



Research Paper

A Review of Enugu (Enugu State, Nigeria) Urban Growth and Development

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ABSTRACT:- Enugu Urban of Enugu State of Nigeria came into being as a result of the discovery of coal in the area in 1917 by the European explorers. This paper presents a study carried out to appraise the growth and development of the area over the past five years. Survey research design was adopted in the study. Multiple regression analysis was used in analyzing the data collected during the study. The use of the model was to ascertain the magnitude and significance of relationship among the identified development indicators. The test was performed at 5% level of significance. The analysis revealed that there is only a weak relationship among the identified indicators. The trend of development from the initial points to other areas was rapid initially but slowed down in the later years. The slow pace in development was identified to have resulted from inadequate attention to newer innovations to cater for ever increasing population of both people and vehicles. It is suggested that vigorous efforts be made to anticipate workable new innovations in urban design and management chief, of which is the Environmental Planning and Management (EPM) approach.

Keywords:- Development indicator, Survey research, innovations, Environmental Planning and Management.

I. INTRODUCTION

In recent time, urban areas are growing at an unprecedented rate due to population upsurge. This is due partly to the fact that a considerable percentage of global gross domestic products are generated in cities. If managed well, urbanization can promote sustainable growth through new innovations in the management of energy, land and natural resources. Planning and management of land is not new in our urban areas. There was pre-colonial planning in the eastern part of Nigeria. For example, the traditional stool with the elders constituted a sort of controlling body for land allocation and development. Through their activities, sites for different land uses like markets, cultural areas, settlement areas and farmlands were organized. In the colonial period all planning enactments, example, the Cantonment Proclamation of 1904, Ordinance No. 29 of 1917, Town and Country Planning Ordinance of 1946, were all in operation in the old Eastern region, including Enugu.

However, the first indigenous planning law, the Nigerian Urban and Regional Planning Law, Decree No. 88 of 1992, which was made to have national application, has not been domesticated in Enugu State as at the time of this study (The Nigerian Institute of Town Planners (NITP), Enugu State Chapter, 2011). This is a situation that has created planning gap in the State with the result that physical planning activities are not keeping pace with the population growth in the area.

The Township Ordinance No. 29 of 1917 (NITP, 2011) was enacted to classify urban settlements in Nigeria into different grades of cities and as well to establish broad physical layout of towns. In that ordinance, Enugu was classified a second class Township amongst other towns. The ordinance came into being within the period of discovery of coal in Enugu in 1907 and the consequent exploitation from 1915 (Iyi, 2009). Only Lagos was classified a first class township. Before the classification, Enugu had remained an important town east of the Niger based on several functions which it served and has continued to serve to the present day. This paper showcases a review of growth and development of the Enugu urban town dating from when it started performing administrative functions.

The problem sought to address is that the rate of growth and development slowed down in the later years despite recent population upsurge. This has brought untold hardships on the teeming population of the area. The aim, therefore, was to ascertain what major growth and development indicators obtain with a view to finding out the attendant challenges. The relationship among such indicators was determined so as to ascertain their potentials for responding to innovations. It was hypothesized that there was no significant relationship between the level of development and the identified indicators. This aim was pursued through identifying the

indicators, determining their spatial disposition and then determining the approach ripe for injecting positive changes.

II. METHODOLOGY

Survey research design was adopted for the study. Enugu urban was segregated into three study zones of the three local government areas that make up the urban area, namely; Enugu North, Enugu South and Enugu East. The import of this type of segregation was to weigh the strides of development in such areas judging from the earlier sections. The distribution of the growth indicators among the study zones was effected for the same purpose.

The indicators included spatial size, demography, economy, commerce and infrastructure (Odoh and Iyi, 2009). The research on spatial size was based on the land area occupied by each study zone. Demography was based on the population density (i.e. population /km²). That of economy was based on the existing large and medium scale industries. Research on commerce was on market facilities while that of infrastructure was based on such amenities as roads, electricity, educational and health facilities. Scores were attached to the number available, as well as the scope of availability.

Concepts and Related Literature.

2.1 Urban Area

The word urban area suggests different things to different people depending on ideology, occupational orientation and interest at a particular moment. Geographers define the urban area as a location setting in which the density of settlement is considerably higher than the general population; the people in that setting are mainly engaged on non-agricultural activities and the setting serves as a cultural, administrative and economic centre for a region peripheral to the centre in question (Akinmoladun, 1999). This definition, according to Iyi and Odo (2009), brings to bear a number of considerations, namely, geographic, functional and administrative.

Geographically, the urban area refers to a large number of people resident in an area limited in size and separated from other areas by greater area of thinly settled land. The functional consideration bothers on acceptable level of urban infrastructure available. The administrative consideration refers to the provision made in respect of an area in the state constitutions (Iyi and Odoh, 2009). The later may be regarded as the legal aspect, where for example, the land Use Act of 1978 define an urban area as the area of the state designated as such by the governor (Federal Republic of Nigeria, 1978). To this end, many governors have designated specific settlements as urban areas using the powers vested on them by the Act (Iyi and Odoh, 2009).

The place of the urban area in the overall socio-economic development needed by mankind is crucial. The central intelligence Agency (CIA, 2003) reported that 49:6% population of Nigeria lives in the urban areas in 2011 and with 3.25% annual rate of change (2010 – 15 estimate). Also, according to The United Nations Population Fund (UNFPA, 2007) the world is undergoing the largest rate of urban growth in history. It reported that in 2008, more than half of the world population would be living in the urban areas. These, in simplest term, can be regarded as increase of the urban areas or urbanization.

2.2 Urbanization and Urban Problems

Urbanization is closely linked to modernization, industrialization and the sociological process of rationalization (CIA, 2003). It can describe a specific condition at a set time, i.e. the proportion of total population or area in cities or towns, or the term can describe the increase of this proportion over time. So the term urbanization can represent the level of urban development relative to overall population, or it can represent the rate at which the urban population is increasing. Urbanization is not merely a modern phenomenon, but a rapid and historic transformation of human social roots on a global scale, whereby predominantly rural culture is being rapidly replaced by predominantly urban culture. The rural culture or village culture is characterized by common ancestral ties or bloodlines and a more intimate relationships/communal behaviour. Urban culture, on the other hand, is characterized by a heterogeneous population, i.e. population of distant bloodlines, unfamiliar relations and competitive behavior.

Urbanization or urban development, in the strictest sense, needs to be guided if efficiency has to be achieved. This is because according to Gallion and Eisner (2005) the urban areas have many obvious faults when it comes to their services to people. The areas can be overcrowded, contain large amounts of substandard housing, be centres of unemployment, and have corrupt governments. Furthermore, services may be less than adequate. Levy (2009), also in his discourse on these urban problems, observed that as the century progressed, the more gracious and open pattern of the colonial city disappeared. The spaces between buildings vanished, and buildings grew higher. The streets became increasingly congested and the natural world was replaced by a non-too- attractive human made world.

With all these faults and more, the urban areas have come to stay. The charge to planners at all levels; public and private is to find ways to make these essential elements in our social system (the urban area) work better. This is achieved through deliberate vigour to urban planning. Urban planning is a technical and political process concerned with the use of land and design of the urban environment, including transportation networks, to guide and ensure the orderly development of urban settlements (Wikipedia, 2014).

The World Bank's urban strategy for the above emphasizes strong systems and urban governance to enable sustainable urban growth with opportunities for all (CIA, 2013). In this regard, there is plan for:-

- (a) Green Cities: (low carbon, climate resilient growth, access necessary financing, improve solid waste management systems and address pollution and livability challenges.
- (b) Inclusive cities: improve access to land, affordable housing, jobs and basic services, economic opportunities, scale up efforts to upgrade slums, enhance community participation and tackle urban poverty, social inclusion.
- (c) Resilient Cities: strengthen cities resilience, their ability to cope and better manage climate and disaster risk, economic shocks and social conflict.
- (d) Competitive cities: attract investment and jobs by improving land markets, connectivity and regulation at the sub-national level, create an enabling environment for business, and better leverage land and real estate assets.
- (e) Strong city systems and governance: strengthen land and housing markets, enhance municipal finances and service delivery, and increase the capacity to carryout integrated territorial development policies and land use planning.

Other researchers also contributed to measures to tackle the urban problems as outlined. Okosun (2011), suggested the adoption of the Geographic Information System (GIS) as an Effective technique to ensure an orderly urban development. Iyi (2007), suggested intergovernmental approach, where there is a patterned, interdependent and bargained behavior among concerned federal, state and local officials.

2.3 Environmental Planning and Management (EPM) Process

The Environmental Planning and Management (EPM) Process is a continuing and dynamically evolving process whose purpose is to make urban development progressively more responsive in environmental consideration (UNCHS/UNEP, 1987, Bloxon,1986 and Wahab, 1998). The process is a participatory, interactive and collaborative approach to urban planning and management. It encompasses a network of relevant stakeholders working together to tackle vital issues that bother on the man-environment relationship. It is, according to Wahab (1998), both an analytical and descriptive model of urban planning and management which emphasizes broad-based, informed as well as constructive and active participation of all stakeholders including the public sector, formal and informal private sector, and the civil society organization.

The EPM process, according to Wahab (1998), has the following attributes:-

- (i) Involvement of all that are affected by an identified environmental issue.
- (ii) Environmental issues are prioritized and dealt with systematically.
- (iii) It is a bottom-up approach.
- (iv) Action plans are usually formulated to guide transformation of strategies into practice.
- (v) Institutionalization of the process which makes it get the attention of the public institutions.

The attributes of the EPM process are particularly germane to handling environmental issues such as obtainable in our urban towns. Four stages of the process, according to Iyi and Ugwu (2009) bring to bear these attributes. The stages include:-

- (i) Urban environmental issues are identified and the relevant stakeholders are involved in assessing and prioritizing such issues.
- (ii) Management strategies are formulated.
- (iii) Plan are formulated and implemented.
- (iv) The process is institutionalized.

From this review, it is obvious that one force behind urban growth was simply natural population growth. There are however associated social and environmental problems as outlined but then, according UNCHS/UNEP (1987), the urban centre offers a more favourable setting for the resolution of these problems. With good governance the urban area can deliver relevant services more efficiently than less densely settled areas due to economies of scale. It was also gathered that none of strategies as being piloted by the World Bank or suggested by other researchers to tackle the problems is inherent in Enugu urban. The attributes as well as the stages of the EPM process were identified as potential antidotes to critical urban environment issues.

III. THE STUDY AREA

3.1 Location

Enugu urban, the present capital city of Enugu state is located approximately at latitude $06^{\circ}30'N$ and longitude $07^{\circ}30'E$ in the southern part of Nigeria (Geo-information, 2012). It is bounded in the north by Igbo-Etiti and Isi-Uzo Local Government Areas, in the west by Udi Local Government Area, in the south by Awgu and part of Nkanu East Local Government Areas and in the east by Nkanu East Local Government Area (see Figure 3:1).



Figure 3.1: Map of Enugu State

Source: Google Map (Accessed 22/05/2014).

3.2 Historical Background

The Enugu urban originated from the discovery of coal in 1909 in Enugu Ngwo, a village situated at the top of Udi Plateaux. With the commencement of the tapping of the coal resources in 1915, settlers began to settle on the foot of the hills and on the wide plains that currently constitute the centre of Enugu urban (Iyi, 2007). It was classified a second class Township in 1917 by the Township Ordinance No. 19 of 1917 (Nigerian Institute of Town Planners, 2011). As a town, Enugu has a checkered history. It started from when it took over from Calabar as the headquarters of Eastern Nigeria, capital of the defunct Republic of Biafra, capital of East central State, Capital of Old Anambra State, and Capital of Old Enugu State, up to 26th August, 1996, when it became and is currently the capital of the new Enugu State (Iyi, 2007).

3.3 Initial Growth of Enugu Urban

The original coal mine was at Udi in 1913, but later operations were moved to coal camp area (Concept Ecodesign International, 1981). In 1916, the first coal train left Enugu for Port Harcourt. Over the years, the political seat of power in Enugu urban took precedence over industrial development with the exception of the

rail maintenance yards and coal mining. Older residential sections included Ogbete, Ogui, Asatam Uwani and G.R.A. (Government Residential Area). These areas, apart from housing included small business establishments.

As can be seen, Enugu urban began as a coal mining town. After sometime, mining activities declined but being an administrative centre, it gained importance over the years. Residential districts sprang-up to absorb the rapid growth in population. The earlier districts comprise Riverside, Independence Layout, New Haven Layout, Ekulu Layout, Abakpa-Nike, Aria River Layout, Ogui Nike Layout, Uwani Southern and Northern extensions, Republic layout, Maryland layout, New Era layout, Idaw River Extension and others.

3.4 Physical Planning Efforts in Enugu Urban

There was lack of adequate documentary evidences as to the physical planning efforts of the Enugu Urban. However, an interview with an erstwhile Director of Town Planning in the state proved invaluable to the efforts made to appraise physical planning actions over the years in the area.

Physical planning was begun in Enugu during the colonial administration. The 1917 Township Ordinance graded Enugu then as a second class Township. These townships had Township Advisory Boards charged with the responsibility of planning the towns. By 1959, Eastern Region of Nigeria already had a ministry of Town Planning and by 1961, the ministry had framed Independence Layout Planning Scheme, Enugu. By 1963, Planning Authorities were appointed for the major towns of the region including Enugu. These planning Authorities were concerned mainly with the framing of planning schemes for parts of their towns that were found to have become ripe for planning.

In 1967, three states including the East Central State with Enugu as the Headquarters were created out of the former Eastern Region while in 1976, the East Central state was subdivided into Imo and Anambra States. In 1991, Enugu state was carved out of the then Anambra State while in 1996 the present Enugu State was created out of the old Enugu State. In spite of the creation of these states and the appointment of many more Planning Authorities for several other towns, the planning function of the Authorities remained basically the framing of planning schemes for areas that became ripe for such. Production of physical development plans (Master plans) for these cities was not carried out.

In 1978, the government of the Old Anambra State awarded a contract for the production of a master plan for the City of Enugu to two concerns, namely, the Concept Design Group of Nigeria and Ecodesign of Massachusetts of USA. The firms produced first to third draft report but it is not clear whether they ever submitted a final report. Even if they did, it was not submitted to the Anambra State House of Assembly to be passed into law, without which it can become a legal document for implementation. No other attempt at framing a master plan for the area has been undertaken. The contracted master plan was not completed and whatever was their product is not being implemented in any way. What have given Enugu urban its present form have remained the various layout plans and schemes by Town Planners and which have been approved and implemented over the years.

Okeke (1998) blamed the non-functional of whatever was the product of the consultants partly on the non-inclusion of the state Town Planning Department. He also remarked that there was no brief from the Government to the consultants.

4.1 Assessment of Growth Indicators in Enugu Urban.

The indicators of growth and development which were assessed include spatial size, demography, economy, commerce, and infrastructure. The items considered under infrastructure were roads, educational and health facilities. The assessment was carried out thus:

- a. **Spatial Size:** The land area of Enugu South Local Government Area is 70,980km² (Enugu State Survey Dept. 1996) and it is the least among the study zones. Land area of 70,000km² was allotted score 1, and so in multiple of 70,000km².
 - b. **Demography:** Population density of 150/km² was allotted 1 mark.
 - c. **Economy:** Available industries were scored 2 and 3 for medium and large scale industries respectively.
 - d. **Commerce:** Daily market of regional size was scored 3 while others of urban/neighbourhood size and with optimum location was scored 2.
 - e. **Infrastructure:**
 - (i) **Roads:** Only local roads were considered and score of 1 was allotted any street road in good condition.
 - (ii) **Educational facilities** were scored 1 and 2 for primary and secondary (public and private).
 - (iii) **Health facilities:** Comprehensive Health centre was scored 2 while Cottage Hospital was scored 1.
- Table 4.1 shows the summary of scores for the aggregate indicators.

Table 4.1: Summary of Scores for the Growth Indicators.

S/N	Indicator	Study Zone			Total
		Enugu North	Enugu South	Enugu East	
1	Spatial size	1	1	5	7
2	Demography	19	31	5	55
3	Economy	12	6	3	21
4	Commerce	3	4	4	11
5	Infrastructure	152	132	125	409
	Total	187	174	142	503

Source: Author's Research (2014).

Data in Table 4.2 shows total scores for growth indicators in 2014 as 187, 174 and 142 for Enugu North, Enugu South and Enugu East study zones respectively. In a similar study carried out in 2009, the scores were respectively 182, 161 and 137. (See Table 4.2)

Table 4.2: Summary of Scores on Growth Indicators in Enugu State by Local Government Areas in 2009

S/N	L.G.A	Spatial Size	Demography	Industries	Commerce	Roads	Education	Health	Electricity	Total Score
1	Nsukka	6	6	4	4	6	167	10	1	224
2	Igbo-Eze South	2	3	-	1	-	63	1	1	71
3	Igbo-Etiti	11	3	-	2	4	84	4	1	103
4	Uzo-Uwani	5	2	2	1	2	82	4	-	104
5	Igbo-Eze North	4	4	-	1	-	155	4	1	169
6	Udenu	3	3	5	1	4	197	2	1	116
7	Isi-Uzo	12	2	-	3	1	89	6	1	115
8	Enugu East	5	3	3	3	1	117	4	1	137
9	Enugu North	1	14	12	2	4	140	7	2	182
10	Enugu South	1	24	6	3	4	121	-	2	161
11	Nkanu West	3	6	3	1	2	81	5	1	102
12	Nkanu East	10	1	-	1	2	92	2	1	109
13	Udi	12	2	6	4	4	153	5	1	187
14	Ezeagu	8	1	-	1	2	138	1	1	162
15	Awgu	6	3	3	1	2	95	1	1	122
16	Aninri	5	2	-	4	2	98	-	-	108
17	Oji-River	5	3	6	4	4	93	7	1	123

Source: Iyi and Odoh (2009)

Table: 4.3 shows a comparison of Tables 4.1 and 4.2 with respect to the study areas.

Table 4.3: Scores on Indicators in 2009 and 2014.

S/N	Location	2009 Score	2014 Score	Difference	% Increase
1	Enugu North	182	187	5	2.75
2	Enugu South	161	174	13	8.07
3	Enugu East	137	142	5	3.65
	Total	480	503	23	14.47

Table 4.3 shows that for the period of five years (2009-2014), the increase in growth indicators in the study areas are Enugu North – 5; Enugu South – 13 and Enugu East 5. These represent percentage increases of 2.75 %, 8.07% and 3.65% respectively; and a cumulative increase of 14.47% for the entire area.

Taking level of development as the dependent variable (y) and level of growth indicators as independent variables $X_1 - X_5$, Table 4.4 was generated.

Table 4.4: Growth and Development Matrix

Y (Development)	X ₁ (spatial Size)	X ₂ (Demography)	X ₃ (Economy)	X ₄ (Commerce)	X ₅ (Infrastructure)
5	1	19	12	3	152
13	1	31	6	4	132
5	5	5	3	4	125

The Statistical Package for Social Scientists (SPSS) on a computer set was used for the regression analysis and analysis of variance (ANOVA) test at 5% (0.05) level of significance. The result suggests that there was a weak relationship among the variables. The statistical model used has a revealing output thus: - ($R = 0.64$, $R^2 = 0.432$, $P = 0.032$, $F = 24.2$). From the data, R^2 (coefficient of determination) which shows the strength of relationship has a high value. The P value is less than the 5% level of significance and so, the null hypothesis was rejected. In other words, there is a relationship between the level of development on one hand and the level of growth indicators on the other.

V. DISCUSSION OF FINDINGS

The data presented in this study have two principal revelations. The first is that there is tremendous population increase of the Enugu urban. The scores for demography in 2009 were 14, 24 and 3 for Enugu North, Enugu South and Enugu East, respectively. This gave a total score of 41 in the area for the period (See Table 4.2). The total score on demography in 2014 was 55 (see Table 4.1) this represents about 34.15% increase in five years.

The second revelation was that there is a weak relationship existing between the level of development and the associated growth indicators. Ordinarily, the strength of the indicators should be determined by the development on the ground. This shows that efforts should be made to establish a strong relationship among the variables. In this way, any new innovation with respect to improving on any of the growth indicators is readily noticed on the level of development on ground.

This study also revealed that all colonial planning enactments were in operation in the old Eastern Region, including Enugu State. However, the first indigenous planning law, the Nigerian Urban and Regional Planning Law, Decree No. 88 of 1992, which was made to have national application, has not been domesticated in Enugu State. In the area of master planning, the Enugu Urban has never had any approved master plan since inception. The area, as it is now, has grown by accretion through conceived and located layouts.

In the area of infrastructure, administrative and commercial land uses formed the core of early Enugu urban. The markets have remained in the positions they were in the early stages of Enugu urban. To this, the attendant market development forces have created pressure on the entire area. Many barriers separate newer residential neighbourhoods from the earlier settled areas of the town. This has created bottlenecks at the limited on grade crossings. For example, the railroads are right in the core of the urban. The economy of the area for now is mixed with greater bias to the informal sector activities. This is as against the earlier settlers who were engaged in mining and other forms of salaried functions.

VI. RECOMMENDATIONS

Based on an overview of this research on 100 years of Enugu urban Development, the following recommendations have been made for the overall improvement of the area:

1. The concerned governments of the state (state and local) should make a vigorous attempt at emplacing adequate physical, economic and social infrastructure to match the teeming population in the Enugu urban. This can be achieved through the Environmental Planning and Management (EPM) process.
2. Efforts should also be made by relevant ministries to consider the relative merits of alternative sites with regard to markets so as to cater for interregional movement patterns and potential expansion.
3. The State Government should classify issues on urban development as real economic investment and decisive efforts to domesticate the Nigerian Urban and Regional Planning Law in the state and also prepare a Master plan to guide development of the area.
4. The new trends in urban development should be explored and adopted such as the World Bank's agenda for green cities, inclusive cities, resilient cities, competitive cities and strong city systems and governance.

VII. CONCLUSION

In this paper, efforts have been made to examine the level and pattern of development of the Enugu urban in a space of five years. This was effected in relation to such identified growth indication as space, population, economy, commerce and infrastructure. It has been done in respect of the increase of these indicators to keep pace with the population increase in the area.

The absence of an indigenous enabling law such as the urban and Regional Planning Law of 1992 was also another area of worry. The continuous use of the 1946 law at this period of national development is out of the question. This is not in tune with the newest urban development strategies such as the World Bank's call for sustainable urban growth with opportunities for all and the adoption of the GIS as suggested by Okosun (2011). The recommendation of this study would go a long way standing the managers of the Enugu urban area in good stead for overall efficiency.

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