

Impact of Urbanisation on Residents' Quality of Life in Lokoja, Kogi State, Nigeria

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Abstract

The study investigates the factors and the challenges posed by urbanisation on the quality of life of residents of Lokoja, Kogi State. As cities grow and expand, economic growth and development are expected to progress and drive social transformation and improvement of urban areas and their greater rural hinterland. The situation in developing countries is not always the case, as urbanisation has brought about an increased and persistent housing problem, traffic congestion, and water and sanitary problems. The study employed both primary and secondary sources. The population of Lokoja was projected to be 203,456, using a growth rate of 3.05%. The required sample size of 400 at a precision level of $\pm 7\%$ was adopted from Glenn 1992 table. The 400 questionnaires were administered to the residents that covered the five districts of Lokoja. The questionnaire sought to obtain information on the residents' socio-economic characteristics, factors and effects of urbanisation on the residents' quality of life. A five-point Likert Scale was used to measure the residents' perceptions of urbanisation characteristics. In contrast, Multiple Linear Regression was used to establish the effects of population increases on their associated urbanisation problems. The findings revealed that four factors (natural increase in population, migration, presence of social amenities and employment opportunities contributed to the rapid expansion of urbanisation in Lokoja. The regression analysis shows that the calculated F value of 24.601 is far greater than the table value (2.31). This indicates that the predictors significantly affect the level of stress and livability of residents of Lokoja. The research was concluded with a few recommendations, such as addressing the rural-urban migration by introducing policies that favour rural areas, provision and upgrading existing urban infrastructure, ensuring environmental sustainability, and enlightenment programmes for population control.

Keywords: Settlement, population, urban growth, urbanism, infrastructure

Introduction

Urbanisation is an increasing proportion of a population living in settlements defined as urban areas. It usually results from the net movement of people from rural to urban areas or a natural increase (the excess of births over deaths). However, the definition of what qualifies as an urban centre differs from one country to another depending on the criteria used. Satterthwaite (2005) noted that many aspects of urban change from 1950 to 2000 were unprecedented. As cities grow and expand, economic growth and development are expected to progress and drive social transformation and improvement of urban areas and their greater rural

hinterland. However, the situation in developing countries is different, where urbanisation has exacerbated housing problems, traffic congestion, the development of slums, and water and sanitation problems in cities of developing countries. Thus, these, in addition to food insecurity, energy, poverty, and poor planning habits, have compounded urban issues in Nigeria with their antecedent effects on the quality of life of the people.

Quality of life is a feeling of overall life satisfaction, as determined by the mentally alert individual whose life is being evaluated (Meeberg, 1993). The identified keys

to defining quality are employment; economic resources; family and household; community life and social roles; health care knowledge, and education (Arsovski, 2005). Quality of life can be attributed to living in a city enhanced by abundant food, clean air and water, ample open space, conservation of natural resources, security of life, and protection from harmful substances.

The global trend of urbanisation is further increasing, and as of 2021, more than 56% of the world's population resides in urban areas (United Nations, 2019). Cities and towns are expanding, the global population is increasing, and young people are moving to cities to find work and a better life, especially in the rapidly developing countries. More residential, commercial and industrial areas are needed to satisfy the demands of an increasing urban population. Sustainability, quality of life, health, air quality, moderate temperatures within city boundaries, urban climate, green spaces, and closeness to nature and recreation need to be heeded when planning the future state of our living space. With the unprecedented speed of urban development, planning measures to provide for these considerations is even more difficult.

Africa is one of the least urbanised places in the world, and its urbanisation rate will continue to be among the fastest of the world regions in the coming years (Heinrigs,2020). In 1950, Africa's urban population was 27 million, a fraction of today's urban population of roughly 567 million. The Organization for Economic Co-operation and Development (OECD) report argues that since 1990, Africa's rapid growth in urbanisation has been driven primarily by high population growth and the reclassification of rural settlements. It also predicts that Africa's population will double between 2020 and 2050, and urban areas will absorb two-thirds

of this population increase. (Moriconi-Ebrard, Heinrigs, & Trémolières, 2020).

The share of Africans living in urban areas is projected to grow from 36% in 2010 to 50% by 2030. The continent's urbanisation rate, the highest in the world, can lead to economic growth, transformation, and poverty reduction. Alternatively, it can lead to increased inequality, urban poverty, and the proliferation of slums. Therefore, the laws, policies, and actions needed to reap positive dividends from Africa's urbanisation are critical in the continent's transformation. (Teye, 2018).

Urban centres in Nigeria are facing the problems of over-stretched infrastructures, environmental degradation, seasonal flooding, and the destruction of natural vegetation, all resulting from an increase in population (Momoh et al., 2018). The movement of people from rural to urban centres in search of better livelihood led to an expansion of urban areas and an increase in social and economic activities along flood plains, thus increasing the risk of urban dwellers and infrastructures to natural disasters such as floods (Ishaya et al., 2012; Charles et al.,2018).

The city of Lokoja is proliferating with the inadequate provision of all urban services with respect to adequacy and coverage of the area. This study seeks to assess the impacts of urbanisation on the residents' quality of in the Lokoja metropolis.

The Study Area

Administratively, Lokoja is the capital city of Kogi State, Nigeria. The ancient town lies between latitudes and longitudes 7°44' 16.69"N, 6°41' 54.40"E and 7°51' 36.96"N, 6°46' 24.31"E. It has an estimated landmass of 63.82 sq. km and can be called a gateway town to

northern Nigeria, especially to the Nigerian Federal Capital city of Abuja (Figure 1.1). Location-wise, Lokoja is unique for two reasons: first, it is well-linked and accessible through both state and federal highways. Second, its location is at the confluence of the Rivers Niger and Benue and a massive flat-topped ridge (Mount Patti) which put the town at a severe disadvantage to physical expansion; the two barriers of the water body and the ridges have streamlined the settlement to a linear one and have a modifying effect on the local climate (Alabi, 2009).

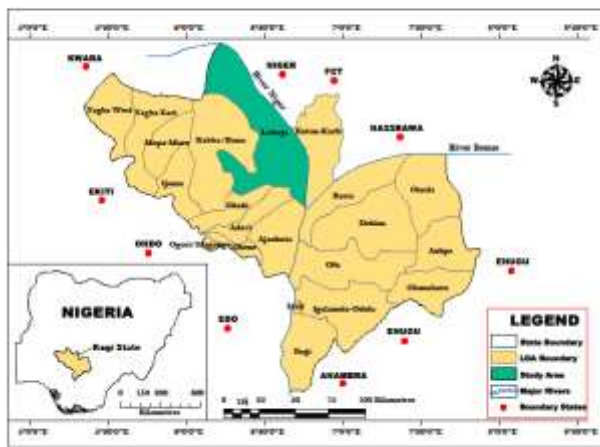


Figure 1.1: Lokoja in the context of Kogi State, Nigeria

Source: Kogi State Town Planning and Development Board, (2021)

Literature Review and Concepts of Urbanization

How cities have influenced and shaped social life throughout history has led scholars of urban studies to delve into the origin and development of the urban form. Urbanisation is a complex phenomenon with various dimensions (Hussain & Imitiyaz, 2018). However, the size of the place has been the most widely used criterion in the definition of urban population. Urban areas have a higher concentration of population

in a limited area and thus a higher density of population and social heterogeneity.

According to Moreno (2017), urbanisation is an increased system modernisation process that modifies socio-economic activities and revolutionises the land use pattern in accordance with the time frame. Also, Bae and Richardson (2017) define urbanisation as a complex diffusion process that dramatically spreads and affects rural landscapes at varying spatial scales.

Urbanisation is the increase in the proportion of the urban population over time. It is calculated as the urban population's growth rate minus the total population. Urban populations can grow either faster or slower than the total population. Urbanisation is a settlement change process from a rural to an urban experience. As towns and cities grow, more people come into them, mostly from rural areas, searching for job opportunities and other forms of prosperity. Most cities experience population growth through migration rather than a natural increase in population. The movement of people into urban centres is an objective anticipation and desire to have a better life, as towns and cities are places where the needs, ideas, ambitions and aspirations of humanity are mainly realised (Satterthwaite, 2005).

Challenges of Urbanisation

The most fundamental source of potential confusion in the study of urbanisation and city growth is the measurement of the term urban itself. What defines an urban area? Unfortunately, there is no unique answer. Despite the rapidly urbanising world, the definition of urban remains rather fleeting, changing over time and space (Heshmat & Rashidghalam, 2020).

The definition of an urban area varies from country to country, making cross-country comparisons problematic. The United Nations (UN) is forced to rely

on national statistical agencies for their data. Some countries define their urban population as those people living within certain administrative boundaries-such as in administrative centres (as in El Salvador), municipality councils (as in Iraq), or in places having a municipality or a municipal corporation, a town committee, or a cantonment board (as in Bangladesh or Pakistan). Other countries prefer to classify their urban population using population size or population density as the primary consideration. However, the line between urban and rural is, to a certain extent, arbitrary and culturally bound, and so, not surprisingly; it differs between countries (Muhammed et al., 2015).

Urbanisation and Sustainable Urban Development in Nigeria

Urbanisation is a transformative process from a rural to an urban experience. The level of urbanisation of a country determines its level of development and economic growth in most cases (UNFPA, 2007; White et al., 2012; Okopi, 2021). Therefore, it can be easily concluded that urbanisation is inevitable as it is part of an old recent human population history.

According to the United Nations Human Settlements Programme (2018), urbanisation has been associated with improved human development, bringing incomes and better living standards. On the other hand, rapid urbanisation can be said to be a curse as well as a blessing; unless strong and decisive policy action is taken, the phenomena could be a burden from being an opportunity to a problem, particularly in developing regions.

The evolution and the processes of urban centres in Nigeria have a profound effect on contemporary urban life. This is obvious from specific spectra, starting from

dynamic town expansion based on high construction activities and as well as functional development leading towards a spatial divergence of centrality, continuing with strong economic display and increased social living standards (Ojo & Ojewale, 2019).

The urbanisation process brings about urban change. Jiboye (2011) attributed the rising standards of

living combined with economic and societal structural changes to a continuous increase in land used for residential, industrial, commercial, and infrastructure purposes. This is one of the most noticeable trends in the Lokoja urban form. United Nations Population Funds (2020) estimated that the world's population is put at about 7.87 billion people, out of whom about 4.3 billion people (55%) live in urban areas (World Bank, 2020). Egidi et al. (2020), stated that about 66% of the world's population was residing at the fringe in the early 1950s. In the same vein, recent statistics show that by 2030, about 61% of the total population in the world will be residing in the cities; and that all the world's increase in population in the next three decades will occur in low- and middle-income countries (Canton, 2021).

United Nations estimate shows that in all the twenty countries identified as possessing the lowest Human Development Index (HDI) in 2020, approximately 19 (95%) are domiciled in Africa. UNHSP (2010) asserted that over 166 million urban slum dwellers have been identified in sub-Saharan Africa, representing about 71.9% of its total urban population. This figure constitutes the region's higher urban poverty and low life expectancy. The high rate of urbanisation in Nigeria, which stands at 5.3%, is also among the highest in the world, which tends to spur up environmental degradation that further worsens the

quality of urban fabrics (Herold et al., 2005; Ikporukpo, 2018).

Urban Quality of Life

The "excellent" or "satisfying" nature of people's lives is referred to as their quality of life (EI Din et al., 2019). In an urban society, quality of life is related to the shared experiences urban residents get from the urban environment and the capacity of the city to supply such demands. This means that quality of life could be translated into the livability of a location. People from diverse cultural origins may have distinct perceptions of their surroundings. Generally speaking, an urban quality-of-life strategy aims to build a healthy city and offer enough urban services to everyone within the context of sustainability (Harpham et al., 2001).

A healthy city with excellent physical and economic circumstances is always ready to enable urban residents to realise their potential fully. EI Din, et al. (2019) divided the seven dimensions of urban quality of life into categories according to these circumstances: environmental, physical, mobility, social, psychological, political, and economic. They further asserted that the main dimensions are divided into thirty basic principles that can be applied in various combinations to achieve a quality of life for communities.

Theory of Urbanization

There have been several explanations for what drives urbanisation and how cities emerged. Some of the available literature on the theories of urbanisation have ideas that intersect with others, while some came up as a build-up from other theories (Bodo, 2019). The theory of Urban Bias argues that government policies favour

urban regions. While the amenities are provided on a larger scale in urban areas, a larger proportion of the population is found in rural areas of a country. Hence, there is migration from rural to urban areas. This theory has been supported by several scholars (London & Smith, 1988; Bradshaw, 1987; Lipton, 1984 and Bodo, 2019).

Methodology

Lokoja town is experiencing tremendous population growth, particularly in Lokongoma, Adankolo, Ganaja and Felele. For the purpose of this study, the population of those above 18 years and above was used in the six zones of Lokoja, namely: Adankolo, Felele, Ganaja, Lokongoma, Otokiti and Saki Noma. This was obtained from the National Population Commission (NPC). According to the 2006 census, the study area's population was 196,643 (National Bureau Statistics, 2006). This was projected to be 203,456 using the growth rate of 3.05% for 2021. The required sample size is 400 at a precision level of $\pm 7\%$, adopted from Glenn's 1992 table of sampling size where the Confidence Level is 95% and $P=0.5$ (Glen, 1992).

The questionnaire was administered in six areas of the town. The purpose of the questionnaire was to obtain relevant information from the residents, such as their socio-economic characteristics, factors responsible for population growth in the town, and challenges posed by urbanisation. A systematic sampling technique was used to administer the questionnaires to the residents; this was done at an interval for every 20 residential buildings. Secondary data include the Lokoja administrative map and population data obtained from the Kogi State Town Planning Board and the State Population Commission office. Data obtained were analysed using simple frequencies and percentages tables. Averages mean weighted score was obtained

from the Likert scale using five points. The response options were worded as Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), and Strongly Disagree (SD). Multiple regression was adopted to determine the relationship between the population increase and its impact on the environmental quality of Lokoja town.

Results and Discussion

The data collected through the questionnaire on the respondents’ socio-economic variables, factors, and challenges of urbanisation and its impacts on the resident's quality of life in Lokoja were presented with extensive discussion of the findings.

Socio-economic Characteristics of the Respondents

Socio-economic factors are usually measured with indicators such as income, age, gender, literacy, and employment levels. These indicators significantly impact the residents' quality of life in the study area. The socio-economic characteristics of the respondents, as shown in Table 1, indicated that the male respondents accounted for 50.5% of the total and females for 49.5%. This further reinforces the balance in gender equality. The respondents under 18 years old accounted for 8.0%, and those between 18-35 years represented 32.0%. Furthermore, respondents between 36 and 55 years were 47.0%, and those above the age of 55 accounted for 19.0%. The highest percentages (47.0) are those between the ages of 35-55, and the least is 8.0% of those below 18 years. The respondent's level of education without formal education accounted for 1.8%; respondents with primary and secondary qualifications accounted for 4.0% and 36.5%, respectively. The respondents with tertiary education qualifications represent 57.7%. Most respondents are graduates of various tertiary institutions, while only 1.8% are respondents without formal education. An urban centre

is considered a place of opportunities that pull people desirous of acquiring education, particularly at the tertiary level.

Table 1: Socio-economic Characteristics of the Respondents

	Frequency	Percent
Sex		
Male	202	50.5
Female	198	49.5
Age		
Less than 18	8	2.0
18 – 35	128	32.0
36 – 55	188	47.0
Above 55	76	19.0
Level of Education		
No formal education	7	1.8
Primary school	16	4.0
Secondary school	146	36.5
Tertiary	231	57.7
Occupation of Respondents		
Farming/Fishing	24	6.0
Artisanship	62	15.5
Trading	106	26.5
Civil Service	160	40.0
Professional	10	2.5
Pensioner	13	3.2
Schooling	25	6.3
Monthly Income		
Below ₦18,000	35	8.8
₦18,000 - ₦40,500	39	9.7
₦41,000 - ₦60,500	52	13.0
₦61,000 - ₦80,000	101	25.3
₦81,000 - ₦100,500	112	28.0
Above ₦100,500	61	15.2
Length of Residency		
Less than 5 years	37	9.3
5 - 10 years	67	16.7
11 - 15 years	89	22.2
16 – 20 years		98
Above 20 years		109

Source: Author’s Field Survey, 2021

Occupational distribution is an integral part of socio-economic characteristics in any settlement. It is a means by which the inhabitants earn their living so that they can meet up with their daily expenses. The respondents who earned their livelihood from farming and fishing accounted for 6.0%, and those who engaged in various crafts were 15.5%. Similarly, respondents who trade in buying and selling accounted for 26.5%, and those working in government agencies and parastatals were 40.0%. Respondents who are professional account for 2.5% while pensioners and students account for 3.2% and 6.3%, respectively. The respondents who worked and earned their living from the government accounted for the highest proportion (40.5%), while the least were those who engaged in agricultural practices like farming and fishing. Lokoja is a civil service town that attracts other personnel from other parts of the state and regions of Nigeria. The respondents who earned below ₦18,000 per month account for 8.8%, those that earned between ₦18,000 - ₦40,500 represents 9.7%, while respondents who earned between ₦41,000-₦60,500 monthly account for 13.0%. Furthermore, 25.3% of the respondents earned between ₦61,000-₦80,500 per month, 28.0% between ₦81,000 - ₦100,500 monthly, and 15.2% of the respondents earned above ₦100,500 monthly. There is a link between wages earned and the occupational type, as most responders who earned between ₦81,000 and above ₦100,500 are civil servants. The length of residency measured the length of stay of the respondents in Lokoja. The respondents who had spent less than 5 years represent 9.3%, those that have stayed between 5 – 10 years account for

16.7%, and 11 - 15 years, 22.2%. Those who have spent over 16 years represent a cumulative of 51.7%. This implies that information obtained from the respondents who have spent over ten years (73.9%) is reliable because of their length of stay in the study area.

Table 2: Factors Responsible for Urbanisation in Lokoja

Factors		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Do you think that the natural increase in population contributed to the rapid expansion of the town?	Frequency (f) Weighted score (fx) Weighted mean score (x)	165 660 3.21	189 567	10 0	21 42	15 15
Does migration of people from other parts of the state contribute to the growth of the town?	Frequency (f) Weighted score (fx) Weighted mean score (x)	228 912 3.40	112 336	2 0	53 106	7 7
Do you think that availability of social amenities has encouraged more people to settle in this town?	Frequency (f) Weighted score (fx) Weighted mean score (x)	302 1208 3.68	79 237	2 0	11 21	6 6
Do job opportunities pull more people to this town?	Frequency (f) Weighted score (fx) Weighted mean score (x)	243 972 3.54	141 423	4 0	9 18	3 3
Does the security of lives and properties attract more people to Lokoja town?	Frequency (f) Weighted score (fx) Weighted mean score (x)	116 464 2.61	106 318	27 0	110 220	41 41

Source: Author's Field Survey, 2021

Factors responsible for urbanisation are mostly pull factors as they encourage people to migrate from other parts of the state into the city. The situation in Lokoja is, however, not different. It is obtainable elsewhere. The respondents strongly agreed that the natural increase in population accounted for 165, while 189 strongly agreed. On the other hand, 21 and 15

respondents disagreed and strongly disagreed, respectively; 10 respondents were, however, neutral. The weighted mean score is 3.21, almost halfway between strongly agreed and agreed. This implies that the natural population increase is responsible for Lokoja's urbanisation. On this note, 228 respondents strongly agreed that the influx of people, especially from other areas to Lokoja, increases the urbanisation rate, and 112 respondents agreed. On the contrary, 53 of the respondents disagreed, while seven respondents strongly disagreed, and two remained neutral. The weighted mean score is 3.40, which almost lies between strongly agreed and agreed. This result corroborates the findings of Bloch et al. (2015). The availability of social amenities such as education and health has been a major factor in encouraging urbanisation, especially in developing countries. This is evident as 302 of the respondents strongly agreed, and 79 agreed that the presence of social amenities increases the rate of urbanisation in Lokoja. Only 11 and six disagreed and strongly disagreed, respectively. However, two of the residents remained neutral. The mean weight score is 3.68, above the mid-point between agree and strongly agree. Aliyu and Amadu (2017) attributed the provision of modern infrastructure in cities to the total neglect of rural areas, encouraging people to migrate from those areas to urban centres.

Urbanisation due to employment opportunities accounts for 243 of the respondents strongly agreed, and 141 of the respondents agreed that job opportunities in Lokoja have contributed to urbanisation. On the other hand, nine and three of the respondents disagreed and

strongly disagreed, respectively. The weighted mean is 3.54 is a mid-point between strongly agree and agreed. This finding further justified the released data by the NBS in 2021 that put Nigeria’s unemployment rate at 27.1%. Security of lives and properties constitutes a significant factor for measuring the livability of a settlement. The respondents who strongly agreed that security of life and properties as a factor of urbanisation represent 116, and those who agreed constitute 106. However, a significant number of 110 disagreed with this factor, 41 strongly disagreed, and 27 remained neutral. The weighted mean is 2.61. This implies that the respondents do not believe that security is a significant factor that encourages urbanisation in Lokoja. However, this finding deviates from the research of Udeuhele (2018). This can further be said that Kogi State, despite its location in north-central Nigeria, enjoys some level of peace regarding kidnapping, banditry and terrorism.

Regression analysis of factors and effects of urbanisation on the resident's quality of life in Lokoja

In determining the effect of urbanisation, the dependent variable and independent variables of the principal factors were employed. Multiple regression analysis was conducted using the 'entre method' with five (5) principal factors (Increase in natural population, migration, availability of social amenities, employment opportunity and security) known as the independent variables. These factors are on a nominal scale. The model summary in Table 3 specifies the coefficient of determination (R^2) value of 0.493, indicating 49% variance in the quality of life in Lokoja was explained by the model and, subsequently, Adjusted R^2 value of 0.471 representing 47% of the urbanisation effects (Physical environment, economy volume, on existing infrastructure, and security/social vices). The result

shows that R^2 is high, showing that the predictor variables adequately explained most of the variation in urbanisation effects. This value is reliable and reasonably well above an acceptable range of 15%, as postulated by Hamada et al. (2008); this is acceptable in social sciences when cross-sectional data are considered. This research further rejects the null hypothesis as it was observed that the calculated F value of 24.601 is greater than the table F value of (2.31) at 0.05 significance level and degrees of freedom (5,94) (Table 4). As ascertained by Bako et al. (2018) and Ha et al. (2019), this implies that the regression is highly significant. However, three predictors (migration, availability of social amenities and employment opportunity) were all significant, with their p values being less than 0.05 significance level (Table 5). This clearly shows that the predictors have a considerable effect on the level of stress and livability of residents of Lokoja. Furthermore, the result of ANOVA from Table 4 shows the value is less than 0.05, which also substantiates the above deduction.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.675 ^a	.493	.471	.467

- a. Predictors: (Constant), Impact on security and social vices, Effect of urbanisation on environmental damage, Extent of urbanisation on volume of economy, impact on existing infrastructure
- b. Dependent Variable: Factors Responsible for Urbanisation

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	37.098	5	7.420	24.601	.000 ^b
	Residual	30.492	94	.373		
	Total	67.590	99			

- a. Dependent Variable: Factors Responsible for Urbanisation
- b. Predictors: (Constant), Impact on security and social vices, Effect of urbanisation on environmental damage, Extent of urbanisation on volume of economy, Impact on existing infrastructure

Model	Coefficients	
	Unstandardised Coefficients	Std. Error
1 (Constant)	.735	.586
Natural Increase in population	.578	.167
Rural-urban migration	-.959	.259
Availability of social amenities	-.741	.145
Employment Opportunities	1.017	.254
Security of Lives and properties	-.343	.138

a. Dependent Variable: Factors Responsible for Urbanisation

Conclusion

Urbanisation is a process whereby people move from rural to urban areas, enabling cities and towns to expand. This growth can be progressive, which is strongly influenced by the notion that cities and towns have achieved better economic, political, and social mileage than rural areas. The main cause of rapid population growth in developing countries has been attributed to poor government policies that encourage the concentration of social and economic services as well as benefits. These include social and economic advantages such as better education, health care, sanitation, housing, business opportunities, and transportation in the major cities, leading to massive rural-to-urban migration.

This study established that an increase in both population and spatial growth has resulted in the diversity of the city, providing residents with a means of livelihood, and the majority of the inhabitants have spent more than 10 years, as this further reinforced the fact that information obtained from residents is reliable due to their experience over time. Similarly, factors

such as an increase in natural population growth and the provision of infrastructure in the city have greatly influenced the city's growth. The study equally established no significant difference between the factors responsible for urbanisation and their effects on the city's environmental condition. The study also reveals that the growth experienced in the town has a more negative impact on the town than a positive one; inadequate basic facilities and services are not commensurate with the rate of urbanisation.

Despite all these numerous challenges of urbanisation, solutions can come through job creation and the formulation of policies that favour rural settlements. In order to ensure a quality urban centre, there is the need to urgently address rural-urban migration, ensure basic infrastructure in rural areas, ensure environmental sustainability through the enforcement of relevant state environmental laws, upgrading of existing urban infrastructure and enlightenment programmes for population control.

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