

The Challenges in Providing Affordable Housing in Nigeria and the Adequate Sustainable Approaches for addressing them

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Abstract

Despite multiple schemes implemented by various governments around the country, affordable housing remains elusive to the average Nigerian. Because the situation is comparable to that of other developing nations, it remains a key concern in these countries socioeconomic development. Over 52% of Nigeria's population has been claimed to live in shanties, squatter communities and informal settlements. This article, therefore, reviews the challenges to the provision of affordable sustainable housing in Nigeria and the Sustainable approaches to address them. The article's findings were based on a thorough examination of the literature. The article's findings indicated that sustainable approaches for addressing Nigeria's housing barriers may best be examined through the economic, ecological, social, institutional and technical factors of affordable housing. The paper urges the present regime, investors, lawmakers and private developers in Nigeria to implement these approaches for affordable housing provision. The findings from this article will add to the current body of knowledge by providing important information on affordable sustainable housing provision and re-directing research interest towards affordable housing in Nigeria and other developing countries.

Keywords: Economic • Institutional and technical factors • Socioeconomic development

Introduction

Housing, which has been defined as a fundamental necessity, is essential to the growth of any nation. Nigeria had a population of 45,211,614 people when it gained independence in 1960, corresponding to a population density of 6,967,110 persons per square kilometre. As a result, 15.4% of the population lived in cities. By 2022, the population had risen to 217,139,124, with cities housing 54% of the population. Despite its vastness, the land area of 910,802km² was insufficient to accommodate the rising population [1]. The United Nations estimates Nigeria's population will reach 228 million in 2023, rising to 400 million by 2050. More than 40% of Nigerians reside in cities, creating a demand for affordable housing as well as an affordable supply of essential amenities like power, water supply, health facilities, transportation and other government services [2]. Though the government has made previous attempts [3], these efforts have been insufficient, particularly for middle-class families and the objective has not been realized since many individuals in need of housing are unable to afford it. As a result, they frequently reside in substandard homes, semi-urban neighbourhoods and slums.

In support of the government's robust urban expansion, the private sector provides nearly 90% of urban housing [4]. However, the private sector continues to fall short of meeting the need for affordable housing. Several reasons contribute to these challenges. First, strong urban population expansion as a result of high fertility rates, as well as rural-urban migration. The need for jobs, improved facilities and opportunities are significant considerations that housing program directors must address. Second, growing urbanization has been noted as a feature shared by all emerging countries, including Nigeria [4]. Third, the expensive cost of construction materials due to high manufacturing

and mining costs, along with reliance on imported resources to augment local sources, are significant considerations.

Fourth the scarcity of local technology and trained labour has resulted in the high expense of hiring expatriate personnel and even craftsmen from surrounding nations. The fifth element is the grandiose and pricey designs created by building specialists without regard for our economic circumstances or cultural background [5]. Only a few wealthy Nigerians can afford these designs in the long run. The sixth reason is the Nigerian populace's acceptance of dwellings built using traditional materials such as sandcrete blocks and concrete. This is still a major source of worry. The aim of this study is to identify the challenges to the provision of affordable housing in Nigeria and sustainable approaches to address them. The objectives are; to analyse the challenges as they affect specific areas of housing delivery and to propose sustainable strategies for removing or minimizing barriers to affordable houses provision in Nigeria.

Literature Review

Sustainable affordable housing

The notion of sustainable affordable housing arose from the incorporation of sustainable housing characteristics into affordable housing [6]. The idea of sustainable housing originated from the notion of sustainable development. Likewise, the notion of sustainable development arose from the global Directive of the United Nations on Development and Environment which defined sustainable development as "development directed toward satisfying today's generation requirements while maintaining future generations' capabilities to meet their own demands when they arise" [7]. Confronting the requirements of current generation while also ensuring the ability to address the requirements of upcoming generations, as stated in the WCED article, is primarily concerned with achieving a social, environmental and economic balance in the pursuit of development [8].

Additionally, studies have stated that sustainable housing ideology which arose from an advocacy force based on environmental friendliness within the United Kingdom also sought to propagate the need for social, ecological as well as monetary stability in housing [9]. To define the meaning of sustainable housing UN-habitat 2012 stated that sustainable housing like sustainable development is primarily concerned with the location of the house, the design and construction methods used and the integration of a house into the monetary,

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cultural, ecological as well as the social fabric of communities. Furthermore, researchers have stated that the widespread interest in sustainable housing is motivated by a desire to achieve stability in the environmental, social and economical on aspect of housing [10].

On the other hand, the definition of affordable housing has mostly remained based on the cost of housing relative to family earnings [11,12]. The notion was expanded to include households' capacity to get suitable housing without experiencing crippling financial hardship [13]. There have been suggestions, however, that relating affordable housing to cost alone and defining the proportion that it would cost regarding impoverished families, has been chosen without respect for family composition, housing quality and characteristics of the neighbourhood amongst others. To that end, studies have argued that to achieve affordable housing goals, larger concerns other than cost should be factored into its appraisal and analysis [14]. Additionally, rising research from around the world has advocated for the need of considering housing adequacy considerations in the building of affordable homes [15]. Furthermore, According to research, affordable housing with an emphasis on sustainability starts when concerns regarding housing adequacy, also known as sustainability elements, are addressed. Research went on to say that if effective communities and housing for all people are to be imagined, both affordability and environmental challenges must be addressed together.

Affordable homes are a kind of dwelling that can address the housing needs of underprivileged households globally by incorporating the elements of affordability and sustainability [16]. According to the research, the approach can result in an enhanced supply of infrastructure and facilities for countries and also an 80% reduction in building energy use. Likewise, research have suggested that with sustainable affordable houses, some type of stability between human activity and nature may be reached without negatively affecting future generations' cultural, economic and ecological systems. However, it has been stated that Nigeria as well as other African nations, have not adopted the notion of sustainable affordable homes in the housing supply. According to many studies, development and studies focusing on the concept of sustainable affordable housing for people are minimal and they are in their early phases in some developing countries where they do exist [17]. Furthermore, research has revealed even in most advanced nations, where understanding of the concept of affordable, sustainable housing is said to be high, the terms are routinely used incorrectly, suggesting there remains a noticeable lack of comprehension of the ideas and their elements.

Studies have emphasized the need of using technology in current affordable homes approaches for addressing people's housing challenges to better define the breadth and components of affordable homes [18]. Concurring research concluded that including sustainability factors in affordable homes may not be feasible if technological knowledge is overlooked. Studies further emphasized that if actual outcomes are to be achieved, regulatory input must be considered alongside the functioning financial, cultural and ecological focus of affordable homes. As a result of the preceding, the focus of this article on sustainable affordable homes will be addressed via cultural, economic, regulatory, ecological and technological elements [19]. Likewise, in this research, the approaches to sustainable affordable homes by which Nigeria's housing barriers are addressed will be considered and examined under the social, environmental, economic, technological and institutional headings.

Existing housing situation in Nigeria

Nigeria like other developing countries is burdened by unmanageable urban population expansion driven by a lack of infrastructure and bad economic conditions. In rural regions the number of Nigerians living in urban areas has risen dramatically from 70percent in the 1930s to 100percent by 1950, 200percent in 1970, 270percent in 1980 and 350percent in 1990 [20]. Studies have stated that over 40 million Nigerians currently reside in metropolitan areas of various sizes the concentration of this population in metropolitan areas has caused serious housing issues resulting in overcrowding in many houses and a scenario in which 600percent of Nigerians can be classified as houseless individuals [21] Aside from the prevalence of overcrowding in the existing housing stock, rural-urban migration has resulted in the emergence of makeshift houses or squatter communities in cities that lack minimal structural and normative qualities [22].

Most dwellings are built from various refuse or second-hand materials on the unlawfully occupied self-allocated property, they are poorly maintained and lack essentials of life like as sanitary facilities, light, air and privacy. According to a previous housing study, most metropolitan centres in the country are characterized by high-density buildings, significant sanitary issues, pollution of air, surface water and noise [23,24]. Likewise, an estimated 2.3 million urban housing units are poorly made, just 33.0 per cent of urban dwellings are fully functional and 44.0 per cent and 1.90 per cent require moderate and considerable repairs, correspondingly, to improve them to legal and architectural requirements.

Current level of housing deficit in Nigeria

According to a recent housing market survey in Nigeria, there are 23 dwellings for every 1000 inhabitants. The country's estimated housing deficit as of November 2022 was a shocking 25 million units, an increase of over 15% from January 2019 data. The deficit must be covered with around N21 trillion [25]. The current deficit is alarmingly large for a country of almost 200 million people. Nigeria had a housing shortfall of 7 million units in 1991, which rose to 12 million units in 2007, 14 million units in 2010 and 25 million units now [26]. Rents and housing prices, on the other hand, have risen faster than total inflation. Making matters worse, there are more expensive properties for sale or rent on the market. Furthermore, according to professionals, just 10% of Nigerians who want to own a home can do so, either by personal construction or purchase, as compared to: 72.0% in the United States, 78.0% in the United Kingdom, 60.0% in China; 92.0 per cent in Singapore; 54.0% in Korea. According to the data stated above, Nigeria desperately must create new techniques for enhancing housing delivery in order to reverse the rising trend of housing scarcity. Housing delivery methods in industrialized countries may be adjusted to match the country's present socioeconomic and political situations with varying degrees of success. Table 1, which depicts the projected housing shortage and its causes, depicts the trend of Nigeria's housing shortage from 1991 to the current date (Figure 1).

The result of this severe housing shortage is that tenants in rental flats spend up to 60% of their average disposable income, significantly more than the 20–30% suggested by the UN [27]. According to a World Bank report, Nigeria's real estate market has significant and untapped investment potential, since closing the 20 million housing gap will cost N59.5 trillion.

Table 1. Shows the trend in Nigeria's housing deficit from 1991 to 2022.

Year	Population	Housing Shortfall	Major challenge
1991-2000	132million	4 – 7 million	Inefficiency in mortgage lending
2007-2010	167 million	8 – 10 million	Shantytown removal and urban migration
2012-2017	190 million	16 – 17 million	Increased poverty and overcrowding in cities
2018-2022	220 million	18 – 22 million	Poverty, overcrowding, and urban migration have all increased.

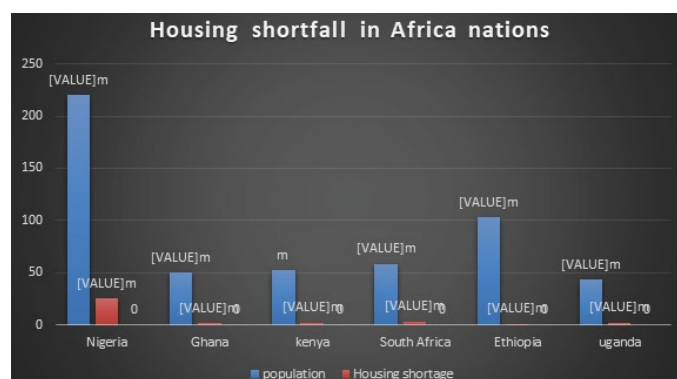


Figure 1. The chart below displays the housing shortfall in Nigeria and six others chosen African nations.

Our country now produces just approximately 100,000 homes annually, which is woefully insufficient for a nation with almost 220 million citizens. The housing and construction sector currently makes up only 3.1% of our rebased GDP. Both the public and private sectors fall short of meeting the demand for housing, especially among the population. The government's target date of 2033 requires at least 1,000,000 units annually to close the 18 to 25 million housing shortages, therefore the current rate of formal house development is woefully insufficient (if the population continues at its annual growth rate of 3.5 per cent). The present housing shortfall is projected to cost US\$363 billion to close and the amount is only anticipated to increase.

In its first year in office (2015), the current administration promised to build two million new middle-class houses and one million new middle-class homes every year thereafter. By the end of his first four-year administration, there would be four million lower-income homes and homeowners in addition to this. Longer mortgage payment structures were supposed to be implemented with this. Housing hasn't been high on the political agenda, though, considering the numerous economic difficulties the nation has encountered over the years [28]. A national infrastructure development bank that might have offered nominal single-digit interest rates was also planned, but it hasn't been established. The lack of housing in Nigeria's metropolitan areas is a result of the country's fast population growth and rural-to-urban migration. Housing delivery in Nigeria is also severely hampered by unsolved difficulties with tenure, building material costs, infrastructural accessibility, inadequate housing finance arrangements and insufficient government housing policy [29].

Methodology

The article determined that a comprehensive evaluation of the literature was the ideal technique for achieving its goal. This is primarily owing to many studies confirming that a Comprehensive assessment is a critical scientific tool in social science studies that may be used to discover data to produce a conclusion on extensive research. Also, the five-sequence information collection procedure (creation of study questions, selection of relevant studies, evaluation of the value and substance of the studies reviewed, grouping and analysis of research findings and lastly, interpretation and clarity of the research results) became essential in carrying out the comprehensive evaluation. Between March and October 2022, the strategy began with a thorough search and assessment of articles published, conference papers, consensus scientific journals and eBooks, Scopus was used as the major source of literature, with Google Scholar serving as an alternative. Because of its wide journal coverage and unique features in web search engines and reference assessment, the Scopus online system was selected as the major literature provider Ezeanah U [30] as stated by several studies.

Similarly, words like Likewise, phrases such as the provision of housing for the impoverished in Nigeria, sustainable affordable homes and residential provision in Nigeria, were entered into the search field and 544 articles were returned. Overall, altogether, the searches in the various databases yielded 1,382 articles. After that, the paper titles and abstracts were examined to determine which ones will have their entire texts examined and used in the study. 288 articles were chosen as a result. After then, the 288 articles were graded using a scale of 1 for not relevant, 2 for somewhat relevant and 3 for extremely important due to their goals and the amount of their relevance to the investigation, articles with a rating of 3 were finally examined and included for the study. Through this, sustainable affordable housing challenges and approaches to addressing them in relation to the social, economic, environmental, institutional and technical factors were discussed.

Results and Findings

Issues and challenges affecting affordable housing in Nigeria in more specific terms

Lack of long-term funds: At the moment, the prime lending rate in the banking industry is still as high as 17.5% [31]. Making it hard to employ such

funds for home development. To make mortgage access more accessible to beneficiaries the lending rate should be at affordable rate, it is important to mention that the government has recognized this and are now evaluating the whole mortgage application procedure.

Properties approval and title paperwork: The growth of the real estate and property markets was hampered by uncertainty surrounding the state of land documentation and delays in the procedure, which made it challenging to promote or sustain loan development. Reforms have reduced the time needed to complete the property approval process from 274 to 80 days in Nigeria, but much work remains as it just takes one day in several other nations like Norway and Singapore [32]. It is important to note that Abuja and Lagos's improved property approval procedures have contributed to saving time in part. The advancements made in Lagos State and Abuja Geoinformatics should be emulated by other state governments in their respective states. Investors typically feel at ease in settings with minimum hassles and automatic registration.

Land use act: The 1978 Land Use Act (LUA) has evolved into a barrier in the release of land for housing development. The Land Use Act (LUA), which was designed to make land more available to all Nigerians, has instead become a major hurdle to home ownership in Nigeria. The LUA's permit regulations, as well as the process of obtaining a Certificate of Occupancy, make land transfers difficult, time-consuming and costly.

Infrastructural inadequacy: Further big barrier to creating affordable housing is a shortage of fundamental infrastructure, such as roads, water and power, which accounts for around 30% of housing. Most times, developers must provide the infrastructure, which always raises the cost of the dwellings they build. As a result, such properties eventually become expensive. If the objective of delivering affordable housing is to be met, both the private and governmental sectors must contribute significantly to the supply of primary infrastructure. The absence of access roads continues to be a key concern, explaining why the suburbs and hinterland are unappealing and why land prices in cities are so high. Nigeria has just 195,500 kilometres of road, of which 135,000 kilometres are in disrepair, [33] in comparison, India has 3.4 million kilometres of road. Today, the Indian road network is still growing at a rate of 9 km per day.

High cost of building materials: Because of the sector's heavy reliance on imports, construction costs are significantly higher than typical, making houses expensive. The high cost of cement, which accounts for around 40% of building materials, has been a major contributor to Nigeria's high construction costs. Cement makers argue that the tough working environment, such as a lack of steady energy, high fuel costs and a poor road network, is to blame for the high cost of cement. In addition, the naira's depreciation, a lack of foreign money, various taxation and incoherent economic policies are all factors influencing the price of cement. Cement prices have gradually risen, reaching an all-time high in 2022.

Enforcing foreclosure: Some entrepreneurs and local banks have highlighted the lack of foreclosure legislation as a factor for not participating in the housing market. Though the frequency of foreclosure is normally very low in most nations (particularly in low and middle-income countries), it is crucial for shareholders to understand that they can take ownership of their collateral and collect their loans as soon as possible. Investors can even put up with a protracted foreclosure procedure if they have trust that the rules will be applied properly and transparently.

Nigeria taxation system: The tax burden is one of the most significant hurdles to large-scale affordable housing provision. The application of VAT at various stages of the housing development process adds additional charges, up to 35%, to the cost of a property, well before registration charges and service charges are factored in. Tax holidays, deferrals, or exclusions on materials or house sales, as well as other tax-related measures, have been utilized successfully in several nations for low and middle-income families. These advantages can be utilized effectively to entice entrepreneurs into the property business. Several societies have demonstrated that minimizing the taxation rate on housing boosts the number of deals and boosts or maintains overall housing-related fiscal revenues.

Construction methods: Dependence on conventional building methods has also harmed the sector. In Nigeria, industrialised building technologies that are both economical and time effective for large-scale housing developments are still uncommon. Panelled modules manufactured in a plant and integrated on-site to form a three-dimensional structure are examples of industrial building goods. Prior to shipment to the site, volumetric construction is used to create three-dimensional modular pieces in a controlled industrial environment. Panelled and volumetric methods are combined in hybrid techniques. Pre-cast concrete foundation assembly, pre-formed wire looms and mechanical engineering composites are all examples of floor or roof cassettes.

Construction permits issue: Permits for construction are typically obtained with delays. The treatments are complicated and costly. The difficulty and expense of regulatory processes associated to building licenses is another significant element that entrepreneurs evaluate when making investment decisions. Jigawa State, a Northern region, has the greatest platform (ranks top) in Nigeria for processing planning permission [34]. Lagos, a southern territory, represents the most challenging area in the country to deal with planning permission, ranking 36th, requiring 18 processes that might be finished in 106 days and cost up to 53.9% of the per income per capita.

Collaboration issues: The absence of efficacious cross-sector coordination amongst industry players continues to be a fundamental impediment to achieving affordable housing goals. The type of activities and projects required to improve the supply of housing in Nigeria necessitate extensive coordination and synergy between involved parties.

Nigerian affordable housing challenges and sustainable affordable housing approaches: The section that follows offers an overview of sustainable affordable homes approaches for addressing housing challenges in Nigeria as well as other developing countries. Five major elements of sustainable affordable homes were identified based on the findings of the studied literature. They consist of economic, social, institutional, ecological and technical elements.

Economic approaches to sustainable affordable housing: Affordable homes in Nigeria have apparently been trampled by hyperinflation because of the exorbitant interest cost and costly construction material costs [35]. These difficulties have made homes even more expensive for people. However, the existence of a robust finance market as an economic plan of sustained affordable housing may solve the challenges of high loan rates, inflation rates and high construction material costs [36]. Because of the market system's instability, entrepreneurs and developers have lost interest, leaving only a handful of entrepreneurs in the housing market. As a result, market stabilization will boost the confidence of private investors and developers. With a sustainable economy, more private investors and developers are likely to participate. This will aid in the regulation of price inflation along with commodity prices. Ultimately, a secure economic market will undoubtedly encourage the people and provide them with more opportunities for homes.

Moreover, studies have observed that offering incentives to investors and developers (loans, tax breaks, etc.) is one of the economic methods of sustainable affordable homes that, if embraced by stakeholders, may assist in addressing the difficulty and as a result, provide people better access to housing. Likewise, advantages in the form of architectural flexibility can go a long way toward motivating investors and developers, resulting in reduced home costs for the people. Furthermore, the low financial standing of average workers in Nigeria has been noted as a part of the major reasons why housing for the people is in short supply [37]. Existing housing unit prices in Nigeria are out of reach for most people due to their weak financial situation. Nevertheless, providing most households with house benefits in the form of low-interest loans and mortgages is another economic method for affordable housing. Likewise, studies have stated that the economic objective of affordable homes is to give benefits to households in the context of lower transportation and other non-housing expenditures. Ultimately, providing economic incentives to most families will buffer the low-economic income position, culminating in improved housing for the people.

Social approaches to sustainable affordable housing: Earnings

or income disparity has often been cited as a major global impediment to most people's access to good housing. Because of their lower position financially, a considerable number of Nigerians have been recorded to be displaced in terms of housing [38]. Because of their poor financial standing, they are largely restricted to metropolitan area fringes where infrastructural amenities are lacking, making their dwelling circumstances more analogous to slums. Likewise, poor socioeconomic position fosters an atmosphere in which income segregation thrives. According to studies, one of the social strategies of sustainable affordable housing is to lower earnings inequality through promoting social investment, inclusiveness and cohesiveness. Social cohesiveness fosters a feeling of belonging, social unity and emphasizes the importance of interaction within communities and families. Similarly, social investment fosters cooperation and collaboration across communities, resulting in the actualization of families' safety and belongingness.

Furthermore, social equality results in unfettered access to resources for homes and families, resulting in efficient engagement and participation of families in economical, governmental and cultural activities in the neighbourhood.

Moreover, poor preservation ethics and neglected control of public infrastructure have been identified as a barrier restricting most people's access to decent housing globally. In many African nations including Nigeria, poor upkeep and abandonment of public buildings have become normal practices. Poor maintenance has resulted in a rise in ageing and defective infrastructures worldwide. Unfortunately, these outdated and weak infrastructures are where most typical Nigerians live. However, arguments have been raised on how to make these outdated and weak infrastructures more appropriate and useful. To that purpose, studies have observed that adapting ageing infrastructure to sustainable affordable standards is less expensive and more helpful than outright removal. According to the studies, renovating ageing infrastructures, a component of the social approaches of sustainable affordable housing, retains the architectural features of the facilities, creates more jobs and achieves a nearly 80% savings in energy consumption, thereby improving the housing conditions for people.

Furthermore, poor infrastructure development supply has been noted as a concern for housing in the majority of African nations [39], most African countries have been classified as developing states and they are home to the majority of impoverished people in the world hence infrastructure development is scarce however as noted by several studies, difficulties of insufficient supply of infrastructure may be solved by the practice of high-density housing construction and the construction of different affordable housing categories which are social strategies of sustainable affordable housing. Similarly, by implementing high density housing construction as well as diversity of dwelling types, the people will benefit from closeness to accessible infrastructure while spending less on non-housing expenditures this method also leads to mixed-use development

Environmental approaches to sustainable affordable housing: Buildings use close to 40% of global energy consumption, making them the largest user of energy [40]. The industry of construction accounts for almost one-third of global GHG pollution. This has caused significant suffering both inside and outside the sector. Consequently, the planet finds itself amid this pain and often suffers much more because of the condition of this pollution. Likewise, the ecological approach of affordable homes that are sustainable aims to achieve energy preservation in houses by encouraging and promoting the adoption of energy-efficient lighting mechanisms, solar heating innovations, energy-efficient heating systems, air conditioning and ventilation systems, the installation of water-efficient appliances, rainwater collection innovations and general enhancements to residential floors or walls [41]. These techniques will undoubtedly increase housing quality. Likewise, studies have claimed that buildings that use the measures can reduce energy usage by up to 80%.

This will very probably result in greater comfort for people both indoors and outside. Furthermore, despite the richness of local resources in Nigeria and most African nations, the non-utilization of local resources has been identified as among the factors why homes are in short supply for people. Imported building materials are clearly out of reach for many people. The promotion

and utilization of local resources, on the other hand, appear as a component of the ecological approaches to sustainable affordable homes [42]. Through its environmental approach, sustainable affordable housing emphasizes the need of promoting the use of indigenous materials in the form of tax breaks and incentives to businesses interested in developing housing. Likewise, land for house construction has been identified as one of the barriers to housing in Nigeria. According to experts, available lands are being sold at rates that are out of reach for people. Furthermore, the exorbitant cost of land is a key impediment to the construction of affordable housing. However, ineffective land use planning may be to blame for this growth. Another environmental approach to sustainable affordable dwellings is the effective usage and management of land.

Additionally, natural disasters and a high rate of internally displaced persons have been recognized as contributing factors to people's relocation from their homes in Nigeria. Because of the geography of their homes, many Nigerians have been victims of many environmental calamities. This dreadful development may be avoided. One of the various environmental methods of sustainable affordable homes is to combat catastrophe situations through the performance of ecological and geographical evaluations prior to the start of real building [43]. The evaluations identify immediate and prospective hazards and take efforts to reduce their incidence and impact. Assessment cost, in addition to the project cost, may appear to be considerable, but the underlying advantage that the evaluation portends justifies the effort.

Technological approaches to sustainable affordable housing: Lack of technical know-how, misunderstanding of technological mechanisms for sustainable dwellings, doubts about technology performances and the constantly evolving aspects of technology have all been identified as obstacles to the construction of sustainable dwellings in African countries [44]. Likewise, improving local materials to sustainable standards necessitates the use of technology. A significant technical approach to sustainable affordable dwellings emphasizes the need to foster technology innovation as a path forward. This will raise the necessary awareness. Additionally, another sustainable affordable dwelling technology approach promotes the use of recyclable, reusable and renewable materials. The ecosystem will be further preserved and disasters will be better controlled as a result. Similarly, the rate at which technology advances is a boon to past abilities. As a result, developers invest more money in hiring and bringing in professionals to keep up with technological advances.

As a result of the expense of the final product, housing development has further hampered many Nigerians. Many of these issues, though, may be solved through the adoption, promotion and creation of regional and indigenous technological innovations, which is a technical strategy for sustainable affordable dwellings [45]. The lack of trained labour may be solved while immediate employment can also be created by fostering the creation and expansion of indigenous technologies. In addition, the large sums spent on employing and bringing in specialists will be saved. As a result, residential building prices will be dramatically decreased, giving many people greater access to homes.

Institutional approaches to sustainable affordable housing: Many people in Nigeria have been reported to be displaced in terms of housing due to the over-politicization of the system, an absence of political will and commitment of political gladiators, a lack of transparency and an absence of private industry engagement [46]. According to various researches, constructed mass dwellings that were formerly intended for all citizens were eventually distributed to high and middle-income people who did not have a need for them but were associates of industry leaders in the Nigerian housing industry. The upper and moderate-income people eventually resell the dwelling units and rent some of them out. Overall, impoverished individuals in Nigeria are constantly conned out of residential prospects. Nonetheless, as advocated in the enabling strategy, a fundamental institutional approach to sustainable affordable homes is to galvanize the private sector in the supply of housing projects. Moreover, with the intervention of private industry, issues such as corruption and politics that have hampered the housing industry may be solved.

Moreover, the Nigerian housing policy mechanism has apparently been shown to be incapable of providing housing possibilities to most people due to a weak operational structure and inadequate implementation techniques.

Likewise, the research indicated that the impact of Nigeria's most recent public housing has yet to be realized by most individuals. Nevertheless, it is the duty of the administration to develop appropriate regulatory frameworks. Likewise, studies have asserted that one of the institutional methods of sustainable affordable homes emphasizes the necessity to design, examine and revise housing regulations on a regular basis to reflect current circumstances. The ongoing examination and revision of housing regulations in conformity with actual realities, as advised by sustainable affordable dwelling principles, would undoubtedly go a long way toward solving the housing requirements of most Nigerians. A good housing regulation is a comprehensive housing guideline that tackles concerns such as land use issues, construction materials, housing designs, all economic challenges and many others [46].

Furthermore, most regimes mass housing construction has always been marred by secrecy, favouritism and inefficiency in Nigeria. For instance, studies believe that social ills such as the urge for more financial reward, the recruitment of incompetent people to staff housing offices and agencies and irrational professional fees, along with other things, have stifled the provision of homes to the people for years. Moreover, the investigations found that the process of awarding contracts is riddled with anomalies of many kinds. All of these oddities, however, may be remedied through sustainable housing standards. A fundamental institutional approach for sustainable affordable dwellings is centred on an efficient and clear procurement procedure. Favouritism, ineptitude and excessive thirst for profits may all be handled with an open and successful procurement procedure. This will undoubtedly aid in the delivery of governmental housing developments to the intended recipients. An open and successful procurement procedure would save a lot of money, according to the report. Additionally, the time allocated for construction approval has hampered the proper supply of homes to Nigeria's people. These obstacles, nevertheless, may be addressed through the practice of sustainable dwelling policies. Sustainable dwellings institutional model emphasizes the necessity to modernise planning and approval agencies, as well as the assigning of duties to local governments. According to the studies, decentralisation and moving permits to local councils can save a significant amount of time. This would provide an advantage to contractors, allowing additional residential units to be built.

Conclusion

Given the speed at which affordable homes in Nigeria are declining, it is becoming particularly crucial to integrate attributes of sustainability within the construction of affordable homes. The paper revealed facts that attributes of sustainability are not being included in affordable home projects for Nigerians. This must be addressed if substantial outcomes in housing are to be achieved. Likewise, sustainable affordable homes for people emphasize the necessity of addressing ecological, economic, social, institutional and technical challenges related to housing. This would undoubtedly improve the living standards of people in Nigeria regardless of their earnings and status, hence improving their quality of life and wellness. Because of this, authorities and other building sector participants in Nigeria must increase public awareness of the concept by emphasizing its benefits in terms of affordable homes. Nigerian authorities urgently need to incorporate and encourage technologies that are both economical as well as ecological for the creation of new dwellings.

The literature on sustainable home approaches and methods was also referenced in this research. In the same way, solutions for sustainable homes in Nigeria have been proposed. However, the need for more research into the concept of affordable housing cannot be stressed. Future empirical and contextual research should investigate the components, indices and strategies of sustainable affordable housing in Nigeria holistically. Future research on constructing a paradigm or framework for affordable housing for people in Nigeria and other developing nations is also welcomed.

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