Thinking Global through Consensual and Reformist Approaches: Considered Governance Innovations for Lagos Mega-City Status[*]

Mike Opeyemi Omilusi[1]

Abstract: *In Nigeria, spatial planning is inadequate in both the rural and urban cities because most neighborhoods emerge organically and have no layout. Lagos is particularly vulnerable as this densely populated city, projected to grow rapidly in the future, has large parts of its inhabitants living in poor informal settlements. Drawing from both secondary and tertiary types of data from relevant sources – local documentation and library research –this study subscribes to good urban governance which assures that political, social and economic priorities are based on the broad consensus of society; and that making Lagos a mega city requires creativity, vision, leadership, resources, and a culture that disrupts the traditional way of city planning and designing. Adopting the consensual and reformist approaches with a view to achieving an alternative vision of addressing environmental challenges in Lagos State, this study also suggests a shift in urban planning policy and strategies-such as improvement and access to social services, mixed housing schemes that combines a self-help housing improvement with land access, public involvement in community development effort and registration of informal settlements- for the development of Lagos State as a modern mega city with a view to achieving a sustainable urban system.*

Key Words: Governance, Consensual, Reclamation, Reformist, Global, Mega-City

Introduction

With the rise of massive urban centres in Africa and Asia, cities that will matter most in the twenty-first century are located in less-developed, struggling states. A number of these huge megalopolises—whether Lagos or Karachi, Dhaka or Kinshasa—reside in states often unable or simply unwilling to manage the challenges that their vast and growing urban populations pose (Liotta and Miskel, 2012).The population of Lagos is presently more than 18 million; a mega city by the United Nations' classification that recognises cities with a population of 10 million and above as such. Building and preserving a model mega city comes with great challenges. Providing sufficient infrastructure and other necessities to accommodate over 18 million people is no child's play (Ogunbiyi, 2014).The expansion of Lagos was due to the growth of the colonial economy of Nigeria. Having served as the seat of government between 1914 and 1992, after which the federal capital was relocated to Abuja, Lagos remains the largest seaport and the most important railway terminus, and enjoys prominence in the export-oriented economy of Nigeria (Agbola, 1997).

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[1] Department of Political Science, Ekiti State University, Nigeria. Email: watermike2003@yahoo.co.uk

However, while there are benefits in having a large population, it equally comes with its attendant socio-economic challenges, such as unemployment, crime, over stretching of infrastructure, traffic congestion, environmental pollution, overcrowding and emergence/growth of slums populated by the poor who could not afford the high cost of housing in the city (Dina, 2017).This description fits Lagos as the constant pressure for housing, commercial and social infrastructure encourages encroachment on the wetland ecosystem (Ajibola, Adeleke and Ogungbemi, 2016).

This study draws on existing research works and planning reports, both secondary and tertiary types of data comprising local documentation and library research. It postulates that good urban governance involves a broad consensus of society on political, social and economic priorities; that such cooperation and participation are required to pool together the creativity, vision, leadership, resources, and culture that could overhaul the traditional way of city planning and designing. This study also suggests a shift in urban planning policy and strategies-such as improvement and access to social services, mixed housing schemes that combines a self-help housing improvement with land access, public involvement in community development effort and registration of informal settlements- for the development of Lagos State as a modern mega city with a sustainable urban system.

Urbanisation and Mega-Growth: A Conceptual Exploration

Urbanization, simply defined, is the process by which urban population increases in absolute number and in proportion to rural population either through the increase in population of existing cities or through the growth of new ones. Mabogunje (2005) stresses the characteristics of an urban settlement as a settlement where population tend to be heterogeneous and socially diversified, such that kinship relationship is of minimal importance; goods and services are largely commoditized such that everything tends to have a price tag to it; and interaction and interpersonal relations are virtually contractual in nature with the maintenance of law and order being rather formal and impersonal (Mabogunje, 2005).Urbanization is a global phenomenon that has transformed and continues to alter landscapes and the ways in which societies function and develop. Cities offer the lure of better employment, education, health care, and culture; and they contribute disproportionately to national economies (Trivedi, Sareen, and Dhyani, 2008). Urbanization is one of the major demographic and economic phenomena in developing countries, with important consequences for economic development, energy use, and well- being (O'Neill, Ren, Jiang, and Dalton, 2012).

Moreover, as the world's urban population grows, the interdependence of town and countryside become even tighter. During the two centuries until 1950, about 400 million people moved to cities worldwide. Current projections suggest that by 2050 more than 6 billion people, almost 70% of the total world population, will live in urban areas. Cities in developing countries are expected to grow by 1,3 billion people in 2030. The lowest, even negative growth rates are in Eastern Europe(UNDESA, 2012). Three distinguishing features have been identified with the current trend of global urbanization. First, it is taking place mainly in developing countries; second, it is occurring rapidly; and third, the severityof its occurrence and impact appear unevenly distributed across the globe, as observed by Cohen

(2006).Several factors are responsible for urbanization. These include population dynamics, economic growth, legislative designation of new urban centres and increases in densities of rural trading centres. Early urbanization was attributed to the push and pull factors of rural-urban migration. Early migrants, usually males, went to the city in search of job and better life

An increasing number of urban areas are becoming mega cities; that is, exceeding 10 million inhabitants. This has given rise to the new concept ofgigacities;these would be cities of more than 50 million inhabitants, an almost unimaginable number. And yet gigacities may soon become a reality in China (Allianz, 2015).This extreme concentration of people is causing big challenges, particularly in the area of sustainable development. According to the UN, the world's cities only cover 2 % of global land area, but they account for 70 % of greenhouse-gas emissions (ibid).By 2025, at least 27 cities will have populations greater than 10 million and more than 600 cities will have populations greater than one million. Specific megacities, intimately connected to globalization, pose the most significant security and environmental threat to humanexistence (Liotta and Miskel, 2012).

Urban growth is spread unequally around the world, and the same is true of thelargest cities. Most of the megacities in the developed world are growing slowly, if at all. Tokyo remains the largest with 35 million inhabitants, but the fastest growth will be in the developing world (particularly in Asia and Africa), placing huge pressure on infrastructure in those locations. By 2020 Mumbai, Delhi, Mexico City, São Paulo, Dhaka, Jakarta and Lagos will each have populations of over 20 million. For many emerging cities, soaring populations are extremely difficult to manage: at current rates of growth, the number of inhabitants in Nigeria's Lagos will double by 2020, mainly through expansion of informal settlements(GlobeScan and MRC McLean Hazel, n.d).A report from the Population Reference Bureau predicts that by 2050, three of the 10 most populous nations globally will be African -- with Nigeria at number four. The country's population is set to rocket to 397 million, bolstered by high fertility rates and consolidated by low net migration. To put this figure in context, by the century's midpoint, Nigeria's population would be larger than Central Africa's in its entirety. The population boom will impact the whole country, but nowhere will it be more profound than in Lagos (Page, 2015).

This incredibly rapid growth of megacities causes severe ecological, economic and social problems because it is increasingly difficult to manage in a sustainable way. It is recognised that over 70% of the growth currently takes place outside the formal planning process and that 30% of urban populations in developing countries are living in slums or informal settlements, i.e. where vacant state-owned or private land is occupied illegally and is used for illegal slum housing (FIG, 2010). In sub-Saharan Africa, 90% of new urban settlements are taking the form of slums. These are especially vulnerable to climate change impacts as they are usually built on hazardous sites in high-risk locations. Even in developed countries unplanned or informal urban development is a major issue (FIG, 2010).

Although there are significant differences in the cultures and histories of emerging megacities, from the dangerous streets of Karachi to the sprawling shantytowns of Lagos, basic similarities are dramatic. All have experienced recent and rapid population booms during unsettled periods in national histories,

driven in large part by internal migration from depressed or chaotic rural districts. In each, municipal and national governments failed to either govern or provide for exploding urban populations (Liotta and Miskel, 2012).In 1905, only 10 percent of the world's population lived in cities. Today over 50 percent does. By 2030, likely much sooner, two out of three will live in cities, and 90 percent of population growth will occur in cities of the developing world—what we should properly call the "majority" world. This massive shift to urban landscapes has never occurred on such scale before in human history. Citizens flock to the city for opportunity, employment, health care, and education. Today one in six persons lives in cities with unhealthy air quality; one in fifteen has inadequate sanitation; one in thirty lacks access to safe drinking water.

By 2025, according to the National Intelligence Council, there will be twenty-seven cities with populations greater than 10 million—the common measure by which an urban population constitutes a "megacity." If measures are not taken soon, some of these megacities will pose the most significant security threat in the coming decades. They will become havens for terrorists and criminal networks, as well as sources of major environmental depletion. They will serve as freakish natural laboratories where all the elements most harmful to international and human security are grown. If crowded masses within these unaccommodating spaces are left to their own devices by inept or uncaring governments, their collective rage, despair, and hunger will inevitably erupt. And when inhabitants tire of the lawlessness, poverty, and instability of the megacities, they will leave- those that can- bringing violence with them(Liotta and Miskel, 2012).

In more advanced nations, urban population growth is almost stagnant (0.67% on an annual average basis since 2010) and, in some cases, is even decreasing: Japan is expected to lose 12 million urban dwellers by 2050 and the Russian Federation's urban population is expected to decline by 7 million people. By comparison, the aggregate annual population increase in six major developing country cities – New Delhi and Mumbai, Dhaka, Lagos, Kinshasa and Karachi - is greater than Europe's entire population(UN, 2014).Africa will be the world's most rapidly urbanising continent between 2014 and 2050. It is projected to experience a 16% rise in its urban population– bringing the percentage of people living in its cities to 56% (http://esa.un.org/unpd/wup/Highlights/WUP2014-Highlights.pdf).

Megacities have both positive and negative features. They generate a higher-than average proportion of the nation's output of goods and services and are centres of innovation in science, the arts, and lifestyles; contain many of the cultural assets of most countries; and offer some of the best opportunities for people to lead full and satisfying lives.

Lagos as Nigeria's Economic Hub: Peculiarities and Opportunities

Megacities are the gateways of globalization, driving the flow of people, goods, knowledge, and money around the world. Already, one-fifth of the world's GDP is generated in the ten economically most

important cities. Megacities also make a disproportionately large contribution to economic growth at a national level(GlobeScan and MRC McLean Hazel, n.d).The city of Lagos, Nigeria, needs little introduction among scholars of African urban studies. Lagos has become pivotal to recent debates among those who want to chart a new path for theorizing African cities (Fourchard 2011; Godlewski 2010).

Lagos has a rich history of economic growth and transformation. Although it covers only 0.4th of Nigeria's territorial land mass, making it the smallest state in the country, it accounts for over 60% of industrial and commercial activities in the nation. Lagos is financially viable, generating over 75% of its revenues independent of federal grants derived from oil revenues. It generates the highest internal revenue of all states in Nigeria. If taken as a country on its own, its 2010 GDP of $80 billion made it the 11th largest economy in Africa (Nwagwu and Oni, 2015).Concerned about the sustainability of Lagos' economic success in the face of population and infrastructural challenges, its government in December 2014 articulated the Lagos State Development Plan (LSDP) for 2012-2025. The plan aims to transform Lagos into a model megacity that is productive, secure, sustainable, functional and safe(Nwagwu and Oni, 2015).

Relying mainly on the data provided by the Lagos State Waste Management Authority (LAWMA), there are about 425 markets in Lagos. It is assumed that they harbour not less than 2 million market shops, stalls and sheds providing employment to at least 5 million people, with women and their children constituting at least 70%. The economic and social contribution of these market women to the urban economy can be easily discerned from the array of taxes, levies and rents they pay to the state and local governments as well as government departments and agencies (Komolafe, 2017).

Despite the movement of the federal capital to Abuja, metropolitan Lagos has remained the country's dominant economic, social, and financial centre as well as the hub of national and international communications. It is a thriving industrial and commercial centre with two seaports, local and international airports, and industries concentrated in the Apapa, Ikeja, and Ilupeju industrial estates. Most corporations in the country are headquartered in Lagos. Lagos makes the greatest contribution to Nigeria's leading economic indicators, with industries including manufacturing and service delivery, banking, and telecommunications services, as well as, to a lesser extent, fishing, mining and quarrying, agriculture, and forestry (Filani, 2012).Lagos is often painted as a land of long history and culture, where hard work triumphs, economic opportunities abound and with a great interest in the arts and entertainment industry (Osarumwense, 2017).

In many ways, Lagos was a unique city-state in the Nigerian federation. Already a cosmopolitan trading port when the British captured it in 1861, Lagos became the capital of colonial Nigeria in 1914. After Nigeria declared independence in 1960, the city's energy, finance, and service sectors boomed. By century's end, Lagos was generating roughly 60% of Nigeria's commercial and industrial activity and 12% of its gross domestic product (Kuris, 2014). Most of Nigeria's corporations choose to have their

headquarters in Lagos City. The location of Lagos State is highly favourable, capitalizing on the vast resources of Nigeria and West Africa. Consequently, as posited by Adeoye (2010), Lagos State embarked on various development programmes such as tourism promotion, industrial development, boundary resolution (inter and intra state), property valuation and revaluation for effective taxation and revenue collection, population and housing census operation, planning of urban and rural settlements and transportation, flood and erosion control, mineral development (including bitumen and petroleum and agricultural) and communication planning to support the megacity status.

Since Nigeria returned to democratic governance in 1999, the successive governors of Lagos State have initiated and pursued a knowledge-based approach to critical reforms. Aside from promoting sustainable development, these reforms also span resource mobilisation, innovative and inclusive approaches to spatial planning principles, transportation upgrades, provision of educational health care services and facilities, and partnership building with the private sector in development. As a result of these reforms, Lagos is being transformed into a modern city that offers a high level of services provided by an increasingly efficient city administration (Filani, 2012). Thus, boundless opportunities for profitable investment exist in tolled road construction, water transportation, light rail, mass transit schemes, housing estates, waste management and compaction, water supply and distribution, electricity generation and distribution, hospitality, recreation and entertainment, among several other exciting possibilities (Adeoye, 2010).Political leaders in Lagos have faced severe political and economic pressures over the past fifteen years. Unlike military governors, they have to win elections to stay in power. In contrast to the Nigerian central government and some state administrations, Lagos lacks access to abundant oil revenues and its leaders need to raise revenue internally (Gramont, 2015).

A Mega City and Its Mega Challenges

Administrations in large cities are often confronted with a multitude of key problems, like high urban densities, transport, traffic congestion, energy inadequacy, unplanned development and lack of basic services, illegal construction both within the city and in the periphery, informal real estate markets, creation of slums, poor natural hazards management in overpopulated areas, crime, water, soil and air pollution leading to environmental degradation, climate change and poor governance arrangements (FIG, 2010). As a result of these complications, some new megacities should be of particular concern because of their size, strategic locations, roles in the global economy, or their environmental vulnerabilities. As illustration, Lagos, Kinshasa, Cairo, Dhaka, Karachi, Lahore, and Rio de Janeiro will each have populations more than 10 million in 2025. Five of these seven (Lagos, Karachi, Kinshasa, Dhaka, and Rio) will have populations of 15 million or more. All are in states that have largely proven incapable of providing the scale of law enforcement, public health, education, and social services that such large populations require(Liotta and Miskel, 2012).

While the economy of metropolitan Lagos has enormous competitive assets, it faces challenging trends in rapid population growth, urbanisation, relentless demands for infrastructure as well as macroeconomic pressures from the national level. The city's expansion is estimated to continue over

the next couple of decades. As it is, the economic growth of Lagos – the industrial, financial and commercial nerve centre of the country – has been unable to keep pace with the geometric increase in the population size (Nwagwu and Oni, 2015).Lagos's governance deficits are felt especially acutely by the poor, but they also touch wealthier residents, prompting strong concerns about quality of life, security, and economic competitiveness (Gramont, 2015).

This section shall focus on five broad areas of these challenges for further analysis:*Uncontrollable Population Growth, Lagos Flood and its Annual Devastating Effects, Safety and Security: Influx of Criminals from other States, Infrastructural Deficits* and *Environmental Pollution* while issues of *Land Reclamation and Slum Settlements Regeneration* are discussed in a separate section.

Uncontrollable Population Growth

The physical growth and urban development of Lagos are tied to its expanding economic and political roles, aided by rapid population growth. The city's population rose from an estimated 25,000 inhabitants in 1866 to 74,000 in 1911, partly due to the resettlement of freed slaves from Brazil. Between 1891 and 1952, the population almost doubled every 10 years. In 2006, a national census recorded the population of Lagos State as 9.1 million. This figure was vehemently disputed by the Lagos State Government, which conducted an independent census that gave a figure of 17 million (Filani, 2012).A closer look at the demographic data of Lagos reveals the following: a fast-growing population; a predominantly young population; smaller household size; and preference for individualism. The combined implication of the above is the demand for more housing units to cater for the shelter needs of the resulting households (Akunnaya and Adedapo, 2014).

Though a mega city status is conferred on a city as a result of population growth, building and sustaining a model mega city is not a tea party as reflected in the Lagos experience. A major challenge has always been how to cope with the ever increasing population of Lagos with its attendant consequences on infrastructure (Ogunbiyi, 2014). According to the available statistics, an average of 6,000 people move to Lagos every day, thereby adding to its already bursting population of 18 million people (George, 2002).Over the past decades, the city has had to contend with the challenges that accompanied staggering population growth rates (Filani, 2012).

Lagos Flooding and its Annual Devastating Effects

The perennial Lagos flooding, experts say, could be attributed to many factors such as torrential rainfall, poor drainage system, poor sewage management and disposal, poor urban planning control, deforestation and climate change. All these factors have combined to make flooding a regular occurrence in most areas of the state, particularly the Ogun River downstream areas, such as Akute, Kara market, Ishasi, Isheri, Ojodu –Abiodun, Ajiliti and Ajegunle Mile 12 axis (Lucas, 2017). Through its Lagoon and Creeks, Lagos receives all the waters from the Ogun and Osun river basins for onward release to the Atlantic Ocean via the Commodore Channel. This, in combination with its small geographic size and extensive urbanisation, makes Lagos incredibly vulnerable to flooding (Lucas, 2017).

While Lagos is not new to flood, the severity of the floods seems to have increased dangerously in the last few years. This is happening even as the state gravitates towards a megacity status, signposted by the dreamscape Eko Atlantic City project. But whether the annual menace of flood and the decaying infrastructure that accompanies it accords with the status of the smart city Lagos is projected to become is another story (Fasan, 2017). According to environmental experts (see Igomu, 2017), the annual flooding is a clear indication that Lagos, like other states, has not developed the capacity to face the challenges of the times posed mainly by changing climatic conditions, unhealthy human activities and unregulatedurban development.

The 1997 Lagos State Action for Environment and 2006 Lagos State Regional Master Plan Review revealed the extent of environmental degradation in the state. Climate change driven intensive rainfall and storm surges from Lagos lagoon is responsible for the flash floods and silted primary drainage channels in the metropolis. High rainy-season water table further depreciates the housing qualities (Adejumo, Olajide&Bishi, n.d). Lagos experiences most devastation resulting from flood-swollen rivers, lagoons and oceans-surge, huge displacements of people and loss of economic values resulting from damage of properties and farmlands, and most especially the unquantifiable grieve from loss of lives and the lifelong impacts these will have on particularly poor families (Fadeyi, 2017).

There is widespread fear that more high-worth commercial and residential zones in Lagos may still be flooded (Badejo and Udom, 2017). In fact, a report which assessesflooding hazards in Lagos over a span of 16 years shows that such events may result in loss of up to 260,000 lives in the next 10 years. This may be accompanied by a GDP (gross domestic product) loss of $5526.2million and $48.1million urban damage (Badejo and Udom, 2017).Because the state accounts for 40% or so of the Nigerian economy,a disastrous environmental crisis in Lagos could prove apocalyptic for both Lagosians and the entire country.This is the compelling reasonwhy the Federal Government must take a special interest in Lagos State and general matters of the environment.

Safety and Security: Influx of Criminals from other States

As the commercial nerve centre of Nigeria and, indeed, West Africa, Lagos has unusual security challenges. Its increasing population, motivated by an endless survival and economic inspired immigration as well as its border with Benin Republic, makes it naturally attractive to criminal activities (Ogunbiyi, 2016). In addition,Lagos is not only becoming a "megacity" in terms of population but it is a global city with a substantial and growing foreign-born population and non-stop flights to hundreds of destinations around the world (Nwagwu and Oni, 2015). Lagosians were long used to assuming responsibility for their own security and disdaining government as a burden rather than a force for the public good (Kuris, 2014).

Where governance failures are persistent, violence can take an overt or covert form of coercion and control, with different groups seeking to fill the institutional power vacuum (Muggah, 2012). This is true in Lagos where there is a ready pool of recruits for cult, criminal and vigilance groups. According to Agbola (1997), overcrowded slums in the metropolis have been found to contribute:

> To a high rate of juvenile delinquency; high rates of family dependence on members of the public for assistance; high levels of illiteracy; high proportions of unemployed women; greater levels of unemployment, poverty, and divorce; more non support cases, alcoholism, drug abuse; a higher rate of psychological disorders and mental deficiency; low marriage rates; a low average educational level; low residential mobility (due to acute shortage of residential building and land); and a generally higher degree of social abnormality, lawlessness, crime and fear.

Currently, about 18 million people are being protected and monitored by 33,000 police men and women in Lagos State. Yet, the city, being the financial hub of Nigeria, has one of the highest crime rates in the world, lacks reliable emergency response services and an efficient crime control system (Adeoye, 2010). A 2004 survey of more than 2,100 Lagosians conducted by a local non-profit research centre found that 25% of respondents said they had been victims of theft in the previous five years, 9% had been victims of armed robbery, and 1% reported the murder of a household member (Kuris, 2014). According to Liotta and Miskel (2012), residents in most neighbourhoods have to provide transportation for police officers in order for local crimes to be investigated. Urban "bustle" is not a lively scene of pedestrians enjoying the streets or shops. Rather, jostling street gangs and militias fight each other while nudging aside overmatched and all-too-often exploitive government agencies—peeling away whatever thin layers of protection the state provides and setting the stage for the eventual storming of a by-then hollowed-out Bastille.

The laws establishing neighbourhood corps, anti-kidnapping law, anti-land grabbing law, security trust fund law, environmental protection law and several others are to tackle the challenge of insecurity in the state. For instance, the Lagos State Neighbourhood Safety Corps (LSNSC) was a response to what the governor described as diverse security challenges demanding the intervention of a supportive safety agency. As indicated in the law, the corps was established to assist the Nigeria Police and other security agencies in the maintenance of law and order across all communities in Lagos State, register all private home guards, provide useful intelligence for crime prevention to the police, facilitate the arrest of perpetrators of criminal activities across all communities, and the balancing of communal interests in resolving disputes (This Day, 2017).

Infrastructural Deficits

All cities need high-quality infrastructure to facilitate the movement of people and goods, and the delivery of basic services to their populations. But the challenge of delivering these infrastructures and services in today's megacity regions is immense (GlobeScan and MRC McLean Hazel, n.d).Unchecked population growth had overwhelmed Lagos's bare-bones infrastructure. Hundreds of thousands of migrants arrived every year in search of better lives (Kuris, 2014). The growth in the Lagos population is not accompanied by a corresponding infrastructure development and because of the attendant challenges in getting affordable housing, many Lagosians have moved to the suburbs and what used to be rural areas, creating new belts of settlements. In fact, the presentincrease in slums and rural settlements in Lagos is an indication that hundreds of thousands of people are living in appalling housing structures, making use of crumbling roads, and lackingsocial amenities (Balogun, 2017). According to the State Governor, Akinwunmi Ambode:

> As at 2015, our state had 16,000km network of roads but with a daily human traffic of over 7.5 million people and 2.8 million cars. The power needs of the state are over 10,000 mw of power but we receive less than 2,000mw. We presently supply 210.5 million gallons of water per day ("mgpd") as against a demand of 750 mgpd (Balogun, 2017).

Adequate levels of infrastructural facilities with appropriate supporting social services are a prerequisite for any meaningful programme of sustained industrial and commercial development of Lagos (Abiodun, 1997). However, with the public sector unable to fund the infrastructure needs of a modern megacity, Lagos now emphasises the adoption of public-private partnership (PPP) projects as a mechanism for infrastructure delivery (Filani, 2012).The Lagos Megacity Project (LMCP) was launched to address a longstanding infrastructure crisis and to reinvent Lagos as a modern megacity (Adama, 2017). Little wonder, the bulk of the Lagos State Government revenue of recent, has been spent on capital expenditure, specifically physical and social infrastructural development. In 2017, 54 per cent of the state's income was voted for infrastructure; in 2016, it was 58 per cent and for 2018, a massive 67 per cent capital expenditure is proposed. Thus, many of the roads within the state have undergone or are undergoing rehabilitation, upgrades or maintenance (Gbadebo, 2018).

Despite this frenzy of construction/renewal activities, the infrastructure is still some way in meeting the demand from the ever-growing population.The about N1 trillion or so spent on infrastructure over the past two years is like a drop in the ocean. According to experts, the state needs to spend over \$120 billion (about N44 trillion) yearly to meet the infrastructure requirement of its population in the next decade(Gbadebo, 2018).In spite of the glaring financing gap, the state must still press on with its developmental agenda if it hopes to transform into a mega city and remain competitive alongside Tokyo, Hong-Kong, Sydney, among several other global cities.

Environmental Degradation/Pollution

Massive displacement of people to megacities perpetuates environmental degradation and climate change resulting in the shrinkage of areas available for agriculture and causing the loss of livelihoods based on agricultural and animal breeding (FIG, 2010). At the point when the environment is wrecked, or common assets are exhausted, the environment is considered to be corrupted and harmed. Environmental degradation takes diverse forms, ranging from pollution and destruction of ecosystems to degraded fresh water supplies and arable land (Durosinmi, 2017). Other key challenges in the environment sector include land degradation, flood and erosion, inefficient use of energy resources, loss of biodiversity, environmental disasters and deforestation (Alkali, 2005).

Urban growth and land conversion involving human activities are major threats to the ecosystems, and modify energy flow and nutrient cycles (George, 2002).The inadequate environmental management attached to the diverse and complex activities within the urban centres is resulting inenvironmental problems that are threatening urban dwellers (Filani, 1988). These include the haphazard locations of industries and emissions of hydrocarbon and poisonous gases that contribute to the depletion of the ozone layer and aggravating climate change and global warming. As in other large concentrations of human habitation, the Lagos environment suffers from the pressures of deforestation, energy use, transportation and gas-flaring, all of which are contributors to carbon emission and global warming.

Some of the environmental challenges the state has to grapple with include; overcrowding and unplanned human settlement; sprawl development arising from rapid population growth; poor sanitation in slums/blighted communities and increase in the number of settlements requiring regeneration/renewal; the low-lying terrain of Lagos and its implication on storm water management and flooding control; threats to and abuse of wetlands arising from human activities; pollution of surface and underground water bodies; as well as land and the atmosphere pollution arising from domestic, commercial and industrial activities.

Environmental degradation in cities is caused principally by the urbanization process. However, most of the environmental problems in Lagos suburbs result largely from its unplanned landuses, swampy nature of built areas and weak development control (Simon, Adegoke and Adewale, 2013). Garbage and waste disposal problems in Lagos have aggravated longstanding challengesof seasonal flooding and sewage backup (USAID, 2006). Land excavations and reclamation activities in parts of Lagos pose serious threat to the environment, escalating the incidence and severity of flooding. The problems of industrial pollution are enormous. Nigeria has about 5,000 registered industrial facilities and some 10,000 small-scale industries operating illegally within residential premises (FGN, 1997). Many of these are in Lagos. They contribute to pollution through poor operational methods and waste management. Lagos State's 18 million residents generate more than 6,000 metric tonnes of solid waste each day. To address this issue, the state government created the Lagos State Waste Management Authority (LAWMA), which is also responsible for managing waste generated within the city (Filani, 2012).Also, the Lagos State Governmenthas come up with a new intervention it terms the Cleaner Lagos Initiate (CLI), which, backed up by law, is meant to encourage people to dispose of solid wastes properly. The CLI,asa strategic government policy and programme, is aimed at revitalizing the entire Solid Waste Management sector to have far reaching benefits and multiplier effects for the state and the country at large (Durosinmi, 2017).

Land Reclamation and Slum Settlements Regeneration

Lagos has historically been challenged by rapid urbanization and natural population growth. With its coastal location limiting expansion, the availability of land is a major issue. Lagos is Nigeria's smallest state by area, and the high rate of migration means that there is severe pressure on the limited land — 22 per cent of the state is made up of water. In the last two decades, the state has expanded rapidly in every direction; even its southern flank, bounded by the Atlantic Ocean, now has a multibillion-dollar reclamation project (Ogunlesi, 2015).While the population in metropolitan Lagos has grown in geometrical proportion, the provision of needed urban infrastructure and housing has progressed in arithmetical proportion. This has resulted in acute shortage of housing to the teeming population with Lagos alone accounting for about 5 million deficit representing 31% of the estimated national housing deficit of 18 million (Oshodi, 2010). The housing situation in many parts of Lagos leaves much to be desired. Many residents are homeless or live in housing units described by the United Nations as a menace to health and human dignity (Agbola, 1997).

There is a dramatic view of the city's sprawl of poverty from the road bridges that carry daily commuters between the islands and the mainland. Fishing and sand-dredging boats drift to work, heading deep into the lagoon. Many of the slums' wooden huts are on stilts, others are just basic shacks shoddily built on the unstable ground of trodden-down rubbish dumps (Leithead, 2017).Today, slums are ironically sandwiched within the built environment and business districts of Lagos, and it projects a stark reality of a deep-rooted urban degeneration – low lifespan, unemployment, limited access to health care facilities, poor infrastructure and insecurity (Olumuyiwa, 2017). The slums in Lagos are located on all the left-over land parcels previously reserved as buffer zones and green belts. These high-density areas are characterised by poor building quality, inadequate infrastructures and no government services. There was no legal and material capacity to undertake town planning. Today, these areas have become havens for private developers, who took advantage of the situation to embark on an unregulated provision of housing, which can be classified as informal (Sowemimo, 2016).

Urban land scarcity for housing provision in Lagos metropolis is worsened by the twin problems of relatively tiny land area and large presence of body of water covering 22% of the total land area and excessively high and increasing population. The city has 0.04% of the Nigerian land mass, but accommodates 10% of the country's population (Raheem, 2003).Owing to the prevailing land scarcity, several attempts have been made to reclaim lands from the Lagoon systems, on a large scale in the past fifty years. Such successfully reclaimed lands have been used for housing purposes. Areas currently occupied through this means include, Maroko, Iponri, Iganmu, Victoria Garden City, Ilubirin, Ogudu, LekkiPeninsula, Osborne Road, Ajah, Amuwo-Odofin, Abule-Nla and Herbert Macaulay, covering approximately 6,000 hectares or 1.65% of the total land area of Lagos State and housing an estimated 500,000 inhabitants in 20,000 buildings (Onaivi,2004).

Successive governments kept approving the reclamation of land from the sea. Today, many buildings in Lagos Island are practically sitting on a foundation of water. Reclamation continues unabated, from Ilubirin to Park View to Lekki, and beyond; on the other side of the island, the sea is being chased further away. Recently, the Lagos state government further decided to take over Otodo-Gbame and 38 other waterfront communities (Abati, 2017).Evidently there is massive environmental degradation in which the people and government are implicated. Land-filling and reclamation on the Island especially with regards to the development of Eko Atlantic City is something that should be looked at closely. There is every possibility that activities directed at establishing Eko Atlantic might be having adverse effects in other parts of Lagos. The massive reclamation of land that accompanies this could have truly devastating effect if not done with care. There is a limit to how far man can interfere with nature without consequences (Fasan, 2017). African countries are negatively affected by this phenomenon and with most Nigerian communities located in low-lying areas, heavy rainfall could often result in ocean surge, flooding, erosion, or an imbalance in the ecosystem. With regards to the Eko Atlantic City, Abati (2017) contends that:

> … when fully developed would be a mini-city on top of the ocean. The Nigeria elite has developed a taste for living "inside water" and yet when the water overflows into their compounds and sitting rooms, they raise an alarm about what is at best, self-inflicted injury. This probably explains why when the recent floods occurred in Lagos Island, most Lagosians

> living in the Mainland turned the incident into a matter for class warfare. They laughed at the elite living on the island. A plot of land in some high-brow parts of the Island is as expensive as $2 million and yet when it rains heavily and the ocean overflows its banks, the people flee.

In reference to the flood in question,Fadeyi (2017) observes:

> For a state government - generating about N30 billion naira monthly - which prioritizes aggressive acquisition (more than planning) of land spaces by pushing back lagoons and ocean plains while ignoring the massive debilitating effects of its deforestation practices because of political cronyism and acquisition of wealth, it should not be hard to foresee that a day of reckoning is near with consequences such as those recently witnessed

The explosive rates of growth have not only progressively complicated and exacerbated inter-related problems of human settlements and the environment, but have also greatly accelerated poverty(Alkali, 2005).The lack of decent public housing in the mega-city has consigned hundreds of thousands of families to deplorable living conditions and crippling rents (Ilesanmi, 2013). Slum clearance in Lagos dates as far back as the late 1920s during the outbreak of the bubonic plague, when entire neighbourhoods were evacuated. It was estimated that 24 out of the 36 forced evictions that occurred in Nigeria between 1973 and 1995 was in Lagos. An example of such eviction was atMaroko, at that time, was one of the largest slums in Nigeria with over 600,000 people evicted (Sowemimo, 2016).

Governance Innovations for a Mega-City

The adoption of urbanisation as development strategy globally has further buttressed the cities' economic importance. However, the West African 'condition' – an unprecedented urbanization process insofar as it is driven by poverty and not by economic opportunities – requires and deserves different approaches. In a context like Lagos where already in the 1980s the infrastructure was insufficient to supply the population, let alone to maintain and extend it to keep up with the rapid population growth, tactical operations and projects may just be one of the ways out of the difficult overall situation (Hoelzel, 2016). Long-term strategic planning has long been used to establish a range of principles and a focus for infrastructural investment to guide the location of urban development. In the earlier state-led period, the focus of strategic planning was on a comprehensive `blueprint' approach. More recently, more liberal perspectives in governance have challenged the role of strategic planning frameworks in favour of market facilitation and project realisation (Moir, Moonen and Clark, 2014).

Developing solutions to urban challenges involves a number of interacting factors and actors, making desirable outcomes hard to achieve and predict. Maximising the potential of urban areas requires institutionalising mechanisms of coordination, planning and accountability among diverse stakeholders in a way that recognises the complexity of urban challenges (Avis, 2016).Increasingly, the urban crisis in Africa is being tackled by what has been called the "urban management" approach. In terms of how this is being promoted and used by leading international agencies such as the World Bank, it refers to a body of techniques, rules, and practices for the planning and organization of modern urban settlements. In essence, it is a professionalized approach to the management of these settlements. According to Stren (cited in Aina, 1997), it encompasses at least four important elements: (i) a concern to situate urban development projects in the context of city-wide and institutional considerations; (ii) a

concern to pay more attention to sources of local finance for more decentralized municipal government; (iii) a concern to devise alternative means of organizing and financing urban services such as water supply, public transport, electricity, sanitary services, and waste disposal; and (iv) a concern to seek and promote local community and participatory sources of support for urban services and infrastructure. Thus, future priorities should emphasize the following imperatives of sustainable development:

- Ensure effective, efficient and transparent public sector and public administration;
- Commit to sound economic policies and management;
- Sustain democratic governance that allows broad-based participatory decision-making and management;
- Improve local implementation capacity for all actors to empower them to play an effective role in sustainable urbanization;
- Mobilize external resources and more coordinated and concerted support for sustainable development (Alkali, 2005).
- For there to be sustained positive environmental sustainability in Lagos state, there must be a good policy to harmoniseenvironmental utility with the needs of both present and future generations.

Also, a number of innovative approaches have emerged to help fill theidentified gaps in this study and thus merit further exploration.

a. *Moving governance from voluntary co-operation to more integrated and enforced implementation*

Managing cities and urban growth is one of the defining challenges of the twenty-first century. If managed well, cities can act as engines of growth and provide inhabitants with better job opportunities and improved healthcare, housing, safety and social development (Avis, 2016). Unplanned urban growth may negatively affect economic and social well-being, contributing to congestion, poor housing, pressure on limited public services, air and water pollution and associated health issues (Mitlin & Satterthwaite, 2012). This is the essence of urban governance, which deals with the process by which governments (local, regional and national) and stakeholders collectively decide how to plan, finance and manage urban areas. It also influences whether the poor benefit from economic growth, and determines how they bring their influence to bear and whether political and institutional systems, processes and mechanisms facilitate inclusive and pro-poor decisions and outcomes ((Devas et al., 2004: 1). It involves a continuous process of negotiation and contestation over the allocation of social and material resources and political power. It is not just about the formal structures of city government but encompasses a host of economic and social forces, institutions and relationships, formal and informal(Avis, 2016).

The failure of past strategic urban renewal policies to address the multifaceted problems created by slums in Lagos metropolis calls for a different approach (Adejumo, Olajide & Bishi, n.d). Friedmann (1969) asserts that innovation, social transformation and political transformation which are the three basic processes of development are closely linked to the urbanization process. The urbanization process tends to reinforce developmental change through increasing communication, enhanced interconnectedness and a change in the pattern of social organization.

b. Investment Policy

Major demographic and spatial shifts in population and economic activities are likely to continue indefinitely to shape and reshape our cities and our urban systems. An effective response thus requires a better understanding of these long-range shifts of market forces and activity, and of the capacity to influence them through public policy. An essential aspect of such policy is a continuous national effort to equalize the levels and burdens of social welfare and of urban services and amenities. This would pave the way for flexible and timely responses to change, hasten the processes of spatial and social transition, and avoid going against the tide by reinforcing the status quo (The United Nations University, 1997).

c. Effective Inter-Governmental Relations

Governance for an urban culture of sustainability is not possible without local power to decide and financing to support it. Cities and metropolitan regions are two among all levels of government. Decentralization entails apportioning appropriate mandates and secure financial resources to the relevant levels of government. About issues that cross city borders in an area, networked cities have to recentralize the decision-making power to institutions of metropolitan governance. The local level is the level closest to people, their needs and their knowledge. It is the level of implementation of sustainable development policies in the form of urban infrastructure, basic services and land use and mobility planning. Taxation, cross-subsidies and user fees at local, metropolitan and national level can support sustainable development and curb unsustainable consumption, if they are designed with these goals in mind (UNDESA, 2012).

According to a KPMG report, African cities are fast emerging as centres of entrepreneurship, innovation, creativity and invention. This presents a clear opportunity as well as a major challenge to the key stakeholders to be proactive in tackling the current needs while being visionary about building the future (Okonjo, 2017). The miracle cure, as defined aptly by Professor Collier, is in the national government working with state governments to develop enabling policies, strong institutions, well-resourced and accountable administrative systems while working closely with well-informed and engaged citizens (ibid). Given its status as Nigeria's major and most metropolitan state, Lagos deserves special consideration from the Federal Government, similar to the 13% derivation concession given oil-

producing states. The city is home to Nigerians from all parts of the country and the rate of infrastructural decay in the state owes a lot to the massive inflow of people into it (Fasan, 2017).

d. Economic Development for a Sustainable City

Cities are the main drivers of the national economy. Their infrastructure and service delivery are essential indicators of the investment environment and the state of the economy (Welgemoed&Viljoen, 2013). The process towards sustainable cities starts with profound analyses of the past and present culture of the city. It builds on an inclusive and holistic vision, applies integrated planning and transparent governance, and monitors implementation rigorously (Taipale, 2012). As the share of Lagos residents living in poor and underserviced neighbourhoods includes two-third of the overall population, low-tech, flexible, low-cost and strategic yet precise interventions should seriously be considered – opposite to the often implemented top-down, investment intensive and heavily donor-driven and/or elite-driven big-infrastructure solutions as they are favoured by the World Bank and similar institutions, especially as they have mostly failed in West-Africa (Hoelzel, 2016).Thus, according to Adediran (cited in Gbonegun, 2017), "improved governance and standard of living of the people through effective service delivery, efficient use of physical infrastructures that support healthy economic, social, and cultural development" are needed with a view to balancing area conditions – good environment, economic growth, and community cohesion within the area (area sustainable development). This is to further reposition Lagos State because concerns for urban sustainability drive the development of various ecological-derived design concepts.

The ultimate goal of sustainable development is to make cities safe and pleasant places to work, live and raise children 'without undermining the ability of future generations to do the same' (Kraas et al, 2005). There are different solutions being canvassed by experts, some market based, some technological and some environmental in approach but nonecompares with sustainable development (Kraas et al, 2005).There is the need to strengthen economic and social development in harmony with nature preservation, particularly the development of small and medium enterprises in the field of traditional craftsmanship and tourism. Also, the state should create area conditions for reclamation and revitalization of derelict spaces in order to find places suitable for economic activities and leisure time activities.

e. Environmental Protection and Adaptation to Climate Change

Nigeria's governments should focus on a combination of immediate and longer-term action. For the medium-term, basic infrastructure to seed functioning communities should be provided: roads, pipe-borne water, schools and hospitals. Also, state governments should be compelled to digitise their land registries and make them easily accessible to everyone. The long-term stuff would be the arduous task of revising Nigeria's problematic land law — backed by a decades old military decree – which vests absolute control of land in the state governors (Ogunlesi, 2015).

Key to addressing climate change is competent, capable, and accountable urban governments that incorporate mitigation and adaptation measures in a holistic manner (Satterthwaite, 2008). Many measures require only minor adjustments to current practices – e.g. to building codes, land subdivision regulation, land-use management and infrastructure standards – and the sum of these over time can build resilience without high costs (ibid.). To address climate change, it is important to provide incentives for more sustainable choices at community and individual levels. Changing lifestyles and economies to adopt efficient, low-energy and environmentally sustainable solutions creates opportunities for innovation (DFID, 2010: 9). These, however, should not be seen solely as climatechange-driven initiatives, but as local economic development strategies that capitalise on the political and economic environment that climate change creates and the position of urban areas in low-carbon economies.

f.   Low-Emission Economy and Energy Efficiency

By adopting globally proven policies on a low-emissions economy, government leaders can reduce greenhouse gas emissions, foster innovation and economic growth, bolster national security, improve public health, and put the world on a path to a liveable climate future (Harvey and Segafredo, 2014). However, reducing the amount of pollutants emitted from the municipal sector, resulting in improved air quality, cleaner environment and reduced risks to human health requires multi-directional technical and non-technical activities (Zawada and tarostka-Patyk, 2016). Improving energy efficiency is a key tool for reducing CO_2 emissions, alongside energy conservation and low-carbon energy sources such as renewables and carbon capture and storage.

The state should create conditions for development of decentralized, effective and safe energy production from renewable environment-friendly resources, minimising the negative impacts and risks while ensuring the safe supply of various kinds of energy to the area. Studies (Schafer and Victor, 2000; Roberta and Sierra, 2007) reported that population and economic growth are major factors that influence transport demand. Increased transport demand significantly contributes to GHG emissions. Therefore, the state should create area conditions for higher safety and smoothness of transport, improvement of protection against noise and emissions and, with respect to this, create area conditions for environment friendly forms of transport (e.g., railway, bicycle lines). For industrial energy, an effective way to reduce industrial greenhouse gas emissions is to regulate the energy efficiency of ubiquitous, standardized equipment such as electric motors, pumps, and compressors.

g.   Spatial Development

Several attempts have been made in the past (pre and post-colonial periods) to legislate the structuring of spatial development of Lagos. These attempts have yielded minimal positive results. This, perhaps, prompted the Lagos State Government to enact the 2010 URPD law (Agunbiade and Ewedairo, 2014). The purpose is to strengthen the spatial development of the state and provide a strategic framework for priority investments (strategic investments). The Lagos Sate Government is obviously alive to the

imperative of preparing appropriate development plans and reformingthe land use law and land rights to ensure effective development control. The concept of sustainable development in spatial planning leads necessarily to an efficient management of the resources, especially land.

h. Strengthening the levels of human capital and citizen participation

In every democracy, the city residents demand to be heard and to participate in the decision-making process on matters that affect their lives. Good urban governance requires that elected officials should be accountable for their actions. The driving force in promoting transparency and accountability is citizen participation which, at the level of municipal government in Nigeria, is still seldom cultivated (Abiodun, 2017).   There is no one top-down solution to urban sustainability but a wealth of bottom-up approaches instead. One of the strengths of cities in both poor and wealthier countries is the initiative and inventiveness of their citizens. Seizing this opportunity requires critical rethinking, application of innovative non-market solutions and the active involvement of all those concerned. One-way information does not fulfil the contemporary requirement for quality citizen involvement. People have to be given the possibility to become the key resource of cities. Citizens need supporting 'infrastructure': places for people to meet and get organized, an attentive media to communicate their concerns, and tools, processes and channels to create initiatives and communicate (UNDESA, 2012).

Concluding Remarks

The crucial goal of any society that intends to expand and grow is to create an environment suitable for human habitation, one that is socially alive and maintains communal infrastructure that supports its survival and existence. Hence, urban regeneration is urgently needed in getting our society out of decadence and projecting a unified front towards a rich culture and vibrant economy (Olumuyiwa, 2017). The situation in Lagos State requires the intervention of all stakeholders in land, environment, housing and urban development towards the resolution of the state's flood, slum regeneration and housing crises.To sustain the current investment in time, effort and money, Agunbiade and Olajide (2016) suggest that governance should be seen from the perspective of each stakeholder committing to collaboratively make the city function optimally. In this regard, both the people (governed) and the government should focus attention on building institutions rather than individuals or office holders. This will allow for home-grown capacity with the ability to adopt best practices, develop infrastructure (social, physical and economic) and build resilience

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