https://doi.org/?????????
ISSN: 2805-3346

RESEARCH ARTICLE

Sustainable Housing Financing as a Market-Shaping Mechanism in African Real-Estate

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Received: 18 February 2026

Revised: 29 March 2026

Accepted: 16 May 2026

Published: 28 July 2026

Cite article as: Bello, N. A., Ojekalu, S. O. & Akeju, M. A. (2026). Sustainable housing financing as a market-shaping mechanism in African real-estate. *African Journal of Housing and Sustainable Development, 8*(1), 100-106. https://doi.org/????????????????????

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ABSTRACT

UN-Habitat (2023) estimates that the housing shortage in African cities exceeds 56 million, even as these cities are projected to house more than 1 billion residents by 2050. In the face of rapid urbanization, sustained population growth and increasing vulnerability to climate-related risks, the African real-estate sector needs to undergo substantial reform. Specifically, the current models of housing financing seem incapable of matching current housing demand levels because the models are oriented towards financial returns (short-term) instead of a combination of social and environmental impact (long-term). This short-term orientation has been attributed to the increased costs of housing construction that aided challenges of affordability, resulting in the continued growth of informal settlements and degradation of the environment. Thus, this study examines how sustainable housing financing and investment strategies can reshape the future of African real-estate markets by integrating environmental, social and governance (ESG) principles with innovative financing mechanisms. Using a conceptual and integrative literature review approach, the study synthesizes insights from policy reports, literature and selected case experiences from Rwanda, Kenya and Nigeria. This is to lower construction costs towards improving the affordability of real-estate development and decreasing negative environmental impacts without jeopardizing urban sustainability objectives. The study mainly focuses on the use of local building materials, financing instruments and regulatory frameworks that are climate-responsive. This will require adopting low-carbon construction methods while embedding the ESG principle in real-estate investment decisions. The findings reveal that structural barriers, e.g. fragmented regulations, limited access to long-term finance and low technical capacity, inevitably constrain sustainable housing delivery. However, emerging instruments such as green bonds, blended finance, real-estate investment trusts (REITs) and public-private partnerships (PPPs) demonstrate strong potential when supported by coherent policy frameworks. ESG integration enhances investment transparency and risk management, while locally sourced, low-carbon materials can reduce construction costs and environmental impacts. The study highlights the need for integrated housing financing models aligned with sustainability policies, strengthened institutional frameworks and scalable, innovative financing mechanisms. To be sure, aligning real-estate development with Sustainable Development Goal 11 and Agenda 2063 is critical for achieving inclusive, resilient and low-carbon urban futures in Africa.

Keywords: Sustainable housing financing, Real-estate development, Public-private partnerships, Housing policy reform

1.0 Introduction

Globally, Africa is witnessing an urban transition at a rapid rate. It has been projected that Africa's urban population will have almost tripled by 2050 and that more than 950 million additional residents will move to urban areas by that time (UN-Habitat, 2023). However, this pace does not correspond with the existing housing and infrastructure systems, with the implication that there will be widened housing deficits across multiple urban centres. Added to this are expanded informal settlements and vulnerability to climate-related risks. This rapid expansion has not been matched by commensurate growth in real-estate and infrastructure supply, resulting in growing housing deficits, proliferation of informal settlement and increased exposure to climate-related risks. Despite growing demand, prevailing housing financing systems across African real-estate markets remain largely fragmented, oriented towards the short and insufficiently aligned with sustainability objectives. Traditional financing models prioritise immediate financial returns, often at the expense of long-term affordability, environmental performance and social inclusion. Consequently, these models contribute to high construction costs, limited access to housing finance, and environmentally inefficient urban development patterns.

This study identifies three critical gaps in the existing literature and practice. There is a *lack of integrated sustainable housing financing models* that effectively combine financial, environmental, and social objectives. In addition, weak and fragmented institutional and regulatory frameworks *remain***,** constraining the scalability of innovative financing mechanisms. Lastly, there is *limited alignment between housing financing systems and sustainability policy frameworks***,** including Sustainable Development Goal 11 and the African Union Agenda 2063. The future of African real-estate markets can therefore be shaped by how effectively sustainability principles can be rightly embedded within development processes, financing structures and housing policy frameworks. Against this background, this paper advances the argument that sustainable housing finance and investment are not merely supportive mechanisms but *key drivers shaping the future trajectory of African real-estate markets***.** By examining emerging financing instruments, ESG-aligned investment strategies and selected case studies from Kenya, Rwanda and Nigeria, the study provides a more analytical understanding of how financing structures influence affordability, sustainability, and market transformation outcomes.

2.0 Literature Review

The discourse on sustainable housing finance in African real estate markets has evolved to emphasise the intersection of financial innovation, environmental sustainability, and institutional effectiveness. However, much of the existing literature remains fragmented, often focusing on isolated elements rather than integrated frameworks. For theoretical perspectives, this study draws on the Sustainable Finance Theory, alongside Institutional Theory and the Environmental, Social and Governance (ESG) framework. The ***s****ustainable finance theory* highlights the integration of environmental and social considerations into financial decision-making, suggesting that long-term value creation can coexist with financial returns. This perspective underpins the growing relevance of green bonds, impact investment and blended financing in housing delivery. The environmental, social and governance framework provides a structured approach for evaluating investment risks and opportunities beyond traditional financial metrics.

Empirical studies suggest that ESG integration enhances transparency, reduces risk exposure and improves long-term asset performance in real-estate markets. On its part, institutional theory explains how regulatory quality, governance structures and policy coherence influence market behaviour and investment flows. In the African context, weak institutions, policy inconsistencies and land-tenure complexities continue to hinder sustainable housing financing adoption. Past studies have demonstrated that sustainable real-estate development represents a strategic and multidimensional response to Africa's intertwined housing deficit, rapid urbanisation, climate vulnerability and financing constraints. The literature increasingly recognises that achieving sustainable housing outcomes in African contexts requires not only increased capital flows but also institutional innovation, policy coherence and market-specific financing models.

In empirical studies by Moyo and Phiri, (2023) and Oyebanji et al. (2023) it has been shown that innovative financing instruments, such as green bonds and REITs, can improve capital mobilisation for sustainable housing. However, their effectiveness is contingent upon supportive regulatory environments and stakeholder awareness. Oladeji et al. (2021) contribute significantly to the discourse on housing financing innovation by proposing a hybrid framework that integrates formal and informal funding mechanisms. The structural realities of African housing markets were realized by this study, where a large proportion of the population operates outside formal financial systems.

By incorporating cooperative societies, microfinance institutions and community-based savings schemes into formal housing delivery structures, the study provides a pragmatic pathway for expanding access to housing finance, particularly among low- and middle-income households. Similarly, the growing prominence of sustainable financing instruments such as green bonds, blended finance, and impact investment has been widely discussed in recent scholarship. Moyo and Phiri (2023) highlight the potential of these instruments to unlock long-term capital for environmentally sustainable and affordable housing projects. Their study underscores how blended financing structures, which combine concessional and commercial funding, can de-risk investments and attract private-sector participation in housing delivery. This aligns with global trends where institutional investors are increasingly integrating ESG criteria into real-estate investment decisions. Despite these emerging opportunities, however, real-estate financing in Africa continues to face significant barriers. Regarding the situation, Oyebanji et al. (2023) identify key structural impediments, including policy inconsistency, weak regulatory frameworks, low investor confidence and limited awareness among stakeholders. These limitations are further complicated by shallow capital markets and the absence of long-term mortgage financing systems, which collectively hinder the scalability of sustainable housing initiatives.

From a historical and policy-oriented perspective, Ewuoso (2020) provides a comprehensive review of housing financing evolution across African countries, tracing developments from colonial-era housing schemes to contemporary interventions. The study critically evaluates various government-led and market-driven initiatives, noting that many have fallen short due to issues such as poor implementation, inadequate targeting and macroeconomic instability. Importantly, the author highlights the need for context-sensitive reforms that align housing financing systems with broader socio-economic realities and sustainable development priorities, particularly in relation to the Sustainable Development Goals (SDGs), notably SDG 11 (Sustainable Cities and Communities).

Expanding on the sustainability-performance nexus, Olanrewaju et al. (2022) argue that sustainable financing tools can effectively balance financial returns with social inclusion and environmental responsibility. Their findings suggest that embedding affordability considerations within sustainable housing frameworks enhances both market viability and developmental impact. This reinforces the argument that sustainability in real estate should not be viewed solely through an environmental lens but as a holistic construct encompassing economic resilience and social equity.

At the global and institutional level, reports by the United Nations Environment Programme (UNEP, 2021) emphasise the construction sector's significant contribution to global carbon emissions, thereby underscoring the urgency of adopting low-carbon building practices and green construction technologies. Complementing this, the World Bank (2022) provides region-specific analysis of housing financing systems in Sub-Saharan Africa, identifying critical gaps in mortgage penetration, housing supply chains and regulatory frameworks. The report advocates policy reforms that promote financial inclusion, strengthen housing institutions, and incentivise private sector investment in sustainable housing. The International Finance Corporation (IFC, 2024) emphasises scaling housing financing through partnerships with financial institutions and developers to deepen mortgage markets and expand affordable housing delivery across Africa. Furthermore, emerging studies in the African context are beginning to explore the role of digital finance, proptech innovations and land administration reforms in enhancing housing delivery efficiency. These developments suggest a gradual transition towards more integrated and technology-driven real-estate markets, although their adoption remains uneven across the region.

In a complementary study, Mohammed (2025) provides empirical evidence from Nigeria, demonstrating that access to sustainable housing finance remains significantly constrained by high lending rates, weak mortgage systems and limited developer financing options. The study further shows that affordability gaps persist despite increasing policy attention to sustainable housing. Collectively, the existing body of literature supports the proposition that sustainable housing development has the potential to fundamentally reshape African real-estate markets. However, this transformation is contingent upon coordinated policy frameworks, strengthened institutional capacity, deepened financial markets and the effective deployment of innovative financing mechanisms. The literature also reveals a critical gap in the empirical integration of sustainability financing tools with local housing delivery systems, thereby justifying further research into context-specific models that can bridge this divide. Overall, the literature suggests that sustainable housing financing can transform African real-estate markets, only when financial innovation is complemented by institutional strengthening and policy alignment.

3.0 Methodology

This study adopts an integrative literature review combined with a conceptual analytical approach to examine sustainable housing financing and investment in African real-estate markets. The review draws on secondary data sourced from peer-reviewed journal articles, institutional reports and policy documents published between 2014 and 2023. Key sources include publications from the World Bank, UN-Habitat, UNEP and the International Finance Corporation (IFC). A structured screening process was applied based on relevance to sustainable housing financing and real-estate development in Africa, with specific
attention to financing mechanisms, policy frameworks or investment strategies, and empirical or conceptual contributions to the sustainability discourse inclusion criteria. Selected studies were analysed using a thematic synthesis approach**,** allowing for the identification of recurring patterns across four key dimensions of financing mechanisms, institutional and regulatory frameworks, sustainability practices, and implementation barriers. The study does not rely on statistical aggregation but instead emphasises analytical interpretation and conceptual integration**,** consistent with the established integrative review methodology advanced in Snyder (2019).

4.0 Results

As they relate to structural barriers to sustainable housing financing, findings from the integrative review indicate key constraints such as fragmented regulatory systems, high upfront construction costs, limited access to long-term financing, inadequate technical capacity and low stakeholder awareness. The emerging sustainable financing mechanisms include innovative instruments such as green bonds, blended financing, REITs, housing microfinance and PPPs, which are increasingly recognised as viable tools for mobilising long-term capital. The results on policy and institutional enablers reveal the policies that are supportive and play a critical role in shaping investment decisions and improving project viability, including tax incentives, streamlined approval processes, and land-use reforms. The results also present market transformation and sustainability outcomes as the integration of ESG principles and low-carbon construction practices, which jointly contribute to improved affordability, environmental performance, and long-term resilience in housing delivery. Based on these results, this study therefore proposes a conceptual framework illustrating the interaction between sustainable housing finance, policy environments, and real-estate market outcomes in Africa.

The framework positions innovative financing mechanisms such as green bonds, blended finance REITs and PPPs as core inputs, moderated by institutional and policy factors (regulation, governance, incentives). These interactions influence housing delivery outcomes, including affordability, sustainability and resilience. At the centre of the framework is the integration of ESG principles**,** which act as a unifying mechanism linking finance, development practices and investment decisions. The model suggests that effective alignment between finance, policy and sustainability drivers leads to transformed real-estate markets characterised by inclusivity, low carbon intensity and long-term economic viability.

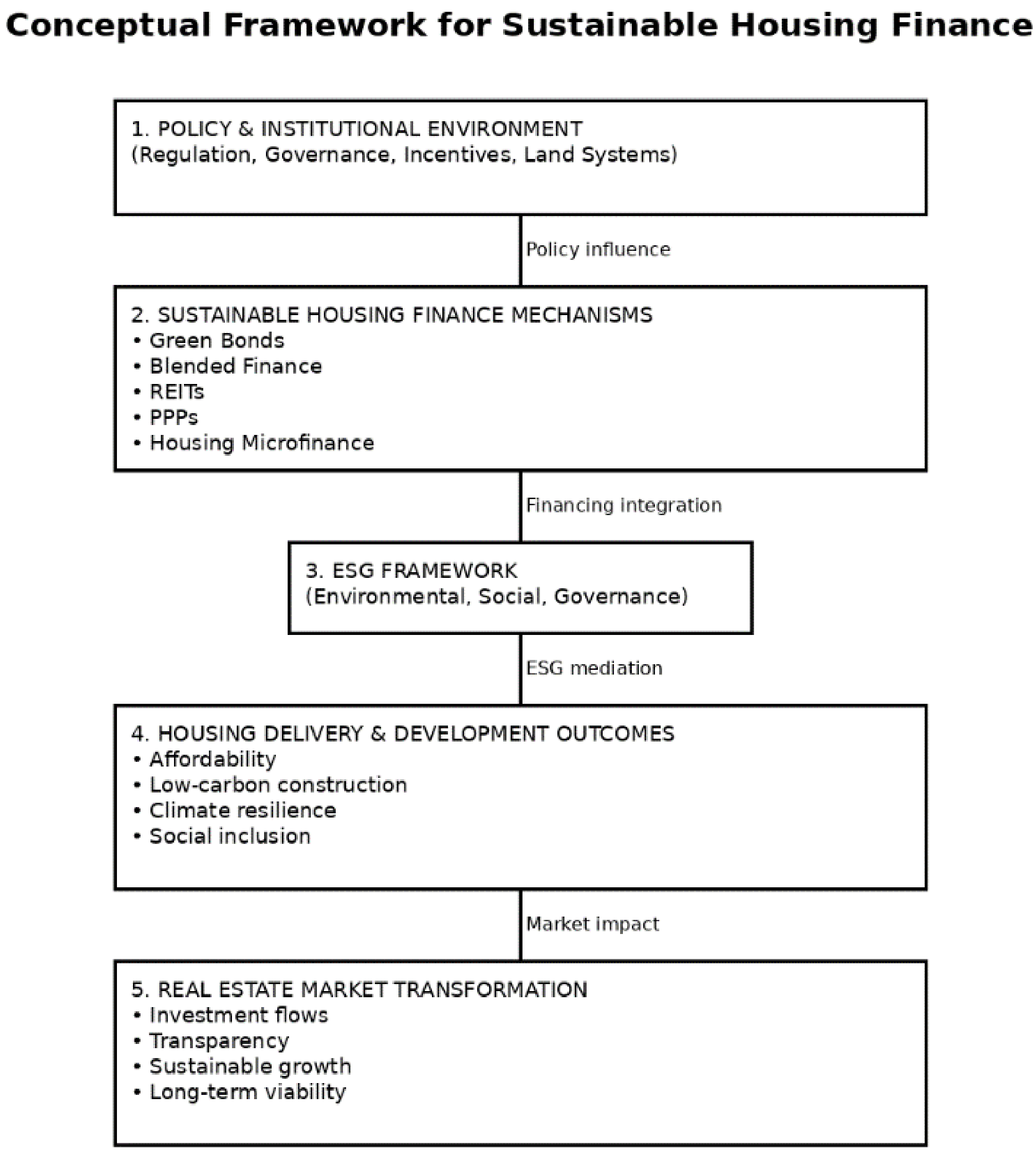

Figure 1: Conceptual Framework for Sustainable Housing Financing and Real-Estate Market Transformation in Africa

As illustrated in Figure 1, the proposed conceptual framework demonstrates how policy and institutional environments shape sustainable housing financing mechanisms, which operate through ESG integration to influence housing outcomes and ultimately drive real-estate market transformation. The framework illustrates how sustainable housing financing mechanisms, when supported by effective policy and institutional environments, operate through ESG principles to influence housing delivery outcomes. These interactions collectively will drive the transformation of African real-estate markets toward greater sustainability, inclusivity and long-term economic resilience.

5.0 Discussion

The findings of this study indicate the crucial role of sustainable housing financing in shaping the future trajectory of African real-estate markets.

Despite the growing demand for affordable and climate-resilient housing, investment flows remain constrained by perceived risks, institutional inefficiencies and information asymmetries. These constraints reinforce the dominance of short-term, profit-driven financing models that are misaligned with long-term sustainability objectives. However, the integration of ESG frameworks presents a viable pathway for addressing these limitations.

By enhancing transparency, improving risk assessment and aligning investment decisions with broader development outcomes, ESG-oriented approaches can attract long-term institutional capital, particularly from pension funds and insurance institutions. This reinforces the argument that sustainability considerations can complement, rather than compromise, financial performance in emerging real-estate markets. The Rwanda, Kenya and Nigeria case studies prove that, where clear regulatory frameworks and community participation are present, public-private partnerships can be most effective and that housing finance is strongly dependent on the presence of coherent regulatory frameworks and institutional support.

In contexts where policy clarity, stakeholder coordination and community participation are evident, public-private partnerships demonstrate significant potential in improving housing delivery outcomes. However, where regulatory fragmentation persists, the scalability of such initiatives remains limited. Furthermore, the adoption of locally sourced, low-carbon building materials offers a dual advantage of reducing construction costs and minimising environmental impacts, while also stimulating local economic activity. This aligns with broader sustainability goals and enhances the affordability of housing delivery. Technological innovations, including digital land registries and emerging blockchain applications, can also present opportunities to reduce transaction risks, improve market transparency, and enhance investor confidence. These developments highlight the importance of integrating financial innovation with institutional and technological reforms. Overall, the findings point to the need for a coordinated approach that combines innovative financing mechanisms, enabling policy environments, and sustainable construction practices. Such integration is critical for transitioning African real-estate markets toward greater inclusivity, resilience and long-term sustainability.

6.0 Conclusion

This paper examines how sustainable housing financing can reshape the future of African real-estate markets. It demonstrates that sustainable housing financing is not merely a supportive component of real-estate development but a fundamental driver of market transformation in African cities. Existing housing financing models are characterised by short-term investment horizons, even as resource-intensive construction practices are increasingly inadequate in addressing the continent’s housing deficit, affordability challenges and environmental pressures. A transition toward sustainable housing delivery requires a paradigm shift in both financing structures and development practices. Innovative financing mechanisms, including green bonds, blended finance and ESG-aligned investment models, must be scaled within supportive regulatory and institutional environments.

At the same time, the integration of locally appropriate, low-carbon construction methods is essential for reducing costs and improving environmental performance. The study further shows that the effectiveness of these approaches is contingent upon strengthened institutional capacity, policy coherence and stakeholder collaboration. Without these enabling conditions, the impact of financial innovation will remain limited. Ultimately, aligning housing financing systems with sustainability frameworks, e.g. Sustainable Development Goal 11 and the African Union Agenda 2063, offers a strategic pathway toward achieving inclusive, resilient and economically viable urban development. Therefore, African real-estate markets, stand at a critical juncture, where the integration of finance, policy and sustainability can redefine the future of housing delivery across the continent.

7.0 Recommendations

Based on the findings, some recommendations are made. To start with, governments and financial institutions should prioritise blended financing structures that combine public, private and philanthropic capital to attract long-term, ESG-aligned investments in housing development, promoting integrated, sustainable housing financing models. Accordingly, there should be targeted policy incentives, such as tax reliefs, expedited planning approvals and density bonuses, to strengthen policy and regulatory frameworks and enhance the viability of sustainable housing projects. It will be equally necessary to introduce capacity-building initiatives in order to equip developers, financiers and regulatory agencies with the institutional and technical knowledge necessary for effectively implementing sustainable housing solutions. Thus, as a way to support local innovation in the adoption of building materials, governments should encourage the development and adoption of low-carbon, locally sourced building materials such as compressed earth blocks and bamboo to reduce construction costs and environmental impacts. Furthermore, to enhance investor confidence, reduce information asymmetry and support evidence-based decision-making, data availability and digital property systems should be strengthened to improve data transparency and market information systems. As a means of fostering Public-Private-Community Partnership, there should be inclusive collaboration among stakeholders towards improving project delivery, ensuring affordability, and enhancing long-term sustainability outcomes. Lastly, to align housing financing with global and regional development frameworks, national housing policies should be explicitly aligned with Sustainable Development Goal 11 and Agenda 2063 to ensure coherence between financing mechanisms and sustainability objectives.

Acknowledgement

This paper hereby acknowledges the contributions of all authors, researchers, agencies, institutions, and organisations whose published works were consulted during the review process.

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