

Challenges of Urbanization and Urban Growth in Nigeria.

OYELEYE Oyewale Idowu

Department of Urban and Regional Planning, Faculty of Environmental Sciences.
Ladoke Akintola University of Technology, Ogbomoso, Oyo State, Nigeria.
P.M.B. 4000, Ogbomoso, Oyo State, Nigeria.
+2348038122412.

ABSTRACT

An urban centre is an agglomeration of people that are organized around non-agricultural activities, and urban growth is the rate of growth of an urban population. While urbanization is defined as the agglomeration of people in relatively large number at a particular spot of the earth surface. Urbanization in Nigeria and other developing countries has been very alarming over the past ten (10) years. This is as a result of high rate of rural-urban drift, which has resulted to various problems like, unemployment, poverty, floods, squatter settlements, pollution (land, air, noise, water and visual), slums, overpopulation, traffic congestion, crimes, and food insecurity inter alia. There is high rural-urban drift in Nigeria because of the inequalities, in terms of infrastructural facilities, services, social amenities and heterogeneity economic activities in favor of urban centres. The attempt of this paper is to examine the existing challenges, and predict future challenges of urbanization and urban growth in Nigeria, while measures to greatly minimize the challenges are suggested in order to ensure sustainable developments in both the Nigerian urban centres and rural areas.

Key Words: Urban, Agglomeration, Growth, Population, Urbanization, Drift, Inequalities, Challenges, Sustainable.

Corresponding Author: Oyeleye O.I

INTRODUCTION

The hullabaloo in the literature on what the definitions of an urban centre and urbanization should be are due to the differences in socio-cultural backgrounds, professions, socio-economy and population disparities in countries. Urban centres are defined as centres with various economic activities, provision of basic facilities and services, and physical development (Jack Harvey, 2000). An urban centre is an agglomeration of people that are organized around non-agricultural activities. Mabogunje (1974) defines urban centres on the basis of the ability of their residents to shoulder certain responsibilities such as supporting community services. Urban centres are defined based on different population sizes in different countries. An urban centre in Japan has at least 30,000 people, in United States at least 50,000 people, in Greece at least

10,000 people, in Australia at least 1,000 people and in Denmark at least 250 people (Aluko, 2010). According to the Nigerian (1952) census, an urban centre was with the population of more than 5,000. By contrast, the 1963 census in Nigeria fixed 20,000 people and above for an urban centre.

Urbanization is defined as the agglomeration of people in relatively large number at a particular spot of the earth surface (Onyemelukwe, 1977; Agbola, 2004; Olotuah and Adesiji, 2005). Conversely, another school of thought believes that urbanization is not about the population size, but must satisfy certain conditions like modernization, physical and economic development, as well as the heterogeneity in occupation (Wirth, 1938 and Jack Harvey, 2000). The former definition of urbanization reflects the perspective of what urbanization is in the developing countries, while the latter school of thought reflects what urbanization is in the developed world. Thus, urbanization process in the developed countries is as a result of rapid development, modernization and industrialization, and not agglomeration of people which usually results from rural-urban drift. While the urbanization in Nigeria like most other developing nations, is a consequence of the “push” of the rural areas and the “pull” of the urban centres (Aluko, 2010). The push and pull in this regard are with respect to the population, which can be traced to the effects of regional imbalances.

It is not a surprise for urbanization to have enormous negative consequences in Nigeria and other developing countries because of the population increase involved in its process. The index of urbanization in Nigeria which is the population increase is mainly caused by rural-urban migration and not by natural increase. Many researchers see rural-urban migration in urbanization process as the genesis of the resultant problems of urbanization in any part of the world (Onokerhoraye, 1976; Wahab, *et al.* 1990; Agbola, 2004; Olotuah and Adesiji, 2005; and Aluko, 2010).

Urban growth is the rate of growth of an urban population. Urban growth refers to growth that makes intensive use of land for the location of buildings and impermeable surfaces to such a degree. Urbanization is mainly caused by urban growth, which could be due to natural population growth, reclassification of urban and rural system and rural-urban migration (Agbola, 2004). Projections suggest that the number of people living in Nigeria urban centres will reach 100 million by 2020. Although the urban population growth rate is now declining from 5.7% in 1985 to current rates of 4.0%, it is still far higher than Nigeria’s overall population growth rate (Onokerhoraye and Omuta, 1994). Studies have shown that the rapid rate of urbanization in Nigeria and the consequential explosion of urban population have not been matched by a corresponding commensurate change in social, economic and technological development (Mabogunje *et al* 1978). The economy of the country in which urbanization is taking place has been described as stagnant and the growth of industrialization is negligible (Salau, 1992). The implications of rapid urbanization in Nigeria on employment, human and food security, economy, waste management, infrastructural facilities and services *inter alia* are alarming. Against this background, the concern of this research is to examine the existing challenges, and predict future challenges of urbanization and urban growth in Nigeria, while measures to greatly minimize the challenges are suggested in order to ensure sustainable developments in both the Nigerian urban centres and rural areas.

LITERATURE REVIEW

Urbanization in Nigeria was a thing of joy in the early of Nigerian independence in 1960s. Until the late 1970s, when the oil boom and the operation of ports in some parts of the country,

accompanied with physical developments, led to a massive movement of populace from the countryside to the cities, and various problems began to emerge in cities like crimes, unemployment, insecurity, poverty and slums among other problems. Extensive development being a feature of the 19th and 20th centuries, with concentration of economic and administrative decision-making in Lagos, Ibadan, Kaduna, Jos, and Enugu, and high degree of specialization and larger population associated with greater specialization of goods and services. Available statistics show that more than half of the world's 6.6 billion people live in urban areas, crowded into 3 percent of the earth's land area (Angotti, 1993). The proportion of the world's population living in urban areas, which was less than 5 percent in 1800 increased to 47 percent in 2000 and is expected to reach 65 percent in 2030 (United Nations, 1990). Projections suggest that the number of people living in Nigerian urban centres will reach 100 million by 2020. Although the urban population growth rate declined from 5.7% in 1985 to the rate of 4.0% in 1994 (Onokerhoraye and Omuta, 1994), but the rate increased to 5.8% in 2004 (Agbola, 2004).

In the literature, two schools of thoughts have emerged on the consequences of urbanization. The first school of thought welcomes and emphasizes urbanization as essential ingredients to economic development, modernization, physical development, human resources development and all forms of societal growth (Arthur, 1991 and Kessides, 2005). The second school thought believes that the pace of urbanization has brought enormous problems including environmental problems, slum development, high flood incidence, high social crimes, poverty, pollution, traffic congestion and squatter settlements inter alia (Olotuah and Adesiji, 2005; Jinadu and Isumonah, 2005; Aluko, 2010; Adetunji and Oyeleye, 2013).

This paper stands aloof from the two schools of thoughts, but the point of emphasis of this paper is that, the various problems that emanate from urbanization especially in the developing countries, is because of the high population involved in their urbanization process. Reducing fertility may be a better policy response to high urban population growth than reducing migration (Chen, *et al.* 1998). Conversely, the major factor that brings about various problems that usually result from urbanization is rural-urban drift especially in the developing countries. At a point, migration from countryside to urban centres makes carrying capacity of the urban centres to be exceeded, which also results to poor housing conditions, congestion, pollution, unemployment, over stressed facilities and services, as well as crimes among other problems. Urban centres with poor planning are diseased by such infections as slum housing conditions, limited coverage of urban services, unreliable service provision, general environmental deterioration, confused transport systems, incessant flooding and fire disasters (Egunjobi, 1999 and, Adetunji and Oyeleye, 2013). Planning which takes place at various spatial levels can help to minimize the impact of urbanization on the environment. As Egunjobi (1999) argues, planning and management are twin requisites for controlling the growth of urbanization and achieving good quality of life for urban dwellers, both permanent and temporary.

Egunjobi (1999) believes that, urbanization and environmental problems in Nigeria are consequences of irresponsible political leadership. From the point of view of Egunjobi (*op cit*), Nigerian government should wake from her slumber and endeavor to always put round pegs in round holes, and not in squared holes. Many of the political leaders especially at the Federal level do not have professional experience in relation to the portfolios given to them. A situation where someone in charge of Housing, Urban Development and Physical Planning is a political scientist or an Accountant, there is no way urbanization will not generate various degrees of problems in this type of governance. From the study of Arrow K. *et al* (1995), village culture is characterized by common bloodlines, intimate relationships, and communal behavior, whereas

urban culture is characterized by distant bloodlines, unfamiliar relations, and competitive behavior.

MIGRATION AND URBANIZATION IN NIGERIA

Migration is considered as the movement of people from one geographical region to another, which may be on temporary or permanent basis (Adewale G.J, 2005). This movement can be from rural to urban, rural to rural, urban to rural, urban to urban and across international boundaries. In the research of Jibowo (1992), the factors influencing people to migrate to rural areas from urban centres might be as a result of city congestion, traffic, dams, sanitation problems, increasing urban unemployment, increased crime rate and housing problem. The fact still remains that, the prevailing migration pattern in Nigeria is rural to urban migration, which makes population growth in major Nigerian cities like Lagos, Ibadan, Kano, and Port Harcourt among others to be very alarming on annual basis. Immigration accounts for a larger share of the growth of urban areas and cities. Adepoju (1976) shows that in Nigeria, net migration (considering both national and international migration) is more important than natural increase in the growth of cities. Zachariah and Conde (1980) also show that nearly half of the growth rate of urban areas was contributed by migrants.

Migration within Nigerian settlements in the past was majorly due to the efforts to seek safety of life, arable land for farming, education opportunities and to access health facilities. The major factor for migration in Nigeria nowadays is majorly for economic purpose. Many studies have been carried out to examine the economic effects of rural-urban drift on the migrants, the points of the origins and the destinations (Todaro, 1969; Aworemi Joshua *et al.*, 2011; Braunvan, 2004; Celia V. Sanidad-Leones, 2006; and Joseph Yaro, 2007). The study of Adamu (2009) reveals that internal migration has a negative impact on the quality of rural life, because it reduces the number of individuals in rural areas. The agricultural activities are depleting as vibrant youth migrate to the urban centres, thereby resulting to diseconomy conditions in the countryside. Ijere (1994) reveals that rural-urban migration has a positive impact on urban growth and social development and this helps generate employment, educational facilities and transportation infrastructure for the migrants. Conversely, The model of Harris-Todaro emerged in the late 1960s was pessimistic about urbanization, arguing that rural-urban migration was counterproductive because migrants moved for the wrong reasons, and did so on a continual basis. Rural-urban wage gaps reflected not only productivity differences but also artificially high wages that attracted too many migrants. Rather than offering economic benefits, migration to cities and the eventual closing of the wage gap merely resulted in more workers waiting through unproductive spells of unemployment or underemployment in a bloated service sector (Joseph Yaro, *op cit*).

There is high rate of rural-urban movement in Nigeria because of three major factors. Firstly, rural areas in Nigeria are regions of backward and depressed homogenous economy with little or no formal activities, but dominated with low scale agricultural activities. Secondly, the high rate of inadequate social amenities, facilities and infrastructures like; No or epileptic power supply, poor health services, deplorable road conditions, inadequate educational facilities, poor housing conditions and zero social life *inter alia*. Thirdly, people migrate from rural areas based on the change of their Knowledge, Attitude and Perception (*KAP*) about life in rural and urban areas. Some of the migrants from rural areas to urban centres are sometimes fortunate to be employed

as unskilled labour, few of them that are educated as skilled labour, while their larger percentage add to the percentage of urban unemployment and urban poverty. The point to note is, there is always no preparation for the rural-urban migrants in the urban centres, in terms of housing provision, more establishments of hospitals, construction of more roads, schools, waste management, water supply, jobs creation, power supply and so on. This thereby results to the consequences of urbanization like, slums development, traffic congestion, pollution (water, air, land and visual), crimes, insecurity, poverty, unemployment, and health challenges among other problems.

Rural-urban migration in Nigeria has been increasing over the past 25 years. Between 1985 and 1990, over 3 million Nigerians migrated from rural areas to urban centres, while over 5 million Nigerians migrated between 2001 and 2005 (See Figure 1). This shows over 75% increase in the rural-urban migration in Nigeria, for every period of 5-year. This rural-urban drift will continue to increase in Nigeria, if physical developments continue to be the urban affairs, while rural areas are left unattended to in terms of the provision of the infrastructural facilities, services, social amenities and homogenous economic activities in the rural areas.

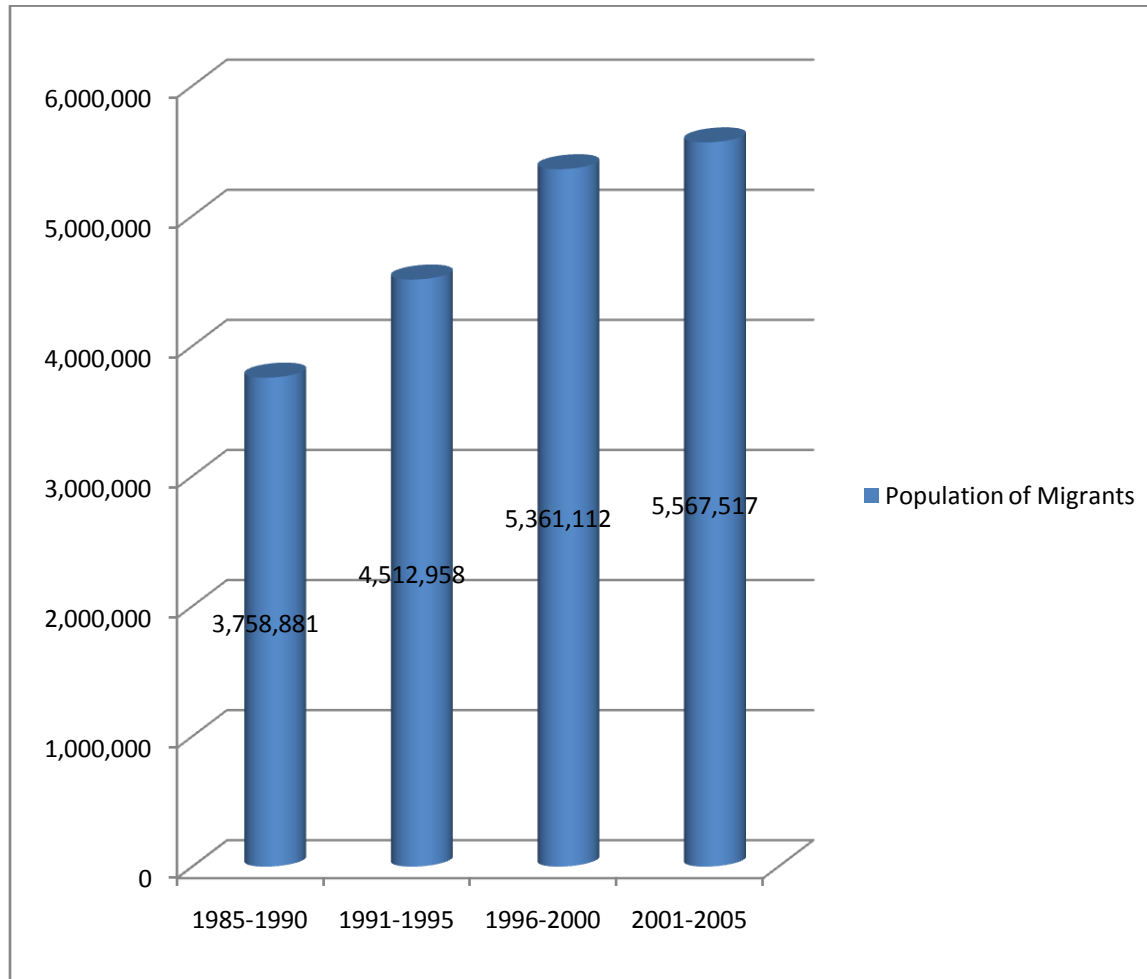


Figure1. Population of Rural-Urban Migrants in Nigeria from 1985 to 2005.
Source: Modified Data of Audu Jacob (2008).

Table 1. Urban and Rural Population of Selected Provinces in Nigeria, 1970.

Provinces	Total Pop. ('000)	Urban Pop.	% of Urban Pop.	% of Rural Pop.
Lagos	665	665,246	100.0	0.0
Ibadan	3327	627,379	18.8	81.2
Abeokuta	975	27,300	28.0	72.0
Portharcourt	834	95,768	11.5	88.5
Delta	1181	116,261	9.8	90.2
Calabar	269	76,410	28.3	71.7
Benue	2642	53,967	2.0	98.0
Enugu	1452	138,457	9.5	90.5
Owerri	2310	218,354	9.4	90.6
Ilorin	1119	208,546	18.7	81.3
Niger	1399	11,590	0.8	99.2
Kabba	1280	31,495	2.4	97.6
Zaria	1553	103,694	6.7	93.3
Borno	2854	51,779	1.8	98.2
Adamawa	1585	92,230	5.8	94.5
Sokoto	4335	89,817	2.1	97.9
Kano	5775	147,841	2.6	97.4
Katsina	2545	90,538	3.6	96.4

Source: Ajaegbu H.I. (1976). (Note: Pop. means population)

Since 1970 till date, the relationship between the percentage of people living in urban centres and rural areas can be described as “*Directional Inverse Relationship*”. The relationship is inverse, because the percentage of the population living in rural areas has been decreasing, while the percentage of population living in urban centres has been increasing. It is directional, because the increase is experienced only by urban centres, while decrease is experienced only by rural areas. The urban growth in Nigeria is very alarming in the Southwest Region, more than the other five (5) Geopolitical Regions in Nigeria as it is evident from (Table 1) even as at 1970 and till date. There is a great shift between the percentage of population living in rural areas and urban centres in Nigeria in few decades after 1970.

In 1974 rural population was 75% of the total population, but by 2001 urban population had assumed a high dimension of 44% of the country’s population (Aworemi Joshua *et al*, 2011). The forces that result to migration from rural can be termed “Centrifugal Forces” while the forces that result to migration to the urban centres can be termed “Centripetal Forces”. The inadequate social amenities, poor infrastructural facilities and services, homogenous and poor economy are the Centrifugal forces pushing rural population to the urban centres. The virtual job opportunities, availability of social amenities, infrastructural facilities and services, urban life and heterogeneous economy among other things are the Centripetal forces pulling the population of the countryside to the urban centres.

Table2. The World's Fifteen Largest Cities, 1950, 1995 & 2015 (Population in Millions)

City	1950 Population (millions)	City	1995 Population (millions)	City	2015 Population (millions)
1. New York	12.3	Tokyo	26.8	Tokyo	28.7
2. London	8.7	São Paulo	16.4	Bombay	27.4
3. Tokyo	6.9	New York	16.3	Lagos	24.4
4. Paris	5.4	Mexico City	15.6	Shanghai	23.4
5. Moscow	5.4	Bombay	15.1	Jakarta	21.2
6. Shanghai	5.3	Shanghai	15.1	São Paulo	20.8
7. Essen	5.3	Los Angeles	12.4	Karachi	20.6
8. Buenos Aires	5.0	Beijing	12.4	Beijing	19.4
9. Chicago	4.9	Calcutta	11.7	Dhaka	19.0
10. Calcutta	4.4	Seoul	11.6	Mexico City	18.8
11. Osaka	4.1	Jakarta	11.5	New York	17.6
12. Los Angeles	4.0	Buenos Aires	11.0	Calcutta	17.6
13. Beijing	3.9	Tianjin	10.7	Delhi	17.6
14. Milan	3.6	Osaka	10.6	Tianjin	17.0
15. Berlin	3.3	Lagos	10.3	Manila	14.7

Source: United Nations (1995), *World Urbanization Prospects: The 1994 Revision*. New York: United Nations. Table1. The World Resources Institute (1996), *World Resources 1996–97: The Urban Environment*, Oxford University Press. Todaro, M. (1997).

In the whole world, Lagos was not among the first fifteen largest cities (in terms of population size) in 1950. In 1995, Lagos had experienced over 100% increase in the population size, which made Lagos to be the fifteenth largest city in the world. By 2015, it is predicted by the United Nations (1995) that Lagos in Nigeria will be the third largest city in the world (See Table 2). The urbanization process of Lagos is tremendous and the highest in Nigeria, which makes Lagos to be the heart of urban problems in Nigeria.

CHALLENGES OF URBANIZATION

Urbanization in the developing countries has affected the structure and functions of the various social institutions, which include the family, economy, polity, religion, health and education. Industrialization and modernization which are intertwined with urbanization have led to the diminished functions of the various institutions in Nigerian urban centres. Urbanization has increased the poverty level in cities due to the alarming population growth of urban centres, and this is further aggravated by unemployment, underemployment, a decrease in real wages due to persistent inflation and uncontrolled migration (Celia V. Sanidad-Leones, 2006). The challenges of urbanization are felt in all most all the aspects of urban centres. Some of these challenges are discussed below;

1. Housing and Urbanization

Many researchers have described the conditions of the housing where over 60% of urban dwellers live in Nigeria as highly deplorable (Onokerhoraye, 1976; Wahab, *et al.* 1990; Olotuah and Adesiji, 2005). High rates of overcrowding, substandard buildings, and infrastructural inadequacies have been reported in all the urban centres in Nigeria (Adedibu, 1985 and Onibokun, 1987). Over 75% of the dwelling units in Nigeria's urban centres are substandard and the dwellings are sited in slums. Thus, over 60% of the urban dwellers live in slums characterized with over-crowding, poor sanitary conditions, lack or inadequate basic facilities and amenities, crimes and poverty among other things. While some urban dwellers still struggle to live in deplorable slums that are nothing but objects of visual pollutants to the western world, some are even homeless thereby sleeping around in different abandoned vehicles and buildings, under bridges, in stores and so on. This is as a result of high housing rent and cost of land in urban centres which the rural migrants cannot afford. Urbanization tends to increase the number of unoccupied housing in the countryside, while the housing occupancy rate in urban centres is at the extreme to the extents that people live in any available uncompleted structures and slums.

From the study of Olotuah (2005), the average occupancy rate in Akure, the capital city of Ondo State Nigeria is 4.42, while the World Health Organization (WHO) stipulates between 1.8 and 3.1, while the Nigerian Government is of the opinion of 2.0 per room (Okoko, 2001). Building collapse is alarming in Nigerian urban centres, and the incidence is minimal in the countryside. Urbanization influences building collapse, as the demand for more commercial, industrial and residential activities is very high due to the population growth of urban centres.

2. Poverty and Urbanization

World Bank (1996) defines poverty as hunger, lack of shelter, being sick and not being able to see a doctor, not having access to school and not knowing how to read. Aluko (1975) refers to poverty as a lack of command over basic consumption needs. Poverty is also having fear for tomorrow, the state of hopelessness and to be jobless. Nigeria is among the countries working to achieve the eight (8) Millennium Development goals (MDGs) by 2015. It is not a surprise for the president of Nigeria to declare in live broadcast in mid July of 2013, that Nigeria may not achieve any of the MDGs by 2015. The second MDGs, is to eradicate the extreme poverty and hunger. More than 70 million Nigerians live in poverty (Ayedun, *et al.*, 2011). Poverty is high in Nigeria due to the inadequate job opportunities, infrastructural facilities and services that do not meet demands of urban populace. The depth of poverty declined from 19% to 16% in rural areas, while it increased in urban areas from 9% to 12%. In 1985-1992, total extreme poverty in Nigeria increased from 10.1 million people to 13.9 million with a near three-fold increase in the urban extreme poor from 1.5 million to 4.3 million people (World Bank, 1995)

3. Crimes and Insecurity

The incidence of crimes tends to increase in any region, where we have high population of people, and such incidence is reduced in a region with low population of people. Celia V. Sanidad-Leones (2006) opines that rapid urbanization, industrialization, and migration to the cities are major factors that contribute to higher crime rates in Philippine urban centres. This is not in contrast to the urbanization challenges as regards crimes in Nigerian urban centres. The prevailing crimes in Nigerian urban centres include robbery, kidnapping, rape, murder, child trafficking, murder, political violence, fraud, suicide, and prostitution among other crimes, which are the resultant factors of urbanization. All these crimes are urban affairs and not rural affairs,

because many inhabitants of the countryside are related in one way or the other. The Nigerian Police numerical strength is not commensurate with the total population, as one Policeman to 5,000 Nigerians; unlike in developed countries with one Policeman to about 400 people (Agbola, 1997). Moreover, with the disproportion between the security strength and population in Nigeria, the study by Robert (2007) shows that in Nigerian urban centres, a number of army soldiers and police officers have been sentenced to death for armed robbery involvement in Nigerian urban centres.

In many urban centers of Nigeria today, criminal activities and violence are assuming dangerous tendencies as they threaten lives and properties, the national sense of well-being and coherence, peace, social order and security, thus, reducing the quality of life of the citizens (Ahmed, 2010). At least, one of these crimes is committed on daily basis in Nigerian urban centre, while in some cases the culprits are always at large, due to the exploded population growth of urban centres with millions of people.

Out of all the crimes in Nigeria, robbery incidence is the highest with 27.3% (Robert, 2007). Small Arms Survey (2007) shows that 1.6% of households own a firearm in Nigeria. It is unlawful for any person in Nigeria, apart from the government security agents to own or carry firearm. But the number of persons with firearms continues to increase as robbery incidence has become an order of the day in many urban centres in developing countries. Rapid urban expansion in Africa is connected to a crisis in urban governance fueling unemployment and the inability of public police forces and the security sectors of many countries to provide adequate protection (Robert, 2007).

4. Food Insecurity and Urbanization

The high rate of rural-urban migration in developing countries threatens food security in both urban centres and rural areas. High number of people involved in agricultural activities in rural areas, have abandoned agricultural activities as they migrate to the urban centres to seek jobs in manufacturing and processing industries and some into informal activities. Lesser number of people are into agriculture in Nigeria, as more agricultural land in the suburbs have given way for suburban developments and large expanse of land in rural areas are left uncultivated, as rural areas are more dominated with the aged people who have no strength for agricultural activities. This justifies why importation of food (especially rice, the major Nigerian food) is very high. The prices of all types of foods are very high, which makes it difficult for many poor in the society to afford the three squares a day, as recognized in Nigerian society.

5. Unemployment and Urbanization

One of the major consequences of the rapid urbanization process has been the burgeoning supply of job seekers in both the modern (formal) and traditional (informal) sectors of the urban economy (Todaro, 1997). Rural-urban migration has a significant impact on unemployment levels of the destination cities (Aworemi Joshua *et al*, 2011). Between 1998 and 1999, urban unemployment rose from 5.5% to 6.5%, a rate higher than the national unemployment which increased from 3.9% to 4.7% during the same period (USAID, 2002). Unemployment is very high in all urban centres in Nigeria, and the main reason is because of the high population of migrants from the rural areas in Nigeria and few other national migrants from other African countries that come to seek for jobs that are not that available in the urban centres. As the

unemployment rate is increasing in the urban centres, it is reducing in country side because of the homogenous type of activity in the countryside which is agriculture.

6. Environmental problems and urbanization

The major challenge of urbanization in Nigerian Urban centres are environmental problems. In Nigeria, Mba, *et al.* (2004) identifies several types of environmental problems classified as ecological, poaching and habitat loss, increasing desertification and soil erosion. These are further subdivided into pollution (water, land, visual and noise), deforestation, global warming and slum development, etc. Nigeria's coastal regions are currently experiencing widespread contamination from petroleum exploration (gas flaring, oil spillage) while the general poor living conditions in urban areas in the country constitutes an affront to human dignity (Adedeji and Ezeyi, 2010).

Environmental problems in the urban centres have resulted to many health problems in Nigeria, and they also have a negative effect on the overall economy of the country. Apart from general health implications of environmental problems, there are tendencies of the problems affecting the psyche of the people. For instance, residents of urban slums are known to show deviance attitudes, apathy to government programmes and anti-social values like, prostitution, crimes, and juvenile delinquency (Adedeji and Ezeyi, 2010). Improper wastes management has made the societal fabric of many urban centres in Nigeria to be very unsightly. Traffic congestion which increases the generation of the cars' exhaust due to the traffic delay is another major environmental problem in Nigerian urban centres. Slums developments in urban centres also deplete the physical environment, increases crimes and violence. The environmental problems in urban centres outweigh the experience in the countryside, as the environmental problems are seen as the results of human activities which are higher in the urban centres.

7. Climate Change and Urbanization

Man's activities relating to where he lives, works and his movement from place to place, consumption as well as the usage of technologies, all affect heat emissions in a city (Olaleye, 2013). According to Odjugo (2011), Nigeria is experiencing global warming at the rate higher than the global mean temperatures. In Nigeria, the mean increase in temperature from 1971 to 2008 is 1.78 °C, compared to the global mean increase in temperature of 0.74 °C since instrumental global temperature measurement started in 1860 (Odjugo, 2011). The sharp increase in temperature between 1971 and 2005 in Nigeria could be linked to the effect of climate change and its associated global warming earlier reported (Mabo, 2006 and Odjugo, 2011). Climate change in urban centres results from the high rate of industrial and commercial activities in the urban centres, with little consideration of the environmental implications of their activities. The climate change results to the incessant flood occurrence, harsh temperature, poor agricultural productivity, and human health diseases (skin reactions and respiratory diseases) among other challenges.

FUTURE CHALLENGES OF URBANIZATION IN NIGERIA

In the study of Jelili (2012), the future of the population of the developed world will stop growing and the population of the rural areas of the developing world will soon stop growing as well. That means the next three billion people added to the planet are mostly going to live in the urban centres of the developing countries where Nigeria is not excluded. As more people are predicted to inhabit urban centres majorly in developing countries in the next decades. The

following challenges are hereby predicted to be prominent as the outcome of the pace of urbanization in Nigeria and other developing countries, if proper measures are not put in place starting from now;

1) As more people will inhabit cities in few decades to come, the by-product of photosynthesis which is the major source of human life will be greatly depleted. More green will give way for physical development, and thereby reduces the quality of the already polluted air in major Nigerian urban centres, due to industrialization and other city-related activities. This condition may likely increase incidence of Chronic Obstructive Pulmonary diseases; chronic bronchitis, asthma, and cardiopulmonary diseases among others.

2) Carrying capacity may collapse in the next decades, if the population continues to increase sporadically in the urbanization process, whereby the available resources in the future may not sustain the population of urban centres in the next decades. Lagos in Nigeria for example, the population of Lagos was 665,246 in 1970 (Ajaegbu, 1976), 10.3 million in 1995 (United Nations, 1995), estimated to be 12.09 million in 2013 (Demographia World Urban Areas, 2013) and 24.4 million by 2015 (United Nations, 1995). The population increase in many urban centres is mainly caused by rural-urban drift and not by natural increase which is impeded by death. The resources available may not sustain the future generation, as the resources are reducing, the population is increasing. There is imbalance in the proportion of the change in resources and change in population. There is danger of high competition in the future to access the limited resources that will be available, which may tend to an extent of killing one another.

3) The rate of unemployment will be extremely high. Though, the rate is high already, but surprisingly the population employed now may be underemployed in the future, and some will be out of employment because of the technological developments which may reduce human labor in decades to come. As more people are migrating from rural areas to cities, jobs will be very scarce due to high rate of population growth.

4) Insecurity and crime will also be major characteristics of urbanization in Nigeria. The available security personnel in cities may not be able to control the crime rate in the cities. Crimes may take new dimensions like family members selling one another; marriage among family members, high rate of rape involving the young and the old of human beings, marriage of the same sex in Nigeria, high rate of car snatching, kidnapping of both the young and the old, and fake currency printing among other crimes. Most of these crimes are plaguing Nigerian cities already, but they shall be more prevailing in the future, if certain measures are not put in place.

5) There will be a spontaneous change in climate. Sun radiation may be more threatening to human body, and many new skin diseases may herald the future urbanization. From the studies of (Adetunji and Oyeleye, 2013), excessive floods may claim more lives in the future due to the climate change that increases the rainfall. Other problems and new diseases that are not known now, may herald the next decades due to the climate change as a resultant factor of uncontrolled urbanization due to unplanned population growth in many urban centres.

6) Environmental problems that will result from the future urbanization can never be over emphasized. It will be very difficult to manage wastes of the high population and the urban fabric of major cities will be highly jeopardize as the waste dumps may become a substance of visual pollution from the major highways in cities. Increase in traffic congestion and air pollution as more cars will ply roads in cities. Slums development may be proliferated in some respected areas of the urban centres, due to the pressure of where to stay by the migrants in the urban centres. More diseases may emerge due to the environmental challenges of the future urbanization.

7) Food insecurity as a threat to human life is another problem of urbanization, which will be prominent in few decades to come. This problem will not only concern urban centres, but also the countryside. The strong and vibrant youths that are leaving rural areas for the urban centres, leaving those who are aged that are weak in the rural areas, those that cannot practice farming as such again. Agricultural production of the rural areas in Nigeria determines the cost of food in the urban centres. It is a known fact that the prices of food had increased in Nigeria by 100% in the last 10 years (2003-2013). Foods may only be accessed by the bourgeoisie and the proletariat may struggle to have just a meal per day. As popularly said that “An hungry person is an angry person”, more atrocities may be committed in the cities by people who cannot afford their daily meals. More processed foods that can be produced in Nigeria are now imported from other nations of the world. If people who migrate from rural areas to urban centres have been coming to join the few that practice agriculture in the cities, the prices of food would not have escalated by 100% in the last ten (10) years. But instead, the rural migrants come to the cities to chase away the few that practice agriculture in the cities by living in the urban suburbs and resulting to slums development.

8) The problems of urbanization in the future will be a great challenge to the professionals concerned with the environmental issues (Urban planners, Architects, Geographers, Social Scientists, Economists, Engineers and others) and all Health workers. There will be complex environmental maladies with uncontrolled physical development and population growth. Urbanization may likely increase the burden of researchers across the disciplines in the future. There may be needs for new directions in the area of research in Nigeria and other developing countries, due to the problems that may emanate from urbanization in the future. Natural disasters like tremors, earthquakes, landslides, tornadoes and others that are strange to Nigeria may be the subjects of research in the future. As the trends of developments may likely go underground in Nigeria and other developing countries for railway constructions, roads, buildings, car garage and all other forms of developments, these trends of developments (beneath, on and above the ground) in urban centres may likely result to alien attacks in Nigeria, which include; tremors, earthquakes, landslides, and tornadoes, if proper management measures are not put in place.

RECOMMENDATIONS AND CONCLUSION

As the existing and possible future challenges of urbanization in Nigeria have been succinctly examined in this paper. The actions suggested to tackle these challenges, in order to ensure sustainable development, will focus on renewing the urban centres and integrating rural areas.

- 1) Rural-urban migration is the major problem of urbanization in Nigeria. Rural-urban drift should be addressed more at the local level that is closer to the members of the countryside, by making them to know the environmental and economy implications of their migration to the urban centres through various public enlightenment programs.
- 2) The major factor that leads to rural-urban drift in Nigeria is regional inequalities. To halt rural-urban drift to a great extent, government at the state (regional) level supported at the federal (national) level, should embark on various physical developments and the provision of basic infrastructural facilities, services and social amenities (equipped schools, water supply, good roads, health facilities, stable electricity, relaxation centres and other things) in rural areas. This will reduce the level of inequalities between the urban centres and rural areas, and this will naturally control the rural-urban drift.

- 3) The major economic activity in the countryside is agriculture (farming). Government should provide necessary incentives to promote agricultural activities in the countryside through zero-interest loan to farmers, low cost agricultural tools, good market for agricultural produce and other incentives.
- 4) To ensure environmental sustainability in cities, planting of trees (evergreen trees and not deciduous trees that shed leaves) is imperative. Government should embark on massive tree planting and encourage citizens to plant trees by providing free seedlings for the citizens.
- 5) There is a need to review various laws in charge of environmental management in Nigeria like NESREA (National Environmental Standard Regulation Enforcement Agency), FEPA (Federal Environmental Protection Agency) and other legislations that are concerned with the environmental monitoring. The laws should be more effective in terms of Compliance, Enforcement and Penalty.
- 6) There is a need to encourage mass transit in urban centres. The exhaust generated by vehicles is a serious threat to the environment. Government should mandate “Kiss-and-Ride” or “Park-and-Ride” system while approaching some business districts in urban centres to reduce traffic congestion, noise, accident rate, crimes and air pollution. Government and private investors can invest in building car parks in district centres in cities, where car owners pay charges per time spent.
- 7) Government should demolish all slums in urban centres and make these areas return back to green zones, by planting trees. The evicted slum dwellers should be encouraged with little fund by the government, and they should reconcile them back to the communities they migrated from, which are mainly the rural areas. Government should endeavor to provide low cost housing that are affordable for some of the slum dwellers evicted from the slums, and other urban poor who are working in “Formal Sector” of the urban centres.
- 8) Comprehensive development plans should be developed with citizen participation, and adopted by the local government councils. This will guide the physical developments in the countryside as recommended by this paper, to integrate infrastructural facilities, services and economic activities in the countryside. This will guide against environmental threats that may result from the rural integration schemes in the future, as the current experience in urban centres.
- 9) Government should create a more enabling environment for the populace in both the rural areas and urban centres to practice agriculture. Provision of arable land for agricultural practices in the recommended cleared slums and urban suburbs for the urban centres where land is scarce. The community leaders and Local Government council should make land available for the members of the rural areas. Government should provide zero interest loans to the members of the public in agricultural sector. This will reduce the problems of poverty and unemployment.
- 10) More enlightenment programs should be available for the members of the public on the implications of natural increase. The awareness should start from the religion centres, community and media.
- 11) Governments at all levels (local, state, and federal) should embrace “Ideal Governance”. This type of governance ensures the right people with reputations and also related professional experience are appointed to the political positions that have to do with environment, physical planning and urban development, and other departments in government. Putting the round pegs in round holes in governance will ensure and increase productivity.

CONCLUSION

Urbanization in Nigerian urban centres has brought about varying degree of problems ranging from economy, climatic, environmental, housing, sociocultural, traffic, population bomb, to food

insecurity among other problems. It is good to know that everyone in urban centres is affected with one or more of these problems, which shows that we are not safe from the existing and predicted urban problems. It is pertinent at this point for Nigerian government to adopt the recommendations in this paper, in order to control the urbanization process in Nigeria, and to ensure sustainable developments in both urban centres and rural areas.

REFERENCES;

Adamu, M. (2009) “The Impact of Rural-Urban Migration on the Economy of Rural Areas in Wudil Local Government of Kano State Nigeria” *Techno Science Africana Journal*, Vol.3, No 1.

Adedibu, A.A. (1985) “The Practice and Constraints of Physical Planning in Nigeria”, *Journal of the Nigerian Institute of Town Planners (JNITP)*, pg 49-58

Adediji Daramola and Eziyi Ibem (2010) “Urban Environmental Problems in Nigeria: Implications for Sustainable Development” *Journal of Sustainable Development in Africa*, Vol. 12, No. 1.

Adepoju, A. (1976) “Internal Migration in Nigeria” Institute of Population and Man Power Studies University of Ife, Ile-Ife, Osun State, Nigeria.

Adetunji, M.A. and Oyeleye, O.I. (2013) “Evaluation of the Causes and Effects of Flood in Apete, Ido Local Government Area, Oyo State, Nigeria” *Journal of Civil and Environmental Research*, Vol. 3, No. 7, pp 19, New York, USA.

Adewale, G.J. (2005) “Socio-Economic Factors Associated with Urban-Rural Migration in Nigeria” A Case Study of Oyo State, Nigeria” *Kamla-Raj, J. Hum. Ecol.*, 17(1): 13-16.

Agbola, T. (1997) “The architecture of fear: Urban Design and Construction, Response to Urban Violence in Lagos, Nigeria”. *IFRA/African Book Builders*.

Agbola, T. (2004) “Readings in Urban and Regional Planning” *Published by Macmillan Nigeria Limited, Ibadan, Oyo State, Nigeria*. Pp. 179

Ahmed, Y.A. (2010) “Trend and Pattern of Urban Crime in South Western Nigeria” *Unpublished Ph.D. Thesis*, University of Ilorin, Nigeria.

Ajaegbu, H.I. (1976) “Urban and Rural Development in Nigeria” *Heinemann Educational books*, London.

Aluko, O.E. (2010) “The Impact of Urbanization on Housing Development: The Lagos Experience, Nigeria” *Ethiopian Journal of Environmental Studies and Management* Vol. 3, No. 3

Aluko, S. (1975) “Poverty: Its Remedies in Poverty in Nigeria” The Nigerian Economic Society, Ibadan. Oyo State.

Angotti, T (1993) “Metropolis 2000: Planning, Poverty and Politics”, *London, Routledge*

Arrow, K. *et al.* (1995) “Economic Growth, Carrying Capacity, and the Environment”, *Science*, 268: 520-521.

Arthur, J. A. (1991) “International Labour Migration Patterns in West Africa” *African Studies Review*, 34(3): 65–88.

Audu Jacob, (2008) “Urbanization: Poverty Reduction or Aggravation. Case Study of Nigerian Urban Centres” Ahmadu Bello University, Zaria.

Aworemi Joshua, *et al.* (2011) “An Appraisal of the Factors Influencing Rural-Urban Migration in Some Selected Local Government Areas of Lagos State Nigeria” *Journal of Sustainable Development*, Vol. 4, No. 3

Ayedun, C.A *et al.* (2011) “Towards Ensuring Sustainable Urban Growth and Development in Nigeria: Challenges and Strategies” *Business Management Dynamics* Vol.1, No.2, pp.99-104

Braunvan, J. (2004) “Towards a Renewed Focus on Rural Development, Agriculture and Rural Development” 11(2) pp. 4–6.

Celia V. Sanidad-Leones, (2006) “The Current Situation of Crime Associated with Urbanization: Problems experienced and Counter Measures Initiated in the Philippines” *Resource Material Series*, No.68, by United Nations Asia.

Chen, N. *et al.* (1998) “What Do We Know about Recent Trends in Urbanization” New York: United Nations Population Fund.

Demographia World Urban Areas, (2013) “World Agglomerations” 9th Annual Ed., pp16.

Egunjobi (1999) “Our Gasping Cities” An Inaugural Lecture, 1999, University of Ibadan, Ibadan, Oyo State, Nigeria.

Ijere, N. J. (1994) “Gender and Rural-Urban Migration in the Ecuadorian sierra” *Columbia University Press*, Columbia.

Jack Harvey, (2000) “Urban Land Economics” *Palgrave Macmillan, Fifth Edition* pp 256-257.

Jelili, M.O (2012) “Urbanization and Future of Cities in Africa: The Emerging Facts and Challenges to Planners” *Global Journal of Human Social Science*, Volume 12 Issue 7.

Jibowo, A.A (1992) “Essentials of Rural Sociology” *Abeokuta: Gbemi Sodipo Press Ltd.*

Jinadu, L.A and Isumonah, V.A (2005) “Environmental Challenges of Urbanization in Africa” Prepared for presentation at the International Congress on Environmental Planning and Management, at the Universidade Catolica de Brasilia, Brazil

Joseph A. Yaro, (2007) "Migration in West Africa: Patterns, Issues and Challenges" *Centre for Migration Studies, University of Ghana, Legon*

Kessides, C. (2005). "The Urban Transition in Sub-Saharan Africa: Implications for Economic Growth and Poverty Reduction" Urban Development Unit, The World Bank

Mabo C.B. (2006) "Temperature Variation in Northern Nigeria between 1970 and 2000" *Journal of Energy and Environment*. Vol. 19(1): pp 80-88.

Mabogunje, A.L. (1974) "Towards an Urban Policy in Nigeria" *Nigerian Journal of Social and Economic Studies*, Vol. 16, pp. 85-98.

Mabogunje, *et al* (1978) "Shelter Provision in Developing Countries" Surrey: *The Gresham Press*

Mba, H.C. *et al.* (2004) "Management of Environmental Problems and Hazards in Nigeria", *Hants: Ashgate Publishing Ltd.*

Odjugo, P. A. O. (2011) "Climate Change and Global Warming: The Nigerian Perspective" *Journal of Sustainable Development and Environmental Protection*. Vol. 1(16): 6-17

Okoko, E. (2001) "Residential Crowding and Privacy in High-Density Neighbourhoods in Akure, Nigeria" *Ife Social Sciences Review*, Vol. 19 No. 1 pp 133-144.

Olaleye D.O (2013) "Community Greening in Pre and Post Climate Change Knowledge Era in Third World Cities: Case study of Lagos, Nigeria" *Journal of Civil and Environmental Research*, Vol. 3, No. 7, New York, USA.

Olotuah, A.O. and Adesiji, O.S. (2005) "Housing Poverty, Slum Formation and Deviant Behaviour" Federal University of Technology, Akure, Nigeria and 61 Glimpsing Green, Erith Kent, DA 18 4HB London.

Olotuah, A.O. (2005) "Urbanisation, Urban Poverty, and Housing Inadequacy" *Proceedings of Africa Union of Architects Congress, Abuja, Nigeria*, pp. 185-199.

Onibokun, A.G (1987) "Public Utilities and Social Services in Nigerian urban Centres: Problems and Guides for Africa" *IDRC, Canada and NISER, Ibadan, Oyo State, Nigeria*.

Onyemelukwe, J.C. (1977) "Urbanization in a Development Context: Patterns, Problems and Prospects in Nigeria" *Annual conference of the Nigerian Economic Society*, pp.11-37

Onokerhoraye, A.G. (1976) "The Pattern of Housing, Benin, Nigeria" *Ekistics*, Vol. 41, No. 242

Onokerhoraye and Omuta, (1994) "Urban systems and planning for Africa" *Published by The Benin Social Science Series for Africa, University of Benin, Benin City, Nigeria*.

Robert Muggah, (2007) “More Slums Equals More Violence: Reviewing Armed Violence and Urbanization in Africa” *United Nations Development Programme*, Government of the Republic of Kenya.

Salau, A.T. (1992) “Urbanisation and Spatial Strategies in West African Cities and Development in the Third World” London: *Mansell Publishing Ltd*, pp 157-171.

Small Arms Survey, (2007) “Guns and the City”, *Cambridge University Press*.

The World Resources Institute (1996) “World Resources 1996–97: The Urban Environment. New York: *Oxford University Press*.

Todaro, M. (1969) “A Model of Labor, Migration, and Urban Employment in Less Developed Countries” *American Economic Review* 59 (1): 138–48.

Todaro, M. (1997) “Urbanization, Unemployment, and Migration in Africa: Theory and Policy” *Paper prepared for Reviewing Social and Economic Progress in Africa*. Macmillan, forthcoming. Ed. Dharam Ghai.

United Nations (1995) “World Urbanization Prospects: The 1994 *Revision*” New York.

United Nations (1990) “Human Development Report” *Oxford University Press*

USAID (2002) “Urban Profile; ‘Nigeria’ making cities work”. [Online] available: <http://www.makingcitieswork.org/files/pdf/Africa/Nigeria>

Wahab, K., *et al.* (1990) “Urban Housing Conditions” *Urban Housing in Nigeria*, A.G. Onibokun (Ed.); Ibadan: *Nigerian Institute of Social and Economic Research*.

Wirth, L. (1938) “Urbanism as a Way of Life.” *American Journal of Sociology* 44(January):1-24.

World Bank (1995) “Defining an Environmental Development Strategy for the Niger Delta, Nigeria” *World Bank Report* 14266.

World Bank (1996) “Nigeria Poverty in the Midst of Plenty, the Challenge of Growth with Inclusion” *A World Bank Poverty Assessment Handbook*.

Zachariah, K. C. and Condé. J. (1980) “Migration in West Africa- Demographic Aspects” *Oxford: Oxford University Press* (A Joint World Bank-OECD Study).