Physical Condition Determinants of Quality of Life in Selected Communities in Yenagoa City, Nigeria

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Abstract: - Spatial and population growth of urban areas impact on physical conditions of urban communities and affects Quality of Life (QOL). The study aimed to assess physical condition determinants of QOL in selected communities in Yenagoa City, Nigeria. Specific objectives of the study are to identify and determine physical condition indicators of QOL in communities in the study area; assess the effects of physical condition indicators of QOL in communities in the study area; and provide physical planning framework to enhance physical condition of QOL in communities in the study area. The study employed a Mixed Methods Research (MMR) methodology adopting concurrent triangulation research design. The study identified 29 communities in the study area and 20% representing 6 communities specifically; Famgbe, Yenagoa, Ovom, Yenizue-Gene, Yenegwe and Igbogene communities were randomly selected for the study. A total of 399 respondents were selected for interview using stratified sampling technique and key informant approach was employed to obtain quantitative and qualitative data subjectively and objectively. The study revealed that buildings in the study area are mostly rooming housing and block of flats and these buildings are mostly permanent structures. Occupants are mostly renters and having between 2-3 and 4-6 households occupying a building with an average of 4-6 persons per households occupying between 1room and 2-3rooms reflecting overcrowding and high densification. Buildings lack water supply and irregular public power supply, communities are unplanned lacking access roads and non-functional drainages. Some of households domestic wastes and sewage disposal methods are unstainable and environmentally unfriendly which made rating of physical neighbourhood conditions by residents to be mixed in feelings as good and bad. These conditions have impacted positively and negatively on QOL of communities in the study area. The study recommended a review and implementation of Yenagoa Master Plan of 2004 to achieve sustainable urban planning and development in communities of the study area; BSPPDB and other government agencies should strictly enforce urban planning policies, regulations and standards to enhance physical conditions of communities to improve QOL through building and housing codes and public health and environmental edicts of the city; urban sprawl and leapfrog development should be curtailed with sustainable and efficient physical planning and development control measures to prevent squatter and slum formation; carryout urban renewal schemes in communities to enhance physical conditions of communities by providing and upgrading existing infrastructure and services to improve QOL in communities in Yenagoa City.

Keywords: **Urban Growth and Population, Physical Condition Determinants, Quality of Life & Urban Planning**

I. BACKGROUND TO THE STUDY

Rapid urbanisation is taking place in recent time in many African cities and towns and Nigerian cities and towns are not left out of this phenomenon (United Nations (UN), 2018). The increased in urban spatial area and population have also encourage provision of urban infrastructure and services including improved housing and job prospects in developing countries such as Africa (UN, 2014). These urban conditions have also attracted some negative conditions such as shortage in housing stocks leading to overcrowding of humans and traffic congestion, inadequate supply of urban public infrastructure and services such as water and electricity supply, waste management and environmental pollution problems, increase in unemployment rate, sprawl development and informal settlement growth(Enger, Smith and Bockarie, 2006). Yenagoa City is also experiencing this phenomenon and growing in all ramifications; spatially, increasing in human population and urban development. These processes have attracted and encouraged concentration of investments and humans in the city. Increase in population and further expansion of the city beyond her boundaries have giving concern to government and citizenry.

According to Brown and Eyenghe (2017) physical planning is the driver for physical development through the ordering of land use and proper management of the environment but this not the case of Yenagoa City. In their study, it was revealed that in Yenagoa City, the principles of physical planning have not been adhered causing lack of implementation of urban planning and management approaches. These conditions are persisting in the city as the communities are not planned and unsustainable in urban growth and development because of lack of government will to instil urban planning principles and mechanisms. This has caused deterioration of physical conditions of communities indicating failure of urban governance. Communities are not well laid out because of lack of implementation of Yenagoa Master Plan 2004 that will convey the required urban infrastructure and services. Buildings are not well services with public water supply, electricity problems, open and recreational spaces, lack of drainages and wastes management problems resulting to public health, environmental and sanitation issues which have affected QOL of residents of communities in the city. There is need to determine and assess physical conditions QOL in

communities of the city and provide workable and efficient sustainable urban planning and development framework to improve QOL in the city.

Statement of the Problem

QOL assessment has become a major source of measuring performance of governments, its agencies and corporate organisations in provision of urban infrastructure and services in urban areas across the globe. However, Yenagoa City has not been assessed by any government and institutions in reference to QOL. Though, the city is the administrative and economic centre of Bayelsa State and has metamorphosed from a local government headquarters to the capital city of State. Elevation of the settlement to a capital city has encouraged migration of people from rural areas and other states to the city which has affected physical conditions of residents and communities. It is observation that there is inadequate of physical urban infrastructure and services in communities of the city. These have caused poor housing conditions contributing overcrowding and increased the number of persons in available habitable spaces, lack of public water supply and irregular public electricity supply, poor road condition and drainage problems. These conditions have made physical conditions of communities in the city to be in deplorable state which has affected QOL of residents. The study aims to assess physical condition determinants of QOL in communities of Yenagoa City to provide sustainable urban development framework to improve QOL of residents of the city.

Aim and Objectives of the Study

The aim of the study is to assess physical condition determinants of QOL in selected communities in Yenagoa City, Nigeria.

The specific objectives of the study are as follows:

    I.   Identify and determine physical condition indicators of QOL in communities in the study area;

   II.   Assess the effects of physical condition indicators of QOL in communities in the study area; and

  III.   Provide physical planning framework to enhance physical condition of QOL in communities in the study area.

Scope of the Study

The scope of the study geographically covers communities within the Action Planning Area of Yenagoa City covering about 15 kilometres radius as declared by Yenagoa Master Plan, 2004 (see Figs 1 & 2). The content of the study covers physical condition determinants of QOL in communities in the study area.
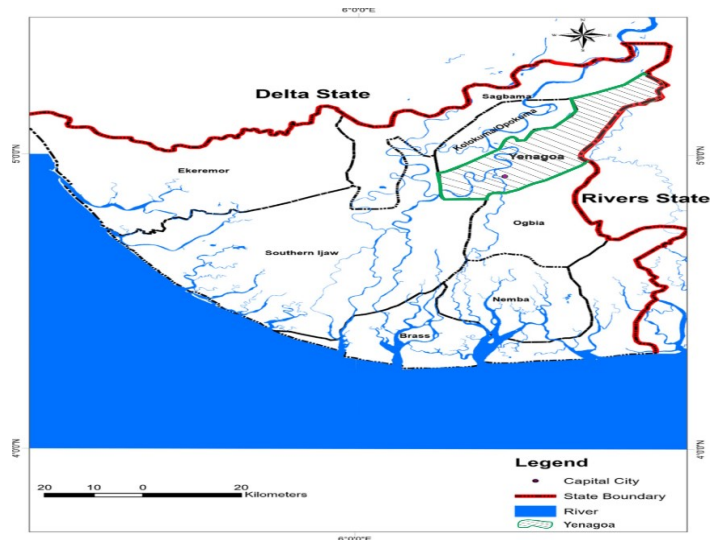

Fig. 1: Map of Bayelsa State showing Yenagoa City LGA, the Study Area

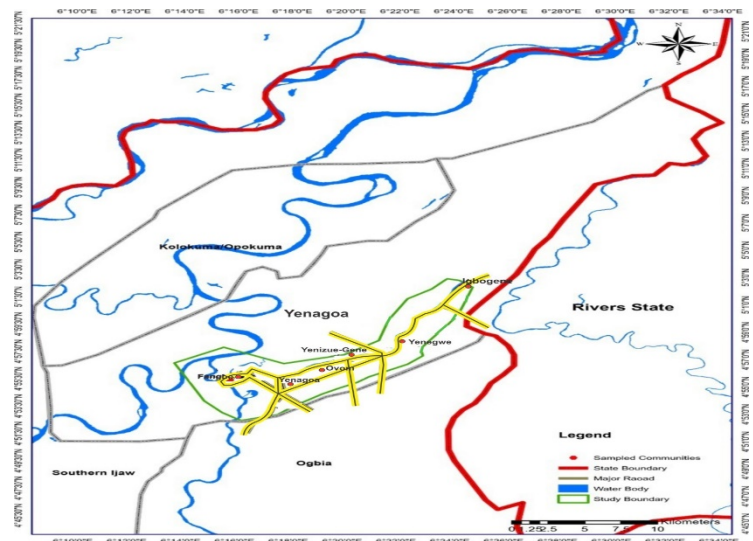Source: Surveyor General Office, Bayelsa State, 2019

Fig. 2: Map of Yenagoa City LGA showing the Study Area and Communities

Source: Surveyor General Office, Bayelsa State, 2019

II. LITERATURE REVIEW

An Overview of QOL

QOL survey has become a reference point for assessing the performance of cities and towns in the world today. According to Barcaccia (2013) QOL has been described as a sign indicating individuals and societies well-being as against the positive and negative features of life in the settlement. QOL assesses individual and society's satisfaction of life across their physical health, family, employment, education, wealth, security and safety, freedom, religious beliefs and freedom to associate and the environment (Barcaccia, 2013).QOL survey have been carried out by various international organisations such as UN-Habitat, The Economic Intelligence Unit (EIU), Mercer and the

Organisation for Economic Corporation and Development (OECD).

According to Gandelman, Piani and Ferre (2012) andMartinez-Martin, Prieto-Flores, Forjaz, Fernandez-Mayoralas, Rojo-Perez, Rojo and Ayala (2012) various aspects of human life are used to determine and assess QOL in urban areas irrespective of the country. These aspects of urban life are measured and assessed subjectively and objectively and predetermined by internal and external factors of the environment (Gandelman *et al.,* 2012). This serve as a guideline and framework for assessing and rating QOL in urban areas by individuals and experts' perceptions and opinions (Eurostat, 2015). This process of evaluation has given government and its agencies on rating of satisfaction of governance by individuals, experts and civil society in urban area and further guide on improvement of its services to the inhabitants of urban areas such as cities and towns irrespective of its size and importance to national and regional economy of a country.

Physical Condition Determinants of QOL

Several international organisations have applied various methodology through identification and development of indicators to build QOL Index (QOLI) especially in reference to physical conditions of urban environment which is used to measure and assess cities and towns. Models and framework indexes that have been developed include UN-Habitat QOLI,Integrated Theory of QOL, The EIU Liveability Rating and OECD Better Life Index (BLI) (UN-Habitat, 2016; Søren, Joav and Niels, 2003;EIU, 2011).

These QOLI have physical indicators of the environment to cover the physical condition aspect of urban life. These indicators include housing type and quality, water and electricity (energy) supply, road network and public transport, availability and quality of telecommunication service, availability of aaccessibility to open public space, green area per capita and environmental condition and quality(UN-Habitat, 2016; Søren, Joav and Niels, 2003;EIU, 2011). These indicators are measured and assessed by individuals and experts subjectively and objectively respectively to rate QOL of an urban environment on how satisfied they are against the indicators (UN-Habitat, 2016; Søren, Joav and Niels, 2003;EIU, 2011). All these identified indicators fall within the preview of physical aspect of urban life and this has become a major tool to rate the performance of government, urban policies and infrastructure and services provisions. These determinants of physical conditions define physical aspect of QOL of urban dwellers in cities and towns.

Impacts of Physical Conditions on QOL

Physical conditions of urban areas are important to the growth and development of cities and towns. Their impacts are both positive and negative which affects QOL of urban communities. Physical elements present in urban communities positively improve QOL of such communities by enhancing liveability, standard of living and health condition of residents (Lee and Cheong, 2018). Availability of adequate and affordable housing in a well-planned community and adequately serviced buildings with public water and electricity supply, easily accessible by vehicles especially during emergency, and properly managed domestic and storm water wastes indicates quality living environment (Lee and Cheong, 2018). Negatively, an unplanned community that lacks basic physical and environmental elements affects QOL of residents of urban communities. Availability of substandard residential buildings and high occupancy rate in building affects QOL of residents and indicates poor quality living environment as the communities lack public water and electricity supply, poor drainage condition, public health issues resulting from unsustainable waste management approach used by residents shows deplorable state of quality of the environment (Lee and Cheong, 2018). These conditions generally affect QOL of residents of urban communities. It is important to identify and assess physical elements of urban environment to improve on QOL urban communities to achieve sustainable urban development and growth.

III. METHODOLOGY

The population of study area in Yenagoa City was 72,173 populations in 1991 (National Population Commission (NPC), 1991) and was 420,841 populations when projected to 2019 the study year employing Exponential Growth Model formula using 6.5% growth rate (NPC, 2018). The study employed Mixed Methods Research approach and concurrent triangulation research design which simple random and stratified sampling techniques including key informant approach were used to obtain quantitative and qualitative data for the study. Primary and secondary data were collected from residents of communities of the study area, government officials and experts through questionnaire administration (closed and open-ended questionnaires), interview schedules and physical observations to assess and determine impact of physical conditions of communities in reference to QOL. The study identified 29 communities in the study area and 6 communities representing 20% were randomly selected for sampling in the study specifically; Famgbe, Yenagoa, Ovom, Yenizue-Gene, Yenegwe and Igbogene communities. Thus, to determine the sample size, 5 persons per household was used to determine the sample population to select respondents (household heads) that participate in the study (National Bureau of Statistics (NBS), 2016). A total 399 respondents were choosing for the study applying Taro Yamane formula which was proportionately spread across sampled communities selected for the study. The study used stratified sampling technique to select respondents that was interviewed in the study (see Table 1). Key informant interview schedule of staff of Bayelsa State Physical Planning Development Board (BSPPDB), experts such as Town Planners and Architects were interviewed. Secondary data were collected from BSPPDB to determine the impact of physical condition of communities in reference to QOL of Yenagoa City.

Table 1: Determination of Sample Size for the Study

S/No.	Sampled Communities	1991 Population	2019 Population (Projected Using 6.5% Growth Rate)	No. of Households (HH) (5 Persons per HH)	No. of Households Sampled in the Communities
1	Famgbe	5,229	30,490	6,098	78
2	Yenagoa	8,723	50,864	10,173	131
3	Ovom	6,320	36,852	7,370	96
4	Yenizue-Gene	2,086	12,164	2,433	33
5	Yenegwe	473	2,758	552	7
6	Igbogene	3,536	20,618	4,124	54
	Total	**26,367**	**153,746**	**30,750**	**399**

Source: NPC, 1991; NPC, 2018; NBS, 2016; Researcher's Fieldwork, 2019

IV. FINDINGS

Physical Indicators Determinants

Building Structure

The study revealed more than 75% of buildings are rooming housing and block of flats in communities in the study area while few are standalone and semi-detached bungalows and storey buildings and most buildings structure are permanent, very few are temporal structure (see Table 2 & Fig. 3). Building materials observed used for the construction of buildings in communities for walls are predominantly concrete blocks and few wood materials. For floor type are mostly tiles and screed floors, other materials are mud, wood and ceramic tiles, while the roofing materials for most buildings in communities observed are aluminium and corrugated roofing sheets and others are woods, abestors, metals and paper boards.

Table 2: Type of Building

Type of Building	Famgbe		Yenagoa		Ovom		Yenizue-Gene		Yenegwe		Igbogene		Aggregate (Total)	
	No.	%	No.	%	No.	%	No.	%	No	%	No.	%	No.	%
Rooming house	51	65.4	68	51.9	42	43.8	11	33.3	4	57.1	21	38.9	197	49.4
Block of flats	17	21.8	39	26	30	31.3	14	42.4	3	42.9	17	31.5	115	28.8
Bungalow (standalone)	3	3.8	18	13.7	8	8.3	3	9.1	0	0	9	16.7	41	10.3
Bungalow (semi-detached)	7	9.0	1	0.8	3	3.1	1	3	0	0	1	1.9	12	3
Storey building (detached)	0	0	0	0	4	4.2	1	3	0	0	1	1.9	6	1.5
Storey building (semi-detached)	0	0	0	0	2	2.1	1	3	0	0	0	0	4	1
Others (specify)	0	0	0	0	0	0	0	0	0	0	2	3.2	2	0.5
NA	0	0	10	7.6	7	7.3	2	6.1	0	0	3	5.6	22	5.5
Total	78	100	131	100	96	100	33	100	7	100	54	100	399	100

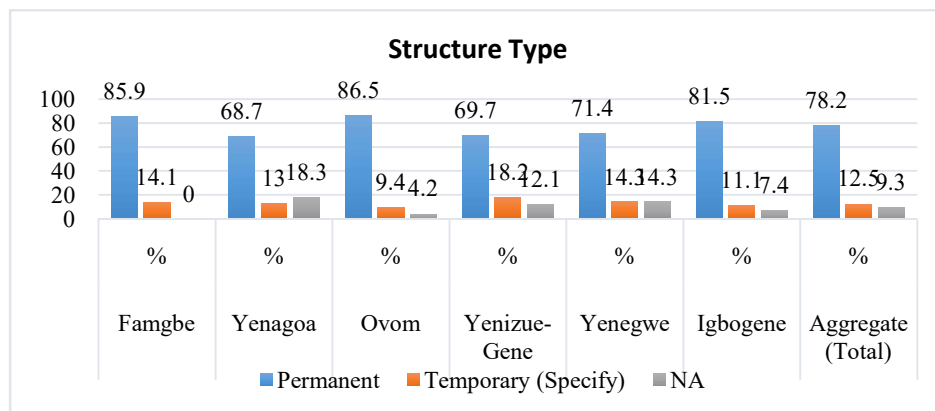Source: Researcher's Fieldwork, 2019

Fig. 3: Structure Type

Source: Researcher's Fieldwork, 2019

Building Ownership and Habitable Space

The study revealed that 58.9% of building occupants are renters while 37.3% of occupants of buildings are owner occupiers and very few are squatters. Some of these buildings are occupied by an average of 4-6 households while many buildings are occupied by 7-9 and 10+ households reflecting high densification per hectare. Average number of persons per household recorded in the study is 4-6 persons per household which is obtainable in Nigerian urban areas. Habitable spaces occupied in buildings by households as revealed in the study in communities are mostly 2-3 rooms and 1 room which is very low for a household of 6 persons and above (see Tables 3, 4, 5 & 6).

Table 3: Ownership of Building

Building Ownership	Famgbe		Yenagoa		Ovom		Yenizue-Gene		Yenegwe		Igbogene		Aggregate (Total)	
	No.	%	No.	%	No.	%	No.	%	No	%	No.	%	No.	%
Owner occupier	44	56.4	44	33.6	21	21.9	14	42.4	3	42.9	23	42.6	149	37.3
Renter	33	42.3	78	59.5	71	74	18	54.5	4	57.1	31	57.4	235	58.9
Other (specify)	1	1.3	0	0	0	0	0	0	0	0	0	0	1	0.3
NA	0	0	9	6.9	4	4.2	1	3	0	0	0	0	14	3.5
Total	78	100	131	100	96	100	33	100	7	100	54	100	399	100

Source: Researcher's Fieldwork, 2019

Table 4: Number of Household in Building

No. of HH in Building	Famgbe		Yenagoa		Ovom		Yenizue-Gene		Yenegwe		Igbogene		Aggregate (Total)	
	No.	%	No.	%	No.	%	No.	%	No	%	No.	%	No.	%
1	13	16.7	8	6.1	7	7.3	3	9.1	3	42.9	1	1.9	42	10.5
2-3	36	46.2	31	23.7	25	26	9	27.3	0	0	15	27.8	111	27.8
4-6	17	21.8	51	38.9	32	33.3	15	45.5	3	42.9	23	42.6	141	35.3
7-9	5	6.8	14	10.9	19	19.8	4	12.1	1	14.3	8	14.8	48	12
10+	7	9	17	13	6	6.3	1	3	0	0	4	7.4	39	9.8
NA	0	0	10	7.6	7	7.3	1	3	0	0	3	5.6	18	4.5
Total	78	100	131	100	96	100	33	100	7	100	54	100	399	100

Source: Researcher's Fieldwork, 2019

Table 5: Number of Persons in Household

No. of Persons in HH	Famgbe		Yenagoa		Ovom		Yenizue-Gene		Yenegwe		Igbogene		Aggregate (Total)	
	No.	%	No.	%	No.	%	No.	%	No	%	No.	%	No.	%
1 pers.	4	5.1	12	9.2	3	3.1	1	3	1	14.3	1	1.9	22	5.5
2-3 pers.	20	25.6	29	22.1	17	17.7	8	24.2	1	14.3	15	27.8	90	22.6
4-6 pers.	44	56.4	69	52.7	40	41.7	22	66.7	2	28.6	23	42.6	200	50.1
7-9 pers.	7	9	12	9.2	23	24	0	0	3	42.9	8	14.8	50	13.8
10+ pers.	3	3.8	8	6.1	6	6.3	0	0	0	0	4	7.4	21	5.3
NA	0	0	1	0.8	7	7.3	2	6.1	0	0	3	5.6	11	2.8
Total	78	100	131	100	96	100	33	100	7	100	54	100	399	100

Source: Researcher's Fieldwork, 2019

Table 6: Habitable Spaces (Rooms) Occupied in Building

Habitable Spaces (Rooms)	Famgbe		Yenagoa		Ovom		Yenizue-Gene		Yenegwe		Igbogene		Aggregate (Total)	
	No.	%	No.	%	No.	%	No.	%	No	%	No.	%	No.	%
1 room	15	19.2	35	26.7	32	33.2	9	27.3	2	28.6	22	40.7	115	28.8
2-3 rooms	41	52.6	63	48.1	54	56.3	19	57.6	3	42.9	25	46.3	208	51.4
3-4 rooms	9	11.5	8	6.1	7	7.3	3	9.1	1	14.3	5	9.3	33	8.3
5-6 rooms	6	7.7	2	1.5	1	1	0	0	1	14.3	2	3.7	12	3
7+ rooms	7	9	4	3.1	2	2.1	0	0	0	0	0	0	13	3.3
NA	0	0	19	14.5	0	0	2	6.1	0	0	0	0	21	5.3
Total	78	100	131	100	96	100	33	100	7	100	54	100	399	100

Source: Researcher's Fieldwork, 2019

Building and Community Facilities and Services

The study revealed that most buildings in the study area lack access to public water supply especially in Yenegwe, Famgbe and Ovom communities which residents main sources of water supply are from water vendors, private boreholes, water tankers, wells and body bodies (rivers, creeks and streams) close to their buildings. Most buildings in communities have public power supply (electricity) from PHED while other sources used include private generators and solar energy.

Sources of their cooking energy observed are liquefied gas, kerosene, firewood and charcoal(see Figs. 4 & 5).The study revealed that some buildings in communities in the study area have open spaces which are accessible to households for use. There are also recreational facilities in some communities in the study area. Table 7 revealed that 39.3% of households access recreational facilities outside the communities they are living but within Yenagoa while 20.8% access recreational facilities within the communities.
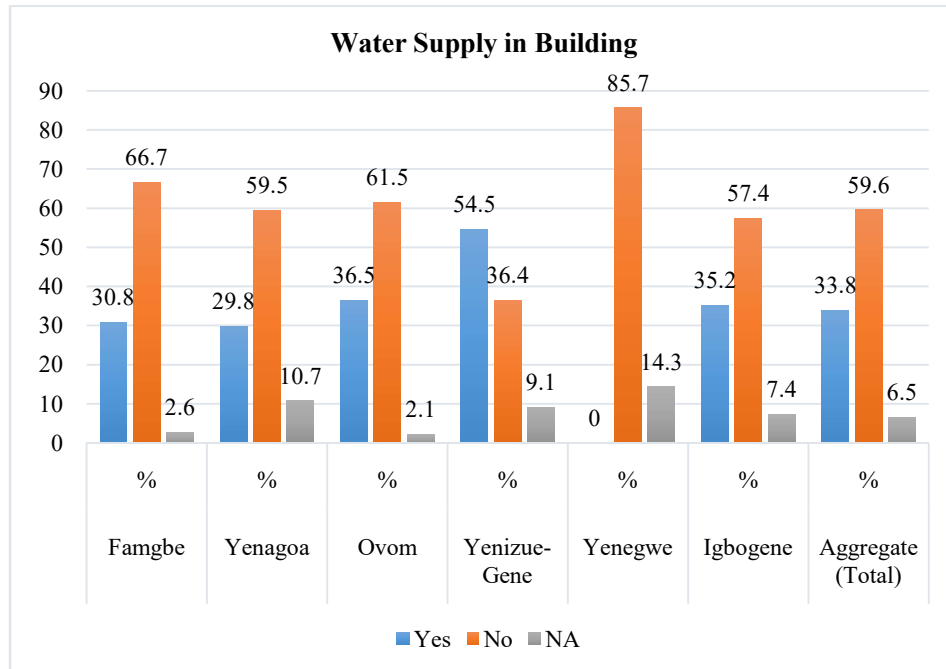

Fig. 4: Water Supply in Building
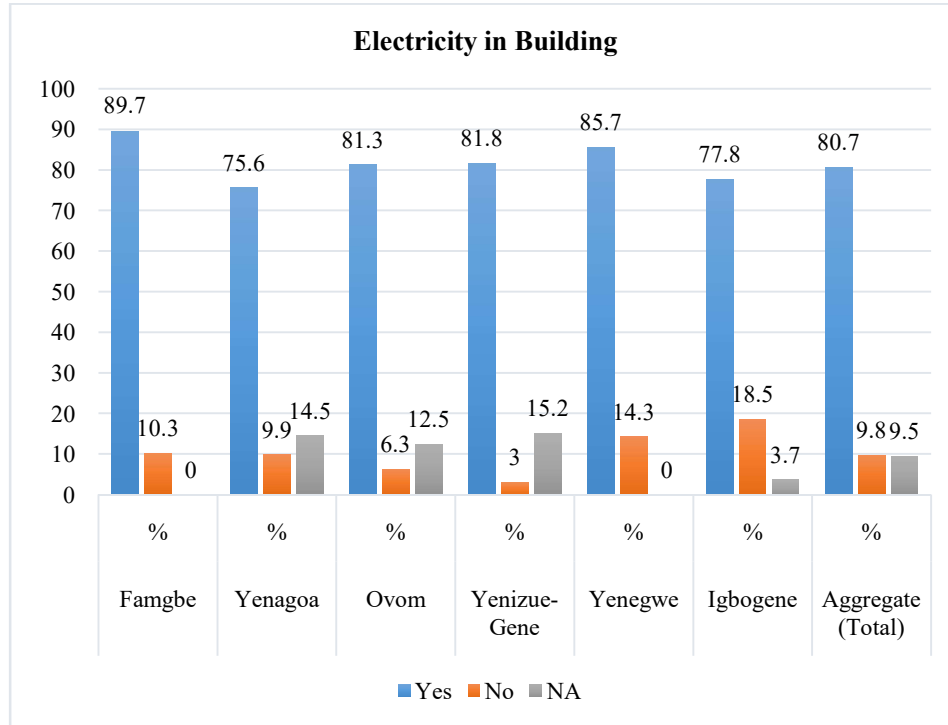
Source: Researcher's Fieldwork, 2019

Fig. 4: Electricity Supply in Building

Source: Researcher's Fieldwork, 2019

Table 7: Household Access to Recreational Facility

HH Access to Recreational Facility	Famgbe		Yenagoa		Ovom		Yenizue-Gene		Yenegwe		Igbogene		Aggregate (Total)	
	No.	%	No.	%	No.	%	No.	%	No	%	No.	%	No.	%
Within the community	13	16.7	19	20.8	20	20.8	10	30.3	3	42.9	18	33.3	83	20.8
Outside the Community but within Yenagoa	32	41	60	44.8	43	44.8	9	27.3	3	42.9	10	18.5	157	39.3
Outside Yenagoa	0	0	1	0.8	2	2.1	0	0	0	0	0	0	3	0.8
NA	33	42.3	51	38.9	31	32.3	14	42.4	1	14.3	26	48.1	156	39.1
Total	78	100	131	100	96	100	33	100	7	100	54	100	399	100

Source: Researcher's Fieldwork, 2019

Accessibility and Drainage

The study observed that many of the buildings in communities in the study area are not directly accessed by motor vehicle making accessibility difficult to residents. Buildings that are accessed by vehicles the access road conditions are earth or dirt (see Table 8). Though, some of them are tarred with asphalt and in concrete forms. These conditions observed make the residents to rely on tricycles, taxis, motorcycles and commercial buses as their main means of transport. The study observed that most access roads setbacks in communities between the carriageways and building lines are inadequate which is less than 2m. The study from the data in table 9 showed that 57.1% of streets lack drainages and streets with drainages most of them are not functional as they don't have discharging points and narrow for flow of domestic waste water and stormwater.

Table 8: Condition of Access Road

Condition of Access Road	Famgbe		Yenagoa		Ovom		Yenizue-Gene		Yenegwe		Igbogene		Aggregate (Total)	
	No.	%	No.	%	No.	%	No.	%	No	%	No.	%	No.	%
Tarred	2	2.6	32	24.4	21	21.9	13	39.4	3	42.9	7	13	78	19.5
Concrete	17	21.8	10	7.6	17	17.7	4	12.1	2	28.6	17	31.5	67	16.8
Earth or dirt	41	52.6	49	37.4	29	30.2	7	21.1	1	14.3	30	55.6	157	39.3
Others (specify)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NA	18	23.1	40	30.5	29	30.2	9	27.3	0	14.3	0	0	97	24.3
Total	78	100	131	100	96	100	33	100	7	100	54	100	399	100

Source: Researcher's Fieldwork, 2019

Table 9: Availability of Drainage in Street

Availability of Drainage in Street	Famgbe		Yenagoa		Ovom		Yenizue-Gene		Yenegwe		Igbogene		Aggregate (Total)	
	No.	%	No.	%	No.	%	No.	%	No	%	No.	%	No.	%
Yes	3	3.8	69	52.7	49	51	19	57.6	1	14.3	5	9.3	146	36.6
No	70	89.7	47	35.9	45	46.9	13	39.4	6	85.7	47	87	228	57.1
NA	5	6.4	15	11.5	2	2.1	1	3	0	0	2	3.7	25	6.3
Total	78	100	131	100	96	100	33	100	7	100	54	100	399	100

Source: Researcher's Fieldwork, 2019

Physical Environment

The study revealed that some households in communities disposes their wastes in authorised dumping site while some on road sides, house-to-house collection, dump into water body, bush and burning. Also, the sewage disposal methods available is mostly water closet and others such as pour flush, pier latrines, pit toilets and bush (open defecation). The study observed that there some form of pollution experience in communities by residents such as noise, water and air pollution. Sources of this pollution as indicated by residents are mostly effluence from domestic activities and electricity generators and machineries from residential and commercial activities. These conditions have made residents to assess physical neighbourhood condition of communities in the study area to have mix feelings of their rating more of "good" and "bad"(see Table 10).

Table 10: Rating of Physical Neighbourhood Condition

Rating of Physical Neighbourhood Condition	Famgbe		Yenagoa		Ovom		Yenizue-Gene		Yenegwe		Igbogene		Aggregate (Total)	
	No.	%	No.	%	No.	%	No.	%	No	%	No.	%	No.	%
Very bad	1	1.3	3	2.3	5	5.2	0	0	0	0	3	5.6	12	3
Bad	23	29.5	22	16.8	20	20.8	7	21.2	5	71.4	38	70.4	115	28.8
Uncertain	11	14.1	12	9.2	14	14.6	3	9.1	1	14.3	6	11.1	47	11.8
Good	41	52.6	61	46.6	33	34.4	19	57.6	1	14.3	7	13	162	40.6
Very good	1	1.3	16	12.2	22	22.9	1	3	0	0	0	0	40	10
NA	1	1.3	17	13	2	2.1	3	9.1	0	0	0	0	23	5.8
Total	78	100	131	100	96	100	33	100	7	100	54	100	399	100

Source: Researcher's Fieldwork, 2019

Effects of Physical Condition Determinants on QOL

The study has revealed that most buildings in the study area are rooming housing and block of flats which are mostly permanent structures. The materials used in the construction of most buildings are mostly durable materials such as block walls, tiles and screed materials, aluminium, corrugated roofing sheets abestors for wall, floor and roofing. Though some are unreliable materials such as wood, mud and paper boards. Number of households occupying buildings are between 4-6 and 10+ households, and number of person per household is 4-6 persons occupying 1 and 2-3 rooms. These reflects high occupancy rate and densification in communities

as large population is concentrated in 1 hectare. This portray overcrowding and human congestion because most occupants of the buildings are renters which brings the occupancy rate high which has affected QOL in communities (see Tables 2, 3,4,5 & 6 and Fig. 3).

The study revealed that building facilities and services such as water supply is lacking in the study area. Sources of water supply are water vendors, private boreholes, water tankers, wells and water bodies such as creeks, rivers and streams. These sources are unsustainable and affects QOL in the communities. Electricity supply are provided by PHED (public) and other sources are private generators and solar system as residents cannot rely on the PHED for regular electricity supply. The study revealed that cooking energy used by households are liquefied gas, kerosene, firewood and charcoal as this is what is available most households can afford. The study indicated that there are open and recreational spaces in communities but some residents cannot access the spaces. Some move out of their communities to other communities to access such spaces. This condition affects QOL as these spaces are supposed to be easily accessible by residents (see Table 7 and Figs 4 & 5).

The study observed that most of the buildings in communities are not accessible by motor vehicles and condition of available access roads are earth or dirt with few tarred (asphalt) and concrete making residents to rely on tricycles, taxis, motorcycles and commercial buses for transport as these mode of transport cannot access their buildings. The setbacks to buildings from carriageways are inadequate by planning standard (less than 2m). The study observed that many streets don't have drainages and few streets that have are not functional resulting to poor public health and sanitation condition and flooding during rainy season. These conditions affect QOL of residents in communities and call for urban planning and management measures (see Tables 8 & 9).

The study also observed that waste disposal methods employed by residents in disposing their wastes are authorise dump site, dump on road sides, house-to-house collection, dumped into water bodies, bush and burning. Sewage disposal methods available are water closets, pour flush, pier latrines, pit toilets and bush (open defecation). Some of the municipal solid and sewage wastes disposal methods employed by residents are unsustainable and unfriendly to the environment as they cause public health and sanitation issues and general environmental concern. Unsustainable waste management methods available and employed by residents affect QOL in communities. However, overall assessment of communities from physical condition indicators that was employed to determine QOL of residents in communities from their perceived rating were mostly good and bad reflecting a mixed feelings and reactions from the residents towards these selected indicators.

V. CONCLUSION

Physical condition determinants of QOL in urban areas are important to sustainable development of urban communities. This study revealed that communities in the study area density are increasing as a result of increase in household size and decrease in habitable space occupied by residents. Growing population and physical indicators employed to determine QOL in communities has demonstrated some deficiency in provision of urban infrastructure and services as these provisions available are inadequate to the increasing population. Government inability to implement the city master plan in the planning and development of communities as increased the deficiencies observed in the study and this has affected QOL in communities. The study has identified that there are lack of planning in the communities resulting to over building on the land for development (plot coverage) causing overcrowding and high densification, lack of access roads to many buildings and inadequate setbacks to carriageways, lack of water supply and irregular public electricity supply, inadequate provision of open and recreational spaces, unsustainable methods adopted in the disposal municipal solid and sewage wastes that has caused some forms of pollution in the communities thereby resulting to public health and sanitation challenges. There is need to enhance these deficiencies observed to improve the physical conditions of the communities in Yenagoa City to improve the QOL of residents. Hence, the study suggests efficient and effective urban planning and development framework to improve the physical conditions of QOL in the communities of the study area.

VI. RECOMMENDATIONS

I. There should be a review and implementation of the Yenagoa Master Plan of 2004 to achieve sustainable urban planning and development in communities of the study area;

II. The BSPPDB and other government agencies should strictly enforce urban planning policies, regulations and standards to enhance physical conditions of communities to improve QOL of residents and communities such as building and housing codes and public health and environmental edicts of the city;

III. Urban sprawl and leapfrog development should be curtailed with sustainable and efficient physical planning and development control measures to control, guide and manage urban growth and development in the city to prevent squatter and slum formation;

IV. Carryout urban renewal schemes in communities to enhancing physical conditions of communities by providing and upgrading existing infrastructure and services such water and electricity supply, access roads and drainage system to improve QOL in communities; and

V. Develop a Participatory Planning Approach (PPA) framework that will involve all stakeholders in the

city in planning and re-planning processes of communities in the study area.

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