

Vision 20:2020 and the Challenges of Infrastructural Development in Nigeria

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Abstract

Nigeria is the most populous black nation on planet earth and sets a great vision to be among the top 20 economies in the world by 2020 with a minimum GDP of \$900 billion and a per capita income of no less than \$4000 per annum. This paper argues that infrastructural development is critical to achievement of the vision. Consequently, a discourse on theoretical framework and review of literature on the role of infrastructure in economic development was undertaken. The paper also places the country's economy in a global context and assessed the state of infrastructural development in the country. Also, factors responsible for the current state of infrastructural development in the country were examined. The paper reveals that two years into the vision, the country's economy is growing at a very low pace than envisaged. It also reveals that the quantity and quality of infrastructure needed to propel a rapid economic development are absent. The paper recommended adequate funding of infrastructure in critical sector, transparency and good governance, population control and physical planning of settlements among others for the realization of the vision. The paper concluded that the war of economic transformation through infrastructural development in the country would be lost or won in our settlements where productive economic activities are located; hence physical planning that will propel infrastructure development in major settlements and across the regions of the country is germane to the realization of the 2020 vision.

Keywords: Vision, Economy, Infrastructure, Development, Planning, Population

1. Introduction

Every nation of the world has hopes and aspirations to be great. Indeed, the challenge of economic and social progress has for a long time remained at apogee in the hierarchy of needs of many nations in both the developed and developing countries of the world. Thus, different nations adopt varied strategies in achieving economic and social progress. At independence, many African countries including Nigeria were committed to achieving economic and social progress and development planning was the main strategies used by many governments to set their visions, missions, goals, and effective means of realizing economic and social progress (Olokesusi, 2011). Development planning has been a consistent phenomenon in Nigerian administration since 1946. The Nigerian government has aspired to achieve development through the use of various types of plans, namely short term (Annual Budget), medium and long term plans. The Nigerian Vision 20:2020 is the latest in the history of medium term plans for the country and promises to surmount some of the problems that marred the success of previous plans (Marcellus, 2009).

The Nigerian Vision 20:2020 is an outcome of a research by the American Investment Bank which

predicted that Nigeria will be in the league of 20 top economies based on the assessment of her abundant natural and human resources with the assumption that these resources will be effectively managed (Abdulhamid, 2008 in Olokesusi, 2011). Vision 20:2020 is an articulation of the long-term intent to launch Nigeria onto a path of sustained social and economic progress and accelerate the emergence of a truly prosperous and united Nigeria. Recognising the enormous human and natural endowments of the nation, the blueprint is an expression of Nigeria's intent to improve the living standards of her citizens and place the country among the Top 20 economies in the world with a minimum GDP of \$900 billion and a per capita income of no less than \$4000 per annum (FGN, 2009a).

These aspirations are defined across four dimensions:

- (i) Social Dimension: A peaceful, equitable, harmonious and just society, where every *citizen has* a strong sense of national identity and citizens are supported by an educational and healthcare system that caters for all, and sustains a life expectancy of not less than 70 years;
- (ii) Economic Dimension: A globally competitive economy that is resilient and diversified with a globally competitive manufacturing sector that is tightly integrated and contributes no less than 25% to the Gross Domestic Product (GDP);
- (iii) Institutional Dimension: A stable and functional democracy where the rights of the citizens to determine their leaders are guaranteed and adequate infrastructure exists to support a market-friendly and globally competitive business environment and
- (iv) Environmental Dimension: A level of environmental consciousness that enables and supports sustainable management of the nation's God-given natural endowments to ensure their preservation for the benefit of present and future generations (NPC, 2009).

The second and third dimensions of the vision are critical to the theme of this paper. This is because any economic growth hinged on a globally competitive manufacturing sector requires a robust infrastructural development. This paper assesses the role of infrastructure in the achievement of the Nigerian Vision 20:2020 and argues that urban and regional planning will help in determining the nature and scale of infrastructure required for economic growth. Following this introduction, the second section of the paper presents the theoretical framework of development while the third section examines the role of infrastructure in economic development. The fourth section examines Nigeria's economy in the global context; the fifth section examines the state of infrastructural development in Nigeria and the sixth section highlights some of the factors responsible for the state of infrastructure in the country. The seventh section makes some recommendations to achieving the vision 20:2020 and section eight concludes the paper.

2. Theoretical Framework

A discussion on economic development and investment in infrastructure requires some level of theoretical explanations which have been established among scholars in the field of economics and social development. This is necessary because opinion differs among scholars and decision makers on how infrastructure affects development. This section presents some discussions on theories that are related to infrastructure and economic development. In particular efforts are made to lay a foundation on the link between infrastructure and economic development on one hand and on the other; on investment in infrastructure through commercialization and privatization.

2.1 Infrastructure, Poverty Reduction and Economic Development

Infrastructure is a broad concept that embraces public investment in physical assets and social services. Ogun (2010) argued that the urge to increase public investments in urban areas stems from the view that they are key determinants of long-term sustainable growth and the capacity of the poor to benefit from the growth process. Theoretically, three schools of thought exist on the effectiveness of investment in infrastructure as a poverty reduction strategy. The first school argues that investment in social infrastructure, which embraces investment in education and health, is more relevant to the goal of poverty reduction than physical infrastructure (Jahan & McCleery, 2005; Jerome & Ariyo, 2004). The second school maintains that investments in both physical and social infrastructure reduce poverty. The last school holds that investment in infrastructure in general has no effect on poverty reduction.

The main protagonists of the third view base their theoretical position on three arguments. First, there is the presumption that though investment in infrastructure is important for economic growth, it has little relevance to poverty reduction. Second, it has been argued that actual benefits from infrastructure have been significantly lower than anticipated. Third, there is a view that in developing countries characterized by weak governance and

institutions, the tendency for government officials to be corrupt is very high, and in this scenario decisions to invest in infrastructure may be distorted, thereby lowering the contribution of infrastructure to growth and diverting benefits intended for the poor (Ali & Pernia, 2003). However, despite the above views, there is now wider recognition that if governance and institutional frameworks are strengthened, the linkage between improved infrastructure and poverty reduction can also become stronger.

2.2 Privatization and Commercialization Theory

Privatization and commercialization strategy is a latter-day form of the classical laissez – faire policy or strategy of development. The concept embraces deregulation of the economy so as to encourage private initiative and boost productivity and efficiency. The key elements are the “disengagement of government from the ownership of hither to state-owned enterprises (SOEs) and the concomitant sale of such to private entrepreneurs” (Olukoju, 1996). The organized private sector becomes the driving force or the engine of development and growth while the government’s role is reduced to that of a catalyst responsible for the creation of an enabling environment for the growth of the economy. From a global perspective, this is a strategy of development through a more efficient pattern of resource allocation by a free interplay of market forces. Deregulation encourages competition and in this way, a greater quantum of economic and social overhead capital or infrastructures will be built up in a more efficient and competitive market environment.

This is the strategy of the new millennium as governments try to shed their economically inefficient and unproductive overloads to generate more revenue from the sale of the SOEs. This, expectedly, would enable the governments, especially LDC governments, to reduce their public expenditures, generate more revenue and balance their budgets, at least. The disposal of the economic infrastructures and parastatals would enable these governments to focus more attention to and fund more adequately the social parastatals and infrastructures that create substantial external economies through the provision of public goods such as health, education, sanitation and portable water (Familoni, 2000). This strategy has been introduced in Nigeria for more than one decade and has produced significant results. The telecommunication industry is a good example in this regard.

3. The Role of Infrastructure in Economic Development

Infrastructure is an umbrella term for many activities usually referred to as “social overhead capital” by development economists. Precisely, infrastructure refers to a network of transport, communication and public (social) services – all functioning as a system or as a set of interrelated and mutually beneficial services provided for the improvement of the general well-being of the population (Ogbuozobe, 1997). Public or social services refer to those services or facilities meant for the common goods of the people. They include water supply, health care delivery, education, postal and telecommunication facilities, electricity, etc. Sufficient infrastructural services are indispensable for economic development. The adequacy of infrastructure helps to determine a country’s success or failure in diversifying production, coping with population growth, reducing poverty, improving environmental conditions, etc.

Indeed, socio-economic development can be facilitated and accelerated by the presence of infrastructure. If these facilities and services are not in place, development will be very difficult and in fact can be likened to a very scarce commodity that can only be secured at a very high price and cost. Adequate access to social welfare services, such as medical services, education, potable water supply, roads, electricity, employment opportunities etc, are strong indices of development (Adeyemo, 1989). In any discourse on infrastructure, it is important to note that infrastructure can be broadly classified in two: physical (roads, electricity, telecommunication, etc) and social (education, health, recreation, housing etc.). In some clime, physical infrastructure is often referred to as economic infrastructure. Thus, the role of infrastructure in economic development will be discoursed along this line.

3.1 The Role of Physical Infrastructure

Aigbokhan (1999) gives examples of physical infrastructure as public utilities such as power, telecommunications, piped water supply, sanitation and sewage, solid waste collection and disposal and piped gas as well as public works which include roads, major dam and canal works for irrigation and drainage, and other transport projects like urban and interurban railways, urban transport, seaports and waterways and airports. Physical infrastructure has played a very significantly positive role in the growth performance of countries in recent times. Where development of economic infrastructure has followed a rational, well-coordinated and harmonized path, growth and development has received a big boost. Examples are Korea and Japan, Familoni (2000). Where the growth of infrastructures has not followed such a rational and coordinated path, growth and development has been stunted. Examples can be found in most African countries and other LDCs. The role of infrastructure is a very wide and controversial issue that has been the subject of numerous empirical studies.

Studies from 89 districts in 13 Indian states show that lower transport costs increased farmers' access to markets and led to considerable agricultural expansion, just as modern irrigation methods brought high yields (Ogbuozobe, 1997).

Also, it has been noted that infrastructural capacity grows step for step with economic output. For example, a one per cent increase in the stock of infrastructure is associated with one percent Gross Domestic Product (GDP) (World Bank, 1994). Canning and Pedroni (2004) investigated the long run consequences of infrastructure provision on per capita income in a panel of countries over the period 1950-1992. The results provide clear evidence that in the vast majority of cases infrastructure (telephone, electricity generating capacity and paved roads) does induce long run growth effects. In developed economies - Japan and United States of America for example, Ogbuozobe (1997) observed that telecommunications, electricity and water are used in the production process of nearly every sector, and transport is an input for every commodity. The provision of economic infrastructure can expand the productive capacity of the economy by increasing the quantity and quality of such infrastructure, thereby accelerating the rate of economic growth and enhancing the pace of socio-economic development.

Again, road infrastructure has been found by Cesar and Surhid (1992) to be a significant factor of economic growth and development. In their 1992 World Bank study, they employed "an empirical approach to explore the association between road infrastructure and economic development. The study revealed that there are consistent and significant associations between economic development, in terms of per capita gross national product (GNP), and road infrastructure, in terms of per capita length of paved road network. The study also showed that road condition seems to be associated with economic development. Indeed, good infrastructure raises productivity and lowers production costs. Thus, it is clear that infrastructural development is a function of economic development;

3.2 The Role of Social Infrastructure

Education and health are the two dominant social infrastructures which can have profound effect on economic development of any nation. Education has been considered as a very important source of economic growth. Even though education may be a social investment, it is also an economic investment since it enhances the stock of human capital (Denison, 1962). Again, the role of education as a social infrastructure and as a stimulant of growth and development can be enhanced only if it is qualitatively provided. Qualitative education is a major determinant of the stock of human capital. It has proved to be the vehicle for national transformation in human history and no nation ever rises above her investment in education (Oyedepo, 2011). A less developing economy needs professionals in all sectors to accelerate the growth and development of such sectors. In fact, UNESCO recommends a minimum of fifteen percent of national expenditures on education. Some advanced countries spend more than 15% of their GDPs on education and yet, education still remains in the front burner of national debate on their development priorities.

Similarly, health is a very important argument in the socio-economic production function. A popular adage says that a sound mind usually resides in a healthy body. Health is one of the major determinants of labour productivity and efficiency. Public health deals with the environment in which economic activities take place. In fact a conducive environment would be permissive of accelerated growth and development. Aigbokhan (1999) found that human capital components of infrastructure appear to have impact on growth. For example, he observed that expenditure on health care and education record statistically insignificant impact on growth and suggests that if efficiently applied, public spending on the services is capable of impacting positively and strongly on growth. Within the context of Nigeria's vision 20:2020 programme, therefore, the realization of all that have been envisioned would depend to a large extent, on the availability of the necessary infrastructure in the right quantity and quality. This is so because infrastructure represents if not the engine, then, the "wheels" of economic activity.

In another perspective, the relationship between infrastructure and economic development is further established by the correlation between a nation's GDP and her level of urbanization as demonstrated by World Bank studies (Yunusa, 2011). Figure 1 shows the correlation between urbanization levels and the GDP of major cities across the globe. The figure shows that the higher the GDP, the more the number of countries with higher level of urbanization. Since urbanization is highly correlated with economic development and there is also a strong correlation between economic development and infrastructure development, cities with massive and high quality infrastructure are expected to play key roles in economic development of the nation. Unfortunately, cities in developing countries, especially in sub-Saharan Africa fail to optimally and fully exploit the economies of agglomeration, because they are poorly planned, managed and lack adequate density and services (Yunusa, 2011).

Indeed, in urban Africa including Nigeria, 20% of GDP and 60% of urban labour force is in the informal sector not recorded in the macro-economic indices and not accounted for in the books. This large proportion of urban population lacks the required infrastructure that will propel their businesses to yield maximum benefits to the country's economy. Economic growth is linked to poverty reduction and improved access to infrastructural services induces economic growth in a cyclical manner. Therefore, carefully thought out mechanism that ensures functional nexus of infrastructural services and economic activities are rudimentary ingredients for liveable human settlements (Alaci & Alehegn, 2009). The vision 20:2020 is a great vision and for Nigeria to achieve this dream, it is important that the country's economic potential is placed in a global context.

4. Nigeria's Economy in a Global Context

Nigeria is a country blessed with the right mix of human and natural resources and should earn a place among the top 20 economies of the world in less than nine years which is the time lag to the vision 20:2020 date. Nigeria has a current population estimate of 167million people with over 80million hectares of arable land. The country has 33 solid minerals in commercial quantity in 450 locations across the country (The Punch, 2011). Nigeria is the 8th largest producer of gas oil and 6th largest exporter of crude oil. In 2001, the proved reserves were estimated at more 22 billion barrels and the 2010 estimate is between 35 to 40 billion barrels. Current crude oil production is 2.19 mb/day and export is 1.74 mb/d ([www.http://Gas_Monetization_in_Nigeria.pdfsearchengine](http://Gas_Monetization_in_Nigeria.pdfsearchengine)). Today, the economy of the country appears more diversified with higher growth rate. The country economy is currently growing at 7.0% per annum. It is however, expected to be growing at 14.0% based on the implementation of the vision 20:2020.

In the second quarter of 2011 (April to June), Nigeria generated N2.4 trillion revenue and N1.8 trillion was from oil (The Sun, 2011). These figures suggest that 75.0% of the country's revenue is from oil. Also, over a period of nine months (January and September, 2011), Nigeria generated N3.37 trillion from taxes alone (The Sun, 2011). The country's economy is also expected to attract more Foreign Direct Investment (FDI). After the 2011 Economic Summit, a group of South African and British Investors initiated moves to invest \$1billion in the country's solid minerals sector with a projection of 4000 jobs. The President of Nigeria concluded at the end of the country's 2011 Economic Summit that the future of Nigeria is Bright (Nigerian Tribune, 2011). The economic profile of Nigeria shows that the country's economic potential is very great. The trends in GDP growth rate and recurrent expenditure as percentage of GDP are presented in Table 1. A major observation from the table suggests that the country is living beyond her means. This is because in a productive, efficient and prudent economy, increase in expenditure should be offset by increase in productivity and growth. This has not been the case in Nigeria.

In spite of her huge human and natural resources, Nigeria as at 2009 occupied the 42nd position among the 60 largest economies in the world (FGN, 2009) and relatively occupies the same position at the moment. All the countries in the top 20 largest economies have high GDP per capita except China (\$6,757), Brazil (\$8,402), India (\$3,452), Indonesia (\$3,843), Turkey (\$8,407), Russia (\$10,845) and Mexico (\$10,751) whose high population figure accounted for lower GDP per capita. USA has the highest GDP per capita of \$41,890). Nigeria currently has the lowest GDP per capita of \$1,128 among the 60 countries considered. Nigeria's most recent GDP annual growth rate of 7.0% is slightly more than the annual population growth rate of 3.2%. However, this impressive economic growth has been weakened by the high figure of poverty of 54.4%. Among the top 60 countries, Nigeria's poverty figure is the second highest, with Columbia's of 64% being the worst. Indeed, many of the countries likely to contend with Nigeria to be among the top 20 currently have lower poverty figures, hence, Nigeria needs to attain annual GDP growth in excess of 10% per annum and strive to catch-up and overtake some of the countries in the top 20 largest economies by 2020. This can be achieved with prudent and efficient management of her resources.

A consideration of the competitiveness of Nigerian cities with other cities across the globe shows that the future looks very grim. Figure 2 shows the urban pattern of the next 15 years as projected by the McKinney Global Institute. The Figure shows that there will be no even a dot to show the competitiveness of African cities on the global landscape. So, where is Lagos which is expected to be the biggest in population by 2020? No city in Africa, not even Cairo or Johannesburg will show up on the global scale as a productive driver of global reputability in 2025 (Yunusa, 2011). For the country to be among the top 20 largest economies in the world, Nigeria will have to displace at least twenty-two nations ahead of her assuming those countries remain stagnant and Nigeria's economy grows at the expected rate of 14% per annum for the next nine years. This is a huge challenge as other nations ahead and behind the country will not go to sleep in the next nine years. In order to achieve economic development in the highest level possible, the process of urbanization should be backed up with good governance and robust infrastructure.

5. State of Infrastructural Development in Nigeria

Nigeria as a country operates federal system of governance consisting three tiers (federal, state and local); each having constitutional responsibilities for infrastructural provision. Unfortunately, constitutional provisions do not make the 36 federating states in the country truly independent while the local governments exist at the mercy of the state governments. Presently; there is no policy document or instrument anywhere that bound Local councils to specific annual investment in infrastructure and while there had been improvement in budgetary allocations to infrastructure in the last couple of years, implementation has been very poor. These scenarios have implications for infrastructural development and attainment of vision 20:2020 in the country. The subsequent sections present an assessment of the state of infrastructural development in some of the country's critical sectors.

5.1 Physical Infrastructure

5.1.1 Power

Power supply in Nigeria is an exclusive responsibility of the Federal government. After independence, the National Electric Power Authority (NEPA) managed the power sector for about 45 years and due to poor performance, the government decided to deregulate the sector and NEPA was transformed into a company-Power Holding Company of Nigeria (PHCN) through the Electric Power Sector Act of 2005. The company was to manage the power sector for 18 months after which the sector will be fully deregulated with several private companies emerging to handle different aspect such as generation, transmission and distribution. Due to poor implementation, the privatization of PHCN is delayed till date. However, it is expected that the process will be completed by the end of first quarter in 2012. At the moment, Nigeria faces a serious energy crisis due to declining electricity generation from domestic power plants. Power outages are frequent and the power sector operates well below its estimated capacity. The current power generation in the country is about 4000MW. Nigeria electricity consumption per capita is 111 kWh, which is one of the lowest in sub-Saharan Africa. This low level of consumption is a result of suppressed demand caused by deteriorated electricity supply infrastructure. Nigeria has 5,900 MW of generation capacity (three hydro-based and five thermal plants) and plans to expand its generation, transmission and distribution systems (<http://www.gasandoil.com/goc/news/nta30428.htm>)._

Uwejamamore (2011) observed that power is currently provided in Nigeria at the cost of N23 billion and sells for only N9 billion, hence, full deregulation of the sector is planned by government for Nigerians to pay correct tariff and make the sector investment friendly. Inability of government to meet the 6000mw target earlier promised by December 2009 was due to dearth of gas supply. At present, 40% of energy produced is lost to system leakages. Government is now working towards diversification of sources – hydro, clean coal, wind and solar, through the Independent Power Projects (IPPs). Energy Commission of Nigeria (ECN) studies on energy demand to meet the Millennium Development Goals (MDGs) and the Vision 20:2020 identifies that a shortfall of between 9,000 – 17,000 MW will be recorded between 2010 and 2015 based on current energy usage and the projected growth rate in industrial development and the population. Also, the projected peak national energy demand is put at between 28,000 – 31,000 MW by 2015 while the revised demand projections by ECN have indicated that at the growth rate of 10% required to meet the MDGs, Nigeria's peak demand will be in the range 175,000 – 192,000 MW by 2030. The poor state of power and other infrastructure in the country has unduly increases the cost of doing business; consequently, many industries have relocated and are still relocating to other West African countries. These imply loss of job and revenue to the government. At the moment, the situation of power in the country does not suggest that the sector can adequately support the attainment of the 20:2020 vision.

5.1.2 Transport

As noted earlier, responsibilities for infrastructure development cuts across the three tiers of governments in the country. Assessment of transport sector in many modes shows that the country has fallen well behind international benchmarks. The condition of much of her infrastructure has suffered from many years of under-investment and lack of maintenance. For instance, the Lagos-Ibadan expressway (a federal road) was opened to the public in 1981 and 30 years after, it is just being prepared for the first major maintenance works. This is the situation of many national highways across the country. Nigeria has a total road length of 193,200 kilometers, comprising 34,123 km Federal roads, 30,500 km State roads, and 129,577 km Local Government roads. At 2005 prices, this road network is estimated to have a replacement value of N4.567 trillion. It has been estimated that over the next 10 years, N300 billion will be required to bring national roads into a satisfactory condition. Current neglect of these roads implies a loss of network value of N80 billion per year and additional

operating costs of N35 billion per year (FGN, 2009b). This situation is economically unhealthy and cannot support the country's drive for economic transformation.

The public transport infrastructure in the country has lacked investment and adequate maintenance for many years. Indeed, there has been a failure of planning to integrate different transport modes. For instance, there are currently no rail connections to the country's ports. The railway system has almost ceased to function, although efforts are on to revive the railway system in the country. The railway now accounts for less than 1% of land transport in the country. The neglect of the railway has led to over-dependence on road transport with 98% of goods being transported by road. Air transport infrastructure in Nigeria is largely located within the 21 international and domestic airports and 62 private airstrips across the country. The airports are still in Federal Government ownership and are managed by the Federal Airports Authority of Nigeria (FAAN). Government also has the responsibility for aircraft regulation, traffic control and navigational aids through the Nigerian Airspace Management Agency, although much of the equipment is obsolete. Only three of the airports (Lagos, Abuja and Kano) cover their operating costs (FGN, 2009b).

5.1.3 Oil and Gas

Oil is a major income earner for Nigeria and currently account for about 75% of her annual revenue. In the last 50 years, the sector has been managed by a federal government parastatal- Nigerian National Petroleum Corporation (NNPC). Due to limited gas distribution infrastructure, Nigeria today flares about 2.6 bcf/d of gas, representing 12.5% of all globally flared gas, which is 68% of the associated gas produced or 51% of the total gas production. Nigeria extended the zero gas flaring deadlines to 2008 from 2004 after operators argued that the earlier deadline was not feasible. Nigeria has four oil refineries (2 in Port-Harcourt and 1 each in Warri and Kaduna). When the refineries were newly built, they worked well and in stable condition, even though none worked at full capacity. Till date, the highest capacity production drags between 25 and 35 per cent of the installed capacity. In spite of the low capacity, they are usually subjected to 'turn around' maintenance (TAM); that is, a general and comprehensive overhauling of the refineries. It costs over \$200 million to carry out turn-around maintenance for each of the refineries and yet it is difficult to produce between 25 and 30 per cent of daily fuel consumption in the country. Because the refineries are not working, the country has always sold crude oil to foreign buyers as export; and in return buy back the processed products at a very high cost compared to if the oil were refined within the country. At present, the Nigerian government claims that the price of petroleum products in the country is highly subsidized to the tune of N1.3 trillion per annum and prepares to remove the subsidy to reduce the burden on the country's economy. Domestic gas demand is about 400 million cubic feet a day (MMcf/d), which is very low compared to the size of Nigeria's population and its gas resources. Again, the domestic market is limited by the low level of industrialization and the inadequacy of the gas transmission and distribution infrastructure.

5.2 Social Infrastructure

5.2.1 Education and Health

An assessment of education and health sectors in the country shows that a lot needs to be done if Nigeria would be ranked among the top 20 economies by 2020. As at 2011, there are 117 universities in Nigeria (36 federal, 36 state and 45 private). The federal universities fare well than the state owned while the private universities are working hard to meet the gap in university education in Nigeria. Many of the private universities are well funded because their students pay economic fee unlike the federal and state universities. Since 2010, not less than 1.2m candidates seek admission into various universities in the country with placement given to only 200,000 candidates. The balance of one million seek higher education in other tertiary institutions. This suggests that the universities in the country are insufficient to meet admission demands. Oyeyinka (2011) observed that university education in Nigeria has experienced considerable decline in quality over the last two decades or so, owing to a confluence of factors acting in tandem. They include episodic and uncertain political-policy environments that led to declining support from governments. With declining investment in teaching and research facilities resulted poor products in graduates and evident employment opportunities and diminishing value of earned income. The declining quality of education is largely a result of continuous budget cuts (since 1980) together with rapid increases in enrolment rates. This made the financing of education recurrent costs more difficult. Public expenditure on education, generally, declined from 6 per cent in 1980 to 0.65 per cent in 1995.

The outlook for primary and secondary education is also not encouraging. Oyeyinka (2011) observed that Nigeria's net primary and gross secondary enrolment rates are among the 10 worst in the world, while gross tertiary enrolment is low, placing Nigeria 83rd in the Legatum Prosperity Index (LPI). Only 60% of children of primary school age are enrolled in education with a clear under representation of girls in both primary and

secondary education. Also, there are 46 pupils for every one primary school teacher placing Nigeria among the 10 lowest countries in the world. The Nigerian workforce has, on average, less than a year of secondary education, and several months of tertiary education, placing the country 97th and 85th on the Index, respectively. These are reflections of the poor state of education infrastructure in the country.

A cursory look at the health sector in Nigeria shows that health care provision is a concurrent responsibility of the three tiers of government in the country. However, because Nigeria operates a mixed economy, private providers have a visible role to play in health care delivery. The federal government's role is mostly limited to coordinating the affairs of the university teaching hospitals, federal medical centres (tertiary health care) while the state government manages the various general hospitals (secondary health care) and the local governments focus on dispensaries (primary health care), which are regulated by the federal government through National Primary Health Care Development Agency (NPHCDA). The total expenditure on health care is 4.6% of GDP, while the percentage of federal government expenditure on health care is about 1.5%. In 2007 when the population of the country was a little above 140 million, there were 13,703 public primary health care centres in the country. Also, there were 845 and 59 public secondary and tertiary health care facilities respectively and there were only three hospital beds for every 10,000 people. Indeed, only 45.9% have access to medical facilities in the country in 2006 (National Bureau of Statistics (NBS), 2008). The inadequacy of health facilities in the country is a reflection of government's commitment to health care delivery on one hand and on the other a reflection of mismanagement of the country's economy given the fact that the country is blessed with abundance of human and natural resources.

5.2.2 Water and Sanitation

Water and sanitation are also critical to economic growth and well being of Nigerians. A study of the provision of improved drinking water, households connected with water and improved access to sanitation in Nigeria compared to other nations in the league of 60 top economies shows that access to improved drinking water is generally high in all the top 20 countries (FGN, 2009a). Nigeria's figure is amongst the lowest. In a study of households' access to improved safe drinking water (Alaci & Alehegn, 2009) observed that average households in Kogi state of Nigeria have no access based on the WHO standards. The study showed that a household spends an average of 65 minutes per day, 455 minutes (8 hours) per week, 1820 minutes (30 hours and 33 minutes) per month and 21840 minutes (364 hours) yearly to fetch water. By implication this is what is actually lost due to the present water situation. NBS general households survey shows that in 2007, 10.4% of Nigerians obtain water supply from pipe borne water, 26.8% from bore hole, 33.3% from well, 24.4% from streams/ponds and 4.1% from trucks/van, i.e. water vendors (NBS, 2008). Also, between 1990 and 2008, access to improved sanitation in urban areas declined from 39% to 36%. This suggests that water and sanitation infrastructure in the country is grossly inadequate and has implications for wealth creation and economic development. These scenarios show that Nigeria has a long way to go in achieving the 20:2020 vision.

6. Factors Responsible for the Present State of Infrastructure

Several factors are responsible for the present state of infrastructure in Nigeria. These include, poor funding, poor governance, corruption and economic sabotage, poor maintenance culture, population explosion, neglect of urban and regional planning, etc. These factors are subsequently discussed.

6.1 Funding

Funding has become a major challenge to infrastructural development in Nigeria for decades. As the country's population soars, demand for additional infrastructure in all sectors also increases. Unfortunately, the government resources can hardly meet the increasing demand. Consequently, government has relied on foreign loans to complement budgetary allocations in the provision of infrastructure. This situation has led to the country's indebtedness over the years. At the inception of the fourth republic in 1999, Nigeria's foreign debt profile was over \$40bn. Although, the country received debt pardon from her creditors and recorded a zero debt profile about five years ago, again, the country has been plunged into debt largely because of need to develop infrastructure in critical sectors of the economy.

6.2 Population Explosion

Nigeria's population is now 167million and growing at 3.2% per annum. The physical and social infrastructure required to support this huge population is enormous and requires huge funding. The huge population which is more than 50% urban has placed undue pressure on existing infrastructure and on governments' budgets over the years. Thus, the infrastructure base is grossly inadequate and suffered from deferred maintenance. Besides, Nigerian government has failed over time to integrate population policy with overall development planning. The

short-fall in infrastructural provision affects the economy negatively and lowers productivity in every sector and aggravates the poverty profile of the country.

6.3 Poor Governance

Apart from poor funding, poor system of governance in the country is largely responsible for the poor state of infrastructure in all sectors. To realize the 2020 vision, the country's economy was expected to grow at 14% per annum; but current data show that the economy is growing at 7%. The low GDP growth is largely due to inefficient allocation and poor management of the country's human and natural resources (The Punch, 2011). Also, the current system of governance in Nigeria has truncated infrastructural development at the grassroots. Section 7 of the 1999 constitution empowers states House of Assemblies to make laws for the operations of the Local Government Councils. Consequently, this provision gave the state governments opportunities to control the finance of the local governments, therefore, many local governments across the country today lacks freedom and financial strength to embark on any infrastructural development project that can serve as catalyst for economic growth and propel economic empowerment among the people in the grassroots.

6.4 Corruption and Economic Sabotage

Corruption has become a major socio-economic problem in Nigeria with negative effects on infrastructural development. Embezzlement of funds allocated for infrastructural development is a common feature in public offices. Also, many projects for which funds have been allocated and released were never completed while inflation of project costs is a common experience. The case of abandoned projects is common because civil servants in charge of such projects collect bribe from contractors and this either results in sub-standard jobs or abandonment. According Transparency International Report on Bribe Tax Payers Index for 2011, Nigerian civil servants received \$3bn bribes in 2010. Indeed, the private companies were also said to be involved in such economic crimes (Saturday Punch, 2011). Besides corruption, economic sabotage through vandalization of public facilities has impacted negatively on the nation's economy. Vandals' activities are regularly observed with oil pipelines and power transmission lines. In the same vein, the plundering of the country's gas resources due to the failure of foreign oil companies to invest in infrastructure to utilize natural gas is an act of economic sabotage and needs to be checked. Gas flaring not only wastes a potentially valuable source of energy; it also adds significant carbon emissions to the atmosphere. As long as the country intends to be among the 20 top economies in the next nine years, the country cannot afford to be wasteful.

7. Recommendations

It is good to have great vision, because it can be achieved, but it is much better to run with the vision to ensure its achievement. Nigeria is currently on the 42nd position among the sixty nations with the largest economy. The country seeks to join the top 20 in the next nine years assuming the country's economy is growing at 14% per annum. It must be understood that other nations ahead of Nigeria will not go to sleep. Many other countries also have great vision of joining the top 20. This suggests that Nigeria has to be awake and run with her vision. The greatest asset of the country is her vast human and natural resources. To achieve the 20:2020 vision; the following key success factors will be required:

7.1 Adequate Funding and Greater Private Sector Involvement

One of the causes for the present poor condition of Nigeria's infrastructure is lack of investment in new capacity, new technologies, and maintenance. It is important that the Government commits to a long-term and consistent funding of the costs of improving and maintaining the various infrastructures. Providing new sources of funding for power, transport, water and sanitation from other sources will reduce the demands on the budget. The Government and Central Bank should also take steps to increase the depth and liquidity of Nigeria's capital markets in order to facilitate the ability of the private sector to raise finance for investment in infrastructure. The failure of existing public enterprises to manage public facilities and services is well appreciated. Government should deregulate more in the power, road infrastructure, and oil and gas industry and intervene more where the private sectors are dominant but not doing well such as in the public transport sector. Greater involvement by the private sector in managing operating the power sector through Public Private Partnership (PPP) will help to address some of the evident failings of current provision. The public sector will retain a planning and supervisory role of the new forms of contract, and new bodies such as the Infrastructure Concession Regulatory Commission will assist with effective implementation of the Government's PPP policy. The Bureau of Public Enterprises is doing well in managing the privatization agenda of the government at the federal level. This should be replicated at the state and local government levels for efficiency and productivity in critical sectors.

7.2 Greater Transparency and Good Governance

The country needs to be more transparent in her way of doing business. There should be regular monitoring and audit of government's progress in implementing the vision in all sectors and investing more on infrastructure in the critical sector of the economy in order to ensure that public money is being well spent and that the public are paying a fair price for the services that are being provided. Ministries and other public bodies should be held accountable for their performance against the objectives of the 20:20:20 Vision. At the moment, many ministries, departments and agencies (MDAs) in the country have not audited their accounts for years and this is not good enough for a nation that aspires to be among the top 20 nations in the next nine years. Good governance and proper devolution of power to the grassroots must be enshrined in the day to day business of the government. The people should also have a voice in the way they are governed especially in the area of infrastructural development. The recently passed freedom of information bill is a welcome development. According to most accounts the government of Nigeria is inefficient and corrupt.

7.3 Population Control

Rapid growth of population in a developing nation like Nigeria is inevitable. However, the growth can be planned and sustained to achieve economic growth. For instance, between 1960 and 2000, the share of the population living in urban areas rose from 20% to 36% in both Asia and Africa, the per capital income increased to 340% in Asia; and only 50% in Africa (Bloom, Canning and Fink, 2008). Africa in general and Nigeria in particular has not taken full advantage of the process of urbanization to promote economic growth while Asia cities have capitalized on it by providing industries and the required infrastructure to sustain the growth (Yinusa, 2011). To reduce governments' financial burden on infrastructural development, there must be deliberate control of the country's population as done in China. In Europe, North America and parts of South America, where family planning has been adopted for population control, the healthy balance between populations and resource stock is a major factor in their enviable standards of living and impressive economic performances. China, for its part, with a population growth rate of 0.493, has moved rapidly into healthier development trends than countries such as India and Nigeria, where little is done on population control. It is either Nigeria deliberately controls her population or nature does it. Already, about 55 per cent of the Nigerian population lives on less than \$1 per day, this is one of the highest poverty rates in sub-Saharan Africa. At the level of government, its responsibilities centre on the provision of quality education to enhance quality human capital, quality health care and basic infrastructure.

7.4 The Need for Physical Planning

One of the major omissions of previous governments in their quest for economic development is the lack of integration of economic plans with physical development plans. The present government has recognized this failure and has put in place a National Technical Working group on urban and rural development to ensure that development activities meant for the economic transformation of the country is given a spatial expression. Referring to physical planning, the Vision document states that "...One of the objectives of the 20:2020 plan is the achievement of equitable and spatial socio-economic development across the various geopolitical regions in Nigeria, driven by a comprehensive regional strategy- The regional development strategy will be targeted at specific cities within each region into regional growth centers which will then be catalysts for the diffusion process of growth to the secondary growth urban centers within their respective regions or states..."(NPC, 2009:84-85).

The plan went further to propose regional development plans for each of the geo-political zones while also treating the geographical Niger Delta as a region in its own right. However, in the document it was not quite explicit how the planning and management of such growth centers and other human settlements in the country would be achieved. In reality, the Nigerian Vision 20:2020 launched in 2009, is anchored on balanced spatially sensitive socio-economic development. But there is the need to properly emphasize the role of urban and regional planning and how its understanding could facilitate a balanced and sustainable national development. Big cities in Nigeria, especially city ports and capital-cities, concentrate infrastructure, equipment and resources while secondary cities and small towns have huge deficits of basic services, infrastructure and other amenities. This imbalance represents a tremendous challenge for achieving harmonious development and economic prosperity within the country not to talk of the total or near absence of regional network of infrastructure which can integrate the national economies. Conceptualizing the achievement of the 20:2020 vision within the context of urban and regional planning will go a long way in achieving the desired balanced growth and development and usher in a new era of prosperity in the country.

8. Conclusion

This paper has shown clearly that infrastructure is critical to the economic growth and development of any nation. It has also demonstrated that in spite of the current position of Nigeria relative to other nations with the largest economy, the country can indeed make it to the top 20 if her vast human and economic resources are efficiently managed. Besides, the nation as a whole has to imbibe the culture of transparency and accountability with greater managerial skills, adequate funding and greater private sector participation. Rapid urbanization, poor governance, poor funding, corruption and poor management culture and lack of proper urban and regional planning are some of the major challenges facing the attainment of the goals of Nigeria's Vision 20:2020. Although some of these challenges were highlighted in the vision statement, the contribution of urban and regional planning was not very well articulated in the implementation plan of the vision. Rapid urbanization poses a major challenge to achieving the Nigerian Vision 20:2020 and significant land and infrastructure development will have to take place to accommodate this growing population. Infrastructural development policies, plans and programmes are carried out in time and space and for the benefits of the people and improvement of their welfare; they have to be carried out in human settlements, hence the imperative to properly plan and adequately provide for such settlement. The war of economic transformation in the country would be lost or won in our settlements where productive economic activities are located; hence physical planning of these settlements and the regions across the country is germane to the realization of the 2020 vision.

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Table 1. Trends in GDP growth rate and recurrent expenditure as % of GDP

Item	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
GDP % Growth	4.2	3.5	9.6	6.6	6.5	6	6.5	6	6.7	7.9
Oil Rev % GDP	24.7	15.8	20.9	29.4	32.3	28.3	21.4	27.4	12.9	
Non-Oil Rev. % GDP	13.1	14.2	5.1	5.5	5.8	4.1	6	5.6	6.7	
Rec. Expdt. % GDP	8.4	11.2	9.9	9.7	9	7.4	7.6	8.9	8.6	6.5
Cap. Expdt % of GDP	6.4	4.1	2.3	3.1	3.5	3	3.6	4	4.7	5

Source: Oyeyinka (2011)

Note: Rec EXPdt is recurrent expenditure; Cap Expdt: Capital expenditure

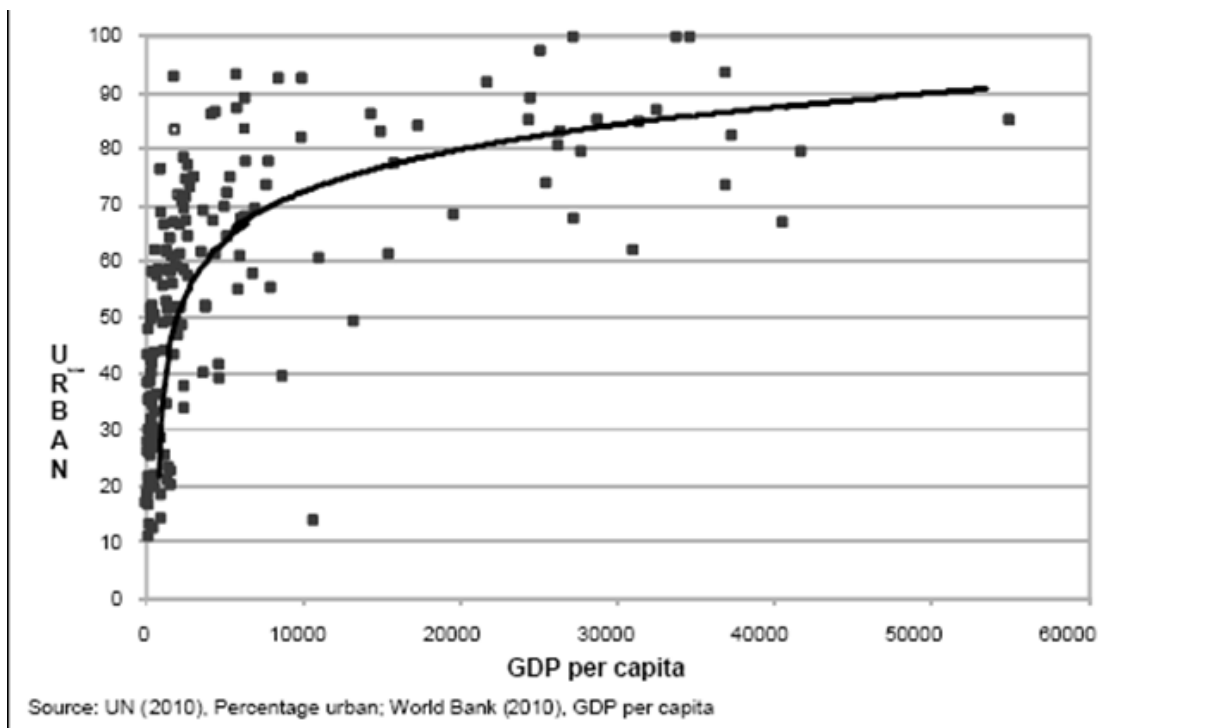


Figure 1. Correlation between Level of urbanization and GDP

Source: Yunusa, 2011.

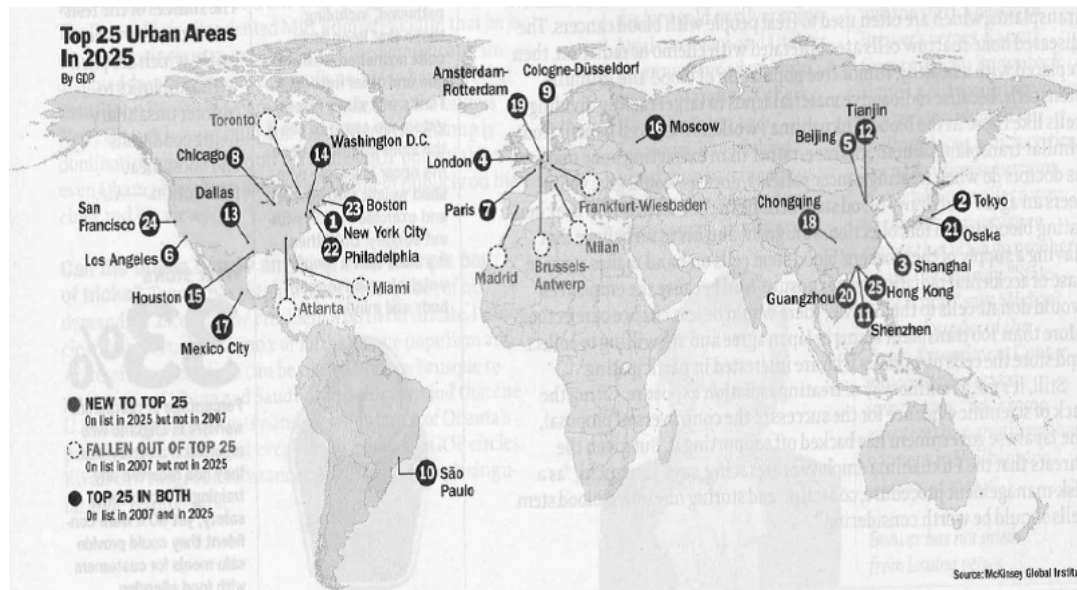


Figure 2. Projections of the world's top productive cities in 2025

Source: Yunusa, 2011