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Informal transport reform in Kampala

Learning from cross-country experience

In brief

- Public transport services in Kampala city are largely made up of minibus and motorbike taxis.
- While the current transport sector provides a critical means of livelihood to many individuals in the city, the jobs offered are relatively low-paid and the job market is increasingly saturated.
- Given the limited potential for the current transportation industry to provide sustainable livelihoods for those in the sector, and the challenges presented by the sector on productivity and liveability of the city, there is a clear need for policy to better regulate transport operations.
- Several cities have attempted to target the informal and semi-formal transport sector to improve city-wide connectivity, ranging from outright bans to upgrading of the informal system.
- This brief compares four broad policy directions cities have adopted when interacting with informal transport providers and highlights key lessons to inform informal transport reform in Kampala.

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Boxes

Background: current public transport systems in Kampala city[1]

Public transport services in Kampala city are largely made up of minibus taxis (referred to here as 'taxis') and motorbike taxis (referred to here are '*boda-bodas*').

Taxis

According to KCCA figures, there were 21,000 taxis in Kampala in 2018, though this number does not account for unregistered taxis.[2] Taxis are organised on the basis of stages e.g. lines of vehicles that share the same route and destination. In the central business district of Kampala, the majority of stages are grouped into five major taxi parks. Each stage has elected leadership responsible for management of the stage, maintenance of law and order, and protection of stage worker wellbeing. Stage leaders are also responsible for implementing the agreed order for taxi queues (determined by lottery). Most taxi drivers do not own their vehicles. Vehicle owners need to enroll their taxis at particular stages to be allocated a driver and route.

There are two major taxi associations in Kampala: KOTSA and UTRADA, and stage workers and crews are often members of both. These organisations act as welfare organisations and representing workers in negotiations with transport authorities.

Boda-bodas

KCCA and *boda boda* associations estimate that there may be over 200,000 boda bodas (including unregistered bikes) operating today.[3] The *boda boda* industry is also organised based on stages. In order to join a stage, riders require a letter of recommendation from their Local Council 1, two referees, and to pay the required fees (which can be as high as UGX 1 million in the CBD). Riders then have to pay a daily contribution to their stage (of up to UGX 33,000), which goes towards stage maintenance, informal loans, or payments of fines.

The main boda organisation in Kampala is Kampala Metropolitan Boda-Boda Entrepreneurs (KAMBE). KAMBE had 48,000 members as of 2020 and elected representatives at the stage, parish, division and national level. Members pay a one-off fee of UGX 20,000 for lifetime membership. KAMBE provides small scale loans to members, helps with accessing loans and driving permits, and provides other support services for its members.

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1. The information in this section comes from Spooner et al. (2020) Kampala Bus Rapid Transit: Understanding Kampala's Paratransit Market Structure
2. Spooner et al. (2020) Kampala Bus Rapid Transit: Understanding Kampala's Paratransit Market Structure
3. Ibid

Similar to taxis, most boda drivers do not own their motorbike – 60% of members of the KAMBE association, for example, work for bike owners.[4] However, with greater access to small scale loans there has been a shift with greater numbers of owner-drivers and small fleet owners.

Livelihoods in the sector[5]

Taxis: While there are some owner-drivers of taxis, most drivers are informally employed by vehicle owners on a 'target system' whereby the driver pays the owner a pre-agreed fee (typically around UGX 80,000) to use the vehicle. Whatever revenues the driver gets after paying this fee and any costs of operating are their income. At each stage, there are several different jobs in the transportation sector, including callers who fill taxis with passengers, loaders who assist with baggage, guides who assist passengers, and mechanics. The taxi industry is a source of long-term employment for many such workers.

Boda-bodas: A large proportion of boda boda riders also operate under a 'target system', where they pay owners a daily fee of around UGX 10 – 15,000 for use.

Below is a rough estimate of the wages different workers in the industry receive per day based on data collected by Spooner et al. (2020):

Table 1: Net incomes in the transport industry	
Job	**Daily net income (UGX)**
Taxi driver	15,000 – 75,000
Taxi conductor	12,000 – 40,000
Taxi caller	5,000 – 8,000
Taxi loader	5,000 - 8,000
Boda driver	0 – 20,000

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4. Spooner et al. (2020) Kampala Bus Rapid Transit: Understanding Kampala's Paratransit Market Structure
5. The information in this section comes from Spooner et al. (2020) Kampala Bus Rapid Transit: Understanding Kampala's Paratransit Market Structure

Figure 1: How do incomes in the transport industry compare to averages?
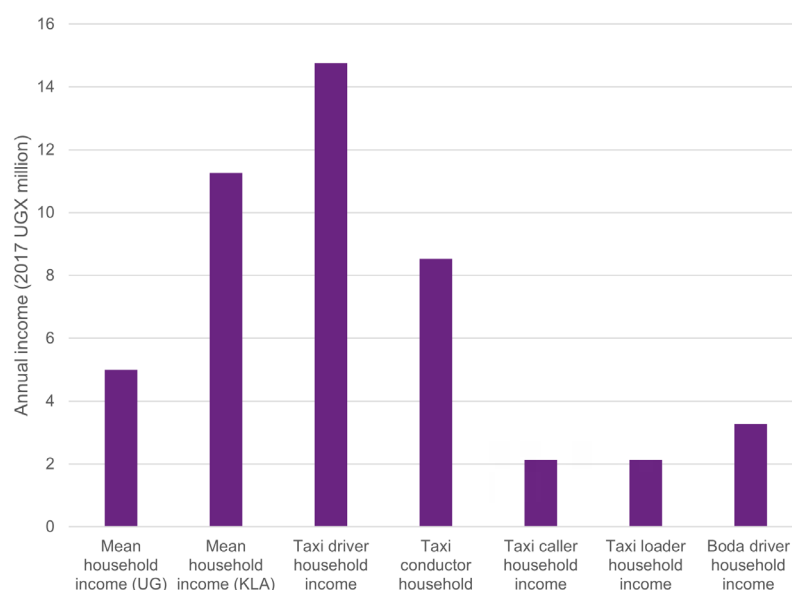
Note: mean household incomes for Uganda and Kampala taken from 2016/17 UNHS. Transport worker incomes calculated using mid-ranges of estimates by Spooner et al. (2020), assuming 300 working days per year and household income of 1.2 x individual's income, and deflated using World Bank GDP deflators

When comparing these estimates with average incomes in Kampala and at the national level, it is clear that whilst the current transport sector provides a critical means of livelihood to many individuals in the city, the jobs offered are relatively low-paid.

With a growing urban workforce entering the service sector[6] and limited road space for provision of services, it does not seem likely that the current structure of the sector can accommodate significant gains in wages for workers over time.

Key challenges presented by Kampala's public transport

1. Congestion

Like many developing cities, congestion is a major challenge in Kampala city. A recent study by the IGC estimates that the cost of congestion in the Greater Kampala Area amounts to 1.5 million USD every day. Given their relatively low capacity compared to larger buses and frequent and unplanned stops, taxis and boda bodas contribute to traffic congestion in the city.

6. Sladoje et al., (2019) Transforming secondary urban areas for job creation: A study of Uganda

2. Accidents

A key concern among policymakers and citizens with regard to taxis and *boda-bodas* is that they can be extremely unsafe forms of transport due to lack of adherence to traffic rules. According to data from traffic reports in Kampala city, motorcycles contributed to 33.9% of road traffic injuries in the country in 2017.[7]

3. Pollution

A number of taxis and boda bodas on Kampala's roads are high-emitting vehicles. The majority of taxis in the city are second-hand vehicles over 8 years old at the point they are imported into Uganda.[8] However, due to the 2018 ban on imports of vehicles older than eight years, there has been increased demand for newer Toyota Hiace Drones that are more fuel efficient than other taxi vehicles.

Given the limited potential for the current transportation industry to provide sustainable livelihoods for those in the sector, and the challenges presented by the sector on productivity and livability of the city, there is a clear need for policy to better regulate transport operations. This is particularly pertinent as KCCA plans to introduce a Bus Rapid Transit (BRT) system in the city.

Learning from cross-country experience for information transport reform

Informal transport is widespread across cities in developing countries. Such informal transporters often provide wider networks of connectivity than formal networks, typically better servicing lower-income areas and being able to respond to the demands of the market quickly. In most cities they can act as 'feeders' into the formal system that provide citizens access to mainline formal services. At the same time, informal transport systems are typically highly fragmented – limiting the benefits of multi-modal transport, they rely on low-capacity old vehicles that increase congestion and pollution, and, at times, have dangerous operating procedures.[9]

Considering this tension, several cities have attempted to target the informal and semi-formal transport sector to improve city-wide connectivity.

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7. Vaca et al. (2020) Boda Bodas and Road Traffic Injuries in Uganda: An Overview of Traffic Safety Trends from 2009 to 2017
8. Spooner et al. (2020) Kampala Bus Rapid Transit: Understanding Kampala's Paratransit Market Structure
9. https://openknowledge.worldbank.org/bitstream/handle/10986/15232/24910.pdf?sequence=5&isAllowed=y

Cities have generally followed four broad policy directions when interacting with informal transport providers:

Policy direction	Examples	Typically includes:
Ignore the current system of informal transport	Lahore's bus rapid transit left the city's informal transport system intact, instead providing an alternative means on a key corridor.[10]	Building or expanding new formal transport systems while leaving the informal system in place and allowing users a choice.[11]
Ban current system of informal transport	Nairobi banned *matatus* from the central business district in 2018.[12] Kigali attempted to ban all forms of bicycle taxis in 2006, but the ban lasted for two weeks after opposition from users.[13]	Actively attempt to dismantle the informal transport system through partial or outright bans and fines. This is typically combined with some investment in formal transport system, such as a new bus system.
Regulations and interventions to improve informal transport systems[14]	In 2003, Nairobi regulated safety and route operations of *matatus*.	Targeted regulations to improve the quality of informal transporters, e.g., through regulations on fuel standards and safety, prices, and routes.
Upgrading the informal transport system and integrating into the formal system	Ongoing public programme in the Philippines to replace ageing jeepneys.[15] Dakar undertook fleet modernisation of nearly 20% of the entire minibus fleet between 2005 – 2008.	Providing driver training, finance for fleet renewal, dedicated bus lanes, and access to new technologies such as maps, and integration as 'feeder route' providers for higher capacity systems.

10. A survey shows that nearly 60% of users who made the journey on the same route previously used unregulated buses and wagons. For more information, see: Majid, H., Malik, A. and Vyborny, K., 2018. Infrastructure investments and public transport use: Evidence from Lahore, Pakistan. *International Growth Centre*.

11. https://www.gtkp.com/assets/uploads/20100216-161734-538-1b_UTI-rev.pdf

12. https://allafrica.com/stories/202009110068.html

13. Goodfellow, T. (2015) Taming the "Rogue" Sector: Studying State Effectiveness in Africa through Informal Transport Politics. Comparative Politics, 47 (2). pp. 127-147. ISSN 0010-4159

14. Tun, T.H., Welle, B., Hidalgo, D., Albuquerque, C., Castellanos, S., Sclar, R. and Escalante, D., 2020. Informal and Semiformal Services in Latin America: An Overview of Public Transportation Reforms

15. Mateo-Babiano, I., Recio, R.B., Ashmore, D.P., Guillen, M.D. and Gaspay, S.M., 2020. Formalising the jeepney industry in the Philippines–A confirmatory thematic analysis of key transitionary issues. *Research in transportation economics*, 83, p.100839.

While ignoring or attempting to ban current systems can seem less costly than negotiating with incumbents in the short run, many governments that have attempted to introduce formal bus systems or BRT lanes without considering existing informal systems have struggled to enforce free flow of these vehicles, either because of high levels of exiting congestion or difficulties in enforcing dedicated lanes. At the same time, banning existing forms of transport before suitable alternatives have been put in place will likely severely affect citizens' access to services and jobs.

In Accra, the government built the Aayalolo Bus Service – a lighter form of a bus rapid transit on one of the four main transport corridors that lead to the central business district – to provide an alternative to informally run low-capacity minivans that dominate the transport sector in the city. However, research shows that there have been no significant changes in the mode of transport used by commuters who travel through this route as people continue to use minibuses or travel on foot. This is in large part due to due to the limited extent of the new bus service that covers only one transport corridor, while minibuses allow access for people who have to commute from areas outside the corridor area. For those who live nearby the corridor, access to the electronic card used to board the bus is considered a hurdle.[16]

In a city like Kampala, **it is unlikely to be technically or politically feasible to work around informal providers**, especially if they are threatened by the expansion of formal transport services. Informal providers also have significant expertise in responding to the market demands of transport in the city and their expertise can be helpful in expansion of formal transport system, such as market routes. This is especially true for delivering transport services to low-income areas that tend to be under-serviced.

How can targeted regulations be leveraged to improve informal transport systems?

Targeted regulations can help to improve connectivity by **disincentivising certain behaviour** like using highly polluting vans or unsafe and risky practices such as overcrowding vehicles or speeding. There is a clear role for policy here in limited actions undertaken by vehicle operators or owners that negative affect citizens at large.

Working with citizens to enforce regulations can significantly reduce monitoring costs of enforcement. In Kenya, over 1000 *matatu* minibuses were randomly selected to have stickers placed on them that encouraged passengers to report when drivers were driving dangerously. As a result, insurance claims that involved death or injury from drivers targeted by the scheme fell by over 50%.[17]

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16. "The effects of the introduction of a bus rapid transit system on commuter choices in Ghana" https://www.theigc.org/wp-content/uploads/2019/10/Abekah-Nkrumah-et-al-2019-Policy-Brief.pdf
17. Habyarimana and Jack, "Heckle and Chide: Results of a Randomized Road Safety Intervention in Kenya."

However, there are three key points to keep in mind when implementing regulations on informal transport providers:

1. Regulations should **ideally build on the strengths of informal transportation**. For example, where governments attempt to allocate routes for transportation, they should ideally map out the existing routes taken by informal transporters. This can provide important information to maintain the accessibility of the transporters while identifying the subsidies required for operation on particular routes.
2. **Penalties should be matched with support**. If penalisation is done without adequate support for informal providers to improve and upgrade their services, it is likely that these regulations may be unenforceable and/or limit means of affordable mobility with no clear alternative for citizens.
3. Regulations to improve the quality of informal minibuses or boda bodas **cannot solve a key problem with these modes**: their lack of capacity for mass transportation. Particularly in city centers and key transport corridors, higher capacity modes of transport are likely to be needed.

As such, as Kampala enforces new regulations on informal transport providers, experience from a number of cities suggests complementing this with the fourth approach listed above: **support to upgrade the current informal transport system and integrate providers into new systems.** This support can be in the form of:

Upgrading informal transport

- **Infrastructure to improve service quality and reduce congestion:** these can include clearly defined physical stops, especially near major bus terminals and marketplaces, that are safe and easily accessible to commuters.
- **Leveraging digital technology:** this can include mapping out the routes undertaken by informal transporters, similar to Nairobi's 'digital *matatus*' programme that has mapped out transport corridors using GPS-powered smart phones. Similarly, in Cape Town 'WhereIsMyTransport', a startup collected data on every route, common stopping point, frequencies, and fares of minibuses.[18] Even though both of these were private-sector led projects, government can proactively support such interventions.
- **Financing for vehicle upgrades for informal transporters:** assistance with fleet renewal is critical in allowing regulations to work. In Dakar, for example, between 2005 and 2008, the World Bank supported an Urban Mobility Improvement Project's leasing scheme that involved replacing over 500 old minivans with newer, less polluting ones (which accounted for about 20 percent of the entire minibus fleet in the city at that time).[19]

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18. https://densitydesign.org/2019/05/mapping-and-representing-informal-transport-the-state-of-the-art/
19. https://ieg.worldbankgroup.org/sites/default/files/Data/reports/ppar_Senegal_102016.pdf

The project provided credit of $15.9 million, with transporters contributing $5.3 million as part of their 25% up-front contribution. Almost every operator has been able to make payments on time and by September 2009 they had reimbursed over 45% of the total leasing amount.[20] Government have a key role in establishing arrangements for collective access to finance by informal sector associations.

Integrating providers into new systems

– Integrating drivers and conductors into formal jobs: Drivers and conductors in this sector typically don't receive wages but instead receive a proportion of the revenue – incentivising overcrowding and speeding on their part. A reform process that provides them with a clear pathway to formal, well-paying jobs can reduce opposition. In Johannesburg, the government identified operators who had to

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Box 1: Nairobi's targeted improvements in the informal transport system

In Nairobi, public transport sector has largely been neglected by government, with the gap in services filled by informal 14-seater *matatus*. The cost of this has been urban congestion - setting the city back an estimated $5.6 million in lost productivity per day.[21]

The government has implemented targeted regulations to improve the quality of *matatus*. In 2003, legalisation was implemented to regulate safety and route operations. This involved fitting *matatus* with 'speed governors' that limited speeds to 80km/hour, alongside regulation of the use of seatbelts, uniforms and regular testing of drivers. This was met with strong resistance and strikes from matatu operators associations. However, **high level support from the President mitigated this resistance and the resulting strict enforcement meant that matatu accidents fell by 73% in the first 6 months of implementing these policies.**[22]

More recently, in 2015, a group of students from the University of Nairobi used mobile phones to create a digital map of matatu routes to help commuters navigate the complex informal system.[23] The map was subsequently recognised by the City of Nairobi and is presently being used to help in planning the city's bus-rapid transit system.

In a sign of more punitive approach: in 2018, the government banned *matatus* from entering the central business district to reduce congestion – forcing more than 20,000 *matatus* that typically entered the district to stop outside and compete for just 500 parking spots.[24] The ban was removed after a public outcry but reintroduced in 2020.[25] It remains unclear how the *matatus* will be regulated and worked with once the under-construction bus-rapid transit system is completed.

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20. Kumar, A. and Diou, C., 2010. Bus renewal scheme in Dakar: before and after (No. 66939, pp. 1-95). The World Bank.

21. https://www.theigc.org/blog/how-transport-reforms-have-impacted-urban-connectivity-in-kenya/

22. UN-HABITAT, Enhancing Urban Safety and Security, Global Report on Human Settlements (UN-HABITAT, 2007), Preston O. Chitere and Thomas N. Kibua, "Efforts to Improve Road Safety in Kenya: Achievements and Limitations of Reform in the Matatu Industry" (Nairobi: Institute of Policy Analysis and Research, 2012)

23. http://digitalmatatus.com/about.html

24. https://africanarguments.org/2018/12/30-percent-trips-nairobi-matatu-banned/

25. https://africa.itdp.org/better-than-a-ban-prioritising-efficient-public-transport-in-the-nairobi-cbd/

withdraw their services on the route of a new bus rapid transit and they were compensated through making them shareholders in the new bus operating company.[26] Similarly, in Kigali compensation was achieved through providing transport operators tenders to operate as part of the formal system (see Box 2).

- **Helping informal providers to operate as part of new formal systems:** Some cities have actively provided concession agreements to provide cooperatives made up of informal transporters to bid and acquires rights to operate on specific routes. Typically, this has included loans to help them acquire higher-capacity vehicles, training for drivers, and a robust monitoring system.

- **Use informal transport as 'feeder' into formal system:** Because of their relatively smaller size, taxis and motorbikes are able to travel almost anywhere where roads exist. This is particularly true in narrow, winding roads that typically dominate informal settlements. As such, it can be extremely valuable to establish a wide 'feeder system' through informal transporters and smaller two-wheelers can feed into high-capacity formal systems. Establishing informal feeder routes can be aided by visible investmnts in supporting infrastructure that not only improve the speed and safety of these routes, but also act as a credible signal of support to the informal sector.

In Lagos and Accra, governments provided the finance or financial guarantees that allowed existing informal vehicle owners to form cooperatives and jointly invest in higher capacity buses. To ensure these high-capacity buses were financially sustainable, financial support was combined with regulation to enforce exclusive use of particular routes.

Box 2: How Kigali phased out minibuses[27]

Rwanda has been successful in largely phasing out 14-seater minibuses in Kigali in an effort to reduce urban congestion. These minibuses were owned by individuals with owners deciding when and where to drive them – even the existence of Association des Transports en Commun, an association of minibuses, couldn't improve the coordination efficiency significantly.

In 2011, the government adopted a new public transport policy aimed at formalisation of the current informal transporters to reduce congestion and improve city-wide connectivity. A public transport steering committee was formed that was able to convince existing transporters to form cooperatives and companies. It worked: the minibus owners cooperative was later merged into the Rwanda Federation of Transport Cooperatives, along with two smaller companies. Together, they won five-year tenders to operate the Kigali public transport system, with government providing support in training and loans for higher-capacity vehicles.

In 2015, conductors were replaced by a smart card payment technology to allow for easier payment, with a minority of conductors were re-trained by the e-ticketing company as inspectors and technicians.[28] Under the new system, drivers have particularly benefited with salaried contracts, medical insurance, and reduced working hours.[29]

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26. https://unhabitat.org/sites/default/files/2013/c06/GRHS.2013.Case_.Study_.Johannesburg.South_.Africa.pdf
27. Holt, L., Hook, W., Weinstock, A., Kost, C. and Bhattacharjee, D., 2020. Quick Guide to Bus Sector Modernisation.
28. https://www.newtimes.co.rw/section/read/227185
29. Holt, L., Hook, W., Weinstock, A., Kost, C. and Bhattacharjee, D., 2020. Quick Guide to Bus Sector Modernisation.

Public transport needs were met and congestion was reduced while maintaining crucial political support for the introduction of higher capacity buses. Lower capacity services then complemented formal higher capacity systems in denser areas.

In this way, informal providers can prepare for competition to win contracts through better services provided, rather than competition for customers through lower costs.

How to develop and maintain a dialogue with informal transport operators?

A key challenge in working with informal transport operators is communicating effectively with them, especially when they fear that new regulations and transport investments will undermine their jobs. There are number of ways this can be achieved:

- **Deciding who the key stakeholders are is a critical first step.** In a highly fragmented transport systems, it is often hard to determine who speaks for who. In some cases, government assistance in creating legally recognised associations for informal sector providers may be needed.
- **Create a forum for constant engagement with the informal sector, with a credible regulatory entity representing the metropolitan area to negotiate on behalf of government.** For example, when developing the Rea Vaya bus rapid transit, Johannesburg faced significant resistance from minibus and taxi drivers. This was mitigated by establishing a steering committee that included representatives of these groups to provide an ongoing platform for negotiating. They were also sent on study tours to cities like Bogota to see how a bus rapid transit system can help in making a city more prosperous.[30]

Enabling conditions for success

The process of regulating and integrating informal transport providers requires significant state capacity to manage. As such, in many cities, these reforms have been aided by the establishment of **a unified transport planning agency** that can create unified capacity for urban transport and can has the statutory powers to work with informal operators.[31] For example, the establishment of the Lagos Metropolitan Area Transport Authority (LAMATA) has been instrumental in undertake transport reforms (see Box 3).

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30. https://unhabitat.org/sites/default/files/2013/06/GRHS.2013.Case_.Study_.Johannesburg.South_.Africa.pdf
31. Collier, P., Glaeser, E., Venables, T., Haas, A. and Wani, S., 2020. Designed to succeed: building authorising environments for fast-growing cities.

As routes and transit options will have to cater to commuters from the periphery to their place of work in the city, often crossing administrative boundaries, such an agency can play a critical role in **regional coordination with relevant municipal agencies**. For example, in Helsinki, Finland, the city along with its neighbouring eight municipalities, has established a single transit agency, the Helsinki Regional Transport Authority. The agency has the legal mandate to manage all public transportation in the region, allowing it to have a unified ticketing system. The commuters generally claim to be highly satisfied with the public transport in the area.[32] In other countries, cities have collaborated on specific projects. Such as Islamabad and Rawalpindi in Pakistan set up a join bus-rapid transit system as the two cities are economically tied together. A key initial step was establishing a cost and revenue sharing formula. Under the formula agreed the revenue is shared based on ridership in the respective limits, while the construction costs were equally split.[33] Given high levels of commuting into Kampala city, similar coordination between municipalities on transport systems across the Greater Kampala Metropolitan Area will be critical in delivering transport systems that meet the needs of citizens and can be sustainably and fairly financed.

Critical to the design of many of the reforms outlined above is **access to data that can help form decision making**. In many developing cities, including Kampala, private companies collect and store rich databases that could be used to inform decision making. Mobile phone companies and ride-hailing apps, for example, hold information on how people move across a city which in aggregated form can provide valuable and real time direction to investments in public transport.

Related to the above, rigorous **research** to evaluate the impact of reforms aimed at improving informal transport in the city will be critical in assessing gains and making improvements over time.

32. Collier, P., Glaeser, E., Venables, T., Haas, A. and Wani, S., 2020. Designed to succeed: building authorising environments for fast-growing cities.

33. https://tribune.com.pk/story/1086838/metro-bias-service-punjab-went-halfsies-on-cost-but-not-on-revenue

34. Otunola, B., Kriticos, S., and Harman, O. (2019) The BRT and the danfo: A case study of Lagos' transport reforms from 1999-2019. IGC Cities that Work Case Study.

Further reading

Collier, P., Glaeser, E., Venables, A., Blake, M., and Manwaring, P. (2019) Access to opportunity: policy decisions for enhancing urban mobility. IGC Cities that Work Policy Framing Paper.

Ajay Kumar, Sam Zimmerman, and Fatima Arroyo-Arroyo (2021) Myths and Realities of "Informal" Public Transport in Developing Countries: Approaches for Improving the Sector. Washington, DC: SSATP.

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35. Otunola, B., Kriticos, S., and Harman, O. (2019) The BRT and the danfo: A case study of Lagos' transport reforms from 1999-2019. IGC Cities that Work Case Study.