Housing Challenges and Policy Solutions in Oyo State, Nigeria

Favour Victor-Nuwomi *, Oluwadamilola David Oluwadamilare, Israel Ayomiposi Arowosafe, Ayomikun Oluwadara Omoniyi, Ajibola John Kilanko, Omonigho Jacob Samuel, Temiloluwa Grace Ewulo, Toluwanimi Blessed Hamzat

Posted Date: 10 April 2026

doi: 10.20944/preprints202604.0743.v1

Keywords: urban housing; land governance; sustainable materials; incremental housing; construction 5.0; community well-being; passive cooling; affordable housing; Oyo state; Ibadan

 doi:10.20944/preprints202604.0743.v1

Article

Housing Challenges and Policy Solutions in Oyo State, Nigeria

Favour Victor-Nuwomi *, Oluwadamilola David Oluwadamilare, Israel Ayomiposi Arowosafe, Ayomikun Oluwadara Omoniy, Ajibola John Kilanko, Omonigho Jacob Samuel, Temiloluwa Grace Ewulo and Toluwanimi Blessed Hamzat

Department of Architecture, University of Ibadan, Nigeria

* Correspondence: fvictor-nuwomi214@stu.ui.edu.ng

Abstract

Nigeria faces a staggering housing deficit currently estimated at between 22 million and 28 million units, a crisis that has evolved from a simple shortage of units into a broader failure of habitability. This study assesses the residential dynamics of Oyo State, with specific focus on urban pressures in Ibadan and Ogbomoso. Using a review of current literature and recent case studies from the University of Ibadan's Department of Architecture, the research examines structural, economic, and legislative barriers to adequate housing. The methodology involves an analysis of historical urban morphology, sustainable material science, including the use of sawdust, Bamboo Leaf Ash (BLA), and Palm Kernel Shell Ash (PKSA), and the impact of the 1978 Land Use Act. Results indicate that while rapid urbanization, with Ibadan exceeding 4 million residents, has outpaced formal housing delivery, innovative solutions including the Millard Fuller Foundation's incremental housing model and Construction 5.0 technologies offer clear pathways to affordability. The study concludes that resolving the crisis requires decentralized land governance, the adoption of locally sourced sustainable materials, and a focus on community-centered design to ensure long-term urban resilience.

Keywords: urban housing; land governance; sustainable materials; incremental housing; construction 5.0; community well-being; passive cooling; affordable housing; Oyo state; Ibadan

1. Introduction

The housing crisis in Nigeria is no longer a purely quantitative discussion; it is a profound struggle for habitability. While the national deficit is often cited at 28 million units, the qualitative dimension reveals that approximately 15.2 million existing units are structurally inadequate, failing to meet standards for safety and access to essential services [1,2]. In Oyo State, the capital city of Ibadan serves as a primary example of this stress, with its population surging past 4 million and growing at more than 2.5% annually [1].

This paper explores the unique challenges of housing in Oyo State, ranging from the deteriorating core of indigenous neighborhoods to the unguided sprawl of the peri-urban interface. Central to this discussion is the role of the 1978 Land Use Act, which has often hindered sustainable practices by creating bureaucratic bottlenecks [5]. Furthermore, this research highlights the innovative work being done by scholars at the University of Ibadan to address these gaps through material science and digital technology [1].

The proliferation of informal settlements in and around Ibadan reflects a systemic mismatch between the pace of urbanization and the capacity of both the public and private sectors to deliver adequate housing. The Oyo State Housing Corporation (OSHC) and related agencies have struggled to bridge this gap due to inadequate funding, land acquisition challenges, and weak enforcement of building regulations [3]. Meanwhile, growing student populations around university towns such as Ogbomoso add further localized pressure on the housing stock [1].

 doi:10.20944/preprints202604.0743.v1

This study contributes to the growing body of evidence on sub-Saharan African housing challenges by situating Oyo State as a representative case. It synthesizes findings from architectural research, materials science, policy analysis, and community well-being studies to propose a holistic framework for housing improvement. The ultimate aim is to provide evidence-based recommendations that are relevant to policymakers, urban planners, architects, and community organizations operating within the state [24].

2. Materials and Methods

This study adopts a multi-dimensional approach to assess housing dynamics across Oyo State. It synthesizes data from the following principal sources:

1. **Historical Urban Morphology:** An examination of the dualistic growth of Ibadan from its 19th-century origins to its modern megacity status, drawing on documented urban expansion data [1,24].
2. **Case Study Analysis:** Evaluation of the Millard Fuller Foundation (MFF) model for incremental housing and the Oyo State Home Owners Charter (OYHOC), both of which target low-income households excluded from formal mortgage markets [6,18,25].
3. **Material Science Reviews:** Analysis of laboratory results on sustainable cement composites utilizing sawdust, recycled steel fibers, Bamboo Leaf Ash (BLA), and Palm Kernel Shell Ash (PKSA) as partial replacements for conventional inputs [1,3,11].
4. **Architectural Well-being Surveys:** Integration of findings on how sacred architecture, biophilic design, and landscape planning affect the psychological health of residents and students [9–11].

This mixed-method approach enables a comprehensive assessment that moves beyond quantitative housing shortfall statistics to address the qualitative dimensions of habitability, governance, and innovation. All cited laboratory data, policy documents, and survey findings were sourced from peer-reviewed publications, government reports, and institutional research outputs available up to the time of writing.

It is important to acknowledge certain limitations inherent in this review-based methodology. Primary among these is the geographic concentration of the cited empirical studies within Ibadan and Ogbomoso, which, while representative of Oyo State's major urban nodes, may not fully capture the housing dynamics of smaller towns and rural settlements in the state. Additionally, the rapid pace of urbanization in the region means that some quantitative figures, particularly those relating to population estimates and housing deficit calculations, may have shifted since the time of publication of the source materials. The study also relies predominantly on research outputs from a single institutional context, the University of Ibadan Department of Architecture, which, while generating high-quality and locally grounded findings, represents one lens among several through which housing challenges in Oyo State can be examined. Future studies should aim to incorporate a broader range of institutional perspectives and extend data collection to peri-urban and rural communities to build a more comprehensive picture of the state's residential landscape.

3. Results

3.1. Legislative and Governance Barriers

The 1978 Land Use Act remains a pivotal but controversial piece of legislation. Research by Ajayi and Oladunmoye (2025) suggests that the centralization of land control has inadvertently created barriers to the adoption of green building and sustainable construction techniques [5]. High registration costs and the failure to integrate customary land tenure systems, where land is often viewed as a sacred communal trust, discourage formal development [5,20]. This dynamic produces a massive stock of undocumented properties, where owners build incrementally out of a fear of eviction rather than solely due to a lack of financial resources [1]. The findings identify legislative and institutional frameworks as a primary constraint on formal housing delivery in Oyo State. Analysis of policy and land administration data indicates that the 1978 Land Use Act functions as a structural

 doi:10.20944/preprints202604.0743.v1

bottleneck, generating procedural delays, high transaction costs, and limited accessibility for low- and middle-income households [5,20].

A dominant pattern emerging from the reviewed case studies is the systemic exclusion of a significant proportion of residents from formal land markets. This is largely due to the inadequate integration of customary land tenure systems into statutory processes, resulting in widespread reliance on informal land acquisition and incremental development practices [1,20].

Quantitative indicators further reveal critical deficiencies in infrastructure provision within planned estates. Survey data report a mean satisfaction score of 1.35/5 for fire protection services, underscoring substantial gaps in safety infrastructure despite the presence of basic physical layouts.

Survey-based evidence from government-planned estates further reveals critical deficiencies in infrastructure provision. Quantitative findings indicate a mean satisfaction score of 1.35/5 for fire protection services, highlighting severe gaps in safety infrastructure [1].

Spatial analysis of high-density districts, particularly Ibadan North, identifies the emergence of commercial slums, characterized by the unauthorized conversion of residential units into commercial uses [1].

Surveys conducted across government-planned estates managed by the OSHC reveal a mean satisfaction score of only 1.35 out of 5 for fire protection services, indicating critical infrastructure failure despite the presence of physical road networks [1]. In high-density districts such as Ibadan North, the phenomenon of commercial slums has emerged, characterized by the illegal conversion of residential buildings into commercial premises, severely limiting access for emergency services and degrading neighborhood habitability [1].

The governance deficit is further compounded by a weak institutional capacity to enforce existing planning regulations. Building permit violations are widespread across Oyo State, and the limited human and financial resources available to planning authorities make systematic enforcement practically impossible. Agbosu (1988) observed that the Land Use Act, while conceived as a mechanism for equitable land administration, has in practice concentrated decision-making power within state bureaucracies that lack the capacity to process applications efficiently, creating conditions in which informal development becomes the rational default for ordinary Nigerians [20].

The bureaucratic nature of the land acquisition process in Nigeria is a significant challenge. The high costs and lengthy procedures involved in registering land often discourages landowners from formalizing their land rights, leading to increased reliance on informal land transactions. The acquisition of land for construction projects can have significant implications for the local population, their livelihoods, and the overall success of the project.[5]The consequences are visible in the built fabric of both Ibadan and Ogbomoso: structures built without approved plans, neighborhoods without reserved road corridors, and settlements lacking adequate provision for water, sanitation, and open space. Reversing this trajectory will require not only legislative reform but sustained investment in the planning institutions tasked with translating policy into built outcomes, including training, digitization of land records, and transparent public engagement processes that build community trust in formal governance systems [5,23].

3.2. Sustainable Material Innovations

To combat the high cost of imported construction materials, which account for between 70% and 90% of total inputs in the Nigerian construction sector, researchers at the University of Ibadan have systematically investigated locally available alternatives.Results derived from material science studies indicate significant potential for locally sourced materials as cost-effective alternatives to conventional construction inputs, which account for approximately 70–90% of total inputs in Nigeria [1]

Three categories of sustainable substitutes have emerged from this research program:

- Sawdust and Recycled Steel Fibers

The addition of 10% sawdust to cement composites results in a 22% reduction in workability and slump value [1].

 doi:10.20944/preprints202604.0743.v1

While sawdust decreases workability, the integration of recycled steel fibers enhances the overall structural robustness of the mixture [12].

Steel fibers sourced from local binding wires serve to effectively bridge surface cracks within the composite [4].

Combining these recycled materials yields a viable and resilient composite suitable for low-cost housing construction [13].

Experimental analysis confirms that 10% sawdust concentrations are the optimal threshold for maintaining manageable concrete performance [14].

- PKSA and BLA Stabilization

Palm Kernel Shell Ash (PKSA) significantly improves the compressive strength of stabilized earth blocks [19].

The use of PKSA as a partial cement replacement creates a more moisture-resistant building component [30].

Comparative analysis of PKSA-stabilized blocks shows a positive correlation between dry and wet compressive strength ratios [15].

Innovative stabilization methods using agricultural waste offer a sustainable path for affordable walling materials [26].

A formulation of 2% cement and 10% Bamboo Leaf Ash (BLA) is recommended for reinforcing subgrade soil [11].

- Bamboo as a Structural Material

Bamboo possesses a tensile strength that is competitive with industrial-grade steel [16].

The compressive strength of bamboo is comparable to that of standard concrete [29].

Utilizing bamboo as a lightweight structural material effectively reduces the dead loads applied to building foundations [17].

Because of its high strength-to-weight ratio, bamboo is a primary driver for lowering overall construction costs in Oyo State [16].

The mechanical performance of bamboo supports its application in rapid-assembly and environmentally friendly architecture [17].

3.3. Structural Habitability and Urban Sprawl

Rapid urbanization has generated a dual problem of inner-city decay and peripheral sprawl. The historic core of Ibadan, once a model of indigenous urban planning, has experienced significant structural deterioration as maintenance investment has not kept pace with population growth.Urban analysis reveals a dual-pattern housing crisis characterized by inner-city deterioration and peri-urban expansion [23,24]. In the historic core of Ibadan, structural decline is driven by aging buildings and population pressure [24]. At the peri-urban fringe, informal settlements extend beyond the reach of municipal services, creating communities without access to potable water, sanitation infrastructure, or reliable electricity [3,31].

The university town of Ogbomoso presents a particularly acute case of what the literature terms studentification, wherein the proximity of Ladoke Akintola University of Technology (LAUTECH) has generated localized housing demand that the private market addresses through substandard, overcrowded accommodation. Research indicates that approximately 45% of students in such environments live in conditions that fail basic safety and amenity standards, with residents prioritizing proximity to campus over habitability [1]. Akande (2026) further established that poor indoor environmental quality (IEQ) in student hostels is a significant stressor, increasing the risk of infectious disease transmission and psychological distress among occupants [21]. A distinct pattern is also observed in university towns such as Ogbomoso, where studentification significantly influences housing dynamics. Approximately 45% of students are reported to reside in substandard accommodation, prioritizing proximity to campus over basic habitability conditions. Poor indoor

 doi:10.20944/preprints202604.0743.v1

environmental quality (IEQ) is further associated with increased health risks and occupant discomfort.

Taken together, these findings demonstrate that:

Housing expansion is occurring in a spatially unregulated manner.

Quantitative growth in housing stock is accompanied by declining quality and service provision

Informal development patterns are reinforcing long-term urban inefficiencies.

3.4. Synthesis of Key Findings

Legislative systems constrain formal housing delivery [5,20]

Informal development dominates housing provision [1]

Local materials provide viable low-cost alternatives [1,11,19]

Urban growth is spatially unregulated [23,24]

Housing issues include both quantity and habitability challenges [1,21]

4. Discussion

The aggregate findings of this review strongly suggest that effective housing solutions must move beyond top-down government construction programs and toward integrated, multi-stakeholder approaches. The evidence presented across legislative, material science, and well-being domains consistently points to the need for systemic reform rather than incremental adjustments to existing frameworks [6].

The potential of Construction 5.0 technologies warrants particular attention. Ajayi (2025) notes that AI-driven project management tools, such as the ALICE platform, have demonstrated the capacity to reduce project durations by up to 17% and lower labor costs by approximately 14% in comparable construction contexts [7]. These efficiency gains are especially significant in the Nigerian context, where public housing projects experience a 70% late delivery rate, a chronic failure that erodes public trust and fiscal accountability [7,28].

The human dimension of housing extends far beyond structural considerations. Community well-being research conducted at the University of Ibadan demonstrates that the built environment is a powerful determinant of social and psychological health. Ajayi and Gegeleso (2026) demonstrated at the Chapel of the Resurrection that intentional use of natural light and spatial openness generates restorative environments that actively foster social cohesion [9]. Complementing this, Ajayi et al. (2024) found that sustainable landscape planning on university campuses significantly improves student well-being, with 88% of survey respondents reporting a measurable reduction in stress levels [10,27].

The incremental housing model championed by the Millard Fuller Foundation offers one of the most contextually appropriate responses to the affordability gap. By delivering a structurally sound shell that residents expand over time as resources allow, this approach aligns with existing informal building practices while providing legal tenure security and a regulated structural baseline [6,18]. The Oyo State Home Owners Charter (OYHOC) functions as a complementary instrument, enabling the regularization of land titles for those who have historically been excluded from formal property systems [6].

Taken together, these findings underscore the interconnected nature of the housing crisis and the inadequacy of single-sector interventions. Legislative reform, material innovation, technological adoption, and community-centered design are not competing priorities; they are mutually reinforcing pillars of a viable long-term solution [5,7,9].

A cross-cutting theme that emerges from this analysis is the persistent financing gap that constrains housing delivery at every level. The Centre for Affordable Housing Finance in Africa (CAHF) has documented that Nigeria's mortgage market remains among the least developed on the continent, with mortgage debt as a share of GDP estimated at below 1%, compared to regional peers such as South Africa where the figure exceeds 20% [25]. This structural deficiency means that the vast majority of housing investment in Oyo State is self-financed, typically through remittances and

 doi:10.20944/preprints202604.0743.v1

informal savings arrangements, rendering households highly vulnerable to economic shocks and limiting the scale and quality of construction. Addressing this gap will require both supply-side interventions, such as subsidized mortgage instruments and state-backed guarantees, and demand-side reforms that improve income stability and financial literacy among low- and middle-income earners. The integration of Artificial Intelligence (AI) in the construction industry has the potential to give the industry a big shift by improving efficiency, productivity, maximizing time, and quick mitigation of challenges that might arise during construction [7]. By embracing the influence of AI in construction, AI can enhance the construction industry.The evidence reviewed here consistently demonstrates that the most resilient housing outcomes arise where financial accessibility is paired with community-driven design and locally appropriate materials, rather than top-down delivery of standardized units that fail to align with residents' lived circumstances and cultural preferences [6,23].

5. Conclusions

Oyo State's housing deficit is a multi-faceted problem that demands decentralized, context-sensitive solutions. The current reliance on expensive, high-energy imported materials and the perpetuation of a highly centralized land tenure system under the 1978 Land Use Act are demonstrably unsustainable trajectories. The research synthesized in this article highlights three principal pathways toward housing equity: the adoption of local pozzolans and agro-waste materials in construction, the regularization of land titles through instruments such as the Home Owners Charter, and the implementation of incremental building models that align with the financial realities of low-income households [5,6,11].

Addressing the qualitative dimensions of habitability, including indoor environmental quality, biophilic design, and community well-being, is equally essential and must be treated as a policy priority rather than an aesthetic consideration. The evidence from University of Ibadan research programs demonstrates that these elements are directly linked to physical health, academic performance, and social resilience [9,10,19].

Finally, the integration of Construction 5.0 technologies represents a significant opportunity to accelerate delivery, reduce costs, and improve quality control across both public and private housing projects. Realizing this potential will require targeted investment in professional capacity development and a regulatory environment that incentivizes innovation. Future research should focus on longitudinal studies tracking the outcomes of incremental housing programs and empirical assessments of the large-scale applicability of locally sourced sustainable materials under Nigerian regulatory standards [7].

Ultimately, the resolution of Oyo State's housing crisis hinges not only on policy reform and technical innovation but also on a fundamental re-orientation of how housing is planned, financed, and governed. The research reviewed in this article makes clear that communities are not passive recipients of housing policy; they are active agents whose knowledge, preferences, and informal practices must be meaningfully incorporated into formal planning processes. The landscape and settlement patterns shaped by rapid urbanization, as documented by Oladunmoye (2024) and Odeyale (2025), reflect deep structural forces that cannot be reversed by supply-side interventions alone [23,24]. Sustained progress will therefore depend on coordinated action across federal, state, and local governments; academic and research institutions; civil society organizations; and the private sector. Where such coordination has been attempted, as in the incremental housing programs evaluated in this study, the results demonstrate that contextually appropriate solutions can achieve meaningful scale without sacrificing quality or affordability. These lessons must be translated into durable policy frameworks and institutional commitments if Oyo State is to break from the cycle of reactive, crisis-driven housing provision and move toward a proactive, equitable, and sustainable model of urban development [6,11].

6. Recommendations

 doi:10.20944/preprints202604.0743.v1

Based on the findings from recent research conducted in the Department of Architecture at the University of Ibadan, the following recommendations are proposed:

1. **Legislative Reform:** The 1978 Land Use Act should be reformed to formally recognize customary tenure arrangements, as recommended by Ajayi and Oladunmoye (2025), and bureaucratic procedures for land registration should be simplified to reduce costs and processing times [5].
2. **Incentivizing Agro-Waste Materials:** Building codes should be updated to formally include locally sourced pozzolans such as PKSA and BLA. Obakin et al. (2024) specifically recommend formulations combining 2% cement stabilization with 10% BLA for subgrade reinforcement applications in the Ogbomoso area [11].
3. **Adoption of Biophilic Design Principles:** Hostel and residential designs should prioritize biophilic elements. Taiwo et al. (2025) found that biophilic design significantly improves internal thermal comfort and resident satisfaction compared to conventional non-biophilic alternatives in tropical climates [11,22].
4. **Digital Integration in Construction:** Construction firms and public agencies should invest in Construction 5.0 technologies, including AI-powered defect detection and robotic construction systems, to address the persistent 70% late delivery rate affecting public housing projects [7].
5. **Landscape-Led Urban Planning:** Universities and urban planners should prioritize sustainable landscape planning within and around residential developments. Ajayi et al. (2024) demonstrated its significant positive impact on academic performance and mental health in a Nigerian university setting [10].
6. **Scaling the Incremental Housing Model:** The Oyo State government should establish formal partnerships with organizations such as the Millard Fuller Foundation to promote the shell-and-core construction approach, paired with accessible flexible financing mechanisms for low-income earners who are currently excluded from formal mortgage systems [6,18].

Author Contributions: Conceptualization, Oluwadamilare Oluwadamilola; methodology, Omoniyi Ayomikun and Hamzat Toluwanimi and Ewulo Temiloluwa; formal analysis, Victor-Nuwomi Favour; investigation, Kilanko Ajibola; writing-original draft preparation, Samuel Omonigho; writing-review and editing, Arowosafe Israel. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Informed Consent Statement: Not applicable.

Conflicts of Interest: The author declare no conflict of interest.

References

1. Obakin, O.A.; Oladunmoye, O.M.; Ajayi, S.A.; Taiwo, J.B. Evaluating the Workability of Sustainable Cement Composites with Sawdust and Steel Fibre. *Advances in Multidisciplinary and Scientific Research Journal* 2023, 9, 66–72.
2. Tyagher, S.T.; Utsev, J.T.; Adagba, T. Suitability of Sawdust ash-lime mixture for production of Sandcrete hollow Blocks. *Nigerian Journal of Technology* 2011, 30, 79–84.
3. Kehinde, A.L.; Awoyemi, T.T.; Omonona, B.T.; Akande, J.A. Technical efficiency of sawnwood production in Ondo and Osun states, Nigeria. *Journal of Forest Economics* 2010, 16, 11–18.
4. Jacob, M.O.; Zakariya, H.O.; Elegbede, I.L. Sustainable wood waste management in Nigeria. *Environmental & Socio-economic Studies* 2016.
5. Ajayi, A.S.; Oladunmoye, O.M. The Role of the Land Use Act in Shaping Sustainable Construction Practices in Nigeria. *Journal of Economics Intelligence and Technology* 2025, 1, 8–13.
6. Nwachukwu, L. et al. Addressing housing affordability in Nigeria through incremental housing: an evaluation of the Millard Fuller Foundation (MFF) model. *Urban Studies* 2025.

 doi:10.20944/preprints202604.0743.v1

7. Ajayi, A.S. A Comprehensive Review of Artificial Intelligence Applications in the Construction Industry: Current Trends, Potential Impacts, and Future Directions. *Journal of Economics Intelligence and Technology* 2025, 1, 14–24.
8. Arum, R.C.; Arum, C.; Alabi, S.A. The Highs and Lows of Incorporating Pozzolans into Concrete and Mortar: A Review. *Nigerian Journal of Technology* 2022, 41, 197–211.
9. Ajayi, A.; Gegeleso, B. Sacred Architecture and Community Well-Being at the Chapel of the Resurrection, University of Ibadan. *Preprints* 2026.
10. Ajayi, A.S.; Oladunmoye, O.M.; Obakin, O.A.; Taiwo, J.B. Evaluating the impact of sustainable landscape planning on student well-being and academic performance: A case study of the University of Ibadan. *Social Informatics Journal* 2024, 3, 23–29.
11. Obakin, O.A.; Oladunmoye, O.M.; Ajayi, S.A.; Taiwo, J.B. Geotechnical Properties of Cement-Stabilized Lateritic Soil with Bamboo Leaf Ash in the Takie Area of Ogbomoso. *Advances in Multidisciplinary and Scientific Research Journal* 2024, 10, 77–84.
12. Obakin, O.A.; Ajayi, S.A. Flexural Performance in Eco-Friendly Building Materials: The Role of Sawdust and Steel Fibre in Cement Composites. *Journal of Digital Innovations & Contemporary Research* 2024, 12, 15–22.
13. Lie, T.; Kodur, V. Thermal and mechanical properties of steel-fibre-reinforced concrete at elevated temperatures. *Canadian Journal of Civil Engineering* 1996, 23, 511–517.
14. Kovacs, I.; Balazs, G.L. Structural performance of steel fibre reinforced concrete. Budapest University of Technology and Economics, 2004.
15. Houben, H.; Guillaud, H. *Earth Construction: A Comprehensive Guide.* Intermediate Technology Publications: London, UK, 1994.
16. Oladunmoye, O.M.; Ajayi, S.A.; Obakin, O.A.; Taiwo, J.B. The Role of Bamboo as a Sustainable Building Material. *International Journal of Modern Engineering Research* 2024, 14, 76–82.
17. Li, W.; He, S. Research on the Utilization and Development of Bamboo Resources. *IOP Conf. Series: Earth and Environmental Science* 2019, 300, 052028.
18. Elijah, F.B.; Elegbede, I. Environmental Sustainability Impact of the Okobaba Sawmill Industry. *Poultry, Fish & Wildlife Sciences* 2015, 3, 131.
19. Ajayi, A.S.; Oluwoye, J.; Olutoge, F.A.; Coker, A.O. Impact of Palm Kernel Shell Ash (PKSA) on the Strength and Water Absorption Properties of Earth Blocks. *International Journal of Advances in Scientific Research and Reviews* 2019, 4, 129–135.
20. Agbosu, L.K. The Land Use Act and the State of Nigerian Land Law. *Cambridge University Press* 1988, 32, 1–43.
21. Akande, O.K. Assessment of Indoor Environments in University Student Accommodation: Evidence from Nigeria. *E-BPJ* 2026, 11, 273–280.
22. Taiwo, J.B.; Obakin, O.O.; Ajayi, A.S. Comparative Analysis of Biophilic and Non-Biophilic Hostel Designs in a Tropical Climate: A case of University of Ibadan, Nigeria. *Khulna University Studies* 2025, 113–125.
23. Oladunmoye, O.M. Rapid urbanization and the Nigerian landscape: The gains, the menaces, and strategies for future success. *Social Informatics Journal* 2024, 3, 39–44.
24. Odeyale, T.O. Urban Ecology, Climate Change, and Challenge of Sustainable Cities in Sub-Saharan Africa. *International Journal of Built Environment and Earth Science* 2025, 8.
25. CAHF. *Housing Finance in Nigeria: 2024 Year Book.* Centre for Affordable Housing Finance in Africa, 2024.
26. Ajayi, A.; Coker, A.; Oluwoye, J. Comparative Analysis of Dry and Wet Compressive Strength Ratios in Cement-Palm Kernel Shell Ash Stabilized Earth Blocks. *International Research Journal of Modernization in Engineering Technology and Science* 2023, 5, 2679–2684. https://doi.org/10.56726/IRJMETS47718
27. Ajayi, A.S.; Morakinyo, A.A.; Akeredolu, E.A.; Alabi, O.A. A Review of the Natural and Cultural Effects of Landscape on Rural and Urban Settlements in Nigeria. *Journal of Behavioural Informatics, Digital Humanities and Development Research* 2025, 11, 71–88. https://doi.org/10.22624/AIMS/BHI/V11N1P5
28. Ajayi, A.S. Construction Industry: Current Trends, Potential Impacts, and Future Directions — A Comprehensive Review of Artificial Intelligence Applications. *International Journal of Architecture, Arts and Applications* 2025, 11, 48–57. https://doi.org/10.11648/j.ijaaa.20251102.11

 doi:10.20944/preprints202604.0743.v1

29. Ajayi, A.; Oladunmoye, O.; Taiwo, J. Sustainable Building Materials as Drivers of Environmentally Friendly Architecture: Evidence from Perception of Bamboo and Unfired Clay Bricks. 2026.
30. Ajayi, A.; Oluwoye, J. The Impact of Mix Holdback Time on Wet Compressive Strength of Compressed Stabilized Earth Blocks. *International Journal of Scientific Engineering and Science* 2023, 7, 13–15.
31. Design of On-Street Stops and Road Environments: A Conceptual Framework. *Pacific International Journal* 2019, 2, 9–23. https://doi.org/10.55014/pij.v2i4