

LAMATA (Nigeria): A Beacon of Light for Lagos Transport System

In November 2014, the mood was sober at the Lagos Metropolitan Area Transport Authority (LAMATA). The 12-year old public agency had been created to address the acute transport problems of Lagos state, the economic powerhouse of Nigeria, a country boasting Africa's largest population and economy. Lagos itself was one of the fastest-growing cities in the world. LAMATA had long gained a global reputation as an honest, law-abiding agency that got things done. But with elections scheduled for Spring 2015 and politicking in full force, LAMATA was struggling to engage key stakeholders in constructive dialogue. The election was heated as the race was neck and neck between the incumbent that ruled over the federation and the opposition party ruling over Lagos state.

LAMATA had been set up in response to an independent study commissioned by the State in the 90s which called for the urgent creation of a semi-autonomous agency to tackle the dramatic transport situation in Lagos. This agency would coordinate transport policies, programs and actions of all public agencies at the different tiers of state government. With support from the World Bank, LAMATA was established by the Lagos Assembly in January 2002. At inception its powers were restricted to preparing plans for developing, building, and maintaining the transport infrastructure in Lagos state. The 2007 Act subsequently gave LAMATA further powers to run franchises and transport operations.

Most of LAMATA's top management team, the "pioneer staff", had been in post since the agency's inception. The agency's managing director (MD) was Dr. Dayo Mobereola, a transport planner with a doctorate in Transport Economics, who like many others in the top management team had professional experience in the West. Driving LAMATA was the team's ambition to radically transform the face of the public transport systems in Lagos.

We had a clear, bold vision from the onset and everybody knew what that vision was all about. We established what LAMATA is, what it should do, and how to go about it... You start by making a statement, and it is fine that your aim and purpose are to make a difference to Lagos, to the institutions, as well as to civilization (LAMATA MD)

To differentiate itself from the many agencies which had failed to address the transport problems of Lagos, LAMATA put its initial focus on the low hanging fruit, and as such sought to repair over 600km of roads and to develop a transport master plan. In 2006, LAMATA then started demarches to deliver key schemes in the transport master plan.

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

To make a statement we needed to quickly do something...The first thing we did was the roads. The other thing we did was doing the roads at twenty or thirty percent cheaper than the norm because of the procurement process that we went through...The other challenge in this part of the world is funding...we were lucky...we were able to tap extra funding from the World Bank, which was also augmented by Lagos state (LAMATA MD)

With financial support from the World Bank as well as funding from the State, LAMATA established gradually its authority and credentials. After a few years of working in partnership, the World Bank included LAMATA in its Institute Knowledge Hub, and showcased LAMATA as a center of excellence for infrastructure development in Africa.

Nigeria is a very difficult environment. As the story goes, road construction is started but the roads are not finished, the costs are very high, and maintenance is very poor. That is the environment in which LAMATA was born. They could demonstrate that they could maintain the roads at half the cost from what was earlier done by the Public Works Department— what we call the ugly victory of LAMATA (World Bank, Country Economist)

Tackling the transport problems of Lagos was, however, a complicated task. For one thing, the Lagos state was cash-strapped. The state controlled personal tax revenues but these could only be raised by the Federal government, which also controlled corporate tax revenues. By the country's constitution, the oil rents were also under the control of the federal government, which distributed half of the revenues to States in proportion to their populations—and many claimed federal figures underestimated the population for Lagos state around 5 million. Whilst market appetite for state bonds was high given that state debt to GDP ratio was less than 5%, politics and a slew of 'arbitrary rules and procedures' did not put this option in the cards. Indeed political rivalry between the state and federal governments had long been in the way of constructive dialogue between the two groups.

The geography of Lagos amplified the complications of fixing the most pressing issues in the transport infrastructure. Lagos was a port metropolitan area fringing the south mouth of Lagos lagoon. Lagos Island was the central business district and overtime the city had expanded into mainland areas north, east, and west of Lagos Island. The connection between the Island and the mainland had largely relied on three bridges built before the 90s. The daily commute from densely populated suburbs, some of which were more than 40km away from Lagos Island, could easily last three hours in each direction. If commuters left their cars at home, they were largely dependent on an informal transport system consisting of Danfos—small, old, and poorly-maintained yellow buses [Exhibit 1].

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

Complicating matters the Danfos were run by politically influential and financially powerful unions. Hence, without the cooperation of Unions, LAMATA would struggle to implement its ambitious 2030 Strategic Transport Master Plan that proposed a multi-modal public transport network for connecting the whole Lagos metropolitan area [**Exhibit 2**].

Challenges notwithstanding, LAMATA's top management was determined to make a mark. The agency embarked on developing a Bus Rapid Transit (BRT) corridor, which was the first of its kind in Sub-Saharan Africa. The aim was to add to an existing highway two lanes for high-capacity buses. The World Bank financed the feasibility study whereas Lagos State financed its implementation. The first phase, a 22km stretch, opened in 2008 and operations were franchised to a Union-led cooperative. BRT quickly became very popular and profitable. But by 2014 the quality of operations had declined a lot and the Union owned substantial fee monies to LAMATA. Addressing these problems was urgent since LAMATA was looking to open a BRT extension [**Exhibits 3, 4**], which would add more 13.5km of dedicated bus route in 2015 (originally scheduled for 2014).

Beyond developing a network of eight BRT schemes, LAMATA also had ambitions to develop a light rail network. The agency's top management was adamant that a mass-transit light railway was crucial to address the transport problems in Lagos. LAMATA succeeded to sell the idea to the political masters, and a railway network became a central element of its first master plan produced in 2008 with a view to be completed by 2020.

*Nobody thought about the rail for Lagos ...nobody would dare to say 'can we dare to do this?' ... the first time we told the Lagos State Commissioner that we needed a railway he laughed, and said "Come back to the earth. You guys are in the clouds." Nobody dared to dream like that. But we dared and somehow it worked out [**LAMATA Senior Official**]*

By 2014, LAMATA had accomplished many things. The network of roads had increased, roads were regularly maintained, collection of transport-related charges had improved, and LAMATA had become largely autonomous financially since it received half of all the transport-related fees collected by the state. But, it was also clear that implementing the transport master plan and achieving the 2030 goals (originally planned for 2020) [**Exhibit 5**] set out in the last revision of the master plan was becoming virtually impossible.

With regards to rail, one line (the Blue line) was under construction but remained unclear who and how to operate it. A concept design existed for a second line, the Red Line, but the scheme had been on hold for many years—LAMATA lacked finance and the land

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

rights, the latter under the control of federal government. Complicating matters the World Bank had ruled out financing light rail schemes, which scored low in their list of priorities.

Tempting as it was for LAMATA to push for solutions its leaders wondered if it was worth doing so before the 2015 elections for the future president of Nigeria, state governors, and the members of the National Assembly. Changing the operational regime of BRT was politically sensitive at state level. And before the polls were casted it was unlikely the federal government would give LAMATA access to the federal land for building the Red line. One thing was for sure though. With 4-year electoral cycles creating narrow windows of opportunity to get things done, LAMATA could not lose a minute after the elections.

Nigeria

Nigeria was the most populous country in Africa and the eighth most populous country in the world. Located in West Africa, it bordered the Republic of Benin in the west, Chad and Cameroon in the east, and Niger in the north [Exhibit 6]. The Nigerian population was estimated at 162 million people in 2012 by the United Nations, with an estimated population growth rate of 2.8 % between 2010 and 2014¹. The UN also projected that by 2050 Nigeria would be the world's third most populous country with a population of 440m, which was then expected to grow to 914 million by 2100.

Widely regarded as Africa's sleeping giant, Nigeria boasted the largest economy across the African continent. With an estimated formal GDP of \$510 billion² Nigeria was also the 26th largest economy in the world. Having maintained a record estimated 7.4 % in GDP growth in 2013 up from 6.5% in 2012 Nigeria was second only to China in terms of its GDP growth rate³. This impressive growth rate was higher than both the West African sub-regional level and the sub-Saharan Africa level estimated at 4.2 % in 2013⁴. The country was therefore dubbed one of the 'Next Eleven Countries' by Goldman Sachs⁵.

Oil accounted for close to ninety percent of Nigeria's exports and roughly seventy five percent of its consolidated budgetary revenues. Such a high dependence on oil revenue was a source of volatility to the country's macro economy⁶. Complicating matters further,

¹ World Population Prospects The 2012 Revision. Key Findings and Advance Tables. United Nations, NY.

² Nigeria Overview: World Bank. <http://www.worldbank.org/en/country/nigeria/overview>

³ Lagos State Government Website. <http://www.lagosstate.gov.ng/>

⁴ Nigeria Overview: World Bank. <http://www.worldbank.org/en/country/nigeria/overview>

⁵ O'Neil, J, Goldman Sachs Group Incorporated, *The Growth Map*, December 12, 2005

⁶ Nigeria Overview: World Bank. <http://www.worldbank.org/en/country/nigeria/overview>

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

Nigeria's growth had not been inclusive with only a limited 'trickle down' of benefits to the poor. This was reflected in the country's per capita income, which was USD\$2,748 in 2010, falling behind neighboring Ghana at \$10,748 and Cameroon at \$10,758⁷.

Still, in 2014, after the Nigerian National Bureau of Statistics recalculated the country's GDP value the figures revealed a more diversified economy than had been previously thought. The main drivers of non-oil sector growth were agriculture, trade and services. This was a welcome adjustment as strong non-oil growth was seen necessary for driving employment creation and poverty reduction⁸. But Nigeria continued to face significant challenges including widespread corruption and perceptions thereof, and abuses of power by political elites. These impeded the reforms notably investments in the much needed economic and social infrastructure which were needed to awaken the country's economy.

Many challenges facing Nigeria could be traced back to the country's volatile political history [Exhibit 7]. Following the fall of British rule in 1966, Nigeria had experienced 30 years of military rule, which ended in 1999 (apart a brief stint as a democratic republic between 1979 and 1983). The period under military rule was characterized by coup d'états and counter-coups. During this time the military adopted and adapted the federative structure initiated under colonialism. Thus, between 1901, when indirect British rule began, and 1996 the country was reorganized into regions, provinces, and states. This turned Nigeria into a federal constitutional republic comprising one Capital Republic (Abuja) and 36 states with each State further divided into Local Government Areas.

Nigerian politics therefore unfolded within a framework of a federal, presidential, and representative democracy. The federal government was in charge of running the country and had executive power exercised by the president. The president was elected by popular vote to a maximum of two 4-year terms into the roles of head of state, head of government, and head of a multi-party system. The government and the two chambers of the National Assembly, the House of Representatives and the Senate, which served as a check on the executive arm of government, held legislative power. And an independent Supreme Court of Nigeria held judiciary power. However, the constitution of the federation leaned towards a more centralized system as a result of years of military rule:

We've a funny federation...Under the military, the president appointed governors, who were in general military officers....Even though the country continued to be called a

⁷ World Bank (2010). World Development Report.

⁸ Barungi, B (2014) Nigeria. African Economic Outlook. AFDB, OECD, UNDP.

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

federal republic, it operated as a unitary government. We've since transited to civilian governance. But the country inherited a constitution that was fashioned by the military. So there's a lot of work to be done in terms of reforming the mindset of the federal agencies to understand the way things work in a federation (High Commissioner Lagos State)

By 2014 Nigeria had two major political parties: People's Democratic Party (PDP) and the All Progressives Congress (APC). PDP had won every Presidential election since 1999 and was the reigning party. APC, the ruling party in Lagos state, was the result of an alliance by Nigeria's three biggest opposition parties and was formed in February 2013 to take on PDP. The 2015 elections were the most disputed in Nigeria's democratic history. There was a real risk of unrest if the rumors were true that ruling party barons would impose an unconstitutional interim government to prevent the handover of political power.

All in all years of corruption, crony capitalism, criminality, failure to tackle predators in the political system, and mismanagement of public funds had hindered Nigeria's socio-economic development. At the local level, the country's 36 states and 774 local governments had considerable political autonomy but also had weak capacities to operate and deliver public services⁹. Nevertheless, with the exception of pockets of instability in Northern Nigeria, the country's socio-political environment was fairly stable, and many independent observers remained convinced that Nigeria could achieve its potential.

Lagos was a noteworthy performer in this regard. Run by the political opposition party, over the past two decades the State had indisputably remained Nigeria's knowledge, commercial and financial hub. The Lagos economy (approximately \$91bn) generated a quarter of the country's GDP and was nearly double the size that of neighboring countries.

Lagos

Lagos state was Nigeria's commercial capital and the country's political capital before this was moved to Abuja in 1986. Despite the move, Lagos State had remained the country's dominant economic, social, and financial centre. Lagos was located on the southwestern part of Nigeria and was bounded in the North and East by Ogun State of Nigeria, in the West by the Republic of Benin, and in the South by the Atlantic Ocean. It had five administrative divisions: Ikeja, Badagry, Ikorodu, Lagos Island, and Epe¹⁰. Over the years, Lagos' urban area had spread to the mainland forming a major urban conurbation that

⁹ Nigeria Overview: World Bank. <http://www.worldbank.org/en/country/nigeria/overview>

¹⁰ Lagos State Government Website. <http://www.lagosstate.gov.ng/>

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

extended into the neighboring Ogun state in the north. By 2006 the metropolis had been subdivided into 20 local government and 37 local councils.

The coastal city served as the transportation hub for greater West Africa and was home to about 60 % of Nigeria's non-oil economy with industries including manufacturing and service delivery, banking, telecommunications services and, to a lesser extent, fishing, mining and quarrying, agriculture, and forestry. Lagos state also boasted two seaports, and local and international airports¹¹. The city had therefore transformed itself from the small farming and fishing village it was in the past into a burgeoning megacity.

We've about 20-21 million people in Lagos. It's one of the biggest states in Nigeria. It's actually bigger than 23 countries. Countries like Guinea Republic, Mali, Botswana...It has a larger economy than Ivory Coast, Ghana, Madagascar. 20% of Nigeria's GDP comes from Lagos state. 45% of the skilled workforce in Nigeria actually resides in Lagos. If Lagos dies then Nigeria dies... When you look at road networks around the world, on average, you have about 11 people per kilometer of road. In Lagos we have 224 people per kilometer of road. It's just to show how dense Lagos is. (Transport Director, LAMATA)

Whilst Lagos made the greatest contribution to Nigeria's leading economic indicators, the city's annual operating budget of approximately \$650 million significantly lagged behind cities of comparable size such as Delhi, Mumbai, and Jakarta¹². Thus although Lagos witnessed unprecedented infrastructural development between 1967 and 1999, it continued to face a massive transport infrastructure gap, which has been exacerbated by explosive population growth [Exhibit 8] coupled with ineffective land use planning and city management. One of the most visible manifestations of this was severe traffic congestion.

By the turn of the XX century Lagos was synonymous with traffic jams, overcrowded and squalid living conditions, slums, and high rates of crime notwithstanding a string of initiatives undertaken by two successive state governments, first led by Mr Bola Tinubu from 1999 and the second by Mr Babatunde Fashola from 2007. Amongst other things, the administrations pledged to focus on good governance, resource mobilization, innovative and inclusive approaches to spatial planning principles and transport upgrades¹³.

¹¹ Lagos State Government Website. <http://www.lagosstate.gov.ng/>

¹² Lagos Case Study. The Stimson Center (2009)

¹³ Filani, O. (2012). The Changing Faces of Lagos. Cities Alliance

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

Transport in Lagos

Like many Third World cities the urban grid of Lagos reflected the interests and economic activities of past colonial powers. Hence the settlement pattern in Lagos was rooted in separate residential areas for indigenous and colonial populations, and a business district where most of the interaction between the two groups used to happen. The colonialists' residential areas were near the business district and were well served with transport infrastructure while the indigenous population were subject to poor transport facilities both within their residential areas and connecting them to city's transport network¹⁴.

This way of organizing had worked when the indigenous communities of Lagos were compact in size, and thus people used to travel relatively short distances. But traffic congestion caused by daily commuting became gradually a massive problem in Lagos as the population continued to grow, more rural migrants kept moving to the city, used cars that markets in rich countries no longer absorbed became affordable for many, and economic activity between the business district and indigenous residential areas picked up.

Lacking a bus public transport, Lagosians relied on a fleet of over 75,000 privately operated minibuses (danfos) and smaller numbers of mini-buses (molue) and shared taxis (kabu-kabu); for local journeys, they employed motorcycle taxis (okada) [Exhibit 9]. Danfos and molues, the more popular options, were low quality modes of transport with variable fares, providing slow, uncomfortable, and disordered journeys¹⁵. The lack of public transport gave rise to traffic congestion, the deterioration of the existing roads, rising levels of road accidents, and increasing rates of atmospheric pollution. [Exhibit 10]

The history of trying to solve the transport problems in Lagos was not good. In the eighties, the Lagos State Ministry of Works and Transport (LSMWT) was responsible for managing the local transport sector. To this purpose LSMWT established a publicly owned passenger transport operator, the Lagos State Transport Corporation, the Lagos State Ferry Services Corporation, the Lagos State Parking Authority, and the Central Licensing Authority. In 1994, the LSMWT was split into the Lagos State Ministry of Works mainly responsible for the state road network; and the Lagos State Ministry of Public Transportation responsible for overall policy development and planning and later renamed the Lagos State Ministry of Transport. Other transport agencies included the Lagos State

¹⁴ Banjo, G & Dimitrou, H (1983). Urban Transport Problems of Third World Cities: The Third Generation. Habitat International

¹⁵ Mobereola, D. (2009). Lagos Bus Rapid Transit. Africa's first BRT Scheme. SSATP Discussion Series Paper No. 9. Urban Transport Series.

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

Traffic Management Authority and the Lagos State Ministry of Works and Infrastructure¹⁶.

The fragmented Lagos bureaucracy proved wholly incapable of responding to the escalating pressures on the transport network. A string of one-off initiatives that were carried out unsystematically and ignoring critical interfaces failed to implement any long-term sustainable solutions. Poor institutional arrangements, political pressure, and a lack of financial resources also meant that many transport plans never got off the ground.¹⁷

A study was actually prepared in 1989 and completed maybe in 1992. That study identified over 100 agencies of government involved in transportation issues, at the federal level, state level, and local government. There was no coordination, no planning; everybody was just doing their own things (Managing Director LAMATA)

In the nineties, with Lagos facing a real threat of the transport system deteriorating to intolerable levels, the Governor of the time, Bola Tinubu, appointed a special adviser on transportation issues and sought help from the World Bank. The Lagos Mass Transit and Transport Systems Program Study was then developed, and the central recommendation was the creation of the Lagos Metropolitan Area Transport Authority (LAMATA).

LAMATA

The Detailed Framework for the Establishment of LAMATA was prepared in 1996, proposing the agency's core functions, organizational structure, resource requirements, and relationships with the key stakeholders [Exhibit 11]. LAMATA was subsequently signed into law on January 13, 2002, and the agency was established as a corporate body with an independent board that would be responsible for formulating, coordinating and implementing urban transport policies and programmes in Lagos. Specifically, the 2002 LAMATA Law set out the following functions and responsibilities for LAMATA¹⁸:

1. Co-ordinate the transport policies, programme and actions of all related agencies in Lagos State
2. Ensure the physical traffic serviceability of declared roads
3. Make recommendations for the classification of a road or portion thereof as a declared road or de-declared road
4. Undertake traffic management activities towards ensuring efficient and effective movement of traffic in metropolitan Lagos

¹⁶ Mobereola, D (2006). Strengthening Urban Transport Institutions: A Case Study of Lagos State. SSATP

¹⁷ Mobereola, D (2006). Strengthening Urban Transport Institutions: A Case Study of Lagos State. SSATP

¹⁸ Lagos State of Nigeria Official Gazette, 2002

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

5. Plan and co-ordinate the transport policies, programmes and actions of all-transport related agencies in Lagos State
6. Ensure the physical traffic serviceability of declared roads
7. Encourage from time to time research for the purposes of carrying out the functions of the Authority
8. Make recommendations to the Governor including mechanisms for their implementation
9. Authorise or delegate any officer, employee or servant of the Authority to act as agent of the Authority for any function, services or facilities which may be exercised, performed or provided by the Authority as per the Law.
10. Recommend on route planning and general location of bus shelters, pedestrians ways and bridges; and
11. Co-ordinate the activities of the State Licensing Authority and all vehicle inspection units or sections in the State.

LAMATA was envisioned to provide a strategic planning platform and coordinate activities of the different executing agencies. The World Bank provided both technical advice and finance support in the form of a loan to the tune of \$100 million. The loans were underwritten by the federal government but deposited into a bank account managed by LAMATA top management. As per agreements with the World Bank, the Lagos State government made a mandatory counterpart contribution of \$35 million.

The World Bank issued the detailed framework for setting up LAMATA in 2003, and provided targets for \$100 million credit. Apart from the credit, the World Bank was there to support LAMATA during the registration period with regards to financial management, procurement systems, and to ensure that what we had were systems that were based on World Bank standards. (LAMATA Senior Official)

In 2007 a revised Law was passed under which LAMATA's functions would be to "plan, regulate and co-ordinate the supply of adequate and effective public transport in all travel modes and supporting infrastructure within metropolitan Lagos" [Exhibit 12]. Subject to approvals by the Governor, the new law granted LAMATA powers to make regulations, and thus to "prepare plans for the management and development of transportation in metropolitan Lagos" and, in conjunction with the Ministry of Works, to "construct, reconstruct, maintain and manage transport infrastructure and facilities". This legislation thus empowered LAMATA to promote and franchise mass transit schemes in Lagos.

From inception LAMATA was administered as a private sector outfit outside of the bureaucratic processes of government. The agency would have to prepare 5-year corporate and investment plans, an annual report and audited accounts, and convene an annual general meeting. Management consisted of a lean bureaucracy of about 50 in-house staff supported by contractors and consultants distributed across five departments: Finance,

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

Corporate & Investment Planning, Public Transport, Roads & Traffic Management; and eight supporting units (External Relations, Legal, Internal Audit, Information Technology, Procurement, Human Resources, Safeguards, and R&D) [Exhibit 13].

LAMATA's managing director was given free rein to recruit a top management team. The aim was to attract highly motivated professionals notably Nigerians in the diaspora with international experience in transport and management. To this purpose, LAMATA was granted the autonomy to set up a pay scale above that in the public sector and thus able to offer competitive market salaries on par with what was offered in the private sector.

We were able to get the right personnel in all the key positions, which is something that we could regard as a challenge in this part of the world. I was given free hands to choose whoever I deemed fit and suitable for each position. I went for merit and capable, competent human beings (Managing Director LAMATA)

LAMATA staff is paid well, the working environment is excellent, the managing director has a vision, and creates a very good team spirit. So LAMATA has the money, the independence, and they are doing good work for the people... In the World Bank, there's a very great appreciation for what LAMATA has done (World Bank Country Director)

LAMATA also had an independent 13-member board representing stakeholders in local government, ministries, unions, and the private sector. The early days of the relationship between the board members and the State Governor were beset by sharp frictions. As a result, supposedly to streamline decision-making processes, when the tenure of the first board appointments expired in 2007, the Governor chose not to appoint new members:

He [Governor] is of the opinion that it's better to micromanage than having a board...we still have to present [our proposals] to the Executive Council.. sort of convince 40 people.... It works, basically. We've been able to do things because we don't have somebody overseeing us apart from the Governor... there are times where he doesn't agree, but we all realized he lets common sense prevail (LAMATA senior official)

Operating without a board created a real risk for LAMATA officials since, first, it left the agency without any democratic institution to shield top management from potential abuses of power by the elected Governor; and second, the lack of a board made the agency vulnerable to perceptions in the eyes of third parties and federal government that LAMATA was a local political instrument. But LAMATA senior officials dismissed these

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

risks, counter arguing that the lack of a board, and thus of fewer people and interests (some of which antagonistic) to manage allowed to get things done faster. World Bank Officials recognised the trade-off, but opted to shy away from intervening politically on the issue:

If you get good individuals, you get good institutions. If you get bad individuals, you get bad institutions... What if the leaders in Abuja do not want Lagos to prosper? That is one thing. Secondly, the central government does not want to give any part of their power either financial or political to Lagos. Because they have no confidence and they don't get along. So fundamentally the national interests are subjugated to personal interests.

Challenges notwithstanding, the insistence of LAMATA's top management team on professionalism, rigorous procurement standards, sound financial management, and good results improving and maintaining the roads¹⁹ had paid back. The World Bank lauded the agency as an exemplar of best practice in Africa. And at a personal level, officials praised the managing director's ability to sustain the political support of two state governors:

In this part of the world you have to recognize the culture of how things are done and ...work with that culture. If you say 'I'm going to create a change' then you're going to hit head-on a lot of stumbling blocks.... I identified a political champion who happened to be the governor then. Together we set up the objectives of what LAMATA should be doing, and how we should go about it. Once we agreed, he gave out the necessary support both legislative, finance, and the freedom to operatewe set up our stall very high.... because it was clear what we wanted to achieve, it allowed people to say 'okay we give them a space to try. If they don't achieve it, we know that they failed. If they achieve it, it's for the betterment of the whole state'. And that's what we did (LAMATA Managing Director)

By 2014, more than ten years passed since the agency had been established, both LAMATA pioneer staff and World Bank officials felt that the sustainability of the agency had been a major victory. Talk at state level in the early years that LAMATA would 'fizzle out' at the end of the first Lagos Urban Transport Project (LUTP), which had been largely financed by the World Bank for the first 5-formative years, had lost momentum. And in 2011, LAMATA officials were thrilled when the Lagos state committed to finance LUTP2. The figures corroborated their narrative. Indeed state funding had been steadily increasing to the extent it had become larger than World Bank funding [**Exhibit 14**].

¹⁹ Ten percent of the Lagos road network, about 887kms, was under direct responsibility of LAMATA,

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

We've 89 agencies and ministries...maybe each one will take about 1.5 % or 1.4 %. Here, we're collecting between 16% and 17.5 % of capital expenditure in Lagos State. That tells you the kind of importance they give to LAMATA. In the last 3 years, our budget was fully drawn. Last year we were able to access 98 % of the fund... we went into agreement with the state that if we were able to increase the amount of money they are recovering from transportation, 50 % of the increment will come to us. (Senior Official LAMATA)²⁰

Central to LAMATA's vision was the Strategic Transport Master Plan (STMP), a 20-year roadmap outlining a transport vision for Lagos underpinned by a multimodal public transport network that matched standards of a world-class megacity. The STMP specified the details of the modal routes that LAMATA envisioned for 2030 and outlined how to achieve its targets. Bus Rapid Transit and Light Rail were two key elements of the STMP.

The Bus Rapid Transit (BRT) Scheme

Bus Rapid Transit (BRT) transport networks rely on the use of dedicated 'interference-free' segregated lanes to guarantee fast, reliable travel. They combine high-quality bus lanes and stations, vehicles, amenities and branding to achieve the performance of a light rail or metro system, with the flexibility, cost, and simplicity of a bus system. BRTs have become a popular and affordable approach to rapidly address problems of lack of public transport infrastructure in cities around the world. Hence LAMATA was convinced, and the World Bank concurred, that investment in BRT schemes should be a priority [Exhibits 15a,b]:

We were able to sell the idea around 2006 to the state governor...the only way we could get the project going was for him to believe that it would be done very quickly...in time for him to create a political mileage out of it...although the World Bank financed the concept study, the state governor gave us the money to try and do this stuff...he understood it; everybody else was like "Oh my God, what is it [BRT]?" (LAMATA Senior Official)

Significantly, the Lagos BRT was the first example of a comprehensive approach to improving public transport in sub-Saharan Africa. To develop it LAMATA drew from best practice in Bogota (Columbia) and Curitiba (Brazil) and adapted the concepts to Lagos.

Planning for the implementation of the BRT was a huge task ...we needed to domesticate our own solutions because our solutions are quite peculiar. That led us to embark on a trip

²⁰ LAMATA had managed to increase Lagos state earning from transport related charges (vehicle registration, permits, licenses, offences) in more than 200% right after a couple of years

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

to countries with similar operating conditions and challenges (Senior Official LAMATA)

To lower the capital costs, LAMATA worked out a cheaper BRT version so-called 'BRT Lite' with bus lanes partially segregated along the corridor as opposed to fully segregated. Implementing a BRT required nonetheless building the bus stops and depots, rehabilitating service roads, providing traffic road signs, and building a depot route. Acquiring a license to operate the first BRT scheme took almost three years because the BRT corridor would run along a federal highway. Following a feasibility study under LUTP1 in 2006, the Governor Babatunde Fashola opened the \$30-35m scheme in 2008. Forging ahead with the BRT concept involved the cooperation of multiple agencies. Representatives of various ministries who transferred powers to LAMATA sat on the BRT Steering Committee. Cooperation was also essential to give LAMATA powers to procure the buses for the BRT. The most challenging interface for LAMATA was the one with the local unions.

[In the current system] if you want to buy a bus, you just buy it and paint it yellow, and you register it with the state to use it as a public transport. Then you go to a motor park controlled by one of the unions, and you pay them to operate...every day you go along the route, they tax you for picking passengers...The union operates like a political entity...they know how to exercise their muscle to get their way (Senior Official LAMATA)

[The Unions] have been running transport for decades...they don't know how to manage it - poor planning, poor scheduling, and revenue leakages. But they are filling an economic gap...If we just isolated them, there was going to be social unrest...So we had to bring them on board...They went with us to Curitiba, Bogota...they saw the possibility of coming back to Lagos to do a similar thing (Senior Official LAMATA)

Hence the business model for operating the 22km-long BRT involved a public-private partnership. LAMATA provided the physical infrastructure comprising the bus depot, bus terminals, segregated bus lanes, 28 bus shelters, road markings, and other traffic management measures. The Unions were then encouraged to form a legal entity, BRT Cooperative Limited; to muster support for the Cooperative, only union members could be BRT drivers. In addition, LAMATA facilitated the conversations between the BRT Cooperative and a private bank, Ecobank, which provided finance to acquire 100 buses. On top of that the Lagos government supplied finance for 70 additional buses.

You will not want to give them [Unions] financing because they don't have a structure ...there is no guarantee, nothing. They aren't so educated, so it becomes a bit of a

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

challenge...we needed to do more than just helping in financing, we needed to offer project management experience, to give the accountant, to give the project control officer, to be their admin, to do everything to them (Financier, EcoBank)

The opening of the BRT had a major positive impact. The system used 220 buses to move more than 200,000 passengers daily, exceeding estimates by 200%. It reduced passengers' average fares by 30%, introduced fare stability, and reduced travel and waiting times. By connecting the suburbs to the central business district the BRT reduced the challenges of mobility along its catchment areas. User opinion of the service was positive during the first years when Ecobank had significant influence in the partnership and controlled revenue.

But after the Cooperative paid off the loan, things took a turn for the worse. The Cooperative stopped meeting obligations in terms of operations and maintenance, and operating speeds fell below commercial speeds²¹. A sense surfaced the Unions had joined the Cooperative purely to make money and lacked both the management skills and will to run the BRT operations to the expected levels of service. LAMATA in turn couldn't match the Union's political clout and were therefore unable to penalize their underperformance.

They [Unions] have become too powerful, we can't control them anymore. They were so meek...the month they paid the last charge of the loan, they stopped coming for meetings... as little as depot fees are, they don't pay us anymore...now that we're running for elections they [politicians] are treating them with kids gloves (LAMATA senior official)

Challenges notwithstanding, LAMATA argued that the BRT remained a success. BRT Lite was one of the cheapest BRTs ever built at a price tag of about \$1.4million per kilometer whereas premium BRTs in other countries were around \$5-6million per kilometer. International comparisons of ridership put the BRT Lite within the five most utilized BRT corridors in megacities around the world. Along the corridor the BRT Lite was carrying nearly a tenth of all trips to Lagos Island; it was also carrying over a quarter of all the recorded trips even if its vehicles represented just 4% of the vehicles on the route²².

Given the positive impact of the first BRT-Lite corridor, LAMATA decided to forge ahead with a 13.5km BRT extension by pooling funding from the World Bank, the French Development Agency, and Lagos state. The extension works were awarded to a company

²¹ In 2014 LAMATA claimed that the BRT operator owned the authority close to USD \$5 million in fees

²² Mobereola, D. (2009). Lagos Bus Rapid Transit. Africa's first BRT Scheme. SSATP Discussion Series Paper No. 9. Urban Transport Series.

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

owned by the Government of China, Civil Engineering Construction Company (CCECC)²³ through a competitive bidding process that followed World Bank rules. The project scope involved widening existing roads, adding dedicated BRT lanes, and building bridges for pedestrian access. LAMATA also remained keen to develop eight additional BRTs for which it was seeking finance from international funders and the state government²⁴.

As the second phase of the BRT neared completion, and the 5-year concession with the Cooperative about to expire, an internal debate surfaced over the most suitable business model for future BRT operations. Independent firms had started to operate in some parts of Lagos not controlled by the Unions, and offered better bus services. While removing the unions from the BRT operations was tempting the idea would not be trivial to implement and could bring existing operations to a halt. With a good grasp of the Unions political influence, LAMATA considered involving the Unions as part of the board of the future private operator. That way the Unions would not be involved in operating the BRT system but would still get monetary compensation, which appeared to be their primary interest.

The Lagos Mass Rail Transit Scheme

Developing a rail mass-transit system in Lagos was another priority for LAMATA. No railway services were available in Lagos apart from an incipient commuter service provided by the Nigerian Railway Corporation (NRC), a federal agency that was severely under resourced and had failed to modernize the Victorian network. In Lagos, the NRC operated a peak-hour service with four trains per day in each direction each one carrying approximately 4,500 people. The trains' waiting times, slow travel times and overcrowded conditions did not offer a real alternative to road transit [**Exhibit 16**]. With the political backing of the State Governor, and financial support from China, LAMATA was keen to introduce rail mass transit to Lagos. This despite the World Bank's reservations:

It's not that we don't support rail ...[but] we' re looking for investment that can bring high returns to the population. ... It's a question of being prudent... of capturing the low hanging fruit. ... The Chinese are a much bigger player in Africa than we (WB official)

²³ The Government of China had developed China Civil Engineering Construction Company (CCECC) from the earlier Foreign Aid Department of the Ministry of Railways into a large-scale state-owned enterprise for project contracting. In 2014, CCECC was listed among the world's top international contractors for many years ranked consecutively among the first 70.

²⁴ LAMATA estimated it could take up to 3 years to acquire finance for a new scheme; loans from donors required approval of federal government and the national assembly; due to inflation and fluctuation in exchange currency LAMATA found itself invariably forced to reduce the final scope of a new scheme to fit the approved budget notably by removing foot bridges each costing over \$1.5m

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

The \$400M we spent on the Blue Line so far, we could have spent it on the 4 or 5 different BRT schemes in Lagos....this argument it's acted on well. They [World Bank] say bigger projects are opportunities for corruption...I would argue that managing BRTs is a more difficult task. ... Railway is expensive but you have to deal with a lot less people, and the lesser the number of people the greater the chances of success. ...It's also cleaner and the Unions don't see the immediate effect as a threat effect (Senior Official LAMATA)

For LAMATA the future Lagos Urban Rail Network would consist of seven rail lines of high-commuter traffic demand within and beyond metropolitan Lagos [Exhibit 17]. The network would span 264 km and be fully integrated with planned and existing water transport and BRT routes [Exhibit 18]. Of the seven lines, LAMATA prioritised two on account that they would be most impactful: the Red Line and the Blue Line [Exhibit 19]. The 27-km Blue Line would run from Okokomaiko to Lagos Island West. While the 24-km Red Line would run from Agbado (Lagos North) to Lagos Marina with a connection to the International Airport in Ikeja. Each line was projected to carry over 200 million passengers per year. The plan assumed that railway operations and maintenance would be handled to a private operator with the rail infrastructure being funded by the State.

The Blue Line

The 27km double track Blue Line, to be completed in 2011-12, was the first transit line to be developed as part of the Lagos Urban Rail Network [Exhibit 20]. The line would be served by 13 passenger stations with stops located at busy areas and a maintenance depot at the western limit of the corridor. The line was designed to carry up to 400,000 passengers daily with potential to carry up to 700,000 passengers daily.

The Blue line corridor was mainly occupied by lower-income inhabitants and the dominant commercial activity along the corridor was trading at semi-formal markets. While much of the corridor was densely populated and not commercially developed, LAMATA held that the scheme would catalyze local economic growth. When it came to construction, two major advantages of the Blue line were that the state government supported financially the scheme and controlled most of the right of way. Although the World Bank viewed the line as politically motivated, it did not discount its potential financial viability.

The right of way for the Blue Line was majorly a Lagos State government right of way. ... But we needed to go to the federal government to seek and get their permission because

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

the rights to build and operate a railway in Nigeria reside with the federal government. That was between 2007 to 2009 ...[which was] extremely fast (MD, LAMATA)

The Blue Line is completely motivated by political ambition; it has very little financial justification. But LAMATA is doing what it is told to do by the state governor ... trying to keep the political people happy, knowing that it cannot interfere with political ambition...Having said that, Lagos is a city of 20 million people, and in a matter of time the Blue Line can also perhaps be financially justified (World Bank Country Director)

In 2008, LAMATA projected the total cost for track and infrastructure to exceed USD \$700m [Exhibit 21]. The State government reaffirmed its commitment to the scheme, but it was cash-strapped. To resolve matters, the State took the scheme on a roadshow in 2009.

Things took a turn for the better when several groups expressed interest in the scheme notably the Chinese government through its state owned China Civil Engineering Construction Corporation (CCECC) - “The Chinese are very strong in Nigeria...they can find a way up to the president to have a discussion”, said one LAMATA senior official. Whilst many groups submitted bids through a competitive bidding process, only two qualified, CCECC and Marina Express, an Italian-led consortium. In 2009, after independent evaluations of the commercial and technical elements of the bids, the Lagos State through LAMATA awarded a 3-year design and build contract totaling \$1.2bn to CCECC. The CCECC bid was the most attractive, offering much lower prices and provision to spread payment a few years beyond the completion of the construction works.

Let me give you a good thing about CCECC ... they are really ready to deliver and satisfy their clients. ...When you award them a particular contract it takes less time for them to start construction and mobilization... They don't wait until the payment goes in because they've already a relationship built between them and government...They won't say 'the government isn't paying, I won't work' I think it's one of the reasons for the success of the Chinese companies in Africa... [That said] technically they have to be supervised ... If you're on them they'll do a good job. If you turn your back they can fool you (Consultant)

They [Chinese contractors] will accommodate things...they don't try to take advantage of claims ... They are not ready to rock the boat, they aren't looking for opportunity to get more money. They want to do the job as it has been agreed...They are also changing [in the technical areas] which they are not the best of course (LAMATA Senior Official)

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

CCECC was selected to design and build the rail infrastructure including stations, roadbed, bridges, tracks works, pedestrian ways, and other associated fixed infrastructure. Between August 2009 and August 2010, CCECC completed the survey work, most of the detailed design, and started mobilization on site. Construction commenced on 26th July 2010 with an official ceremony attended by Governor Fashola. To undertake construction CCECC employed local laborers while Chinese staff took most management jobs.

The original plan was for completing the Blue line by 2014. But several difficulties caused delays including problems in translating the design documents from Chinese into English; the need to check design complicate with Nigerian standards; and late changes to the alignment after federal government demurred in releasing some pockets of land in the way.

As of 2014, LAMATA expected the works to be concluded for a middle section (Mile 2 to National Theatre) in 2015, and the extension between National Theatre and Marina was planned to be out of the way by 2017. More uncertainty surrounded the last leg of the Blue line (Okokomaiko to Mile 2) which was expected to share an existing corridor with a federal highway itself earmarked to be widened to five lanes on each direction. This federal scheme was therefore a bottleneck. Complicating matters, it was also unclear how the state would finance the last phase of the Blue Line - *'we're building it more or less as pay-as-you-go...we didn't have a funding plan, it's do what you can do now, take a break, put in some more cash, do what you can,* said one LAMATA Senior Official.

As the construction of the railway infrastructure for the Blue line gained momentum talks regarding its operating business model ensued. The initial aim was to award a 25-year concession to a private consortium which would also buy the train cars. To this purpose, in late 2008, LAMATA issued a 'Request for Expressions of Interest' in international and local publications. Fifteen expressions of interest were submitted and in February of 2009, LAMATA issued 'Request for Proposals' from four shortlisted parties and received two final bids in June. The final bids included both financial and technical proposals, which were evaluated separately. Following international best practices, LAMATA opened the financial proposals only after the technical proposals had been evaluated.

A consortium involving local players and international companies, Eko Rail, was selected as the preferred bidder having scored better on the technical element and submitted a lower price. In anticipation of the completion of the first phase of the Blue Line in 2015, Eko Rail took possession at risk of over 255 35-year old subway cars from Canada's Toronto Transit Commission that it planned to refurbish and import into Nigeria. By 2014,

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

however, the state was yet to award the concession agreement to Eko Rail, and Eko Rail was struggling to find finance unless the state committed to underwrite the revenue risks.

With so many issues the enthusiasm for Eko Rail's bid had effectively faded away. Some officials expressed concern that Eko Rail was asking for too much revenue risk to be borne by the state. Others wondered whether the state government should instead buy a more affordable fleet of new train cars from China and rather appoint a different (possibly Chinese) operator, the so-called plan B. Opinions were divided, however, as to whether LAMATA was legally obliged to award the 25-year concession agreement to Eko Rail.

The Red Line

The plan for the Red line, an idea that had been around for more than two decades, was to develop a 28 km north-south rail line running along the existing federal railway line. The Red Line would cut right across Lagos going all the way to the neighboring Obudu state. LAMATA's studies suggested the line would be viable given that thirty to forty percent of the Lagos commute came from this state. LAMATA projected that the red line could easily cater for 1 million trips a day making it the most profitable of all the planned railway lines (in comparison, the BRT was providing around 120,000 passenger trips/day).

However, the development of the Red line faced major political obstacles. Given that the line would run through heavily populated parts of Lagos and Obudu states, the only viable option was for the line to run along the federal railway line, which would require widening the existing federal railway corridor about fifteen meters from either side of the center line. But after seven years of talks, LAMATA was yet to acquire the right of way. Constructing and operating a railway within Nigeria was deemed unlawful unless carried with the consent of the Nigerian Railways Corporation (NRC). It was on this basis that LAMATA had been allowed to award a design and build contract to a third party for the Blue line.

The Red Line has gone through two previous presidents. It's in the hands of the third president now. It's gone through several Ministers for Transportation. Each time we have a new minister, we ask if we can pass through...the process is out of our hands, our control and taking too long...[the resistance] is just political; it's not technical at all. Everybody on the technical level has signed up for it... ...the State has done its bit... It's only left for the federal government to say 'okay, we agreed this is for the benefit of the citizens of Nigeria, the masses, not just Lagosians alone (LAMATA MD)

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

Whilst the main obstacle seemed political, at least in the view of LAMATA officials, NRC also saw some institutional issues in the way. NRC had plans to modernize the existing federal line and upgrade it from a narrow gauge to standard gauge for which it would require more space. In addition, the federal government had already announced a \$8.3bn partnership with the state-owned China Railway Construction Corporation (CRCC)²⁵ to modernize the Nigerian Railways, and another partnership to modernize the Lagos-Kano railway line, which would share the corridor with the Red line. The interdependences between the two schemes complicated the matters, even if LAMATA insisted and NRC concurred that sharing the federal corridor with LAMATA was technically feasible. Accordingly the NRC signed a Memorandum of Understanding (MoU) with Lagos state

It's a discussion over and above us...other considerations will come in. We're professionals at this level. We look at the cost-benefits of these decisions...The NRC requires the approval of the Federal Ministry of Transport who in turn requires the approval of the President...The strategic objective of NRC is encapsulated by its 25yrs plan. To further this objective, a comprehensive provision was made for more rail lines in the recently approved National Integrated Infrastructure Master plan. Our focus is to reactivate the old train service, linking the other parts of the country (NRC Senior Official)

Complicating matters further, the NRC had not enforced the ownership of the federal railway land, and parts of the corridors had been encroached by squatters and illegal structures overtime. This was to the extent that along some parts of the Red Line corridor the NRC effectively controlled less than 10m on each side of the existing line, which was clearly not enough to run two railway lines side by side. Nigerian Law provided little guidance on relocation and resettlement issues. And after decades of military rule, there was a sense that Lagosians would shy away from putting up a fight against government due to land issues. Still, with state and federal politicians standing for elections every 4-years, compulsory land acquisitions were not popular, and also unlikely to be cheap.

Another challenge was that the NRC was undergoing significant institutional changes to become the Nigeria Railway Authority (NRA). The NRA would continue to own the railway infrastructure but the plan was to outsource the operations of railway services to private firms. Arguably, this planned reform, together with the lack of funding to forge ahead with the modernization of the federal railway, amplified the apparent lack of political appetite in federal government to give the State the go ahead for the Red Line.

²⁵ China Railway Construction Corporation (CRCC) was the second largest state-owned construction enterprise in China, and the world's top construction contractor by total revenue in 2012.

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

Lobbying for the Red line seemed to be a conundrum. On the hand, to garner support LAMATA could reinstate the LAMATA board and use that platform to interact with its federal level contacts. Similarly LAMATA could hold the monthly inter-ministerial meetings with Lagos government officials, which had been held off few years ago. But conflict-ridden board or inter-ministerial meetings would also not entail progress at all.

The World Bank and China had also not put their weight behind the scheme. Furthermore, Marina Express, the consortium that had been awarded the Red Line concession in 2009, seemed to lack the political clout to remove institutional bottlenecks. This was in contrast to the capabilities that many observed with Chinese contractors. Finally, the business elites of Lagos were yet to form a lobby group to influence government policy. The general sentiment was that the elites avoided public intervention because they distrusted politicians even though they were the first to recognize improvements in democratic institutions.

We do have a large civil society, a large middle class...but the elites are quite quiet, they don't get involved in politics ...because you're too tired after 3 hours in traffic. You're like 'whatever'...there's a trust deficit; you don't know why people do politics; it doesn't look like something a normal person should do... It's become better now, less unsafe. Usually towards election people used to get killed. We've evolved (LAMATA Senior Official)

Between federal and state government there's no tribalism...politics yes...politics are tough and at times defy logic...There is a history of poor leadership. Certain vices have been enshrined to the fabric of the society. It's difficult to get those negatives out. There's a lot of corruption. But what I've struggled with is the impunity of corruption... [But]I still think there's a sense of optimism within the average Nigerian...Lagos is a place for everyone and maybe that's why it's more successful than other states (Senior Financier)

With Nigeria on the knife-edge over the outcome of the 2015 elections, LAMATA would have to hit the ground running after the elections. First, the agency needed to have a plan to resolve the issues that had undermined BRT operations since the extension was planned to open in 2015. LAMATA also needed to nail down a business model for running the Blue Line, as the expectation was that the first phase would be completed around 2017. And third, LAMATA needed to figure out what to do with the Red Line. On this one, some officials put their hopes on the expectation the next federal government would show more sympathy—*it's either sail with them or sink; that's where we're stuck*, said one

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

senior official. And indeed some insisted it was a question of time. Once the Blue Line was up and running, it would be difficult for federal government not to endorse the Red line. But others wondered if LAMATA should instead ditch plans for the Red line, giving priority to a line with fewer complications to demonstrate the viability of mass-transit rail.

All in all LAMATA's bold vision and resolve to improve transport in Lagos and implement schemes to the highest standard had made the agency an exemplar of best practice in Nigeria and Africa at large. LAMATA, a World Bank official said, was a 'beacon of light in a dark environment', attributing much of its success to the Managing Director:

If he leaves I don't know. It's hard to find people with his caliber. He had a political connection with the former Lagos governor, and was able to use it in a professional way. ...Not only he is a technically competent person, he is also politically very suave and a mature person. Such people are very, very hard to find...I know the battles he has had to fight to keep his position and a very professional staff [World Bank officer].

Indeed LAMATA's vision to develop an integrated transport system for Lagos by 2030 was ambitious—'I'm a believer in setting challenging visions', said the agency's transport director. Given the population density of Lagos, there was undoubtedly a market for it. The demand for trips in the Lagos metropolitan area was already over 20million/day trips (including 40% walking trips), and the figure was expected to double by 2030. But with all the obstacles that LAMATA would have to overcome in the name of democracy, officials wondered whether the 'Singapore model'²⁶ was a better alternative for Nigeria.

We can't afford the 15-20 year planning process that we normally go through in established democracies...people are spending 6 hours a day on the road ...the problems are evident and the solutions are there ...I think about the Singapore experience... All our roads were built in the military back in the 70s. I don't see anything happening since then. ...Honestly right now, in Nigeria, democracy isn't working...democracy needs highly educated people who can understand their rights (LAMATA Senior Official)

As for the World Bank, although officials raised concerns that LAMATA had over

²⁶ Singapore, a city-state with one of the best urban infrastructure systems in the world and the world's second most competitive economy according to the World Economic Forum, was as Jothis Rajah (Authoritarian Rule of Law) put it "a dual state in that it matched the 'law' of the 'liberal' west in the commercial arena while repressing civil and political individual rights.

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

extended, the Bank was also clear about not having a mandate to intervene in local politics.

LAMATA operates in a very challenging environment because there's a lack of institutions...LAMATA has taken multiple roles: strategic planner, regulator, operator, monitoring agency financial agent, promoter for the BRT, Blue Line and Red Line. Arguably LAMATA is trying to do more things than it can manage fundamentally... and in the process they're not able to pay enough attention to the details. ...[But] we cannot micromanage Nigeria. It's their country, their politics...What we can do is to make institutions competent...They have to manage it. They have to run it. We can't make them do things under the duress of money...we might put a threat to withhold payments. But they might go back to the same place 6 months later (World Bank official)

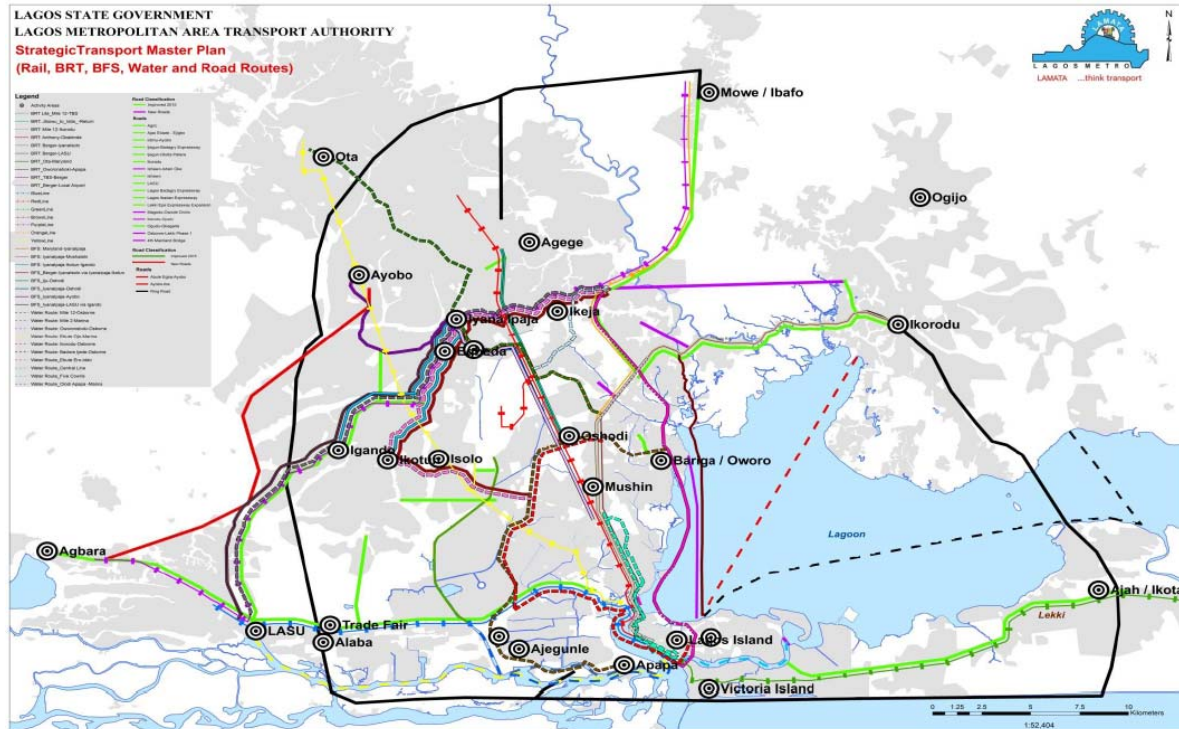
Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

Exhibit 1: Danfos (www.pmnewsnigeria.com)



Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

Exhibit 2: 2030 LAMATA Strategic Transport Master Plan



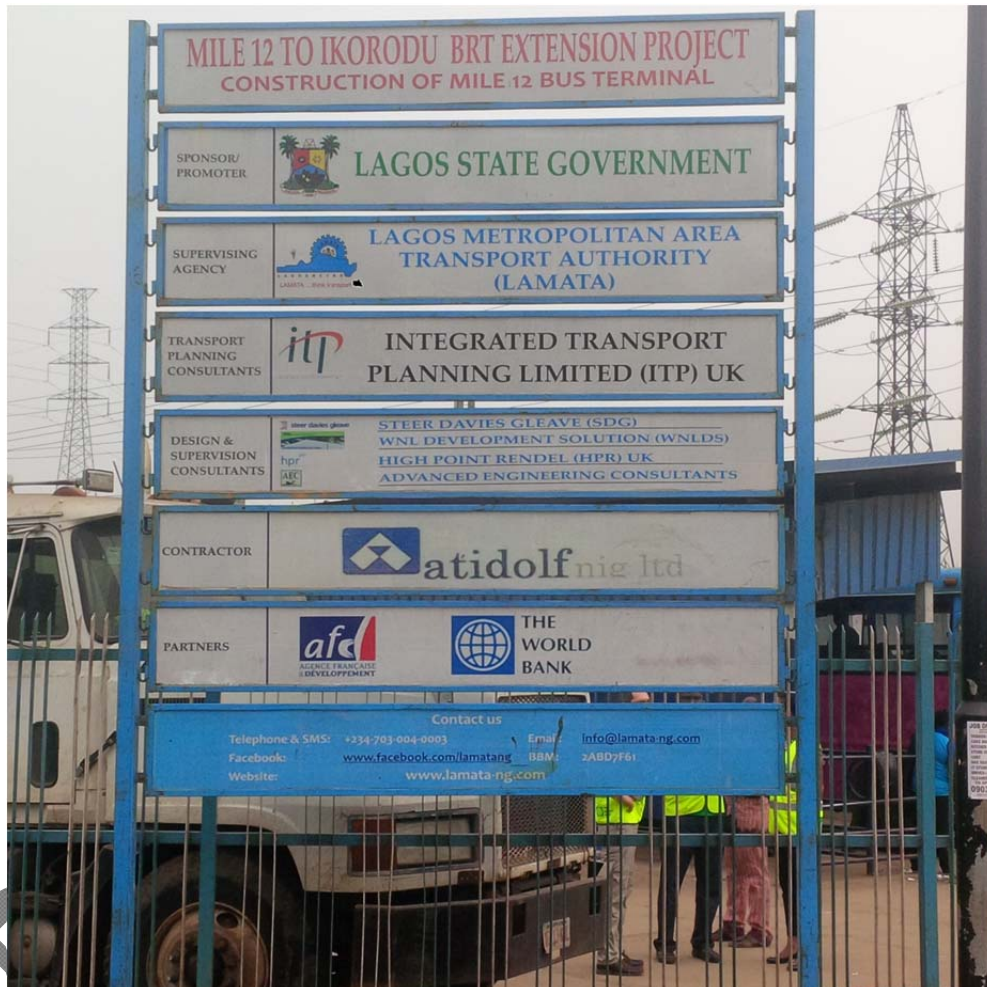
Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

Exhibit 3: The first phase of the first BRT corridor (LAMATA 2012 presentation)



Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

Exhibit 4: Key Stakeholders of the BRT Extension scheme



Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

Exhibit 5: Proposed Capital Investment Plan in Lagos (Proposed Strategic Transport Master Plan for Lagos Metropolitan Area, 2009)

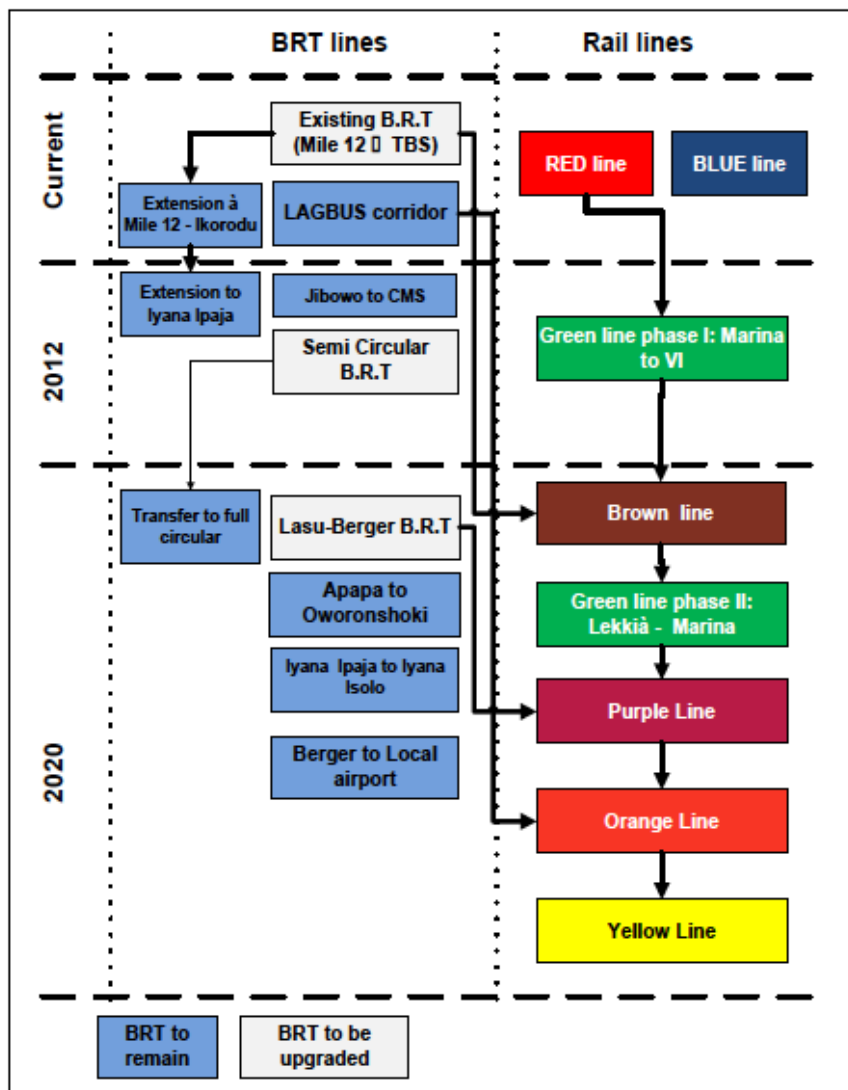


Chart A: Proposed phasing of investments in the MRT system

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

Exhibit 6: Map of Africa (www.worldatlas.com)



Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

Exhibit 7: Milestones in Nigeria's Political History

Year	Milestone
1901	Beginning of formal indirect British rule. Nigeria divided into 2 regions – Northern and Southern – both of which were divided into provinces
1901-1958	Acquisition of territories and partition from existing provinces
1939	Foundation for federalism laid with creation of three provinces
1960	Declared and recognized independence of the Republic of Nigeria
1963	Declaration of independence signed
1963-1966	First republican government of Nigeria modelled on the British system
1965	Elections held (postponed from 1964)
1966	Coup: Aguiyi-Iransi seized power Counter Coup by Northern Army officers against perceived tribalistic government Nigeria was reorganized following the counter coup: the three regions were divided into newer entities and first level sub-divisions renamed as 12 states Several back to back military coups
1967-1970	The Eastern region declared independence as a state called the Republic of Biafra. Nigerian civil war/Biafran war followed suit as a result of tensions mainly between the Hausas of the North and the Igbo of the South east
1970s	The country remained under Military rule. Nigeria joined OPEC. Oil boom led to huge revenues but insufficient reinvestment into the domestic economy.
1979-1983	Brief return to democracy with Second Republic; American-style Presidential system
1985	Military Coup led by General Ibrahim Babangida
1993	The constitution of the Third Republic was drafted in 1989 when General Ibrahim Badamasi Babangida, the military Head of State, promised to terminate military rule by 1990, a date which was subsequently pushed back to 1993.
1993	Free and fair elections held and won by Abiola; Babangida annulled elections spurring mass civilian violent protests; military coup by Sani Abacha
1998	General Sani Abacha dies and is succeeded by General Abdulsalami Abubakar
1999-Present	Fourth Republic period governed under the 1999 republican constitution.
1999	Multiparty election; People Democratic Party (PDP) wins under Olusegun Obasanjo
2003	Multiparty election; PDP wins under Olusegun Obasanjo
2007	Multiparty election; PDP under Umaru Yar'Adua win the highly controversial election; EU observers described the elections as "the worst they had ever seen anywhere in the world", with "rampant vote rigging, violence, theft of ballot boxes and intimidation."
2010	Umaru Yar'Adua dies Interim President Goodluck Jonathan takes office
2011	Multiparty election. PDP wins under Goodluck Jonathan a southern Christian. After the election widespread violence erupted in Nigeria's northern region. According to a gentlemen's agreement within the ruling People Democratic Party power is to rotate between the Muslim north and Christian south. Unrest triggered because Umaru Yar'Adua only served one of a possible two terms before being succeeded by a Christian southerner.
2015	Unarguably the most disputed election in Nigeria's democratic history involving a fight between President Goodluck Jonathan, a southern Christian, and Muhammadu Buhari, a Muslim former general; fears that the result could trigger violence across Nigeria

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

Exhibit 8: Population Growth in Lagos State

Figure 2.2: Time Series Growth of Lagos (1900 – 2000)



Source: Ministry of Physical Planning/Environment (1900,1963, 1984); LAMATA GIS Database (2000)

Exhibit 9: Distribution of commuting trips by means of transport (LAMATA presentation)

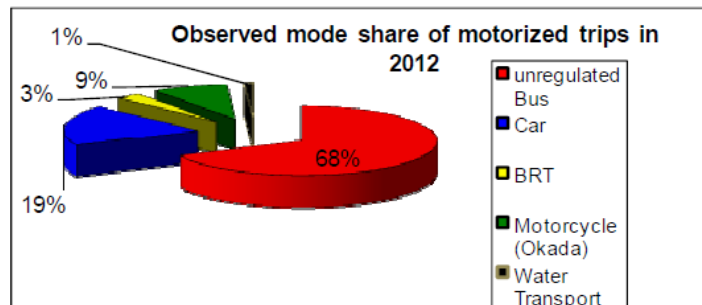
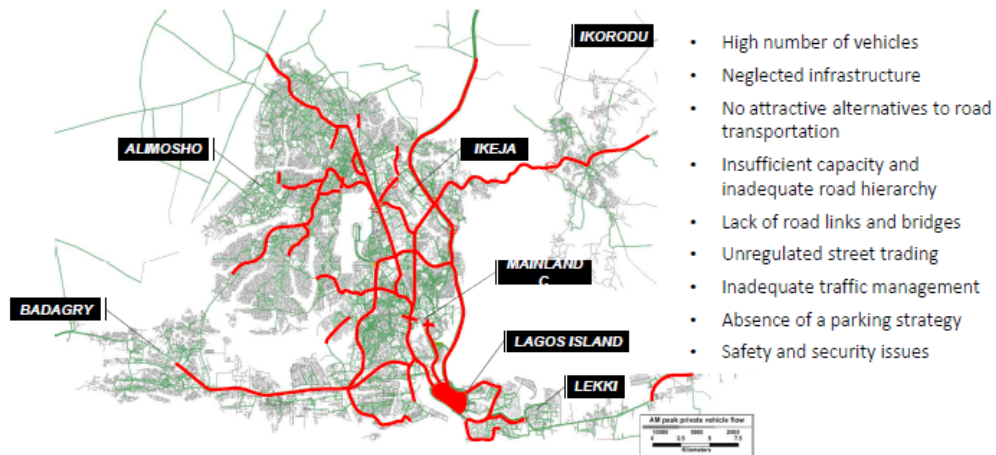


Exhibit 10: Critical bottlenecks in the Lagos transport network (LAMATA presentation)

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.



The current level of congestion, associated to the main road accesses connections to Lagos urban core, will spread to the whole Megacity network and lead to collapse if no action is undertaken.

Exhibit 11: The Road to Creating LAMATA [LAMATA presentation at CODATU XV, Ethiopia, October 2012]

<ul style="list-style-type: none"> ▶ 1977: Lagos Master Plan Study (LASG/UNDP) - Major traffic growth north into neighbouring state ▶ 1979: Creation of Lagos Ministry of Public Transportation focused on deregulation of bus public transport services and executing of north-south Metroline Project ▶ 1988: Lagos Mass Transit Options Study (LASG/WB) upon cancellation of Metroline Project ▶ 1992: Lagos Mass Transit and Traffic Management Study – LMTTMS - (FMOT/LASG/WB) in recognition of need for holistic approach ▶ 1994-5: Lagos Urban Transport Project (LUTP) – To implement key LMTTMS recommendations ▶ 1994: Creation of LAMATA approved by state government 	<ul style="list-style-type: none"> ▶ 1994: Study to prepare Detailed framework for establishing LAMATA commissioned ▶ 1995: Further preparation of LUTP stopped due to political impasse ▶ 1999: LASG rejects WB offer to revive LUTP ▶ 2000: LASG approaches WB for assistance ▶ 2001: LUTP Office created to oversee preparation and detailed design of LUTP ▶ 2002: LAMATA Act passed ▶ 2002: Key staff of LAMATA competitively recruited by international advertisement ▶ 2002: LUTP implementation starts ▶ 2004: LAMATA Act amended to make explicit its regulatory function
---	---

Exhibit 12: LAMATA's functions and responsibilities under the 2007 law (Lagos State of Nigeria Official Gazette, 2007)

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

Under the amended LAMATA Act 2007, the Authority is empowered by law with responsibilities to carry out the following key functions in Lagos metropolitan area;

- Coordinate transport policies, programs and actions of all agencies
- Maintain and manage the Declared Road Network (DRN), mainly bus public transport routes of about 632km;
- Plan, coordinate, manage and develop the supply of adequate and effective transportation;
- Recommend on route planning and general location of bus shelters, pedestrian ways and bridges,
- Collect and levy transport road user charges and establish a Transport Fund (TF) as a user reform financing mechanism to increase the low level of cost recovery in the transport sector, and to sustain the performance of LAMATA;
- Collect 50% of net Motor Vehicle Administration (MVA) revenue (specific items) to be paid directly into the TF
- Regulate Bus Rapid Transit (BRT) along prioritized corridors
- Coordinate activities of the State Licensing Authority and all vehicle inspection units;
- Make policy recommendations on public transportation to the Governor, including mechanisms for implementation;
- Prepare plans for the development and management of an integrated multimode public transport system
- The organisation's successful performance of these functions will assist in poverty alleviation by increasing economic efficiency through lower transport costs and prices, and enhancement of employment and social opportunities.

Exhibit 13: LAMATA Organizational Structure

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

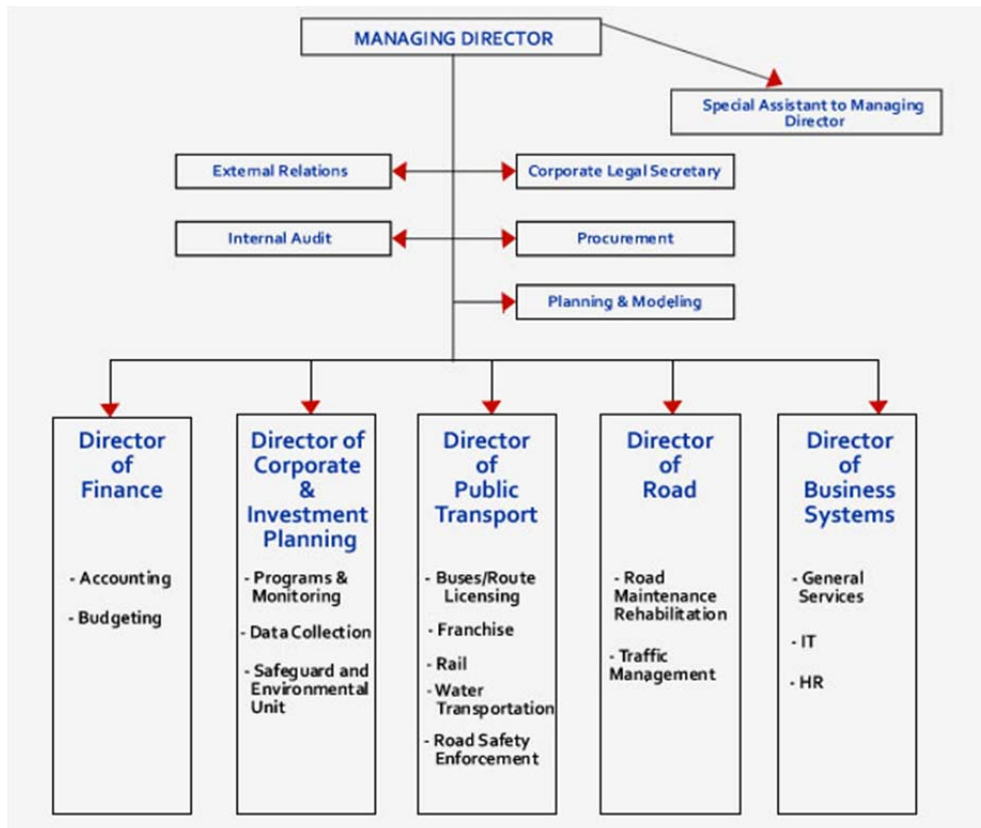


Exhibit 14: Evolution of LAMATA Funding Structure in the First Ten Years (*BRT extension financed in part by the World Bank started in 2012; LSG=Lagos State Government; WB =World Bank*)

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

YEAR	ACTUAL/B UDGET	W.B.	LSG	TRAN. FUND	W.B. %	LSG%	TRAN. FUND%
	=N= B	=N= B	=N= B	=N= B			
2004	2.1	1.7	0.4	0.0	81%	19%	0.0
2005	4.0	3.2	0.8	0.0	80%	20%	0.0
2006	3.9	3.3	0.6	0.0	84%	16%	0.0
2007	9.5	4.2	5.1	0.3	44%	53%	3%
2008	6.2	2.5	3.0	0.7	40%	48%	11%
2009	11.6	3.6	7.1	0.9	31%	61%	8%
2010	33.0	11.0	21.2	0.8	33%	64%	2%
2011	23.52	0.52*	21.9	1.1	2%	93%	5%
2012	42.7	18.4	23.0	1.2	43%	54%	3%
2013 (Jan-Feb)	42.7	17.8	24.9	0.3**	42%	57%	1%

DO NOT COPY

Exhibit 15a Proposed BRT Network (LAMATA Strategic Transport Master Plan)

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.



Proposed BRT lines

BRT Routes	Length (Km)	Passenger trips/day
Oshodi to Obalende via Mile 2 (Semi circular BRT)	28	250,000
Berger to TBS	26	180,000
Ikorodu to Mile 12	13	120,000
Ota to Maryland	25	200,000
Oworonshoki to Apapa	27	180,000
Berger to LASU	33	150,000
Berger to Iyana Isolo	13	120,000
Berger to Local Airport	8	95,000

Exhibit 15b: BRT Station under construction (Authors' own)

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.



Exhibit 16 Federal Rail Transport in Lagos run by Nigerian Rail Corporation

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

(LAMATA presentation)



Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

Copyright © 2015 (May) Nuno Gil and Rehema Msulwa. All Rights Reserved

Exhibit 17 – 2030 Vision for the Lagos Rail Network (LAMATA 2013 Strategic Transport Master plan)



Rail corridors	Length (Km)	Forecasted passenger trips/ day
Red Line (Agbado to Marina) – already commissioned	31	800,000
Blue Line (Okokomaiko to Marina) – already commissioned	27	400,000
Green Line (Marina to Lekki free zone)	37	420,000
Yellow Line (Ota\MMA to Iddo)	34	400,000
Purple Line (Redemption Camp to LASU (Ojo)	60	400,000
Orange Line (Redemption Camp to Marina)	42	350,000
Brown Line (Mile 12 to Marina)	20	320,000
Butterfly Monorail	20	250,000
Monorail (Ikoyi/VI)	15	220,000

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

Exhibit 18: LAMATA 2030 Vision: An Integrated Transport System



Exhibit 19 Blue and Red Lines (Vision for 2030, LAMATA Transport masterplan)

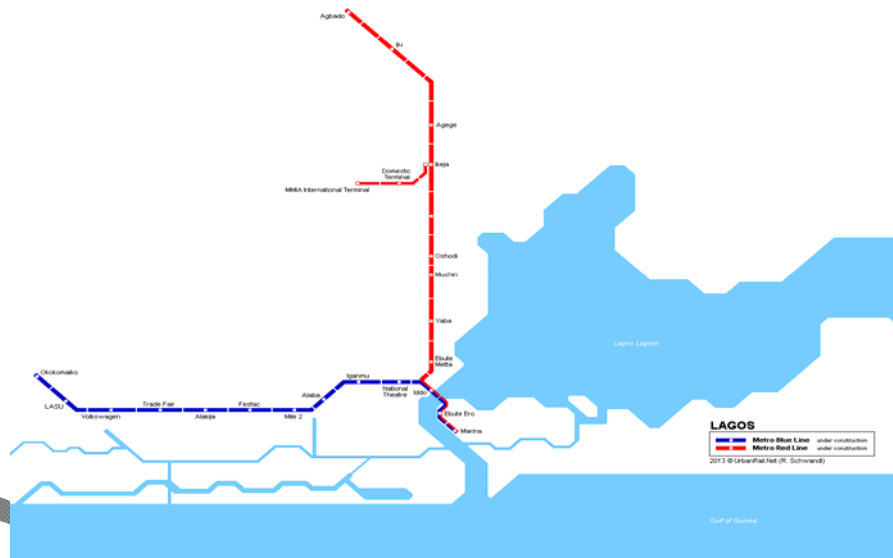


Exhibit 20 Blue Line (Authors' own)



Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

Exhibit 21: Blue Line Press Release (2008)



For Immediate Release

Lagos State to tender urban rail concession

Lagos, NIGERIA -- September 2008 -- In early 2008, CPCS was awarded a contract by the Lagos Metropolitan Area Transit Authority (LAMATA) to prepare a conceptual design for a proposed urban rail line between Okokomaiko and Lagos Island. This project, referred to as the *Blue Line*, is part of LAMATA's proposed urban rail network which is designed to provide passenger rail services on every major traffic corridor in Lagos. CPCS is also responsible for providing transaction advisory services to assist LAMATA in structuring the *Blue Line* as a public private partnership (PPP). To achieve its goals of relieving congestion in this corridor, the Lagos State Government has committed to providing financing for the fixed infrastructure, including track and stations. An RFP for the design build contract will be issued in the fall of 2008. Construction and the selection of a concessionaire will begin in 2009.



Expected Ridership:

An extensive demand study has been conducted and *Blue Line* ridership is expected to be 300,000 passengers per day in 2012 with close to 50% of daily trips being work related. It is expected that the presence of an urban rail line will encourage residential and commercial development along the corridor, further stimulating demand. The trip time by rail from Lagos Island to Okokomaiko is expected to be 37 minutes. Currently, the same trip by car can take in excess of two hours.



Blue Line Technical Details:

The *Blue Line* will be built to international standards and will use standard gauge track. The 18.3 kilometers between Okokomaiko and Iganmu will extend, at grade, along the centre of what is to be an expanded 10-lane Badagry Expressway. The 7.4 Kilometers from Iganmu to Marina station on Lagos Island will be elevated. The *Blue Line* will join with the *Red Line* (the main north-south rail line concurrently being developed within the LAMATA network) at Iddo Station near the shore of the Lagos Mainland. From Iddo, both *Red* and *Blue* lines will cross over the Osa Lagoon to Lagos Island on a 4 track cable stayed bridge. In its current design, the *Blue Line* project will have thirteen stations. It is envisioned that the

concessionaire will provide diesel multiple units for train operations.

Expected Costs:

The total cost for track and station infrastructure is projected to exceed USD 700 million and will likely be entirely borne by the Lagos State Government. The concessionaire will collect fares and advertising revenue and be responsible for operations and maintenance over the concession period. Concessionaire costs will also include financing the required rolling stock and communications/ticketing systems. The concessionaire will be selected through an open international competitive bidding process. CPCS and LAMATA are both committed to structuring a project that is attractive to private sector investors.

Lagos is a heavily congested bustling metropolis of over 15 million people and is the commercial capital of Nigeria.

LAMATA is the main instrument for transforming the state transport system through a group of committed and credible professionals working for an enabling environment, offering transparent methods in its operations and thereby adding value to the quality of life.

CPCS is a Canadian infrastructure development firm specializing in public private partnerships in the sectors of transport, power and urban development. CPCS has completed work in more than 70 countries and has had a permanent office in Nigeria since 2006.

Rehema Msulwa, PhD student, and Professor Nuno Gil at the Centre for Infrastructure Development, The University of Manchester, prepared this case as the basis for class discussion. The case does not intend to serve as endorsement or illustration of effective or ineffective handling of an administrative situation. The authors are solely responsible for any factual inaccuracies.

Copyright © 2015 (May) Nuno Gil and Rehema Msulwa. All Rights Reserved