IMPACT OF THE APAPA TRAFFIC GRIDLOCK ON GLOBAL MARITIME TRADE AND NIGERIA’S ECONOMY: THE CASE FOR RENEWAL OF AN OLD AFRICAN PORT CITY

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Abstract
This paper looks at the perennial road traffic gridlock at Apapa Lagos and the impact on maritime trade and Nigeria’s fledgling economy. Persistent traffic slowdowns in a port city are likely indications that the available transport infrastructure for port-hinterland communication is overstretched. However, instead of a holistic urban infrastructure renewal to meet the astronomical rise in road and land usage, the government’s remedial measures proved to be merely short-term palliatives, leaving the problem intrinsically unsolved. Using a combination of primary and secondary sources, the study traces the development, neglect and subsequent deterioration of the intermodal transport system for maritime trade in Nigeria, especially its failure to cope with the increased road traffic at Apapa bottlenecks since the new millennium. Also implicated is the weak governance underbelly of the otherwise successful port concession programme, whose handicaps include intransigence by the big concessionaires. Thus, the gridlock’s adverse effects on port operation are telling and unless the city is urgently redesigned and renewed for futuristic digital economy and smartness, the long-term impacts could be dire for Apapa’s preferred-destination status in maritime trade vis-à-vis inter-port competitiveness in West Africa.

Keywords: Maritime trade, Apapa, traffic gridlock, Nigerian shipping, ports, containers

Introduction
Apapa has featured prominently in the broader literature on Lagos because it is Nigeria’s major gateway for international trade. Scholars such as Mabogunge (1968), Hopkins (1973); Adefuye (1987); Dioka (2001); Adalemo (1981); Agiri and Barnes (1987); and Osuntokun (1987), have traced different aspects of the development of Lagos before and since the Cession Treaty of 1861. Likewise, the maritime history of the city and the country has been profusely covered in the works of Ogundana (1970); Olukoju (2004); Iheduru (1996); Ogunremi (1996), and Chilaka (2003, 2009, 2015, 2016). In fact, some of these works contain significant prognoses of various aspects of the port industry and international shipping trade since pre-colonial times. Sequel to the lacklustre post-independence management, an increasing spate of transportation and logistics problems, including road infrastructure decay and port congestions, have adversely affected the smooth ongoing of sea trade in the port city of Apapa, otherwise the most prosperous district of the metropolis since the 1970s (Ogundana 1978, 71-88; Ekong 1978, 89-103). In October 2018, traffic data from the Nigerian Ports Authority (NPA) began to reflect a 7.1% decline in cargo throughput and international shipping lines began to levy a congestion surcharge, extra $400 per container passing through the Lagos ports (Shipping Position, 2018).

From a global comparative perspective, the pattern of traffic lockdown in Apapa and her ports conforms to Tull’s (2014) analysis of the tendency for “burgeoning metropolises” to catalyze “the decline of inner city ports”. In the case of the Apapa ports, Ogundana (1970, 167-182) had faulted poor land use allocations of contiguous waterfronts which constrained the flexibility of future port planning and development. Do the present city traffic difficulties portend looming diffusion of the Nigerian port industry which could adversely affect the leading position of the Lagos ports system? Overall, there is an untreated gap in the existing literature with regard to a holistic analysis of the traffic gridlocks since the late 1990s, their exacerbation during the second decade of the new millennium and their aggregate impact on global maritime trade and the Nigerian economy in recent times. This paper looks at this problem with a view to bridging the knowledge gap and proffering solutions.

Evolution of the Lagos port system
The Lagos Ports Complex (also known as Apapa Port) and Tin Can Island Port are the two busiest ports in Nigeria and the primary gateways for the import-dependent economy of Africa’s most populous country. Domiciled in Apapa, home to the largest industrial estate in the State, with 725 fully-developed plots (Akintola-Arikawe 1987, 115), the two river ports easily generate the lifeblood of the megapolis and the expansive hinterland economy. The steady development of Lagos as a cosmopolitan centre
began in the 1850s when the British imperial power intervened in the chieftaincy disputes between Kosoko and Akitoye (Dioka 2001, 73-86). It supported the latter because he agreed to end slave trade, allow free movement of British merchants and missionaries and ensure unhindered trading relations with the hinterland producers – a prelude for the eventual colonization of Nigeria. The post-cession dispensation of ‘legitimate trade’ in palm produce and other cash crops relied on a Customs Wharf located at the Lagos Island marina, which began life as a slave port, a surf port.

The maritime trade of Lagos in the early 1850s, with a small population of 20,000, could have sufficed with such miniature port arrangements but with the increase in its population to over 73,000 in 1911 (Akinola-Arikawe 1987, 104), and its rising profile as a commercial centre, the colonial government moved to construct a better harbour for international shipping at Apapa, on the opposite bank of the river. The reasons for this include the need for space, which was limited on the island. Second, the indispensable linkage of the port system with the railway line into the hinterland could only be affordably done at Apapa and Iddo. The requirements for sea trade such as transport infrastructure for port-hinterland communication dictated much of the dynamics. When Lagos was a slave port, the access road network mattered less for the trade: slaves were marched through bush paths and earthen roads from the hinterland to the wharves.

With the abolition of slave trade and the onset of ‘legitimate trade’ in cash crops, however, the conveyance of bulky goods, including forest products and imported articles, increasingly came to rely on paved road network. Thus, to facilitate the supply of palm oil and palm kernel from the hinterland in the 1890s, for example, the colonial Governor, Glover, constructed a road from Ikorodu to the beach where trading used to take place between Lagos denizens and the hinterland traders (Dioka 2001, 41). In this way, according to Fapohunda and Lubell (1987, 300), Lagos was developed by the British as “the terminal of the railway… and as the major port. In essence, the development of transport infrastructures for Lagos and Apapa, in particular, was de rigueur per the nascent sea trade which was a colonial cash cow.

Although skeletal use of the Lagos marina as a surf port was made during the last quarter of the 19th century, planning for proper port structures was hobbled by the sand bar across the lagoon mouth. In the interim, passengers and mails were transferred to ‘branch steamers in the roads, but most cargo had to be transshipped at Forcados’. (White 1970, 21-22). Further to remedial dredging activities, a 3-berth Customs Wharf began operations in 1911 while planning for the modern port at Apapa continued apace. Despite the wide engineering orchestrations to prepare for the construction of the first four deep-water berths during the decade, the new port opened in 1921, apparently without elaborate hinterland communication design. (Nigerian Ports Authority 2000, 30). Probably, the overarching frugal colonial economy did not provide for this, thus setting an arguable logical precedent for the seeming intermittent recurrence of congestion due to poor transportation network.

Nevertheless, additional berths, transits sheds, warehouses and marshalling yards were constructed in the intervening years. The second Apapa wharf extension which took place in the mid-1960s under the 1st National Development Plan added six more berths to bring the port to the status quo of the immediate post-civil war ship and port congestion of 1970.

Overall, the initial simple transport network for the evacuation of goods from Apapa port was mainly by rail, designed to connect the inland city-centres, agricultural conurbations, major industrial installations, mines and granaries as much as possible. This design also foresaw the emergence of transshipment trade to landlocked West African countries, even though, apparently, the access roads were not even tarred at this infant stage. According to Olukoju (2003, 82), “By the end of 1921, only six of the 72 miles of road in Lagos were macadamized, 25 1/8 miles had a laterite surface, while the rest “had not been provided with any artificial crust whatever”. Even fifty years after inception, in 1970, the road to Apapa Port main gate had not been paved, with the Military Port Commandant, Brigadier Benjamin Adekunle, counting it as one of the projects he expedited to clear the port congestion of that year. Thus, the city as well as the port had relied mostly on the railway and the waterway to Abeokuta via the Ogun River for access to the hinterland – a mode which competed strongly against the emerging railways up till 1914 (Olukoju 2004, 16).

The poor development of Apapa’s road network in the early 1920s inhered from two reasons. One, this was the period the colonial masters concentrated on opening up the hinterland for the production and evacuation to the coast of essential raw materials such as groundnuts, hides and skins, tin, cotton, cocoa, palm oil and palm kernels. Feeder roads were first constructed to serve road motor transport services to Nigerian Railways stations in important agricultural or industrial centres such as Oyo, Ibadan, Osogbo, Zaria, Kano, Potiskum, Enugu, Orikwe, Aba and Port Harcourt. Two, Lugard did not want road transport to compete with the railways, at least, not until 1926.
when the government set up the Central Road Board to coordinate the construction of parallel roads to the railways (Oshin 1990, 70). The first road linking Lagos to the hinterland ran through Abeokuta, Ijebu Ode, Ibadan, and Osogbo to Ilorin in the early 1930s. Thus, the neglect of proper intermodal transport design had begun to be regretted by 1936 when the Director of the Transport Directorate blamed the Nigerian Railway department, which was operating the ports, of “deplorable lack of foresight in laying out the wharves and sheds at Apapa and Port Harcourt without thought of road access” (ibid.)

Nevertheless, the railways, and Nigeria’s major roads when they began to be constructed, were designed to connect the port gateways with the northern border towns, to facilitate nationwide cargo haulage and transshipment to landlocked North African countries (see Map 1). For example, Road A1 went from Apapa port gate to the Nigerien border, through Iganmu, Ikorodu, Ibadan, Jebba, Jega, Tambuwalup to Sokoto-Illela. The A2 began from Warri port gate to the same border, through Benin City, Lokoja, Abuja, Kano, Daura to Kongolam. The A3, a dual-carriage from Port Harcourt Port Road ran to the Chadian border, through Abu, Umuahia, Okigwe, Enugu, Oturkpo, Lafia, Jos, Kari Potsikum, Maiduguri to Gamboru and a federal Trunk A road goes from Calabar port gate to Maiduguri. The major road under focus in this study, the A1, whose segment in Apapa, the Wharf Road, became dilapidated, likely constructed during the 1945 Colonial Development Act infrastructure campaigns (Olubomehin 2013), has been expanded over the years by dualization and the addition of side lanes, a double flyover at Ijora junction, an interchange at Iganmu junction and another flyover at Costain junction, to link up with Western Avenue and Ikorodu Road for the northward stretch. Moreover, the road has undergone series of minor repairs and major reconstructions, including in 2017, to mitigate both its carriage failure and the subsequent traffic gridlock under focus. Overall, however, much of Apapa’s trunk and municipal road network had become too dilapidated to support the heavy traffic of maritime cargoes to and from the ports.

Map I: Nigeria Federal Trunk Roads


Theoretical framework

The study of urbanization and the emergence of cities is a popular discipline which has traced the development of the first cities from around 4,000 BC in Asia, the Mediterranean, Africa and Mesoamerica, including Eridu, Lagash, Ur, Uruk, Babylon, Memphis in the Nile Valley, Anatolia and even Sagamu in Southwest Nigeria (which emerged around 1000 BC) (Oyesiku 2010, 68). Others, such as Alexandria (Egypt), Mexico city, Baghdad, Rome and London, flourished after the era of Christ (Ibid.) However, scholars have also long studied the characteristics of cities’ emergence, their ebb and flow over time, especially the differences in the problems they faced in development and growth in developed and developing countries. The two major models
commonly used in these studies are the circular and cumulative causation model and the economic base model. The former holds that the urban economy functions as a market economy and changes therein affect the population such that an increase in population activates further increase in economic activities which begin the process afresh (ibid.). In this way, there is a cumulative effect to the dynamism of cities.

The economic base model, on the other hand, postulates growth of cities as dependent on their capacities to produce basic goods and services for export to generate employment and support industries and non-basic goods and services for its immediate and national population, to keep them furnished with necessities for life and ensure employment for its workforce (ibid.). The more basic goods and services are produced, the better for the sustenance of non-basic goods and services. Although a criticism of these models is hinged on the fact that they pertain primarily to the developed countries of the world, the two would seem to apply to Lagos as a megacity. Since its inception as a colony in 1861, the city has thrived on galloping population to build its large market factor. Also, the existence of hundreds of factories and the port industry ensured that its linkage to the export sector was very strong as a purveyor of development revenue and a generator, in current terms, of 45% of all employment opportunities in Nigeria (Moshood 2017, 30). However, it requires further study to ascertain whether the present clog in the productivity of Apapa’s maritime sector will reverse the city’s growth in any specific scope or direction.

Background of the Apapa traffic gridlock

As far back as the late 1990s, the problem of intense traffic buildup by tanker trucks loading various fuels from the tank farms of the oil majors and the Nigerian National Petroleum Corporation (NNPC) became rife. In Apapa, as well as other NNPC depots such as Ejigbo and Mosimi, truck clusters were a common sight. They clogged up the access roads to the fuel loading bays and adjoining thoroughfares. The situation became all the more intense with the collapse of the underground pipeline system of the NNPC which broke down or became disabled due to rampant vandalism for illicit fuel siphoning (Lawal and Ese, 2017). Otherwise, the underground pipeline system was designed and installed to securely pump petroleum products to all parts of Nigeria.

Map II. Nigeria showing downstream pipeline transport infrastructure

However, beginning from the 1980s, cases of pipeline vandalism became noticeable across the country, especially at the Niger Delta axis. Pipeline vandals, apparently skilled in the act, pierced the high-pressure pipes with industrial tools and siphoned fuel into motor trucks or other containers for resale to the unsuspecting public (Okonjo-Iweala 2018: 41). Such petroleum products as crude oil for refining, petroleum motor spirit (PMS), liquefied petroleum gas (cooking gas), automotive gas oil (AGO), kerosene, all-purpose kerosene (APK, aviation fuel), were formerly pumped through the pipelines from the oilfields to refineries at Warri, Port Harcourt and Kaduna or from the refineries to the depots for distribution. However, the operations became dangerous to the environment and a huge loss to the economy because the illicit act of vandalism additionally caused oil spillages and deaths. The vandals did not always re-cover the punctured pipes but fled the scene immediately after their operations; thus exposing many communities to danger.

As a countermeasure, the pipeline system was abandoned by the NNPC. Instead, recourse was made to port-based or shoreline-based tank farms as the store for petroleum fuels usually consumed by motorists, households and industrial firms in the country. To complete the distribution chain, tanker trucks were used to convey the products to petrol filling stations and other consumers across the country instead of the pipelines. Nigeria used not less than 40 million litres of refined petroleum products daily (Eboh and Ejoh, 2014). The collapse and degradation of the country’s refineries in the 1980s and 1990s due to corruption and lack of maintenance led to importation of almost all refined fuels used in the country. In 2016, Nigeria paid $21 million per day and a total of $8 billion to import 18.8 billion litres of refined petroleum products, according to the National Bureau of Statistics. The large stock of petroleum products were stored in tank farms whose owners utilized the jetties already licensed by the Nigerian Ports Authority (NPA) so as to have access to berthing and port facilities for ships laden with the ‘white products’. With time, the practice bloomed into a niche commercial business. Private businessmen began to set up tank farms in many vacant plots around Apapa and Tin Can Island ports, Ibru Jetty, and Kirikiri Lighter Terminal. The operation of these tank farms generated many issues and controversies, including environmental safety concerns, clamours by owners of nearby residential properties who decried the potential fire risks and, latterly, the traffic gridlock problem. However, the new generation of tank farm owners, being mainly private-sector entrepreneurs, formed associations as platforms for defending themselves and articulating their group interests. Two of such associations were the Major Oil Marketers Association of Nigeria (MOMAN) and the Independent Marketers Association of Nigeria (IPMAN).

The first generation tank farms sited in Apapa were located at Ijora, Malu (Mobil) Road and Dockyard Road. These were also the locations where truck clusters were first noticed in the gateway city as they waited to load at Agip, Africa Petroleum, Petroleum Wharf (NPA), New Oil Jetty (NNPC), Bulk Oil Plant (NPA) and Total tank farms. The truck queues in these locations usually intensified during periods of fuel scarcity. Next, the truck queues sprang up at Coconut Bus Stop around Ibru Jetty when the newly-constructed tank farms belonging to private organizations, such as Capital Oil and Integrated Oil Logistics Ltd, came on stream. Thereafter, the truck clusters developed along Dockyard Road for trucks waiting to load at NNPC, Hensmoor Petroleum and NIPCO Oil. During the first decade of the new millennium, Creek Road in Apapa became another hub for queuing tanker trucks waiting on Lister Oil, Nido Gas and Yinka Folawiyo tank farms. In fact, since 2006, two lanes of the Creek Road inward from Liverpool Roundabout to Wharf Bus Stop were taken over completely by waiting trucks. Thus, many of the trunk roads in the vicinity of Apapa and Tin Can Island ports became clogged with persistent traffic jams caused by queuing tanker trucks. In January 2017, the gridlock assumed the dimensions of a moving dragon. It snaked from the Trunk A roads into the high streets and roads leading to the city centre and commercial spots at Ijora, Malu Road, Dockyard Road and Olodi Apapa. It also began to spread to the outskirts such as Western Avenue. By April, the queue reached Ikorodu Road and branched out as far inland as Murtala Muhammed Way in Yaba, Iddo Motor Park and Ijora Causeway. Thus, trunk roads and avenues within ten-kilometre radius of Apapa and Tin Can Island ports became affected by the traffic gridlock. Travel speed for trucks slowed to standstill for hours, sometimes for days, while smaller vehicles only wriggled through on single lanes enforced by the traffic controllers.

**Truck cluster by cargo morphologies: The timelines**

In all, the cargo morphology in various parts of the Lagos ports system dictated the buildup of heavy truck traffic in each area. As already noted, the degradation and disuse of Nigeria’s railway and underground pipeline systems meant that since the early 1990s over 95% of all cargoes landed at the Lagos ports and industrial goods from other sectors were moved by...
road (Asenime 2008, 86). Only about 5% of maritime deliveries (mainly containers) were railed. (Chilaka E., 2017). However, the areas of concentrated heavy truck movements around Apapa were well known. The first fuel truck queues developed at the IOCs’ tank farms located in Ijora and Malu (Mobil) Road. Later, other operators, such as Heyden Petroleum and NIPCO, erected fuel tanks at Dockyard Road, adjacent to the NNPC and NPA Petroleum Wharf. This opened that area to queuing fuel trucks in the late 1990s. However, unlike in the case of Creek Road where two lanes of the four-lane expressway were completely blocked to other traffic since the mid-1990s, the buildup at Dockyard Road allowed the passage of smaller vehicles, with much heckling by sundry traffic controllers. Although Dockyard Road was a two-lane failed asphalt road, it was obviously too critical to be blocked by the trucks because it led to the NPA’s dockyard and the premises of other influential operators such as Lagos Channel Management and Continental Shipyards.

The other major category of vehicles in the gridlock was container-laden trucks destined to Apapa and Tin Can Island port gates. Most of them were in the Wharf Road queue which was more complex because of a number of factors. One, it led directly to Apapa port, possibly the busiest gateway in Nigeria and the operational theatre of AP Moller Container Terminal, the biggest container terminal in Nigeria handling about 70% of containerized cargoes. Expectedly, the truck queue here was very slow because the speed of container release was reportedly dragging due to the fluctuating efficiency of AP Moller’s web server which controlled the computerized release of cargoes. Two, all export cargoes were loaded at Apapa port and the procedure for dropping export containers involved more cumbersome documentations and steps. Three, drivers always hurried to drop off empty containers at the port to reclaim the consignee’s daily-depreciating container deposits, hence the jostling to get ahead of other drivers. In the absence of the recommended use of off-dock holding bays to receive empty containers, this aspect of the operation was particularly harrowing and caused frequent hikes in haulage fees.

As at the end of the 1990s, the menace of the truck gridlock as a general traffic stopper was yet to intensify. Thus, the traffic buildup up to the early 2000s hardly affected entrance and exit from the ports or the town. However, the problem was compounded by the successful port reforms of 2001 which culminated in the takeover of cargo operations by terminal concessionaires in 2006. The landmark development led to a spike in cargo throughput as the profit-minded operators deployed better managerial frameworks. Whereas the total throughput of non-crude oil cargoes at all Nigerian ports was 57,473,350 tonnes in 2007, it rose to 76,744,727 tonnes in 2010 and 84,951,927 tonnes in 2014 (see Table 1). The combined throughput of the Lagos port system, on average, accounted for not less than 68% of the Nigerian trade, about 57m tonnes in 2014, with port operators bemoaning the overstretch of Tin Can Island Port’s installed capacity from 30m to 80m metric tonnes in 2018. Thus, in addition to more tankers jostling for road access to the tank farms, more articulated trucks and trailers were deployed for haulage of larger quantities of steel plates, rods, containers, raw cement flour, raw and bagged cement, cars and vehicles, rice, sugar, salt, chemicals, consumer goods and other industrial imports to and from the ports, regardless of the scanty improvement to the transport network.

Moreover, as an import-dependent, mono-crop economy, 80% of all laden containers landed in Nigerian ports were returned empty overseas because of the comparatively low level of non-oil exports (Chilaka, 2015, 144-148; Usoh 2008, 75-85; Clarke 2007, 212-213; Goble 2011, 115). Thus, a large quantum of the Apapa traffic gridlock, over 55%, was composed of container-bearing trucks entering or exiting the port terminals. The near-absence of intermodal transport infrastructure left the roads solely to cope with the double trucking of each container to Apapa port and the hinterland.
Other causes of the gridlock

In addition to trade cargo morphologies and dilapidated port access roads, the traffic gridlock was worsened by other factors. One, poor driving habits and other human errors have been blamed to constitute obstruction issues on the outward and inward movements around the ports. Generally, two major directions of movement were predominant amongst the vehicles stranded in the traffic. On the
in the gridlock were not supposed to be there since had not been implemented. Thus, even some tankers thoroughfares, especially from the descent of the Ijora were made worse by failed sections of the On the inward bound lanes into Apapa, the go-slow paid up.

the tank farms they claimed to be heading to had no Government to provide holding bays for waiting trucks. In some cases, obstructing trucks might have developed faults and could not be moved from the spot pending repairs. Yet other drivers have been known to park their vehicles by the roadside to sleep before embarking on the long-distance trip. Even the enforcement raids for wharf landing fees have caused traffic obstruction as the local government officers detained non-compliant vehicles on the spot until they paid up.

On the inward bound lanes into Apapa, the go-slow were made worse by failed sections of the thoroughfares, especially from the descent of the Ijora flyover through Leventis Bus Stop, all the way to Apapa port gate. Secondly, shipping line receivers of empty containers for export ought to consolidate them at off-dock holding bays to streamline their hitch-free conveyance to the terminals. However, this was not being done for several reasons. One, Maersk Line, the number one container carrier in the world which also carries more than 70% of all containers moving in Nigeria, claimed that its holding bay was located inside the Apapa port, contrary to the NPA guideline for off-dock holding bays. Thus, many of the trucks on the queue from Ijora or Mile 2 axis to Apapa port were bound for the AP Møller-Maersk holding bay. Two, the cargo release system inside this terminal was internet-based and once the server was down, container release, loading and off-loading would grind to a halt, pending uptime. Thus, Maersk Line and the AP Moller Terminal were fingered by many respondents as one of the major causes of the long vehicle queues and a culprit of the traffic gridlock. The NPA had directed Maersk Line to establish another holding bay outside the port since the latter's lease of the Lily Pond Container Terminal at Ijora expired without being renewed. This was yet to be done.

Moreover, even the holding bays of other operators in the ports were not located along the rail line, ruling out possibilities of raiing empty containers into the terminals and reducing the usage of trucks on the scarce road spaces. The situation of the trucks was also problematic for many reasons. One, the directive by NPA for tank farm owners and the Lagos State Government to provide holding bays for waiting trucks had not been implemented. Thus, even some tankers in the gridlock were not supposed to be there since the tank farms they claimed to be heading to had no products at the time they remained in the queue. One plausible reason for this behaviour was the argument that such drivers were looking for carrying jobs while on the queue. Another cause of the gridlock was the high number of trucks heading to Apapa port, the only gateway in Lagos for processing export cargoes. However, some of the drivers found on this queue could not explain why they were on the queue when the port receiver was not ready to take their cargoes and the carriage ships had not even berthed. Other drivers clog the queues while their agents go in search of the requisite shipping documentation. Such unready trucks added to the space constraints, operational hiccups, human errors, vehicle breakdowns and driver mannerisms which worked in concert to cause the traffic gridlock. Ordinarily, the brunt was also borne by office workers, residents, maritime traders, port users and other stakeholders who lived in Apapa or went there for work or leisure. They recounted stories of sitting in traffic for long hours inhaling vehicle exhaust fumes. As the problem worsened, some people took various measures to evade the stress and disruptions it caused to their health and operations.

Palliative measures

When the traffic build-up started at Ibru Jetty in the first decade of the new millennium, the NPA implemented a truck call-up system which was supposed to regulate vehicle movements in the port. The call-up system also mandated drivers to maintain their vehicles to roadworthy status to avoid the rampant breakdowns which used to block the busy roads. Although licenses and stickers were produced for this exercise, on implementation, the procedure became controversial. Aside from complaints against the high cost of the stickers, the NPA issued marching orders to truck drivers to vacate Apapa's flyover bridges and stay clear of Apapa precincts. This move yielded results as a joint security enforcement team blocked many trucks from entering Apapa. Consequently, they pulled back to the outskirts: Iganmu-Orile-Badagry Expressway, Yaba, Iddo, Mile 2-Oshodi Expressway and Amuwo Odofin.

Meanwhile, the road repairs and reconstructions became the subject of controversy and blame game. Formerly, the campaigns to repair failed sections of
the road were undertaken by the Federal Government, the NPA, and the high net-worth operators in the Apapa commercial district, namely Dangote Plc and Flour Mills Nigeria Ltd. In November 2017, Alhaji Aliko Dangote, the President of the Dangote Group, announced that the “Apapa-Oworoshoki Way [reconstruction] is going to start next week... The bidding process is going to go on ...Anybody that wins the contract, we will fund the project under the agreement that we have”. NPA contributed N1.8 billion while “Dangote and Flour Mills are pumping in over N2.5 billion for two kilometres double lane on each side making a total of four kilometres...”

As part of the quest for solutions, the Association of Maritime Truck Operator (AMATO), announced in 2015 that it had come into possession of a large tract of land at Orile Iganmu which it claimed the Lagos State Government made available as a truck park for the NPA call-up system. After the first phase of earth works to pave the swampy site, however, a new twist began to affect the grandiose project. The Lagos State Ministry of Housing commissioned work on a part of the land for the construction of several blocks of low-cost housing. It claimed that the land was earmarked for residential mass housing and not as a truck park, thus, catching AMATO on the hop after it had desperately committed huge sums on concrete pavements at the site for heavy-duty truck parking. Nevertheless, with the desperate search for solutions to stem the gridlock in 2018, the wind seemed to blow again in AMATO’s favour as the land was revisited by the state government for development as a 1000-truck capacity terminal called Asiwaju Bola Ahmed Tinubu (ABAT) Truck Terminal. The Lagos State Government announced in the same breath the construction of another 5,000-truck capacity terminal at the Ijanikin area of the megacity.

Much of the renewed zeal to tackle the problem followed the Government’s concern with the nuisance being caused to the economy of the state and the threat to its internally-generated revenue. It convened a stakeholders’ meeting with government agencies, port regulators, terminal operators and other stakeholders and began regular meetings with them. After an assessment tour of the facilities of the terminal operators and the state of the access roads into the ports, a communiqué was released which revealed the specific difficulties caused by the gridlock and the prescribed immediate and long-term remedial measures. In fact, NPA suspended the operations of Maersk Line, Cosco, Lansal and APS in July 2018 for ten days for violation of various guidelines including the provision of off-dock holding bays for empty containers. Maersk Line was also alleged to be lifting less empty TEUs abroad in preference for more rewarding cargoes. Nigeria being heavily import-dependent, the large importation of containerized goods tended to flood the country with empty containers which ought to be constantly returned by trading ships on their homeward voyages. However, Maersk Line rose to its own defense and stated that it had four holding bays in Lagos capable of storing 8,150 empty TEUs. It released a statement that Nigeria as an import dependent nation will certainly see imported containers discharged in the country in volumes and in line with the tenet of international trade. With limited infrastructure and other alternatives for evacuation of imports, return of empties, and return of full exports, it is challenging for these containers to be adequately handled, which results in the congestion of the access roads.

The shipping lines’ suspension however worsened the gridlock as the outskirts of the port city became clogged with the overflow of articulated trucks and tankers. The national dailies came out with front-page alerts of the new problem, listing the gridlock clusters by population (see Table 3). This forced the Lagos State Government to set up another Joint Task Force to remove the vehicles from the roads which declared a 48-hour special operation and established mobile courts to try recalcitrant drivers.
Table 3: Breakdown of truck clusters by location around Apapa port city

<table>
<thead>
<tr>
<th>Road / Location</th>
<th>No. of trucks on queue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iyana Isolo - Tin Can Island Port</td>
<td>3,200</td>
</tr>
<tr>
<td>Ijora - Palm Grove</td>
<td>3,485</td>
</tr>
<tr>
<td>Marine Bridge – Ijora – Bridge descent</td>
<td>2,900</td>
</tr>
<tr>
<td>Stadium to Eko Bridge</td>
<td>874</td>
</tr>
<tr>
<td>Costain –Stadium-Alaka-Fadeyi</td>
<td>865</td>
</tr>
<tr>
<td>Berger Suya-Kirikiri Road (New Road Bus Stop)</td>
<td>678</td>
</tr>
<tr>
<td>Wilmer Bridge – Awodiora (Ajegunle)</td>
<td>187</td>
</tr>
<tr>
<td>Coker – Costain Bridge</td>
<td>63</td>
</tr>
<tr>
<td>Berger Area including the bridges</td>
<td>881</td>
</tr>
<tr>
<td>Total all locations</td>
<td>12,337</td>
</tr>
</tbody>
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In two days of forced removals using Goliath towing vans, 2000 trucks, tankers and articulated vehicles were towed away from the roads. According to Ladi Lawanson, the State Commissioner of Transportation, the feat was accomplished at night in a special police operation which towed obstructing tankers and trucks away to “seven holding bays at Ijora, Isolo, Amowu-Odofin, Orile, Apapa and Ijesha with the help of two Goliaths deployed by LASEMA”. However, it soon became clear that the claimed successes at clearing the gridlock were only momentary. The trucks usually overflowed their set boundaries after few weeks respite and had to be cleared all over again.

Impact of the gridlock on global maritime trade and Nigeria’s economy

At the peak of the gridlock, over 12,300 vehicles of various configurations were caught up in it. In a traffic count conducted at Apapa and Tin Can Island ports access roads in March 2018, container trucks dominated tanker trucks and smaller vehicles by a ratio of 5:3:1. Overall, the gridlock had a knock-on effect on various aspects of the maritime industry with wide-ranging impacts. One, on the congested roads, various export and import items were trapped. For example, the Cocoa Exporters Association of Nigeria reported that 1,760 tons of cocoa butter and cake for export was trapped while “… over one million containers laden with various cargoes said to be worth over N3 trillion currently trapped at the Lagos port complex due largely to the inability of importers to evacuate them on time because of the gridlock…” The problem was also indicated as the cause of a 7.1% decline in cargo throughput to 387,016 TEUs in first quarter 2018 as against 416,806 TEUs in fourth quarter 2017.19 One of the clearing agents working in Apapa, lamented that “…goods worth billions of naira are trapped ...the payment of huge demurrage to shipping companies and rent to terminal operators...Thus, much of the frenzy by truckers can be explained as desperate efforts to reclaim container deposits or head off demurrage claims deemed unaffordable by the operators.

Two, the virtual scarcity of haulage vehicles and the financial implications is an explanation. With the stranding of so many of the city’s delivery trucks in the gridlock, the demand-supply dynamics catalyzed price hikes in the going rates for vehicle hires. For example, the pre-gridlock hire rates of about N40,000.00 for Lagos-bound and N60,000.00 for outside Lagos destinations shot to the roof. As at July 2017, containers for Lagos delivery went to N200,000.00 while those for outside Lagos destinations cost a whopping N300,000.00. From Apapa Port to Alaba International Market rose from N40,000.00 to N150,000.00 per trip. To deliver export containers from Alaba International Market to Apapa Port truckers charged N300,000.00 instead of N60,000.00 previously. The hikes were explained by several reasons. First, Apapa port was the designated port for exports and now overtaken by heavy traffic. Due to the infrequency of export consignments and the long delays to access the drop-off terminals, drivers charged more. Second, export-laden trucks usually wasted more time because of the extra documentation time needed to file customs papers, quarantine certification for export of agricultural products, Standard Organization of Nigeria certificate, Police Intelligence Report, National Drug Law Enforcement Agency certification, and, in case of wood products, the Convention on International Trade in Endangered Species (CITES) certificate. Often the drivers would park the trucks on the queue and go in search of these papers, thereby compounding the traffic situation.
Moreover, the traffic gridlock caused longer ship dwell times in the Lagos ports; in fact, Apapa became classified as having the longest ship dwell times in West Africa, with the hurtful implication of higher port call expenses and other disadvantages. According to David Nounagnon, representative of the Executive Secretary of the Abidjan-Lagos Corridor Organisation, “between 2011 and 2017, port dwell time in Lagos ports rose from 20 to 22 days [whereas] Cotonou port, as at 2017 had a total of 14 days, Ghana’s Tema Port, 15 days and Lome, 9 days”. Congestion of port spaces by unclaimed imports was blamed for this problem as shipping operations were disrupted. The Dangote Group, for example, delayed their ships at Lome for lack of quay space despite the availability of vacant berths. According to journalists in Lagos that the Apapa traffic gridlock was costing the nation N20b daily and N140b weekly and bemoaned the poor road infrastructure for goods clearance and delivery in the country. He said that “[t]oday there is no linkage road going from South West to the North. You have to go all the way through Ajaokuta, Obajana, Lokoja and you have to go by that uncompleted road Obasango 13 years ago”. Thus, the gridlock caused delays in delivery of imports and the position of export cargoes, a bad situation for perishable agricultural goods. In an economy where the Federal Government was angling to diversify GDP sources to non-oil agricultural exports, this spell double jeopardy.

Also, the port city became unattractive and a poor candidate for the Ease-of-Doing-Business policy of the Federal Government. Consequently, many businesses re-located. The problem of surcharges and demurrage also became impactful. The port delays resulted in surcharges on Nigerian trade by the foreign shipping lines and ship owners. According to one Apapa-based lawyer, Francis Ademola, “… the dwell time of ships has increased from three days to a minimum of 12 to 15 days now and the financial implication of the problem on shipping business is that importers and exporters are incurring extra cost to charter vessels and pay for insurance”. As stated above, the frenzy to return empty containers to the ports had to do with reclaiming the container deposit of N200,000.00 for Lagos-bound containers and N400,000.00–N1.2m for outside Lagos destinations. For everyday that the empty container was not returned a deduction was made; sometimes, the entire deposit could be spent in lieu of the delayed return, especially with the traffic gridlock frustrating access to the terminals. For an operator with up to 30 or 50 containers to clear, this was a huge financial outlay whose avoidance contributed to the frenzy on the roads. In fact, demurrage on overstayed containers in the ports was put at N6.7 billion as at June 2017, and by October 2018, CMA CGM, citing gridlock delays, issued a notice of extra $400 congestion charge on all containers passing through the Lagos Ports, effective from 15 October.

On the other hand, the failed sections of the arterial highways caused more problems than just the traffic gridlocks, including fatal accidents at deep potholes. Sometimes, improperly latched containers fell off the trucks at such problematic junctures, killing or injuring pedestrians or other road users. In July 2017, for example, five persons were killed and another five injured when a container fell on a bus at Ojota in Lagos, the repeat of a similar accident in November 2016 when a container fell on a lady at Festac Town area of Lagos causing her death. The atmosphere of the gridlock evoked danger and insecurity. Consequently, there were noticeable changes in commuters’ travel patterns in favour of luxury boats and mass ferry boats for trips to Apapa. Office workers also staggered work attendances, with the understanding approval of their organizations. Traffic control at the gridlock junctions became an inter-agency affair with motley crowds of uniformed security operatives from the Nigerian Police, Nigerian Navy, Federal Road Safety Corps, Lagos State Traffic Management Agency and the Nigerian Security and Civil Defense Corps manning check points along the routes. However, road users decried this militarization of the commercial life of the city and the attendant bribery, extortion, and corruption of professional security duties – a situation that further dented the poor image of Nigerian ports. For example, a soldier attached to traffic control duties at one of the checkpoints testified at a church thanksgiving that since his posting, he made at least N50,000.00 per day in ‘gifts’. Tanker drivers also revealed that they routinely ‘tipped’ executives of the Petroleum Tanker Division of the National Union of Petroleum and Natural Gas Employees (NUPENG) N10,000.00 for each loaded truck during the gridlock.

In addition, there were social impacts too. The gridlock affected all communities traversed by the truck queues, such Malu Road, Ijora, Iddo, Orile-Iganmu, Costain Roundabout, Western Avenue, Fadeyi, Yaba, Mile 2, Oshodi-Apapa Expressway, Kirikiri and Ajegunle. The snaking litter of waste papers, plastic containers and faeces on the road median was a sign that the drivers ate, defecated, slept and bathed along the roads. As an emerging phenomenon, the newspapers beamed a searchlight on their plight. The Vanguard reported that some residents of the affected areas have relocated.
due to the nuisance since “[h]arassment of innocent Nigerians going about their businesses is commonplace as the area is completely taken over by hoodlums and the destitute who smoke dangerous herbs and take all manners of alcohol without caution, and, in the process, littering everywhere with bottles, plastics and product packages.” One driver, Akintola Oakekan, recounted that it took him five days in February 2018 to move from Amuwo Odofin to the TITC, Tin Can Island. Two months later, in April, it took him seven days on the queue from Mile 2 to Berger Yard, still far from Apapa port.

Other drivers complained of their money, telephones, batteries and vehicle parts being stolen by hoodlums who prowled the queues at night, as well as extortion by the law enforcement agents. Furthermore, the President of the Nigerian Medical Association, Professor Mike Ogirima, cautioned that “spending long hours in traffic and unhygienic environments can lead to health hazards including hypoxia [from carbon monoxide inhalation], hypertension, cancer and heat stroke”, as well as risks of sexually transmitted diseases from interactions with sex workers.

Even property values depreciated as a result of the gridlock. While Kazuma Anatolia, a foreigner who had lived in Apapa for over 30 years lamented that “over 12,000 jobs had been lost [and] over 2,000 houses are vacant as owners have abandoned their properties”, the Deputy Majority Leader in the Lagos State House of Assembly, Mr. Olumuyiwa Jimoh, said that “The value of properties is dropping in Apapa…. We have brought it on the floor of the House and it has been debated severally…” Nevertheless, the gridlock persisted partly due to the strong dynamics of Nigeria’s sea trade which kept surging in the Apapa port system.

Conclusion
The traffic gridlock has proved Herculean since the new millennium. Its incidence and impact worsened with the success of the concessions which prioritized private sector-led port operations. With the outlook of the Nigerian economy being bright coupled with possible exponential growth in agriculture and agribusiness, more exports from the Lagos ports system are expected. Although the government seemed handicapped for ready solutions, the latter-day efforts by the Nigerian Navy to clear the gridlock began to yield some results from mid-2018 following the barring of inner city roads to truck traffic. However, the long-term sustainability of such ad hoc measures is unpredictable. Hence an urban renewal and reconstruction programme to modernize city transport infrastructures would seem a better remedial policy.

Recommendations
Various short-term and long-term prescriptions for the traffic gridlock are adduced. One, in the short term, special arrangements can be agreed amongst operators for haulage trucks to move within port precincts at night from 8pm to 5am to enhance cargo release and truck entrance and exit. Two, port activities nationwide can be rationalized to fully engage idle infrastructure in the Niger Delta ports system. Thus, cargoes trapped in the Lagos congestion can be cleared within a grace period before sanctions are applied against non-compliant importers or exporters. Three, cargo delivery by barges and increased raling services can be prioritized during the short term, thus putting inland container depots (ICDs) outside Lagos into greater use. Four, the use of truck call-up system should be reviewed and strictly enforced.

The long-term recommendations include a complete redesign of Apapa port territory. This is justified on the megacity’s rising population and increasing profile of sea trade and revenues which, in 2016, earned more than $1.8b. Two, to support the financing of the urban renewal and redesign project by the capital market, the administrative structure of the city can be changed from a local government status to a mayoral city in the mould of world port cities such as New York, Hong Kong, Rotterdam or Johannesburg which enjoy administrative autonomy. Three, the petroleum tank farms can be relocated to alternate locations such as Badagry and Lekki-Epe axis within Lagos, and Calabar port, in the Niger Delta.

References


Appendix 1:

Communique Stakeholders Meeting on Apapa Traffic Gridlock held at Apapa Local Government Secretariat on Monday October 2, 2017.

1. That the Nigerian Ports Authority, Nigerian Shippers Council and the NIMASA, being the regulatory bodies, are to enforce the use of empty containers holding bays as a pre-requisite for shipping companies’ registration.

2. The stakeholders agreed that henceforth only shipping companies would be allowed to bring empty containers from the holding bays into the ports.

3. The stakeholders also agreed that the shipping companies must get approvals in advance from the Nigerian Ports Authority, Port Managers, through the Terminal Operators at Apapa and Tin Can Island Ports respectively for the number of containers expected into the ports on a daily basis.

4. The Nigerian Ports Authority is mandated to inform the cargo owners/agents to return empty containers to the shipping companies’ holding bays and no longer to the ports.

5. (a) All identified Government Truck Terminals/Holding Bays under concessionaire should be reverted to the original intended use for maximum utilization (e.g. Lily Pond Truck Terminal, AME Truck Terminal and Jakande Truck Park).

(b) All Tank Farms should provide holding bays for their trucks.

6. Henceforth, Terminal Operators issuing EIR (Equipment Interchange Report) must indicate the destination point outside the port for the return of the empty containers.

7. In line with the Presidential Order on ease-of-doing-business in Nigeria, the Federal Operations Unit (FOU) of the Nigerian Customs Service must be resident in the ports on a 24-hour basis regardless of public holidays.

8. The stakeholders agreed that truck barriers should be erected at the entrance and exit of identified inner roads within the Apapa axis.

9. Relevant Government Agencies should address the infrastructure decay and rehabilitation of all major/access roads in and out of the Lagos ports and Apapa environs.

10. Temporarily, the Stakeholders also agreed to restriction of truck movements to Ogere Truck Terminal in Ogun State.

11. The restriction order on truck movements is limited to trucks with empty containers only while export containers carrying farm products that are perishable, trucks with call-up systems (to Greenview Terminals, ENL and ABTL), and trucks carrying project cargo systems for Dangote refinery at Lekki Free Trade Zone, are allowed to go.

12. Nigerian Shippers Council, NPA and NIMASA to appeal to shipping companies to give waivers on trucks that are returning empty containers during the restriction period.

The restriction movement of the trucks outside Lagos State will be closely monitored and enforced by the Federal Road Safety Corps, Law Enforcement Committee and other stakeholders.

The stakeholders also agreed on the setting up of an enforcement committee at all entry points into Lagos State.

In addition, a Law Enforcement Committee will be set up to regulate the activities of the trucks within Apapa metropolis.

The General Manager, Lagos State Emergency Agency (LASMA) Rescue Unit (LRU) and the Chairman of Apapa Local Government Authority are to collaborate in securing an operational base for the operation of LASMA in Apapa.

The Government should float a Corporate Social Responsibility (CSR) Trust Fund for Apapa metropolis to serve as a portal pool for immediate response to address the neighbouring community challenges for the repair of roads and emergency traffic management issues. The management of the CSR Fund should involve representatives of the stakeholders/donors for proper utilization.

13. Government Agencies should involve stakeholders through CSR for the collaboration to commence immediate palliative repairs of the access roads especially that of Coconut [Bus Stop] and Tin Can Port roads.

14. The Nigerian Ports Authority should work out a working ratio of the number of import containers and the number of empty containers a vessel must take away to reduce the volume of empty containers in the country.

15. Nigerian Ports Authority, NIMASA and the Nigerian Shippers Council are to work out jointly, sanctions for non-compliance with the use of shipping company empty-container holding bays for consolidation.

16. Vehicle Inspection Service of the Ministry of Transportation to liaise with NPA for the inspection of trucks, and unhealthy trucks should be barred from loading in the ports and if the process is circumvented, the Terminal Operators will be sanctioned for loading trucks without Healthy Truck Certification.

17. The Stakeholders agreed that all shipping companies are to comply with these resolutions within 7 days, as defaulters will be sanctioned.