LIVING CONDITIONS OF URBAN HOUSEHOLDS IN LAGOS ISLAND

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ABSTRACT
In recent times, the number of urban households living in poverty in Nigeria is increasing due to declining income. Consequently, the living conditions of urban households are nosediving. In this paper, the living conditions of urban residents in Nigeria were examined using Lagos Island area, Nigeria as an example. Taking a sample of 1,000 households in a cross-sectional survey, the paper examines household structure and characteristics, home ownership, educational status and employment, access to safe water, sanitation and healthcare services. Mean household size = 4.92 ±2.38, mean monthly household incomes = ₦66, 468.43 (US $183) ±N33, 798.96 and number of rooms occupied by household = 2.46. Largest household size = 7.45, crammed into 2.39 rooms and in some localities, some households containing 5.20 persons are crammed into 1.53 rooms. Literary level is high, about 87% of the sampled heads can read and write. Access to safe drinking water and sanitation is low as about 29% of household obtained their domestic water from tanker or water vendor. Other obtained theirs from unhygienic sources. About 83% of household heads indicated that the drains in their areas are not covered. Daily supply of electricity is very poor. Mean daily hours of electricity supply to household is 4.97±2.88. One-way ANOVA indicated significant spatial variation in household size (F=6.179 at P = 0.000), average monthly income (F=34.38 at P ≤ 0.05) and number of rooms occupied by households (F=3.36, at P ≤ 0.05). An inverse relationship between household monthly income and household size was obtained at r = -0.086 at p = 0.03, indicating the existence of large household among low-income earners. The significant spatial discrepancies in the socio-economic conditions of residents of Lagos Island as indicated by this study shows the potential need for differentiated policy responses that will accelerate functional development in various spatial units of this essential and important economic core of Lagos City and Nigeria at large. There is the need for urgent collective efforts at facilitating improved access to decent and affordable housing, education, employment and sanitation.

Keywords: Urban households, socio-economic conditions, home-ownership

INTRODUCTION
Since 1980s, urban population in Africa has been struggling with diminishing incomes and the increasing cost of living (Harts-Broekhuis,1997). The number of urban households living in poverty is increasing due to declining income, which partly can be attributed to bad economic policies and a very high exchange rate. The result is increased urbanization of poverty, inequality and development of informal settlement with poor environmental conditions (UN-Habitat 2014, Zhang 2016). Slums had been reported to be the most pervasive feature in sub-Saharan Africa, as over 56 per cent of urban dwellers are reported to be living in slum conditions (United Nations, 2017).

Nigeria is one of the major countries of the world that is expected to account for about 37% of the projected growth of the world population between 2014 and 2050 (Aliyu and Amadu, 2017). The pattern, trend, and characteristics of urbanization in Nigeria till date are alarming. Urban growth rates have been between 5% and 10% per annum, yet there are no adequate plans to take care of this growing urban population. Since the return to civil rule in 1999, things have not adequately squared up for the citizen in terms of housing, feeding, sanitation and access to basic infrastructure. Most of the urban population in the country till date still grapples with challenges related to awful living and environmental conditions together with inadequate water supply, filthy conditions of environmental sanitation, congested and

dilapidated residence, harmful locality, insecurity of tenure, as well as economic and social deficiency (Arimah, 2010, Fotso, 2006).

With the increasing percentage of urban populations in various parts of the world, living in slums and on a low income, the sustainable development of cities in Africa and Nigeria in particular and their basic facilities have become a priority and major focus for national authorities, regional and international bodies. The eleventh goal of the sustainable development goals (SDGs) aims at making the cities and human settlements inclusive, safe, resilient and sustainable (United Nations, 2017). If this will be achieved, examining the living conditions of urban households becomes imperative.

Several studies have examined the living conditions of urban residents in general, however, only few had considered the living conditions of urban residents at household level. Simiyu, Cairncross and Swilling (2019) examine living conditions and deprivation in Informal Settlements of Kisumu, Kenya. They found a widespread deprivation at the individual and housing unit level. Unequal living conditions between urban migrants and local residents in China were investigated by Zhanga (2017). He found that although migrants are the majority of increased urban population in China, the most of migrants could not access the equal local social welfare system as the urban local residents because of the hukou policy (household registration). Migrants are more likely to live in adverse conditions due to inferior socioeconomic status, which results in the disparity in health status between migrants and local residents.

Akinyode and Martins (2017) studied the effects of poverty on urban residents' living and housing conditions in Ogbomoso City, Nigeria. The study found that majority of the housing studied exhibit deterioration conditions. A link between resident's socio-economic situation, poor housing conditions and high poverty level of the residents was established. Bird, Montebruno and Regan (2017) attempted an understanding of living conditions in Nairobi's slums across time and space. Overviews of the role of slums in urban Africa, focusing on Nairobi were attempted. The study revealed that slum areas are very dense with poor-quality buildings, lacking access to key services such as sewage disposal and electricity.

Andersen et al. (2018) examined the housing conditions of urban households with Aboriginal children in New South Wales (NSW) Australia, emphasizing tenure type. Housing was found to be a key determinant of the poor health of Aboriginal Australians. The study found that majority (60%) of households studied lived in social housing, 21% rented privately and 19% either owned their home outright or were paying a mortgage ("owned"). Housing problems were common, particularly structural problems, damp and mildew, vermin, crowding and unaffordability. Physical dwelling problems were most prevalent for those living in social housing, The study concluded that high prevalence of housing problems amongst study participants shows that urban Aboriginal housing requires further attention as part of efforts to reduce the social and health disadvantage experienced by Aboriginal Australians, particularly those who are experiencing the poorest dwelling conditions.

This paper examines the living conditions of urban households in Nigeria, taking Lagos Island, a part of metropolitan Lagos noted for the high prevalence of slums and urban poor households as an example. In this paper, a household is taking to be a family unit consisting of a person or a group of persons living together usually under the same roof or in the same building/compound, who share the same source of food and recognize themselves as a social unit with a head of household (NPC, 2006). These people may or may not be related by blood, but made common

provision for food and other essentials for living (Zambia Central Statistical Office, 2016). Nigerian national population commission has identified two major types of household; these are regular and institutional household. A regular household usually recognizes one of its members as the head, shares a common catering arrangement and members conduct themselves as a social unit. A one-person household consists of a single man or woman; a multi-person household consists of two or more members. Institutional household is a collective household in which members do not have any recognised head (NPC, 2006).

Taking the household rather than the individual as the central unit of analysis the paper attempts to describe, analyse and bring to fore the living conditions of urban households in Nigeria. The paper has the aim of contributing to the understanding of the extreme living conditions of the hundreds of millions of poor households in cities of less developed countries of the world with the purpose of proposing areas of improvement.

The Study Area

This paper focuses on a part of metropolitan Lagos called Lagos Island. The Island is a local government area, usually referred to as the original city of Lagos because it is the island from where the entire city of Lagos began and spread (Oyesiku, 1999). Lagos Island area is located on latitude 6^0 26' 30'' and 6^0 28' 00'' North and longitude 3^0 22' 45'' and 3^0 24' 45'' East along the West African coast. Geographically, it is an outlet into the sea, bound by creeks and lagoons. It is bounded in the south by the Lagos harbour, in the North by the Lagos Lagoon and the Mainland Local Government area, in the east by Eti-Osa Local Government Area and in the West by the Lagos harbour district of Apapa in Apapa Local Government Area. It is generally at a low altitude with the highest part less than 15 metres above the sea level. It has a land area of about 8.7 sq kilometres with a population density of 24,073 persons per square kilometres (NPC, 2006).

Lagos Island is one of the most dynamically evolving segments of Lagos's metropolitan fabric. Of the entire city of Lagos, Lagos Island is central and the most developed. The large spatial extent of the area combined a rich mixture of tradition and modernity in term of housing and urbanism. The northwestern tip of the Island is made up of several slums characterized by narrow streets, poor housing, over-crowding, sporadic change of use and illegal conversion of land. The area is also highly noted for increased growth of blighted neighbourhoods, encroachment on drainage alignment, canals and stream setbacks and traffic congestion.

Figure 1: Lagos Island, Nigeria

Data and Methods

The Living Conditions Monitoring Surveys (LCMS) are typically undertaken on a sample basis as opposed to conducting a complete census survey (Zambia Central Statistical Office, 2016). As a result, a cross-sectional sample survey was conducted to obtain socio-economic data from a sample of 1,000 out of 47,447 households in Lagos Island over a period of one month using a structured questionnaire. Secondary data were also obtained from decennial census data acquired by the Nigeria National Population Commission, Lagos State abstract of local government statistics and Lagos State household survey to complement survey data obtained. The range of information obtained during the survey included, socio-economic characteristics of households, location and type of houses, availability and access to amenities among many others.

The household and political wards were units of analysis. In many West African cities, there are a diversity of household types of various sizes and composition. Nigerian national population commission has identified two major types of a household; these are regular and institutional household. A regular household usually recognizes one of its members as the head, shares a common catering arrangement and members conduct themselves as a social unit. A one-person household consists of a single man or woman; a multi-person household consists of two or more members. Institutional household is a collective household in which members do not have any recognised head (NPC, 2006). Data analyses were done using descriptive and inferential statistics. Essentially one-way ANOVA and Pearson product moment correlation were used to test hypotheses at 0.05-confidence level.

Results and Discussion

The structure of households in Lagos Island

Detail analysis of data collected provided information on the structure and socio-economic characteristics of households in Lagos Island. Table 1 presents information on the structure of households on the Island. The table among many other things reveals that most of the

household heads in Lagos Island are relatively young with mean age of 39.92 years. The relatively large standard deviation of 12.48 indicates high variability in the age distribution of head of households and the existence of a significant number of old males and females household heads who are probably indigenes or migrants.

Table 1: The structure of households in Lagos Island

S/N	Variable	Mean	Standard Deviation
1	Age	39.92	12.48
2	Average monthly income in naira	₦66, 468. 43	₦33,798.96
3	Household size	4.92	2.38
4	Number of children living with the household head	2.79	1.418
5	Number of household head children who are working	2.09	1.287
6	Number of household head children who are in school	2.59	1.166
7	Number of relative staying with the household head	1.56	1.093
8	Number of household head relatives who are in school	1.13	0.927
9	Number of household head relatives who are working	1.51	1.110
10	Length of stay in Lagos Island	27.24	16.91
11	Length of stay (in years) in residential building	15.38	14.27

The mean length of stay of head of households in Lagos Island as indicated in the table is 27.24 years. This suggests that most of the head of households were born in Lagos Island; however, the standard deviation of 16.91 shows high variability and probability of some of the heads being recent migrants. The average household size in Lagos Island is 4.92 persons. This is typical of the Nigerian situation. In Nigeria, the average household size is 5.0 persons. Household size is slightly higher in rural areas of Nigeria (5.1 persons) than in urban areas (4.7 persons). It is also higher in the Northern part of Nigeria than in the Southern part of the country (Nigeria Demographic and Health Survey, 2003).

About 70% of household heads interviewed have between average household sizes of ≤5 persons. 28% of the household heads have between 6-10 household sizes and the remaining 2% have a household size above 10. The standard deviation of 2.38 indicates that there is high variability in household sizes and the existence of very large and very small household in Lagos Island. It is therefore obvious why population growth in Lagos Island is phenomenal over the years. Average monthly income is about sixty-six thousand four hundred and sixty-eight naira (₦66, 468.43) which is equivalent of about US $183.00 with a standard variation of ₦33, 798. 96 (about US $93.00), indicating high level of variability in income. Another important aspect of household composition is the sex of heads of household. Data showed that household heads in Lagos Island are mostly men (66%), implying that female constitute a significant proportion of house heads (34%), a situation which may not be unconnected with present economic realities and occasion of household head death.

Table 1 further provided us with an insight into the number of workers in a household and the number of relatives living with head of household. The average of 1.09 relatives living with household heads suggests that for a house head there will be an average of one relative living along with him. Particularly, household heads who are migrants have the tendency to bring in their relatives to live with them. To each household head, there is an average of 1.29 children and 1.11 relatives who are workers. This suggests that there is an average of forty out of hundred household heads relatives who are workers in Lagos Island.

4.4.2: Spatial Variation in Characteristics of Household.

Lagos Island is officially divided into nineteen wards by the Federal government of Nigeria (INEC, 2006, NPC 2006). The spatial distribution of household characteristics in Lagos Island is presented in table 2. Ward E3 comprising prominent locations like Adams, Okepopo, Inabere and Igbosere has the highest mean age of household head (50.92), with an average household size of 5.12 crammed into an average of 1.48 rooms. The mean age is also high in wards A2 and D2. These wards comprise areas around Abibu Oki, AlliBalogun, Campbell, Olushi and Marina. Mean age is also high in wards A3, B2, B3, C1 C2 and C3 that falls into the densely populated northern part of the Island and also in ward G2 in the eastern portion of the Island close to Obalende. Mean age in all these wards is higher than the average mean age for the entire Lagos Island area (39.92). Analysis of variance test for the age of head of households shows a significant variation at ≤ 0.05 level of significance.

Average income varies significantly across wards. The maximum income is about N105, 000.00 and the minimum income is N14, 500.00. A significant proportion of the sampled household (20%) earns N14, 500.00 monthly. This implies that a significant number of households in Lagos Island live below the national monthly minimum wage of N30, 000.00. The lowest mean income (₦23, 345.24) was found in ward G2 in area comprising Strachan. Lewis, Moloney etc. The highest income (₦88, 535.09) is found in Ward C2, particularly in areas around Iga Iduganran street, Ojo Giwa and Jankara market. Result of one-way analysis of variance test on variation in average monthly income across wards as presented in table 3 shows a significant variation *($F=34.38$ at $P \leq 0.05$).*

Table 2: Spatial Variation of the characteristics of household in Lagos Island

S/N	Ward	Major Streets	Age of Head	Average Income	Length of stay in Lagos Island	Length of stay in a residential house	Numbers of rooms occupied	Household size
1	**A1**	Breadfruit, Bankole, Olowogbowo, Apongbon	32.60	83957.45	19.72	10.87	1.35	4.53
2	**A2**	NamdiAzikiwe, Broad Street, Marina	43.89	81878.05	38.24	23.27	2.26	4.50
3	**A3**	OkeArin, Kosoko, Ereko	40.40	75817.65	33.47	14.09	2.24	4.81
4	**B1**	Idumota, Ashogbon, Idumagbo	36.79	73745.19	29.12	9.67	2.26	4.47
5	**B2**	Agarawu, Mosalasi	40.35	79943.40	29.80	14.92	2.32	4.45
6	**B3**	Obadina, WahabFolawiyo, NnamdiAzikiwe	41.56	33934.21	23.15	13.49	2.39	7.45
7	**C1**	Erelu, Onilegbale, EgunIga	46.07	73535.71	30.92	19.50	3.08	5.12
8	**C2**	IgaIduganran, OjoGiwa, Jankara	46.24	88535.09	26.01	17.80	2.70	5.21
9	**C3**	Aroloya, IsaleIgangan	39.80	25536.59	19.41	10.34	3.02	6.05
10	**D1**	Tinubu, Bamgbose, Kakawa	38.68	77812.50	19.88	11.75	2.62	4.78
11	**D2**	Odunlami, Campbell, Ajele	41.19	55263.16	17.13	9.72	2.45	7.31
12	**D3**	Catholic Mission, Glover	35.36	65281.25	21.43	13.37	2.31	5.50
13	**E1**	Faji, Atiku	31.35	86941.86	18.74	13.90	2.03	4.18
14	**E2**	Olusi, Odunfa	37.87	84194.12	30.66	18.76	3.91	4.88
15	**E3**	Oke Popo, Igbosere	50.92	38025.64	35.39	25.63	1.48	4.06
16	**F1**	King George, Onikan, Mcarthy	37.48	31785.71	18.72	9.22	2.27	4.53
17	**F2**	TBS, Okesuna, Igbosere	35.00	36513.51	19.64	17.10	1.61	3.69

18	**G1**	Tapa, Oshodi, Tokunboh	34.53	69684.21	18.18	7.13	1.53	5.20
19	**G2**	Strachan. Lewis, Moloney	40.44	23345.24	33.84	22.95	3.46	4.52
	Total		**39.92**	**66468.43**	**27.24**	**15.38**	**2.46**	**4.92**

Table 3: One-way analysis of variance of the spatial variation of the socio-economic characteristics of households

		Sum of Squares	df	Mean Square	F	Sig.
Age	Between Groups	22376.94	18	1243.16	9.21	0.00
	Within Groups	127684.5	946	134.97		
	Total	150061.5	964			
Length of Stay in Lagos Island	Between Groups	39581.54	18	2198.97	8.8	0.00
	Within Groups	237335.9	950	249.83		
	Total	276917.5	968			
Length of stay in a residential house	Between Groups	26159.34	18	1453.29	8.09	0.00
	Within Groups	166901.2	929	179.66		
	Total	193060.5	947			
Number of rooms occupied	Between Groups	467.5	18	25.97	3.36	0.00
	Within Groups	7117.88	921	7.73		
	Total	7585.38	939			
Average monthly income	Between Groups	422475537909.18	18	2.35E+10	34.38	0.00
	Within Groups	592583958051.03	868	6.83E+08		
	Total	1015059495960.1	886			
Respondent's household size	Between Groups	563.8	18	31.32	6.65	0.00
	Within Groups	3285.57	697	4.71		
	Total	3849.37	715			

In terms of length of stay, the shortest length of stay in Lagos Island is 17.31 years and was observed in ward D2 particularly in areas around Odunlami, Campbell and Ajele. The highest is 38.24 years and was observed in ward A2 which comprises area around Broad Street and Marina which falls into the Lagos Island Central Business District. Analysis of variance of spatial variation in the length of stay of residents in Lagos Island is statistically significant at the ≤ 0.05 level of significance, this suggests that most household heads are natives of Lagos Island; however the standard deviation of 16.91 indicates the existence of significant proportion of household heads that are migrants who are mostly traders found in Broad street, Marina within Lagos Island Business District.

The highest household size is 7.45 and was observed in ward B3 comprising areas such as Obadina, Wahab Folawiyo and Nnamdi Azikiwe Street. Household sizes are above the general household size for Lagos Island in wards C1 (5.12 persons), C2 (5.21 persons), C3 (6.05 persons), D2 (7.31 persons), D3 (5.50 persons) and G1 (5.20 persons). The lowest household size was found in ward F2 in areas around Tafawa Balewa Square (TBS), Okesuna and Igbosere. The large household sizes found in most of these wards are an indication of the presence of extended family and many migrants' households having relatives living with them. Large household size has an implication for future population growth of Lagos Island. It also has implication for quality of life of urban residents. In table 2, average number of rooms occupied by household shows that living condition is poor in most localities in Lagos Island. For example, households with seven members in wards B3 and D2 are crammed into an average of 2 rooms. The situation is worst in ward G1 (Tapa, Oshodi, Epe, Cowlane, Tokunboh etc.) where households containing 5.20 persons are crammed into 1.53 rooms. One way analysis of variance of the spatial variation of the socio-economic characteristics of households as presented in Table 3 shows that household size varies significantly across space in Lagos Island *(F=6.179 at P = 0.000)*.

Type of housing unit and home-ownership in Lagos Island

The 2006 population census provided some information on living conditions of households in respect of housing and home-ownership in Lagos Island. Table 4 shows the distribution of households by type of housing units as provided by the National Population Commission. About 61% of the residents of Lagos Island dwell in rooms or let in houses. The existence of about 3.69% of households living in traditional/hut structure, informal/improvised dwelling and other forms of housing units suggests some proportion of households living in very poor housing conditions. Housing conditions are generally poor in most parts of Lagos Island. In a survey of household carried out by Lagos State Government in 2010, it was found that about 65% of households in Lagos Island live in houses roofed with corrugated aluminium iron sheet. About 6% household live in houses roofed with mud and thatch, 45 live in houses with a roof made of cement or concrete, 3% in houses roofed with tiles and 22% in houses roofed with asbestos. Living space for majority of households is generally below standard, except for the few 36% who live in separate yard, flats and semi-detached houses.

Table 4: Households by type of housing unit in Lagos Island

Household type	Number of households	% of Total household
House on a separate stand or yard	6,604	13.92
Traditional / Hut structure	26	0.05
Flat in a block of flats	7,618	16.06
Semi-detached house	2,648	5.58
Rooms /Let in house	28,826	60.75

Informal/ Improvised dwelling	520	1.1
Other	1,205	2.54
Total	47, 447	100.00

Source: NPC, 2006

The distribution of regular households by the number of exclusive sleeping rooms used for sleeping excluding those used for dining, bath, kitchens, sheds, garages, stores, stables, etc. is presented in table 5. The table shows that about 64% of households in Lagos Island live in 1 room. 13.8% live in two rooms, 4.79% live in three rooms and less than 2% live in four rooms and above. About 14% have no room at all. The no room situation reflects the condition where shops and stalls simultaneously serve as workplace and sleeping place for most households. In terms of the type of main material used for the floor of dwelling unit, 1.5% of the households in Lagos Island have the floor of their rooms made of earth, mud, wood and bamboo. About 83% have the floor of their houses made of cement or concrete. Often flooding affects most homes, as frequency of flooding increases with increase in rainy days. In most instances flooding increase to waist level within house, these conditions is poor, very grave and dangerous for the health and well being of the household.

Table 5: Households by number of exclusive sleeping rooms in Lagos Island

Number of rooms	No of household	Per cent (%)
No room	6990	14.7
1 Room	6990	64.3
2 Rooms	30, 485	13.83
3 Rooms	6563	4.79
4 Rooms	2274	1.03
5 Rooms	491	0.43
6 Rooms	202	0.26
7 Rooms	125	0.19
8 and above	91	0.47
Total	**47, 447**	**100.00**

Source: NPC, 2006

As observed by Ayeni (1977:78), it was expected that home-ownership would be higher in Lagos Island being an indigenous area, however, data shows that 85.9% of the household heads interviewed are tenants. This development is as a result of changes in mode of home-ownership in Lagos Island in recent times.

In the pre-1970 period most houses on the Island are owned by the indigenous people and home-ownership is very high. However in the late 1970s there was the emergence of developers- an individual or organization who buy landed or housing properties or obtain them on lease for a period of time in order to redevelop, reconstruct or erect new structure for the purpose of profit-making. The developer entered into agreement with owners who are mostly descendants of the original settlers, demolished the old structure and construct new ones which

usually are three-storey buildings. The developers give the first floor to the owners, takes the ground floor and the two other floors. He also pays compensation to the owner(s) for a certain agreed period of time. The ground floor is usually made of stalls and shops for commercial activities. The Igbo spare part dealers contributed significantly to this development and since then home-ownership has declined in Lagos Island. Most of the descendants of the original settlers now have homes in neighbouring areas particularly newly developed estates including Victoria Island, Banana Island, Lekki and other high-class areas.

Education and employment

Education is a major determinant of the quality of life of individuals. It has a significant influence on health practices and attitudes and is very critical to entrepreneurship, innovation, city growth and sustainable development. Field data obtained during fieldwork as presented in table 6, shows that about 50% of household heads interviewed have school certificate. 22% have basic/primary education, while about 22% have tertiary education, an indication of high literacy level in Lagos Island. Literacy and illiteracy rates were not available for Lagos Island. However, data shows that about 87% of the sampled heads can read and write. 6.7% can neither read nor write, 6.3% can only read or write. Survey data obtained shows that over 52% of inhabitants of Lagos Island are traders. About 13% are artisans and 14% are public servants and those in private companies/corporation. The rest 21% cut across those in self-employment.

The unemployment situation in Lagos Island is very high. The 2010 household survey by Lagos state government reported that 36% of the sampled household heads were unemployed. 46% of the household heads are self-employed and only 20% work for a wage. Urban unemployment is a serious problem in Nigeria and the situation is worst in the city of Lagos because of the false impression that most migrants have about job. Till present most migrants' belief that jobs are readily available in the city of Lagos.

A cross-tabulation of educational status of household heads and their sex as shown in table 7 indicated that male household heads are more educated than female household heads. Female heads without formal education are more than male heads without formal education. Among household heads that have basic/primary education, the male heads account for about 59%. Among those with secondary education male heads account for 53.3%, of the sampled heads, the same also is true for those in the tertiary education category.

Table 6: Educational Status of household heads in Lagos Island

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No Formal Education	20	2	2.1	2.1
	Basic/Pry	213	21.2	22.4	24.5
	Sec/Gramm	507	50.4	53.3	77.7
	Diploma/Cert	99	9.9	10.4	88.1
	Degree	113	11.2	11.9	100
	Total	952	94.7	100	
Missing	System	53	5.3		
Total		**1005**	**100**		

Table 7: Cross tabulation, Educational Status * Sex

			Sex		Total
Variables			**Female**	**Male**	**Female**
Educ. Status	No Formal Education	Count	12	8	20
		% within Educational Status	60.0%	40.0%	100.0%
	Basic/Pry	Count	87	126	213
		% within Educational Status	40.8%	59.2%	100.0%
	Schl Cert.	Count	156	350	506
		% within Educational Status	30.8%	69.2%	100.0%
	Diploma/Cert	Count	27	69	96
		% within Educational Status	28.1%	71.9%	100.0%
	Degree	Count	35	77	112
		% within Educational Status	31.3%	68.8%	100.0%
Total		Count	317	630	947
		% within Educational Status	33.5%	66.5%	100.0%

Access to Safe Water and Improved Sanitation

Access to water and improved sanitation has become a major challenge in every part of Lagos city. However, this challenge is being tackled by the city administration with the refurbishment of water works and construction of mini-water works in a number of districts in Lagos state, of which Lagos Island is amongst. Data obtained shows that about 55% of household surveyed

obtained their domestic water from tap or pipe-borne water, 20.3% get theirs from borehole and the remaining obtained theirs from hand-dug well and others sources. There is a significant spatial difference among wards in terms of source *(F=16.68 at P < 0.05)* and volume *(F=14.099 at P < 0.05)* of water used daily. Table 8 shows distribution of regular household by water supply in Lagos Island as reported in 2006 population census report. The table shows that significant proportion of residents in the area still have no access to good source of potable water. About 29% of household heads reported that they obtained their domestic water from tanker or water vendor, 4.49% obtained theirs from river, stream and spring and 9.3% obtained theirs from hand-dug well.

Table 8: Distribution of household by sources of water supply in Lagos Island

S/N	Water Sources	No of Household	Per cent
1	Pipe Borne Inside	5236	11.03
2	Pipe Borne Outside	9656	20.35
3	Tanker/Vendor	13673	28.82
4	Hand-dug Well	4414	9.30
5	Borehole	11096	23.39
6	Rainwater	557	1.17
7	River/Stream/Spring	2128	4.49
8	Dug out/Pond/Lake/Dam/Pool	84	0.18
9	Others	603	1.27
	TOTAL	**47,447**	**100.00**

Source: National Population Commission, 2006

In most developing countries distance is a barrier to access to potable water. The 2010 household survey carried out by the Lagos state government shows that 27% of the sampled household heads interviewed in Lagos Island have their domestic water source inside in their dwelling place, 62% have their water source within 500 meters, 8% between 500 meters and 1 kilometre and 4% above 1 kilometre. The implication is that the government still has more to do in respect of water provision as large percent of the population still suffer water stress in Lagos Island. More than 50% of the resident spent between five and twenty minutes to get to their water sources. Sanitation conditions in Lagos Island are far from being satisfactory. Data obtained from the 2006 population census as presented in Table 9 shows that about 74% of households in Lagos Island used water closet, 12.9% used pit latrine, 6% used public toilets and 5% used bucket or pan.

Waste disposal is a major challenge of cities in developing countries. In Lagos Island, solid waste management involved both government and private sector. Table 10 shows waste management practices of households in Lagos Island. About 67% of households have their waste collected by garbage collector, 26% dump theirs at public approved dumpsite and 1% buried their waste. The frequency of waste disposal varies across space. About 79% household heads reported that their wastes are disposed weekly, 12% have theirs disposed monthly and 9% disposed theirs daily.

Table 9: Household by Toilet Facility in Lagos Island

S/N	Toilet Facility	No of Household	Per cent
1	Water Closet	35096	73.97
2	Pit Latrine	6138	12.94
3	Bucket/Pan	2676	5.64
4	Toilet in another Building	174	0.37
5	Public Toilet	3040	6.41
6	Nearby Bush/Beach/Field	160	0.33
7	Others	163	0.34
	TOTAL	**47,447**	**100.00**

Source: National Population Commission, 2006.

Table 10: Household by solid waste disposal in Lagos Island

S/N	**Means of waste disposal**	**No of Household**	**Per cent**
1	Collected	31569	66.53
2	Buried	477	1.0
3	Public Approved Dumpsite	12242	26.00
4	Unapproved Dumpsite	2124	4.47
5	Burnt	398	0.84
6	Others	637	1.34
	TOTAL	**47,447**	**100.00**

Source: National Population Commission, 2006

A common phenomenon in Lagos Island is open drains and narrow shallow trenches which are often clogged with discarded household or industrial appliances, sand, and refuse transported by flooding. Drains not cleared are usually dirty, unsightly and bring out unpleasant odours. In a survey by Lagos state government, about 83% of household heads indicated that the drains in their areas are not covered, this exposes residents to mosquito attack and the result is the high rate of incidence of malaria and other related diseases. Till present waste management is still a challenge in Lagos Island and government need to put in more efforts in ensuring sustainable waste management.

Household access to good cooking fuel varies in Lagos Island. Majority of the residents (about 89% of households) still depend on kerosene for their cooking fuel. Kerosene is used indoor in most homes and this exposed majorities of households to high carbon emission. Despite this poor cooking condition, most households cannot access easily kerosene fuel due to regular scarcity. Although lighting fuel in Lagos Island is mainly electricity, however, the daily supply of electricity is very poor. Data obtained shows that mean daily hours of electricity used by household is 4.97 ± 2.88 hours. This indicates high variability in supply of electricity among households. One-way analysis of the spatial variation in the distribution of daily hours of electricity used by households in Lagos Island shows significant variation at $F= 34.72$ at ≤ 0.05 level of significance.

Access to telephone and healthcare services

Since 2001 when the mobile telephone was launched in Nigeria, subscription rate has been on the increase; however, access to information and communication in Lagos Island is poor. Table 11 shows distribution of household by access to telephone in Lagos Island. About 22 % households have no access to telephone, 58% depend on business centre, while others depend on their neighbours, telephone services at their place of work and public telephone at nearby.

Table 11: Distribution of household by access to a telephone in Lagos Island

S/N	Telephone Access	No of Household	Per cent
1	Place of work	2896	6.10
2	Via Neighbour	1933	4.07
3	Public Telephone at nearby	2913	6.14
4	Business Centre	27840	58.68
5	No Access	10538	22.21
6	Other	1327	2.80
	TOTAL	**47,447**	**100.00**

Source: National Population Commission, 2006

The report of 2010 household survey of Lagos State government provides information on access to health care facilities in Lagos Island. Distances to government health centres from the household dwelling unit in Lagos Island ranges from 1 to 6 kilometres. The report indicates that 38% of household heads travelled less than 1 kilometre to government health care centre. 43% travelled between 1 and 2 kilometres, 12% travelled between 3-4 kilometres and 6% travelled between 5 to 6 kilometres to access government health centres. That 50% of the households travelled more than 1 kilometre to access health care facilities suggests that government need to do more to make health care facilities more accessible to households.

Correlation analysis of the relationship between household sizes and other socio-economic characteristics of household is presented in Table 12. This provided more understanding and explanations about the living conditions of households in Lagos Island.

Table 12: Relationship between household size and household conditions

Variables	Household size	Sig (2-tailed)
Age of head of household	0.222	.000
Monthly housing rent in '000	.009	.828
No of rooms occupied	.096(*)	.013
Average monthly income	-.091(*)	.021
No of Household heads children who are workers	.343(**)	.000
No of car owned	.397(**)	.000
Daily hour of electricity available	.175(**)	.000
The average daily estimate of water used	.023	.571
Access to good health care	.155(**)	.001
No of household in a building	.043	.334
No of respondents' children in school	.602(**)	.000

** Correlation is significant at the 0.05 level (2-tailed).*
*** Correlation is significant at the 0.01 level (2-tailed).*

A significant positive relationship at 0.01 level of significance between household sizes, age of head of households and number of cars owned by household was obtained. It is expected that the higher the sizes of household the higher the number of rooms that will be occupied, although this may not be true across space. In some wards, large households are found in one or two rooms, whereas in others, families occupied houses on separate stand or flat. Such households have fewer members and occupied more rooms. An inverse relationship between household average monthly income and household size *($r = -0.086$ at $p = 0.03$)* was obtained. This suggests that as household size increases household income decreases. It establishes the fact that large household is mostly poor and low-income earners.

A positive significant correlation was also established between household size and a daily hour of electricity used. Though the hour of electricity used is not determined by the household but by the supplier of electricity, however hours of electricity used varies across space and is lower in high residential density than in low residential density. It was also found that number of household head's children who are workers is significantly correlated with household size. The larger the household the higher the number of children workers to meet the family needs. Household size was also found to be significantly correlated with access to good health care, and number of household head's children in school.

Conclusion

This paper had attempted a detail intra-urban analysis of variations in socio-economic conditions of urban households in the inner city of Lagos, known as Lagos Island. Findings showed that living conditions of most households were generally poor, given income level, number of rooms used and accessibility to some basic amenities. Many of the households are low-income earners and have large family sizes. Significant proportions of households are living in very poor housing conditions. Many households dwell in one-room apartment and access to facilities is generally inadequate. Usually, a blanket approach is often adopted in describing and analyzing socio-economic conditions of urban residents without paying attention to details at

possible lowest spatial units (ward). Evidence from the findings above showed that living conditions vary significantly and tend to be worst in one area than the other. The foregoing suggests the need for the government, its agencies and non-governmental organisations to intensify efforts at facilitating improved access to decent and affordable housing, education, employment and sanitation. The significant spatial discrepancies in the socio-economic conditions of residents of Lagos Island suggests the potential need for differentiated policy responses, that will accelerate functional development in this essential and important economic core of Lagos City and Nigeria at large.

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