

# An Assessment of Quality of Life in Peri Urban, Settlements of Uyo Capital City, Akwa Ibom State, Nigeria

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**Abstract:** The study is an assessment of quality of life in peri-urban settlements of Uyo Capital City in Akwa Ibom State, Nigeria. This is sequel to the perceived low level of living that is experienced in the peripheral settlements of Uyo Capital City. Settlements identified within the limit of the study area were 36 in number. Data on 15 dependent variables thus contributing to socio-economic infrastructure and activities to the quality of life of the people were collected from the field and weighted. Using systematic random sampling, 10% of households were sample in each of the settlements. Seven independent variables of socio-economic nature were identified and measured. Spearman's Correlation statistics was applied to investigate the influence of socio-economic indicators on quality of life. The result of the analysis indicated that the population and education variables were significant in explaining the levels of quality of life in the study area. The Population variable accounted for 88.9% of the total variance in quality of life ( $r = 0.943$ ). This was closely followed by education variable which accounted positively ( $r = 0.496$ ) but very weak contributing 24.6% of the total variance in quality of life in the study area. The overall assessment hammered on inadequate socio-economic infrastructure in the study area and hence it is recommended that adequate intervention be made in infrastructural provision and effective planed distribution strategy for enhanced quality of life.

**Key Word:** Quality Of Life, Uyo Capital, Peri-Urban, Akwa Ibom, Settlement, Socio-Economic

## I. INTRODUCTION

There has been widespread interest in recent years in the field of Quality Of Life (QOL) studies. The term appears in the discussion of everything, from relative discussion in villages, towns, urban and suburbans, cities and nations. However, due to this widespread interest, World Health Organisation Quality of Life Group (WHOQL, group) came up with a definition of QOL as, "individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concern" [1].

It is a well known fact that Nigerian society has been characterised by rapid urban growth. Equally, the existence of

development emphasis in term of provision of infrastructure from government programmes have always centred on urban setting, thus neglecting rural majority in national decision making process.

Although many government development programmes were introduced in the past and present (such as, Operation Feed the Nation, the Directorate of Food, Road and Rural Infrastructure; Better Life for Rural Women; Family Support Programme; Poverty Alleviation Programme; Women for Change Initiative; Rural Electrification Scheme among others) to aid in improving quality of life of the people, but quality of life is not working for the rural settlers particularly the peripheral settlement of Uyo.

In peri-urban areas of Uyo Capital City, transportation becomes a problem as most roads are inaccessible, accessibility to health facilities are still patronised by long distance of trekking, housing conditions in most of these areas defy adequate description, the condition of life is so degraded by low income status, illiteracy as to deny the people basic human necessities. Good mode of commercial transportations which would have helped increased farm productivity are lacking. In assessing the performance of Millennium Development Goal (MDGs) and National Economic Empowerment and Development Strategy (NEEDs) in the study area, especially when it relates to quality of life improvement, one can say without fear of contradiction that MGDs have performed below the expectations of the settlements in the study area. These programmes were incapable of handling the challenges upon inadequate awareness of living circumstances and the obstacles facing peri urban communities in different aspects of life. This research is therefore to evaluate the impacts of various QOL programmes of the government using the Uyo peripheral settlement as the case study while keying into United Nations Millennium Development Goals concept.

It is at the backdrop of this realisation that this research is set to examine the MDGs and quality of life improvement as it is

geared towards bringing sustainable development in Uyo peripheral settlements. MDGs are aimed at reducing the number of people who lived on less than a dollar in year 2015 by pursuing the 8 goals. These goals are geared towards the reduction of poverty and encouragement of rapid progress in the improvement of the world.

### 1.1 Aim and Objectives

The aim of this study is to evaluate or assess QOL in peri-urban settlements of Uyo Capital City (UCC). To achieve the aim, the following objectives are proposed.

- (i) To identify the factors which affect the QOL in these areas,
- (ii) To measure the effects of these factors on the QOL on the study area,
- (iii) To measure the relationship between socio-economic status and quality of life of the inhabitants,
- (v) To assess various government intervention programmes towards enhancing an improved QOL in the study area.

### 1.2 Significance of the Study

It is widely accepted that majority of Nigerian's population live in the rural areas as stated in the 2006 population figure. Idachaba [2] revealed that rural population is a neglect, lacks infrastructures, adequate housing both in quality and quantity; majority of rural people are illiterate.

The policy makers need to be aware that local environment problems such as soil erosion and forest degradation are often triggered by unsustainable practices and consumption patterns generated in the cities/urban areas. This study will help as a piece of information for the policy makers and gives an insight view into important issues in rural areas. If properly articulated, it will guide on environmental planning and management of peri-urban issues with the aim of achieving environmental sustainability, improving the livelihoods and the quality of life of the people of the zone and most importantly help to assess Millennium Development Goals.

## II. RESEARCH DESIGN

This study employs both interview and survey (observation) approaches. It is worth to note that, interview approaches could be conveniently classified by the following methods of obtaining information; personal (individual) and group interviews, mail interviews, panel and telephone interviews.

But however, this research was based on field observations and personal interviews using questionnaire tool for the quality of life assessment for primary data collections. In order to ensure gaining better quality of information that is much close to what the researcher was looking at and to be much as accurate as possible. The interview questionnaire approach was administered to certain target group (the

household heads) in the settlements whom were seen and thought as being knowledgeable about quality of life issues.

Individual interview refers to a situation in which an interviewer asks each respondent series of pre-established questions with a limited set of response categories as seen in Appendix II. They were asked to mark their response using a tick. The choices are yes or no, and others involving a range of different choices easy to convert to numerical format required for Statistical Package for Social Science (SPSS). This method enable the listing of the settlements within the limit of concentration which however, helped, to discover inter-relationships of variables.

Furthermore, to ensure the applicability of reaching the target respondents, 10 research assistances were recruited and trained to visit and obtain primary data in the 36 settlements so identified which, however, spread across 7 bordering local government areas of Uyo Capital City edge. However, on the spot verification was made by the researcher who sampled 20 of the 36 settlements to ascertain the authenticity of the data gathered.

To further support this work, secondary data were gotten from journals, the internet, text books, the National Population Commission Census [3] and the map of Uyo Capital City edge showing the location of the settlements.

### 2.1 Population of Study

The population in the study area was heterogeneous (consisting of different classes of people) with respect to education, occupation, ethnicity and income. It further comprises all settlements located at the Uyo City peri-urban and its socio-economic infrastructure. However, since the research considered all the settlements at the limit of the city edge, data were collected from 36 settlements identified. The number of such settlements were found to be 36 as extracted from the map of Uyo Capital City edge showing the settlements as shown in Table 2.1, with roads on scale: 1:500,000 using the 2014 population projection which was based on 2.8% national growth rate and the 2006 National Census figures of the settlements.

Table 2.1: List of settlements studied and their 2014 projected populations from 2006 National Census Figures

S/n	Local Govt. Area	S/n	Settlement	2006	2014
1	Etinan	1	Ikot Ntang	1252	1483
		2	Ekot Iman	11351	16272
2	Ibesikpo-Asutan	3	Oku Ikot Idaha	1185	1744
		4	Ikot Essien	1398	2058
		5	Mbierebe Akpawatt	2884	4455
		6	Ikot Udo	820	1207
		7	Afaha Ikot Eyo	719	1058
		8	Ikot Ediom	852	1254
		9	Ikot Anung	965	1420
		10	Afaha Udo Eyop	1561	2298
3	Ibiono Ibom	11	Use Ikot Ebio	2433	3583
		12	Ibiaku Ikot Ukpong	831	1223
		13	Ibiaku Ikpedip	983	1447

		14	Obio Ibiono	774	1139
		15	Ikot Ada Idem	2181	3211
		16	Ikot Asukpong	2497	3573
4	Itu	17	Mbiaobong Itam	865	1274
		18	Odiok Itam	1883	2773
		19	Ikot Mbon Nde	1354	1994
5	Nsit Ibom	20	Obo Ntong	780	1118
		21	Ekpene Ikpang	2104	3098
6	Uruan	22	Ibiaku Uruan	1628	2397
		23	Mbiaya Uruan	1617	2382
		24	Ita Uruan	1333	1963
		25	Mbiakong	5111	7527
		26	Emman Ikot Ebo	1165	1714
		27	Ifiayong Usuk	2063	2443
		28	Anakpa	1188	1748
		29	Ikot Inyang Esuk	1254	1846
		30	Ikot Akpan Ekong	1054	1552
		31	Ibiaku Obio Ndobbo	1265	1862
		32	Nung Ikono Obio	1013	1491
		33	Ibiaku Ikot Ese	866	1275
		34	Ndon Uruan	714	1051
		7	Uyo	35	Ikot Ekpeyak
		36	Ikot Oku Ikono	7253	8576

Sources: Extracted from Uyo Capital City Development Map and National Population Census Figure [3].

2.2 Sample Size and Sample Technique

Systematic random sampling method was employed in accessing the sample method. In determining the sample size for making general statistical estimate as cited in, Udofia [4], opined that a sampling fraction of  $1/10$  is deemed satisfactory as no serious research can progress with a sampling fraction of less than 10%. Therefore, a representative 10% on each household head of the settlements were picked.

Each population in the settlement was divided by the average rural household heads in Nigeria which is 6 persons, to get to the total representative household heads in the community Table 2.2. The researcher was not interested in the total population that justifies the conversion of the population to household heads. Household heads are the people perceived to be knowledgeable to answer questions on quality of life related issues.

As further observed in Table 2.2, 10% of the household heads in each settlement was administered the questionnaire. Each settlement has its distinct sample size, this is because the household heads were the targeted population and the settlements have different populations which were rounded up to the next integer to ensure that each household has a chance of being selected.

Systematic random sampling is a type of probability sampling where all the members of the population have equal chances of being selected. In systematic random sampling, the first item is randomly picked from the population list which is the nth subject. The process of obtaining the systematic random sampling is much like an arithmetic progression. There are two key words in systematic random: the starting number and the interval. The integer must be first picked which must be

less than the sample size and another integer which will serve as the constant difference between any two consecutive numbers in the progression. For example, the first settlement, Ikot Ntang in Etinan Local Government Area (LGA) with the population of 1561 persons was divided by 6 persons (average rural household head) and the result (247) divided by 10% to give 25 persons (sample size). After determining the sample size, (25) it is then divided by 1561 to get 62.

The sampling fraction shows that one household head in every 62 household head from the population of 1561 would be selected 62 times. Put it differently, starting number is 1 and the interval is 62 which is constant: 1, 62, 124, 186, 248 .... and so forth. This process is done for each settlement. The aim of the systematic random sample is to reduce the potential for human bias in the selection of cases to be included in the sample. As a result, the systematic random sample provides a sample that is highly representative of the population.

Table 2.2: Stratified Household Heads for Sample Size (average rural household size in Nigeria is 6)

S/N	Population	Household Heads (approximation)	Sample size (approximation)	Retrieved questionnaires
1	1483	247	25	19
2	16272	2788	278	235
3	1744	290	29	21
4	2058	342	34	20
5	4455	742	74	55
6	1207	201	-	18
7	1058	176	18	18
8	1254	209	21	15
9	1420	236	-	20
10	2298	385	38	20
11	3583	597	60	31
12	1223	203	-	18
13	1447	241	24	20
14	1139	189	19	7
15	3211	535	53	40
16	3573	595	-	41
17	1274	212	-	20
18	2773	462	46	37
19	1994	332	33	30
20	1118	186	1	10
21	3098	516	52	42
22	2397	399	40	22
23	2382	397	40	23
24	1963	327	33	20
25	7527	1254	-	102
26	1714	285	-	21
27	2443	407	41	33
28	1748	291	29	20
29	1846	307	31	21
30	1552	258	26	23
31	1862	310	31	16
32	1491	248	25	17
33	1275	212	-	8
34	1051	175	-	11
35	2771	461	46	21
36	8576	1429	143	111
Total	96,006	16445	1645	1222

Source: Author's Field survey (2013)

### 2.3 Development of indices for quality of life

There is no consensus on the indices of quality of life measurement but for the purpose of this research, the following indices are developed which have direct bearing on the quality of life of the study area: presence of electricity, presence of water supply, educational institutions, health care facilities, social facilities, waste disposal facilities, transportation facilities, security facility, presence of telecommunication, skill development, market facilities and road network. Others are, population, housing types, income and occupational status, representing the independent variables.

### 2.4 Independent variables (x)

These are the 7 measurable indices the researcher was looking at that affect the quality of life of the study area as listed in Table 2.3.

Table 2.3: List of indices (x-independent variables) and units of measurement

S/n	Indices	Unit of Measurement	
1	Population	Number	X <sub>1</sub>
2	Housing condition	Type	X <sub>2</sub>
3	Educational level	Type	X <sub>3</sub>
4	Access to health care	Distance	X <sub>4</sub>
5	Transportation	Types	X <sub>5</sub>
6	Income Level	Amount	X <sub>6</sub>
7	Occupational Level	Type	X <sub>7</sub>

Population is the total count of people in each settlement. Housing condition were measured by the total count of housing structural characteristics: block wall/zinc roof (1) (good) and mud wall cemented/ zinc roof (2) (bad). Education was measured on the strength of the highest level of education the respondent has attained on average: (0) no formal education, (1) primary education (2) secondary education/trade (3) tertiary education. Access to healthcare was measured by the average distance (km) each respondent was able to get access to health facilities like, chemist shop, health centre, hospitals and clinics. Transportation was measured by the types of predominant mode of commercial transportation in each settlement as in motorcycle only (1), tricycle and motorcycle only (2), motor vehicle only (3).

Income level, in order to get good picture of the settlements income status in consonance with MDGs, the mean income levels were scored from low (1), medium (2), high (3) to very high (4) of N10,000 – 20,000; N21,000 – 40,000; N41,000-80,000 and N81,000 and above respectively. Occupational levels were measured through interviews and weighted thus: subsistence farming (1), fishing (2), trading and business (3), public service (4).

### 2.5 Dependent Variables (Y)

Table 2.4: List of indices (y- dependent variables) and units of measurement

S/n	Indices	Unit of Measurement
1	Public electricity supply	Type
2	Public boreholes	Number
3	Nursery/Primary Schools	Number
4	Secondary Schools	Number
5	Health care facility	Number
6	co-operative societies	Number
7	Waste disposal facility	Type
8	Motor parks	Number
9	Police station	Number
10	Skills development centre	Number
11	Rural banking facility	Number
12	Telecommunication	Type
13	Market	Type
14	Feeder Roads Network	Type
15	Filling station	Number

### 2.6 Analysis of Dependent Variables

Public electricity supply refers to the presence public power supply in each settlement with code (1). Public boreholes refers to total count of boreholes (public) in each settlement. Nursery/primary schools refers to total count of the number of nursery and primary schools in each settlement. Secondary schools refers to total count of the secondary schools either privately or publicly owned. Health care facility refers to total count of the health related centres. Example, hospitals, health centres, clinics, chemist shops. Cooperative societies refers to total count of the co-operatives bodies like, timber dealers cooperative society, osusu multipurpose cooperative society and so on in the settlement. Waste disposal facility refers to the presence of public waste disposal unit. Motor parks refers to the presence of motor parks. Police station refers to the presence of police station (1), none (O). Telecommunication refers to preserve of network, ability to receive calls from the mobile phones.

Skill development centre refers to the total count of technical services and workshop such as automobile workshop, tailoring, vulcaniser workshops, carpentry, motorbike repair workshop. Rural banking facility refers to the total count of banks such as micro-finance banks. Market – weekly market (1), none (O). Feeder roads network – tarred (1) untarred (O). Filling station – total count of filling stations.

### 2.7 Methods of Data Analysis

However, to realise the objectives of the research, which is the assessing the Quality Of Life of settlements involve the interrelationship of variables. The use of Statistical Package

for Social Science (SPSS) version 15 as a tool was applied for the process of data analysis. SPSS package is used as a data reduction technique. It takes a large set of variables and looks for a way the data may be reduced or summarised using a smaller set of factors or components (Pallant, 2007). Spearman’s rank order correlation was used in the analysis of the data. Supported with the help of SPSS version 15.

2.7.1 Spearman’s Rank Correlation

The Spearman’s Rank Correlation is based on the relative ranks of values, and not on the actual values themselves. Its purpose is to establish whether there is any form of association between variables when they are arranged in a ranked order [4]. For this technique, the coefficient rs is obtained from:

$$r_s = 1 - \frac{6\sum d^2}{N^3 - 1}$$

Where; rs = Spearman’s rank correlation

d = differences between the ranks

N = sample size

III. PRESENTATION OF RAW DATA

Presentation of raw data on socio-economic variables were gathered from the field, weighted and presented on Table 3.1. Data on 15 variables were recorded against 36 settlements drawn from 7 local government areas which shares border with the limit of city edge.

Table 3.1: weighed data of dependent variables gathered from the field

LGAs	s/n	Settlement	Presence of															Total														
			Elec	ctri	coho	mu	nica	bor	ph	mar	ofu	ary	stth	care	faci	rati	ve		disp	osal	or	Par	ce	stati	Dev	ran	kin	Mar	ket	roa	ds	nat
Etinan	1	Ikot Ntang	1	1	2	1	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	8
	2	Ekom Iman	1	1	3	1	1	9	2	1	1	1	7	0	1	0	3	0	1	0	3	7	0	1	0	0	0	0	3	32		
Ibesikpo Asutan	3	Oku Ikot Idaha	1	1	1	0	1	2	0	0	0	0	3	0	1	0	0	0	0	0	3	0	1	0	0	0	0	0	9			
	4	Ikot Essien	1	1	2	0	1	2	0	0	0	0	2	0	1	0	0	0	0	0	2	0	1	0	0	0	0	0	10			
	5	Mbierebe Akpawatt	1	1	2	2	1	4	1	0	0	0	6	0	0	0	0	0	0	0	6	0	0	0	0	0	0	2	20			
	6	Ikot Udo	1	1	0	1	0	1	0	0	0	0	3	0	1	0	0	0	0	0	3	0	1	0	0	0	0	0	8			
	7	Afaha Ikot Eyo	1	1	0	1	0	2	0	0	0	0	2	0	1	0	0	0	0	0	2	0	1	0	0	0	0	0	8			
	8	Ikot Ediom	1	1	1	1	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	1	8				
	9	Ikot Anung	1	1	1	0	0	2	0	0	0	0	2	0	1	0	0	0	0	0	2	0	1	0	0	0	0	0	11			
	10	Afaha Udo Eyop	1	1	2	1	1	2	0	0	0	0	2	0	1	0	0	0	0	0	2	0	1	0	0	0	0	0	17			
Ibiono Ibom	11	Use Ikot Ebio	1	1	2	1	1	4	1	0	0	0	5	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	8			
	12	Ibiaku Ikot Ukpong	1	1	0	1	1	2	0	0	0	0	3	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	8			
	13	Ibiaku Ikpedip	1	1	0	0	0	2	0	0	0	0	4	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	8			
	14	Obio Ibiono	1	1	0	1	1	2	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	16			
	15	Ikot Ada Idem	1	1	2	2	2	3	0	0	0	0	4	0	1	0	0	0	0	0	4	0	1	0	1	0	1	17				
	16	Ikot Asukpong	1	1	2	1	1	3	0	0	0	0	5	0	0	0	0	0	0	0	5	0	0	0	1	0	0	8				
Itu	17	Mbiaobong Itam	1	1	1	0	0	2	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	13			
	18	Odiok Itam	1	1	0	1	0	3	0	0	0	0	3	0	1	0	0	0	0	0	3	0	1	0	2	0	0	10				
	19	Ikot Mbon Nde	1	1	2	1	0	2	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	8				
	20	Obo Ntong	1	1	0	1	1	2	0	0	0	0	2	0	1	0	0	0	0	0	2	0	1	0	0	0	0	16				
	21	Epkene Ikpong	1	1	1	1	1	4	0	0	0	0	6	0	1	0	0	0	0	0	6	0	1	0	0	0	0	12				
	22	Ibiaku Uruan	1	1	2	1	1	3	1	0	0	0	3	0	0	0	0	0	0	0	3	0	0	0	0	0	0	12				
	23	Mbiaya Uruan	1	1	2	0	1	3	0	0	0	0	3	0	1	0	0	0	0	0	3	0	1	0	0	0	0	10				
	24	Ita Uruan	1	1	0	1	1	2	0	0	0	0	3	0	1	0	0	0	0	0	3	0	1	0	0	0	0	24				
	25	Mbiakong	1	1	3	2	1	6	2	0	0	0	7	0	0	0	0	0	0	0	7	0	0	0	0	0	0	12				
	26	Emman Ikot Ebo	1	1	0	1	0	2	0	0	0	0	6	0	1	0	0	0	0	0	6	0	1	0	1	0	1	12				
	27	Ifiyong Usuk	1	1	1	1	1	3	2	0	0	0	7	0	1	0	0	0	0	0	7	0	1	0	1	0	1	10				
	28	Anakpa	1	1	0	1	0	2	0	0	0	0	4	0	0	0	0	0	0	0	4	0	0	0	0	0	0	9				

	29	Ikot Inyang Esuk	1	1	1	1	0	2	0	0	0	0	3	0	0	0	10
	30	Ikot Akpan Ekong	1	1	1	1	0	2	0	0	0	0	4	0	1	0	10
	31	Ibiaku Obio Ndobbo	1	1	3	0	0	2	0	0	0	0	5	0	0	0	8
	32	Nung Ikono Obio	1	1	4	1	0	3	0	0	0	0	5	0	1	0	8
	33	Ibiaku Ikot Ese	1	1	5	1	0	2	0	0	0	0	4	0	0	0	8
	34	Ndon Uruan	1	1	0	1	0	2	0	0	0	0	1	0	1	0	7
uyo	35	Ikot Ekpeyak	1	1	1	1	1	3	0	0	0	0	5	0	0	0	13
	36	Ikot Oku Ikono	1	1	2	2	1	6	2	1	1	0	17	0	0	0	27

The Table 3.1 also shows that all the settlements under study based on socio-economic infrastructure and activities have presence of electricity (Plate IV) and are covered by the GSM network, (ability to receive mobile phone calls) (Plate IV). The table also shows that most of the settlements have borehole for commercial uses, 7 settlements do not have primary schools and 17 settlements never have secondary schools, all settlements recorded very low on waste disposal facility. The table also shows that all settlements recorded one form of skills development centre or another and non-have rural banking facilities. All settlements recorded no tarred internal roads except the major federal or state roads that pass along their major roads. Within the study area, 2 police stations were recorded while crime rates remain very low.

Table 3.2 shows weighted data on the 7 independent variables as were proposed for the study. These predictor (independent) variables were: population, type of housing, level of educational attainment, accessible distance to health facilities, mode of commercial transportation, the income and

occupational status were recorded against the settlements. It is of note to observe that, population played a major decisive role on the distribution of these socio-economic infrastructure and activities. Data from population were gathered from secondary sources via census report. Table 3.2 further shows that Ekom Iman (Etinan LGA) with 16727 recorded the highest population, while Ndon Uruan (Uruan LGA) scrambled for the lowest with 1051 people.

Ekom Iman with the highest population also recorded the lowest accessible distance to getting health facility. Equally, the least populated area, Ndon Uruan, recorded the highest distance to access health facility. What this implies is that, when population is increased, quality of life tends to increase too which is true in actual life scene. Further analysis on mode of commercial transportation, income level and occupational status clearly shows that Ekom Iman with the highest population gets the largest share on these variables. The quality of life in this area is higher as compared to other settlements with lesser population.

Table 3.2: Weighted data on independent variables (x)

S/N	LGAs	S/N	Settlements	X <sub>1</sub> (Pop)	X <sub>2</sub> (Ho)	X <sub>3</sub> (Edu)	X <sub>4</sub> (Ah)	X <sub>5</sub> (Trans)	X <sub>6</sub> (Inl)	X <sub>7</sub> (Ocu)	Qty attained (y) QOL
1	Etinan	1	Ikot Ntang	1483	2	1	0.500	1	2	2	8
		2	Ekom Iman	16272	1	2	0.200	3	3	4	32
2	Ibesikpo Asutan	3	Oku Ikot Idaha	1744	1	2	1.000	1	2	2	9
		4	Ikot Essien	2058	1	1	1.000	1	2	2	10
		5	Mbierebe Akpawatt	4455	1	2	0.600	2	3	3	20
		6	Ikot Udo	1207	1	1	0.500	1	2	2	8
		7	Afaha Ikot Eyo	1058	2	1	0.400	1	2	2	8
		8	Ikot Ediom	1254	2	1	1.000	1	2	2	8
		9	Ikot Anung	1420	2	1	1.000	1	2	2	8
10	Afaha Udo Eyop	2298	1	2	0.600	2	3	2	11		
3	Ibiono Ibom	11	Use Ikot Ebio	3583	1	2	0.800	1	2	2	17
		12	Ibiaku Ikot Ukpong	1223	2	2	0.700	1	2	2	8
		13	Ibiaku Ikpedit	1447	1	1	0.600	1	2	2	8
		14	Obio Ibiono	1139	2	2	0.600	1	3	2	8
		15	Ikot Ada Idem	3211	1	2	0.300	3	3	3	16
		16	Ikot Asukpong	3573	1	2	0.800	3	2	3	17
4	Itu	17	Mbiaobong Itam	1274	2	1	0.500	1	2	2	8
		18	Odiok Itam	2773	1	1	0.500	2	2	3	13
		19	Ikot Mbon Nde	1994	1	1	1.000	1	2	2	10
5	Nsit Ibom	20	Obo Ntong	1118	2	2	0.800	1	2	2	8
		21	Ekpene Ikpang	3098	2	2	1.000	1	2	2	16

6	Uruan	22	Ibiaku Uruan	2397	1	2	0.300	1	2	2	12
		23	Mbiaya Uruan	2382	1	1	0.700	1	2	2	12
		24	Ita Uruan	1963	2	2	1.000	3	3	2	10
		25	Mbiakong	7527	1	2	0.300	2	3	3	24
		26	Emman Ikot Ebo	1714	1	1	0.400	2	2	2	12
		27	Ifiayong Usuk	2443	2	2	0.200	3	3	3	12
		28	Anakpa	1748	1	1	1.000	1	2	2	10
		29	Ikot Inyang Esuk	1846	2	1	0.500	1	3	2	9
		30	Ikot Akpan Ekong	1552	1	1	0.600	1	2	2	10
		31	Ibiaku Obio Ndobbo	1862	1	1	0.400	1	2	2	10
		32	Nung Ikono Obio	1491	1	1	0.400	1	2	2	8
		33	Ibiaku Ikot Ese	1275	2	1	0.400	1	2	2	8
		34	Ndon Uruan	1051	2	1	2.000	1	2	2	7
		7	Uyo	35	Ikot Ekpeyak	2771	1	1	0.700	1	2
36	Ikot Oku Ikono			8576	1	2	0.300	3	3	4	27

Source: Author's field survey (2013)

Where  $X_1$  = Pop: Population (Number)

$X_2$  = Ho: Housing (Type)

$X_3$  = Edu: Educational Level (Type)

$X_4$  = Ah: Accessibility to Health (Distance in km)

$X_5$  = Trans: Mode of Commercial Transportation (Type)

$X_6$  = Inl: Income Level (Naira)

$X_7$  = Ocu: Occupational Status (Type)

### 3.1 Factors that affect Quality of Life and Measurement

There is no consensus on the indices of quality of life measurement but for the purpose of this research, the following indices were developed which have direct bearing on the quality of life of the study area as analysed in chapter three, review of related literature. The parameters the researcher were looking at are: population, housing type, educational level, distance accessibility to health facilities, income and occupational status.

Spearman's correlation was computed to give a preliminary analysis of the relationships among all the variables. The detail correlation analysis in Table 3.3 as extracted from clearly picked two major variables, which were further supported by the use of the population and education, which were loaded significant. Other criteria, though load insignificant but also contributed to the outcome of the research.

Table 3.3: Detail spearman's correlation analysis of independent variables

	Population	Housing	Education	Health	Transportation	Income	Occupation	QOL
Population	1							
Housing	-0.22022	1						
Education	0.365241	-0.04993	1					
Health	-0.30131	0.098749	0.023143	1				
Transportation	0.699556	-0.1	0.49928	-0.48871	1			
Income	0.527513	-0.07161	0.55419	-0.43151	0.716115	1		
Occupation	0.493524	-0.41353	0.352208	-0.27085	0.595968	0.679366	1	
QOL	0.924154	-0.26128	0.528043	-0.31069	0.699529	0.569408	0.537065	1

		VAR00001	VAR00002	VAR00003	VAR00004	VAR00005	VAR00006	VAR00007	VAR00008	
Spearman's rho	VAR00001	Correlation Coefficient	1.000	-.257	.496**	-.241	.590**	.442**	.452**	.943**
		Sig. (2-tailed)	.	.131	.002	.157	.000	.007	.006	.000
		N	36	36	36	36	36	36	36	36
	VAR00002	Correlation Coefficient	-.257	1.000	.000	.172	-.189	-.072	-.415*	-.279
		Sig. (2-tailed)	.131	.	1.000	.316	.270	.678	.012	.099
		N	36	36	36	36	36	36	36	36
	VAR00003	Correlation Coefficient	.496**	.000	1.000	-.104	.474**	.545**	.271	.572**
		Sig. (2-tailed)	.002	1.000	.	.547	.003	.001	.109	.000
		N	36	36	36	36	36	36	36	36
	VAR00004	Correlation Coefficient	-.241	.172	-.104	1.000	-.585**	-.493**	-.265	-.247
		Sig. (2-tailed)	.157	.316	.547	.	.000	.002	.118	.146
		N	36	36	36	36	36	36	36	36
	VAR00005	Correlation Coefficient	.590**	-.189	.474**	-.585**	1.000	.729**	.687**	.611**
		Sig. (2-tailed)	.000	.270	.003	.000	.	.000	.000	.000
		N	36	36	36	36	36	36	36	36
	VAR00006	Correlation Coefficient	.442**	-.072	.545**	-.493**	.729**	1.000	.649**	.475**
		Sig. (2-tailed)	.007	.678	.001	.002	.000	.	.000	.003
		N	36	36	36	36	36	36	36	36
	VAR00007	Correlation Coefficient	.452**	-.415*	.271	-.265	.687**	.649**	1.000	.488**
		Sig. (2-tailed)	.006	.012	.109	.118	.000	.000	.	.003
		N	36	36	36	36	36	36	36	36
	VAR00008	Correlation Coefficient	.943**	-.279	.572**	-.247	.611**	.475**	.488**	1.000
		Sig. (2-tailed)	.000	.099	.000	.146	.000	.003	.003	.
		N	36	36	36	36	36	36	36	36
**.		Correlation is significant at the 0.01 level (2-tailed).								
*.		Correlation is significant at the 0.05 level (2-tailed).								

Source: Author's Statistical Analysis (2013).

Tables 3.2 and 3.3 are jointly used in the discussion.

### 3.1.1 Population

Population is often associated with quality of life attainment. It is only in cities and urban areas where population is high that quality of life is equally high, hence high population is an attribute of quality of life. Population as a variable has a positive relationship everywhere with quality of life hence it is impossible to separate population from measuring the quality of life.

Table 3.3 shows that, there is a great relationship between quality of life and population. The relationship is positive with a coefficient of 0.924. What this implies is that, as population increases, the quality of life also increases. Population which produces high coefficient of ( $R^2 = 0.889$ , multiply by 100%) in Table 3.3, 4 contributes 88.97% of the quality of life which invariably make it a strong contender of the variables.

Table 3.2 shows that Ekom Iman (settlement 2) in Etinan Local Government Area with a population of 16727 (highest population), attained quality of life of 32 (highest quality of life too). A closer look at the Table 3.2 also revealed that Ikot



Oku Ikono which follow Ekom Iman recorded 8576 as a quality of life of 27. Interestingly, Ndon Uruan, where the population is as very low as 1051, the quality of life is weak too at 7. This, however, confirms that population influences quality of life of the study area.

### 3.1.2 Housing Types

In Table 3.4, the relationship of housing types to the quality of life is negative and recorded very weak coefficient correlation of. ( $R^2 = -0.66 \times 100\%$ ) = 6.6%. Housing type contributes about 6.6% to the quality of life of people of the study area, which is very insignificant. This however, can be seen from Table 5.2, that a community (Ekom Iman) with quality of life of 32 is loaded 1 of housing type, and another community (Mbierebe Akpawatt) when the quality of life goes down to 20 also loaded the same 1 of housing type. Even when the quality of life at Nung Ikono Obio slides further down to 8, the housing type still loaded 1, showing that housing type does not have a true reflection of quality of life in the study area hence confirms that housing type does not have a direct influence. Put differently, as the quality of life is increasing or decreasing housing type does not follow the trend.

### 3.1.3 Educational Status

Table 3.3 shows that the correlation coefficient of educational level of the people is positive with 0.496 but very weak contributing 24.6% of the quality of life. These contributing factors can be explained in Table 3.2, where Ekom Iman with quality of life of 32 has educational level of 2 on the average and the same average 2 coded with a quality of life of 12 of Ifiyong Usuk, Ibiaku Ikot Ukpung with as low as 8 in quality of life also loaded 2 on average of educational level, this is clear indication that education do not have a direct reflection of quality of life in the study area though it correlated positive (see plate I).

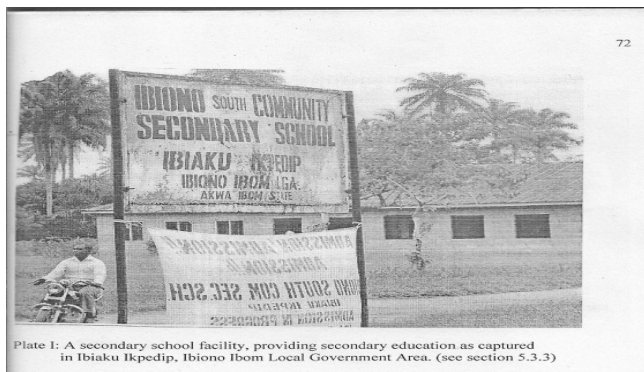


Plate I: A secondary school facility, providing secondary education as captured in Ibiaku Ikpedip, Ibiono Ibom Local Government Area. (see section 5.3.3)

### 3.1.4 Accessibility to Health Facilities

The analysis in Table 3.2 indicates that distance (km) to accessing health facilities ranges from 0.2km for Ekom Iman

to 2km for Ndon Uruan. The lower the index for accessing the health facilities, the greater the quality of life. Distance grant people health services and it is expected the way it is regressed because the lower the distance, the higher the quality of life. So the longer the distance (2km) the poorer the quality of life at 7 for Ndon Uruan. Ekom Iman with a higher quality of life of 32 picks a lower distance of 200m on the average. At a coefficient correlation Table 5.3, accessing health facilities recorded a negative relationship and very weak in correlation. In the real life challenges, this is the way it should be. The contribution of this variable to quality of life in the study is 5.8% which is very poor and negative at -0.241 coefficients.

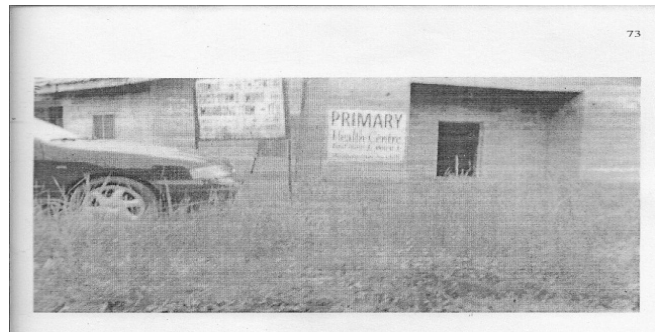


Plate II: A health facility at Mbiabong Itam in Itu Local Government Area, providing a primary health care services (see section 3.1.4)

### 3.1.5 Mode of Commercial Transportation

The analysis in Table 3.4 above has clearly yielded mode of commercial transportation in the study area positive with coefficient of 0.590, thus accounting for 34% of total variance in quality of life of the study area. This implies that the variable has a strong relationship on the quality of life. Transportation is always associated with modern socio-economic activities in any area, be it urban or rural areas. In Table 3.2, higher quality of life is associated with stronger mode of transportation level with an average of 3. Ekom Iman, Ikot Ada Idem, Ikot Asukpong, Mbiakong and Ikot Oku Ikono each recorded 3 on the average with a corresponding higher quality of life of 32, 16, 17, 24 and 27 respectively.



Plate III: A typical predominant mode of transportation in the study area as seen at Obo Ntong, Nsit Ibom Local Government Area.

### 3.1.6 *Income Status*

Furthermore, Table 3.4 shows clearly that income level is significant and positive with a moderate coefficient correlation of 0.442. The contribution of income level to the quality of life of the area stands at 19.5%. The reason for this low percentage contributed could be attributed to the fact that, some of the variables attached to income level were not really captured in the correlation. The correlation only picked two variables: population and education. Though income level is weak and positive, it means that it is really not a major contributing factor as far as this study is concerned. However, the relationship can further be understood to mean that, from Table 3.2 perspective, with the highest quality of life of 32 the same income factor of 3 was recorded when quality of life changes to 20. Yet when the quality of life was further changed to 11, 16, 9 for Afaha Udo Eyop, Ikot Ada Idem, and Ikot Inyang Esuk respectively, the income level was still at 3 on the average. The income level is understood to be: N10,000-20,000(1) low, N21,000-40,000(2) medium, N41,000-80,000(3) high and 81,000 above (4) very high. So on the average, N41,000-80,000 is scored as the income level of the study area.

### 3.1.7 *Occupation Status*

The analysis above in Table 3.4 indicates that occupation records a positive and weak correlation. A coefficient correlation of 0.452 contributes 20.40% of the quality of life of the study area. This explains that, though occupation is a factor for quality of life attained with a positive contribution but is not significant. With reference to weighted data, Table 3.2, the highest occupational level is 4 (on the average) at 32 quality of life for Ekom Iman and Ikot Oku Ikono at 27 quality of life also has 4 (on average), the rest settlements (majority) have 2 (on average). These levels are: substance farming(1), fishing(2), trading/business(3) and public service (4).

### 3.2 *The Relationship between the Socio-economic Factors and the Quality of Life*

Taking up Table 3.3 again, population has a very strong relationship with the quality of life of the study area scoring a whopping 88.9% of the quality of life of the area and having a significant effect. Housing type was not performing good and the relationship to the quality of life was negative and weak, recording about 6.6% of total quality of life of the study area. Relationship of education to the quality of life was positive, contributing 24.6% of the total quality of life of the study area. Though it was significant but the relationship was weak. The relationship accessing distance to health facilities was negative, contributing 5.8% of the total quality of life, a situation which makes the factor very weak. The relationship of mode of commercial transportation to the quality of life was positive and contributed 34% of quality of life to the area of study. Though it was insignificant but it was strong.

Income level relationship to the quality of life was positive and exhibited a little weaker strength of 19.5% to the quality of life of the study area. The relationship contribution of occupation to quality of life of the study area stood at 20.4%, weak and positive.

In conclusion, Table 3.3 clearly shows that the highest factors in terms of the bulk of values or percentages are population (88.9%), mode of commercial transportation (34%), income status (19.5%), occupational status (20.4%), educational status (24.6%), access to health facilities (5.8%) and housing type (6.6%). This points out their important rules in determining quality of life levels in peri-urban area of Uyo Capital City. The lowest variables, on the other hand, are housing type and accessing distance to health facilities. Therefore, their influence on quality of life to the study area is concluded to be the least.

### 3.3 *Government Intervention Efforts Towards Enhancing Quality of Life*

Government intervention effort is not adequate in the study area as seen in Table 3.2, weighted data on independent variables, as it relates to accessible to health facilities confirms that majority of the people trek longer distances to get drugs or medical assistance. This implies that hospitals, clinics are not adequately available in these areas. The occupational level centres on average of 2, that is between farming and trading which however reflected in the income level of the people. Distribution of healthcare and educational facilities are not adequate which shows strong disparity among the settlements in terms of overall development. This however, calls for proactive role by governments and even private sectors to intervene in the development especially vulnerable communities.

### 3.4 *The Implication of the findings for Environmental Sustainability*

The data from Tables 3.2 and 3.3 completely confirms that income in the study area is not evenly distributed, some communities like Ekom Iman, Mbierebe Akpawatt, Afaha Udo Eyop, Obio Ibiono, Ikot Ada Idem, Mbiakong and Ikot Oku Ikono have an improved income while the rest does not. A closer assessment at the data also shows that, distance to accessing health facilities are not evenly distributed and the same goes to housing type. But the results of the statistical analysis in Table 3.3 shows that education and population are the two factors that influences the quality of life in the study area. However, a question now arises, as to what does these implications mean for environmental sustainability? It therefore, means that for these settlements to be sustained, there should be an holistic need to improve social facilities in these areas in other to attract population and improve quality of life. It has been established in Section 3.1.1 that population as a variable has a strong positive relationship everywhere with quality of life, when these communities are not sustained,

it will create impacts or problems on the communities and the government.

### 3.5 Test of Hypotheses

*Hypothesis 1:* There is no significant relationship between the socio-economic status and the quality of life.

The hypothesis above was tested based on the results of correlation analysis as seen in Table 3.3 and the results of statistical analysis picked two predictors (variables) education and population as having a relationship with the quality of life. The hypothesis thus accepted the two factors of population and education and rejected other variables or factors of income level, occupational level, accessibility to health facilities, mode of commercial transportation and housing type.

However, on the basis of the enough statistical evidence shown above, null hypothesis 1 that: there is no relationship between the socio-economic status and quality of life are rejected. This is however; because of the basis that the calculated values ( $F_c$ ) are greater than the significant value ( $F_s$ ). Therefore the alternate hypotheses are accepted.



Plate IV: Electricity supply unit, a core Peri-urban facility providing electricity for the study area as captured in Ibiaku Ikot Ese, Uruan Local Government Area. (see section 3.1.2)



Plate V: A commercial borehole Unit, providing water for most of peri-urban communities as observed in Ikot Oku Ikono in Uyo Local Government Area. (see section 3.1.2)

### 3.6 Summary

This study is aimed at assessing the quality of life of communities living at limit of city edge otherwise known as the Peri-urban of Uyo Capital City of Akwa Ibom State. However, to achieve this aim, data were collected in the field on socio-economic variables, accounting on 7 factors, among them were population, housing types, educational status, distance to assessing health facilities, mode of commercial transportation, income level and occupational status. Data on population were gathered from census documents and maps extracted from Akwa Ibom Political Map. Data from other variables were generated and picked from the questionnaire. Dependent variables, 15 of them were also generated as observed in Table 3.1.

The spearman's correlation of the 7 independent variables yielded two major factors, the population and education which revealed positive relationships to the quality of life. The predictors population and education were significant. The analysis, however, revealed positive relationships between four factors. Population was found to be significant and accounted for 88.9% of explanation of the variation in the socio-economic status to quality of life of the 36 settlements. Mode of commercial transportation accounted for 34%, while income status settled for 19.5% of the variations. Housing type, educational status and accessibility distance to health facilities scrambled for low values at 6.6%, 24.6% and 5.8% respectively. At the end, the study has shown that population is the major determinant, followed by education for accessing the quality of life of the peri-urban settlers. Hence, after exhausting the analysis, the null hypothesis formulated for the socio-economic variables on population and education were rejected. Rather the alternate hypothesis that the socio-economic status has a strong relationship with the quality of life of the inhabitants based on population and education were accepted.

The analysis of the dependent variables shows strong presence of electricity supply and communication (ability to receive telephone calls). Out of 36 communities, 7 communities do not have primary school, and 17 communities do not have secondary schools. Distance to assessing health facilities were weak and poor. Income status are not evenly distributed, apart from Ekom Iman, Ikot Oku Ikono, Ikot Asukpong, Mbierebe Akpawatt which have an improved status the rest do not have. This, however calls for government and even private sector intervention.

## IV. CONCLUSION

The study has identified the variables that affect the quality of life of 36 communities studied. Among the socio-economic status so identified as being so strong on relationship to quality of life were the population and education. It therefore implies that the communities so studied are rural in their setting hence needs rigorous infrastructural development. An

effective implementation planning should also be carried out in a view to having a monitored programme.

#### V. RECOMMENDATIONS

Having identified the variables that affects the quality of life of people of the study area and the implications of the environmental sustainability, this research therefore recommends that:

- (1) Human settlements in the peri-urban setting should be made economically vibrant and environmentally buoyant, social facilities attractive via provision of infrastructure to attract population. With this, sustainability of our environment and human life will be achieved.
- (2) Concept of peri-urban development is a relatively new planning concept in Nigeria and that, there is no existing capacity or framework to address its peculiar problems in Akwa Ibom State. Therefore, there is need for the establishment of Uyo Municipal Peri-urban Land Development Agency, to redirect population and hasten quality of life in this area.

- (3) An effective implementation plan in this peri-urban settlements should be made because these settlements are very close to the Uyo City and people tend to reside here and go to work in the city. Without an effective plan implementation, a situation will arise in future where when these settlements attain city status proper housing codes will not be followed nor spacious roads (streets) achieved. This is evidence in Uyo Capital City where houses are demolished and roads/streets extended or expanded for traffic flow.

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