

Current Status of Sustainable Development in the South – south region in Nigeria

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ABSTRACT

The study examined the current status of sustainable development in the South-south region in Nigeria. One thousand two hundred and sixty copies of questionnaire were administered to the residents of the region to elicit information on the subject matter. Descriptive statistics in form of frequency and percentages were used for the data analysis. Findings revealed that the current status of sustainable development in the study area presently is poor due to inadequate government policy enforcement on infrastructural development. However, the results showed that that level of awareness on the components of urban sustainable development among the respondents across the three geographical location of this study is moderate (638, 53.2%). Therefore, it is recommended that government, its agencies and relevant stakeholders should collaborate to ensure rapid development of the region.

Keywords: Challenges, Urban development, Sustainable, Awareness, South-south

seeks a direct coordination between the social, economic and environment aspects and ensures that all forms of developmental strategies must put into consideration the strengthening of these three important elements (Ayman, 2010; United Nations, Department of Economic and Social Affairs (UNDES), 2014).

Conversely, an important issue of the sustainable development agenda is the use of indicators for measuring progress and gaining insights into the complex and intertwined social, economic and environmental systems, and to generate new knowledge and information on their linkages and interactions (United Nations Economic Commission for Africa (UNECA), 2002). Thus, with rapid urban growth come a number of challenges for city leaders, many of them related to increasing motorization, pollution, environmental degradation and decay and urban sprawl. It is against this background that the study seeks to focus on the current status of sustainable urban development in South-south region in Nigeria.

I. INTRODUCTION

Camagni (1998) defines sustainable urban development as a process of synergetic integration and co-evolution among the great subsystems making up a city (economic, social, physical and environmental), which guarantees the local population a non-decreasing level of wellbeing in the long term, without compromising the possibilities of development of surrounding areas and contributing by this towards reducing the harmful effects of development on the biosphere. Therefore, a well-planned and organised urban area will most likely achieve the desired goal and purpose of sustainable development if all aspects of the subsystems are properly integrated.

The components of sustainable urban development can be examined from three major elements which are; social, economic and environment. Thus, sustainable urban development

An assessment of the Nigeria's implementation of the United Nations Millennium Development goals (MDGs) showed that the goals pertaining to poverty alleviation and environmental sustainability and their application in Nigerian urban centers have not been adequately addressed. Consequently, the Nigerian Cities are far from achieving Sustainable Development (Lawanson, 2006; Ogujubaet al., 2013). Poverty, urban environmental hazards and urban public health, among others, are the major factors that pose enormous threats to the political stability, social cohesion and environmental balance of Nigeria's cities and until they are tackled decisively, sustainable urban development will remain a mirage (Ogujubaet al., 2013).

Despite a tremendous natural and human resource base, the region's potential for sustainable development remains unfulfilled and its future is

being threatened by environmental degradation and deteriorating economic conditions which are not being addressed by present policies and actions (Adedeji and Eziyi 2010; Ogujubaet al., 2013). Conversely fifty years of oil development have not brought significant benefits to the region. Resource use decisions are being driven by a lack of development, poor healthcare, and social facilities, stagnant agricultural productivity and rapid population growth (Ugochukwuet al., 2008; United Nations, 2014). As centres of population and economic activity, urban areas represent concentrated opportunities for addressing issues of sustainability. However, this involves complex interactions of citizens, governmental/non-governmental organizations and businesses which can inhibit the development of integrated strategies (which may involve transportation demand management, land-use planning and construction of new civil infrastructure) whose combined effect can be more beneficial than the achievements of any single agency or organization acting unilaterally. This requires integration across sectors traditionally analysed independently e.g. water resources, transport, waste management and health, as well as the simultaneous effort to adapt cities to become more sustainable.

However several studies have examined the challenges of sustainable urban development in Nigeria and her cities. Some of these studies are: Abiodun (1997) who examined the challenges of growth and development in Metropolitan Lagos State with a view to analysing the problems of urban transportation, water supplies, electricity, environmental sanitation, intercommunications and housing and findings revealed that Lagos grew from fishing and farming settlement to a metropolis of 5.3 million people in 1991. Lagos shifted from an urban growth rate of 3.3% during 1940s to 14% during 1960s and 4.5% during 1990-95. Major challenges identified as a result of these changes were poor roads, poor drainage and waste disposal, high unemployment, political control and poor delivery of public services; Adedeji and Eziyi (2010) urban environmental challenges in Nigeria: implications for sustainable development. Their study examined the causes and implications of increasing environmental deterioration for sustainable development in Nigeria. Also a good proportion of the data collected were those compiled through observations in the course of involvement in physical development as architects, as well as teacher-student interactions in urban settings in Nigeria in which the authors have been involved over the years. Findings revealed that colonial antecedents of Nigerian cities, rapid

urbanization and poor psychological orientation of residents as being responsible for the current situation. The study discovered as a result of the findings a three-fold effects which were evident on human health, the economy and ecological system and suggested that the application of planning, economic, legal, institutional as well as educational tools will address the situation.

Ayedun et al. (2011) reported the challenges and strategies of sustainable urban growth and development in Nigeria. The study relied on data collected on accommodation problems, over-stretched and poorly maintained facilities, road condition, traffic congestion, undirected drainage systems, waste management strategies and its increasing rate of degradation around the country. Findings revealed that despite efforts of various organizations spear-heading progressive changes in policies and laws, technologies and development strategies toward enhancing urban qualities – the achievement has been rather low and minimal. These developments have created great sustainable challenges for all stakeholders and concerned groups in the country; Jiboye (2011) examined sustainable urbanization; issues and challenges for effective urban governance in Nigeria. The study addresses three main areas: the first considers basic issues relating to sustainable development and governance; the second discusses the challenge of urbanization in Nigeria; while the third underscores the need for effective governance in sustainable urbanization. The study conceives three major policy areas which are relevant to ensuring good governance in Nigeria. Findings revealed that the pervasiveness and spontaneity associated with the urban growth process in Nigeria has been an issue of concern; as it essentially constitutes serious socio-economic, cultural and environmental challenges to the attainment of sustainable development and effective urban governance. This problem of spontaneous urban growth has been necessitated by the features of globalization, industrialization and population explosion, with its attendant challenges of uncontrolled growth of cities, which has led to a degraded environment and poor living standard of the people. In concluding, the paper notes that appropriate policies and strategies critical to the attainment of sustainable development must be put in place in order to preserve our cities and also secure the future well-being of its citizens.

Muhammed et al. (2015) carried out an overview of urbanization and its challenges in sustainable development in Nigeria. The study relied on historical data and data obtained from the associated problems of unemployment, poverty,

inadequate health, poor sanitation, urban slums and environmental degradation and discovered that all these pose formidable challenges to sustainable urban development in Nigeria. Incidence of this phenomenon as well as concern about it has increased over the years. Findings revealed that urban environmental degradation was caused by several factors including rapid urbanization due to overpopulation, accelerated industrialization, unplanned and uncoordinated physical development resulting from poor urban management and ineffective control policies, insufficient urban infrastructure such as housing and efficient transportation system to cater for the population upsurge. In order to attain good environmental sustainability in Nigerian urban centres, the study proffered some solutions among which are good government policies, full and active participation of Non-Governmental organizations (NGOs) among others; while Aliyu and Ahmadu (2017) did a review of challenges of urbanization, cities and health in Nigeria. The study concentrated on a systematic search of published literature in English between 1960 and 2015. Published peer review journals, abstracts, Gray literature (technical reports, government documents, reports, etc.), inaugural lectures, and internet articles were reviewed. Manual search of reference lists of selected articles were checked for further relevant studies. Findings showed that the pace of urbanization is unprecedented with cities such as Lagos having annual urban growth rate of 5.8%. Urbanization in Nigeria is mainly demographically driven without commensurate socioeconomic dividends and benefits to the urban

environment. This has created urban health crises of inadequate water safe supply, squalor and shanty settlements, sanitation, solid waste management, double burden of diseases and inefficient, congested, and risky transport system. The study concluded that when managed carefully, urbanization could reduce hardship and human suffering; on the other hand, it could also increase poverty and squalor. Urban health development requires intersect oral approach with political will and urban renewal program to make our urban societies sustainable so that they can promote healthy living. Majority of the previous works did not consider the present situation of sustainable development in the developing country. Therefore the present study focussed at assessing the current status of sustainable development in the South-south Nigeria.

II. MATERIALS AND METHODS

The study was carried out in the South-South region of Nigeria which comprises six states (Figure 1). The study area is strategically located at the point where the delta of the river Niger joins the Atlantic Ocean through the Gulf of Guinea. Though a relatively small stretch of land, the south of the country provides the economic mainstay of the economy: oil and gas. The study area features a tropical monsoon climate, designated by the Köppen climate classification as "Am", and it is mostly found in the southern part of the country. This climate is influenced by the monsoons originating from the South Atlantic Ocean, (Britanica, 2014).



Figure 2: South-south Nigeria showing the Study Area States (NASRDA, 2020)

The vegetation of the study area consists mainly of forestswamps and the major ecological zones of the region include mangrove forest and coastal vegetation zone, freshwater swamp forest zone, lowland rainforest zone and the derived savannah zone found in the northern part of the region. The transport network in the region is accessible through local, regional, national and international means. There are adequate transportation means via road network and inland water ways, bringing people in and out of the region. The primary economic activities in most rural communities in the south-south region, Nigeria include peasant farming, petty trading and fishing, shifting cultivation (Slash and burn), which involves cultivating a piece of land for a number of years and then abandoning it for a more fertile land is traditionally practiced in the area. Some of the cash crops grown in the study area include oil palm (*Elaeisguineensis*), cacao (*Theobroma cacao*), cassava (*Manihotesculenta*) and rubber (*Hereabrasiliensis*) (Enaruvbe and Atafo, 2015). The population of households from selected residential areas of high, medium and low standards within each selected capital cities were obtained from relevant authorities in order to compute sample sizes for the study. The information for population and percentage (%) of people living in slums (low standard residential areas) were sourced from the Ministry of Physical Planning. In addition to oil and gas, the region equally contributes other key resources, with potential huge investment opportunities in tourism and agriculture (Agbor and Ashabua, 2019). The states within the south-south comprises of Akwa-Ibom, Bayelsa, Cross-Rivers, Delta, Edo and Rivers State. However, this study is limited to the three states with high population densities which include Akwa-Ibom, Rivers and Delta States respectively. South-south region is located between latitudes 5° 00'N and 6° 30'N and longitudes 5° 20'E and 9° 00'E (Figure 1). The South-south region with the Niger River is sitting directly on the Gulf of Guinea on the Atlantic Ocean in Nigeria. The location of the study area which is the southern part of Nigeria makes it one of the world's largest arcuate fan-shaped river deltas (Britanica, 2014).

The cross-sectional research design was employed in this study which focused on the sources of data acquisition, the method of data collection, the population and sample size, instrumentation and method of data analysis in relation to the stated objectives for the study. The

primary data was acquired from field surveys and questionnaire administration. The reconnaissance survey carried out involved the collection of data using 10% of total sample population for test of reliability of research instrument which is the questionnaire. The questionnaire was administered to representatives in selected communities from the three main groups (high standard, medium standard and low standard residential areas). The primary data was obtained through participant observation, household survey. One thousand two hundred and sixty copies of questionnaire were administered to the residents of the study area, The questionnaires were designed after a thorough review of relevant literature about the study area for households survey in Asaba, Port Harcourt and Uyo metropolis. Observation method provided the researcher with more insights about issues and useful information that would have otherwise been unaccounted for. The secondary data sources were collated and formulated from China's Sustainable index (2014). The China's Sustainable Index (CSI) is made up of five (5) primary indicators and five (5) ratings for the determination of sustainable development in urban planning policies and implementation. Collection of data for appropriate physical planning attributes were also sourced from the Ministry of Physical Planning in each sampled capital city from each selected States. The instrument reliability test was conducted by first administering 10% of sample size employed for the study. Thereafter, the obtained data were subjected to test using the Cronbach Alpha reliability test score. A score of 0.85 was obtained. This shows high reliability.

Descriptive and inferential statistics were used for the study. Descriptive statistics in form of frequency and percentages were used in the data analysis while tables and charts were used for data presentation. All statistical analyses were performed using Statistical Package for Social Scientist (SPSS) 24.0 and Excel worksheet 2010 for data coding and data analysis.

III. RESULTS AND DISCUSSIONS

The results in Table 1 showed that the males were 58.2% while females were 41.8%. From Table, the percentage of questionnaire analysed across the locations ranges between 32 – 34%, it was observed that male respondents are more than the females.

Table 1. Age Distribution of respondents

Gender	Age of respondents (years)					Total
	18 – 25	26 – 35	36 – 45	46 – 55	≥56	
Male	119	291	211	62	15	698
	(9.9%)	(24.2%)	(17.6%)	(5.2%)	(1.2%)	(58.2%)
Female	99	235	125	37	6	502
	(8.2%)	(19.6%)	(10.4%)	(3.1%)	(0.5%)	(41.8%)
Total	218	526	336	99	21	1200
	(18.2%)	(43.8%)	(28.0%)	(8.2%)	(1.8%)	(100%)

Level of Awareness of the Status of Sustainable Development in the South – South Region in Nigeria and Socio-economic Characteristics

The parameters that measure socio-economic status include level of educational attainment, total income, labour market earnings, and investment. This study revealed the relationship between the current socio-economic status of the people and their level of awareness as regards sustainable urban development components in the study area.

However, starting from gender, it was observed that 59.6% of males and 44.2% of female respondents are moderately aware of sustainable urban development (table 4.26). A higher percentage of male are moderately aware of sustainable urban development within the study area. On age (18 – 25 years) 49.1% are moderately aware, (26 – 35years), 54.6% are moderately aware, (36 – 45years), 60.7% are moderately aware while 45 – 55years 49.5% are poorly aware and greater than or equal to 56years 57.1% have good awareness. Therefore, we can say that older people (≥ 56) have good awareness, while higher percentage of age (36 – 45year) are moderately aware. However, middle age ranged of 45 – 55years are poorly aware. The level of awareness of sustainable urban development varies with age range of respondents. It can be deduced that older people have higher level of awareness.

Analysing the socio-economic parameters, 70.4% of respondents without formal education have poor awareness, while 86.7% with primary education have poor awareness as well. However, 32.7% of respondents with secondary education have moderate level of awareness, 59.5% of respondents at tertiary education level have moderate awareness while others are 50% poorly aware and 50% moderately aware. From no formal education level to secondary education are poorly aware while tertiary education holders are moderately. The level of education is a component of socio-economic status; this shows the higher the

level of education, the greater the level of awareness of sustainable urban development within the study location (Table 4.).

Measuring how long people have lived or worked within the study location showed that people who have lived or worked from 1 – 5years have moderate awareness at 54.0% while 48.7% accounts for people who lived or worked from 6 – 10years at moderate awareness level. However, 11 – 15 years of residence or work recorded 72.8% as moderate level of awareness and 47.4% accounts for people who lived or worked within the area over 16years at moderate level of awareness. Since, all variables (duration of residence or work) fall within the moderate level of awareness, we can say that the level of awareness is not dependent on how long people have lived or worked within the area as compared to the variation in the level of education versus awareness level.

However, the job status of residents is affected by the level of awareness as the unemployed people have 43.4% moderate awareness, civil servants have the highest level of moderate awareness at 71.5% (i.e., civil servants are more aware than other people with other occupation) while 66.5% of the public servants are poorly aware. Again, respondents with business occupation have 52.1% moderate awareness and others have 66.7% moderate level of awareness (table 4.16). All occupations such as unemployed, civil servants, business and others have moderate level of awareness except public servants who have poor level awareness.

On average monthly income (naira), the people earning from 10,000 – 30,000 have 42% moderate level of awareness while 31,000 – 60,000 earners have 57.3% moderate level of awareness. However, a greater percentage (87.4%) of 61,000 – 90,000 earners are moderately aware of sustainable urban development. Similarly, 91,000 – 120,000 earners have 54.9% moderate level of awareness while the people with income greater than 120,000 have 62.2% poor level of awareness. Therefore,

income or earning affects the level of awareness due the variation in the outcome of the different income on level of awareness.

Finally, the size of household from 1 – 4 and > 6 persons have moderate level of awareness with 49.1% for (1 – 2) persons per house hold,

49.3% for (3 – 4) persons per house hold, 54.2% for (5 – 6) persons and a greater percentage of 73% household size >6 persons. All sizes of household are moderately aware of sustainable urban development.

Table 4. Status of the people in relation to their level of awareness

Variable	Category	Not Aware	Poor Awareness	Moderate Awareness	Good Awareness	DF
Gender	Male	10 (1.7%)	233 (33.4%)	416 (59.6%)	39 (5.6%)	44.85 (3)
	Female	36 (7.2%)	214 (42.6%)	222(44.2%)	30 (6.0%)	
Age of Respondents (years)	18 – 25	6 (2.8%)	101 (46.3%)	107(49.1)	4 (1.8%)	186.37 (12)
	26 – 35	12 (2.3%)	190 (36.1%)	287 (54.6%)	37 (7.0%)	
	36 – 45	28 (8.3%)	102 (30.4%)	204 (60.7%)	2 (0.6%)	
	46 – 55	0 (0.0%)	49 (49.5%)	36 (36.4%)	14 (14.1%)	
	≥ 56	0 (0.0%)	5 (23.8%)	4 (19.0%)	12 (57.1%)	
Level of Education	No formal Education	0 (0.0%)	19 (70.4%)	6 (22.2%)	2 (7.4%)	174.13 (12)
	Primary Education	2 (13.3%)	13 (86.7%)	0 (0.0%)	0 (0.0%)	
	Secondary Education	30(14.2%)	80 (37.9%)	69 (32.7%)	32 (15.2%)	
	Tertiary Education	14 (1.5%)	331 (35.3%)	559 (59.5%)	35 (3.7%)	
	Others	0 (0.0%)	4 (50.0%)	4 (50.0%)	0 (0.0%)	
Length of Residence	1 – 5	20 (6.9%)	106 (36.4%)	157 (54.0%)	8 (2.7%)	69.3 3(9)
	6 – 10	2 (0.8%)	106 (40.0%)	129 (48.7%)	28 (10.6%)	
	11 – 15	2 (1.1%)	38 (20.7%)	134 (72.8%)	10 (5.4%)	
	≥ 16	22 (4.8%)	197 (42.8%)	218 (47.4%)	23 (5.0%)	
Job status	Unemployed	0 (0.0%)	55 (37.9%)	63 (43.4%)	27 (18.6%)	190.85(12)
	Civil	4 (1.3%)	83 (26.0%)	228 (71.5%)	4 (1.3%)	
	Servant					
	Public	12 (6.4%)	125 (66.5%)	47 (25.0%)	4 (2.1%)	
	Servant					
monthly income	Business	24 (5.3%)	163 (36.3%)	234 (52.1%)	28 (6.2%)	208.23 (12)
	Others	6 (6.1%)	21 (21.2%)	66 (66.7%)	6 (6.1%)	
	10000 – 30000	38 (8.1%)	175 (37.3%)	197 (42.0%)	59 (12.6%)	
	31000 – 60000	8 (2.5%)	122(37.8%)	185 (57.3%)	8 (2.5%)	
	61000 – 90000	0 (0.0%)	21 (12.6%)	146 (87.4%)	0 (0.0%)	
	91000 – 120000	0 (0.0%)	55 (45.1%)	67 (54.9%)	0 (0.0%)	
	> 120000	0 (0.0%)	74 (62.2%)	43 (36.1%)	2 (1.7%)	
household Size	1 – 2	2 (0.6%)	135 (42.2%)	157 (49.1%)	26 (8.1%)	45.89 (9)
	3 – 4	16 (4.5%)	151 (42.3%)	176 (49.3%)	14 (3.9%)	
	5 – 6	24 (5.9%)	137 (33.6%)	221 (54.2%)	26 (6.4 %)	
	> 6	4 (3.5%)	24 (20.9%)	84 (73.0%)	3 (2.6%)	

All the socio-demographic variables considered for the assessments of the level of

awareness of urban sustainable development in this study were seen to be significantly associated at p-

value of <0.005 using chi-square analysis. Therefore, the study is in agreement to El Sakka (2016) who declared that a sustainable urban development must build sustainable environment which requires investment in: renewable energy resources; efficiency in the use of water and electricity; design and implementation of compact cities; increasing green area; reliable, affordable and fast public transportation; waste management collection and recycling systems. Sustainable development as applied to urban areas is the ability of the urban area and their regions to continue function at levels of desired quality of life without limiting the options available to the present and future generations.

From the Chi-square test of hypothesis on the relationship or association between level of awareness and socio-economic status, it was observed that p-value <0.000 (see table 4.14) for all socio-economic parameters. Since, p-value <0.005 in this test, we reject the null hypothesis which says; no significant association between socio-economic status and the level of awareness. This is an indication that there is significant association between socio-economic status and the level of awareness of sustainable urban development in the area studied. From the test of hypotheses, it was observed that there is significant association between socio-economic status and the level of awareness of sustainable urban development in the area studied. This corroborates with the findings of Guo et al. (2018) who studied the awareness, perceptions and determinants of urban sustainable development concerns.

IV. CONCLUSION AND RECOMMENDATIONS

The study revealed the deplorable and pathetic situations of the urban living conditions of majority of people in Port Harcourt, Uyo and Asaba cities in Nigeria. Therefore, access to portable water is vital to the people living in urban areas to ensure urban sustainable development, there should be proper land use and investment on environmental protection. Unlike in developed countries where concerted efforts are being made to better the living conditions and socio-economic status of citizens, the situation in Nigeria and other developing countries appears to be deteriorating. In addition, there is significant association between socio-economic status and the level of awareness of sustainable urban development in the area studied. It is therefore recommended that good governance, should be established and there should be effective law enforcement to keep safe the development indicators in the study area.

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