

CAPITALIST REGULATION AND RESCALING OF PUBLIC TRANSPORT GOVERNANCE: A CASE OF NIGERIA*

FUJIO MIZUOKA**

*Graduate School of Economics, Hitotsubashi University
Kunitachi, Tokyo 186-8601, Japan
fmizuoka@econgeog.misc.hit-u.ac.jp*

AND

KOHEI SHIMONO

kohei.shimono@gmail.com

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Abstract

Taking a multi-scalar approach to capitalism from the perspective of recent economic geography and regarding public transport as an element of capitalist regulation, this study compares the provincial and national spatial scales. Rescaling occurs when provinces assume responsibility for supplying transport services to achieve provincial-scale regulation. This process occurs when the province is better equipped than the state to provide the intensity and efficiency of governance needed to regulate services. Comparison of the National Railway of Nigeria, falling under the federal government and LAMATA falling under the province of Lagos, empirically ascertains rescaling in regulation and identifies 'the cycle of democratic governance'.

Keywords: rescaling, Nigeria, the Nigerian Railway Corporation, LAMATA, capitalist regulation

JEL Classification Code: R420

I. Theoretical Background

1. The Multi-Scalar Nature of Capitalist Regulation and Rescaling

In conventional regulation theory, the state is the spatial unit of capitalist regulation. The

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** Corresponding author

state aims for the long-term stability of capitalism, mobilising the means of economic and social policy to encourage capital accumulation and social integration based on state power. Given that other spatial scales lack this power, the state is regarded as the most powerful and substantive spatial scale.

However, the state is not the sole scale responsible for capitalist regulation. Such regulation takes place on the supra-national (e.g. EU) and the sub-national (e.g. local government) scales. Brenner (2004) argues that the urban scale has increasingly replaced that of the state in recent years, citing European cases in which the urban scale is transforming into a neoliberalist unit of competition. Under neoliberalism, the state tends towards 'small government' and recedes from intervention in economic processes. The rescaling of regulation away from the state is, therefore, closely related to the weakening of politico-economic power on the national scale.

In addition to neoliberalism, other factors can weaken the state scale. Dysfunctional social integration on the national scale prevents this scale from being used as a vehicle for regulation. In the past, various European imperialist powers superimposed colonial boundaries, completely ignoring the scale of the lived spaces that the native ethnic groups had spontaneously produced for centuries. When the colonies gained independence, the fragmented spatial mosaic of colonial territories remained transforming into national boundaries. In terms of social integration, however, the society maintained its deep-rooted heritage on the ethnic scale, thereby eroding power on the national scale.

For this reason, almost all states in Sub-Saharan Africa have a poor sense of national identity. In this region, governance barely functions on the state scale, having become an arena for inter-ethnic rivalry and conflict, with repeated coups. Rescaling occurs in such dysfunctional states, where it is more effective to regulate on the provincial scale, especially with ethnically homogenous provinces.

This study discusses such rescaling, particularly in relation to transport infrastructure.

2. Transport as a Moment of Regulation

Capital accumulation and social integration form the two principal elements of capitalist regulation theory, which focuses on direct production processes, with labour as the crucial moment.

Labour is not the sole factor stabilising social integration, however. In a separate work, Mizuoka (2012) argued that transport plays an indispensable role in capital accumulation and social integration. Transport connects supply with demand and production sites with homes. Neither capital accumulation nor social integration can proceed without transport. It forms an essential bridge between the agents of the market, on which capitalist accumulation is based. Transport is also necessary for social integration, as it provides conditions that allow workers to sell their labour power and perform their daily life activities. An inadequate supply of transport causes a crisis within the capitalist system by disrupting the flow of goods. Additionally, it leads to the collapse of social integration, driven by social upheavals resulting from commuting difficulties. Avoiding these outcomes requires a supply of fast, efficient and capacious transport services. Transport thus constitutes an important moment in capitalist regulation. If the state fails to provide sufficient transport services on the national scale, they must be supplied on a different scale to prevent the collapse of capital accumulation and social integration.

Transport-related regulation processes involve several distinct socio-political groups, each playing its own role. Therefore, it is essential to identify these stakeholders and their behavioural patterns. If stakeholders maximising profits or benefit from their organisations are satisfied and if good transport services are supplied simultaneously, the system will generate successful regulation, thus ensuring stable social integration and capital accumulation.

3. Nigeria, the Case Studied in This Article

To demonstrate the above concept, we examine the case of Nigeria, a leading country in West Africa. Nigeria has a population of 163 million (as of 2011), with 176 people per km². With a GDP of USD 244 billion, it is Africa's third largest economy. As of 2011,¹ 71.2% of the country's exports came from crude oil, drilled around the mouth of the Niger River. Oil forms the basis of foreign exchange earnings and the abundant finances of the federal government.

When the European imperialist powers subjugated Africa, Nigeria was established as a British colony in 1901 to counteract advances on the French colonial frontiers from the North and the West. Because of these power struggles, the colonial boundaries were drawn to include multiple ethnic groups: Muslims in the North, the Yoruba (who had traditionally been pagans but converted to Christianity under colonisation) in the South and the Igbo tribe in the East. From the first half of the 20th century until its independence in 1960, Nigeria was governed by the British colonial government. Under its rule, Nigeria became a supplier of raw materials and market for the suzerain, with ethnic conflicts held in check by Britain's colonial governance.

Nigeria retained the same territory as that of colony upon independence. The new state immediately became a hotbed of inter-ethnic struggles. In addition to building up the national economy, the amelioration of ethnic conflict has always been an important objective for the Nigerian government. Since independence, Nigeria has never enjoyed a long-term, stable government. It has experienced many changes of government, starting with the first republic at the time of independence, followed by the first military rule, the second republic, the second military rule and proceeding to the current fourth republic. Even during periods of military rule, there have been frequent coups, and the current president, Goodluck Jonathan, is the 13th head of state.

Suppressed under colonial rule, the interests of ethnic communities exploded onto the domestic political scene as various tribal grievances. The federal government tried to respond to the instability in national politics by expanding ethnic autonomy on the provincial scale, subdividing each state and increasing the number of states within the federation. Disputes arising from this subdivision contributed to the Biafra separatist movement, which shook the world with fears of starvation in 1967. Although the 'Biafra' was crushed by the federal government, the subdivision of the states substantiated the political process on the provincial scale, further weakening federal politics on the national scale. Rather than representing the interests of the nation as a whole, politicians (including the president) represented the interests of their own ethnic communities. Countless politicians accepted bribes for personal gain.

Despite these circumstances, some efforts were made to achieve unity on the national scale. The most prominent manifestation involved relocating the capital from Lagos to Abuja,

¹ http://www.jetro.go.jp/world/africa/ng/stat_03/ (Accessed on 11 May 2013)

FIG. 1. NIGERIA WITH THE EXISTING NATIONAL RAIL NETWORK



practically in the middle of the country. This was far from a fundamental solution to any of Nigeria's problems. An anti-government movement continued deploying forces in and around Port Harcourt, the area that produces oil, the country's main export and the backbone of the federal government's economy.

A series of such post-independence movements further rescaled Nigeria's capitalist regulatory regimes from the federation to the provinces.

4. Structure of the Article

In Section II, we discuss the Nigerian Railway Corporation (NRC), the company in charge of the national rail network, as inherited from the British. In Section III, we examine the Lagos Metropolitan Area Transport Authority (LAMATA), the organisation responsible for planning and constructing the new metropolitan transport in Lagos State. In Section IV, we compare the NRC (national scale) to the Lagos intra-city transport system (provincial scale) with regard to modes of regulation and stakeholders responsible for such regulation. On the basis of the discussions presented in this study, we also discern governance mechanisms for delivering safe and efficient transport infrastructure in Africa.

II. *Nigeria's Defunct National Railway: NRC*

1. The Nigerian Railway under British Colonial Rule

In general, colonial transport networks were not built to integrate the colony's territory or

to develop an independent economy within the colony. They were intended to exploit the interior for exporting raw materials and importing manufactured goods for the suzerain. The transport network connected the interior to the port cities, thereby subjugating the colony's economy to the suzerain. This stands in sharp contrast to situations in independent countries, where railways are primarily built along coastal regions to achieve spatial integration within the territory (e.g. the Tokaido and Tohoku lines in Japan).

The colonial government commenced construction of the railway between Lagos and Ibadan—199.6km in a 3 ft 6 in (1.067m) gauge—in 1896 and completed it in 1901 [Jaekel (1997a, pp.5, 10)]. The line was further extended to the interior to reach Kano, the Islamic centre of the colony, in 1912. Construction in Northern Nigeria was largely conducted by forced labour [Mason (1978, pp.60-62)]. Major export commodities transported to Lagos with this railway included tin ore, rubber, potash, hides and nuts. The main imports were Manchester cotton goods [Jaekel (1997a, p.111)].

In 1913, the colonial government approved the construction of the Eastern Line (from Port Harcourt inland) for exporting coal and palm oil. The Line reached its northern terminus of Jos in 1926 [Jaekel (1997a, pp.177-198)]. Almost 80% of Nigeria's current rail network (3,035 km) was laid prior to 1930 [Central Bank of Nigeria (2000, pp.116-118)]. No lines were built along the coastline reflecting the colonial nature of the Nigerian railway.

The colonial-era transport structure was hierarchical, with railways playing the main role and roads being feeders. Railways formed the principal transport network; rather than building road arteries to connect Nigeria's towns, road transport was used as a feeder service for the railway [Jaekel (1997b, pp.284-294)].

2. Decline of Nigerian Railways: Post-Independence and the Current Situation

In 1955, Nigeria's government railway was reorganised as the Nigerian Railway Corporation (NRC), assuming that 'a public utility was better operated on quasi-commercial lines' [Jaekel (1997a, p.199)]. In a sense, the NRC was a forerunner of neoliberalism. The ordinance stipulated that the NRC would be completely government-funded. Currently, it is a state-owned company under direct government control.

Initially, on independence, the network functioned reasonably well. A new 640km line was built between Kuru and Maiduguri in the Northeast [Central Bank of Nigeria (2000, p.117)] and completed under NRC management in 1963 [Jaekel (1997a, pp.236-237)]. The railway was then used to transport peanuts from the Northeast, palm oil from the East and cocoa from the West [Odeleye (2000, p.44)]. The railways have since gradually deteriorated, becoming dysfunctional due to insufficient investments in equipment.

Currently, there are officially three main rail lines in Nigeria. The Western Line links Lagos to Kano; the Eastern Line connects the oil town of Port Harcourt to Maiduguri. The Central Line, built in standard gauge after independence, is for freight only, running between the steel works at Ajaokuta and the Itakpe mine. The Western and Eastern lines are connected by a branch line running between Kaduna and Kafanchan. The new capital (Abuja) is currently not served by a railway. As of 2008, almost none of the lines from the healthy colonial railway system were still running.

Exceptions include some sections of the Western Line (e.g. commuter routes in the Lagos suburbs and freight transport in the North). In 2008, the Lagos suburban line operated services

as far as Ibadan only on weekdays, although only one in ten round trips went that far. The rest of the lines, consisting almost entirely of commuter traffic, terminated on the outskirts of Lagos. By 2013, service had been further reduced to one round trip per day.

At one time, the NRC website (2009) displayed a timetable for the long-distance train between Lagos and Kano, although there was never any evidence that it operated properly. Operations finally resumed in 2012. Despite large numbers of passengers,² however, poor equipment caused train failures and derailments with frequent delays.³ It will be difficult to restore passenger trust in the railways. With regard to the Eastern line, a 2008 field study by the authors showed the Maiduguri station in complete disrepair and unlikely to be capable of running services. Upon visiting the NRC headquarters in Lagos, the authors observed a scene of complete devastation, strewn with disused carriages and no sense of vibrancy. In the repair yard, something resembling vehicle maintenance occurred at several spots throughout the complex.

Automobiles are currently the most common form of transport in Nigeria. The road network spans 193,000km accounting for 90-95% of freight and passenger transport. The railway plays hardly any role in domestic transport [Gill (2009)].

3. Railway Rehabilitation Projects

There should be a solid demand for rail transport in Nigeria, given its high population density and sheer number of inhabitants, as evidenced by the congestion that ensued when long-distance services resumed between Lagos and Kano. The federal government has recognised the need to rehabilitate the rail infrastructure and it has received aid from foreign institutions on several occasions.

1) Unsuccessful Rail Rehabilitation Projects since the 1970s

From 1978 to 1982, Nigeria received aid from Rail India Technical and Economic Services (RITES), an Indian governmental organisation with a proven reputation in Africa, including the Angolan Railways and Mozambique's Beira Railroad [Seki (2006, pp.66-68)]. The RITES project improved worker morale and provided technical assistance using foreign engineers. Although some improvements occurred, the project was abruptly terminated in 1982, just as results were becoming visible [Odeleye (2000, p.47)]. Beginning in 1981, downturns in the price of primary commodities devastated the Nigerian economy, with short-term economic trends derailing the reconstruction project and abandoning the long-term vision to integrate the nation's spaces [Kinoshita (1993)].

From 1995 to 1999, NRC once again received aid, this time from China Civil Engineering Construction Company (CCECC), a subsidiary of the corporation responsible for rail construction in China. Starting in 1995, based on a contract worth USD 6 million, the CCECC supplied 50 locomotives, 150 carriages, 400 transporters and 20 rail buses, and it refurbished 180 signals and 100 boxcars. This first CCECC reconstruction project realised some success (e.g. increased cargo volume) but it did not improve speed and it was insufficient to restore the

² <http://premiumtimesng.com/news/124876-premium-times-train-trip-lagos-kano-live-blog.html> (Accessed on 11 May 2013)

³ <http://allafrica.com/stories/201302060332.html> (Accessed on 11 May 2013)

system to colonial era standards [Odeleye (2000, p.47)]. Japan, Israel and Canada have provided small-scale aid to NRC. In 1978, Japan offered technical cooperation in the maintenance of rolling stock. It was provided by the Japan Railway Technical Service (JARTS), an association extending cooperation to overseas railways [JARTS (2005, pp.309-310)].

Note that the former colonial power (i.e. the UK) played little role in the Nigerian railway following independence. The UK had little interest in rail freight transport in Nigeria, as there were no white settlers, in contrast to Kenya and Zimbabwe, where a considerable number of white settlers continued agricultural production. There was, thus, no need to transport products produced by white settlers. Oil, the main export, is drilled in the Niger River delta, which is next to the sea, making rail transport unnecessary. Moreover, although Nigeria remained in the British Commonwealth, it became a key member of the African Union (AU) and the Economic Community of West African States (ECOWAS). Independent of the former sovereign state, Nigerian policies emphasised diplomatic relations with other African nations and the country adopted a principle of neutral non-alignment [Embassy of Japan in Nigeria (1992)]. In general, Nigeria does not intend to maintain strong political links with its former colonial master.

2) Into the 21st Century: Parallel, Disjointed Railway Rehabilitation Proposals

In response to the overall rise in transport demand in Nigeria, the Federal Road Maintenance Agency (FERMA) developed plans for road repairs in 2004. In 2008, the federal government published a three-year plan for road rehabilitation [Gill (2009, p.117)]. Both plans cite general overuse of the transport infrastructure.

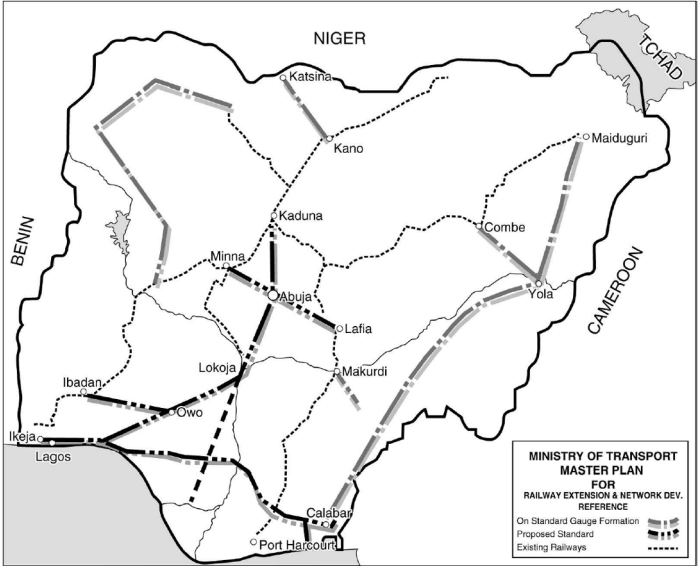
This situation renewed the call for reconstruction of the entire rail network and many projects were proposed. Under the regime of President Obasanjo, an active proponent of railway rehabilitation, the federal government presented two parallel rehabilitation projects.

The first was compiled by the Department of Transport (hereafter, DoT; Figure 2). Containing only simple lines, it can hardly be regarded as 'well thought out' but it does indicate new lines to be built in outlying districts (not only the three main towns of Lagos, Port Harcourt and Kano), as well as routes along the Atlantic coast, creating a network to improve the integration of the country. The original DoT plan lists the broken line projecting southward from Lokoja as 'completed', although there is no evidence to this plan's effect, thus detracting from the plan's further credibility.

The second project consisted of a map listed under the NRC's '25-Year Strategic Rail Vision' (hereafter, 'NRC draft'; Figure 3). Divided into two phases, this proposal seeks to modernise a section of the existing trunk line, maintaining emphasis on Nigeria's main cities of Lagos, Port Harcourt and Kano, while planning network enhancement to include connections to Abuja as well as lines along the coast and to border regions. The alignment of the routes drawn in this proposal resembles a survey map, thus appearing better devised.

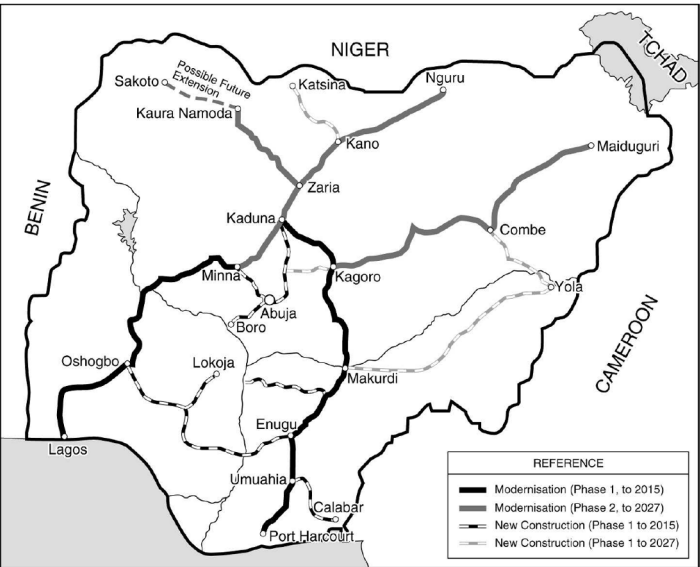
In 2006, Albert Speer and Partner GmbH (AS&P), the German consulting company that formulated project plans for transport in Abuja, drafted reconstruction proposals entitled the 'Nigeria Transportation Master Plan' (hereafter, 'MTP draft'; Figure 4). The MTP draft shares many routes with the first-stage NRC draft, resembling the DoT plan with regard to connecting Abuja. As mentioned above, the DoT plan proposes the construction of new lines to the border areas. The MTP draft includes no plans for construction in the regions on the western or eastern borders, however, bringing its overall image close to that of the NRC draft (Phase 1). Published in 2008, the MTP draft had been proposed prior to May 2007, when President

FIG. 2. DEPARTMENT OF TRANSPORT (DoT) DRAFT



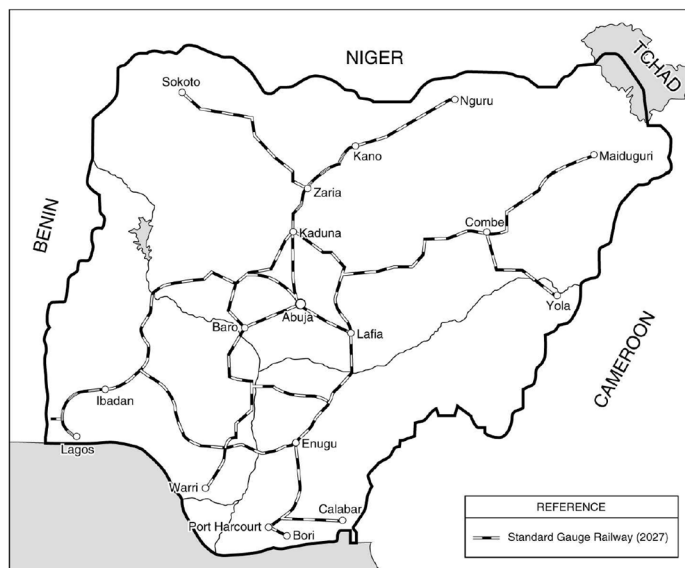
Source: Nigerian Railway Corporation, *Facts and Figures*, Railway Press, p. 51.

FIG. 3. NRC DRAFT PROPOSALS



Source: Nigerian Railway Corporation, *Facts and Figures*, Railway Press, p. 7.

FIG. 4. MTP DRAFT



Source: AS&P-Albert Speers & Partner GmbH, 'Transportation Context Studies for the Metropolitan Area of the Federal Capital City of Abuja: Metropolitan Transport Concept', 2008.

Yar'Adua succeeded President Obasanjo. Because the draft is a revision of Obasanjo's policies, it cannot be considered an independent proposal of Yar'Adua.

A variety of disjointed proposals involve the expansion and reconstruction of the rail network on the national scale. It is, nevertheless, difficult to imagine any consistent plans for national-scale rail rehabilitation that the government would seriously support as a means of spatial integration through the railways.

3) Foreign Companies and/or Organisations Involved in the Reconstruction of the Railways

The main stakeholders supplying the expertise, equipment and funding in the reconstruction of the railway are overseas companies and/or organisations, usually with a different body assuming responsibility for each line. Rather than following the reconstruction plans discussed in the preceding section, these stakeholders have generally worked to improve existing rail lines and rolling stock, with piecemeal extensions and spur construction. Funded by the CCECC and Indian investment, Global Infrastructure Nigeria Ltd. (GNIL) was in charge of the Western Line, while the Central Line was financed by South Korea's POSCO. Both of these companies acquired engineering concessions in the Eastern Line [JETRO (2007, pp.36-37)].

The CCECC has been involved in reconstruction plans for the Eastern Line since 1995. The terms of the agreement (signed on 30 October 2006) specified improvements including widening the gauge to 1.435m and double tracking for the 1,315km section between Lagos and Kano. These improvements were designed to achieve 36 services per day and to carry 40

million tonnes of cargo at speed of 80 km/h, with warning systems to be introduced at 113 level crossing locations and a branch to be laid between Minna and Abuja. The order value of the first phase of the project was USD 8.3 billion and the Nigerian Government received a loan of USD 2.5 billion from the Chinese government to realise the project [Olori (2007)]. The rehabilitation did not proceed smoothly according to the 2006 agreement. In October 2008, the federal government informed the Chinese authorities of a temporary halt in construction. The reason has never been made public⁴ [Vanguard (2008)]. The project was revived in February 2009 but with no date for restarting construction.⁵

There has been no substantial progress regarding the involvement of South Korea's POSCO. In 2011, new lead contractors signed an agreement accepting responsibility for various sections of construction. Turkey's ESER Consulting took charge of the 463 km section between Port Harcourt and Makurdi (19 billion NGN). The 1,016km stretch from Makurdi to Kuru (24 billion NGN) was awarded to the China Gezhouba Group Corporation (CGGC) and Global Projects Nigeria Limited. Lingo Nigeria Limited was granted the 640km section between Kuru and Maiduguri (23.1 billion NGN).⁶ To date, however, no concrete results have been achieved towards reviving rail operations.

4) Current Situation Remains Stalled

The main reason for the scarce progress in rehabilitation is lack of continuity. Enthusiasm for rail investment tremendously fluctuates with every change of the presidency. For example, enthusiasm was high under Obasanjo but it waned when Yar'Adua became president. Federal government assistance had amounted to around 54 million NGN (approximately USD 360,000; in January 2010, 150 naira (NGN) = USD 1; we use this rate hereafter) but was eliminated in fiscal 2008.⁷ As noted above, the main lead contractors frequently changed as well.

4. NRC and Inconsistency in Federal Government Politics

As previously mentioned, it is difficult to discern any national transport policy representing the overall interests of the Nigerian economy. Moreover, politicians—including those bearing the title of 'President'—often pursue their own interests. For example, when the presidency changed from Obasanjo (from the southern, Christian region) to Yar'Adua (from the Muslim north), many policies were terminated under the guise of a 'review' and the parties to contracts were replaced. According to Kensaku Shikama, Director of JETRO's Lagos Office, 'We can assume that cash flows from the private sector were behind many of Obasanjo's reforms in the later stages of his presidency, such as his privatisation policies and so on'.⁸

The rail reconstruction project agreements concluded with China, India and South Korea may also be amongst these 'many reforms' and they are likely to have been of personal benefit

⁴ 'FG suspends \$3.8b rail contract'. 30 October, 2008. <http://www.vanguardngr.com/content/view/20573/46> (Accessed on 21 December, 2009)

⁵ 'FG suspends \$3.8b rail contract', Ibid.; 'CRCC: Resuming the Nigerian Project'. 4 February 2009. http://news.searchchina.ne.jp/disp.cgi?y=2009&d=0204&f=column_0204_008.shtml (Accessed on 20 February 2009)

⁶ <http://www.punchng.com/business/business-economy/eastern-rail-line-rehabilitation-suffers-setback/> (Accessed on 11 May 2013)

⁷ Interview with NRC staff on 27 August 2008.

⁸ Interview with Kensaku Shikama, Director of JETRO's Lagos Office, conducted on 27 August 2008.

to Obasanjo. Yar'Adua may have had an incentive to cultivate his own new, personal interests under these reviews. The national-scale transport policy seems to have fallen prey to politicians seeking to benefit their own communities and personal interests rather than efficiently implementing policies to promote the nation's economic growth. On the national scale, democracy (where politicians should represent the voice of the people) has failed and the ongoing inconsistency in politics has fuelled the dysfunction of Nigeria's railways.

5. Evaluation of the Nigerian Railway

It is hard to fathom the true state of NRC as an organisation. Even when we visited the NRC headquarters in Lagos to conduct interviews and inspect operations, we received no clear-cut answers to simple questions (e.g. 'How many trains are actually in operation?'). The *Facts and Figures* [NRC (2006, p.38)] published by NRC contains a range of statistics and figures but their credibility is questionable. For example, it reports that fixed capital nearly quadrupled from 19 billion NGN (around USD 126 million) in 2002 to 76 billion NGN (around USD 506 million) in 2003. At the very least, this reflects the unhealthy state of NRC. Despite efforts and agreements concerning reconstruction plans, progress has been sluggish and plans have stagnated.

There are two reasons for this dire situation. First, railways have lost their important role in supporting capitalist regulation on the national scale, having been replaced by cars and airplanes as the means of spatial integration. A second reason is the unhealthy governance of the federal government. Ethnic conflict and the self-interest of government officials eroded authority on the national scale, with major consequences affecting the entire national infrastructure.

Under these circumstances, it is impossible to provide nation-wide, large-scale public rail infrastructure that depends upon the support of the entire populace.

III. *Metropolitan Transport in Lagos: LAMATA*

In contrast to the ruinous dysfunction of NRC on the national scale, there is hope for Nigeria's transport on the provincial scale. In this section, we discuss the Lagos Metropolitan Area Transport Authority (LAMATA), established by the state (provincial) government of Lagos.

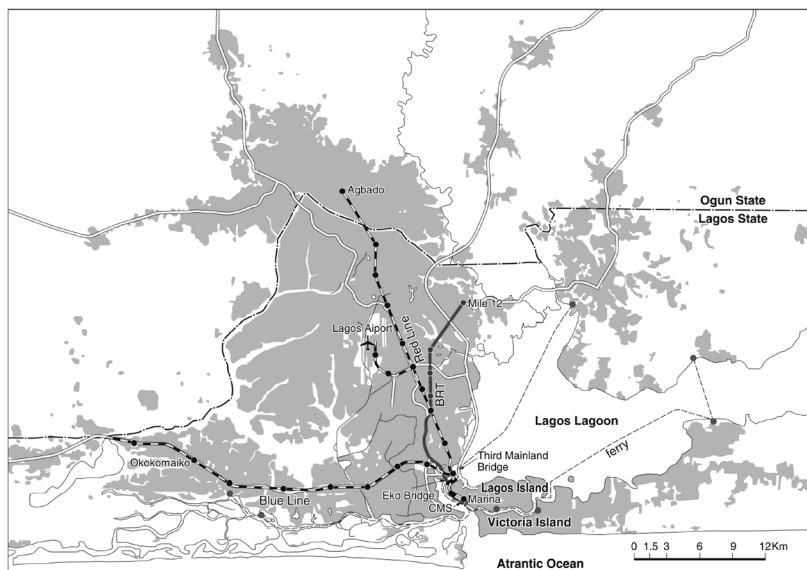
1. LAMATA Project Launched during Transport Crisis

1) Expanding Urban Space of Lagos

The former capital, Lagos, is currently Nigeria's largest economic centre and port city. According to UN estimates (2012), its population was 325,000 in 1950, rising to 1.89 million in 1975 and reaching 10.79 million in 2010. No national census has been conducted since 1991 and population estimates differ. Regardless, the current population is at least 10 million with the urban fringe sprawling into outlying areas (shaded areas in Figure 5).

The spatial configuration of metropolitan Lagos is such that the business districts, with

FIG. 5. LAGOS METROPOLITAN AREA WITH THE LAMATA PROJECTS



their concentration of office buildings, are centred on Victoria and Lagos Islands. With the exception of several exclusive residential areas and slums most housing is on the mainland. The metropolitan area extends beyond the state boundaries, reaching as far as Ogun State in the north and extending 40km from the CBD. Each morning, large numbers of people cross from the mainland to the Islands, returning in similarly large numbers each evening.

Only three bridges cross from the mainland to Lagos Island and two connect Lagos with Victoria Islands. These bottlenecks cause dreadful traffic jams on all bridges every morning and evening. Every road leading to the bridges becomes jammed, making transit times unpredictable. Some citizens living on the urban fringes must commute four hours each morning to reach their offices in the Lagos CBD. Traffic efficiency within the city is disastrous, with serious pollution caused by the multitude of older cars that are not subject to any form of environmental policy.

In the colonial era, the urban area of Lagos extended only from the islands of Victoria, Lagos and Iddo to the mainland area of Ebute Metta. It was spatially integrated with 722 mm-gauge steam-hauled trams connecting the railway terminal to the CBD [Jaekel (1997a, pp.66-77)] and regular bus routes. The city began to expand onto the mainland, with particularly rapid progress since the 1950s, immediately before independence. As the city expanded, minibuses and taxis spontaneously became the transport providers for Lagos citizens, with no provisions for any mass transit rail systems.

The minibuses are small and yellow running along fixed routes, resembling shared taxis. They can be boarded at the terminal or flagged down along the way. They are a very important form of transport for people without private cars. Taxi-style transport takes passengers to destinations of their choice using one of three types of vehicles: passenger cars, motorcycles (Okada) and motorised three-wheelers (Keke Napep). In addition to freely running along any

route, taxi-style transport reaches destinations that minibuses do not serve. However, due to traffic jams their travel times are unpredictable.

Although these forms of transport perform different roles and cope with various transport demands, they are not managed as an overall network and metropolitan transport is chaotic. Even the nimble 'Okada' comes to a standstill during rush hour on roads leading to the CBD.

The rapid population increase exacerbated the transport crisis, making a resolution even more urgent. Heeding the requests of their citizens, politicians, therefore, started working to make the project a reality.

2. Transport System Operated by LAMATA

To resolve the disarray and crisis in Lagos, the state government created LAMATA to unify transport providers, which were divided into more than 100 entities. The organisation was established under a state law passed on 13 January 2002. The plans called for introducing three modes of public transport: bus rapid transit (BRT), rapid-transit rail and a ferry link.

Since its founding, LAMATA has gone far in resolving the municipal transport crisis in Lagos. It successfully implemented the BRT by providing dedicated bus lanes; and the rapid-transit railway and the ferry link across Lagos Bay are under construction. These three modes of public transport cover the action spaces of the people of the Lagos metropolitan area, fanning out from the central hub of Lagos Island to the suburbs. Each mode of transport functions in its own right. A circular BRT route is planned to connect the outer edges of the fan. To allow more people to take advantage of the BRT and rail services, minibus routes near the rail stations and the BRT bus stands will act as feeders for the three forms of public transport. Additional plans call for constructing a monorail in a part of Lagos Island.

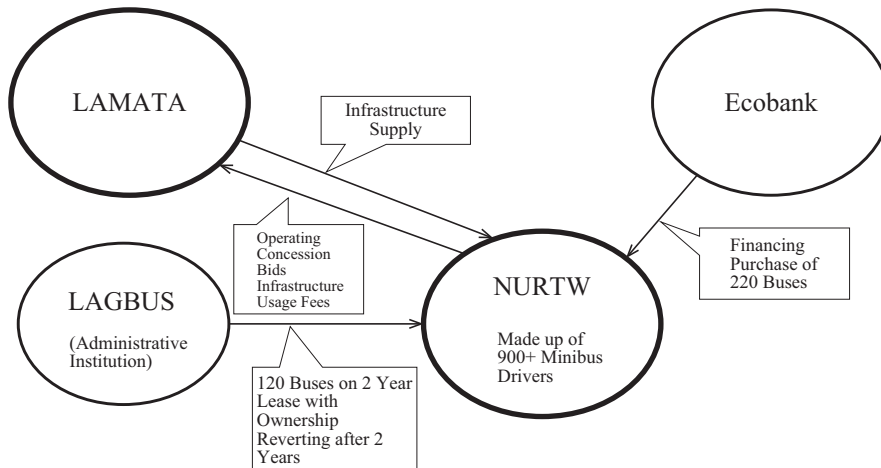
1) BRT

The BRT system involves dedicated lanes for passenger buses that normal traffic is forbidden to use. Its facilities are comparable with those of surface rail, with relatively long intervals between stops. The system lacks some of the advantages of a tram, including the sense of security provided by fixed tracks. It also cannot match the speed of trams; it cannot transport more passengers by linking multiple carriages and it has a greater environmental impact, due to the use of diesel rather than electricity. Nevertheless, BRT is able to transport people with more flexibility, as buses can run from elsewhere on normal roads before entering the dedicated lanes. The initial costs are also only one-tenth of those needed for rail construction and the system requires a comparatively short gestation period to implement. For these reasons, it has been widely adopted for urban transport in developing countries in recent years, including in Bogota (Colombia), Curitiba (Brazil), Tehran (Iran) and throughout China.

(1) BRT in Lagos

The British consulting company Integrated Transport Planning (ITP) spent six months researching the overall project design. In the process, they visited several cities with established examples of BRT systems, including Sapporo, Japan, where the underground rolling stock uses rubber tyres. In March 2008, Route 1 began operations, running some 20km from the 'Mile 12' bus stop along a dedicated lane built on the Ikorodu Road to the CMS (Christian Missionary Society, the centre of the city since colonial times). In just three months, it carried 10,718,860

FIG. 6. MANAGEMENT STRUCTURE OF LAGOS BRT



passengers, with the numbers increasing each month (800,000 in March, 29.08 million in April, 34.65 million in May and 35.45 million in June). On average, the system is used by 140,000 people per day (Figure 6).

Although similar to minibuses, which run along fixed routes, BRT offers three distinct advantages for passengers in terms of time, cost and security. First, while the minibus took two hours to cover the sector mentioned above, BRT can complete the trip in less than an hour. Travel times have become more predictable. Until dedicated BRT lanes are available along all sections, however, it will be difficult to ensure complete punctuality, as buses get caught in traffic jams on sections that they share with general vehicles. In terms of fare, the route is divided into two zones, with two fare levels per zone: 50 NGN (USD 0.33) for a short distance and 100 NGN (USD 0.67) for a longer trip. These fares are about 60% less expensive than the minibus fares. For example, a trip from the 'Mile 12' bus stop to the CMS is 100 NGN with BRT, as compared with 160 NGN (USD 1.07) by the minibus. Incidentally, the Okada bike-taxi costs 300 NGN (USD 2) for the same sector of route 300 but it is less safe due to the two-seater motorcycles travelling at high speed. Finally, the service runs along dedicated lines where traffic is controlled, offering greater safety than minibuses can provide. In standard training, BRT drivers are taught how to operate their buses safely.

(2) BRT Lagos Management System

(i) Operational Organisation

The duties of LAMATA are to administer and regulate the transport system, repair infrastructure damage, arrange contracts with operators and concessioners (e.g. ticket and security companies) and provide administrative oversight. The day-to-day operations of the BRT system are outsourced to NURTW (the National Union of Road Transport Workers). While LAMATA is a public body, NURTW is private, based on the minibus drivers' union. Its more than 900 union members were formerly minibus drivers. At the start of the project, LAMATA awarded NURTW the operating concession. As an infrastructure usage fee, NURTW

is contracted to pay LAMATA 1.5% of its profits. The organisations, thus, have a two-tiered relationship, as was common in the rail industry under neoliberalism.

In addition, LAMATA formed an organisation, 'LUGBUS', to improve joint management with NURTW and, more specifically, to provide support in purchasing buses.

(ii) Staff

The BRT staff consists of civil servants (belonging to LAMATA), bus drivers (NURTW) and ticket-sales clerks.

One problem associated with creating a new transport infrastructure involves the risk of job losses for workers in the existing transport sector. The minibus and taxi-style transport providers were very labour-intensive, with one driver to a small number of passengers. The newly created BRT is more efficient, with one driver transporting up to 80 passengers or more. The decline in the number of workers per unit of transport demand meant unemployment for some drivers. Failure to include these drivers in the plans could have generated strong opposition to the new transport infrastructure.

Therefore, LAMATA decided to recruit its bus drivers from the minibus union, thus creating a socially sustainable transport project. By attending to this kind of social integration, Lagos urban transport was able to minimise labour and/or management conflicts. In addition, LAMATA and NURTW employees received uniforms of blue polo shirts to foster an attitude of customer service and to strengthen the spirit of LAMATA staff.

(3) Infrastructure Essential to BRT Operations

(i) Routes

Buses originate at the CMS terminal in the CBD of Lagos Island and cross Eko Bridge to the mainland, where they travel along Western and Ikorodu Road to the 'Mile 12' bus terminal, some 20 km to the north. This route was selected from amongst nine candidate routes. The decision was based on three reasons. First, the length of the stretch (approximately 20 km) was suitable for operating the BRT. Second, there was a high demand for transport between the mainland and Lagos Island. Finally, the route included a longer stretch with four or more lanes, as required for the construction of dedicated BRT lanes.

(ii) Dedicated Bus Lanes

The outer edge of the existing three-lane road was separated by a barrier of blocks and turned into a dedicated BRT lane. With few exceptions (e.g. towing after accidents), vehicles other than BRT buses are forbidden to use these lanes. The BRT bus lanes are monitored to ensure compliance. Prior to the LAMATA project, dedicated minibus lanes existed along a very few sections and these were repaired and converted to BRT lanes.

(iii) Bus Stops

Bus stops are located along the route at intervals of 500m—1000m. Their design resembles electric tram stops, with roofs (for protection against rain), platforms and ticket offices. Attendants at each bus stop sell tickets to customers in queues.

(iv) Bus Stock

Bus stock is not purchased by LAMATA but by NURTW and LUGBUS, with NURTW handling maintenance and LUGBUS providing financial assistance. The entire fleet consists of 220 vehicles, 100 of which were in operation from March 2008, with 120 more added later. Financing was provided to NURTW for purchasing the first 100 vehicles, which were made by the Indian company Ashok Leyland. The remaining 120 buses (Marco Polo brand, manufac-

tured by Mercedes) were purchased by LUGBUS and then leased to NURTW. Under the lease contract, after a two-year rental period, ownership of the buses passes from NURTW to LUGBUS.

(v) Other Facilities

The plans also included regulated traffic lights. The authorities wished to introduce an advanced signalling system with wireless communication between buses and traffic lights. Significant hurdles were encountered in this regard as the unstable electricity supply necessitated equipment that would generate solar power. Currently, transport authorities have granted permission for BRT buses to operate on a priority basis, manually directed ahead of other traffic by traffic control officers.

(vi) Funding for Infrastructure Facilities

Construction costs amounting to USD 35 million were met within the budget of the Lagos state government. In addition, NURTW received financing from Ecobank, Nigeria's leading corporate bank, at an interest rate of Libor +4%, with the bus stock purchased with the funding acting as collateral until repayment. The LAMATA project is successful. In an interview with the author in September 2008, an Ecobank manager was optimistic about repayment of the loan: 'We expect the loan to be settled in full by August 2009'. Some BRT buses carry the Ecobank logo on their sides.

(4) Regulations Involving BRT

Various new rules and regulations were needed when establishing BRT. Passengers had been accustomed to catching a minibus anywhere they wanted along the route. Using BRT buses required them to go to specific bus stops and queue to purchase a ticket from an attendant then queue again to get on the bus.

Now that BRT has dedicated lanes that ordinary vehicles are not allowed to enter, the Lagos Traffic Management Authority (LASTMA), the traffic police, is responsible for centrally administering the penalties prescribed for violating regulations concerning the LAMATA project.

(5) BRT Challenges

Whereas many projects stall at the planning stage and are never executed, LAMATA has begun operations and achieved a high standard of performance. Nevertheless, several challenges remain.

(i) Responding to Regulation Violations

For passengers, problems include breaking into queues, staying on a bus longer than the ticket allows and forged tickets. Passengers have been urged to observe appropriate codes and an IC ticket (similar to the 'Suica' in Japan) has recently been introduced.

Other violations are related to the dedicated bus lanes. A seemingly endless flow of general vehicles enters into sections of the route where there are no barrier blocks. In addition, operations are sometimes delayed by roadside vendors leaving their carts in the BRT lanes. There have also been cases of sabotage, in which barrier blocks have been destroyed and removed. This kind of vandalism reflects the ruptures that occurred in social integration during the implementation of the LAMATA project. A fundamental resolution will require efforts to subsume opposition forces.

(ii) Further Reductions in Transit Times

The waiting time at bus stops is currently about ten minutes and the average bus speed is

no more than 30km/h. The severe congestion on the bridge to Lagos Island prevents any further improvements in speed. It is impossible to install dedicated BRT lanes on this bridge: the BRT lane ends at the foot of the bridge, bringing the buses into a queue some 10 vehicles deep at the end of the bus lane as they try to merge into the general-traffic lane. Therefore, it takes the buses the same amount of time to cross the bridge as it does ordinary vehicles (about 25min). In other words, the BRT can offer a comfortable journey in a relatively short time as far as the bridge but it ultimately costs time on the bridge. This is the crux of the matter. When bus arrival times are delayed by traffic jams, bus rotation suffers and the number of bus services cannot be increased. This prevents any improvements to waiting or average transit times.

There are two policy solutions: (1) build a new bridge or (2) use one of the two lanes on the existing bridge as a dedicated BRT lane. Option (1) has been rejected due to the considerable amount of time and money it would entail. Option (2) was also rejected, due to public outcry at the idea of designating one of the bridge's two lanes for exclusive BRT use. Ultimately, the only choice was to have the BRT buses run amidst the general traffic, with a tailback of buses at the bridge. It appears quite difficult for politicians to take long-term decisions to build additional lanes to the bridge, knowing that they must face the voters again in a few years.

The BRT system could thus be built in a short time and at a low cost. This transport-infrastructure project was, therefore, well suited to the short-term nature of the political system, in which politicians are elected at short, regular intervals, needing to show immediate results for the next election. The long-term bridge construction projects requiring public investment do not fit the political cycle.

2) Urban Rapid-Transit Rail

Plans for the urban rapid-transit rail project (Lagos Rail Mass Transit) were drafted by the Arabian consulting company Dar Al-Handasah. Following an international bid, CCECC was awarded construction work in 2010. Projected costs for construction amount to USD 600 million are being entirely funded by the Lagos state government.

The project's management method assigns overall control and responsibility for rail infrastructure to LAMATA, which awarded the private company Eko Rail a 25-year concession⁹ to own, manage and maintain the rolling stock. This is typical of the two-tiered disintegration of railway projects made popular under neoliberalism, and it resembles the BRT, as described above.

The network will use standard-gauge track (1.435m) rather than the narrow gauge (1.067m) used by NRC. Two routes are planned: the Red Line and the Blue Line.

The Red Line¹⁰ will use existing NRC right-of-way to run the 30km from Marina (close to major government facilities and Kings College) to Agbado in the north, located in the neighbouring state of Ogun.¹¹ A branch line will also be constructed to link an intermediate Ikeja Station to the international airport, providing a high-speed, congestion-free rail link

⁹ <http://www.prnewswire.com/news-releases/eko-rails-trains-begin-journey-to-lagos-130627418.html> (Accessed on 3 May 2013)

¹⁰ LAMATA. Agbado-Marina: Rail Mass Transit System (brochure)

¹¹ http://www.lagosrail.com/_downloads/Lagos%20Red%20Line%20Project%20Briefing.pdf (Accessed on 12 May 2013)

between the city centre and the airport. The daily transport demand for the Red Line is expected to reach 1.3 million passengers. The Blue Line will run from Marina to Okokomaiko (29km), sharing the 3km stretch from Marina to Iddo Stations with the Red Line and branching west, running along an exclusive right-of-way in the middle of the proposed Badagry Expressway.¹² Demand for the Blue Line is expected to be 500,000 passengers per day, with trains running at three-minute headways during rush hour. The rail fare is expected to be 130 NGN (USD 0.87), which is considerably less expensive than the minibus fare of 220 NGN (USD 1.46) for the same distance.

Because of constraints in terms of electricity supply, the project had initially planned to use diesel railcars (DMU). This was changed to electricity, however, with operators' responsible for generating their own power. The project introduced second-hand stock manufactured by a predecessor of Canada's multi-national company Bombardier and previously used in the Toronto subway system.

3) Water Buses (Commuter Ferries)

Taking advantage of the indented coastline of Lagos, LAMATA also plans to develop water buses (commuter ferries) as an efficient link between the suburbs and the CBD. The routes will be broadly divided into a northern route (along Lagos Bay) and a western route (along Badagry Creek), to be built at either end of LAMATA's fan-shaped transport network.

While it is extremely expensive to build new transport networks for the BRT and the rapid-transit rail across land that is already in use, it is relatively easy to procure sea routes, as they require little acquisition of land. The problem lay in the existing jetties, which had been unsafe and lacking in comfort. Consequently, LAMATA is using sheet pile to protect the shoreline, installing waiting areas, introducing electricity and developing access roads to the docks. These activities have already been completed in two suburban locations.¹³

As water buses cannot run on land, a monorail is planned to link the ferry terminal to Marina Station. The monorail is expected to take a circular route through Lagos and Victoria Islands.

4) Connections between various modes of Transportation

When the urban rapid-transit railway is completed, the existing minibus routes will be reorganised to provide feeder service to the stations. The goal is to increase connectivity between the BRT, the rapid-transit railway, water buses and the reorganised minibus routes, to integrate the chaotic transport system in an organic fashion and to build a comprehensive and convenient network of transport infrastructure.

¹² http://www.lagosrail.com/_downloads/Lagos%20Blue%20Line%20Project%20Briefing.pdf (Accessed on 12 May 2013)

¹³ http://www.lamata-ng.com/water_transport.html (Accessed on 11 May 2013)

3. Assessment

1) Democracy as the Driving Power behind the Project

As previously discussed, ethnic conflicts continue on the national scale and successful democratic governance is difficult in Nigeria, which is notorious for defunct government and rampant bribery.

Against this background, LAMATA is an important case of democratic governance at work, with politicians heeding the will of the people and trying to promote effective policy solutions in preparation for the next elections. On the state (provincial) scale, the fragmentation of states to achieve ethnic homogeneity reduces conflict and enhances the potential for improving governance and the coordination of popular interests within the single state. The proper functioning of democracy forced politicians to adopt policies that were more relevant to citizens to win the next election. It was within this political foundation on the provincial scale that LAMATA was initiated and cultivated.

In a democratic political system, political power is far stronger when the views of the majority converge into consensus to demand a single solution. In this case, the consensus emerged in response to the urban transport crisis, manifested in severe traffic congestion. This was the driving force behind the provision of efficient and rapid modes of urban transport in Lagos.

2) Post-Neoliberalism

The LAMATA case offers a glimpse of an alternative mode of regulation in the aftermath of global financial crises, which questioned the collapsed neoliberalist regulatory modes. This new mode also differs from pre-neoliberalist Fordism, where the government assumes fiscal responsibility for public investment.

Two key phrases figure into the alternative represented by LAMATA: 'From *Laissez-faire* to Regulation' and 'from Competition to Symbiosis'.

(1) From *Laissez-faire* to Regulation

Before LAMATA, urban transport in Lagos resembled conditions of perfect competition, generating an over-supply of transport services. Yellow minibuses flooded the city, causing external diseconomies (e.g. pathological congestion). The LAMATA project intervened with the BRT, which imposed rules on transport-service users and operators as well as on ordinary citizens. As reflected in the reduced transit times, the imposition of rules can produce positive outcomes for the overall efficiency of urban transport. Created at the initiative of a government through democratic governance, appropriate regulation can increase economic benefits to individuals, in contrast to situations in which parties maximise their gain within a *laissez-faire* context.

The overall LAMATA framework thus reflects post-neoliberalism or the trend 'from *laissez-faire* to regulation'.

(2) From Competition to Symbiosis

The LAMATA project adopted an inclusive strategy, even towards those who may have been excluded because of the project. The strategy was to subsume into its operations minibuses drivers who would otherwise have become redundant due to the decline of minibus services. In

introducing its new transport mode (BRT), LAMATA could have established a new company, employing completely new drivers or it could have invited the US or European companies to participate in the project through a neoliberalist international tender, thereby excluding locals. Instead, LAMATA chose a path of co-existence with the minibuses drivers' union.

These policies aimed at social integration offered a resolution for conflicts arising from competition between the BRT and the minibuses, and it allowed politicians to win the votes of drivers and local residents. This strategy provided social protection for the core of the BRT system, dedicated bus lanes, against violence (e.g. arbitrary removal of barrier blocks marking dedicated lanes) waged by the BRT opponents who had lost their livelihoods. Without the underlying social integration of a broad spectrum of urban citizens, it is difficult to sustain a transport system with physical properties that are exposed to this kind of attack. Such policies of symbiosis are vital for generating sustainable social acceptance for new transport services.

On the provincial spatial scale, policies should always closely relate to the local community. The LAMATA project was created through a democratic process in which the people demanded an end to the transport crisis. Rather than a scheme to be enjoyed only by certain people, the policy aimed for co-existence, with all constituent members of society gaining through improved traffic efficiency.

Politicians assume leadership, create rules and plan a more efficient transport service on the provincial scale. The citizens enjoying these efficiencies support the provincial government. This kind of positive 'circle' of democracy occurred in the governance exercised in this case.

IV. Socio-Economic Regulation in the Provision of Public Transport: Comparison of NRC and LAMATA

1. Two Dimensions for Comparing Public Transport

While NRC (national scale) is in a state of almost complete dysfunction, urban transport in Lagos (provincial scale) is making steady progress towards realising its plans under the leadership of LAMATA. In this section, we investigate possible causes for such disparity in the provision of public transport on these two spatial scales. We compare the disparity along two dimensions. The first involves differences in the spatial scale at which democratic governance works. The second concerns whether a 'critical juncture' [Mizuoka (2012, pp.95-96)] is manifested in transport relationships.

1) Spatial Scale

As an institution, NRC falls under the national government while LAMATA belongs to the Lagos state government. Although LAMATA is partially funded by private investments, the government bears ultimate responsibility for its overall planning and outcomes. To compare the disparity in performance between the two organisations, we must, therefore, examine how they are governed, along with the impact of governance on their operational efficiency.

Of the 20 local government areas that constitute the Lagos state region, 16 overlap with the Lagos metropolitan area, the action space of people centred on the Lagos CBD. The interests of the metropolitan citizens thus tend to match those of the state. Under the democratic political process, policies for large-scale infrastructure development are made by MPs or state

legislators, who are elected by voters who support these policies. Once bills pass the legislature, the associated policies are implemented by national or state bureaucrats. Politicians are more likely to garner substantial voter support when they propose solutions to various problems that affect the voters. Infrastructural issues tend to be of more concern on the provincial scale than they are on the national scale. Candidates for state legislatures are therefore more likely to advocate these issues, as they relate more to the everyday lives of their constituents than in the case with candidates for the national parliament. This makes rescaling quite likely, especially if the national legislature is defunct.

Electricity is another case in point. Nigeria is notorious for power shortages and persistent power failures. The provision of power has been considerably improved, however, by rescaling to the provincial scale. A major Muslim state to the north, Kano, has solved the issue of power shortages by independently providing power on the provincial scale. This is obviously an easier way to ensure adequate public services, as ethnic homogeneity on the state scale facilitates broad public consent.

In Nigeria, even if an MP is interested in improving transport infrastructure on the national scale, doing so could spark spatial conflicts across the nation. Given that transportation integrates two-dimensional space with the configuration of one-dimensional line segments [Mizuoka (2002, pp.90-91)], good transportation nodes can promote the welfare of particular regions while marginalising areas farther away from major transport routes or nodes, thus exacerbating spatial disparities. Furthermore, railways require major financial commitments and they cannot be developed without a powerful political driving force. Therefore, it is difficult to obtain broad, nation-wide consensus for railway construction. In addition, it is difficult for national-level politicians to include railway projects in their campaign pledges, as implementation would be fraught with difficulties.

2) Has the Critical Juncture Been Reached?

When a crisis occurs in a democratic society, the views of the citizens would probably converge into a united front, demanding the legislature and the government to resolve the crisis. In a democracy, crises are therefore good triggers for the consensus required to implement policy.

As mentioned above, Lagos urban transport has been facing a crisis due to the region's explosive population growth. This crisis involves a mode of collective consumption, thus supporting a common action space shared by citizens. Although national rail transportation is undoubtedly in crisis as well, spatial integration on the national scale is largely achieved by road and air transport, thus preventing the general crisis that would allow people to share definitive goals.

2. Four Main Stakeholders and the Cycle of Democratic Governance

We now consider the main stakeholders in transport governance in relation to the two dimensions mentioned above. We first identify the essential stakeholders for providing transportation.

1) Citizens

The social groups known as 'citizens' are found on a variety of spatial scales. In this case,

citizens are defined as those who use and directly benefit from the transport infrastructure. The Nigerian railways serve citizens within the national boundaries of Nigeria. Lagos urban transport serves citizens commuting into downtown Lagos, as well as those in the state of Lagos and its many overlapping action spaces.

The will of the citizens demands the development and construction of the transport system. In a democracy, citizens have an incentive to vote for particular candidates, as reflected in proactive political awareness amongst the electorate. As the transport crisis became more serious, citizens became more strongly interested in the clearly defined and achievable pledges of the candidates for whom they voted.

2) Legislators and Bureaucrats

Legislators exist at various national and provincial spatial scales, depending on the constituency. Elected legislators turn policies advocated in the campaign pledge into reality by creating laws. Legislators have an incentive to retain political power by winning the next election. Particularly, in countries with lax anti-corruption regulations, retaining power can significantly increase personal economic gains, as well as gains for the ethnic groups that legislators represent. Campaign pledges during elections thus set important benchmarks for general conditions in transport infrastructure.

Bureaucrats implement laws, indirectly endorsed by the will of the citizens. Bureaucrats in charge of transport services plan and oversee the projects in general, in compliance with laws made by the legislature. Bureaucrats have an incentive to achieve promotion in terms of position and discretionary power by successfully overcoming crises as demanded by the legislature. In countries rife with bribery, increases in discretionary power are accompanied by increases in economic gain for individual bureaucrats in much the same way that retaining power does for legislators.

3) Transport-Service Providers

Service-providing organisations can exist on a variety of spatial scales. For example, NRC is organised on the national-scale whereas LAMATA functions on the provincial scale.

Bureaucrats plan the overall design and establish transport-service providers to supply the actual services needed. Improvements in the comfort and efficiency of commuting for citizens is the feedback that concludes the cycle. To ensure the sustainability of these organisations in a market economy, bureaucrats must design a system in which they obtain a reasonable profit margin in exchange for the socially desirable supply of service. If this feedback does not meet the voters' expectations or if the provider is excessively greedy, citizens can become dissatisfied, possibly resorting to acts of physical force to demonstrate their demands. The 1973 Ageo incident in Japan [Mizuoka (2012, pp.100-102)] is one example.

Service providers may be structured as fragmentary organisations, in which facilities are constructed and owned by one organisation with another (often private) commissioned to use the facilities to operate the actual transport services, paying an infrastructure usage fee in return. Governments often assume the former role, with privatised operating organisations determining fares based on the principle of profitability. Legislators and bureaucrats may try to provide the quantity of transport services needed to overcome the crisis by providing subsidies or by creating a system of cross-subsidies or other facilities to enhance incentives for private transport-service operators.

Transport-service providers are motivated to act to gain a good reputation and to pursue economic profit by providing efficient transport services. For individual employees, additional funding and profit associated with increasing transport volumes can improve the stability of employment and raise salaries.

4) Planners

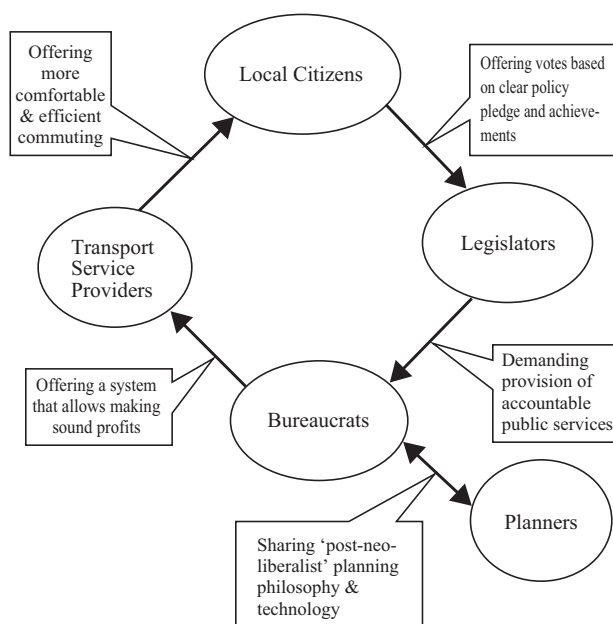
Planners are entities (e.g. foreign government agencies and specialist consultants) who provide specialist expertise, equipment and the international loans necessary to implement projects. Planners are essential for creating infrastructure in developing countries (e.g. Africa), due to a lack of sufficient domestic accumulation of expertise to resolve crises.

Planners act on several spatial scales. For example, ITP was involved with LAMATA on the provincial scale. For NRC, some planning was on the national scale, while some involved only certain lines on the local scale.

Governments pay fees to professional consultants, whose companies are motivated to maximise and enhance their reputations in the marketplace. They do this by offering good-quality plans that solve the crisis to the satisfaction of citizens. Enhanced reputations generate more clients and higher fees. A plan is of good quality if it successfully offers physically and socially just and rational solutions to transport crises. The modes of transportation must be sufficiently comfortable and efficient to satisfy citizens. Bureaucrats commission projects with planners who are capable of offering this level of quality. In many cases, this demands post-neo-liberalist governance.

When the planner is a foreign government, its incentive involves the expectation that, if it supplies the recipient government with plans, equipments, loans, assistance and other facilities,

FIG. 7. THE CYCLE OF DEMOCRATIC GOVERNANCE



the recipient government will reciprocate, thereby serving the national interest of the supplying government.

5) The Cycle of Democratic Governance

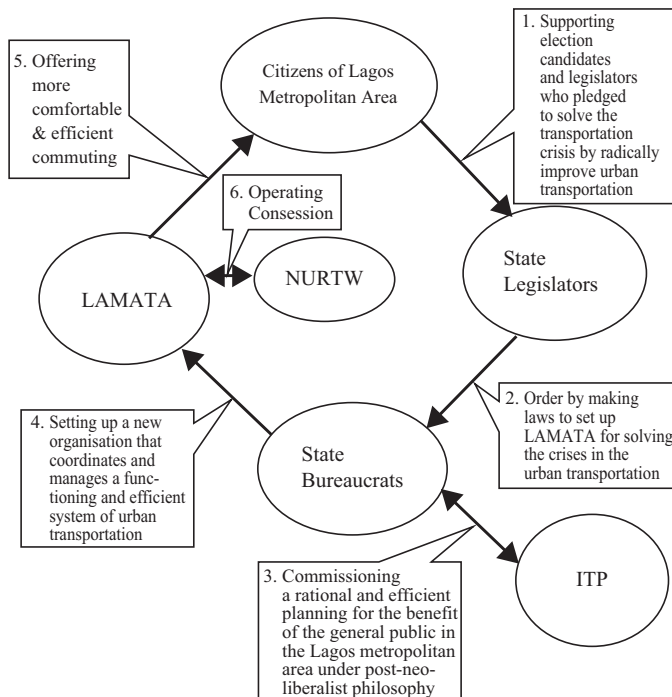
The relationships between these stakeholders can be depicted as a cycle of governance (Figure 7) in the provision of public transport. If the cycle is functioning smoothly, the transport infrastructure is well suited to the capitalist regulation that resolves the crisis and thus maximises citizen satisfaction. It is vital to construct such cycles of democratic governance on the appropriate scale to progress smoothly around the cycle.

In the next section, we examine whether this cycle has been established within NRC and LAMATA.

3. Transport Infrastructure and the Governance Cycle: A Comparison of NRC and LAMATA

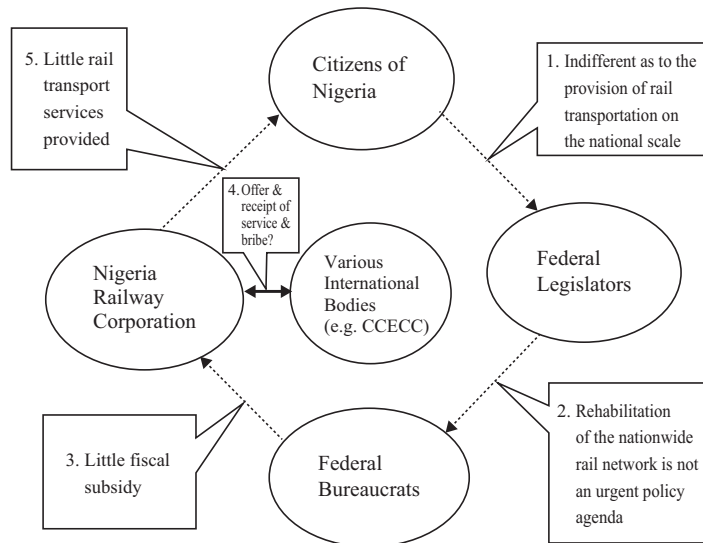
1) The Provincial Scale: Lagos Urban Transport - LAMATA

FIG. 8. GOVERNANCE CYCLE FOR LAGOS URBAN TRANSPORT (LAMATA)



Candidates for the Lagos state legislature promised citizens that they would solve the transport crisis (Arrow 1 in Figure 8). Once elected, legislators made laws ordering state bureaucrats to establish and fund the new organisation (LAMATA), to coordinate public-

FIG. 9. GOVERNANCE CYCLE OF THE NIGERIAN NATIONAL RAILWAY (NRC)



transport management, which had previously been scattered across more than 100 different providers (Arrow 2). In turn, LAMATA used this funding to commission ITP to formulate plans. Both organisations shared the ‘post-neoliberalist’ planning philosophy manifested in the planning documents submitted to LAMATA (Arrow 3). State bureaucrats ordered LAMATA to implement ITP’s design and coordinate the construction of the BRT. They also granted the operating concession to NURTW (Arrow 6). Transport services were provided to citizens by LAMATA and operated by NURTW (Arrow 5), thus demonstrating the smooth functioning of the governance cycle.

2) The National Scale: National Railway - NRC

For Nigerian Railways, Arrow 1 in the cycle (Figure 9) differs from its counterpart in the Lagos case. It is very weak, as Nigerian citizens care little about improving rail transport on the national scale. The existence of alternative modes of transport (e.g. road and air) has made them largely indifferent to the crises in the nationwide rail network. Federal legislators thus had no urgent policy agenda and bureaucrats had little action from legislation (Arrow 2). With no plans to suit the current situation and with few subsidies provided, the federal government’s relationship to NRC is inevitably weak (Arrow 3). Its relationship to the CCECC is relatively strong (Arrow 4), due to the Chinese government’s eagerness to penetrate into Africa and because its involvement presented NRC with an opportunity to receive bribes. Nevertheless, NRC lacks the political and economic leverage to implement any plans for drastic improvements to its network to benefit Nigerian citizens at large (Arrow 5).

V. Conclusion

We have explored the concept of capitalist regulation within the context of transport services by analysing NRC and LAMATA. We identified causes of the success or failure of socio-economic regulation in transport services. Our comparative analysis revealed a citizen-initiated governance cycle, which must function smoothly to resolve public-transport crises in public transportation through the provision of efficient transport services.

Our analysis ultimately yielded the Cycle of Democratic Governance for transport provision, which is applicable at various spatial scales. One essential factor in the successful provision of public transport in Nigeria has been the rescaling of transport planning to the provincial level, where citizens would probably be aware of the crises and where it is easier for the governance cycle to function. The case of LAMATA, in which this system has already been put into practice, should serve as a model for other African countries in the future.

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