

Redefining Affordable Housing: A Sustainable & Measured Approach to Meeting the Housing Demands in Lagos

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Abstract- The continuous rise in population within developing countries has led to a wide range of discussions on the topic of affordable housing. The term affordable Housing isn't absolute and its relativity is evident in mega cities such as Lagos, Nigeria. Therefore, if the provision of affordable housing is to be effective, it has to begin with understanding the society and the various socio-economic structures that are present within it. The demand for housing should not be done at the expense of green spaces or the built environment in general, but rather begin with a call for intelligent and sustainable approaches that deal with the complexity of this issue. Lagos' financial might and infrastructure sets it up as a role model for other Nigerian states. Hence, it is important that its policies and infrastructural approaches to common challenges such as affordable housing are innovative and beyond ordinary, and relatively appropriate.

Keywords:- Affordable housing in Lagos, Sustainable housing, Socio-economic class distribution.

I. INTRODUCTION:

Shelter has been one of man's essential necessities and along with food and clothing; it makes up the tripod for the daily survival of man. Therefore, to neglect one is to create unbalance in the total wellbeing of a person. The definition of shelter and how it is achieved is however subjective. In the prehistoric era, shelters primarily provided protection against adverse weather conditions and wild animals. In this modern era, shelter has become an essential part of our day-to-day jobs, transportation systems, shopping centers as well as our residential dwellings "Houses". Although all these infrastructure involve some form of shelter; this article focuses on Houses (buildings that function as homes), with an aim of unpacking their role as fundamental necessities to the lives of people.

As mentioned earlier, safety from adverse weather conditions and wild animals were some of the primary reasons for demanding shelter in the prehistoric era; those dwellings were constructed using the limited skill, knowledge and materials available at that time. As much as these primary requirements for shelter remain relevant in this modern era, complicated global dynamics such as capitalism, natural disasters, corruption etc, have made the dynamics of shelter increasingly complicated in this era – and these are possible reasons why only a select few have access to decent housing.

A good example of such complicated dynamics was the outbreak of Covid-19 and its global impact in 2020. This event increasingly revealed the acute imbalance in the availability of decent housing facilities as most people were confined to work remotely from their homes. This new arrangement further emphasized the importance of decent homes and their function as integral parts of human psychological wellness. This is because families were mandated to stay at "home" as a precaution to prevent the spread of the virus; some families were riddled with the complete lack of homes or decent ones. As such, the lockdown exposed flaws in the built environment as well as the lack of adequate housing in a developing country such as Nigeria

There has been extensive research on the subject of affordable housing in Lagos, Nigeria; with various recommended solutions to how the public and private sectors need to partner in dealing with the problem. However, this paper provides a different perspective by assessing vital questions such as, what the society is, who are those that make up our society today, and who are those that need affordable housing? Of course, our society is very diverse, and affordability is a very relative word which varies even within the same spectrum. This diversity and relativity are very important points which are often neglected in the discussion on affordable housing. The government and different politicians have in recent years used the word "affordable" more frequently as a campaign slogan and promise to the masses to enable them earn political points. Perhaps there are no lies in these political promises, because what the political class identifies as affordable is not regarded as affordable in the eye of the man who is compelled to live from hand-to-mouth. A good example is the Lagos Home Ownership Mortgage Scheme (Lagos HOMS) which was an affordable housing initiative by the former Governor of Lagos, Mr Babatunde Raji Fashola. During a press briefing in 2013, Gov. Fashola told his audience that "affordability" meant the government would ask the people to pay equity of 30% of the cost of any unit they chose, and the remaining balance was to be spread over the next 10 years [1].

It is however important to note, that the cheapest apartment under this scheme was the 1-bedroom apartment, and 30% equity was (at the time) approximately 1.3million Naira (about \$3,350). Soon after, it became apparent that the "society" for which the housing scheme had been established, could not afford the houses; the key

assumptions used in modelling the scheme were faulty and erroneous. Consequently, it was mostly a failed scheme until the equity contribution required from participants in the scheme was reduced 30% to 5% [2]. Even with this reduction, people who can easily afford it are not “those” for which it was originally created, as many of the apartments still remain vacant, even after 5 years of completion.

With apartment prices starting from 4.3million naira (approx. \$11,180), the family with the basic monthly income salary of 30,000 Naira (approx. \$78) cannot even afford this. This reveals a couple of important issues among others, and one is, that it isn't clear to the government that there now exists prominent layers within the socio-economic classes, and if a measurable level of affordable housing or effective infrastructural development is to be achieved, then it should begin with understanding the society – its socioeconomic characteristics as well as its make-up. Without this understanding, it is inaccurate and insufficient for the government or developers to simply say they are providing “affordable housing”; they should be required to state what aspect of the social class these housing schemes would serve and benefit. Affordability is relative and this should not be disregarded. Hence this research begins with examining the socio-demographics of the Nigerian society and ends by recommending sustainable approaches to delivering affordable housing.

II. SOCIO-ECONOMIC CLASS DISTRIBUTION IN NIGERIA

The Socioeconomic class categorizes people based on a series of related factors. According to the Weberian school of thought, the concept of socioeconomic class is largely viewed as ranking a group of individuals according to common indicators such as economic, socioeconomic and political [3]. Socioeconomic status assesses and classifies a relational society based on a given range of social and economic indicators. The socioeconomic class has no defined standard for measurement and classification due to a myriad of indicators, as well as the blurred lines that define these indicators, one of which is the geographical region [3]. Some of these indicators also include income levels, education, occupation, wealth, and in more encompassing terms, culture. For the purpose of this study, socio-economic classification will be based on economic indicators alone, and the three-level economic class model will be examined.

Currently, the socio-economic classification prevalent in Nigeria is based on a generic standard consisting of the very wealthy and influential upper class – who often own and control the means of production; middle class which consists of skilled workers, small business owners and low-level managers; and a lower class with meagre-salaries who often experience poverty. (Savage, 2015) [4].

The Upper class typically consists of the rich and powerful, they include Industrialists and business tycoons who have superior financial might. While few have attained this classification through social mobility, others belong to this group through generational wealth acquired.

The period after Independence also saw the creation of a new Elite, as a result of career advancement made possible through newly vacant positions left by the colonialists and through the military regime in Nigeria. During these periods, the place of the upper class in the Nigerian society was firmly established. The middle class on the other hand is assumed to consist of high-level skilled workers and experienced entrepreneurs. Research reveals that prior to the recession of the 1980s, more than half of the salary earners in Nigeria made up the middle-class sector (Metz, 1991). The lower-class is characterized by those who must work in order to survive, and in most cases, live from hand to mouth. They don't have substantial savings, may be in debt, have low wage and insecure jobs (Marx & Engels, 1886) [5].

It is important to note that with a Nigerian population of over 180 million, classifying a society as large as this under these three broad economic categories can't be comprehensive enough, neither does it provide the strong basis needed for adequate - economic and environmental - planning.

While the upper class remains at the top of the pyramid, there exist new & dominant strata between the middle and lower class group. For the majority who fall within this group, there isn't a clear line which distinguishes them from the other, as even the skilled workers with similar qualifications and under the same circumstances don't consider themselves as belonging to the middle class. The average skilled worker is faced with a dilemma when asked to fit himself into one of the classes. He knows he is not poor according to the United Nations definition of poverty, neither does he think he can afford everything he needs to fit in the middle class. Hence, it will not be accurate to base the modern Nigerian society on the three-level economic class model. Until the society and her makeup is properly understood, plans and schemes made to cater to her would have an ineffective impact on her, as a matter of fact, it could lead to waste of resources as was almost the case in the Lagos HOMS, until hands went back to the drawing boards to properly understand the society.

There is a new structure of the social class in Nigeria, one which represents the modern society which is now very visible within Lagos state. The outline and diagram below shows the difference between the prevalent socio-economic structure and the new one. They can be categorized under the following classes below:

- The Underclass
- Working class
- Lower middle class
- Upper middle class
- Upper class

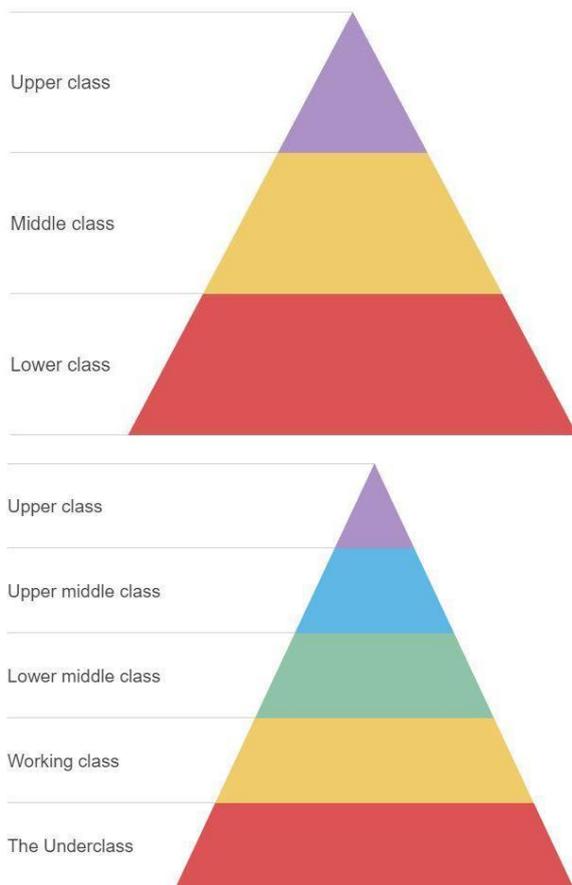


Fig.1: The generic three-level socio-economic class model compared with the new model existing in Lagos state

2.1 The Underclass

A major part of the Nigerian population falls under this category. The World Poverty Clock issued a report in June 2018, in which Nigeria was revealed as having the highest number of people living in extreme poverty, estimated at 86.9 million people. Two years later with the outbreak of Covid-19, the number has increased to 102 million in 2020 [6, 7]. This amount is about half of the country's population. This group consists of largely unskilled or unemployed workers. They make a living hawking or doing menial jobs and live off less than \$2.16 a day - which is the UN's benchmark for extreme poverty (price equivalent of 2019). In Nigeria's economic terms, these people earn less than the minimum monthly wage of NGN 30,000 (\$83). People in this group include hawkers, small-scale traders or assistants who either live in crowded rental homes or slums with very poor hygiene and consequently low consumption indices. Most of these people are largely immigrants who come from other states within Nigeria to the wealthy states like Lagos, Abuja or Port-Harcourt in search of greener pastures and often do not have any level of formal education; hence they rely on their own skill and doggedness to make a better life for themselves.

2.2 The Working Class

The semi-skilled workers make up most of this group. It comprises persons who live off salaried income or wages.

This group is well established in Nigeria due to its population and financial structure. As at 2019, the median age of the country was 17.9, highlighting that the predominant population of the labour force are young people [7]. Over 70% (7 in 10 persons) of the population is under age 30. This group earns the minimum wage benchmark of 30,000 Naira (\$83). They are best described as the people who are engaged in work but lack financial security. Most members of the working class are blue-collar workers.

2.4 The Lower Middle Class

The Lower middle class are in the bottom category of the middle class. It is important to only conceptualize this ground within the Nigerian context and not the capitalist or developed country's contexts. They are graduate degree holders with higher income levels, they are skilled professionals but with reduced wealth compared to their upper middle-class counterparts.

Consequently, they are also on the lower scale of the middle-class lifestyle and consumption chart. The people in this group predominantly live in rented medium sized homes and have a long term view of building their own houses, they can afford to own second-hand cars, provide funds for tertiary education and have access to quality healthcare, all at the expense of reduced wealth (Metz, 1991) [8]. Most of these people focus on increasing their skills and experience as a means of gaining a higher economic status.

2.5 Upper Middle Class

The upper middle class are the higher profile members of the middle class, their income levels are also in the higher quartile of the middle-class. The people in this group own their homes which range from medium to fairly large sized; they are highly skilled workers in high-paying jobs or established entrepreneurs with businesses that churn out constant profits. They can easily afford tertiary education abroad for their kids and have access to quality healthcare (Metz, 1991) [8].

They have higher consumption rates and more expensive lifestyles. In Nigeria, members of this group – aided by western lifestyle influences – focus on becoming wealthier, diversifying their economic activities, acquiring better education for themselves and their children, as well as securing better paying jobs for their children with the aim of attaining the Upper-class status both in income and lifestyle. However, the gap between this group and the upper class is still immense.

2.6 The Upper Class

Also known as the Elites, members of this group attribute their wealth to other factors beyond education, such as through money and positions of power. In simple terms, they are composed of individuals who are rich and powerful. In Nigeria, like other developing countries, this power has also been aided through political affluence and their wealth is often generational. They have luxurious lifestyles and an unusual amount of amassed wealth - their homes are often mansions. These people are usually the top 1-2% of the

population of a country and this is no exception in Nigeria (Metz, 1991) [8].

III. AFFORDABLE HOUSING IN NIGERIA

Nigeria's ever-growing population is one of the issues surrounding affordable housing, with 70% of its population under the age of 30, the importance of affordable is more significant than ever before as a housing crisis looms ahead. According to the World Bank data, Nigeria's current population sits at 202 million, with a forecast of 264 million by 2030 [7]. A constant increase in population suggests a persistent increase in the pressure on available scarce resources such as affordable housing. This pressure has manifested itself in the form of slums and ghettos that have emerged in places such as Lagos state, the economic and financial capital of Nigeria.

There have been attempts by various academics and professionals at suggesting ways to provide adequate amounts of affordable housing. Majority of these suggestions are yet to be implemented while those implemented have not completely solved the problem of affordable housing in Nigeria. According to Ibem and Azuh, the weak political and socio-economic structures alongside a lack of adequate accountability from the Nigerian government are the premise on which these housing schemes have yielded little or no results [9].

The Private and Public sectors are key stakeholders of housing supply in Nigeria. The former is profit-oriented, driven to ensure a quick return on investments and pay back to investors. It has also been noticed that the upper class, upper middle class and lower middle class are the main beneficiaries of the housing schemes provided by the formal private sector. The informal private sector on the other hand is for the most part made up of private investors who disregard building codes and regulations to ensure they cut investments cost by making use of substandard building materials; these then become affordable to a small amount of the working class but hardly the underclass.

The challenges with such buildings include threats to life such as building collapse, lack of adequate green areas for mental health, lack of proper ventilation and poor fire planning regulations. To ensure a measurable affordable housing solution for the marginalized socio-economic class, the government needs to make use of a housing scheme that is sustainable. A scheme that provides a win-win scenario for both the government (sponsors) and the marginalized class (end users).

The advantage of a sustainable scheme is the consideration of our natural environment while providing a decent and safe living space for the end users - one which is also conscious of the needs of the future.

The term sustainability has a wide range of definitions. The World Commission on Environment and Development (WCED) defines sustainable development as the development that meets the needs of the present without compromising the ability of future generations to meet their

own needs [10]. Saidu and Yeom go further to define sustainable affordable housing as housing that ensures that the limited available resources are well appropriated by various housing schemes, whilst considering the needs of future generations [11]. To make this a reality in Nigeria, a thorough analysis of the available scarce resources such as land, green areas, non-renewable energy etc, in the context of the highlighted socio-economic classification must be done. This will in return inform and influence the sustainable strategies to be adopted.

IV. AFFORDABLE HOUSING IN THE CONTEXT OF LAGOS

It must be said that in Lagos, the problem isn't a lack of housing stock, but of affordable & decent housing. With a population density of about 6,871 residents per km² the land available in relation to the city's inhabitants needs to be balanced [12]. With the speed and energy that the city reverberates, residents experience increasing levels of mental stress in the absence of sufficient and accessible green spaces. Metropolitan cities such as Singapore and Hong Kong are now conscious about this and are consequently dealing with it through stricter urban planning policies and the incorporation of green spaces within designs. Lagos is being referred to as the mega city of Africa and is therefore being encouraged to move in the same direction as the other megacities around the world. However, the city is in a critical but nonetheless, privileged position to learn from the mistakes of other mega cities. The pressure to provide more housing should not mean the end of green spaces, but now more than ever before, should be executed to complement each other.

The challenge facing the provision of affordable housing in Lagos ranges from high cost of building materials and land price, to inconsistent management policies, among others. These challenges affect not only the private developers but also the government. The Lagos state government has over the years embarked on affordable housing schemes and the most successful of all was the Jakande housing estate which was done during the governorship tenure of Alhaji Lateef Kayode Jakande between 1979 -1983. Through the Lagos State Development and Property Corporation (LSDPC), over 30,000 housing units were provided all around the state during that period [13]. Although many of them today are in deplorable state, they still serve residents who range from both the working class to the upper-middle class. The current Lagos Home Ownership Mortgage Scheme (Lagos HOMS) which was started by Gov. Fashola has also been providing housing for the majority of the Upper-middle class in society. While this is commendable, a lot more is still expected from the state. As the wealthiest state and major economic centre of the country, providing housing that caters to the lower rung of society is an essential duty; and when this is done, it would provide a geopolitical framework for inclusive housing for other states within Nigeria.

V. THE SUSTAINABLE WAY FORWARD

Having discussed some of the challenges affecting affordable housing in Lagos and the benefits of a sustainable scheme, some sustainable approaches have been proposed. These approaches have been further assigned under sustainable keywords which are, Reduce, Reuse, and Produce. These will be explained in the following segments below.

5.1 Reduce:

A sustainable approach to providing affordable housing would start with the Government decentralizing the commercial centres which are currently extending further and farther into Lagos Island, and complicating the accessibility of those who commute there for work. As the land and cost of living in this area is very expensive, it restricts those who work there to the option of daily commuting. Providing affordable housing in such locations becomes a challenge for the government as building there is not only expensive, but the end product is rented out at a more expensive price.

Provision of affordable housing should go hand in hand with the location and socio-economic needs of the populace. As such, providing affordable housing in very remote locations for people who primarily work on the Island isn't providing a sustainable solution but adding to the problem as this increases the volume of daily commuters. A rather smarter approach for the government would be to provide affordable housing around the Central business districts (CBDs) as this would drastically reduce the commuting hours of residents and reduce the carbon footprint the city generates from traffic alone. This way, the government can strive to achieve both the objective of reducing the amount of commuting that takes place daily and helping to create more green areas for mental well-being.

Among the problems Lagos state currently faces is insufficient accessible green spaces within the city. Alongside the demand for more housing, clamour for more green spaces should be pursued, as this also affects the wellbeing of the citizens. The provision of more housing should not necessarily mean sacrificing land for buildings to spring up. In addition, more attention should be given to the sustainment and expansion of green spaces within the city. The overall reduction in the building footprints can be achieved through vertical urbanization which is the future of architecture in Lagos. However, vertical urbanization requires the use of elevators for movement from one floor to the other. This can be argued to increase the budget for construction, but at the same time substitutes for the cost and building footprint required for smaller multiple buildings. With Lagos averaging a high annual solar radiation of 1,831.06 kWh, solar panels can be used as a sustainable strategy to power these elevators and other building energy loads such as water pump systems [14]. In addition, the saved land can be used as green areas for leisure and landscaping, as this will help improve the mental wellbeing of the people.

Reduction can also take place at the design stage of a new project. The designers should question themselves with what the minimum needs are for the end users. For example, a one-bedroom should be designed compactly to avoid unnecessary spaces that should otherwise be needed in a two-bedroom apartment. This pragmatic approach to design prevents waste that could arise from poor design methods and it also allows the designer to critically optimize the design. For this to work effectively, the clients and stakeholders of the project should enlighten themselves about space planning guidelines as well as their efficiency in design; they should also see to it that they hold the architect accountable to its implementation.

5.2 Reuse:

The reuse strategy as the name implies is the process of reusing and adapting abandoned buildings to provide housing. Buildings over their lifetime go through various forms of reconfigurations and adaptation to meet a wide range of demands. This is very common in former colonial and capital cities where different buildings - after the country's independence and relocation of seat of power respectively - were adapted to serve new uses. Following the decommissioning of Lagos as the country's capital, a lot of the administrative government buildings eventually became less occupied and further abandoned. Most of these buildings are located on Lagos Island. Some of such buildings include the Independence Tower, the Federal Secretariat in Ikoyi, the Federal Ministry of works etc.

These iconic government abandoned buildings are scattered around the CBDs of Lagos Island and are partly inhabited by homeless people. As a result, over the years the Police have alleged that these abandoned buildings are dangerous and serve as hideouts for criminals. However, the certainty of these claims cannot be determined, as there are no official documentations with the squatter information. These buildings which are well located could benefit the upper & lower middle class who commute an average of 30 hours per week in traffic [15]. Rather than commuting long distances which increase the carbon footprint the city emits from traffic congestion, living closer to work - which was the Lagos dream before the Covid-19 pandemic - would make life for the working and middle class a lot better. In addition, the stress levels and high transportation costs will be drastically reduced if this is put in place. An article written by Yakubu in the Guardian Newspaper reports that there are currently about 60 structures all around Lagos Island which range from 5 - 20 floors that are abandoned. These buildings which are in prime locations can provide an average of 6000 m² of housing [16]. Based on this finding, there is a huge potential for reducing the housing challenges even with these existing structures. A proactive measure for the government would be to investigate the existing stock of government buildings which have been abandoned over the years and investigate their potential for readaptation. This would not just be a huge step in the right direction, but would also be a sustainable solution for the city as it would be bringing closer the working class to the already existing CBDs.

Furthermore, over the last 5 years, the Economic and Financial Crimes Commission (EFCC) has seized and resold confiscated properties financed through money laundering acts. A lot of these buildings are sold to private investors who in return offer luxury housing to expatriates and the upper class. While these decisions are the choice of the investors, some of these apartments can be subsidized by the government to make them affordable housing for the rest of the socio-economic classes. After all, meeting the essential needs of the people is the responsibility of the government. In order to do this effectively, the government would need to work together with private investors to monitor and streamline the conversion of these buildings to provide housing for the various classes presented earlier. This option can adequately cater for the Lower and Upper-middle class.

5.3 Produce:

A step further in the provision of sustainable affordable housing in Lagos is the production of clean energy for the residents of the housing schemes. The budget required for this to be accomplished may be much, but the dividends would be of benefit to the investors, residents and the surrounding environment. With unstable power supply currently plaguing Nigeria, a majority of the over 23 million residents in Lagos deal with lack of electricity and as a result, have to generate their own electricity primarily through fossil fuel generators which run almost every day, and sometimes throughout the night. The by-product of this is noise, carbon pollution as well as increasing surrounding heat levels. This contributes immensely to the environment pollution and stress levels in Lagos.

The cost of running generators does not only affect the wellbeing of the residents, but also takes a chunk from the income of homeowners - much worse for those living on mortgage housing schemes. They would not only have to deal with this burden, but also the payment of their mortgage. Managing a mortgage payment with these costs isn't an easy task. This enormous pollution can be reduced by passive and active design strategies for both newly constructed and existing buildings. By providing solar panels coupled with passive design strategies such as proper building orientation and window placement, demand on electricity is reduced and power is made available to run basic amenities such as water pumps, security lights, and refrigerators. These amenities are considered the most necessary for the daily survival of an average person living in Lagos. If the building is designed properly, problems of poor ventilation would be drastically minimized.

VI. CONCLUSION:

The challenges of affordable housing vary in different countries but the effective solutions to these challenges come through tailor-made approaches in which the particular case study is separated from the pack and its fundamental components dissected. While some approaches used in other countries can easily be replicated, this however isn't always the best methodology as societal structures, requirements and behaviours differ even within the same geographic region, and this considerably influences the expected outcome.

The subject of affordable housing is a global topic with different opinions, however peculiar sustainable approaches have been proposed in this paper for dealing with the problem in Lagos, as well as Nigeria. As many states in Nigeria look to Lagos as a role model, it is important that its policies and approach to common challenges such as affordable housing are intelligent and beyond ordinary. In addition to the solutions presented in this paper, suggested strategies by other researchers, such as the use of locally sourced materials for construction, ensuring corruption free governance and proper partnership schemes between the private and public sector among others are some other basic considerations to achieve affordable housing [9, 17].

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