



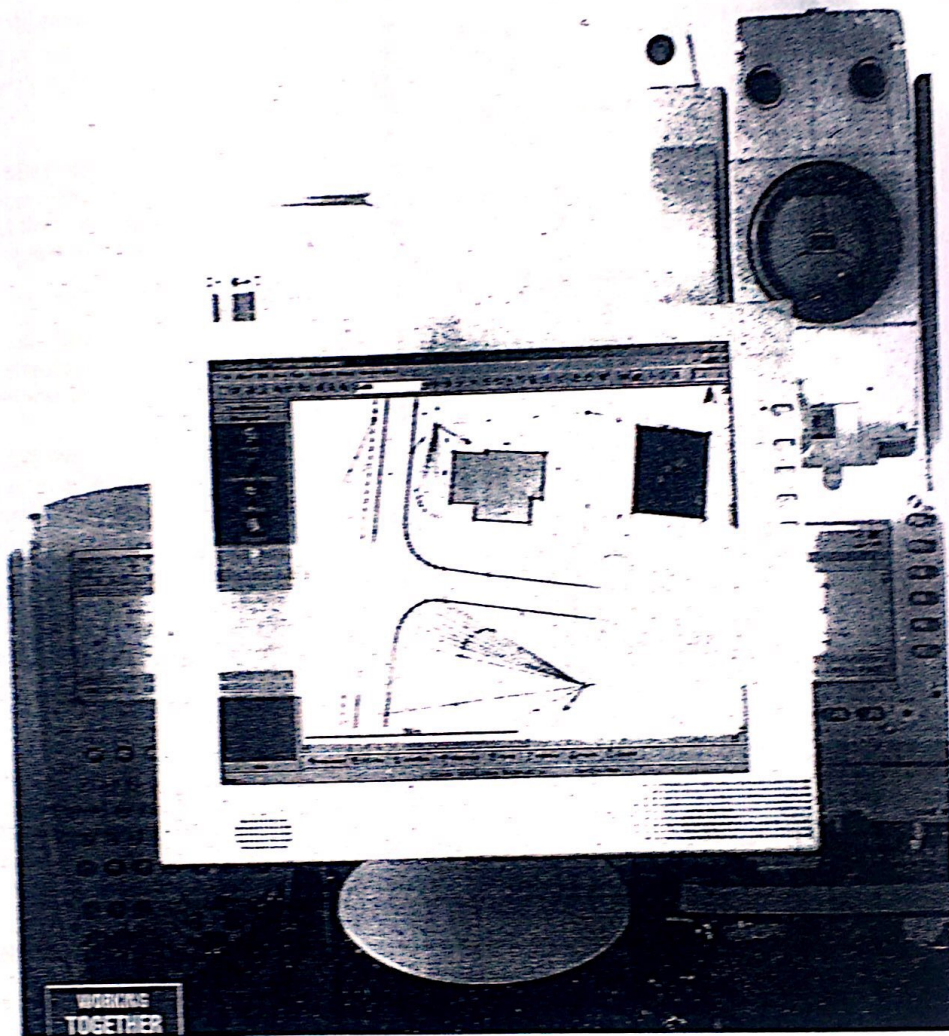
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Counterurbanization and Rural Settlement Growth: The Case of Satellite Towns in the Federal Capital Territory of Nigeria

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Abstract

Counterurbanization is a major factor responsible for rural settlement growth in many parts of the world. This study examined the factors of turnaround migration in the Federal Capital Territory (FCT) of Nigeria. It used primary data collected from seven satellite settlements. The data were organized and analyzed using frequency tables, ranking and correlation analysis. Amongst others, the study revealed that many of the people who worked in Abuja city resided in the surrounding satellite settlements. Research findings show that 58.9% of the residents of the seven settlements studied worked in Abuja. Although 77.3% of the respondents preferred to reside in Abuja city, they were forced out of the city owing to the problems of accommodation shortages, high rent, high costs of living and high cost of land for development. These factors repelled the low and the medium income groups from Abuja city and account for Counterurbanization that resulted in the growth of rural settlements in the area. The factors of settlement growth include proximity to Abuja, population increases due to in-migration, the transfer of the Federal capital of Nigeria from Lagos to Abuja and availability of cheaper land for development in the satellite settlements. However, stepwise correlation analysis shows that the factors of nearness to Abuja city, ease of commuting and population increases due to in-migration (with R-value of 0.989) jointly explain 97.8% of the growth of the satellite settlements studied. The study observed that the resultant growth has brought about poor physical development in the satellite settlements. It therefore recommended active development control in the settlements as well as the provision of low income housing in phases II and III of the Abuja Master Plan to accommodate the majority of the poor residents.

Key words: Counterurbanisation, Rural, Settlement, Growth

Introduction

The continuous spatial interaction and functional interrelationships between the urban and rural settlements generate certain processes, which result in settlement growth and land use change. Initially such changes were contemplated at the peri - urban areas as established by conventional studies of residential development at the city suburbs. However, other studies of rural urbanization have shown that changes in the rural landscape occur far beyond the urban fringe. The account of Britain, as shown in the study of Pahl (1966), shows that increased affluence and the rising rate of car ownership permitted the dispersal of the city into the countryside since the 1950s. As a result, "dispersed city" was being created, composed of new towns, old towns, villages and hamlets beyond the built - up limits of central cities, but increasingly characterized by middle - class inhabitants with urban life styles and points of view" (Clout 1984).

The wave of urban influence, which is manifested in high population growth, rising demand for land and energy consumption, has resulted in changes in socio - economic and physical characteristics of the rural areas. In Nigeria, many rural settlements in the FCT are currently witnessing a rapid rate of counterurbanization. This results from the intensive development of the Federal Capital City (FCC) beginning from 1985, the subsequent transfer of government establishments to the city between 1986 and 1997 and the inadequacy of housing accommodation for the low-income population.

The continuous influx of population into the satellite settlements of the FCC has generated certain development processes. The issue of concern is that, the accelerated growth and land use transformation noticeable in these settlements have set in motion the process of rural spatial disequilibria. These are evident from the mounting population pressure, settlement growth and the development of slum enclaves and its associated problems noticeable in the area. This paper examines the phenomenon of counterurbanization in the FCT with a view to understanding its cause(s) and the factors contributing to settlement growth.

Review on Counterurbanization, Settlement Growth and Rural Change

Counterurbanization is a term applied to the fundamental reshaping of the geography of population and economic activity which has taken place over the last 30 years in most developed societies (Spencer and Goodall, 1992). It is defined as the reorganization of urban living over a much-enlarged spatial scale. It involves the dispersal of population and economic activities to free - standing settlements in rural localities, and de-concentration, whereby the smallest settlements grow the most.

Counterurbanization is not synonymous with sub-urbanization and should not be treated as such. It occurred beyond the physical built up limit of towns or cities. According to Spencer and Goodall (1992), counterurbanization may simply be referred to as metropolitan decline paralleled by rural growth. It is the spatial outcome of urban - rural shifts.

which have brought expansion to medium and small sized towns. It is a process of decentralization in which people and employment move out of large settlements to smaller ones.

Counterurbanization is caused by factors that are different from one locality to the other. Spencer and Goodall (1992) identified three main causes of counterurbanization in England to include the shift in industrial investment to peripheral and other rural localities, the growth of rural service sector and the back to the land subculture of retirees or ex-urbanites. In Canada Velvet Louge (2005) observed that better transportation, telecommunication and early retirement have allowed urbanites to move to the rural areas while still maintaining link to the city. However, in the case of California, Loffler and Seinicke (2006) identified tourism as impulse for the diffusion metropolitan population.

The different factors of counterurbanization in all parts of the world have resulted in increases in rural population and economic activities as well as settlement expansion. According to Spencer and Goodall (1992) the far-reaching changes in the realm of production and service rendering have had demographic consequences. In their study of counterurbanization in south Oxfordshire England, the authors noted a population increase of 40,000 people (45% increase) in the area between 1961 and 1990 with the highest rate of increase found in Thames (142%) and Wallingford (72%). This tremendous population increase was said to warrant pressure on residential development. Consequently, the number of residential dwellings grew from 28,000 in 1961 to 53,000 in 1990, showing a 90% increase.

The increases in population and residential development brought about by counterurbanization have engendered social and physical changes in the rural settlements. With respect to social changes, Fielding (1989) asserts that immigration of middle class or working class newcomers distorts rural social structures. The assertion of Fielding (1989) confirms earlier observations of authors like Pahl (1966), Beegle (1964) and George (1964, 1965). Beegle (1964), for instance, reported that enormous social changes had already taken place amongst farmers in North America while George (1964, 1965) observed that the old social structure of rural areas changed radically over the same period in France.

The account of Pahl (1966) presents a more illustrative case study. In his study of North London, the author noted that metropolitan villages consisted of groups of residents including urban workers with limited income (the "reluctant commuters" forced out of the city by high property prices), rural working-class commuters and the traditional ruralites. With this composition, he found out that important social changes were taking place in the metropolitan villages around large cities, giving rise to "pseudo-rural settlements".

Physical changes in rural settlements as a result of counterurbanization manifest in form of settlement growth and environmental quality change. Growth is brought about by an upsurge in demand for land for development in and around specific settlements so that their character is altered. Such environmental change can subsequently affect people's well-being positively or negatively (Spencer and Goodall, 1992). The advantages of growth, according to the authors, may include more living space and better services and amenities. In contrast however, they observed that pressures and conflicts might threaten to erode the visual environmental qualities brought about by growth in the first place.

The forgoing review shows that counterurbanization is caused by different factors, which have resulted in socio-cultural and physical changes as well as growth in the affected rural settlements. Although many authors have recognized the different factors of counterurbanization, most works on the subject are descriptive in nature and non has attempted a statistical analysis of the association between the different variables and settlement growth to be able to isolate the relative importance of the factors. This is a major gap in knowledge addressed in this research.

Research Methodology

The study used both primary and secondary data. The primary data were collected directly from the field through personal observation, oral interviews and questionnaire. The questionnaire was used to collect information on the different variables of turnaround migration and rural settlement growth such as population increase, accessibility, land values, housing demand, proximity to place of work, employment etc.

Five per cent of the total household population figure of 14, 874 was sampled to derive a sample size of 744 respondents. The houses in the seven satellite settlements selected constitute the sampling unit while the household population served as the universe from which the samples were drawn. The questionnaire administration followed a two-stage (random- systematic) procedure using the existing road system as a guide. The first 10 houses were sampled randomly (i.e picking among ten pieces of papers which conceal the identities of the houses) along each major road to determine the first sample member while subsequent members were selected using a fixed interval of 10 houses. The questionnaires were administered on one household head in each house based on first encounter.

The data collected were analysed using simple frequencies and rating methods. Pearson Product Moment Correlation analysis was also used to establish the relationship between built up area and the growth variables. Step-wise regression analysis was further used to model the relationship and to confirm the influence of the variable on settlement growth.

Study Area and Background Information

The Federal Capital Territory (FCT) covers an area of 800km² (Abuja Master Plan, 1979). It is located at the heart of Nigeria, approximately between latitudes 7° 25" - 9° 20" north of the Equator and longitudes 6° 45" - 7° 39" east.

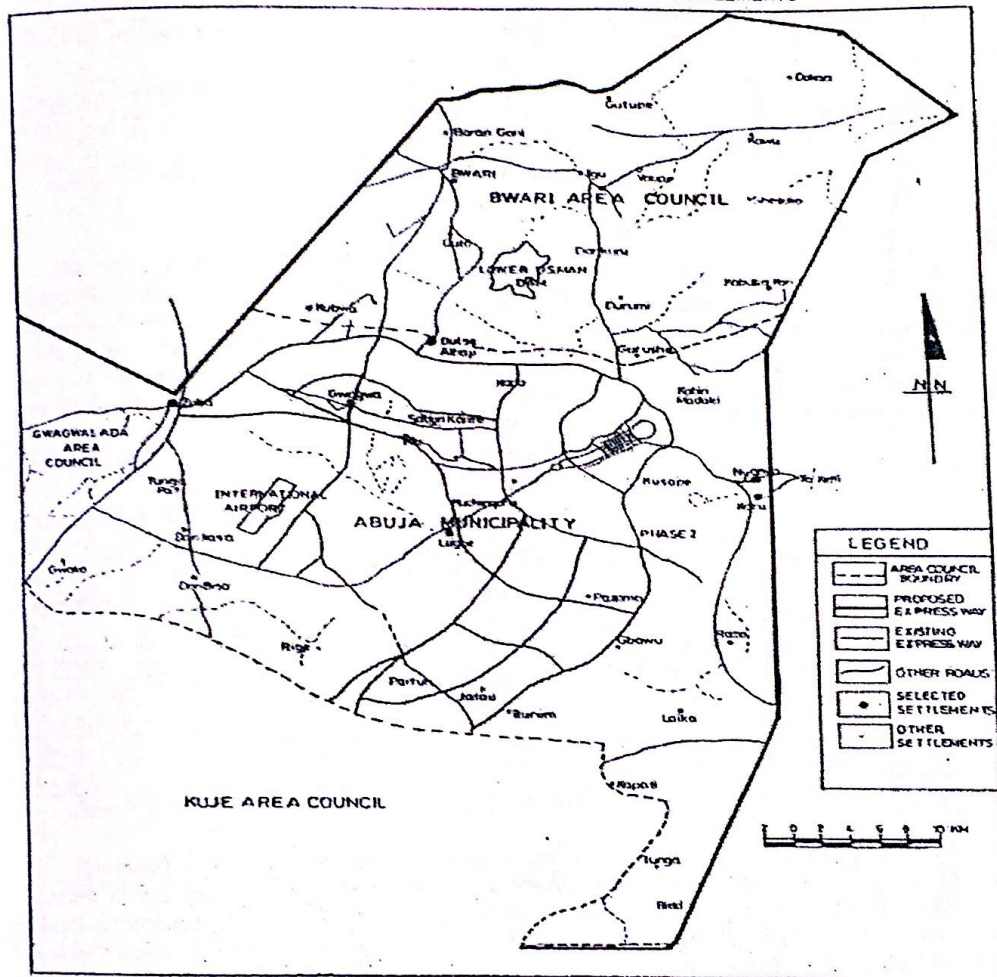
of the Greenwich meridian. It lies just above the hot humid lowlands of the Niger - Benue trough and it is bounded on the north by Kaduna state, on the west by Niger, on the east and southeast by Plateau and on the southwest by Kogi states.

The research is focused on seven rural satellite settlements around the Federal Capital City (FCC) in the Municipal Area Council of the FCT (Figure 1). First, a reconnaissance survey was carried out to identify and list twenty settlements around the FCC that have shown evidence of rapid growth in the recent times. Among these, Karu, Yanyan, Kubwa, Dutse Alhaji, Zuba, Gwagwa and Lugbe were randomly selected for study.

Yanyan and Karu are located at about 9kms and 10kms, respectively away along the Abuja-Keffi road east of the FCC. They are built on the borderlands of the FCT with part of the settlements spilling over to the bordering lands of Nasarawa State. On the other hand, Kubwa and Zuba are situated in the northwest of the FCC at about 29kms and 39kms respectively away along the Abuja- Zuba dual- carriage way. Gwagwa is located at the west central area at about 22kms on the old Abuja-Suleja road while Lugbe is situated at about 17kms along the airport expressway.

These satellite settlements fall within the mean interaction field of the FCC and have witnessed rapid growth due to the influence of the FCC. Some of the factors responsible for the observed growth are examined in the next section of the paper.

FIGURE 1: ABUJA MUNICIPAL AREA COUNCIL SHOWING SELECTED SETTLEMENTS



Source: Adapted from Omonugun Cartographical Services, Abuja; 1989

Factors of Counterurbanization and Settlement Growth

It is noted in the introductory section that, counterurbanization in the FCT results from the construction of the FCC and the subsequent transfer of the Federal capital to Abuja without adequate housing provision for the low-income group. In order to understand the forces of counterurbanization at work, background information on the reasons for population build-up and the subsequent physical growth of the satellite settlements was sought and analysed. First, the survey established that about 73.8 per cent of the respondents were tenants while only 26.2 per cent were owner-occupiers. Majority of the tenants and house owners worked in Abuja as 438 (58.9%) of the 744 respondents confirmed that their

workplace is located in the city. The respondents gave various reasons for residing in the satellite settlements. These include cheaper and affordable accommodation, allocation of government quarters, proximity to Abuja/workplace, accommodation shortage and high rent in Abuja, availability of social facilities and the settlements being native homes to few respondents. Among others, cheap/affordable accommodation and nearness to Abuja/workplace account for 70.5 percent of the responses given and these are the major reasons for population concentration in the satellite settlements.

With reference to the location of workplace, 569 (77.3%) out of 736 respondents indicated that they prefer to live in Abuja city. On the basis of this preference, the respondents were asked to rank three major reasons they could not reside in the city as at the time of the study. The rankings were assigned minimum scores of 1 for the lowest and 3 for the highest. The scores were summed up to determine the relative importance of the factors. As shown in table 1, the most important factors that repelled the low and the medium income groups from Abuja city and which set off the process of counterurbanization were accommodation shortage and high rent. This is followed by high cost of living in the city and high cost of land for development.

Table 1: Rating of Reasons Respondents Could not Reside in Abuja City.

Reasons for not Residing in Abuja City	Score Under Each Rating			Total Score	Overall Ranking
	1 st	2 nd	3 rd		
Accommodation shortage and high rent	1035	328	54	1417	1 st
High cost of land for development	252	278	333	863	3 rd
High cost of living	408	506	169	1083	2 nd

Source: Fieldwork Conducted in the Selected Settlements, 2004.

The rent and land value situations in Abuja were examined in order to appreciate the magnitude of the accommodation problem as a major factor. As shown in table 2, the rent per annum for different types of accommodation have increased geometrically over the years with absolute increase of ₦ 100,000.00 for a single room and as much as ₦ 2.3 million for duplex building within a period of fifteen years. The percentage rent increases for all types of accommodation are well over 100 (between 150 and 1150 %) and this is considered exceptionally high. The high rent situation in Abuja is compounded by high cost of land. Survey findings reveal that a 1000 square meters plot of land in phase I of the city costs about ₦1.5 million in 1990. According to NAWA Properties Limited (2004), this price increased from ₦1.5 million in 1990 to ₦3 million in 1996, ₦15 million in 1999 and ₦25 million in year 2002.

Table 2: Trend in Housing Rent, Abuja (1987 – 2002)

Types of Accommodation	Housing Rent (₦)/ Annum				Absolute Increase	Percentage Increase (a) (d)
	1987 (a)	1993 (b)	1999 (c)	2002 (d)		
Single Room	30,000	45,000	120,000	130,000	100,000	333.3
1-Bedroom Flat	60,000	120,000	180,000	250,000	190,000	150.0
2-Bedroom Flat	80,000	150,000	300,000	450,000	370,000	462.5
3-Bedroom Flat	150,000	250,000	700,000	850,000	700,000	467.0
Duplex & BQ	200,000	450,000	1,500,000	2,500,000	2,300,000	1150.0

Source: Computed from the Records of NAWA Properties Ltd., Abuja, 2004.

The accommodation shortage/high rent problem and high land value in Abuja combined with other problems such as absence of both private and official low-income residential estates to divert the city's migrant population to the surrounding satellite settlements. The residents confirmed that the satellite settlements have grown rapidly over the years. They were therefore asked to identify the factors that accounted for the observed growth. Among others, factors identified by the respondents include proximity to Abuja as a centre of administration and opportunities, availability of business opportunities in the satellite settlements, population increases due to in-migration of Abuja workers and people displaced by the Kaduna and Jos ethnic and religious crises of between 1992 and 2000, transfer of the Federal capital from Lagos to Abuja and availability of cheaper accommodation in the satellite settlements (table 3). As shown in the table, the growth factors of transfer of the Federal capital of Nigeria to Abuja (16.5%) and population increases due to in-migration into the satellite settlements (41.4%) are quite important as they account for 57.9% of the total responses.

Table 3: Factors Explaining Rural Settlement Growth

Factors of Growth	Frequency	Percentage	Cum. Percentage
Proximity to Abuja city/increase in car ownership	64	11.0	11.0
Business opportunities in the settlements	86	14.8	25.8
Population increases due to in-migration	241	41.4	67.2
Transfer of Federal capital to Abuja	96	16.5	83.7
Availability of cheaper accommodation	74	12.7	96.4
Availability of social amenities	21	3.6	100.0
Total	582	100.0	

Source: Fieldwork Conducted in the Selected Settlements, 2004.

The different factors identified were streamlined into five major variables that could best explain the growth of the settlements. These growth variables include, nearness to Abuja city and ease of commuting, population increases due to spill over from Abuja, availability of cheaper accommodation in the satellite settlements, cheap land for development and increased rate of car ownership. The respondents were asked to score these variables in order of importance (1 for the least and 5 for the most important). The scores for each of the selected settlements were summed up and tabulated against settlement sizes for analysis. Each of the variables (x) was correlated with settlement size (y) to determine the degree of association using the Pearson's Product-moment Correlation Coefficient (r). The results of the analysis show strong positive correlations, which are significant at 0.05 alpha level for all the variables. The coefficients of determination (r²) shown in table 4 indicate the level of explanation provided by each of the growth variables. It is evident from the table that nearness to Abuja city and ease of commuting with r-value of 0.919 is the most important variable of settlement growth and it is significant at 0.01 alpha level.

Table 4: Correlation between Settlement Size and Growth Variables

Growth Variables	Correlation Coefficient (r)	Coefficient determination (r ²)
Nearness to Abuja city and ease of commuting	0.919**	0.844561 (84.5%)
Population increases due to spill over from Abuja	0.802*	0.643204 (64.35%)
Availability of cheaper accommodation	0.784*	0.614656 (61.53%)
Cheap land for development	0.733*	0.5537289 (53.7%)
Increased rate of car ownership	0.802*	0.643204 (64.35%)

** Significant at 0.01 alpha level * Significant at 0.05 alpha level
Source: Author's, 2005.

The explanatory variables of settlement growth were further subjected to stepwise regression analysis to determine their individual strengths and/or explanatory power. The results show that nearness to Abuja city and ease of commuting with R-value of 0.946 remains the strongest variable of growth. The factor is significant at 0.000 alpha level (which is the highest level of significance) and it explains 89.5 per cent of growth. Population increases due to in-migration and spill over from Abuja is the next to enter the model and it helps improve the R-value to 0.989. This value is also significant at 0.000 alpha level and the two variables jointly explain 97.8 per cent of growth (see appendix 1)

It is noted that the factor – cheap land for development in the satellite settlements, ranked third in the first level of stepwise analysis with -4.193 t-value and 0.009 level of significance. However, this factor, together with the remaining two are not statistically significant at the second level of analysis and could therefore not enter the model. This shows that the factors are redundant as they jointly explain only 2.2 per cent of growth. Thus the model for explaining settlement growth in the study area is written as:

$$Y = 474455.5 + 37962.9 (\text{nearness to Abuja and ease of commuting}) - 21921.0 (\text{population increases due to spill over from Abuja}).$$

5. Discussion of Findings and Conclusion

The results of this research show that counterurbanization in the FCT is accounted for by several factors among which nearness of the rural settlements to Abuja city and ease of commuting as well as population increases due to spill over from Abuja are the strongest. The findings agree largely with the global factors of counterurbanization but differ in some respects. Our findings on the reasons residents (mostly workers) could not reside in the FCC and the factors responsible for rural settlement growth help confirm the findings of earlier studies with differences in the underlying circumstances and local peculiarities. For instance, the problems of accommodation shortage/high rent and general high cost of living as the major factors that prevent the average people from residing in Abuja despite their preference for the

agree with the findings of Pahl (1966) in North London where he confirmed the presence of low income urban workers (the 'reluctant' commuters forced out of the city by high property prices) in metropolitan villages. However, while the low-income residents might have been forced out of the city due to high property prices in the North London's case, most of those of Abuja never had the opportunity to reside in the city due to complete lack of low-income accommodation.

With respect to causes of counterurbanization, Clout (1984) identified the factors of increasing affluence, efficient public transport and rising rate of private car ownership in Britain while he attributed the flight from the city in America to the shift of industrial investment to rural localities, the growth of the rural service sector and back to the land sub-culture of retirees and ex-urbanites as the three main causes of counterurbanization while Potts and Mutambirwa (1998) attributed the increased urban-rural 'return' migration in Zimbabwe to the retrenchment of urban workers due to the impact of Structural Adjustment Programme (SAP).

These case studies show that there are different factors of rural settlement growth depending on local peculiarities or underlying conditions. As we found out, the situation in Abuja, Nigeria agrees partly with the universal principles in terms of the proximity/ease of commuting as well as increasing rate of car ownership as factors of rural settlement growth. However, it differs in terms of the population spill over effects and the attraction of available and cheaper rural accommodation in the satellite settlements. This shows that the political decision to build a millionaire capital city, which by omission or commission did not provide adequate accommodation for the average citizens can generate forces of counterurbanization. This is the underlying condition that accounted for accelerated rural settlement growth in the FCT.

The inability of the FCC to cope with new entrants and its consequence on population build up in the surrounding satellite settlements has led to rapid physical development and the emergence of slums in the settlement studied. The emerging slums and their negative consequences such as overcrowding, poor infrastructure and services, rising crime and social vices have severe implications for the well-being of the residents as well as the existence and functioning of Abuja city.

The rapid rate of settlement growth and emergence of slums portend the need for active development control in the settlements. In this case, an integrated settlement policy that focuses on the preparation of Strategic Action Area Plan, which will tackle the immediate problems of the satellite settlements, is recommended. Above all, there is the need to accelerate the implementation of Abuja Master Plan. Phases II and III of the city should be opened up for development and adequate low-income houses should be provided to house government workers and the city's service population. Where government could not provide housing directly, different enabling strategies such as easy access to land, site and services, private estate development and cooperative housing should be put in place to make decent houses available for the majority. This will stem the tide of the population spill over effect which is a major factor contributing to urban sprawl in the satellite settlements.

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Appendix 1: Step-Wise Regression Output Tables for Explanatory Power of the Growth Variables

Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Nearness to Abuja city and ease of commuting		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	Population increases due to spill over from Abuja		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a Dependent Variable: Settlement size

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.946	.895	.877	3155521.8806
2	.989	.978	.969	1584431.4225

a Predictors: (Constant), Nearness to Abuja city and ease of commuting

b Predictors: (Constant), Nearness to Abuja city and ease of commuting, Population increases due to spill over from Abuja

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	509162998179381.000	1	509162998179381.000	51.135	.000
	Residual	59743910031997.200	6	9957318338666.190		
	Total	568906908211378.000	7			
2	Regression	556354793548656.000	2	278177396774328.000	110.809	.000
	Residual	12552114662721.830	5	2510422932544.366		
	Total	568906908211378.000	7			

a Predictors: (Constant), Nearness to Abuja city and ease of commuting

b Predictors: (Constant), Nearness to Abuja city and ease of commuting, Population increases due to spill over from Abuja

c Dependent Variable: Settlement size

Coefficients

Model		Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.
		B		Beta		
1	(Constant)	-772069.004	1638208.119		-.471	.654
	Nearness to Abuja city and ease of commuting	25445.200	3558.350	.946	7.151	.000
2	(Constant)	474455.527	871363.335		.544	.609
	Nearness to Abuja city and ease of commuting	37962.894	3395.252	1.411	11.181	.000
	Population increases due to spill over from Abuja	-21921.011	5055.927	-.547	-4.336	.007

a Dependent Variable: Settlement size

Excluded Variables

		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
Model						Tolerance
1	Availability of Cheaper accommodation in satellite sett.	-.627	-3.782	.013	-.861	.198
	Cheap land for development in Satellite sett.	-.729	-4.193	.009	-.882	.154
	increased rate of car ownership	-.917	-3.388	.019	-.835	8.691E-02
	Population increases due to spill over from Abuja	-.547	-4.336	.007	-.889	.277
2	Availability of Cheaper accommodation in satellite sett.	.995	.797	.470	.370	3.057E-03
	Cheap land for development in Satellite sett.	.046	.027	.980	.014	1.964E-03
	increased rate of car ownership	1.315	1.075	.343	.473	2.862E-03

- a Predictors in the Model: (Constant), Nearness to Abuja city and ease of commuting
- b Predictors in the Model: (Constant), Nearness to Abuja city and ease of commuting, Population increases due to spill over from Abuja
- c Dependent Variable: Settlement size