

Urbanization and Sustainable City Development: A Study of Agility and Panada in Lagos Metropolis

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Abstract

Lagos State today accommodates about 17 million inhabitants ranking it among the fastest growing urban conglomerations in the world. As more people continue to migrate to Lagos in search of better condition of living, the challenge of housing delivery has manifested in form of severe overcrowding, unwholesome environmental conditions and slum settlements. This paper focuses on the impact of urbanization on the housing conditions in Agiliti town of Ikorodu and Panada in Isolo both in Lagos State. Both questionnaires and personal observations survey methods were used to elicit relevant data and the analysis of data generated revealed very poor housing and environmental conditions in these slum areas. It was also discovered that housing shortage and poverty were the major causes of proliferation of slums. The paper thereafter recommended the integration of slum development into the urban planning framework and the upgrading of the present housing units to a well-structured low cost housing units affordable to the residents of the study area.

Keywords: Urbanization, City Development, Housing Delivery, Sustainable, Environmental Conditions.

1. Introduction

Nigeria's population is presently over 140 million and the urban population has also been increasing rapidly. In fact, there has been a steady growth in urbanization in Nigeria since 1920s. As at 1921 when Nigeria's population was estimated at 18.631 million, at least 1,345 million Nigerians lived in 29 cities; in about 1955, 11% Nigerians lived in cities and by 1990s, the percentage rose to 19.1%. In 1991 the total urban population was put at 30.5%. As at 2000AD, the percentage rose to 42.3% and it is estimated that with the 11% annual urban population growth rate, the urban population would reach 60% by the year 2020 (Sule, 2003). There is an increase in urban population without a corresponding increase in urban social facilities such as roads, electricity, water and adequate housing stock. This pattern of urbanisation in Nigeria has put under stress the social and economic structures of the urban areas. These overloads are manifested in the large-scale unemployment, population displacement, inadequate water and power supply and most nagging is the inadequate housing stock and the proliferation of slums. The menace of solid wastes, industrial and atmospheric pollutions are also associated problems of an unplanned urbanisation in the country. However, the performances being expected from urbanization are not being conceived in terms of living conditions of the people and meeting that expectation in terms of social, economic and political provisions.

The United Nations has repeatedly drawn attention to the gloomy future that awaits the fastest growing cities of the world, particularly in developing nations. One-third of the world's urban population (about one billion people) currently live in sub-standard neighbourhoods and slums areas. (UN Habitat, 2008). Such environments impose a lot of burden on urban infrastructure. Most urban centres of the developing world are characterised by colossal deficiencies in housing, congestion of traffic, concentration of industries, mixed land uses, social disorders and economic distress (Okedele et al 2009). This paper therefore is necessitated by the increase in urbanisation coupled with the implication for the environment in which urban dwellers live and to ensure a healthy and tolerable environment. It looks at urban slums and presents a general discussion of the data obtained from the selected slum areas of Lagos State. It concludes with the policy implications and recommendations for the improvement of these slum areas.

2. Urbanization and Sustainable City Development

Urbanization is primarily the shift of population from rural areas to the cities with the phenomenal growth of cities. The conflicting attitude to the issue of urbanization most especially in Africa has been brought about by different meanings given to its definition. It is therefore not surprising that "while concealing the fact that cities have grown enormously, large sectors of the international development community may concede that many Africans are urban residents but they are not truly urbanized (Simone, 2005). Urbanisation is the phenomenon in which changes occur in the proportion of the population of a nation living in urban places (Palen, 1987). It refers to the process of settlements becoming urban and thus ceasing to be rural (Chadwick, 1987). It involves the movement of people from one settlement (rural or urban) to another more densely populated area. Thus urbanisation is accompanied with social and economic development in association with urban infrastructural inadequacies, urban waste generation and expansion. The United Nation (UNCHS, 1996) has defined urbanization as the movement of the people from rural to urban areas with population growth equating to urban migration. Sule (2003) opines that urbanization is the agglomeration of people at a definite point in space; and this space is referred to as an urban settlement especially when the size of the population is large.

Urbanization or urban growth process has been defined by Mabogunje as a process of human agglomeration in multi-functional settlements of relatively substantial size (David, 2005). Olotuah (2009) asserts that urbanization results from the multiplication of points of concentration on the one hand and an increase in the number of concentration points on the other hand. Globally, more than half of the world's 6.6 billion people live in urban areas. This stage was reached from a level of less than 5% in 1800, which increased to 47% in 2000 and expected to reach 65% in 2030 (Kadiri & Jolaoso 2007). Of greater importance is the level of concentration of the urban population. According to Habitat (1996) cited in Agbola (2006) by year 2015, there will be about 60 mega cities with a total population of more than 600million people. This can be compared with only 10 mega cities each with 10million or more people and 22 cities with 10million people; 370 cities with 0.5 to 1 million people in existence today (Agbola 2005).

In Nigeria, the Federal Ministry of Housing and Urban Development (2003) asserts that compared to growth rate of around 3% for the total population, the urban population in Nigeria over the last three decades has been growing close to about 5.8% per annum. This urban growth rate had resulted in a situation where it had been estimated that by 2010 more than half of the country's population will be living in urban centres.

However, a major characteristic of urbanization in Nigeria is it poor planning. The assertion of Onibokun (2000) about African cities is very true of most Nigerian urban centres. He asserted that the city centres are gradually and systematically decaying without any tangible programme for rehabilitation. The new urban peripheries emerged in an unplanned manner and without the necessary infrastructure. If the colonial era left a legacy of central slums in the African countries, post – colonial regimes have created suburban slums of greater dimension. Overcrowding, complex land use, marginal employment and inadequate social infrastructure characterise the urban environment in many of the urban centres. In addition most urban centres of the developing world are characterised by colossal deficiency in housing which is a critical elements in evaluating housing delivery as a measure of national development and the quality of life of city residents.

Housing is a concept that has been given different interpretation by different people. To some people, housing means shelter or cluster of shelters for human habitation especially in large numbers (Amadi, 2001). Housing is the all – encompassing phenomenon of the creation of the living environment for men. It caters for man's biological (clean, air, water) psychological (satisfaction, contentment, prestige, privacy, choice, freedom, security) and social (interaction with others, human development and cultural activities) needs and is beneficial for his development in this regard. It is conceivable in a much larger dimension as its purposes are to provide a shelter for the performance of human activities, protection from climatic element, safety and security (from animal predators, human vices, fire hazards,) and for conditions that promote good health, adequate space and privacy (Olotuah 2000).The world health organization expert committee on public aspect of housing defines housing as the physical structure that man used for shelter and the environment of such structures including all the necessary facilities, services, equipment e.t.c needed for the physical and mental health and social well-being of the residents.

Housing is a fundamental need for dignified living and it presents a major area of deprivation for the urban poor. The rate of provision of new housing stock in Nigeria has lagged behind the rate of population growth, which is responsive for the formation of slums, growth of squatter settlements and high rent beyond the affordable limit of the poor. Studies by Olotuah and Aiyetan (2007) affirm that 75% of the dwelling units in urban centres in Nigeria are substandard and the dwellings are sited in slum areas. The inadequacy of the quality of most of urban housing stems mainly from the poor physical state of the buildings. The environment in which the buildings are located is squalid in most cases and this generally leads to slum conditions.

Grierson (2003) sees sustainability essentially as a term used to indicate a change in the attitude towards prioritising ways of life that are in balance with the current renewable resources of the ecosystem and the biosphere. He also sees it as involving a move from a current condition of unsustainable activity towards a process of improvement and increased quality. However, sustainable development is about meeting the needs of the present without compromising the future generation to meet their own needs. Also, it sets out to achieve the goals of an improved environment, a better economy and a community that is participatory without trading off any of these against the others.

In its application to cities, sustainability adopts the metaphor of metabolism to human settlements: a city can be defined as becoming more sustainable if it is reducing its resource inputs (land, energy, water and materials) and waste outputs (air, liquid and solid waste) while simultaneously improving its liveability (health, employment, income, housing, leisure activities and public spaces. (Newman and Kenworthy, 2003). The concern with sustainability in the developing world does not depend on the level of urbanization but in its sheer scale and rate of growth. (Drakakis-Smith, 2000). Yet, if the scale of urban growth in the developing world has eclipsed that of the developed economies, the deepening effects of globalisation ensure the continued domination of the cities in the latter (Paddison, 2001).

3. **Slum in Lagos.**

The United Nations Global Report on Human settlement 2007 asserts that the population of the world is predominantly urban. About 3.3billion inhabitants, who represent over 50% of the world's human population are said to be living in urban

areas. It is projected by 2030, this figure will rise to 5.0 billion people (66.7%) and by the year 2050, more than 6.0 billion people will reside in towns and cities (UN-Habitat, 2007). One of the environmental challenges of this age is how to improve the quality of life of the poor.

Migrations have been responsible for the growth in slum in many settlements of the world. Many of the recent arrivals of Africa's slums migrated from the countryside. The increasing rate of slum development is adduced to failed policies, bad governance, corruption, inappropriate regulation, dysfunctional land marketers, irresponsive financial system and a fundamental lack of political will (Segynola et al 2009).

Lagos being one of the fastest growing cities in Nigeria is continually faced with an influx of people from various parts of the country looking for better living conditions and because of this, the existing infrastructures are over – stretched. The United Nations (1996) put the population of Lagos City at 10.9 Million, projecting it would rise to become world's third most populous city with 24.6 million inhabitants by 2015. As a result of man's search for shelter, informal dwellings spring up in many places that are devoid of basic infrastructure and it has been discovered that people who live in these slum areas are poor, unemployed and downtrodden. Eventually, the attendant problems result into overcrowding, poor housing conditions, health problems and other social vices.

Lagos State in the past pursued slum upgrading exercises where Government officials arrogated to themselves absolute knowledge of every community needs. This gave rise to renewal schemes that do not have adequate community input as evidenced in Olaleye Iponri urban renewal project and Badia-Olojowon pilot project. Aluko (2006) buttressed that participation which is a direct public involvement in decision making allows the citizen to share in social decisions that determine the quality and direction of their lives. Participation results in a greater meeting of social needs and increase effective utilization of resources at the disposal of a particular community such that it eliminates 'white elephant' projects.

4. The Study Area

Agiliti is one of the early Ijebu settlements like Ajelogo, Alapere, Ketu. It has a land mass of 158 hectares under Kosofe Local Government. It is bounded to the North by Magodo, Mile 12 to the South, Maidan River and Maidan community to the East and Agboyi-Ketu to the West. The community is estimated to have a population of 8297 with a growth rate of 6.5% as at 1991(1991 population census).A town which is presently without a paramount ruler is being coordinated by an indigenous family. Also, all parcels of land contiguous to the Maidan River are swampy while the ones along the major roads are free from flood. The community has not witnessed government intervention in the area of infrastructural provisions and as such public facilities like roads, drainages, electricity, and water supply are all in a state of disrepair. (Plate 1-8).

Panada, a community in Isolo is bounded by Ajao Estate in the North, Oke-Afa in the West, Mushin in the East and Okota in the South all located in Oshodi-Isolo Local government area. It has a land mass of 60 hectares and the area is predominantly residential neighbourhood with spontaneous commercial development. The Town is the domain of both traditional and ancient characters expected of a traditional setting. The Town has witnessed a lot of changes over the years as a result of population increase. The demand for space to live has degenerated into more houses being built on spaces originally meant for setbacks and all the available infrastructural facilities are in a debilitating state (plate 9-16)

5. Research Methodology

The research design follows a multistage description framework covering survey, analysis and interpretation. Primary data for the research were obtained in a field survey conducted in the study areas of Agiliti and Isolo both in Lagos state, Nigeria. The research instrument used is a well structured questionnaire to elicit required information relating to socioeconomic conditions of the households as well as the characteristics of the dwellings in which the people live. A sampling frame of 1057 was considered and sample size of 300 spread over the study area through random sampling in order to ensure that it was fully representative of the population. Secondary data include analogue base maps of the study area, population data, household data and direct observation of the buildings and the environment. The neighbourhoods were sampled through the base maps by the use of stratified sampling method. However, apart from the data on average household income, occupancy ratio and land use structure, the analysis focused on the physical conditions as well as the general environmental conditions of the dwelling units.

6. Data Analysis

Table 1: Occupancy ratio (%) of dwellings

No of person per room	Panada %	Agiliti %	Average %
1-2	19.83	10.47	15.13
3-5	47.46	55.43	51.45
5 and above	32.71	34.10	33.41
Total	100%	100%	100%

Analysis of data on the occupancy ratio in table 1 reveals that an average of 51.45% have occupancy ratio of between 3-5 inhabitants per room; 33.41% have occupancy ratio of 5 persons and above, while 15.13% have the occupancy ratio of one or

two persons per room. The United Nations Standard for Nigeria for room occupancy is 2.20; the World Health Organization (WHO) stipulates between 1.8 and 3.1, while the Nigerian Government prescribed standard is 2.0 per room (Okoko, 2001). Analysis of the occupancy ratio of these slum areas shows that over 50% of the houses have occupancy ratio of between 3-5 persons per room. Overcrowding is thus a visible feature in Panada and Agiliti towns. This is a symbol of housing poverty, consequential of poor economic circumstances which can lead to irritation, fatigue, social vices which in most cases are criminal in nature.

Table 2: percentage of Average monthly income of Head of households

Income level	Panada %	Agiliti %	Average %
Below N7, 500	18	10.78	14.39
N7, 500-N25, 000	56	58.16	58.16
N25, 000-N40, 000	14	12.68	13.34
N40, 000- above	12	9.09	9.55
Total	100%	100%	100%

The analysis of the average monthly income household heads in table 2 shows that 14.39% of the household heads earn below ₦7, 500.00 monthly, 58.16% earn between ₦7, 500.00 and ₦25, 000.00, 13.34% earn between ₦25, 000.00 and ₦40, 000.00 while 9.55% earn ₦40, 000.00 monthly and above. Also the analysis of average monthly income of the household heads reveals that more than 50% of the people earn less than N25, 000per month. This is in fact a testimony that the low-income group and the less privileged in the society occupy the two communities.

Table 3: Land use structure in the selected slum area

	Land use type	Panada %	Agiliti %	Average %
1	Residential	69.78	74.07	72
2	Commercial	12.07	7.02	9.55
3	Recreational open space	2.30	3.97	3.14
4	Mixed use	10.85	6.00	8.43
5	Others	1.08	12.08	1.94
	Total	100%	100%	100

Analysis of the average land use structure in table 3 reveals that 72% are for residential, 9.55% for commercial, 8.43% for mixed use, 3.14% for recreation and 1.94% for other land uses. The predominant land use as revealed by the analysis in Isolo and Agiliti is residential and little commercial activities. The buildings were constructed with non structurally stable building materials even though most of the walls were rendered with cement, hence the cracks on the walls and the near collapsing state of some of the walls.

Table 4: Construction materials of the building,

	Panada %	Agiliti %	Average %
Painted Wall	36.54	28.45	32.50
Cement rendered wall	27.72	35.73	31.73
Tile / Glass finish	19.42	23.42	21.42
Stone finish			
Others	2.0	1.37	1.69
Total	100%	100%	100%

The analysis of construction materials used for the buildings in table 4 shows that 33% of the houses in these areas are of sandcrete blockwall while the rest 67% are either made of laterite rendered with cement, plywood or other substandard materials.

Table 5: Ventilation conditions of the dwellers

Ventilation condition	Panada %	Agiliti %	Average %
Rooms without windows	32.01	28.45	30.23
Room with one window	43.16	52.35	47.84
Rooms with two or more windows	24.83	19.02	21.93
Total	100%	100%	100%

Source: Field Survey 2008

The ventilation pattern in table 5 reveals that 30.23% of the houses were without windows and 48% only have one window while 22% were having more than two windows. The ventilation pattern revealed very poor state as some of the rooms have one window or without any. Some of the internal spaces are dark and were always lit with candles even during the daytime. To enjoy fresh air in these spaces is almost impossible.

Table 6: State of buildings in the two neighbourhood

State	Panada %	Agiliti %	Average %
Sound	13.6	11.2	12.4
Require minor repair	64.5	71.3	67.9
Require major repairs	21.9	18.5	20.2
Total	100%	100%	100%

The analysis of the state of buildings in table 6 shows that 12.4% is in sound state, 67.9% requires minor repairs while 20.2% needs major repairs. Findings show that most of the buildings in the two neighbourhoods are in very poor state as only about 12.4% of them are in sound condition. A greater proportion of the buildings require minor or major repairs to bring them to good quality. The state of repairs of the buildings takes into consideration the soundness of the roofs, walls, floors and foundations. The soundness of wall and floor means absence of cracks, surface wear, tearing or peeling off of surface plaster and paints. Socio-economic characteristics of the inhabitants of the buildings such as household size, income classification significantly contribute to the poor state of repair of the buildings.

Table 7: Showing the infrastructural facilities in the study areas

Infrastructural facilities	Panada	Agiliti
Public Health Centre	None	None
Private Health Centre	1	2
Primary School(Public)	None	1
Primary School(Private)	3	15
Secondary School	None	None
Police Post	1	None
Shopping centre/Market	1	None
Recreational facilities	None	None

The analysis from table 7 shows that there is dearth of infrastructural facilities in the two communities. The only public primary school in Agiliti had two blocks of five rooms each and accommodates over one thousand students. Also there was no playing ground. The private nursery and primary schools in the two communities were using residential buildings and lacked basic facilities for conducive learning. Apart from the private clinic and maternity homes which lacked basic health facilities, there were quite a number of traditional medicine homes.

Table 8: Distribution of Housing Facilities in the two locations

	Facilities	Panada %	Agiliti %
A	House with pipe borne water	11	5
B	Street borehole	25	17
C	Well	55	63
D	Water tanker	9	15
	Total	100%	100%
	Toilet		
A	Water system	26	35.25
B	Pit latrines	67	60.55
C	No toilet	7	4.20
	Total	100%	100%
	Kitchen		
A	Inside house	25	18
B	Outside house	56	60.05
C	None	19	21.05
	Total	100%	100%
	Electricity		

A	In use	72	86.63
B	Not in use	28	13.37
	Total	100%	100%
	Waste disposal		
A	Private waste bin	23	12
B	Shared waste bin	17.73	10.07
C	Public dust bin	17	16.06
D	No dust bin	65.27	53
	Total	100%	100%

On the housing facilities provided, the analysis in table 8 shows that majority of the residents rely on hand dug wells for their water supply. There were also privately owned boreholes, which were not treated before delivery. Water tankers services are equally available. Sanitary facilities were hardly available in the neighbourhood. In most cases, the bathrooms and pit toilets which were constructed with corrugated zinc sheets over dug pits with concrete floor slab were located completely at the back of the buildings. It is common to find the human waste disposed off the roads, drains and footpaths. These insanitary conditions constitute a health hazards for the inhabitants. Blocked drains also cause health problems because the stagnant water in the drains become breeding ground for mosquitoes and subsequently cause diseases for the residents. Kitchens were built at the back of the buildings in the two neighbourhoods. The residents either cook along the corridors or outside the buildings. Rooms specifically earmarked as kitchens were few in the neighbourhoods as these were available in less than 22% of the cases studied. In some instances, no kitchens were provided. Electricity supply to the two neighbourhoods was erratic and unavailable for the greater part of the day. Illegal connections were equally noticed in some of the buildings.

7. Recommendations

As a basic necessity, our cities especially Lagos State Government need to embark on the construction of low cost housing which would be affordable so as to eliminate the growth of slums. A large and comprehensive housing programme should be introduced and implemented to reduce the number of informal settlements. It is equally expedient for the developers to build low cost houses affordable to the low income residents and the people made to complete payment over a reasonable period of time.

For slums to be upgraded, government should identify, designate and recognise such areas where developmental attention and measures are required and see them as part of urbanization process. Enough resources should be allocated to carry out the upgrading in order to show government commitment and makes its impact felt by the residents..

Community participation in the planning and development are basic issues that must be looked into since the art of physical planning has both direct and indirect impact on the public. Therefore government need to plan with the people rather than for them in providing public infrastructure and social services, as these would ensure adequate functioning of the houses. Hence the urban poor and those who are responsible for investment in housing development especially the low cost types should be involved in the scheme. Indeed, a lot of courage and political will is needed to achieve the feat.

Redevelopment of the slum should be a joint venture between the government, residents and private developers rather than outright demolition by government. In this strategy, the government should make the residents pay some money to the developers as a sign of commitment and to regain ownership after development.

8. Conclusion

The challenges of housing delivery are critical for the sustenance of Lagos and other fast growing cities of the world. As more individuals continue to migrate to Lagos, government should focus on the provision of shelter that would address the consequences of urbanization such as overcrowding, unwholesome environmental conditions, homelessness, displacement and re-emergence of slums. As such, slum upgrading programmes should aim at improving the quality of life of urban dwellers and this should be done by active participation of all the stakeholders in determining the new layout and infrastructural services.

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APPENDICES



PLATE 1 Deplorable Condition of the Road



PLATE 2 Refuse Disposal System

Source : Author



PLATE 3 Poor Drainage System

Source : Author

Source: Author



PLATE 4 Improper Refuse Dump Site

Source : Author



PLATE 5 Deplorable Conditions of the Road

Source: Author



PLATE 6 Buildings on the Flood Plain

Source: Author



PLATE 7 Filthy Environment
Drainage



Source : Author

PLATE 9 Traders Processing Yam flour on Street and Roof
Source: Author



PLATE 11 Building layout
Source: Author



PLATE 8 Untarred Road without
Drainage



Source: Author

PLATE 10 Private Borehole
Source: Author



PLATE 12 Filthy environment
Source: Author



PLATE 13 Filthy Environment

Source : Author



PLATE 15 The Bad Condition of Road
Source: Author

PLATE 14 The Only Religious Centre

Source: Author



PLATE 16 Building by the Drainage
Source: Author

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