

Transforming Urban Transport – The Role of Political Leadership
TUT-POL Sub-Saharan Africa
Final Report
October 2019

Case: Dar es Salaam, Tanzania

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Acknowledgments

This research was conducted with the support of the Volvo Foundation for Research and Education.

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DAR ES SALAAM, TANZANIA

A. Development Backdrop

Tanzania, with 54 million citizens, is the largest country by size and population in East Africa, and one of the most populous on the continent. Only about one-third of Tanzanians live in cities today, but the country's rate of urbanization, at 5.2 percent, is one of the highest in the world. The share of urban population increased from 18 percent to 27 percent between 1990-2012. With rapid urbanization half of the population is expected to live in major and secondary cities by 2050. Tanzanian cities already account for the majority of the country's physical, financial, and technological capital. Economic activities in urban areas contribute approximately half of the country's GDP. Dar es Salaam, Tanzania's economic hub and former colonial capital, has an estimated population of approximately six million people. The city accounts for approximately 40 percent of the urban population and is the third fastest growing city in Africa at an average rate of 5.8 percent annually from 2002-2012 (World Bank, 2017). It is expected to become a mega city with more than ten million people by 2030. A historically significant port city serving Indian Ocean trade routes before the colonial period, the logistics of transportation have always been important to Dar es Salaam.

Transport and Development

Tanzania has a number of plans to achieve its goals of economic transformation and social development. Tanzania's Development Vision 2025, developed in 1999, aims to transform Tanzania into a middle-income country by 2025. MKUKUTA, the strategy for growth and poverty reduction elaborated in 2005, has its origins in the MDGs and their focus on economic growth and improving governance. These guiding strategies towards Tanzania's development recognize the significance of improving infrastructure and transport systems to facilitate economic growth and transformation. As the populations of Tanzania's major cities – and particularly Dar es Salaam – have expanded, the infrastructure network has become increasingly inadequate. Concurrently, as incomes have begun to rise, so has the import of vehicles. The number of cars in Dar es Salaam doubled between 2002 and 2008 from 19 to 43 cars per 1,000 inhabitants. Rising motorization has contributed to increasing traffic congestion, with the most acute periods during peak hours. In addition to traffic congestion, Tanzania has one of the highest rates of traffic fatalities in Africa.¹ While some increase in motorization is likely with rising incomes, international evidence suggests that the built environment and accessibility significantly influence vehicle ownership and usage. Public transit investments can help avoid being locked into a high-carbon, automobile-oriented city in the medium to long-term. The Government of Tanzania (GoT), developed its National Transport Policy and Strategy (2003) and a Road Safety Policy with these objectives and concerns in mind.

B. Urban Transport Context

Urban Transport in Historical Perspective

The socialist legacy of Julius Nyerere has dominated Tanzania's economic and social policies following the struggle for independence from the British. Nyerere was elected to be Tanzania's first president in 1964, and his political parties have won every election held after independence in 1961, providing

¹ Vulnerable road users – pedestrians, cyclists, and drivers of two and three wheelers – constitute 64 percent of road users killed (World Bank, 2017).

political continuity. Ujamaa, or ‘familyhood,’ formed the basis for Nyerere’s socialist economic and social development strategy, becoming codified in the Arusha Declaration of 1967. His policy of “villagization” encouraged economic activity and investment away from urban areas towards the agricultural hinterland, in an effort to minimize migration to Dar es Salaam. As part of this policy, the administrative capital was relocated from Dar es Salaam to Dodoma in 1973,² a small market town at the time. Nyerere and his counterpart in the newly independent Zambia, Kenneth Kaunda, sought to spur the economic development of agricultural regions in southwestern Tanzania and northeastern Zambia (Kasanda, 2014). In support of this objective, the construction of a regional railway linking Dar es Salaam to Kapiri Mposhi in Zambia was envisioned. Operated by the Tanzania-Zambia Railway Authority (TAZARA), the TAZARA Railway was constructed between 1970 and 1975, financed and supported by the Chinese. The Tanzanian government also established a public authority in charge of providing urban transit within Dar es Salaam, Shirika la Usafiri Dar es Salaam (UDA) in 1974.³

As a consequence of villagization and disinvestment in urban areas, Dar es Salaam was ill-prepared for the rapid growth of the city, which took place in the period of economic liberalization that followed Nyerere’s resignation in 1985. Government statistics reported that, as of 2013, only 19 percent of national roads and two percent of district roads were paved. Formal public transport in Dar es Salaam declined from its height in 1975 of 257 buses to only 12 buses in service in 1998 (Mkalawa, 2014). In the growing gap left by formal transit authorities, informal paratransit operators came to dominate transit service provision. The evolution of the dala dala system as the main operators of the public transport in Dar es Salaam City started in 1983 when they were first officially licensed. The dala dalas were licensed as subcontractors of the UDA, which had an exclusive license for operating public buses in the city. The services by the UDA had significantly deteriorated and were meeting only about 60 percent of demand causing long queues at stations and overcrowded buses. The management of dala dalas was thereafter taken over by the Central Transport Licensing Authority in 1991 and thereafter, the Surface and Marine Transport Regulatory Authority (SUMATRA) in 2004. In 2011, there were 6,600 dala dala buses operating along 482 routes in Dar es Salaam. Dala dalas, offered cheap rides to commuters travelling to and from the CBD, where economic activity is concentrated. Dala dalas can be owned by a company or individual. Owners may purchase a single dala dala as a means to supplement their main source of income, or they may take the form of a transport company operating a fleet of dala dalas to serve as their primary business. As with paratransit service in many developing cities, dala dalas compete for passengers because their revenues are collected per passenger transported, with the expectation that dala dala drivers will pay owners a fixed fee per day for driving the dala dala. In 2014, 62 percent of trips were made using dala dalas. Although they have become an indispensable mobility option for Dar es Salaam’s residents, dala dalas are also known for being unreliable, unsafe, and contributors to traffic congestion and pollution in the city. By 2003, UDA only served ten percent of the market, with dala dalas capturing the remaining 90 percent due to their relative availability, flexibility, and efficiency (GoT, 2003).

² Moving the administrative capital, which was a trend in a number of countries in a decolonizing world, was both a symbolic repudiation of the country’s colonial past, a means to spur the economic growth in underdeveloped regions and intended to minimize the dominance of the coastal urban capital.

³ Before the UDA, the public transport operations were under the monopoly of a British private company—Dar es Salaam Motor Transport—from 1947 to 1974 when it was nationalized.

Along with urbanization, Dar es Salaam is facing worsening traffic congestion, which is threatening its economic and social development prospects. The land-use pattern of Dar es Salaam follows the predominantly radial road network emanating from the city center.⁴ The existing formal road network in the city comprises approximately 1,150 kilometers of which only 450 kilometers are paved. In the absence of planned urban expansion, a lack of reliable transit options, and rising population, Dar es Salaam's sprawl is exacerbating the city's transit challenges. The majority of formal jobs are concentrated in the urban core, however outside of the urban core are small, disconnected neighborhoods. Dala dalas compete with each other in congested traffic for passengers. During peak hours a typical one-way commute by dala dala from an informal settlement on the urban periphery could take two to three hours. UDA improved the number of buses in operation to 30, but mostly for inter-urban and urban-rural routes. Although the current motorization rate is low, with rising incomes and without options for reliable and convenient public transit, there are real concerns that an influx of private vehicles will inhibit mobility options in a city where the infrastructure is already overburdened.

C. Urban Transport Reform

In 2003, the Ministry of Communications and Transport published Tanzania's National Transport Policy, which assessed the state of transportation in the country and laid out policy directions to achieve objectives that would support the nation's socio-economic development. The policy addressed all modes of domestic and international transport active in Tanzania at the time, which it described as "characterized by high cost, low quality services due to...the existence of high backlog of infrastructure maintenance and rehabilitation, inadequate institutional arrangements, [and] laws," (GoT NTP, 2003). The policy outlines the challenges that urban transport faces, such as congestion, inadequate infrastructure, the proliferation of private vehicles over public transport and non-motorized transit, and weak connections between transport networks and land use planning. Recommendations to address these challenges included increasing the participation of the private sector in the provision of transportation services, encouraging non-motorized transport and mass transit over private vehicles, improving service levels by creating specific routes with segregated access, and examining available technologies for more efficient services.

In response to the national policy, the Dar es Salaam City Council (DCC) decided to embark on the implementation of a BRT as the core of their strategy to alleviate urban traffic congestion. Their vision was to develop a "modern public transport system at reasonable cost to the users and yet profitable to the operators using quality high capacity buses which meet international service standards, environmentally friendly, operating on exclusive lanes, at less traveling time," (NTP, 2003). While the BRT project was initially conceived at the city-level, the national government stepped in to take over the development and implementation of the BRT. The planned BRT envisions six phases for a total of 137 kilometers of BRT corridors. The conceptual design was completed in 2007, and the GoT set up the Dar Rapid Transit Agency (DART) as the executive transport authority for developing the BRT system. The DART mission is "to provide quality, accessible and affordable mass transport

⁴ Plans provide for ring roads and two of them (Nelson Mandela Expressway and Kawawa road) are already completed. The two ring roads have contributed significantly to the improved operation of passenger travel by public transport from the northern suburbs to the southwest industrial area and suburbs.

system for the residents of Dar es Salaam which will subsequently enable poverty reduction, improve standard of living, lead to sustainable economic growth and act as a pioneer of private and public investment partnership in the transport sector in the City.” It envisions a high-quality, affordable public transportation system operating on specialized infrastructure with adequate incentives to offer affordable mobility, a sustainable urban environment, and a better quality of life for the urban population, especially the poor. Construction of the first phase of service began in 2012. The development of the system was incorporated into the Dar es Salaam Urban Transport Master Plan, which guides developments up to the year 2030.

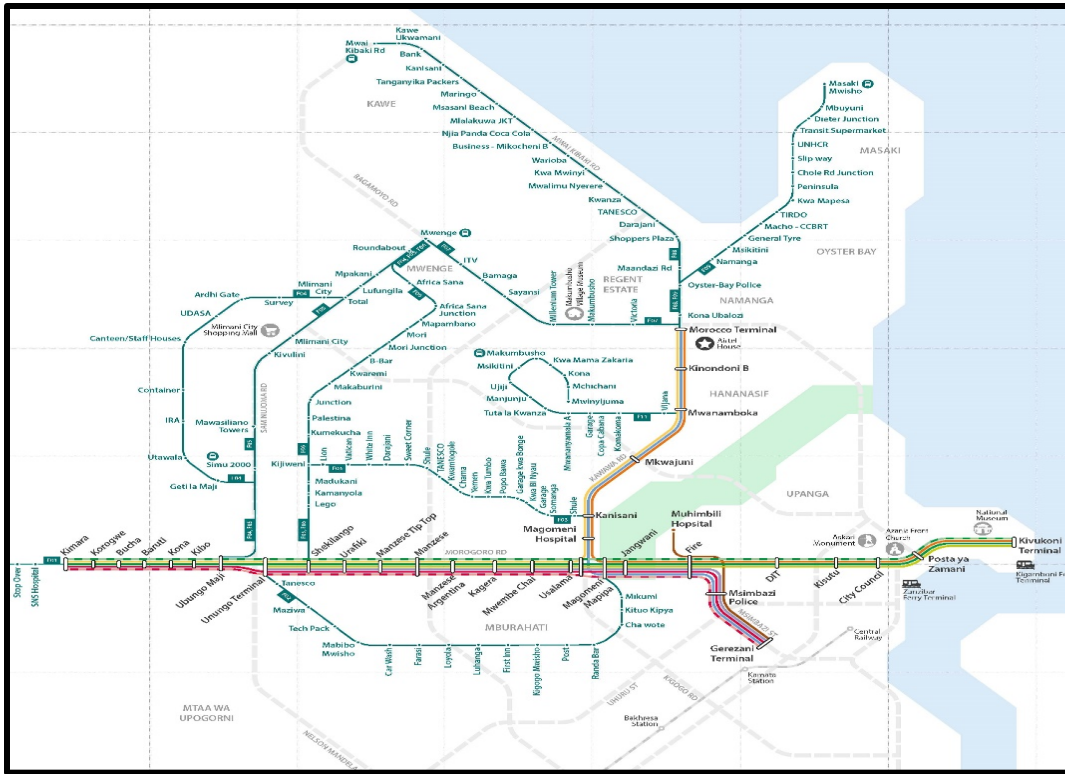


DART Infrastructure.

The first phase of DART’s BRT, referred to locally as *mvendo kasi* service (roughly translated from Swahili as “high-speed”) was launched in 2016. Transit infrastructure,⁵ 20.9 kilometers of corridor, for the main trunk line was constructed along Morogoro Road, connecting Dar es Salaam’s central business district with the western suburb of Kimara in the Kinondoni district. The two western terminals – Kimara and Ubungo – are connected to three terminals in and near the CBD – Morogoro, Gerezani and the Kivukoni. Buses run along dedicated rights of way along the center of Morogoro Road, and each station includes a passing lane that allows for express service between Kimara in the west and Gerezani and Kivukoni in the CBD. In addition to dedicated lanes for buses, the entire length of the trunk route has also been outfitted with sidewalks and bicycle lanes. Stations are built on the median and can be accessed by crosswalks at minor crossings and are wheelchair accessible with pedestrian footbridges at terminals and major crossings. Commutes from distant residential neighborhoods to downtown Dar shrank from two hours to forty-five minutes. Respondents from unserved communities indicated their desire for DART to expand its operations to their communities and inquired when such a service would begin (Respondents, 2019). Private car owners were opting to take DART in favor of driving their own vehicles. Some of these positive first impressions, however, began to give way as service levels began to drop and the system became overburdened with the volume of commuters that tried to use it. Stations are equipped with tap-and-go readers on turnstiles, though these are not currently operational. The implementation of infrastructure for the

⁵ The infrastructure that was constructed meets all the requirements for it to receive ITDP’s gold standard certification for BRT systems.

second phase of the BRT system is ongoing with development and implementation for the third and fourth phases of the BRT are at the early stages.



DART Map.

D. Governance and Politics of Urban Transport

As in the case of Ghana, there are a number of external actors that support urban transport reform in Dar es Salaam. The development of DART was supported by the Institute for Transportation and Development Policy (ITDP), an international organization that promotes the diffusion of the BRT, with a grant from the UN Environmental Programme. The first phase of the BRT was financed under the Second Central Transport Corridor Project funded by the World Bank.⁶ Their stated objective is to support Tanzania's economic growth by providing enhanced transport facilities that are reliable and cost effective, in line with MKUKUTA. The infrastructure for the second phase of the BRT is supported through funding by the African Development Bank in partnership with the Africa Growing Together Fund. The implementation for the third and fourth BRT phases is to be supported by the Dar es Salaam Urban Transport Improvement Project (DUTP), initiated by the World Bank in 2017. The implementing agency for these projects is TANROADS, which manages the national road network on behalf of the Ministry of Works, Transportation and Communication (MoWTC).

In addition to external actors and the national state, the local government of Dar es Salaam has a role to play, though the structure is complex. There are five municipalities, each led by a Mayor, and the DEC acting as the apex coordinating body. Each municipality has its own authority and reports

⁶ The World Bank was interested in mass transit investments found that improving urban accessibility is an important building block to increasing urban productivity (World Bank, 2017a).

directly to the President's Office, Regional administration and Local Government (PO-RALG), leaving the DCC with no direct authority over municipal activities. The governance of the transportation sector is equally fragmented with 14 agencies, each with overlapping responsibilities on the same network. The Transport Master Plan of 2008 recommended formation of the Dar es Salaam Urban Transport Authority (DUTA) as the lead agency for a sustainable transportation system, but this has not come to fruition. In the paratransit sector, associations were formed to support their operations, these include the Dar es Salaam Commuter Bus Owner Association (DARCOBOA) and the Association of Transporters in Dar es Salaam (UWADAR).

Usafiri Dar es Salaam Rapid Transit (UDA-RT) is a special purpose company formed specifically to act as a service provider for DART. It comprises of UDA – the agency that offered public bus service prior to the establishment of DART – and the two associations of dala dala owners – DARCOBOA and UWADAR (ITDP, 2016). The consortium was set up such that 30 percent of its shares are held for the dala dala owners, allowing them a period of three years to buy those shares and take minority ownership in the company. Many of these dala dala owners continue to hire drivers to operate their dala dalas on other routes, although roughly half of UDA-RT's drivers are former dala dala drivers. According to ITDP's general recommendations and World Bank requirements for funding BRT systems, transit authorities are required to have multiple private-sector service providers operate each phase of a BRT project (Hall, 2015). DART was structured according to these best practices and has made attempts to procure additional private service providers. However, those efforts have proven unsuccessful due to complications with the public procurement process. Multiple rounds of procurement have been required so far to move the contract in a direction that is mutually acceptable to DART and to new bidders.

UDA-RT's original service contract was only valid for two years, in which time DART was expected to have issued a competitive tender for a more permanent contract. The interim contract has lapsed but in the absence of a new procurement, UDA-RT continues to operate underserved lines, contributing to the decline of DART's service. While Phase I of the system is designed for 305 buses to carry passengers along the trunk route, UDA-RT is currently running only 140 buses, per its original allowance. UDA-RT has shouldered criticism for failing to provide adequate service on the routes of the first phase of the transit system; for instance, dangerous overcrowding on buses is of concern. To supplement its capacity, it ordered an additional 70 buses from China, but the government has held these buses up in port with the justification that it would be unfair to a future service provide to allow UDA-RT to operate more than its allocated share of buses. UDA-RT claims that it is simply attempting to provide better service to passengers and is being prevented from doing so by the government.

In addition to the identification of additional service providers, the model for compensating UDA-RT service further complicates the provision of good quality transit to Dar's residents. UDA-RT is responsible for managing several functions of the public-private partnership that was established. It undertook contractual arrangements with Tanzanian ICT provider Maxcom to collect passenger fares, who passed them on to a fund manager. This fund manager is responsible for paying a flat fee per line that it operates to UDA-RT from passenger revenues and for transferring revenues to DART to pay back the World Bank loans. This payment model does not incentivize UDA-RT to add buses to its fleet. Instead, efficiencies are realized by keeping operating costs low by filling a fewer number of buses with as many passengers as possible. DART is exploring the possibility of changing the compensation model with the procurement of a new service provider so that operators are paid per kilometer travelled. Doing so removes the pressure from operators to run fewer buses and incentivizes

them to provide the frequency of service needed based on the number of passengers in the system. These changes are, however, contingent on DART's ability to procure a second service provider for Phase 1.

E. Findings and Policy Implications

Tanzania has succeeded in providing improved transportation service to the residents of Dar es Salaam. This fast-growing city with an infrastructure deficit, was able to develop the DART system and significant infrastructure to improve mobility. A key characteristic for the success of a BRT system is the enforcement of the dedicated right of way for the rapid buses. In Dar, DART and the traffic police have made particular efforts to ensure that the travel lanes remain free of mixed traffic. When the system first opened, traffic police monitored the travel lanes and issued tickets with steep fines to offenders. The level of enforcement conditioned drivers to understand that the bus lanes are off-limits, allowing buses to travel unobstructed even during peak hours. Exceptions are made for police and emergency services, whose vehicles are allowed to use the lanes. Politicians' motorcades are also allowed through; this has produced mixed reactions, including relief that roads do not have to be blocked off to accommodate the motorcades, as was the custom in the past. Motorcyclists, however, whose behavior is difficult to regulate, can often be seen dipping in and out of the dedicated lanes. This is not without impact to bus service or traffic safety, as crashes between buses and motorcycles have increased.

Foreign delegations from across the continent have been hosted by DART to demonstrate the successes that this project has achieved. However, there are challenges evidenced by DART's implementation. Constructing the infrastructure was only a part of the program to build a new public transit network; DART also needed to procure a service provider to operate bus lines. More attention was given to the former than the latter, and DART's infrastructure developed faster than the tendering process to determine the concession contracts. As a result, construction on Phase 1 neared completion without the selection of an operator. The political administration had a large stake in ensuring that service become operational as soon as possible, as it campaigned on a platform of providing better urban transport to the residents of Dar es Salaam. With the impending national elections in 2015 proving to be more competitive than expected, there was pressure to find an operator quickly to show that progress was being made. There was additional concern that the newly constructed BRT infrastructure, particularly the dedicated lanes, would be difficult to enforce if left unused. Consequently, without a competitive tender, DART signed a contract with UDA-RT as the "interim service provider." While the construction of the physical infrastructure was executed and operationalized, the lack of a clear process to procure a service provider constrained the performance of the system and handicapped its outcomes. An additional institutional concern is the removal of authority from the local to national level, which may also reduce the ability to integrate DART's objectives and implementation with the broader spatial development and land use planning. The continued dominance of a single political party, the Chama Cha Mapinduzi (CCM), has provided continuity to the overall project as it expands from phase to phase. However, the lack of political contestation, or pressure, might contribute to the slow pace of improving the public-private partnerships with potential service providers.

Another consequence of the BRT intervention is the displacement of dala dala routes from the main arteries in the city along which DART operated. Although they are not banned from Morogoro Road in its entirety, dala dalas are no longer allowed to move along the route from Kimara to Kivukoni. Displaced dala dala routes have begun to find new configurations in neighborhoods adjacent to and

farther away from the DART corridor. As a result, instead of seeing an overall reduction in traffic congestion, it is seemingly being redistributed to other parts of the city that are even less equipped to handle increased road traffic than the city's main thoroughfares. Furthermore, complaints have arisen about the displacement of dala dala drivers who depend on transporting passengers for their livelihoods. By no longer being able to serve the most heavily travelled routes in the city and in the absence of a safety net from dala dala owners, drivers' livelihoods are being diminished. That said, the operational arrangement with UDA-RT has enabled some degree of participation of former dala dala drivers in DART, offering more stable employment, incomes, benefits and job training.

The strong influence of donor agencies and international experts appears to be guiding the realization of the first and future phases of the project, but the suitability of these best practices for poor and vulnerable populations in Tanzania is open to question. The introduction of DART disrupts patterns of mobility that low-income groups have come to depend on to access opportunity. Dala dalas are no longer able to transport passengers directly to and from the most travelled corridors in the city, reducing the accessibility of those that already found urban transport challenging. The most affordable mode of transport in the city, dala dalas cost approximately 400 Tanzanian Shillings. DART has been designed to not rely on subsidies from the GoT to cover its operating expenses, other than an exploration of a targeted pilot subsidy for the urban poor. Instead, DART must price its tickets to meet its costs (World Bank, 2017). Therefore, the initial price of a DART ride was set at 650 Shillings,⁷ representing an increase of more than 60 percent over the cost of a dala dala. While the premium for a DART ticket can be justified by the time savings it offers, criticisms have arisen about the ability of low-income segments of the city to pay for this service while they suffer new limitations to dala dala service. Furthermore, DART may be forced to increase its ticket prices in the future if it needs to continue covering its costs without subsidy,⁸ even though riders may be intolerant of price increases without an improvement in the reliability of the service. With physical capacity of the system constrained by the low number of buses currently being operated, it is likely that rate hikes will be required in order to cover budget gaps. While the need for new mobility options in a fast-growing city like Dar es Salaam is clear, the country's experience with DART shows that governance mechanisms and institutional capacity must grow alongside physical infrastructure in order for the benefits of the intervention to be realized by those for whom it is being developed.

⁷ With cashless smart cards no longer being employed on the system due to contractual complications with providers of the ticketing solution, there is no way to adjust fares based on the distance travelled. All commuters on the trunk route pay the maximum fare of 650 Shillings for new each trip.

⁸ Consistent with conditions for World Bank lending to the project, DART has attempted to operate without government subsidy (Rizzo, 2019) – a feat that almost no public transit system in the world has been able to accomplish.

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Acronyms

Government of Tanzania (GoT)
Tanzania-Zambia Railway Authority (TAZARA)
Shirika la Usafiri Dar es Salaam (UDA)
Dar es Salaam City Council (DCC)
Dar Rapid Transit Agency (DART)
Institute for Transportation and Development Policy (ITDP)
President's Office, Regional administration and Local Government (PO-RALG)
Dar es Salaam Urban Transport Authority (DUTA)
Dar es Salaam Commuter Bus Owner Association (DARCOBOA)
Association of Transporters in Dar es Salaam (UWADAR)
Usafiri Dar es Salaam Rapid Transit (UDA-RT)
Surface and Marine Transport Regulatory Authority (SUMATRA)
Dar es salaam Urban Transport Improvement Project (DUTP)
Ministry of Works, Transportation and Communication (MoWTC)
Chama Cha Mapinduzi (CCM)