Transforming Urban Transport – The Role of Political Leadership
TUT-POL Sub-Saharan Africa
Final Report
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Case Note: Nairobi, Kenya

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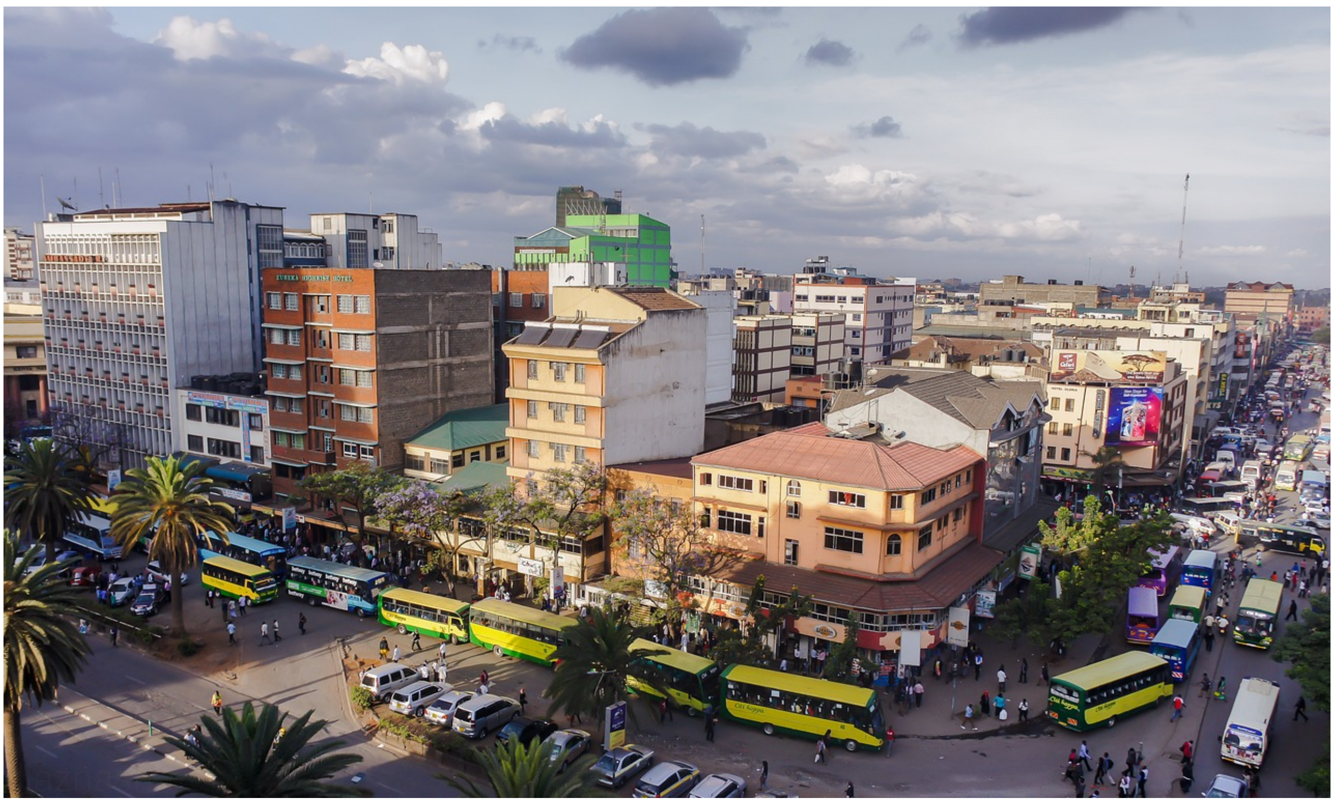

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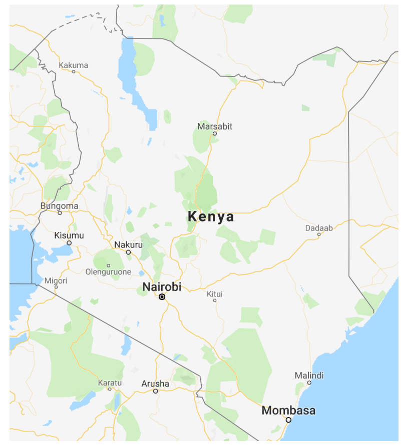
NAIROBI, KENYA

KENYA
Population: 48,397,527 (2018 est.) **Population Growth Rate:** 1.57% (2018 est.) **Median Age:** 20
GDP: USD$163.7 billion (2017 est.) **GDP Per Capita:** USD$3,500 (2017 est.)
City of Intervention: Nairobi
Urban Population: 27% of total population (2018 est.) **Urbanization Rate:** 4.23% annual rate of change (2015-20 est.)
Land Area: 569,140 sq km **Total Roadways:** 161,452 km (2017) **Paved Roadways:** 14,420 km (2017) **Unpaved Roadways:** 147,032 km (2017) *Source: CIA Factbook*



I. POLITICS & GOVERNANCE

A. Multi-Scalar Governance

Since the enactment of a new constitution in 2010, Kenya now functions under a devolved system of government with two levels: national and county (there are 47 lower level county governments). The operation of county governments started soon after elections in March 2013, which included the election of county governors, deputy governors, and representatives. These 47 new county governments oversee certain functions, including the maintenance of local roads, which were previously the responsibility of Kenya's national government. In turn, the county governments receive a share of national revenues; although, they are also expected to mobilize other sources of revenue, such as property and entertainment taxes. Kenya's devolution has faced both progresses and challenges with regards to the devolution of land administration functions, the experimentation of the entire process (i.e. new devolved governments created), and the collapse of three previous levels of administration into one. Moreover, while the county governments are substantially outside the direct control of the national government, they are still subject to national policies and laws approved by Parliament.

The City of Nairobi falls under the Nairobi City Council (NCC), which is governed in its operations by a variety of legal statutes and administrative decrees from the Office of the President and the Ministry of Local Authorities. The Local Government Act, Chapter 265 of the Laws of Kenya is the main legal statute that governs the operations of the NCC.

B. Urban Policy

Plans and policies that govern urban development and transport planning across Kenya include:

- *Vision 2030*
- *Road Sector Investment Programme and Strategy 2010-2024*
- *Kenya Public Private Partnerships Act*
- *Kenya Non-Motorised Transport Policy*
- *Nairobi Integrated Urban Development Master Plan*
- *Nairobi Metro 2030 Plan: A World Class African Metropolis*
- *Nairobi Metropolitan Area Transport Authority Act*
- *Nairobi Metropolitan Urban Transport Master Plan*

With respect to transportation, these plans prioritize the development and enhancement of transport corridors (such as the South Sudan-Ethiopia transport corridor and those linking to Thika highway, Mombasa Road, and newly built by-passes), bus and matatu terminals, metro railway line networks, and legal and institutional reforms. Such developments are aimed at facilitating inter-regional movement of passengers and freight, widening access to local markets, and enhancing connectivity between social and economic centers in the region.[1]

According to **Vision 2030**, Kenya will launch a 50-year multi-modal transport master plan and 20-year road master plan, while also expanding and modernizing aviation, maritime, and rail facilities. The **National Integrated Transport Master Plan** seeks to integrate all transport modes to ensure that investment and location of the transport infrastructure and services are consistent with other public policies. The **Nairobi Integrated Urban Development Master Plan**, on the other hand, plans for Bus Rapid Transit and a light rail system, while omitting mention of informal mass transit except that their stops to discharge or collect passengers caused traffic jams. The **Road Sector Investment Programme** seeks to develop an investment program for Kenya's entire road network, as required by the **Kenya Roads Act 2007**. Nairobi is also looking to set legal and institutional reforms, such as the **Nairobi Metropolitan Area Transport Authority Act**, which established the Nairobi Metropolitan Area Transport Authority.

Furthermore, two new cities are under construction. **Tatu City** is a 1,000+ hectare mixed-use housing development located within Greater Nairobi and 25 minutes from the Jomo Kenyatta International Airport. It is a joint-venture development between the Russian Renaissance Group and Kenyan investors. **Konza Technology City or "Konza City"** is a 20-year, 2,000-hectare, USD$14.5 billion technology hub located in Machakos County, 60 kilometers from Nairobi. Nicknamed "the Silicon Savannah," Konza City project will feature a technology park, science park, university campus, international business district, and space for other commercial and residential properties.

C. Climate Change/Sustainability

The government of Kenya is taking several measures to tackle climate change through transportation-related initiatives. In their 2012 Climate Change Action Plan, they are considering low-carbon

[1] Mustapha, Shakira, and Romilly Greenhill. "An 'Age of Choice' for Infrastructure Financing? Evidence from Kenya." ODI, ODI, 1 Apr. 2017, www.odi.org/publications/10781-age-choice-infrastructure-financing-evidence-kenya.

initiatives such as improved passenger and heavy-duty vehicle stock efficiency, use of bioethanol, biodiesel, BRT and LRT, and shift of freight from road to rail.[2] These initiatives would further include policy, regulatory, and economic measures such as congestion pricing, standards for vehicle inspections and emissions, fuel price reform, and pricing and taxation mechanisms. As a result of the Advancing Transport and Climate Strategies Project in partnership with GIZ, Kenya is one of the first countries in East and Central Africa to develop country-specific road transport emission factors.[3]

II. INFRASTRUCTURE & TRANSPORT

A. Existing Infrastructure

The planning, design, and maintenance of existing infrastructure in Nairobi is split across national agencies, urban development and transport departments, and the county government.

Air/Rail/Ports: As of 2013, Kenya has three main ports (Mombasa, Lamu, and Malindi) and 3,806 kilometers of railway. In 2017, President Kenyatta inaugurated the Standard Gauge Railway (SGR), a new railway line connecting Nairobi to Mombasa.[4,5,6] It is expected to carry several thousand passengers a day, cutting the travel time between the cities from nine to four hours. The USD$3.2 billion deal has been compared to Ethiopia's Addis Ababa-Djibouti line launched in 2016 (although Ethiopia's line is more than 250 kilometers longer and is electrified). The loan for this railway project is the country's biggest, amounting to roughly six percent of its GDP.[7]

Roads/Highways: Vision 2030 states that "by 2030, it will become impossible to refer to any region of our country as remote" (GoK, 2007:6). The existing road network is highly concentrated along the Mombasa-Nairobi-Malaba transport corridor and has mixed conditions: seven percent of the road network is paved and in 2010 over half of roads were classified as being in a "poor" condition.[8] Notable completed projects include the Mombasa–Nairobi–Addis Ababa highway corridor, which was completed in 2019 and, according to the African Development Bank, has enabled better and more trade between Kenya and Ethiopia.[9] There are currently three major road projects underway: Nairobi-Thika Highway Improvement Project (THIP), Nairobi Southern Bypass Project, and Nairobi Eastern and Northern Bypass Project. THIP is Kenya's first large-scale transportation infrastructure project and is a spatially and strategically important one: the highway serves a highly populated zone of Nairobi, acting as a main artery for various satellite towns and economic hubs along the corridor, and constitutes an important section of the Great North Road, linking the port of Mombasa and northern Tanzania to inland economic centers. THIP however is designated as a Category 1 project by the African Development Bank, which means it has a high likelihood of adverse and irreversible environmental and/or social impacts.

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2 http://www.kccap.info/phocadownload/final/SC4/Chapter%207%20SC4_%20Transport_FINAL.pdf
3 https://www.changing-transport.org/new-and-improved-data-on-road-transport-in-kenya/
4 http://www.bbc.com/news/world-africa-40092600
5 The SGR will replace the "Lunatic Express" – a railway opened by the British to cement their colonial claims over rival European powers.
6 With future plans to extend to Uganda, Rwanda, South Sudan, and Ethiopia
7 https://www.bbc.com/news/world-africa-40171095
8 https://www.odi.org/sites/odi.org.uk/files/resource-documents/11225.pdf
9 https://www.afdb.org/en/news-and-events/success-stories/nairobi-addis-ababa-road-corridor-boosts-trade-in-east-and-horn-of-africa/

B. Existing Transportation

Modes of transport (excluding motorcycles) are split as follows: walking (47 percent), cycling (1.2 percent), private car (15.3 percent), matatus/mini-bus (29 percent), bus (3.7 percent), train (0.4 percent), institutional buses (3.2 percent), and other (0.2 percent).[10]

Matatus: *Matatus* are privately-owned, typically Japanese-made, and 14-30-seater minibuses that emerged in the 1950s and today employs over 350,000 drivers, with revenues reaching USD$2 billion annually. [11,12] They were illegal at first but were allowed to compete with formal bus operations in 1973. The *matatu* sector is represented by the Matatu Welfare Association (MWA) and the Matatu Owners Association (MOA). The MOA represents the *matatu* owners and the interests of investors in the *matatu* industry. The association uses legal opposition and strikes to challenge introductions of new legislation, such as the 2004 requirement for public service vehicles to have seatbelts due to the costs.[13] By law, all owners of *matatus* are members of a Savings and Credit Cooperative Organizations (SACCO), which controls one or more routes. It is suggested that the SACCOs often act as cartels and align themselves with members of Kenyan parliament or ministers for protection.[14] Regarding technologies for cashless payments, mapping routes, and pre-booking, the *matatu* industry continues to defy such innovations.

Boda bodas: *Boda bodas* are bicycle and motorcycle taxis found in East Africa with about 1.2 million operating in Nairobi.[15] Drivers are typically members of the Boda Boda Association, which was registered in 2015 and engages directly with government authorities. In recent years, the Nairobi county government banned *boda bodas* from the central business district.

Rail: Kenya Railways Corporation is the nation's main railway with links to Uganda and Tanzania. Since 2006, much of its track and rolling stock has been allocated to a private operating company called Rift Valley Railways on a 25-year concession basis.

Ride-hailing services: Currently, Uber, Little, Taxify, Dubai-based Mondo Ride, MaraMoja, and SafeBoda offer rail-hailing services in Nairobi. The Kenyan Revenue Authority ruled that Uber was not a transportation company and could pay the lower taxation rate of a software company.[16]

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[10] http://www.kccap.info/phocadownload/final/SC4/Chapter%207%20SC4_%20Transport_FINAL.pdf
[11] In response to the demand not met by the British-established formal bus company, Kenya Bus Service
[12] https://www.citylab.com/perspective/2018/12/nairobi-kenya-bus-business-district-ban-mike-sonko/578737/
[13] The then 2004 Minister of Transport, John Michuki, was a prime supplier of seatbelts to the matatu owners.
[14] https://www.citylab.com/transportation/2017/08/the-future-of-nairobis-informal-transit/537573/
[15] https://www.nation.co.ke/oped/letters/Boda-bodas-should-remain-in-the-city-centre-but-regulated/440806-4322494-k99hai/index.html
[16] https://www.citylab.com/transportation/2017/08/the-future-of-nairobis-informal-transit/537573/

C. Infrastructure Stakeholders

Government: The Kenyan and Nairobi governments have introduced new and restructured existing agencies, such as the National Transport and Safety Authority,[17] renewed financing,[18] and pursued initiatives (such as car-free Wednesdays and Saturdays)[19] in an effort to improve infrastructure and tackle transportation challenges.

International: A large share of planned government expenditure in roads development (50 percent),[20] rail (77 percent), and energy (65 percent) is reliant on external sources of finance.[21] The World Bank, African Development Bank, GIZ, and the Sustainable Transportation Solutions for East African Cities are actively supporting transportation initiatives such as launching BRT in Nairobi.

Ride-hailing companies: Uber and its rival Little, launched in 2015 and 2016, respectively. Little was established by Kenya's largest mobile operator, Safaricom, and was resolute about offering cheaper and more localized solutions.[22, 23] In response to growing competition, Uber launched a UberSELECT, a service allowing users to opt for a slightly more expensive trip with a higher-rated driver with a newer car. Uber drivers clock in about 10,000 trips a day in contrast to Little, which registers 3,500 trips. Uber, however, is facing a number of protests from local taxi drivers and, in response to fare rate cuts, a group of Uber and Little drivers organized their own union – the Kenyan Digital Taxi Association. [24,25]

D. Interventions/Projects

Projects like the Smart Matatu fleet management and driver tracking project as well as the Magic Bus's tracking and ticket purchasing both point to a better tracked and managed future for the backbone of Nairobi's transportation network.

Bus Rapid Transit: The Ministry of Transportation announced plans for nine rapid transit corridors, three of which will be bus rapid transit: Athi River to Kikuyu town; Thika to Nairobi Central Business District; and the Jomo Kenyatta International Airport to Nairobi Central Business District.

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[17] Established in 2012, NTSA's focus has been on behavior change, i.e. requiring *matatu* associations to submit quarterly reports on collisions involving their vehicles. Furthermore, the NTSA does not have a strong role in road design, urban development, or mobility planning, which are functions conducted by other government agencies. It also does not set standard processes for safety audits of road designs and plans.

[18] In 2018 the Ministry of Finance introduced a 16 percent value added tax on all petroleum products as part of efforts to raise funds and narrow budget gaps. The government of Kenya has also issued eight domestic infrastructure bonds since 2008/09.

[19] https://today.tamu.edu/2018/07/09/nairobi-is-planning-car-free-days-what-are-the-benefits/

[20] There appears to be no PPPs in the road sector. Instead, the government is rolling out two schemes – a series of toll roads and a road annuity programme to fill financing gaps (ODI)

[21] Mustapha, Shakira, and Romilly Greenhill. "An 'Age of Choice' for Infrastructure Financing? Evidence from Kenya." ODI, ODI, 1 Apr. 2017, www.odi.org/publications/10781-age-choice-infrastructure-financing-evidence-kenya.

[22] https://qz.com/africa/846609/safaricoms-little-cab-a-rival-uber-in-kenya-is-launching-in-nigeria-and-uganda/

[23] Little's ride-hailing app, developed by the Kenyan tech firm Craft Silicon, offers customers free Wi-Fi, cheaper fares, and promises to give drivers a higher share of revenues.

[24] https://qz.com/africa/748149/drivers-in-kenya-are-protesting-against-being-uber-slaves/

[25] https://qz.com/africa/748149/drivers-in-kenya-are-protesting-against-being-uber-slaves/

National Road Safety Programme: The programme is one among several flagship projects mentioned in Vision 2030 and is focused on fast track implementation of the National Road Safety Action Plan to reduce road crashes.

Nairobi Commuter Rail Network: The commuter rail network project will involve the construction of new railway stations as well as the expansion and renovation of the Nairobi railway station. The Syokimau Railway Station is 95 percent complete, and procurement has begun for the remaining new railway stations. In addition, detailed designs for the construction have been completed of a 6-kilometer branch that extends from Embakasi to the Kenyatta International Airport.

Standard Gauge Railway[26]: The construction of the USD$4 billion Standard Gauge Railway (SGR), which began in 2014, is seen as critical both to the growth of Kenyan and regional economies and to the provision of safe and rapid intercity passenger transport.[27] The Kenya Railway Corporation is the implementing agency of the SGR, while China Road and Bridge Corporation is the contractor.

Digital Matatus: Researchers from MIT, Columbia University, and the University of Nairobi along with design firm Groupshot produced a map of the entire matatu system,[28] which became the first informal network to be launched on Google Maps.

Digital Commuter Card: The BebaPay digital payment card was an initiative led by Google and Equity Bank to introduce electronic payments technologies; however, it failed to pick up steam.[29]

Spatial planning competition: In 2009, the Ministry of Metropolitan Development launched an international competition for a spatial planning concept that could transform the Nairobi Metropolitan Region into the world class metropolis envisioned in the 2030 growth plan. [30]

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[26] Mustapha, Shakira, and Romilly Greenhill. "An 'Age of Choice' for Infrastructure Financing? Evidence from Kenya." ODI, ODI, 1 Apr. 2017, www.odi.org/publications/10781-age-choice-infrastructure-financing-evidence-kenya.
[27] The SGR lies at the core of the East African Railways Master Plan which proposed the revitalization and extension of existing railways serving Tanzania, Kenya, and Uganda.
[28] https://qz.com/africa/830442/nairobis-matatu-bus-system-has-resisted-being-digitized-for-more-convenient-transit/
[29] Ibid
[30] Nairobi Planning Innovations Blog