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

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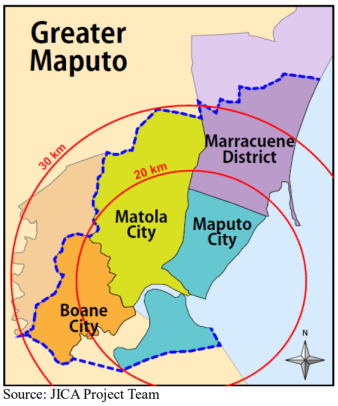
MAPUTO, MOZAMBIQUE

MOZAMBIQUE
Population: 27,233,789 (as of July 2018) **Population Growth Rate:** 2.46% (2018) **Median Age:** 17.3
GDP: USD$37.09 billion (2017) **GDP Per Capita:** USD$1,300 (2017)
City of Intervention: Maputo
Urban Population: 36% of total population (2018) **Urbanization Rate:** 4.35% annual rate of change (2015-2020 est.)
Land Area: 799,380 sq km **Roadways:** 31,083 km (2015) **Paved Roadways:** 7365 km (2015) **Unpaved Roadways:** 23,718 km (2015) *Source: CIA Factbook*



Source: JICA Project Team

I. POLITICS & GOVERNANCE

A. Multi- Scalar Governance

Sixteen years following Mozambique's independence in 1975 and civil war (1975-1992), the government of Mozambique began to decentralize. The Minister of State Administration pushed for greater citizen involvement at local levels of government. Expanding citizen engagement led to the question of what role traditional leaders, or chiefs who wield strong community influence, would play in local governance.[1] Last year, President Filipe Nyusi announced plans to change the constitution and to give political parties more power in the provinces. The Ministry of State Administration and Public Administration are also progressively implementing a decentralization process aimed at transferring the central government's political and financial responsibilities to municipalities (Laws 2/97, 7-10/97, and 11/97).[2]

An elected Municipal Council (composed of a Mayor, a Municipal Councilor, and 12 Municipal Directorates) and Municipal Assembly are the main governing bodies of Maputo. The city relies on 1998 package of Municipal Laws, the Programme of Strategic Objectives and Priority Actions for 2003-2008, and the 1997 census and Municipal regulations (such as the Land Law) for baseline decision-making.[3]

[1] Makgetla, Tumi. *Embracing the Power of Tradition: Decentralization in Mozambique, 1992-2000*. Working paper. Princeton: Princeton U, 2010. Print.
[2] http://urbanresiliencehub.org/city-context/maputo/
[3] https://unhabitat.org/mozambique-cities-profile-maputo-nacala-and-manica/

B. Urban Policy

Plans and policies that govern urban development and planning across Mozambique include:

- *Mozambique National Development Strategy 2015-2035*
- *Mozambique Urban Structure Plan*
- *Mozambique Municipal Development Plan*
- *Mozambique Road Sectora Strategyy 2007-2011*
- *Mozamibque Roads and Bridges Management and Maintenance Program*
- *Maputo City Urban Structure Plan 2008-2010*
- *Maputo City Council Fiver-Year Program 2014-2018*
- *Comprehensive Urban Transport Master Plan for Greater Maputo*

In 2011, Mozambique adopted a new law introducing a dedicated public–private partnership (PPP) unit in its Ministry of Finance, providing a regulatory framework for PPPs and mega-projects.[4] In 2012, the government adopted **ProMaputo**, a development program that also serves as an urban plan, land use, and infrastructure development policy for Maputo and Maputo's largest suburb, Matola. One of ProMaputo's tools of reform is a participatory budget.[5] The **Comprehensive Urban Transport Master Plan for Greater Maputo** addresses the lack of policies and plans for a public transport network (BRT and commuter rail) and road improvements. It also includes a pre-feasibility study for priority projects identified in the master plan.[6] The government's action plan for the reduction of absolute poverty, **PARPA II**, seeks to improve slum conditions through the promotion of sustainable land-use practices.[7] In addition to domestic plans, regional plans such as the Southern Africa Development Region's spatial development initiatives exert influence on urban development and transportation in Mozambique, particularly the Nacala, Maputo, Beira, Zambezi Valley, Mtwara, and Limpopo Valley development corridors.[8,9]

C. Climate Change/Sustainability

Mozambique launched the National Strategy for Adaptation and Mitigation of Climate Change and Green Economy Action Plan,[10] which outline initiatives for low-carbon mitigation and development. Such initiatives include establishing PPPs to expand gas-powered public and private vehicle support infrastructure, introducing PPP toll roads, creating tax-exemption initiatives for sustainable transport technologies, and offering road tax reduction incentives for compliance with safety standards. Mozambique also participates in global resilience initiatives such as the Pilot Programme for Climate Resilience, which is a Climate Investment Funds program focused on increasing resilience in agriculture, transport, and the urban environment.

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[4] Carolini, Gabriella Y. "Sisyphean Dilemmas of Development: Contrasting Urban Infrastructure and Fiscal Policy Trends in Maputo, Mozambique." *International Journal of Urban and Regional Research* 41.1 (2017): 126-44.
[5] Ibid
[6] http://open_jicareport.jica.go.jp/pdf/12152609.pdf
[7] Nearly 75 percent of the city's population lives in informal settlements.
[8] https://www.sadc.int/themes/infrastructure/transport/transport-corridors-spatial-development-initiatives/
[9] http://sadcindustries.net/SDIs.html
[10] https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/Transition_Towards_Green_Growth_in_Mozambique_-_Policy_Review_and_Recommendations_for_Action.pdf

II. INFRASTRUCTURE & TRANSPORT

A. Existing Infrastructure

Most of Mozambique's infrastructure and transportation system experienced massive restructuring due to severe damages during the civil war. In addition, a significant amount of land remains unbuilt; more than 30 percent of the land within three miles of the central business district in Maputo is unbuilt.[11] Transport infrastructure across Mozambique has developed mainly to serve neighboring countries because of its key geographic position (it is the main transit route for exports to Swaziland, Malawi, Zambia, Zimbabwe, and the Gauteng region in South Africa).[12]

Air: Mozambique has 11 airports with scheduled flights. The national carrier, Linhas Aéreas de Moçambique (LAM) or Mozambican Airlines, is not allowed to land in the European Union because it does not meet European safety standards. Some of the runways are also in poor condition, such that the tires of LAM's airplanes last half as long as they should.[13] Local airports are being upgraded in collaboration with foreign companies such as Brazilian firm, Odebrecht.

Rail: Mozambique has 4,787 kilometers of railways. Mozambique Ports and Railways operates three rail routes from Maputo to Swaziland via Boane; to South Africa via Matola; and to Malawi via Manhica. The Ministry of Transport and Communications contracted transportation-planning firm Systematica for the development of an overall study on existing and potential extensions of Mozambican national railway network.[14] The government aims to link the south and the north of the country along with the provincial capital and to facilitate access to areas with extractive industries.[15]

Ports: Maputo plays a critical role as a passageway to South Africa and other inland areas. The Bay of Maputo was dredged years ago to enable larger cargo ships to pass and to add a passenger/vehicle ferry board.[16] In addition, major upgrading and expansion projects are underway with Mozambique's three major ports (Nacala, Maputo, and Beira), with a majority of these projects being led, financed, and/or operated mainly by Brazilian, Portuguese, Chinese, and Indian firms.

Roads/Highways: Mozambique's road density per land area is low due to the large size of the country and poor condition of roads. Additionally, the road network itself is limited: the Estrada Nacional One, or National Highway One, is the only road connecting the country's capital, Maputo, to the north and south. According to the Comprehensive Urban Transport Master Plan for Greater Maputo, national and regional roads are managed by the National Road Administration (ANE), while parts of the arterial roll (e.g. N4 toll road) were developed by the private sector. Roads that are not

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[11] https://www.theigc.org/wp-content/uploads/2017/08/Secure-legally-enforceable-and-marketable-land-rights-for-urban-development.pdf

[12] https://www.imf.org/external/pubs/ft/dp/2014/afr1404.pdf

[13] Scholvin, Sören, and Johannes Plagemann. *Https://www.files.ethz.ch/isn/177317/saia_sop_175_scholvin%20&%20plagemann_20140225.pdf*. Rep. South African Institute of International Affairs, Feb. 2014. Web. 26 June 2019.

[14] http://www.systematica.net/project/mozambique-north-south-railway/

[15] https://www.imf.org/external/pubs/ft/dp/2014/afr1404.pdf

[16] Carolini, Gabriella Y. "Sisyphean Dilemmas of Development: Contrasting Urban Infrastructure and Fiscal Policy Trends in Maputo, Mozambique." *International Journal of Urban and Regional Research* 41.1 (2017): 126-44.

managed by the ANE, are managed by each municipal (district) infrastructure department with the goal of maintaining road condition.

Transport Corridors[17]**:** Mozambique has three transport and trade corridors of significance – Nacala, Maputo, and Beira. The **Nacala Corridor** (which includes the Port of Nacala and an 800-kilometer railway line to Malawi) was developed to increase exports through the Port of Nacala and is considered the cheapest route to transport cargo from Zambia, Malawi, and Mozambique. It is due to have roads built to link Zambia and Malawi with Nacala and to have a passenger line to connect Chipata in Zambia with Mozambique via Malawi. The **Maputo Corridor**, created in 1996, connects South Africa's Gauteng, Mpumalanga, the Nkomazi Special Economic Zone, and the Port of Maputo. It incorporates the Port of Maputo, road, rail, the special economic zone, border posts, and terminal facilities. In 2000, a French-led international consortium opened a private toll road running from Maputo to South Africa's industrial hub under a 30-year concession. The **Beira Corridor** mainly serves Zimbabwe and the mining interests of Brazilian mining giant, Vale. It is managed by a Dutch port operator with the railway line operated and managed by an Indian firm. The **Beira Agricultural Growth Corridor Initiative** was launched at the World Economic Forum by a consortium of agribusinesses seeking to upgrade the farmland along the corridor.

B. Existing Transportation

Modes of public transport in Maputo are as follows: walking (45 percent), *chapas* (32.9 percent), private car (10.2 percent), bus (9.2 percent), rail (0.6 percent) and other (1.3 percent).[18] Maputo's transport plan was produced by the Japanese International Cooperation Agency (JICA).

***Chapas*:** *Chapas* are typically 15-seat minibuses or 25-seat medium-sized vehicles owned by private individuals, many of whom own only one vehicle. Drivers rent *chapas* at a daily rate and directly pay running costs, including fuel, tires, minor maintenance, and the salary of the conductor. The *chapas* route network developed over many years and was originally based largely on the network operated by Transportes Publicos de Maputo (Maputo Bus Company), with additional routes added from time to time. As a result, there are an estimated 4,000 to 4,500 *chapas* operating on roughly 130 routes.[19] This may soon change as recommendations are being made to replace *chapas* with large-scale buses, BRT, or rail, although there is recognition of the need for mini-buses in suburban areas and that the replacement of *chapas* could create political tensions.[20] The Maputo transport plan suggests possible compensation to *chapas* operators including "the opportunity to own shares in newly established vehicle operating companies" and a job-creating program.[21]

Bus[22]**:** Urban transportation was nationalized upon independence and mostly provided by the state-owned bus company, Transportes Publicos de Maputo (TPM). There are approximately 400 full-sized (over 50 seats) buses operating in Maputo, with most of them operated by TPM and few owned by

[17] http://www.blog.kpmgafrica.com/mozambiques-3-transport-corridors-hold-vast-potential/
[18] Tembe, Atanasio, Fumihiko Nakamura, Shinji Tanaka, Ryo Ariyoshi, and Shino Miura. "The Demand for Public Buses in Sub-Saharan African Cities: Case Studies from Maputo and Nairobi." *IATSS Research* (2018): n. pag. Print.
[19] http://open_jicareport.jica.go.jp/pdf/12152609.pdf
[20] Klopp, Jacqueline and Clemence Cavoli. "Chapter 5: The paratransit puzzle: mapping and master planning for transportation in Maputo and Nairobi." *Urban Mobilities in the Global South*. London: Routledge, 2018. 95-111. Print.
[21] Ibid
[22] Tembe, Atanasio, Fumihiko Nakamura, Shinji Tanaka, Ryo Ariyoshi, and Shino Miura. "The Demand for Public Buses in Sub-Saharan African Cities: Case Studies from Maputo and Nairobi." *IATSS Research* (2018): n. pag. Print.

private individuals. TPM runs on 60 routes that overlap with *chapas* and has said that the number of passengers has decreased from 80,000 to 30,000 since 2010.[23]

Commuter Rail: Maputo's Caminhos de Ferro de Moçambique (CFM) railway station supports both passenger and cargo transport and has been featured in several magazines as among the world's most beautiful train stations.[24]

***Tuk-tuk* or *Txopelas*:** Three-wheeler taxis resembling the Indian rickshaw, *tuk-tuks* or *txopelas* are less expensive than taxis and mostly considered illegal (for not having licenses).

C. Infrastructure Stakeholders

As evidenced by JICA's role in producing Maputo's transport plan, Mozambique is highly dependent on international and private-sector assistance: since 1990, it has engaged in 17 PPPs.[25] Furthermore, infrastructure development (especially around transport corridors and ports) in Mozambique is tied to neighboring countries Zimbabwe, Zambia, Malawi, and South Africa.

Paratransit: The Maputo Association of Road Transports (ATROMAP) represents *chapas* and was involved in a digital mapping project to document *chapas* routes. Maputo City Council also supported the creation of a cooperative representing *chapas* owners, called COOTRACK1 and granted this association the right to buy 50 government buses.[26]

Regional and International: JICA produced the Comprehensive Urban Transport Master Plan for Greater Maputo while the Southern Africa Development Community and Maputo Corridor Logistics Initiative (MCLI) have emerged as influential corridor management institutions behind many of Mozambique's development corridors.

D. Interventions/Projects

Bus Rapid Transit[27]: There are five bus rapid transit development projects underway including Baixa-Maguanine, Zimpeto-Benfica-Brigada-Maputo, Malhampswene-Ceres-Baixa, Casa Branca-Joaquim Chissano-J.Nyerere, Xiquelene-Museu-Baixa, and Albasine. One BRT project, funded with a USD$235 million loan from a Brazilian development bank, was suspended in 2016 for corruption.[28]

Mapa Dos Chapas[29]: Initiated in 2014, Mapa Dos Chapas is a mapping project aimed at making the *chapas* system more legible. In collaboration with paratransit associations (i.e. ATROMAP), the project

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[23] Gascon, Mireia, David Rojas-Rueda, Sergio Torrico, Faustino Torrico, Maria N. Manaca, Antoni Plasència, and Mark J. Nieuwenhuijsen. "Urban Policies and Health In Developing Countries: The Case of Maputo (Mozambique) and Cochabamba (Bolivia)." *Public Health - Open Journal* 1.2 (2016): 24-31. Print.

[24] https://time.com/3816411/beautiful-train-stations/

[25] https://pppknowledgelab.org/countries/mozambique

[26] Klopp, Jacqueline and Clemence Cavoli. "Chapter 5: The paratransit puzzle: mapping and master planning for transportation in Maputo and Nairobi." *Urban Mobilities in the Global South*. London: Routledge, 2018. 95-111. Print.

[27] http://open_jicareport.jica.go.jp/pdf/12152609.pdf

[28] https://www.itfglobal.org/sites/default/files/node/resources/files/brt_report.pdf

[29] Klopp, Jacqueline and Clemence Cavoli. "Mapping Minibuses in Maputo and Nairobi: Engaging Paratransit in Transportation Planning in African Cities." *Transport Reviews* (2019): 1-20. Print.

collected and verified data on *chapas* routes and stops. The map came handy in 2016 when new *chapas* routes were licensed.

Maputo-Matola (East-West Axis) and North-South Axis Transport: An initiative outlined in the Comprehensive Urban Transport Master Plan, the Maputo-Matola and North-South transport axes will introduce commuter rail (Gare Rail Line), BRT, and roads for Matola suburban and industrial development.

Nova KaTembe: Considered the ideal passageway for tourists traveling from Maputo to Durban, South Africa, Nova KaTembe is a USD$725 million bridge project led by a new public enterprise, the Empresa de Desenvolvimento de Maputo Sul (or Maputo Sul), in partnership with a private Portuguese consulting and engineering firm and China's EXIM Bank. The China Roads and Bridges Corporation was also awarded a tender to build a ring road around Maputo, which will connect with bridge traffic to and from KaTembe.

Developing Capacity for a Climate Resilient Road Sector[30]: Led and funded by the Nordic Development Fund and African Development Bank, the USD$4.32 million project seeks to make the Nacala road corridor more climate-resilient, while boosting capacity within the National Roads Authority.

Construction of the International airport of Catumbela: Financed and managed by a consortium of Chinese companies and Odebrecht, the International Airport of Catumbela was built to serve the central part of Angola and link it up with important foreign destinations. The runways and airport buildings were extended and upgraded to international standards. As such, they are now prepared to receive large airplanes and operate regional and long-haul commercial and cargo flights.[31] The airport is expected to begin operating by 2020.

Construction of the Barra do Dande Port: To reduce traffic at the Port of Luanda, the Government of Angola approved the construction of a commercial port at Barra do Dande (north of Luanda) in 2011. Additionally, the Port of Lobito, about 500 kilometers south of Luanda, is to be extended and rehabilitated for USD$1.25 billion.

Upgrade of the Benguela Railway[32]: The Benguela Railway (Caminho de Ferro de Benguela), is another important component of the Lobito Corridor, running for approximately 1,345 kilometers. Extensive rehabilitation and upgrade of the Benguela Railway have been done in its full extension, from Lobito to Luena. This program was carried out by the Angolan government, and in August 2012, the first train reached the railway station of the far eastern city of Luena, after an interruption of more than 30 years, caused by the civil war.

[30] https://www.ndf.fi/sites/ndf.fi/files/news_attach/ndf_the_road_ahead.pdf
[31] The current international airport in Luanda is not TSA certified.
[32] http://portandcorridor.org/wp-content/uploads/2013/03/Lobito-Lusaka-corridor.pdf

Kilamba New City: Developed by China International Trust and Investment Corporation for a reported USD$3.5 billion, Nova Cidade de Kilamba, is a new town with social housing for 80,000 people. It is located about 19 miles southeast of Luanda and off a highway recently renamed after Fidel Castro. A private Angolan company, Delta Imobiliaria, was given the lucrative contract to sell the units, even though the company's owners included high-ranking government officials with direct influence over reconstruction projects.[33]

[33] https://www.nytimes.com/2017/06/24/world/africa/angola-luanda-jose-eduardo-dos-santos.html