of trips in 2013 and 2030. This can be explained by the monocentric nature of development in Nairobi where most activities are concentrated in the central areas of the city. The number of lines and concentration outside the city center have been forecasted to increase by 2030. This can be interpreted to symbolize potential growth and spread of economic activities, employment opportunities, and development in these areas.

Figure 3-11 Trip distribution and total trips (desire lines) in Nairobi

a) 2013 b) 2030 forecast



Source: JICA 2013

Table 3-6 Travel demand framework (2013 base, 2030 forecast)

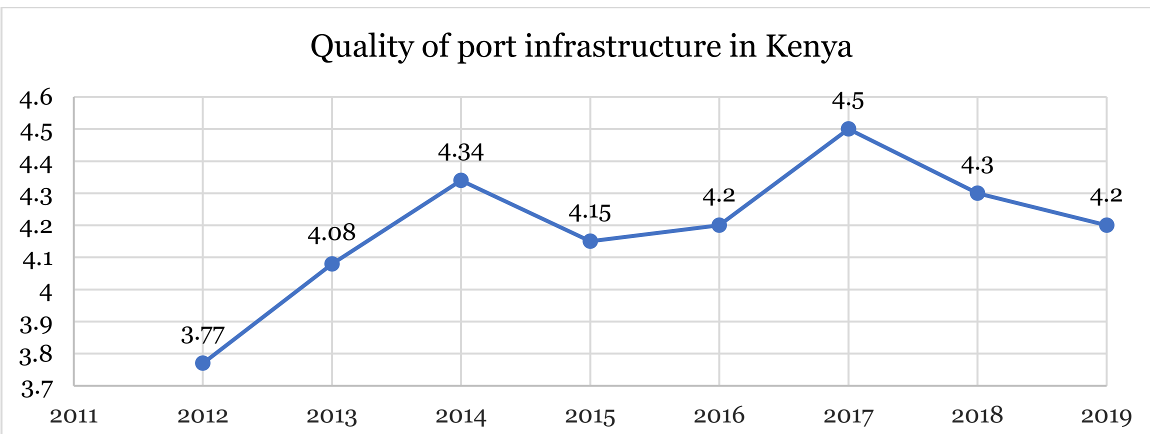
		2013	2018	2023	2030	Remark
a	GRDP per Capita (Nairobi) (at 2011 constant Price: KSh)	240,005 (1.000)	294,637 (1.228)	365,247 (1.522)	500,200 (2.084)	
b	GRDP per Household (Nairobi) (at 2011 constant Price: KSh)	748,816 (1.000)	901,589 (1.204)	1,092,089 (1.458)	1,445,578 (1.930)	
c	Household Size: (Person per Household)	3.12	3.06	2.99	2.89	
d	Population: (Person)	3,601,351	4,174,952	4,677,671	5,212,500	
e	Number of Household	1,154,279	1,364,364	1,564,439	1,803,633	
f	Average Household Income: (KSh)	36,540	44,000	53,300	70,500	
g	Car Ownership Rate per Household	29.9%	32.8%	41.3%	58.6%	$y = 3.286E\text{-}11x^2 + 5.998E\text{-}06x$
h	Number of Private Car	345,685	447,500	646,100	1,056,900	
i	Population Age 5 & Above: (Person)	3,141,928	3,642,920	4,082,148	4,549,696	
j	Student at Residence Base: (Person)	953,813	1,190,009	1,427,494	1,737,357	
k	Worker at Residence Base: (Person)	1,647,869	1,950,933	2,230,666	2,554,768	
l	Student at Enrolment Base: (Person)	953,813	1,190,009	1,427,494	1,737,357	= j
m	Worker at Work Place Base: (Person)	1,812,869	2,146,279	2,454,021	2,810,575	
n	Un-employee: (Person)	540,245	501,978	423,987	257,571	= i - j - k

Source: JICA 2013

3.2.3 Intercity and international accessibility

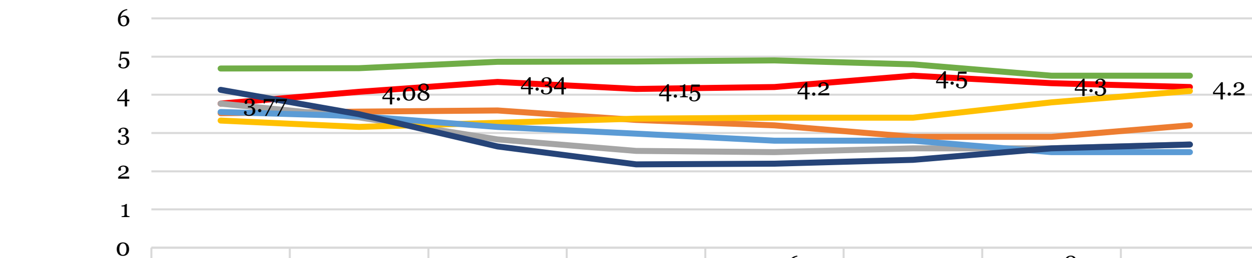
According to the Global Competitiveness Index, Kenya has shown an improving trend in the quality of infrastructure from 3.77 points in 2012 and 4.2 points in 2019; a maximum of 4.5 points was recorded in 2017. For comparison, the world average in 2019 based on 139 countries stood at 4.03 points. The quality of Kenya's port infrastructure is above the world average and contributes to the transport pillar of the overall global competitive index. The value score ranges from one to seven, with one being extremely poor quality, among the worst in the world, to seven, which is extremely good and among the best in the world. This score is based of respondents' answers to the question of rating the country's port facilities from one (underdeveloped) to seven (extensive and efficient by international standards). For landlocked countries, the respondents are asked to rate access to port facilities and inland waterways on a scale from one (impossible) to seven (easy). Nairobi City County does not host any port but plays a key role as a transit point and dry port for goods transported from the Port of Mombasa. The dry port is linked by rail with the Port of Mombasa and brings port services closer to customers in the hinterland through a special rail terminal service. Some of the benefits of the dry port include reduced inland transport costs for shippers, enhanced dispatch of import and off take of exports, improved security of cargo, and decongestion of the Port of Mombasa.

Figure 3-12 Quality of port infrastructure in Kenya



Source: World Economic Forum 2019

Figure 3-13 Quality of port infrastructure with comparators

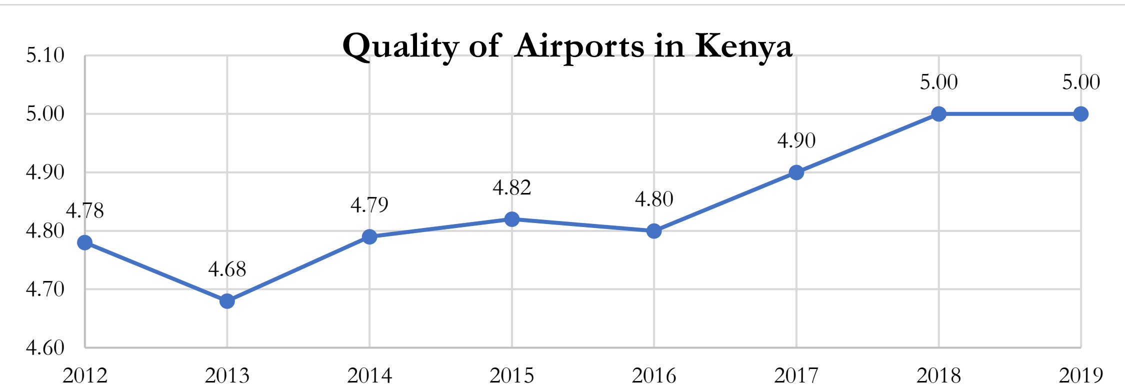


	2012	2013	2014	2015	2016	2017	2018	2019
Kenya	3.77	4.08	4.34	4.15	4.2	4.5	4.3	4.2
Rwanda	3.52	3.56	3.59	3.34	3.2	2.9	2.9	3.2
Uganda	3.77	3.41	2.83	2.53	2.5	2.6	2.6	2.7
Tanzania	3.33	3.16	3.27	3.38	3.4	3.4	3.8	4.1
Nigeria	3.55	3.44	3.16	2.98	2.8	2.8	2.5	2.5
South Africa	4.69	4.7	4.86	4.87	4.9	4.8	4.5	4.5
Zambia	4.13	3.49	2.65	2.18	2.2	2.3	2.6	2.7

Source: World Economic Forum 2019

Nairobi City County hosts the Jomo Kenyatta International Airport, which is the largest international airport in Kenya, and Wilson Airport. According to the Global Competitiveness Index, the quality of airport average value for Kenya registered an improving trend from 4.78 points in 2012 to 5.00 in 2019 with a minimum of 5.00 points in both 2018 and 2019. For comparison, the world average stood at 4.55 points in 2019 based on 141 countries. These scores range between one and seven, with one being extremely poor quality and seven being extremely good quality.

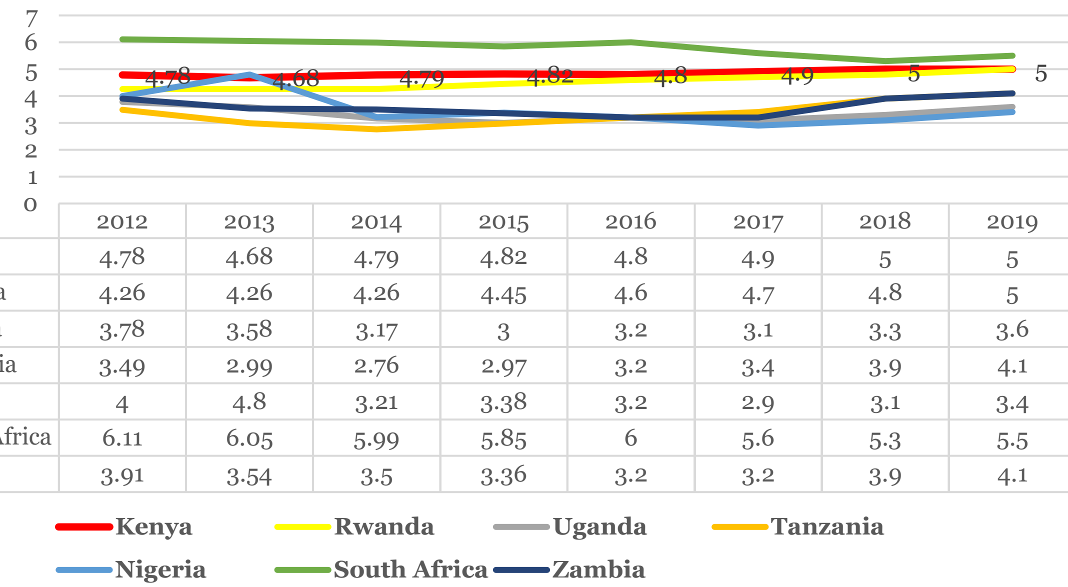
Figure 3-14 Quality of air transport infrastructure in Kenya



Source: World Economic Forum 2019

Note: The quality of air transport infrastructure represents an assessment of the quality of airports in a given country based on data from the World Economic Forum's Executive Opinion Survey, a long-running and extensive survey tapping the opinions of more than 14,000 business leaders in 144 countries. The score for the quality of air transport infrastructure is based on only one question. The respondents are asked to rate the passenger air transport in their country of operation on a scale from one (underdeveloped) to seven (extensive and efficient by international standards). The individual responses are aggregated to produce a country score.

Figure 3-15 Quality of transport logistics and infrastructure with comparators

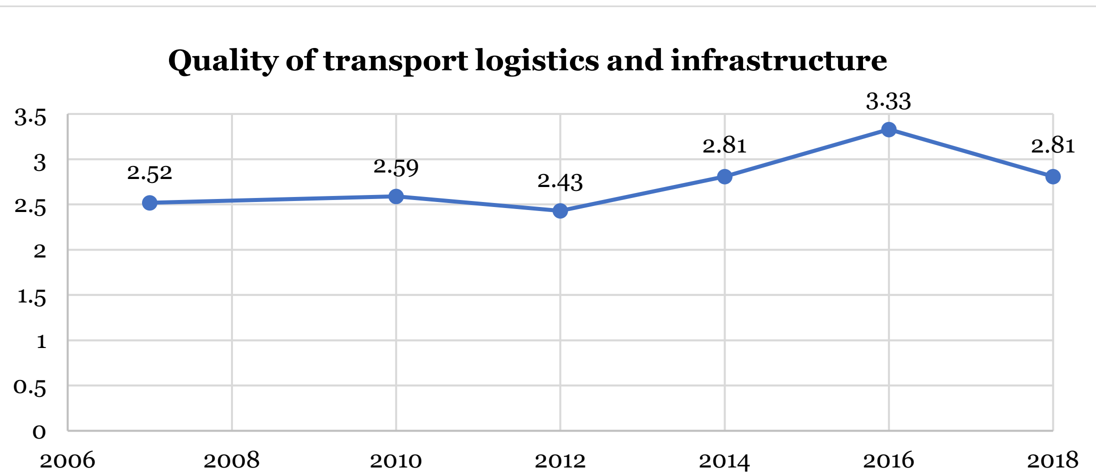


	2012	2013	2014	2015	2016	2017	2018	2019
Kenya	4.78	4.68	4.79	4.82	4.8	4.9	5	5
Rwanda	4.26	4.26	4.26	4.45	4.6	4.7	4.8	5
Uganda	3.78	3.58	3.17	3	3.2	3.1	3.3	3.6
Tanzania	3.49	2.99	2.76	2.97	3.2	3.4	3.9	4.1
Nigeria	4	4.8	3.21	3.38	3.2	2.9	3.1	3.4
South Africa	6.11	6.05	5.99	5.85	6	5.6	5.3	5.5
Zambia	3.91	3.54	3.5	3.36	3.2	3.2	3.9	4.1

Source: World Economic Forum 2019

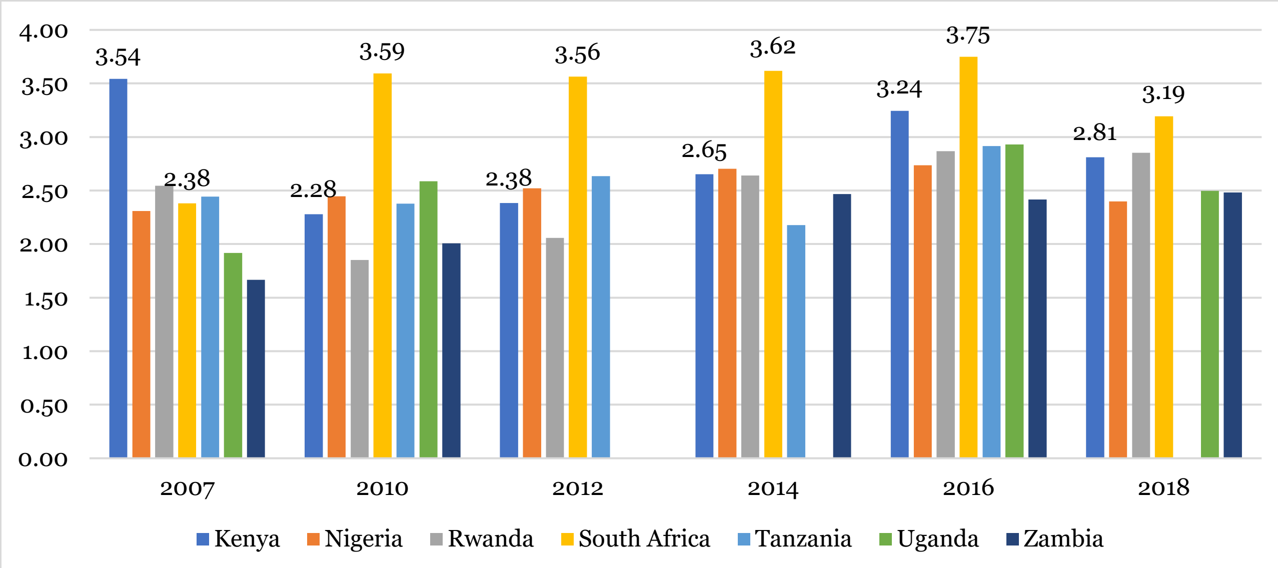
According to the World Bank's Logistics Performance Index,(2018), Kenya's quality of transport logistics and infrastructure registered an increasing trend from 2.52 points in 2006 to 2.81 points in 2019. However, a slight drop of 0.52 was recorded in 2018.

Figure 3-16 Quality of transport logistics and infrastructure in Kenya



Source: Logistics Performance Index- World Bank (2018)

Figure 3-17 Quality of Kenya's transport logistics and infrastructure with comparators



Source: Logistics Performance Index- World Bank(2018)

3.2.4 Access to open spaces

Public space has emerged as a critical lifeline for cities and their residents. It has proven to be a timeless risk-reducing infrastructure, an essential urban service, and an infrastructure of opportunity especially in times of crisis, including during the COVID-19 pandemic. Nairobi has experienced major developments in public spaces in the recent past. For instance, the Nairobi River Life project is a joint flagship initiative of the Kenyan government and UN-Habitat aimed at reclaiming the Nairobi River as a shared public good that supports better urban and environmental performance for a better quality of life in the city. This section highlights the gaps in the distribution, accessibility, and quality of public open spaces in Nairobi, and provides a starting point for developing an evidence-based strategy and policy for the protection, revitalization, creation, management, and enjoyment of public spaces, and restoration of the city.

3.2.4.1 Public open spaces per typology

The typologies of public open space include urban forests, cemeteries, parks and gardens, squares and courtyards, and road reserves among others. However, Nairobi's Public Open Space ecosystem is dominated by potential public open spaces, such as derelict land; infrastructure rights of way, such as electricity wayleaves; railway reserves; and riparian reserves. Other typologies of public spaces in the city include amenity green spaces, public parking lots, street corners, and other non-defined spaces which include disused quarries.

Table 3-7 Public open spaces per typology in Nairobi

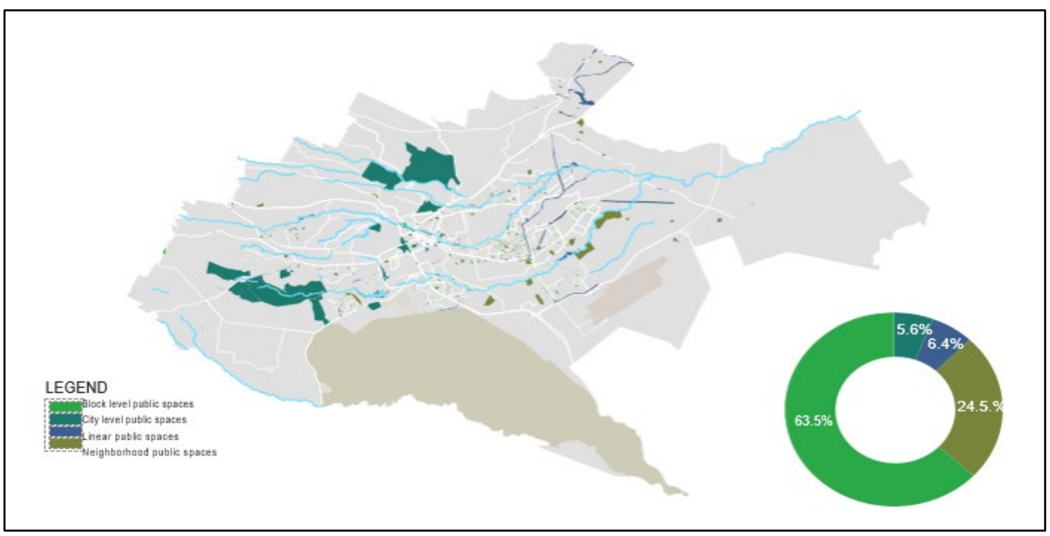
#	Typology	Number	*Area (ha)*
1.	Urban forests	2	***1,930.3***
2.	Nature reserves	2	*94.1*
3.	Parks and gardens	34	*129.6*
4.	Playgrounds	99	*90*
5.	Cemeteries	6	*10.2*
6.	Squares	14	*11.6*
7.	Sports fields	51	*65.5*
8.	Courtyards	413	*56.6*
9.	Infrastructure ROW	5	***319.6***
10.	Others	206	*398.9*
#	***Total***		***3,106.6***

Source: UN-Habitat 2021

Classification of public spaces by scale indicates Nairobi has 526 block-level public spaces. The majority of these are courtyards, playgrounds, and gardens. There are 203 neighborhood-level public spaces in the city like include neighbourhood squares gardens, neighbourhood parks and sports fields. These include neighborhood squares, gardens, parks, and sports fields.

Nairobi also has 46 city-level public spaces. These include the large and strategic public spaces around the city. On the other hand, the city has 53 linear spaces like infrastructure rights-of-way, electricity wayleave, railway reserve, and road reserves that can be potential public spaces.

Figure 3-18 Classification of public spaces in Nairobi by scale



Source: UN-Habitat 2020

3.2.4.2 Distribution of public spaces in Nairobi City County

The distribution of public open spaces in Nairobi City reinforces the social and economic inequalities regarding access. Equitable distribution of public spaces across the city is an important element for creating a cohesive city, balancing growth, and revitalizing impoverished communities and inner-city neighborhoods.

Overall, the public spaces in Nairobi City County occupy a combined area of 3,106.4 ha. This is equivalent to 5.32 percent of the built-up area and translates to 6.56 square meters per capita public open space.

Evidence shows that successful cities have at minimum 15 percent to 20 percent of urban land allocated to public open spaces. There is a clear need for Nairobi to work toward improving the amount of its urban land that is designated, used, and experienced as public space. This is particularly important to future-proof the city from stress and such shocks as climate and health disaster risks.

Figure 3-19 Disparities in the distribution of public spaces in Nairobi City County

Source: UN-Habitat 2020

3.3 Conclusion

The mismatch between zoning and land use in Nairobi City County has contributed to a shortage of land, especially for public infrastructure, resulting in a delay in projects and demolition of buildings and structures erected on wayleaves.

Land use trends in Nairobi have changed over the years with a growing preference for residential and commercial developments. Therefore, planning that is cognizant of population growth and other emerging issues is essential to ensure balanced development.

Nairobi CBD is connected with road networks that are in good condition compared to the periphery, which is characterized by fair to poor roads, indicative of the existing constraints in connecting the city to the suburbs.

A lack of planning, inappropriate land use regulations, unclear land rights, conflicts between informal and formal markets, and legacy issues all can contribute to informal fragmentation of land which is disconnected from trunk infrastructure and basic services.

The rail network in Nairobi City County is unevenly distributed and covers only a few sub-counties and wards when compared to the other modes of transport like roads. In addition, the low volume of commuter rail passengers registered in the past 4 years is attributable to the lack of uniform connectivity and accessibility of the rail network.

Most jobs are not accessible within an hour by foot or minibus. Most of those that are accessible by minibus within an hour are in the central part of Nairobi. Seventy percent to 100 percent of jobs in most parts of Nairobi are accessible by car, with lower shares in the eastern side of Nairobi.

There is a higher concentration of trips in the city center compared to other parts of the city. This can be attributed to the high concentration of jobs and the transport network in the city center.

There is varying accessibility to jobs in different locations across the city, bringing about spatial inequality. However, the coverage map does not consider road network routes or residents' transport modal choice or options.

The average accessibility across other cities in sub-Saharan Africa is higher in Dakar (46.7 percent) and Kampala at (31.7 percent), ahead of Nairobi (28.5 percent). For best accessibility, Harare stood at 83 percent followed by Kampala at 71 percent. For Nairobi, this number was 67.4 percent.

In Nairobi, 51 percent of the population has access to at least 30 percent of the job opportunities and 0 percent of the population has access to more than 65 percent of the job opportunities.

Traffic congestion affects accessibility by causing variability in travel speed and times. The average travel speed was 40 km/hr. The average VCR, a measure of traffic congestion, for the road network in Nairobi was 0.69.

The majority of the flows (spatial interaction) are toward the central and northwestern areas of Nairobi's core. Metropolitan areas outside the core have low levels of flows. This can be explained by the monocentric nature of development in Nairobi where most activities are concentrated in the central areas of the city.

Nairobi City County is connected internationally via air, road, and rail transport and logistics networks and have shown a trend of improving competitiveness over the past years.

3.4 Policy recommendations

In the face of the increasing scarcity of land for infrastructure development caused by the lack of compliance with physical and land development, the Nairobi City County and national governments should expedite the updating of the land register land appraisal system and resolve pending land conflicts.

A high concentration of poor unpaved roads in high-density informal settlements makes it hard for residents to access jobs and services. The high concentration of trips in the city center caused by the concertation of transport networks and job opportunities there contributes to creating traffic jams that have negative economic impacts. The county and national governments should, therefore, step in and improve the quality of roads in the informal areas and expand the road network in the outer parts of Nairobi to improve access.

The county needs to embed public space in Nairobi's urban planning and further allocate resources for the creation of new public spaces as well as protection, management, and maintenance of existing spaces. In addition, urban planning tools, such as land regeneration and urban renewal, must be used to create more public spaces.

There is a need to harmonize development with current user needs while still ensuring a sustainable development balance is attained in the short and long run. There is also a need to fast-track the review of "Nairobi City Council: A Guide of Nairobi City Development Ordinances and Zones" to harmonize development control with the prevailing city needs and priorities.

A land value index should also be developed to compensate the county for mandatory acquisition of land for government projects and investments and land value tax.

The county and national governments need to develop programs to improve connections between intermediate cities and their hinterlands, improve exchanges around economic blocs, improve connections with urban hinterlands, and strengthen the agglomeration of economies.

4 Review of business environment and constraints in Nairobi City County

4.1 Introduction

This chapter examines the business environment in Nairobi City County. Out of the 47 counties in Kenya, Nairobi City County has the most conducive business environment (Musamali et al., 2019). Analysis uses data obtained from the Kenya Institute for Public Policy Research and Analysis' (KIPPRA's) 2019 survey on County Business Environment for Micro and Small Enterprises, the Kenya National Bureau of Statistics' (KNBS's) 2016 Micro, Small, and Medium Enterprise (MSME) Survey, the World Bank's 2018 Enterprise Survey, and National Crime Research Centre. The data captures pillars of the business environment in Nairobi—labor and human capital, the regulatory environment, and services and infrastructure. It is, however, limited in that it does not disaggregate the pillars across Nairobi's 11 sub-counties.

4.2 Labor and human capital

This section details levels of education attainment in Nairobi, firms identifying inadequately educated workforce as a major constraint, and return to education. Data on education comes from the MSME Survey, while data on inadequately educated workforce, return to education, and hours worked are obtained from the Word Bank's Enterprise Survey and the Kenya Integrated Household Budget Survey (KIHBS), respectively.

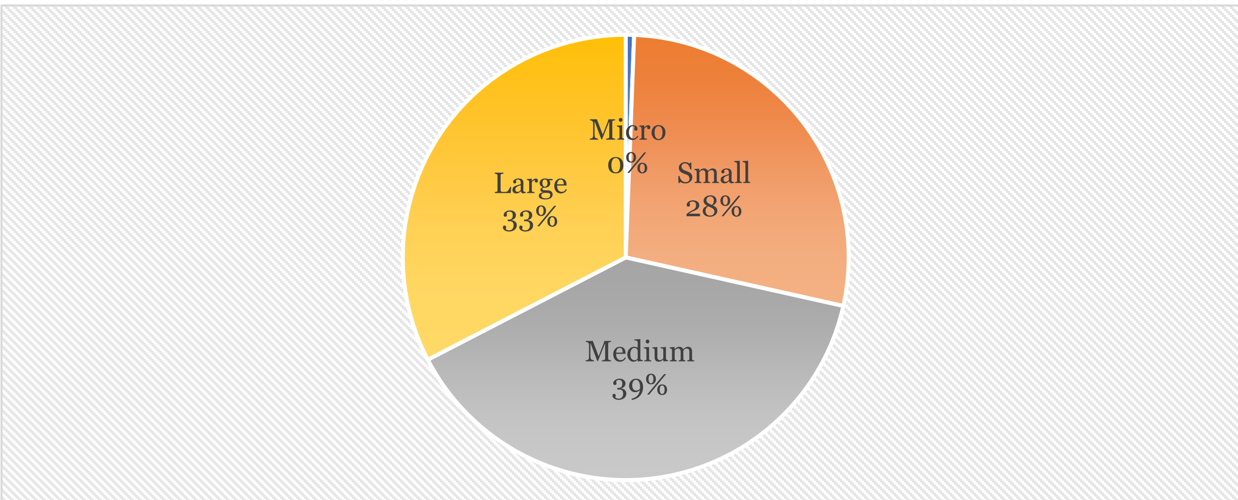
Our analysis reveals that majority of the business owners in Nairobi have a diploma (29.3 percent) followed by those with secondary level of education attainment (26.7 percent), bachelor's degree (23.1 percent), primary level of education (10.1 percent), and post-graduate (8.1 percent). Only 2.7 percent of business owners in Nairobi have not attended school.

Key Messages

- Enterprises in Nairobi are likely to transition from micro to medium and large enterprises if owners invest in post-secondary education, especially university education.
- Medium and larger enterprises in Nairobi engage in more specialized and complex economic activities which require a workforce with specialized skills.
- Basic income in Nairobi increases as workers transition from secondary to tertiary education—with incomes being highest among workers who have bachelor's and post-graduate degrees.
- Workers with a diploma and below work for relatively more hours per week but earn relatively lower in average basic monthly income. In contrast, workers with bachelor's and post-graduate degrees work for relatively fewer hours but earn a relatively higher average basic monthly income.

Analysis based on the 2016 MSMEs survey reveals that majority of owners of micro enterprises have secondary (32.4 percent) level of education attainment while majority of owners of small enterprises have diploma (31.2percent) level of education attainment. Further, majority of the owners of medium enterprises have a bachelor's degree (33.1 percent) while majority of the owners of larger enterprises either have bachelor's degree (49.4 percent) or a post-graduate degree (19.8 percent). The observation is that enterprises in Nairobi are likely to transition from micro to medium and large enterprises if the owners invest in post-secondary education— especially university education.

Figure 4-3 Inadequately educated workforce cited as an obstacle against enterprise size



Source: Kenya National Bureau of Statistics's 2016 Micro, Small, and Medium Enterprise (MSME) Survey[3]

The majority of the enterprises in Nairobi (56.9 percent) report an inadequately educated workforce to be an obstacle to operations. Further, the majority of the businesses in Nairobi that cite an inadequately educated workforce to be an obstacle to operations are either medium (38.9 percent) or large (32.6 percent) enterprises. Medium and larger enterprises engage in more specialized and complex economic activities which require an adequately skilled workforce with specialized skills. An inadequately educated workforce is, however, not an obstacle to operations of microenterprises partly because it engages in less specialized and complex economic activities.

According to the *Kenya Gazette* (Republic of Kenya 2019), the minimum monthly wage in Kenyan cities is Ksh 13,573. Yet, analysis based on the 2016 MSMEs survey indicates that workers in Nairobi without education earn an average of Ksh 11,159 per month in basic salary while those with primary education earn an average of Ksh 13,336 per month

[3] Available on https://statistics.knbs.or.ke/nada/index.php/catalog/69/get-microdata

in basic salary and those with secondary education earn an average of Ksh 19,432 per month in basic salary.

Workers who have attained a diploma earn an average of Ksh 29,865 per month, while

Figure 4-1 Basic monthly return to education

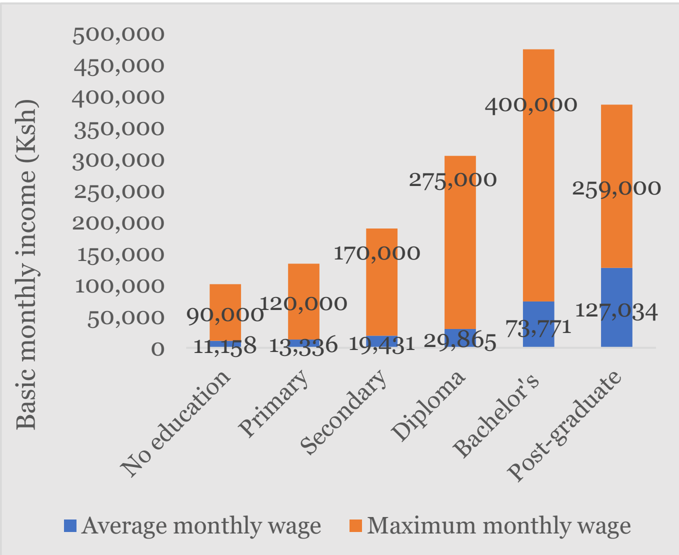
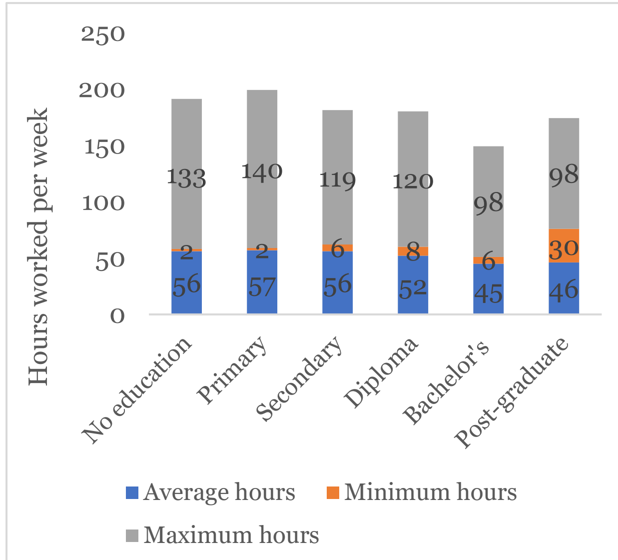


Figure 4-2 Hours worked per week



Source: Kenya National Bureau of Statistics's 2016 Micro, Small, and Medium Enterprise (MSME) Survey[4]

those with bachelor's and post-graduate degrees earn an average of Ksh 73,771 and Ksh 127,034 per month in basic salary, respectively.

Further, the normal work hours per week in Kenya range between 40 to 52 hours. Workers with no education work an average 56 hours per week in Nairobi City County, while those with primary and secondary education work an average of 58 and 56 hours per week, respectively. Those with a diploma work an average of 53 hours per week, while those with bachelor's and post-graduate degrees work an average of 46 and 47 hours per week, respectively. It is observed that workers with a diploma level of education and below work for relatively more hours per week but earn a relatively lower average basic monthly income, partly because the jobs they engage in attract less sophisticated skills. In contrast, workers with a bachelor's and post-graduate level of education work for relatively fewer hours but earn a relatively higher average basic monthly income. Estimations on return to investment on education reveal that earnings are highest among highly qualified workers (Ehrenberg & Smith, 2006).

[4] Available on https://statistics.knbs.or.ke/nada/index.php/catalog/69/get-microdata

4.3 Regulatory environment

This section presents the percentage of firms that identify labor regulations, time taken to start a business, number of procedures to start a business, and ease of paying taxes as major impediments to operations. The data is obtained from the World Bank Enterprise Survey and National Crime Research Centre.

Key Messages

- Main obstacles experienced by the majority of businesses in Nairobi include access to licenses, permits, and finance; land; rigid labor regulations; inefficiency in tax administration; transport; crime; theft; and disorder.
- The majority of these obstacles—crime; theft; disorder; tax administration; access to finance, business licenses, and permits; labor regulations; and transport—are experienced by medium enterprises (51 to 100 employees), but access to land is an obstacle among small enterprises (10 to 50 employees).
- The main types of crime experienced in Nairobi include muggings, burglaries and break-ins, possession of narcotic drugs, and robberies—their average prevalence in the city is higher than the national average.

It takes an average of 23 days to register and start a business in Nairobi. On average, there are seven procedures that should be completed to start a business. Further, businesses in Nairobi spend an average of 180 hours per year handling tax payment issues.

Table 4-1 Regulatory environment indicators

Regulatory environment indicator	Number
Average number of **days taken to register and start a business**	23
Average number of procedures completed to start a business	7
Average number of hours spent handling tax payment issues in a year	180

Source: Analysis based on data from Enterprise Survey (World Bank, 2018[5]

The majority of businesses in Nairobi (68.4 percent) report business licensing and permits to be an obstacle to operations. Most of the businesses reporting business licensing and permits to be an obstacle to operations are medium (39.6 percent) and small (35.8 percent) enterprises. Further, the majority of businesses (60.4 percent) perceive labor regulations to be an obstacle to operations. Most of these are medium (37.6 percent) and larger (31.2 percent) enterprises.

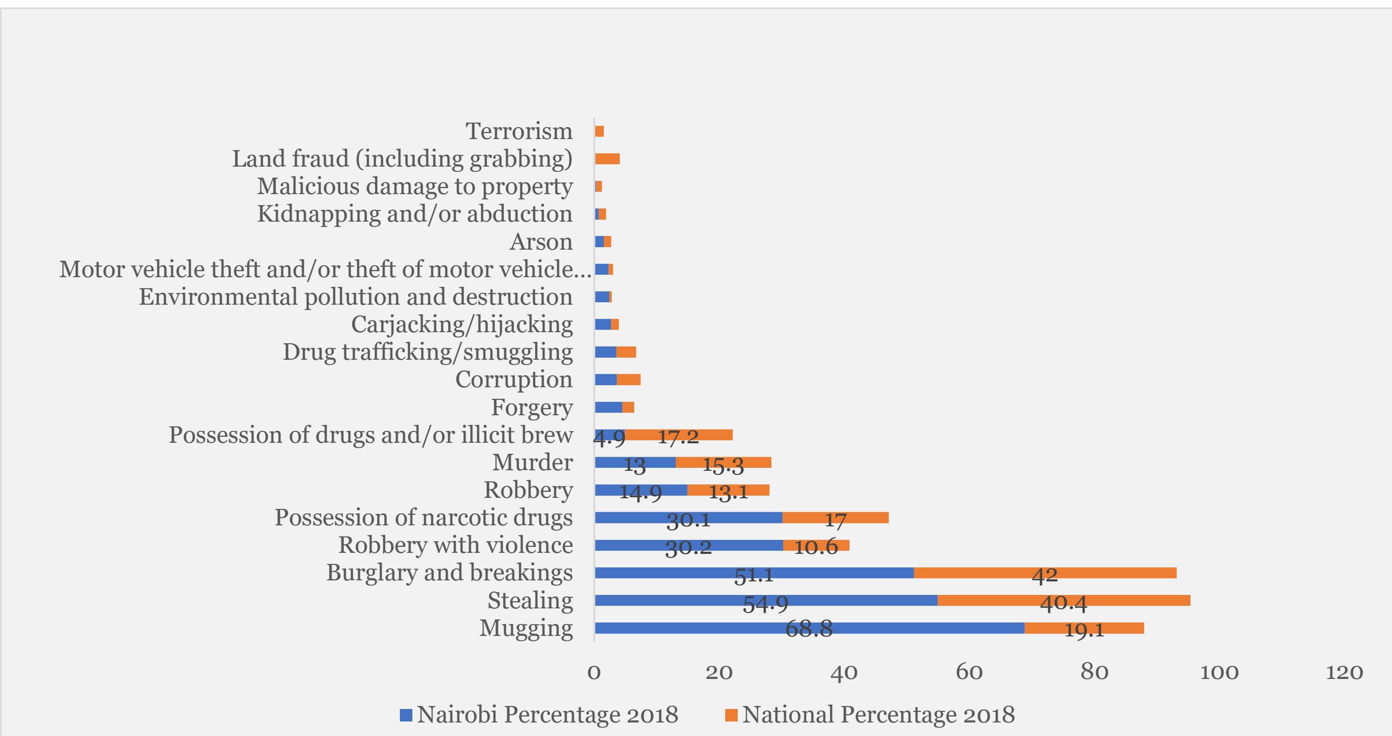
[5] Survey available on https://doi.org/10.48529/475c-n477

Analysis based on the 2018 Enterprise survey reveals that majority of businesses (74.7 percent) report tax administration to be an obstacle to operations. Returns on certain taxes like VAT are done on a monthly basis and there is little certainty in the tax regime. Most of the businesses that report tax administration to be an obstacle are medium (38.8 percent) and small (34.5 percent) enterprises. Most businesses (74.5 percent) also perceive access to finance as an obstacle to operations, with the majority being medium (37.3 percent) and small (35.7 percent) enterprises.

The survey further reveals that over half (62.9 percent) of the enterprises reported crime, theft, and disorder to be an obstacle to operations, with majority of them being medium (40.6 percent) and small (31.2 percent) enterprises. According to the National Crime Research Centre, the main types of crimes experienced in the city include muggings, burglaries and break-ins, possession of narcotic drugs, and robberies. The percentage prevalence of these crimes in Nairobi is higher than the national percentage.

Meanwhile, slightly less than half (45.7 percent) of businesses report access to land as an obstacle to operations with majority of them being small (40.5 percent) and medium (32.2 percent) enterprises. Furthermore, well over 2 in every 3 businesses (69.3 percent) report transport to be an obstacle, with 42.1 percent being medium enterprises and 31.2 percent small enterprises.

Figure 4-3 Main types of crime in Nairobi



Source: National Crime Research Centre

4.4 Services and infrastructure

This section analyzes access to electricity, internet and telephone services, power outages, value lost due to power outages, and reliability of connection in Nairobi. The section uses data from KIPPRA's survey on County Business Environment for Micro and Small Enterprises and the 2018 World Bank Enterprise Survey.

Key Messages

- On average, it takes 87 days for a business in Nairobi to secure an electricity connection with the duration being longest among small enterprises (325 days) and shortest among large (50 days) and medium (32 days) enterprises.
- On average, a firm in Nairobi spends Ksh 12.70 million per year on electricity with the expenditure being highest among larger enterprises (Ksh 42 million) and lowest among microenterprises (Ksh 0.08 million).
- The share of informal gifts offered to secure an electricity connection is highest among large enterprises, while the use of unreliable forms of electricity connection is most common among medium enterprises.
- Overall, enterprises in Nairobi obtain 29.1 percent of electrical energy from their own generators with medium enterprises leading in utilization of energy from generators.
- On average, a firm in Nairobi spends Ksh 1,622 on internet per month, with large firms spending an average of Ksh 31,083, while microenterprises spend as little as Ksh 339.
- Overall, 75.7 percent of enterprises in Nairobi use mobile money services with the majority utilizing the service to receive payments from customers (86.6 percent) and pay suppliers (33.8 percent).
- The use of mobile money to pay employees, suppliers, utility bills, to receive payments from suppliers, and to access loans in the county is highest among small enterprises.
- A firm in Nairobi loses an average of Ksh 2.3 million per year due to power outages with the loss among large firms being as high as Ksh 5 million.

Over 79.9 percent of businesses in Nairobi are connected to electricity (World Bank, 2018. On average, it takes 87 days for businesses to obtain an electricity connection once an application for a connection has been made. Particularly, microenterprises take an average of 60 days, small enterprises take an average of 325 days, medium enterprises take an average of 32 days, and large enterprises take an average of 50 days to receive an electricity connection. The huge differences across various sizes of the enterprises in terms of the amount of time from application to obtaining an electricity connection could be explained by bureaucratic inefficiencies from the government side and internal factors within individual enterprises. Analysis based on the 2018 Enterprise survey reveals that firms in Nairobi City County spend an average of Ksh 12.7 million per year on electricity. Microenterprises spend an average of Ksh 81,667 per year, small enterprises spend an average of Ksh 861,530 per year, medium enterprises spend an average of Ksh 4.1 million per year, and larger enterprises spend an average of Ksh 42 million per year on electricity.

Figure 4-5 Time taken to secure an electricity connection in Nairobi (days)

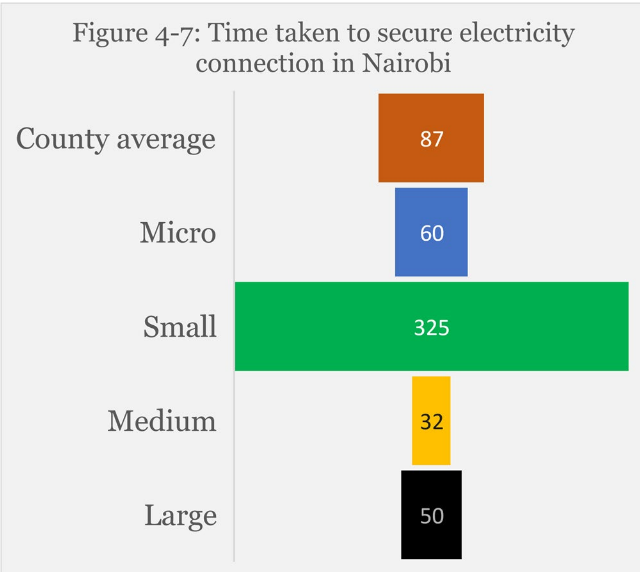
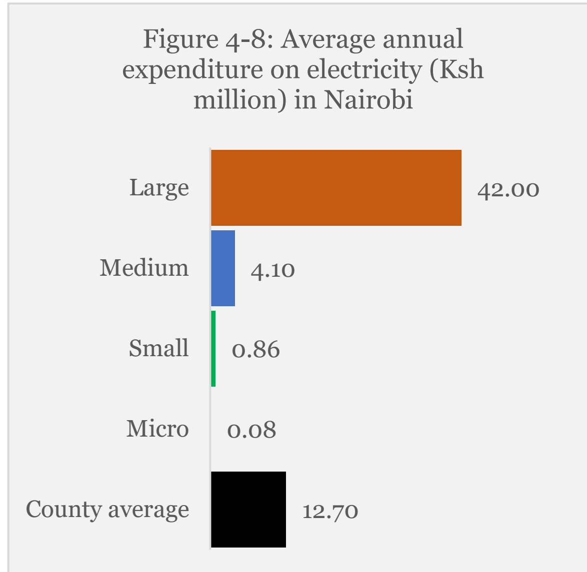


Figure 4-4 Average annual expenditure on electricity in Nairobi (Ksh million)



Source: World Bank's Enterprise Survey 2018[6]

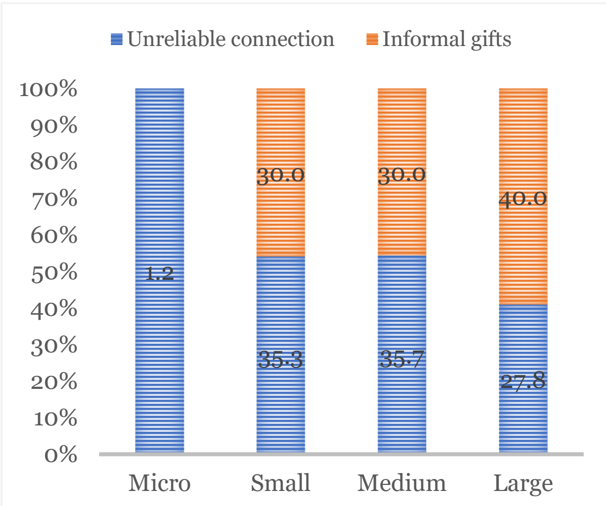
According to the 2018 Enterprise survey, majority of businesses in Nairobi (84.9 percent) report reliability of electricity connection to be an obstacle to operations with the majority of them being medium (35.7 percent) and small (35.3 percent) enterprises. Meanwhile, 24.4 percent of businesses report having given informal gifts to secure an electricity connection with the majority of those giving informal gifts being large enterprises (40 percent). Further, 29.1 percent of the electricity used by businesses in Nairobi comes from the businesses' own generators with medium (37.9 percent) and small (35.7 percent) enterprises leading in utilization of electricity from generators.

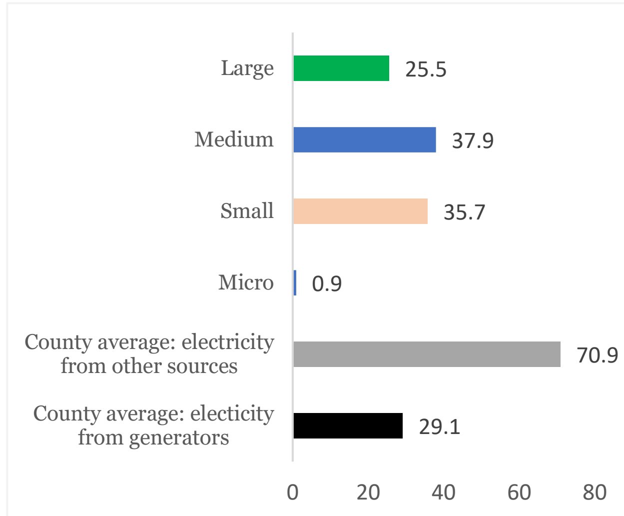
Businesses in Nairobi spend an average of Ksh 1,622 on internet costs per month. The expenditure on internet varies across businesses with the monthly expenditure being Ksh 339 among microenterprises, Ksh 3,105 among small enterprises, Ksh 10,767 among medium enterprises, and Ksh 31,083 among large enterprises.

[6] Data available on https://doi.org/10.48529/475c-n477

Figure 4-7 Obstacles to electricity connection against enterprise size

Figure 4-6 Electricity from generators against enterprise size





Source: World Bank's Enterprise Survey 2018[7].

The majority of businesses in Nairobi (76.1 percent) have a dedicated mobile telephone for business with 73.8 percent being microenterprises and 21.7 percent being small enterprises. Further, 75.7 percent of businesses in the city use mobile money for financial transactions. While 18.6 percent of the enterprises use mobile money to pay employees, 33.8 percent use it to pay suppliers, 41.1 percent to pay utility bills, 86.6 percent to receive payments from customers, and 3.5 percent to access loans.

Figure 4-8 Average monthly expenditure on internet in Nairobi (Ksh)

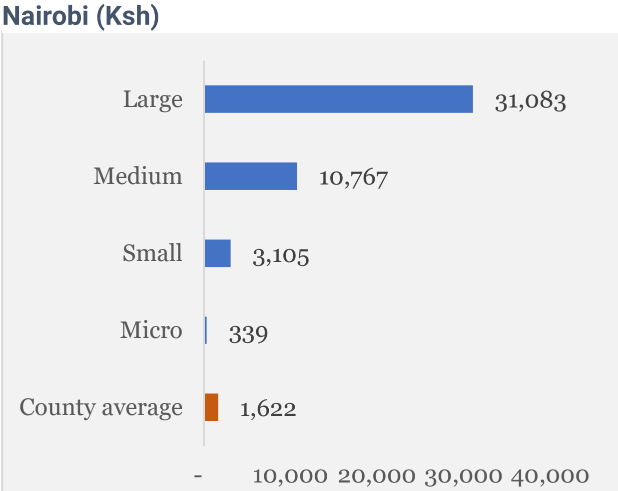
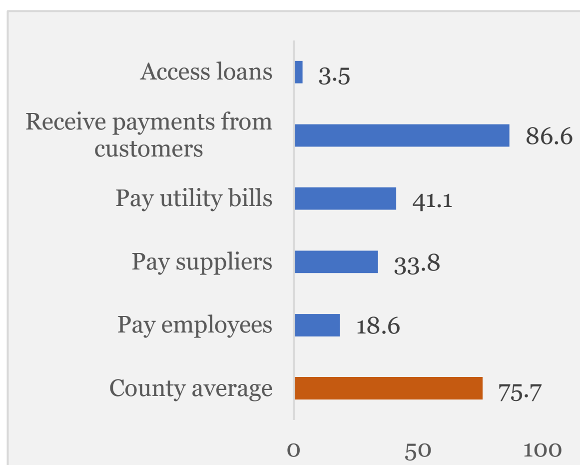


Figure 4-9 Uses of mobile money services in Nairobi



Source: Analysis based on data from the World Bank's Enterprise Survey 2018[8].

[7] Data available at https://doi.org/10.48529/475c-n477
[8] Data available at https://doi.org/10.48529/475c-n477

The majority of the enterprises that use mobile money to pay employees (55.8 percent), pay suppliers (56.4 percent), pay utility bills (45.3 percent), receive payments from customers (36 percent), and access loans (42.9 percent) are small businesses. Meanwhile, 84.8 percent of businesses in Nairobi experience power outages. On average, businesses experience eight power outages in a typical month. The outages last for an average of seven hours. The average value of losses due to power outages per year is Ksh 2.3 million. The average value of losses due to power outages per year is Ksh 66,000 among small enterprises, Ksh 431,429 among medium enterprises, and Ksh 5 million among large enterprises. Reducing incidences of power outage is key to supporting businesses in Nairobi.

Figure 4-11 Utilization of mobile money platforms against enterprise size

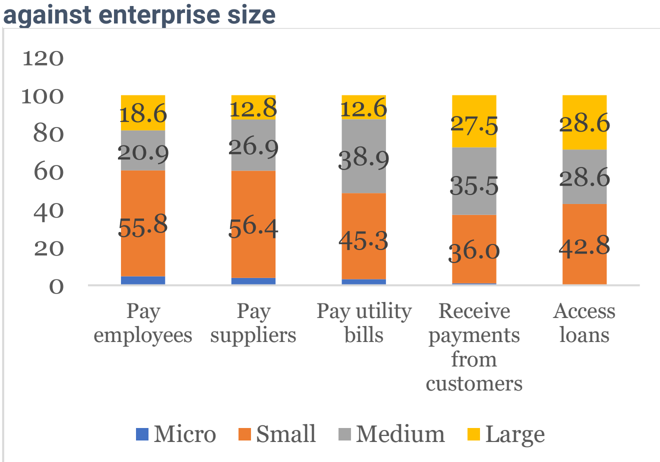
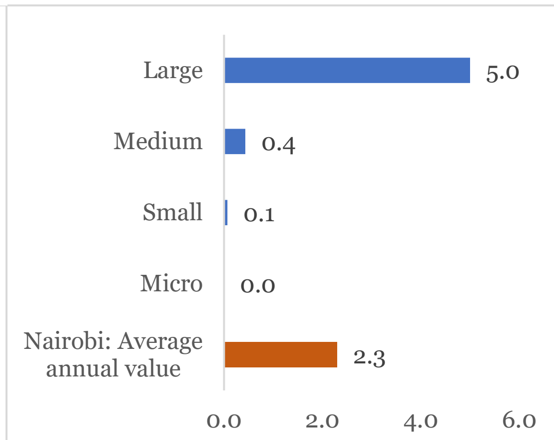


Figure 4-10 Average annual amount of losses due to power outages in Nairobi (Ksh,



Source: World Bank's Enterprise Survey 2018.

Table 4-2 Prevalence of power outages in Nairobi

Power outages in Nairobi	Value
Percentage of businesses experiencing power outages	84.8%
Average number of outages per month	8
Average number of **hours for power outage**	7

Source: World Bank's Enterprise Survey 2018.

4.5 Conclusion

Investment in tertiary education is key to not only supporting growth and specialization of enterprises but also improving livelihoods through participation in productive jobs which support higher incomes.

Common obstacles faced by many businesses in Nairobi include access to licenses and permits, finance, land, rigid labor regulations, inefficient tax administration, transport, crime, theft, and disorder. Majority of these obstacles are faced by medium and small enterprises. Among the incidences of crime witnessed in the county, the majority include muggings, burglaries and break-ins, and robberies.

Enterprises in Nairobi have to wait a long time to secure an electricity connection. The duration, however, varies among enterprises of different sizes with the smallest firms waiting longer than large and medium enterprises to secure a connection. Further, larger enterprises spend more per year on electricity compared to microenterprises. Large enterprises spend more because they consume more electricity than small ones. Informal gifts offered to secure an electricity connection are highest among large enterprises in the city. Utilization of energy from generators is highest among medium enterprises.

The uptake of internet is highest among large firms but lowest among microenterprises. Internet supports mobile money platforms which are used to receive payments from customers and to pay suppliers. The uptake of mobile money services is highest among small enterprises. Finally, firms in Nairobi experience an average of eight power outages per month with a majority of the outages lasting for an average of seven hours.

4.6 Policy recommendations

❖ **Labor and human capital**

- The Nairobi City County government, the national government, universities, and the private sector should collaborate to expand infrastructure for incubation labs from the current 11.8 percent in Nairobi. This is important for supporting capacity and skills development and absorption which are key for enterprises to transition from micro to medium and large enterprises engaging in specialized and complex economic activities.
- The national government, private sector, and development community should enhance incentives for tertiary education enrolment through the provision of bursaries, scholarships, and student education grants through the Higher Education Loans Board (HELB) and directly to institutions of higher learning in Nairobi. This is critical for raising the percentage of businesses owners in who possess bachelor's and post-graduate education from the current 23.1 percent and 8.1 percent, respectively.

- **Regulatory environment**
    - The national government, the Nairobi City County government, and the Kenya Revenue Authority (KRA) should collaborate to make the regulatory environment more conducive for business by significantly lowering the average number of days taken to register and start a business from 23 days, reducing the number of procedures that must be completed to start a business from the current average of seven, reducing the amount of time spent handling tax payment issues in a year from the current 180 hours, and enhancing the capacity of digital platforms for the issuance of business licenses and permits. This could be achieved through harmonization and unification of the business registration and tax payment digital platforms.
    - The national and Nairobi City County governments should sustain collaboration in expanding the road network and extending street lighting to markets and business centers in peri-urban areas of the county. This is important for drastically reducing the cost of transport and minimizing incidences of crime, theft, and disorder.
- **Services and infrastructure**
    - The national and the Nairobi City County governments should collaborate to reduce the time it takes businesses in Nairobi to secure an electricity connection from the current average of 87 days. Additionally, collaboration is needed to further lower incidences of power outages from the current average of eight outages per month. The outages impose costs on businesses related to a decline in activity and raise operational cost especially if enterprises resort to more expensive sources of energy. These measures could further improve the business environment, support business activity, and cushion enterprises against losses associated with power outages.
    - The national government should fully implement the National Energy Policy of 2018[9] to match electricity demand in the city to the country's supply capacity and, consequently, keep electricity costs low.
    - The national and Nairobi City County governments should collaborate to provide incentives to enterprises in the city to invest in alternative clean sources of energy, such as solar panels, in line with the government's strategy of greening the city. Similarly, incentives should be provided to enhance the uptake and utilization of internet and mobile money services among enterprises in the city.

[9] Policy available at https://repository.kippra.or.ke/bitstream/handle/123456789/1947/BL4PdOqKtxFT_National%20Energy%20Policy%20October%20%202018.pdf?sequence=1&isAllowed=y

5 Review of public governance in Nairobi City County

5.1 Introduction

The analysis uses primary data obtained from the Office of the Controller of Budget's (OCOB's) reports, as well as various county-specific reports published by the Nairobi City County, specifically the Nairobi City County Budget Review and Outlook Papers and the Nairobi County Fiscal Strategy Paper (CFSP). In addition, the various national government programs and projects for Nairobi City County were also sourced from the President's Delivery Unit (PDU) website as well as from the Budget Speech for FY 2021/22. A number of these policy documents were sourced from the Kenya Institute for Public Policy Research and Analysis (KIPPRA) Public Policy Repository (PPR). Public sector governance focusses on two key indicators: distribution of fiscal and functional responsibilities between different levels of government, and the capability of government agencies to carry out their duties.

5.2 Distribution of fiscal and functional responsibilities between different levels of government

Kenya adopted two levels of government in 2013, following the promulgation of the Constitution of Kenya, 2010 (Republic of Kenya 2010). These levels are the national government and the county or subnational governments. There are a total of 47 county governments, with Nairobi City County also being strategically placed as the country's capital city. Given the two levels of government, the Fourth Schedule of the Constitution of Kenya, 2010 highlights the functional responsibilities that can be undertaken by each level of government. The Fourth Schedule highlights 35 functions to be undertaken by the national government and 14 functions that county governments are required to undertake. The 14 functions which are specified are:

- Agriculture, including crop and animal husbandry; livestock sale yards; county abattoirs; plant and animal disease control; and fisheries
- County health services
- Control of air pollution, noise pollution, other public nuisances, and outdoor advertising
- Cultural activities, public entertainment, and public amenities
- County transport, including county roads; street lighting; traffic and parking; public road transport; and ferries and harbors, excluding the regulation of international and national shipping and matters related thereto
- Animal control and welfare

- Trade development and regulation, including markets; trade licenses, excluding regulation of professions; fair trading practices; local tourism; and cooperative societies
- County planning and development, including statistics; land survey and mapping; boundaries and fencing; housing; and electricity and gas reticulation and energy regulation
- Pre-primary education, village polytechnics, homecraft centers, and childcare facilities
- Implementation of specific national government policies on natural resources and environmental conservation
- County public works and services, including storm water management systems in built-up areas; and water and sanitation services
- Firefighting services and disaster management
- Control of drugs and pornography
- Ensuring and coordinating the participation of communities and locations in governance at the local level and assisting communities and locations to develop the administrative capacity for the effective exercise of the functions and powers bestowed on county governments, and participation in governance at the local level.

Of all the 14 functions that Nairobi City County and other County governments must undertake, the planning and development role is usually given a lot of emphasis since it affects the success of the other functions. For instance, the city has headquarters for most organizations nationally and regionally, has many university campuses, and hosts several national government ministries and agencies. This places the city at a strategic location to develop much faster, but the progress has been relatively slower than expected. Nairobi City County must deal with other negative externalities including high population inflows in search of jobs and limited resources to undertake all functions.

For fiscal responsibility, the county governments are mandated to collect their own source revenues (OSR), whereas the national government has the mandate to distribute a proportion of revenues raised nationally to the county governments in the form of equitable shares. Thus, in terms of fiscal responsibility, there is a clear demarcation in terms of the roles that each level of government needs to fulfill. For Nairobi City County and other county governments in Kenya to effectively undertake their roles, the need for financing cannot be overemphasized. The next section focusses on revenue performance as well as expenditure analysis for Nairobi.

5.3 Revenue performance

The Nairobi City County government, like the other county governments, has three key sources for revenue: the equitable share from the national government, OSR collected, and conditional grants. Table 5-1 presents the trends in performance of revenue for the county across the various revenue sources.

Table 5-1 Revenue performance for Nairobi City County

Revenue source, FY	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Equitable share (Ksh, billions)	9.51	11.37	13.00	14.02	15.40	15.79	11.45	15.92	19.25
Own source (Ksh, billions)	10.03	11.50	11.71	10.93	10.11	10.25	8.52	9.96	19.36
Conditional grants (Ksh, millions)	390.47	24.92	472.04	576.92	817.36	172.97	722.73	869.61	1,020.09
Balance brought forward (Ksh, billion)	188.00	5,150	472.04	0	0	1,310.00	2.55	0.712	--
Total (Ksh, billions)	20.30	28.04	25.65	25.53	26.33	36.16	23.24	26.75	39.63

Source: Adapted from OCOB reports (various), Commission on Revenue Allocation, and KNBS (2022).

Note: Values in the table are in Kenyan shillings. The exchange rate at the time of writing is Ksh 115 per US dollar.

For FY 2020/21, Nairobi City County's total revenue including equitable share, conditional grants, and OSR amounted to Ksh 26.75 billion . This was against a revised target of Ksh 37.2 billion (Nairobi City County, 2021a). The city's revenue performance, however, improved in FY 2021/22 to stand at Ksh 39.63 billion, with the bulk coming from OSR and equitable share at Ksh 19.36 billion and Ksh 19.25 billion, respectively. The key revenue streams as of June 2021 were rates such as land rates, single business permits, parking fees, building permits, and billboards which had a collection of Ksh 2.77 billion, Ksh 1.65 billion, Ksh 1.56 billion, Ksh 713 million, and Ksh 736 million, respectively.

Nairobi City County collects the largest percentage of OSR vis-à-vis other counties—28.9 percent of the total OSR for all the 47 counties, which was Ksh 34.44 billion for FY 2020/21. The equitable share has been on an upward trend over the fiscal years rising from Ksh 9.51 billion in FY 2013/14 to Ksh 15.79 billion in FY 2018/19, before dipping to a low of Ksh 11.45 billion in FY 2019/20, mainly due to the effects of the COVID-19 pandemic; the equitable share recovered in FY 2020/21 to stand at Ksh 15.92 billion, and further to Ksh 19.25 billion in FY 2021/22. In addition to the equitable share to Nairobi City County from the national government is the Constituency Development Fund (CDF) allocation. Data from the Presidential Delivery Unit (PDU) showed that the national government has made CDF allocations to the county cumulatively amounting to Ksh 5.6 billion since 2013.

5.4 Expenditure by major economic classification

County governments' expenditures are classified into two—recurrent and development expenditure, with recurrent expenditure consisting of personnel emoluments and operations and maintenance. Table 5-2 presents the expenditure by major economic classification.

Table 5-2 Expenditure for Nairobi City County by major economic classification (Ksh, billions)

Class and FY	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Personnel emoluments	10.31	13.92	13.47	13.42	14.84	13.74	13.24	9.76
Operations and maintenance	2.92	5.47	6.31	7.66	7.53	9.75	8.13	14.74
Total recurrent expenditure	13.23	19.39	19.78	21.08	22.36	23.50	21.37	24.51
Development expenditure	1.87	2.30	4.17	3.78	2.18	5.90	1.98	5.63
Total expenditure	17.77	21.69	23.95	24.86	24.54	29.40	23.35	30.14

Source: Adapted from OCOB reports (various).

The total actual expenditure based on transfers from the county revenue fund and spending from appropriations in aid amounted to Ksh 30.1 billion in FY 2020/21. However, the total cumulative revenue collection was Ksh 29.6 billion for the same financial year, which led to a fiscal deficit of Ksh 7.6 billion. Fiscal deficits have been observed since the inception of county governments in 2013, which signals that the county has been setting high revenue targets that occasion high expenditures above actual revenue receipts. The city's expenditures have also been on an upward trend from Ksh 17.77 billion in FY 2013/14 to Ksh 30.14 billion in FY 2020/21. The expenditures, which surpass actual revenues, have consequently resulted in fiscal deficits over the years. For instance, the fiscal deficit for FYs 2016/17, 2017/18, 2018/19, and 2019/20 have been Ksh 9.56 billion, Ksh 9.61 billion, Ksh 6.1 billion, and Ksh 13.7 billion, respectively. Furthermore, a critical challenge facing Nairobi City County is the problem of accumulation of pending bills as well as cash flow challenges (Nairobi City County, 2021b). For instance, Ksh 78 billion in provisional debts was owed by the county to third parties as of June 30, 2021.

5.5 Absorption rates

Table 5-3 Rate of absorption of funds by Nairobi City County

Absorption rate by FY	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Recurrent	90.0	99.9	93.3	89.8	88.4	91.6	74.0	83.3
Development	25.0	33.5	52.9	33.4	26.1	79.7	24.5	66.4
Overall	-	-	82.3	71.5	72.9	88.9	63.1	79.6

Source: Adapted from OCOB reports (various).

Nairobi City County has had high rates of absorption for recurrent expenditure with low absorption rates for development expenditure. The highest absorption rates were 99.9 percent for recurrent expenditure in FY 2014/15 and 79.7 percent for development expenditure in FY 2018/19. The little absorption of development expenditure by the city county could be attributed to the fact that the capital city receives support from the national government on various development projects, which could reduce the ability to utilize its development expenditure. The county has room to improve its absorption rate particularly for development expenditure which has characteristically remained low over the years.

5.6 Status of pending bills

Table 5-4 Status of pending bills in Nairobi City County

Pending bills	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Recurrent expenditure (Ksh, billions)	1.23	3.21	*	64.80	*	77.37	*
Development expenditure (Ksh, billions)	-	1.83	*	-	*	1.33	*
Total (Ksh, billions)	1.23	5.04	*	64.80	*	78.70	54.32

Source: Adapted from OCOB reports (various).

Note: * = not submitted.

Nairobi City County's pending bills have been increasing over time. As seen in Table 5-4, pending bills rose from Ksh 1.23 billion in FY 2014/15 to Ksh 78.78 billion in FY 2019/20, before declining to Ksh 54.32 billion in FY 2020/21. The county's administration, led by its current Governor Hon. Johnson Arthur Sakaja, who has recently outlined a plan to ensure that the county resolves all its pending bills. Although the timelines for resolving the bills were not specified, but the Governor has already appointed a Legal Pending Bills Review Committee that has been tasked to prepare a report with recommendations within four months from January 2023. It is hoped that this will help the city boost business and the economy at large.

5.7 Development projects with the highest expenditure

The Nairobi City County government together with the national government has undertaken a number of development projects in the city given the central role that Nairobi has as Kenya's capital. The city has developed critical infrastructure especially in the last five years, with one of the remarkable developments being the Nairobi superhighway that enables fast movement of motorists with a toll rate depending on the distance covered. This section discusses the various infrastructure projects that have been undertaken in Nairobi in the recent past, of which roads projects have been dominant.

Table 5-5 Infrastructure projects with the highest expenditure, FY 2020/21

Project (FY 2020/21)	Approved budget (Ksh)	Expenditure (Ksh)
Hard-core[10] for access roads within Dandora dumpsite	311,660,000	311,660,000
Delivery of hard-core for access roads within Dandora dumpsite	169,000,000	169,000,000
Hire of vehicles and equipment for use in road maintenance at Dandora dumpsite	87,146,000	87,146,000
Rehabilitation of Igembe and other roads	69,832,447	69,832,447
Completion of Bypass-Mihango Link Road	46,048,703	46,048,703

Source: OCOB 2021

Table 5-6 Infrastructure projects with the highest expenditure, FY 2019/20

Project (FY 2019/20)	Approved budget (Ksh)	Expenditure (Ksh)
Road Maintenance Fund Projects (for FY 2018/19)	415,847,530	184,680,366
Construction of public transport facility and Njiriri's road along Mumias South Road	48,858,388	48,858,388
Rehabilitation of Ngara Lane in Ngara	15,589,608	15,589,608
Grading, gravelling, and drainage improvement along selected roads in Komarock Ward	12,832,271	12,832,271
Grading, gravelling, and drainage improvement along selected roads in Kawangware Ward	11,390,299	11,309,299
Grading and gravelling along Mowlem Road	5,627,906	5,627,906

Source: OCOB 2020

[10] Hardcore is the term used to describe the mass of solid, not easily degraded materials of low absorbency that is employed in creating a base for heavy load-bearing stone and concrete floors.

Table 5-7 Infrastructure projects with the highest expenditure, FY 2018/19

Project (FY 2018/19)	Approved budget (Ksh)	Expenditure (Ksh)
Construction of Matopeni Estate Roads	-	119,615,595
Construction of selected roads in Utawala Estate	-	70,116,749
Rehabilitation of Gathuru Road in Kawangware	-	58,070,164
Reconstruction of Jadongo Road in Ngara	-	40,622,332
Construction of Plainview Likoni Link Road in South B Ward	-	36,655,194
Construction of Kimondo Road in Pipeline	-	33,000,000
Construction of Lumumba Road in Roysambu	-	22,000,000

Source: OCOB 2019

Table 5-8 Infrastructure projects with the highest expenditure, FY 2017/18

Project (FY 2017/18)	Approved budget (Ksh)	Expenditure (Ksh)
Construction of roads (other)	590,473,229	438,245,841
Other infrastructure and civil works	840,603,287	353,862,825
Construction of access roads	88,441,519	61,617,904
Overhaul of other infrastructure and civil works	297,268,525	52,667,559

Source: OCOB 2018

Table 5-9 Infrastructure projects with the highest expenditure, FY 2016/17

Project (FY 2016/17)	Approved budget (Ksh)	Expenditure (Ksh)
Rehabilitation of Ndwaru Road in Waithaka	96,500,000	20,171,156
Access roads to Maji Mazuri in Clay City	77,100,000	33,801,213
Construction of access road to HACO Industries in Clay City	61,000,000	36,185,554
Rehabilitation of Stadium Road-Bin Agare Slum	40,400,000	26,555,201

Source: OCOB 2017

Table 5-10 Projects with the highest expenditure related to jobs or employment

FY	Project	Approved budget (Ksh)	Expenditure (Ksh)
2020/21	Kazi Mtaani Project-ESP	911,735,448	911,735,448

Source: OCOB 2021

Table 5-11 Other projects with highest development expenditure, FY 2020/21

Project	Approved budget (Ksh)	Expenditure (Ksh)
Smart Licenses and Support at City Hall	91,068,922	89,654,922
Purchase of Motor Vehicles at City Hall	78,517,242	43,000,000
Commissioning of Electrical Works to Various Health Centers in Nairobi East	34,306,038	34,306,038
Shauri Moyo Market and City Park Market	60,417,929	34,294,925
Renovations—Human Resource Management Department at City Hall Annex	11,400,000	8,824,286
Mukuru kwa Njenga Project	1,243,264,522	1,243,264,546
Completion of construction and equipping of 5 No. Level 3 facilities	840,000,000	839,999,998

Source: OCOB 2021

Table 5-12 Budget performance by department, FY 2020/21

Department	Exchequer issues (Ksh, millions)		Expenditure (Ksh, millions)	
	Recurrent	Development	Recurrent	Development
County Public Service Board	65.21	28.93	65.21	28.93
Office of the Governor and Deputy Governor	4,440.07	48.52	4,440.07	48.52
ICT, E-Government and Public Communications	150.73	106.71	150.73	106.71
Finance and Economic Planning	6,684	318	6,684	318
Health	625.60	-	625.60	-
Urban Planning and Lands	146.62	-	146.62	-
Public Works, Transport and Infrastructure	101.97-	324.38	87.23	324.78
Education, Youth Affairs, Sports, Culture and Social Services	1,651.49	54.91	1,651.50	54.91
Trade, Commerce, Tourism and Cooperatives	318.45	98.08	318.45	98.08
Public Service Management	1,281.31	8.82	1,281.31	8.82
Agriculture, Livestock Development, Fisheries and Forestry	223.61	5.43	223.61	5.43
County Assembly	1,805.30	17.28	1,805.30	17.28
Environment, Water, Energy and Natural Resources	541.74	342.89	541.74	342.89
Urban Renewal and Housing	17.45	-	14.58	-
Ward Development Programs	11.88	58.19	11.88	58.20
Emergency Funds	300.50	-	300.50	-
Liquor Licensing Board	-	-	294.33	-
Nairobi Metropolitan Services	5,845.79	4,217.20	5,863.66	4,217
Total	24,211.83	5,629.23	24,506.42	5,629.64

Source: OCOB 2021

5.8 Delays in disbursement of funds to the county governments

The main challenge faced by Nairobi City County and other county governments has been the delay in disbursement of funds to the counties. Based on the County Allocation of Revenue Act, 2018 (Republic of Kenya 2018), the national government is expected to equitably allocate revenue to county governments based on a revenue-sharing formula at the beginning of the financial year, without undue delay and without deduction.

However, based on various issues of reports from the Office of the Controller of Budget (OCOB), there have been delays in disbursement of funds by the National Treasury and Planning to the counties. Furthermore, the city of Nairobi has received allocations that fall short of its budgetary requirements, and these have resulted in the budget deficits and the problem of pending bills highlighted previously. For instance, in terms of delayed disbursement of funds, most of the disbursements have been taking place in the month of August, rather than at the start of the financial year, July of each year. The reports show that for all the fiscal years 2013/14 to 2020/21, there have been delays, and these have affected the ability of county governments to effectively undertake their functions. Whereas Nairobi City County has not resorted to borrowing for payment of salaries and workers' dues, these delays have led to staff go-slows and worker strikes to force the county administration to pay their dues on time. The delays have largely affected service delivery for the city's residents as well the stalling of some development projects such as water and roads.

5.9 National government support to Nairobi City County

Table 5-13 National government funding that will support Nairobi City County

S/no	Project related to AGI indicators	Allocated budget from the fiscus (Ksh) in millions
1	Nairobi Metropolitan Services Improvement Project	100
2	Construction of foot bridges	111.2
3	Nairobi Bus Rapid Transport project	700
4	Railway metro lines within the Nairobi Metropolitan Area	1,300
5	Rehabilitation of the Nairobi-Nanyuki meter-gauge railway line	1,100
6	Allocation to the Nairobi Metropolitan Services (recurrent Ksh 18 billion; development Ksh 9.2 billion)	27,200.0

Source: Republic of Kenya 2021

The national government has also allocated Ksh 3 billion for youth empowerment and employment creation under the Kazi Mtaani program.

In addition to data from the Budget Statement for FY 2021/22 on national government support to Nairobi City County (Republic of Kenya 2021), data from the PDU shows significant investment by the national government in various projects and programs in the city of Nairobi. These include: road networks, health facilities and services, electrification programs, information and communications technology (ICT) and education programs, land settlement programs, national administration and security initiatives, public service and social welfare programs, transport, water irrigation and sanitation programs, equitable share transfers and CDF allocations, public works housing and urban development, and agriculture and livestock.

Of these programs and indicators, most are closely related to the African Growth Initiative (AGI) Framework for Urban Development, especially the programs related to road networks, health services, electrification, education, land settlement, transport, water, equitable share transfers, and housing and urban development. Table 5-14 presents the road network projects in Nairobi City County that have been completed by the national government.

Table 5-14 National government investment in Nairobi City County: Road networks completed

Project/ program	Description	Funding (Ksh)
Rehabilitation and upgrading of Langata Road	KWS Gate to Bomas section, 2.8 km	2.7 billion
Construction of the Interchange at City Cabanas Phase 1	To be procured after issues to deal with land and property compensation claims are cleared	2.5 billion
Rehabilitation and upgrading of First Avenue Eastleigh and General Waruinge Roads	Phase 1 (4.6 km)	2.5 billion
Dualling of Ngong Road Phase I	From Kenya National Library Services to Prestige, 2.53 km	1.3 billion
Construction of access road to Imara Daima Railway Station	-	406.1 million

Source: delivery.go.ke/countyprojects/47

Aside from the completed projects, others are still under construction such as the Ksh 16.4 billion World Bank National Urban Transport Improvement Project (NUTRIP) which aims to enhance the capacity of James Gichuru Road/Waiyaki Way Jn-Rironi. On services and infrastructure, there is the Ksh. 4.7 billion Nairobi River Restoration Program; on housing, there is the development of the Soweto East Housing Program at Ksh 6.5 billion for Zone B and Ksh 2.9 billion for Zone A.[11] Other national government investment projects in Nairobi City County have been health services and facilities such as the Mathare National Hospital, electrification such as the installation of public street lighting, and education which includes the free day primary and secondary education funding as well as the revitalization of technical training institutes.

According to the Fourth Schedule of the 2010 Kenya Constitution, county governments are mandated with issues of water, especially in terms of storm water management systems in built-up areas; and water and sanitation services. For Nairobi City County, the Nairobi City Water and Sewerage Company is mandated to provide water and sanitation services to the city's residents. County governments are supported in this duty by the

[11] See President's Delivery Unity website at delivery.go.ke/countyprojects/47.

county sector in charge of environment, energy, and water and sanitation. The financing is, therefore, from the county government but with support from the national government.

The Nairobi City County government has initiated several housing projects in the recent past. Examples of these include the Pangani affordable housing project, the Jeevanjee Bachelors Quarters in Ngara area, Parkroad in Ngara, and Kasarani in which a Ksh 850 million affordable housing project was established in 2021, among others. The Ksh 5 billion affordable housing project in Pangani is expected to be ready by June 2023. In addition, the national government in conjunction with the Nairobi Metropolitan Services (NMS) also initiated construction of about 60,000 new housing units in areas such as Bahati, Kariobangi estate, Embakasi, Jericho, Woodley, Maringo, and Bondeni. An additional initiative toward boosting housing in the city is the government initiated Boma Yangu program that has set a target of building 500,000 housing units. Under this platform, citizens above the age of 18 years can register to get a house allocated to them and make a monthly contribution to the housing fund. The Nairobi City County government, however, also seeks to involve private individuals in its housing program. For instance, as part of phase two of its Housing Urban Renewal Program, the county government was targeting wealthy individuals to help build a 62,000-unit affordable housing project in the Eastlands area. Another one of interest is the Mwiki housing project that is to be implemented under a public-private partnership (PPP) arrangement. In its FY 2022/23 budget, the national government also aims to build about 25,000 housing units. These initiatives are aligned with the Housing Agenda as enshrined in the government's Big Four Agenda.

Box 5-1 The AGI Urban Development Framework for fast-developing cities in Africa: A case study of Cape Town, South Africa

South Africa is among the countries in Africa that have been recognized for their significant investment in urban development and investment. In analyzing the Africa Growth Initiative's (AGI's) Urban Development Framework for African countries, South Africa is also chosen by the author strategically due to its investment in various urban indicators which mirror those of the AGI Framework, notably infrastructure in transport and roads, housing, and public services such as water and education.

South Africa established a South African infrastructure fund in August 2020 and followed this with the announcement of a new infrastructure investment plan in October 2020. The fund, housed in the Development Bank of South Africa, had set aside eight projects for implementation. Under the fund, four projects worth $1.4 billion have been approved, and these include water projects, student housing infrastructure, governance and procurement, and border management. The infrastructure plans are both short term or immediate, medium term, and long term.

South African President Cyril Ramaphosa announced during his State of the Nation Address in 2021 that the infrastructure fund, worth R100 billion (approximately $6.58

billion), was fully operational and had some projects in the pipeline. Some of the projects financed by the fund include student housing, human settlement, water projects, road rehabilitation, telecommunications, among others. Ramaphosa said the fund was meant to reignite the economy, spur growth, and create jobs. The fund draws from the fiscus, private sector investors, and development institutions. In addition, based on data from the Ministry of Public Works and Infrastructure in South Africa, the country had put in place 62 strategic investment projects (SIPs).

Like Kenya, South Africa has subnational governments that are classified as provincial and local. . Cape Town's local government spends approximately R8.4 billion (about $552 million) annually on maintaining and building new infrastructure and transport solutions. Furthermore, the city has established a Transport and Urban Development Authority (TDA) which works to achieve a more efficient mobility network for public and private transport.

There are additional ongoing Cape Town infrastructure projects which include: the Integrated Rapid Transit (IRT) Project, expansion of the Cape Town International Convention Center (CTICC), expansion of the Port of Cape Town Terminal, broadband expansion, extension of the Cape Town International Airport runway, among others. Furthermore, data from the city shows that there are 31 development projects in the pipeline for Cape Town's Central Business District (CBD).

Based on the analysis presented for Nairobi City County, the city's outlook is also changing especially in the recent past with support being provided by the national government and other development partners to give Nairobi a face-lift. Massive infrastructure development is going on in the city especially in the areas of roads, railways, housing, water and sanitation, and nonmotorized transport facilities. If the investments and planned projects are sustained over time, the city will make strides closer to Cape Town, and other developed international cities, and this will be critical for helping Nairobi offer an exciting environment for living and working.

5.10 Capability of government agencies to carry out their duties

This section presents an analysis of the capability of Nairobi City County agencies to carry out their duties. There is generally a paucity of secondary data in Kenya and for Nairobi City County on the capability of government agencies to carry out their duties. This means that primary data collection would be the alternative approach to obtain the requisite data for analysis. As highlighted in this section, the governance of the city has undergone a series of transformations since the establishment of county governments in 2013. These transformations have been influenced in part by the capacity of the Nairobi City County to undertake its constitutional duties.

Limited information available from media sources on Nairobi City County's capacity to undertake its functions has shown mixed reactions. In general, a large section of the public concurs that the formation of county governments was the best idea Kenya has had, given the improvements observed in the recent past, in terms of taking public services closer to the people and enhancing local development of regions. Nairobi City County, however, has received a share of blame for the manner in which it undertakes its duties. Issues include poor waste management; financial mismanagement; inadequate storm water management systems; inadequate management of county health systems, including maternity services; and environmental pollution. This means that the county has succeeded in some of its functions but requires to do more in terms of other functions, as highlighted by the examples presented.

A deed of transfer of functions was signed on February 25, 2020, which transferred four county functions—transport, infrastructure, and public works; health services; housing and urban renewal; and environment, energy, and water and sanitation—to the national government, with the aim of improving the quality of services provided to city residents (Nairobi City County 2021b). This agreement was done in part due to the way the functions were being undertaken by the county government, which was generally deemed inadequate.

It would be vital to undertake a survey of the capacity of the county government to discharge its duties as outlined in the Fourth Schedule of the 2010 Kenya Constitution to enable the county government to effectively deliver quality services to the people. This would help the county executive assess areas it has performed well and offer insights on areas where much more needs to be done, to ensure Nairobi City County is back to its glory and can assure its citizens better service delivery.

5.11 Conclusion

The analysis uses primary data obtained from the COB reports, as well as various county-specific reports published by Nairobi City County. The Fourth Schedule of the 2010 Kenya Constitution highlights the functional responsibilities that can be undertaken by each level of government and highlights the 14 functions that county governments are required to undertake.

For Nairobi City County and other county governments in Kenya to effectively undertake their roles, the need for financing cannot be overemphasized. Nairobi City County has three main revenue streams: OSR, the equitable share from the national government, and conditional grants. The key revenue streams were rates, single business permits, parking fees, building permits, and billboards which had collections of Ksh 2.77 billion, Ksh 1.65 billion, Ksh 1.56 billion, Ksh 713 million, and Ksh 736 million, respectively, in FY 2021/22. For OSR, Nairobi City County has largely relied on fees, levies, rates, and permits, as well as licensing. However, there is a limit to what taxation can achieve for a country or county government. Nairobi City County still has an opportunity for property taxation, and given its massive land resources, can also leverage the potential of land value capture (LVC). LVC refers to a financing tool that allows local governments to charge fees and taxes to developers and property owners and raise revenue (Hart 2020). Revenue from LVC can then be reinvested in infrastructure, community, and city services. According to the

Organization for Economic Co-operation and Development (OECD n.d.), some of the common instruments for LVC include land banking, land leasing, land readjustment, betterment contributions, impact fees, special assessments, inclusionary housing, charges on building rights, and transfer of development rights. For LVC to be used, there is need first for up-to-date property valuation rolls, well-functioning land registries, and secure property rights (World Bank, 2020).

LVC is, therefore, an opportunity to offer financing for local economic development, such as improvement of the urban environment, transportation upgrades, and other public improvements. There are a few examples that have been documented of how some fast-growing cities have leveraged the potential of LVC to develop themselves. These examples include opening the riverfront for the city of Ahmedabad in India, regeneration of Rio de Janeiro's historic area in Brazil, and urban renewal and road improvements for the city of Manizales in Colombia. For the city of San Francisco in the United States, LVC revenues have been used to fund transit needs, bicycle infrastructure, pedestrian capital improvements, among other projects. Public sector governance, coupled with urban planning, again comes in handy for a proper management of LVC and to reap the benefits that LVC potentially offers (Lincoln Institute, p2018).

In addition to property taxes and leveraging LVC, cities can also mobilize revenue through access to financial markets. At the 9th Africities Summit held from May 17-22, 2022, in Kisumu, Kenya, a session on the economic power of cities demonstrated that cities need to be fiscally ready to access financial markets through improvement of their creditworthiness and financial management capacity. Furthermore, they need to put in place the necessary legal and institutional requirements to be able to access credit, such as by way of bond issuance (OECD, UN ECA, and AfDB 2022).

The governance of Nairobi City County has undergone a series of transformations since the establishment of county governments in 2013. These transformations have been influenced in part by the capacity of the county to undertake its constitutional duties. In Africa, Cape Town has positioned itself as the city to watch, with a series of urban development projects related to various infrastructure in housing, roads, transport, water, education, and others. The city of Nairobi is also making significant progress in investment in infrastructure as well as making progress in its public sector governance, which, if sustained, can elevate the city to be the city to go after for living and working.

5.12 Policy recommendations

Based on the findings from the study, the following are the policy recommendations for Nairobi's public sector governance:

- Nairobi City County needs to invest in setting up proper and working governance structures which will enable the city to effectively undertake all the functional and fiscal responsibilities mandated for it.

- The county needs to tap into its revenue potential to help overcome fiscal deficits and pending bills, especially by enhancing compliance and enforcement of payments to the county and automate revenue systems which will help to seal revenue loopholes.
- Given that over taxation is harmful for progress, the county should consider other forms of revenue mobilization, for example, by making use of LVC, such as idle land tax and other forms of private capital.
- Nairobi City County should also put in place the requisite legal and institutional framework required to be able to access credit or debt markets and financial markets and to tap into LVC and other resource mobilization strategies. The acquired resources then need to be used efficiently and in an accountable manner.
- There is a need to establish further research and better statistics where there are gaps, for instance for the chapters highlighted in this report, including accessibility, productive jobs, business environment, public governance and finances, and other research that may come up in future for the city.
- Given the challenges of adequately absorbing development expenditure vis-à-vis the development needs of the city, timely implementation of the development budget together with prudent use of development resources where the city residents' pressing needs are should be ensured.
- Enhance collaboration with Africities and UN-Habitat which can offer an opportunity to benchmark and learn from other fast-developing cities in Africa.

6 Policy and legal frameworks for urban growth in Nairobi City County

6.1 Introduction

Key message on productive jobs: Kenya has made good progress in creating jobs, especially in the emerging sectors such as digital and gig economies. However, employment in the country faces challenges that are manifested in terms of a 12.7 percent unemployment rate, 21 percent underemployment, and 46 percent of the employed working in poor conditions. The employment challenge is heightened by rapid population growth at 3 percent per annum, a youth bulge of 67 percent of the adult population, low and unsustained economic growth, and structural rigidities. This calls for creating policy interventions to nurture the emerging sectors for job creation as well as develop a culture to improve workplace health and safety conditions.

Key message on accessibility: Kenya has made some good progress in infrastructure development in the urban areas and, therefore, increasing the level of accessibility and delivery of infrastructure services. However, the country lacks local-based action plans to inform the master plan for investment and inclusion. Further, Kenya experiences frequent collapse of buildings and high cost of maintaining road infrastructure. Kenya relies on outdated building codes from the 1960s that do not embed the resilience concept in planning and development of infrastructure. This calls for revising the infrastructure development policy guidelines to improve the local-based plans, safety, and reliability of infrastructure in the county.

Key message on business environment: In order to conduct formal business in Kenya, firms must register with the Business Registration Service under the Business Registration Act 2015 and obtain various licenses from the county government. The government has introduced several reforms in the business environment to make it easier to do business in the country. However, there is insufficient coordination on the implementation of business reforms between the national and county governments. As a result, businesses are currently suffering from multiple regulations on licenses and intercounty charges, particularly when trading from one county to another. County government efforts to consolidate all business licenses and permits into a single business permit have not been fully successful, and the county government framework to deal with intercounty trading licenses/permits and charges has not been fully implemented by the Council of Governors. As a result, the intended benefits of business reforms to facilitate business operations are not fully realized.

Key message on public governance: Kenya has enshrined the principles of good governance in its constitution, which has become the foundation on which the country's economy thrives. As such, public administration should provide a structure that monitors, among other things, the fraudulent use of resources. The Public Finance Management Act 2012 monitors the prudent use of resources in both national and regional governments. However, problems of misuse of public funds are still widespread in the public sector. Improving the prudent use of public resources is of vital importance to national and county governments. In addition, county governments

This chapter discusses the key policies, laws, regulations, and strategies based on the Africa Growth Initiative (AGI) framework. The review of these policies, laws, regulations, and strategies followed a systematic framework provided by the AGI for assessing the growth of urban areas. The framework provides four themes with respective indicators. The themes include: Productive jobs, accessibility, business environment, and public governance. All Kenyan policy instruments relevant to the AGI framework were identified, categorized, and reviewed. The review process involved assessing their implementation levels, capacity of institutions implementing the instruments, and achievements as well as offering recommendations.

Specifically, the discussion is based on four pillars: productive jobs, accessibility, business environment, and public governance. The chapter is organized as follows: Section 6.2 provides the summary of the top priorities for policy action by the national and county governments; Section 6.3 provides a second tier of priorities; and Section 6.4 discusses how the country and counties have built their policy, legal, and regulatory architecture. Finally, the appendix provides a detailed analysis of the existing policies, laws, regulations, and strategies.

6.2 Summary of existing policies, laws, regulations, and strategies

This section summarizes key policies, laws, regulations, and strategies related to productive jobs, accessibility, business environment, and public governance as outlined in the AGI framework. Furthermore, policy actions requiring top priority, including their respective responsibility holders, are identified.

Table 6-1 Summary of policies, laws, regulations, and strategies

Theme	Policy/law/regulation/ strategy	Policy action/top priorities	Responsibility (national government and county government)
Productive jobs	Occupational Health and Safety Act, 2007	Promote the occupational health and safety standards in places of work to address poor workplace health and safety conditions that often lead to injuries and spread of diseases.	National government
		Streamline the enforcement efforts to adopt and develop a culture of occupational health and safety standards in places of work to reduce injuries and spread of diseases at the county level.	County government
Accessibility	Building Code (1968)	Review the building code to adapt to the changing needs	National government

		and allow use of local materials that pass the safety test.	
		Streamline the enforcement efforts to the adoption of approved building code at the county level.	County government
	Physical Planning Act CAP 286 (1996)	Streamline the enforcement efforts in order to control the unplanned development in urban areas.	National government
		Strengthen the role of Physical Planning Liaison Committees in enforcing the act at the county level and enhance the collaboration with the national government.	County government
		Develop local based action plan to inform the master plan, which will provide an opportunity for investment and inclusion.	County government
Business environment	Business Registration Act No.15 of 2015	Coordinate with county governments and other shareholders the implementation of Business Registration Service (BRS) reforms.	National government
		Facilitate implementation of business registration reforms at the county level provided by the BRS for ease of doing business.	Nairobi City County government
Public governance	Public Finance Management Act of 2012	Enhance the prudent use of public resources.	National government
		Full implementation of the act through regular training and sensitization of the county staff on public finance management (PFM)	Nairobi City County government

6.3 Second tier of policy priorities

This section identifies additional policy issues that need to be addressed under the AGI framework. The Nairobi City County government and the national government need to prioritize taxation and trade issues affecting the city's business environment. Insolvency regulations and how to strengthen anti-corruption laws are also critical for Nairobi City County's public governance and growth.

Table 6-2 Second tier of policy priorities

Theme	Policy/law/ regulation/strategy	Policy actions	Responsibility (national government and county government)
Productive jobs	Employment Act, 2007	Nurture the emerging sectors, including the informal sector, by providing capital for job creation as well as develop culture to improve workplace health and safety conditions.	National government
Accessibility	Kenya Roads Act	Embed the resilience component in the planning, design, and development of road infrastructure to reduce huge maintenance costs.	National government
	Physical Planning Act CAP 286 (1996)	Streamline enforcement efforts in order to control the unplanned development in urban areas.	National government
		Strengthen the role of Physical Planning Liaison Committees in enforcing the act at the county level and enhance collaboration with the national government.	County government
	Lands Act 2012	Embrace full digitization of land management in all land offices.	National government
	Urban Areas and Cities (Amendment) 2019	Strengthen building of local economies guided by local economic development plans.	County government
	Digital Economy 2019	Tap on the utilization of the Universal Service Funds to increase connectivity level in the underserved and unserved areas in the county.	National government
		Promote digital data sharing and development of data policy.	National government

Business environment	Tax Procedures Act 2015	Improve participation of relevant stakeholders when introducing taxes.	National government
		Improve participation of relevant stakeholders when introducing county charges, fees, and levies.	Nairobi City County government
	National Trade Policy 2017	Develop a National Trade Act.	National government
		Develop county trade policy to address the issues affecting trade in the county.	Nairobi City County government
Public governance	Bankruptcy Act (Cap. 53)	Finalize the insolvency regulations.	National government (attorney general)
	Leadership and Integrity Act 2012	Strengthen the anti-corruption laws.	National government

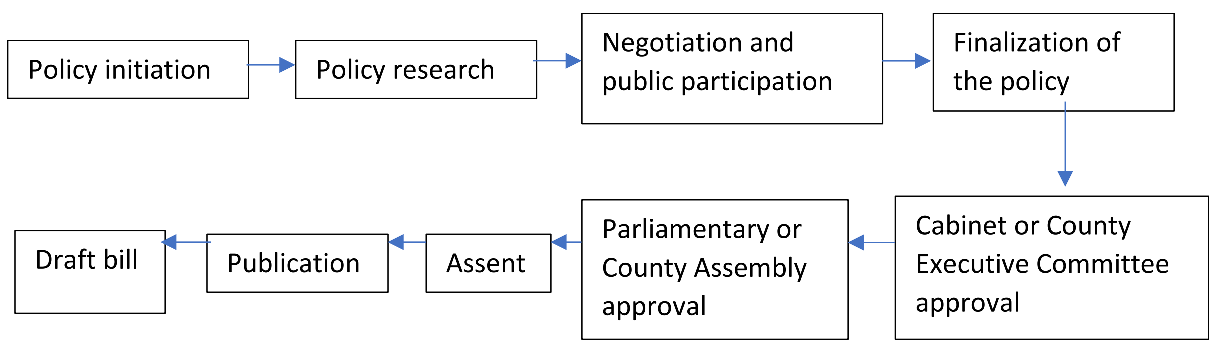
6.4 Policy and legislative architecture

Quality policy and legislation is key to supporting the effective governance of modern societies. Adequate understanding of the process of developing legislation is critical for legislative bodies, policymakers, drafts persons, and members of the public for quality legislation. The 2010 Kenya Constitution outlines the legislative process as well as key legislative actors that include a bicameral Parliament consisting of the National Assembly and the Senate, 47 County Assemblies in each of the 47 counties, and the requirement for public participation in policymaking and legislation. The Senate and National Assembly are the primary legislative organs at the national level and the County Assemblies at the county level. The basic function of a legislative body is to make, amend, or repeal a law.

Generally, within the hierarchy of policy instruments, laws and regulations are preceded by policies. Policy ideas may originate from the executive and the executive entities, political formations such as parties, business associations, organized groups, or individual citizens.

The importance of developing a policy framework first is to allow the executors to determine a clear road map, assess the problem and possible solutions, and define the opportunity to be embraced and the modalities or approaches to realize the benefit prior to proposing the necessary legal framework. Policies articulate the position of the executive to ensure harmony of the legislative agenda with the executive's developmental initiatives. The absence of a policy framework to guide the formulation of a legislative instrument can lead to both legal and practicality challenges in the implementation stage and, therefore, result in monetary losses. The stages in the policy formulation process are outlined in Figure 6-1.

Figure 6-1 Policy formulation process



Source: The National Assembly of Kenya (2017)

Legislation springs from a policy as a means of giving a justifiable basis and implementation framework. In addition, the government may opt to deal with a policy problem by direct implementation through ministerial order, administrative measures, economic instruments, voluntary agreements, self-regulation, information disclosure, persuasion, or developing legislation to give full effect to the policy. All bills at the national and county governments must pass through the following stages: publication and circulation, first reading, second reading, committee stage, report stage, third reading, and assent. Laws are published in the *Kenya Gazette*.

Regulations are formulated to give effect to, implement, and enforce policy and/or law and monitor such enforcement. Regulations must be informed by the available policy options and reflect a choice of the best way to address the identified need. Regulations are formulated after approval of policies and enactment of laws.

The 2010 Kenya Constitution demands that all legislation is prepared on the basis of transparent, comprehensive, and balanced evidence. Regulatory Impact Assessment (RIA) is a systemic approach to critically assess the positive and negative effects of proposed or existing regulatory and non-regulatory alternatives. RIA is aimed at ensuring rigorous analysis of regulatory proposals, effective and appropriate consultation, and transparency of process. It is an evidence-based approach to policymaking. RIA requirements apply to proposals for new and amending regulation and to policy proposals that may result in new or amending regulation (regulatory proposals). RIA is an instrument that authorizes the determination and consequences of introducing a new regulatory regime.

Despite a rigorous process of enacting policies, laws, and regulations, Kenya still experiences some challenges of participation by all relevant actors. For instance, in 2021, the High Court of Kenya suspended more than 20 laws because they lacked input from the Senate. Some of these laws are instrumental in providing direction to leadership and governance of the urban areas and provision of critical services including transport. Further, there is a need to carry out comprehensive RIA to inform on crafting effective policies, laws, and regulations.

6.5 Policy road map

This section highlights the policy road map for Nairobi City County. The road map is derived after reviewing various policies, laws, regulations, and strategies related to productive jobs, accessibility, business environment, and public governance as outlined in the AGI framework. The purpose of the policy roadmap is to highlight policy actions requiring attention within either the short term (immediately), medium term (two to three years), or long term (four to five or more years).

Table 6-3 Policy road map for Nairobi City County

Theme	**Policy road map**	**Long term/medium term/short term**
Accessibility	Review the building code to adapt to the changing needs and allow use of local materials that pass the safety test.	Short term-medium term
	Streamline enforcement efforts in order to control unplanned development in urban areas.	Medium term
	Embed the resilience component in the planning, design, and development of road infrastructure to reduce huge maintenance costs.	Medium term-long term
	Prioritize rehabilitation and maintenance of roads by local and national governments.	Medium term-long term
Productive jobs	Promote the occupational health and safety standards in places of work to address poor	Short term

	workplace health and safety conditions that often lead to injuries and spread of diseases.	
	Streamline enforcement efforts to adopt and develop a culture of occupational health and safety standards in places of work to reduce injuries and spread of diseases at the county level.	Medium term
	Nurture the emerging sectors, including the informal sector, by providing capital for job creation as well as develop a culture to improve workplace health and safety conditions.	Medium term-long term
	Promote skills development among employees.	Short term-medium term
Business environment	Coordinate with county governments and other shareholders on the implementation of BRS reforms.	Short term
	Facilitate implementation of business registration reforms at the county level provided by the BRS for ease of doing business.	Medium term
Public governance	Enhance the prudent use of public resources.	Short term-medium term
	Full implementation of the act through regular training and sensitization to the county staff on PFM.	Medium term-long term

7 Conclusion and policy recommendations

7.1 Conclusion

Nairobi's population makes up more than 30 percent of Kenya's urban residents; with an estimated 4,397,073 people, it is three times larger than Kenya's second-largest city, Mombasa. The increasing urban population growth in Kenya is attributable to rural-to-urban migration and increasing birth rates within the urban areas. Generally, workers move from rural to urban areas in search of more productive and better-paid jobs, and entrepreneurs locate their firms in cities. Kenya's urbanization rates are expected to remain high with at least 50 percent of the population living in urban areas by 2050. These high rates will continue to pose a challenge when it comes to access to basic infrastructure, which will affect socio-economic progress and the well-being of the population.

The expanding urban population in Nairobi City County is being absorbed in informal settlements and slums with poor living conditions, poor infrastructure, and high poverty rates. A large majority of the urban population lacks productive jobs. Rapid urbanization in Nairobi City County in tandem with poor planning has resulted in huge backlogs in critical infrastructure and basic services, leading to the emergence of sprawling, overcrowded, and impoverished informal settlements. According to the Kenya National Bureau of Statistics (KNBS), 36 percent of residents in Nairobi City County live in slums that are overcrowded and exhibit high persons per square kilometer population density (KNBS 2019a).

As the city of Nairobi continues to grow, it is important to identify and address the constraints to its productivity growth thus making the city more livable. Nairobi has the potential to address its current urban challenges that include a lack of productive jobs, low levels of access to infrastructure services, and high costs relative to the level of development. This study focused on five major objectives: generating productive jobs, linking workers to firms, connecting firms to markets, strengthening public governance, and review of policy initiatives for Nairobi to enhance the city's economic growth. The main findings include:

Productive jobs: The city of Nairobi is a vital commercial and financial regional hub, home to the regional headquarters of various major international companies and organizations. However, employment shifts in the economy are more informalized and insufficient to provide decent standards of living. Labor productivity in Nairobi City County has been declining, yet productivity growth is one of the key drivers of economic transformation. It is imperative for policymakers to recognize the important role of the informal economy and that steps should be taken to improve productivity and conditions in this sector while encouraging formalization. The informal economy is huge and expanding rapidly in the county. The growth of informal sector employment is attributed to the stagnant growth of formal sector employment. The living standards of Nairobians will improve further if the productivity and employment conditions of informal employment improve. Low employment rates among youths are driven primarily by a slowdown in job creation, especially in the formal sector. The budget allocated to the Technical Vocational Education and Training (TVET) has doubled in the last three years from Ksh 7,764 million in 2018/19 to Ksh 15,210 million in 2020/21. It is evident that there is increased budget for TVET in order toto produce competent graduates required in the labor market.

Accessibility: Land use trends in Nairobi have changed over the years with preference leaning toward residential and commercial developments. The mismatch in zoning and land use has contributed to a shortage of land, especially for public infrastructure, resulting in delays in projects and demolition of buildings and structures. Lack of planning, inappropriate land use regulations, unclear land rights, conflicts between informal and formal markets, and legacy issues contribute to informal fragmentation of land which limits access to basic infrastructure. Although Nairobi City County is connected internationally via air transport and transport and logistic networks and has shown a trend of improving competitiveness in the last ten years, most roads outside the Central Business District (CBD) are in fair to poor condition indicative of the existing constraints in connecting the city to the suburbs. The rail network in Nairobi City County is unevenly distributed and covers only a few sub counties and wards when compared to the other modes of transport like road. The low volume of commuter rail passengers registered in the past years is attributable to ununiform connectivity and accessibility of the rail network. Further, a majority of the jobs are inaccessible within an hour by foot or minibus. In addition, traffic congestion affects accessibility thus causing variability in travel speed and times.

Business environment: The common obstacles faced by a majority of businesses in Nairobi include access to licenses and permits, finance, land, rigid labor regulations, inefficient tax administration, transport, crime, theft, and disorder. Majority of these obstacles are faced by medium and small enterprises. Among the incidences of crime witnessed in the county, the majority include muggings, burglaries and break-ins, and robberies. Enterprises in Nairobi still wait for longer periods to secure an electricity connection. The duration, however, varies remarkably among enterprises of different sizes with the smallest firms waiting longer than large and medium enterprises to secure a connection. Further, larger enterprises spend more per year on electricity compared to microenterprises. Informal gifts offered to secure an electricity connection are highest among large enterprises in the city. Utilization of energy from generators is highest among medium enterprises. Uptake of internet is highest among large firms but lowest among microenterprises. Internet supports mobile money platforms which are used to receive payments from customers and to pay suppliers. Particularly, uptake of mobile money services is highest among small enterprises. Finally, firms in Nairobi experience an average of eight power outages per month with the majority of these outages lasting for an average of seven hours.

Public governance: The governance of Nairobi City County has undergone a series of transformations since the establishment of county governments in 2013, and these transformations demonstrate the capacity of the county to undertake its constitutional duties. Nairobi City County has made significant progress in investment in infrastructure and is making progress in its public sector governance, which, if sustained, can elevate the city to be the city to go for living and working. To effectively undertake its roles, the need for financing in the city cannot be overemphasized. The city county has three main revenue streams: own source revenue (OSR), the equitable share from the national government, and conditional grants. For OSR, the city county has largely relied on fees, levies, rates, and permits, as well as licensing. Nairobi City County still has an opportunity for property taxation, and given its massive land resources, can also leverage the potential of land value capture (LVC) which allows local governments to charge fees and taxes to developers and property owners and raise revenue. Revenue from LVC can then be reinvested into infrastructure, community, and city services.

Policy initiatives: Nairobi City County has put in place various policy initiatives in terms of productive jobs, accessibility, business environment, and public sector governance. The city has registered good progress in creating jobs, especially in the emerging sectors such as the digital and gig economies. However, employment in the country faces challenges that are manifested in a high unemployment rate, underemployment, and poor working conditions. Similarly, the city has put in place various infrastructure to increase the level of accessibility and delivery of infrastructure services. However, the country lacks local-based action plans to inform the master plan for investment and inclusion. Further, the existing infrastructure experiences safety as demonstrated by the frequent collapse of buildings and high maintenance costs. Unfortunately, the county relies on outdated building codes from the 1960s that do not embed the resilience concept in planning and development of infrastructure. The principle of good governance forms the foundation upon which a better economy thrives. As a result, public administration should provide a structure that monitors, among other things, resource fraud. Although the county is guided by the Public Finance Management Act of 2012, which governs the prudent use of resources, problems with the misappropriation of public funds remain widespread in the public sector thus limiting efforts to improve the prudent use of public resources in the county. Strengthening governance structures in county government is critical to bolstering the county's OSR mechanism, as well as revenue collection and administration capacities. In addition, firms are required to register with the Business Registration Service (BRS) under the Business Registration Act 2015 and obtain various licenses from the county government to conduct formal business in Kenya. The government has undertaken reforms in the business environment to make doing business in the country easier. However, a lack of coordination on the implementation of business reforms between the national and county governments has resulted in multiple regulations on licenses and intercounty charges for businesses. As a result, the intended benefits of business reforms to ease business operations are not fully realized.

Further, despite a rigorous process of enacting policies, laws, and regulations, Kenya still experiences some challenges of participation by all relevant actors. For instance, in 2021, the High Court of Kenya suspended more than 20 laws because they lacked input from the Senate. Some of these laws are instrumental in providing direction to leadership and governance of the urban areas and provision of critical services including transport. Further, there is a need to carry out comprehensive Regulatory Impact Assessment (RIA) to inform on crafting effective policies, laws, and regulations.

Finally, in order to develop a productive city, there is a need to develop a policy framework that effectively addresses all key issues across the four pillars. As noted earlier, the pillars are interconnected and key in enabling growth of Nairobi City County. For instance, building better roads will create jobs and in turn improve the business environment which ultimately supports the county in generating its OSR.

7.2 Summary of policy recommendations

Productive jobs

- Strengthen partnerships among training institutions and industry.
- Technical Vocational Education and Training (TVET) should provide training in skills consistent with emerging technologies.
- Provide TVET in modules to help informal laborers upskill.
- Adopt a culture that promotes workplace health and safety standards.
- Nurture emerging sectors, including the informal sector, by providing capital for job creation.

Accessibility

- Adhere to land zoning, resolve land grabbing and pending land conflicts, and update the land registry and valuation systems.
- Develop a land value index to guide compensation for compulsory acquisition of land for government projects and investments—Land Value (Amendment) Act of 2019—and create a government land bank[12].

[12] See footnote 1 above

- Improve road conditions, expand road networks within the county and improve transport connections with intermediate cities.
- Leverage urban planning strategies and tools such as land readjustment, urban renewal, and land value sharing to create more public spaces, harmonize development that caters to users' needs and is sustainable, and provide incentives and programs to encourage private open spaces like schools and sports clubs to open their facilities for public use.
- Revise building codes to adapt to the changing needs.
- Strengthen resilience in planning, design, and execution of road infrastructure.

Business environment

- Expand infrastructure for incubation labs to support skills development.
- Enhance incentives for tertiary education enrolment.
- Harmonize and unify the digital platforms for business registration and tax payment.
- Expand the road network in the city and extend street lighting to markets and business centers.
- Provide incentives to enterprises in the city to invest in clean sources of energy.
- Coordinate with county governments/other stakeholders to implement business reforms.

Public governance

- Invest in setting up proper and working governance structures that will enable the city to effectively undertake all its functional and fiscal responsibilities.
- Tap into the county's revenue potential to help overcome fiscal deficits and pending bills, especially by enhancing compliance and enforcement of payments to the county and automate revenue systems to close revenue loopholes.
- Consider other forms of revenue mobilization, including making use of land value capture (LVC), for example idle land tax and other forms of private capital.
- Put in place the legal and institutional framework required to access credit or debt markets and financial markets and to tap into LVC and other resource mobilization strategies.
- Enhance collaboration with Africities and UN-Habitat which can offer an opportunity to benchmark and learn from other fast-developing cities in Africa.
- Encourage a prudent use of public resources.
- Fully implement Public Finance Management Act of 2012 by providing regular public finance management training to county staff.

7.3 Future studies

- Need to have an active city research and statistics section for undertaking research which brings together all data gaps as well as other unknown research works going on including those covered in this report.
- Undertake research on modeling and forecasting of revenue streams to the county and assessment of predictability of funds.
- Undertake research on any other data gaps to support the urban economic growth in the city of Nairobi.
- Undertake similar studies in other cities such as Mombasa, Kisumu, and Nakuru for comparative purposes.

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Appendix 1: AGI Indicators

Domain	Sub-domain	Indicator	Source of data
Productive jobs (PJ)		Distribution of firms in tradable vs. non-tradable sector	KNBS 2019)
Accessibility (ACC)		Percentage of formal employment in a city available within a public transport commute of one hour	KNBS (2019)
		Distribution of accessibility across neighborhoods	Survey/ KII (Key Informant Interview)
	Intracity accessibility: Land use (Measurements of land use fall into four categories: land titling, housing and employment, developable land, and urban vulnerability.)	Titling: Tenure insecurity	Survey/KII (Key Informant Interview)
		Housing: Location of new housing	State Department for Housing and Urban Development
		Housing: Cost of housing as percent of income	National Housing Survey, 2013
		Employment: Location of new employment centers	Survey/KII (Key Informant Interview)
		Developable land: Publicly owned land	Survey/KII (Key Informant Interview)
		Vulnerability: Total built-up area and total residents exposed to flood, storm surges, earthquakes, and heatwaves	NDMU
	Intracity accessibility: Transportation	Distribution of paved roads, paved roads as a share of urban land	Survey/KII (Key Informant Interview)
		Population within 10 minutes of transit hub	KNBS (2016) KNBS (2019)
		Average speed on major routes during peak commuting hours (congestion)	Survey/KII (Key Informant Interview)
	Intercity and international accessibility	Quality of roads	KRB (2019)
		Existence of port/airport	KNBS (2022)
		Quality of port infrastructure	Survey/KII (Key Informant Interview)
		Quality of transport logistics and infrastructure	Survey/KII(Key Informant Interview)
Business environment	Labor and human capital	Firms identifying an inadequately educated workforce as a major constraint	World Bank (2018)
		Returns to education (secondary, tertiary)	—
		Average level of education	MOE (2020)
	Regulatory environment	Percentage of firms identifying labor regulations as a major impediment	MSMEs survey (2016) World Bank (2018)

		Time to start a business, number of procedures to start a business, ease of paying taxes	World Bank (2018)
	Services and infrastructure	Electricity access	World Bank (2018)KNBS (2022)
		Internet and telephone services	
		Power outages, value lost due to power outages, reliability of connection	World Bank (2018))
Public sector governance		Functional responsibility: Responsibilities covered by budget	OCOB quarterly and annual budget reports for Nairobi City County
		Functional performance: Efficacy of government institutions	Survey/KII (Key Informant Interview)
		Fiscal responsibility: Percent own source revenue (OSR)	OCOB quarterly and annual budget reports for Nairobi City County
		Fiscal responsibility: Predictability of transfers from higher level of government	OCOB quarterly and annual budget reports for Nairobi City County

Source: AGI Framework (2020)

Appendix 2: Distribution of population by age, activity status for persons in the labor force

	Total	**Working**	**Seeking work/no work available**	**Persons outside the labor force***	**Not stated**
5-14 years	805,884	7,883	-	797,786	215
15-17	199,266	8,363	5,795	185,030	78
18-24	701,281	279,225	123,232	298,554	270
25-34	1,062,332	728,095	175,830	157,973	434
35-64	989,479	763,332	114,150	111,563	434
65+	56,503	25,413	3,281	27,790	19
Not stated	126	-	-	-	126
Nairobi City County	3,814,871	1,812,311	422,288	1,578,696	1,576

Appendix 3: Detailed policies, laws, strategies, and regulations

Category	Description	Traffic light **Green:** Approved and impressive implementation of laws and regulations/Full implementation **Yellow:** Approved laws but draft regulations/Good progress **Red:** Approved laws but no regulations/Slow implementation	Capacity of institutions implementing laws, regulations, and policies	Achievements/ results	Recommenda-tions
Overarching law					
Constitution of Kenya 2010	The broad range of rights enshrined under the Constitution of Kenya provides a framework for improved delivery of services. The constitution provides guidelines for reasonable access to water, health services, and infrast ructure. Every person, by operation of the constitution, is entitled to the "highest attainable standard of health"; "accessible and adequate housing, and to reasonable standards of sanitation"; "to be free from hunger, and to have adequate food of acceptable quality"; and "to clean and safe water in adequate quantities." Article 229(6) of the constitution requires the auditor-general to confirm whether public money has been applied lawfully and in an effective way. This is a broad responsibility that requires the auditor-general to go beyond accounts certification and compliance.	Yellow	Kenya endorsed the Habitat Agenda and Istanbul Declaration in 1996 and has been implementing its recommendations alongside other member states. Fourth Schedule of the Constitution of Kenya spell out the distribution of functions including Housing development between National and the County Governments		
National development blueprints					

Vision 2030	Aims to strengthen the framework for infrastructure development, accelerate project completion, raise efficiency, quality and encourage timely implementation of projects. It also aims to develop and maintain an integrated safe and efficient transport network, benchmark infrastructure facilities and services and provision with globally acceptable performance standards targeted to enhance customer satisfaction. It also seeks to enhance private sector participation in the provision of infrastructure facilities and services strategically complemented by government interventions. Some of the programs under Vision 2030 targeting disasters include Climate Change and Disaster Risk Management (contained in MTP III) and Common Program Framework (CPF) for ending droughts emergencies (contained in MTP II).	Yellow	Completion of flagship projects such as Establishment of an Optical Astronomical Observatory. Increased national capacity and capability for urban economy. Two sites for the establishment of the Science Technology and Innovations (ST&I) park for coordination of Technology and Innovation Commercialization Program identified at the Konza Technopolis and Dedan Kimathi University of Technology.		
Digital Economy 2019	Digital Economy 2019 is a blueprint that seeks to provide a conceptual framework adopted by Kenya in its quest toward the realization of a successful and sustainable digital economy. The blueprint identifies infrastructure as one of the five pillars of the digital economy.	Yellow	Development of National Digital Economy Strategy underway. Ineffective mechanisms for consumer protection Outdated national cybersecurity strategy.		
Kenya National Digital Master Plan 2022-2032	The Kenya National Digital Master Plan is a blueprint for leveraging and deepening the contribution of information and communications technology to accelerate economic growth. The master plan is firmly grounded on the Vision 2030, e-Government Strategy 2004, and Digital Economy Blueprint.	Yellow			
Infrastructure-related policies, strategies, laws, and regulations					

County Governments Act of 2012	The act actualizes the provisions of the Constitution of Kenya, 2010, which under Schedule IV Part II provides for counties to implement national policies and programs touching on urban growth.	Yellow	Devolved functions. Enhanced capacity and capability.		
Science, Technology and Innovation Act 2013	The act guides the development and streaming of science, technology, and innovation activities	Green Registration of research institutions in Kenya Application of research license. Lack of a national science, technology, and innovation policy	Establishment of Kenya National Innovation Agency Establishment of National Science, Technology, and Innovation Fund		
Physical Planning Act (Cap. 286) (1996)	This act provides rules for physical planning in Kenya, establishes Physical Planning Liaison Committees, provides for the appointment of the director of physical planning, requires regional and local authorities to adopt Physical Development Plans in accordance with this act, and provides for control of development and subdivision of land.	Yellow	Approved Regulations for the Physical and land Use Planning Act include: • Physical and Land use Planning (Planning fees), Regulation 2021 • Physical and Land Use Planning (Local Physical and Land Use Development Plan) Regulations, 2021 • Physical and Land Use Planning (Institutions) Regulations, 2021 • The Physical and Land Use Planning (Liaison Committees) Regulations, 2021 • The Physical and Land Use Planning (Development Permission and Control) (General)		

			Regulations,2 021 Establishment of Physical Planning Liaison Committees.		
Engineers Act No. 43 of 2011 (Engineers Registration Act Cap 530)	This is an act of Parliament that provides for the registration of engineers in Kenya. Under this act, the Engineers Board of Kenya is established to regulate the activities and conduct of registered engineers in the country. The appointed registrar of the board has the responsibility of keeping and maintaining a register of all entitled people that have been accepted by the board for registration. The act provides the minimum qualifications for any individual wishing to be registered after making an application to the board and paying the prescribed fees.	Yellow	Established body that ensures production of competent engineers and quality engineering services through regulation, capacity building, and enforcing compliance with set engineering standards for improved socio-economic development. There are several incidents of collapsed buildings due to challenges linked to poor competence.		
Engineering Technology Act 2016	An act of Parliament to make provision for the regulation, practice, and standards of engineering technologists and technicians, and for connected purposes.	Yellow	Established Kenya Engineering Technology Registration Board (KETRB) to set standards for engineering technologists and technicians, register and issue licenses to qualified persons. Kenya has many technologists and technicians who have not registered.		
Environmental Management and Coordination Act (EMCA) 1999 – amended 2015	The act provides framework law on environmental management and conservation. The act guides on National Environment Action plan, protection, and conservation of environment, environmental impact assessment, environmental audit and monitoring, environmental	Green	Establishment of NEMA, Public Complaints Committee, National Environment Tribunal, National Environment Action Plan Committees, and County Environment Committees Environmental Management and Coordination		

	quality standards, and inspection analysis.		(Waste Management) regulations, 2006. These regulations define rules for the management of waste in general and for the management of solid waste, industrial waste, hazardous waste, pesticides and toxic substances, biomedical waste, and radioactive substances in particular.		
National Drought Management Authority Act 2016	The act establishes the National Drought Management Authority (NDMA) to coordinate all matters relating to drought management, including implementation of policies and programs relating to drought management. The NDMA also coordinates drought response initiatives being undertaken by other bodies, institutions, and agencies; as well as promotes the integration of drought response efforts into development policies, plans, programs, and projects in order to ensure the proper management of drought.	Red	The NDMA is charged with responsibility of establishing and facilitating coordination frameworks at the national and county levels of government by providing appropriate policy guidance. The act establishes the National Drought Emergency Fund.		
Kenya Roads Act	An act of Parliament to provide for the establishment of the Kenya National Highways Authority, the Kenya Urban Roads Authority, and the Kenya Rural Roads Authority to provide for the powers and functions of the authorities and for connected purposes.	Yellow	Establishment of the Kenya National Highways Authority, the Kenya Urban Roads Authority, and the Kenya Rural Roads Authority. High cost of building and maintaining roads. Increased number of road users.		
Lands Act 2012	This act makes provision for wayleaves in favor of the government on private lands for the purpose of carrying out public works and for the protection of such works on any lands.	Yellow			

	The Lands Act has revised, consolidated, and rationalized previous land laws so as to provide for the sustainable administration and management of land and land-based resources and other connected purposes. Repeals the Wayleaves Act (Cap. 292) and the Land Acquisition Act (Cap. 295).				
Water Act 2016	The act provides for the management, conservation, use, and control of water resources and for the acquisition and regulation of rights to use water; to provide for the regulations and management of water supply and sewerage services. Water is a devolved function and county governments have an active role in managing water resources. .	Green	The act establishes the Water Resources Management Authority and defines its duties, regulates the ownership and control of water, and makes provision for the conservation of surface and groundwater and the supply of services in relation with water and sewerage. Water Quality Regulations, 2006: These regulations provide rules relative to the use and discharge of water for domestic, agricultural, and industrial purposes, make provision for the protection of water resources from pollution, and define water quality standards.		
Energy Act 2019	The law establishes the Energy and Petroleum Regulatory Authority, the Rural Electrification and Renewable Energy Corporation, and the Nuclear Power and Energy Agency.	Green: Approved and impressive implementation of laws and regulations/Full implementation			
Urban Areas and Cities (Amendment) 2019	The law enables county governments to review the criteria for classifying an area as a city, municipality, town, or market center. Under the law, the population for a city has been reduced by half, from	Yellow: Approved laws but draft regulations/Good progress			

	500,000 to 250,000. The law permits a county to declare an urban area a municipality if it has a resident population of at least 50,000. An area will be declared a town if it has a population of at least 10,000 residents while a market center will require a population of at least 2,000. The law proposes the establishment of boards to govern and manage cities and municipalities and details the requirements of appointment to manage the boards.				
Petroleum Act 2019	The petroleum law provides a framework for contracting, exploring, developing, and producing the commodity. It is also used to create a national policy for operations and as a reference point in the establishment of petroleum institutions. The national government, county governments, and communities will receive a fair share of the revenue from petroleum operations.	Green: Approved and impressive implementation of laws and regulations/Full implementation			
Climate Change Act of 2016	The goal of the act is to provide a regulatory framework for an enhanced response to climate change, and to provide mechanisms and measures to improve resilience to climate change and promote low-carbon development. The act adopts a mainstreaming approach, provides a legal basis for climate change activities through the national climate change action plan, and establishes the National Climate Change Council and the Climate Fund. With the enactment of the Climate Change Act of 2016 (CCA), Kenya joined the league of nations that have taken concrete steps to domesticate the Paris Accord on Climate Change.	Yellow: Approved laws but draft regulations/Good progress			

Kenya Information and Communication Act (2012)	The act facilitates the development of the information and communications sector (including broadcasting, multimedia, telecommunications, and postal services) and electronic commerce.	Green: Approved and impressive implementation of laws and regulations/full implementation	The following are the regulations governing the communications sector in Kenya: Broadcasting Regulations, 2009 Compliance Monitoring, Inspections and Enforcement Regulations, 2010 Consumer Protection Regulations, 2010 Dispute Resolution Regulations, 2010 Electronic Certification and Domain Name Administration Regulations, 2010 Fair Competition and Equality of Treatment Regulations, 2010 Interconnection and Provision of Fixed Links, Access and Facilities Regulations, 2010 Licensing and Quality of Service Regulations, 2010 Numbering Regulations, 2010 Postal and Courier Services Regulations, 2010 Radio Communications and Frequency Spectrum Regulations, 2010 Tariff Regulations, 2010 Universal Access and Services Regulations Importation Type Approval and Distribution of Communications		

			Equipment Regulations, 2010 Registration of SIM Cards Regulations, 2015 The Kenya Communications Regulations, 2001		
Maintenance Policy of 2018	The policy provides guidelines on measures to protect and ensure installed infrastructure retains its value in the long term.				
National Construction Act	The act provides for the establishment of a national construction authority to oversee the construction industry and coordinate its development. The authority also sets out application requirements and procedures for registration of persons and firms as construction contractors (Section 17) and punitive measures for contravening by individuals them [Section 15(3)].	Yellow: Approved laws but draft regulations/Good progress	National Construction Authority Regulations (2014): It sets out rules and regulations that regulate the operations of the construction industry in Kenya, including registration of contractors, accreditation of workers, and enforcement of the code of conduct. Construction Industry Policy 2018 (Draft): The policy articulates the role of government(s) in ensuring that appropriate construction risk and disaster management strategies are mainstreamed in the construction industry.		
National Broadband Strategy (NBS) for Kenya (2018-2023)	Provision of connectivity for transforming Kenya into a knowledge-based society driven by a high-capacity nationwide broadband network.	Yellow: Approved laws but draft regulations/Good progress	High cost of internet Digital Divide.		
Building Code (1968)	The code has adoptive building bylaws which any municipal or county council may adopt. The code has several sections each targeting a particular construction issue—e.g.,	Red: Approved laws but no regulations/Slow implementation	Outdated building codes.		

	citation, siting, and space—about buildings and materials. The code has been slow to adapt to the changing needs and there are efforts to replace the Building Code with Eurocodes/Planning and Building Regulations 2009, which allows use of local materials that pass the safety test.				
Kenya Climate Smart Agriculture Strategy (KCSAS) (2017-2026)	Climate-smart agriculture (CSA) is an approach that helps to guide actions needed to transform and reorient agricultural systems to effectively support development and ensure food security in a changing climate. Kenya Climate Smart Agriculture Strategy (KCSAS) aims to achieve three main objectives: sustainably increasing agricultural productivity and incomes; adapting and building resilience to climate change; and reducing and/or removing greenhouse gas emissions, where possible.				
National Adaptation Plan of Action (2015-2030)	The aim of this plan is to consolidate the country's vision on adaptation supported by macro-level adaptation actions that relate with the economic sectors and county-level vulnerabilities to enhance long-term resilience and adaptive capacity. This plan presents adaptation actions that cover the time frame 2015 to 2030.				
Green Economy Strategy and Implementation Plan (GESIP) (2016-2030)	The Ministry of Environment and Natural Resources, with support from development partners, spearheaded the development of the Green Economy Strategy and Implementation Plan (GESIP). GESIP has five thematic areas and a number of strategies aimed at accelerating a transition toward globally competitive low-carbon pathways, as well as define a road map for eliminating fiscal constraints leveraging				

	international financial mechanisms. Through these strategies, GESIP contributes to the implementation of the Paris Agreement on climate change and attainment of Sustainable Development Goals (SDGs).				
National Climate Change Response Strategy (NCCRS) of 2010	The National Climate Change Action Plan 2013-2017 is Kenya's first action plan on climate change. It was developed with the aim of implementing the National Climate Change Response Strategy (NCCRS) that was launched in 2010.				
Labor-related policies, strategies, laws, and regulations					
Employment Act, 2007	This act outlines the substantive rights of workers and provides for the basic conditions of employment. The act also regulates the employment of children. Section 4 of the act prohibits the use of forced labor and makes it an offense for a person to use or to assist another person in recruiting, trafficking, or using forced labor. It defines forced labor as work which is not done voluntarily and one that is done under the threat of penalty. Section 5 of the act requires employers to eliminate discrimination in the employment policy and practice and to promote equal opportunity.		Regulation of Wages and Conditions of Employment Act		
Industrial Training Act (Cap. 237)	The act establishes an authority for industrial training; assessing and collecting industrial training levies and fees; regulating trainers registered under Section 7C; developing industrial training curricula; integrating labor market information into skills development; harmonizing curricula and certificates of competence; assessing industrial training, testing occupational skills, and				

	awarding certificates, including government trade test certificates; equating certificates; accrediting institutions engaged in skills training for industry; and associating or collaborating with any other body or organization within or outside Kenya.				
The Labour Relations Act	The act provides for the registration, regulation, and management of trade unions, employer organizations, or federations. It promotes and protects freedom of association of employees and employers.				
Occupational Health and Safety Act, 2007	The act provides safety, health, and welfare of workers and all people lawfully present at the workplace. The act aims to secure the safety and health of persons at the workplace. It also protects workers against risks to safety and health arising from any activity occurring in the workplace.				
Work Injury Benefits Act, 2007	The act provides for compensation to employees for work-related injuries and diseases.				
Business environment-related policies, strategies, laws, and regulations					
Business Registration Service Act, 2015	The act establishes a Business Registration Service (BRS) for all types of firms operating in the country. The act mandates that every enterprise be registered and encourages formalization of businesses. Currently its conducted through an e-citizen online platform, which aims to reduce the time it takes to register a business to an average of 3 to 5 days.	Green	The auditor-general's office under the national government implements the BRS.		National government to coordinate with county government on the implementation of BRS reforms for ease of doing business.

Companies Act, No. 17 of 2015	The act regulates all firms to operate as companies. This registration becomes the fundamental basis for conducting formal business in the country. Currently, companies' registration is facilitated through an e-citizen online platform which replaced the manual registration and filing of paperwork.	Green	The Office of the Auditor-General under the national government implements the BRS.		National government to coordinate with county government on the implementation of BRS reforms for ease of doing business.
Tax Procedures Act 2015	This act establishes a uniform means for enforcing tax laws, facilitating taxpayer compliance, and collecting taxes effectively and efficiently. According to the regulations, businesses must register for tax, file tax returns on time, and maintain accurate records and paperwork.	Green	The Kenya Revenue Authority (KRA)		KRA to enhance public participation when coming up with new taxes—e.g., digital taxes and other taxes that touch on business transactions.
National Trade Policy 2017	The policy aimed to develop Kenya into a competitive export-led economy with a high level of efficiency. It focuses on the development and growth of domestic wholesale and retail trade, as well as trade promotion, environmental protection, and trade finance.	Red	State Department for Trade		There is a need to have laws and regulations to implement the national trade policy. In addition, there is a need to have the county trade sub-technical committees established for effective intergovernmental trade policy coordination.
The Occupational Safety and Health Act, 2007	The act deals with the health, safety, and welfare of an employee who works in the workplace.	Red	Ministry of Labour		There is a need to strengthen the implementation of the Act through formulation of specific regulations to improve the safety and health environment for workers
Public governance-related policies, strategies, laws, and regulations					

Bankruptcy Act (Cap. 53)	Under the Act, a company is deemed unable its debts if it fails to pay a debt of Ksh 100,000 or more after 21 days of a written demand being served upon it. The Act proposes 3 legal regimes for insolvency which include: • Administration of Insolvent companies • Company Voluntary arrangement • Liquidation of companies	Yellow Partially implemented	National Treasury		National government is key to ensure Full implementation of the Act
National Disaster Risk Management Policy 2018.	Cabinet approved the National Disaster Risk Management Policy in 2018. The policy lays down the strategies for ensuring the government commits itself to enhancement of research in disasters and formulation of risk reduction strategies.	Red There are no laws or regulations for national disaster management.	National Disaster Management Unit (NDMU). National Drought Management Authority (NDMA). National Platform for Disaster Risk Management (NPDRM). National Disaster Operations Centre (NDOC)		There is a need for laws and regulations since the management of national disaster is fragmented, uncoordinated, and many of the institutional mandates overlap.
The Public Finance Management (National Drought Emergency Fund) Regulations, 2018)	Cabinet approved the Public Finance Management (National Drought Emergency Fund) Regulations, 2018. The regulations are meant to guide the operations of the National Drought Emergency Fund, which is to be established for the purpose of improving the effectiveness and efficiency of drought risk management systems in the country as well as to provide a common basket of emergency funds for drought risk management.	Green There is the National Drought Management Authority Act (2016).	NDMA	Bankruptcy Act (Cap. 53) The Public Finance Management	
Regional initiatives and frameworks					
Africa Regional Strategy for Disaster Risk Reduction	The Africa Regional Strategy for Disaster Risk Reduction was developed through the initiatives of the African Union (AU), the New Partnership for Africa Development (NEPAD), and the United Nations International Strategy for Disaster Reduction (UNISDR) and adopted by the highest decision-				

	making organ of the AU in 2004. The initiative is aimed at assisting AU member states in enhancing disaster risk reduction to reduce the suffering of the communities and destruction of the environment. The strategy provides a framework for a common approach to shared risks in the region.				
Disaster Risk Management Programme (2002)	Kenya is a member of the Intergovernmental Authority of Development (IGAD). IGAD was specifically established in 1996 to work in drought management in the region. IGAD has also developed a number of policies and programs that touch on disaster management and more specifically drought. In 2012, the member states also adopted a framework for ending drought emergencies in the region through the IGAD Drought Disaster and Sustainability Initiative (IDDRSI). The framework, among other things, provides a mechanism for collaboration regarding mutual support between member states in responding to droughts in the region.				
East African Community (EAC) Treaty	The EAC was established under the EAC treaty. The treaty in Article 112(1)(d) provides that in cooperating on matters dealing with the environment, partner states will “take necessary disaster preparedness, management, protection and mitigation measures especially for the control of natural and man-made disasters.” The EAC also adopted a Disaster Risk Reduction and Management Strategy that provides the policy architecture for disaster management. The strategy seeks to move disaster management in the region from response-based to a prevention model.				

	Action is thus required to be focused on prevention and forecasting. In addition to the EAC Disaster Risk Reduction and Management Strategy, the EAC Climate Change Policy, Strategy and Master Plan provides a robust policy framework for disaster management. It provides for measures for building and strengthening the ability of communities to deal with the reality of climate change through adaptive measures.				
Hyogo Framework for Action (2005-2015)	In 2005, governments around the world committed to take action to reduce disaster risk and adopted a guideline to reduce vulnerabilities to natural hazards, called the Hyogo Framework for Action (HFA). The HFA assisted the efforts of nations and communities to become more resilient to, and cope better with, the hazards that threaten their development gains.				
Sendai Framework for Disaster Risk Reduction 2015-2030	The Sendai Framework for Disaster Risk Reduction 2015-2030 was adopted by U.N. member states on March 18, 2015, at the Third U.N. World Conference on Disaster Risk Reduction in Sendai City, Miyagi Prefecture, Japan. The Sendai Framework is the first major agreement of the post-2015 development agenda, with seven targets and four priorities for action.				

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1775 Massachusetts Ave NW,
Washington, DC 20036
(202) 797-6000
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