

RESEARCH ARTICLE

Institutional Failures in Risk Allocation: A Systematic Review of Affordable Housing PPP Projects in Africa

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ABSTRACT

Affordable housing implementation remains a persistent challenge in Africa. Due to inadequate public finance, rapid urbanisation, and weak organisational capacity, public-private partnerships (PPPs) have largely been adopted as a premeditated strategy to increase housing supply for low- to middle-income earners. Despite its relevance, the implementation of these partnerships is often weakened by ailing risk allocation mechanisms across Africa cities. This study aims to review the role of risk allocation mechanisms in influencing the successes and failures of PPP affordable housing projects in Africa. Specifically, the study situates these risks into three: operational, legal, and financial risk. Furthermore, the study assesses how these risk affects the successes and failures of PPP affordable housing projects in Africa. Leveraging on institutional theory, the study used a systematic review based on PRISMA guidelines. The study selected peer-reviewed published articles from Web of Science and Scopus between 2015 and 2025. Out of 956 articles retrieved on affordable housing, 38 articles met the inclusion criteria, with a thematic focus on affordable housing PPPs, risk allocation, and affordable housing project successes and failures. The study found that operational mismanagement, ineffective legal frameworks, and financial uncertainties were critical drivers of affordable housing PPPs across Africa. Case studies revealed that Ethiopia and Rwanda employed innovative risk allocation approaches, whereas Ghana, Cameroon, and Nigeria struggled with enforcement gaps, political interference, and institutional misalignment. The study recommends that for emerging economies, the active institutional work across all three dimensions is essential not only to prevent systemic failure but also to construct the foundational capabilities necessary for sustained PPP success.

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1.0 Introduction

Housing affordability and inadequate housing are among the major socio-economic problems facing low- to middle-income households in Africa. Africa faces rapid urbanisation, coupled with unequal

infrastructure and economic development, which puts pressure on housing (Olaniran & Musvoto, 2025). Inadequate budgetary allocations by governments have led to the use of public-private partnerships (PPPs) to support housing delivery in Africa. The concept of PPP aims to bridge the housing deficit through innovative, efficient, and development-driven collaboration between the public and private sectors to expand housing supply. This concept has gained popularity across many housing markets in Africa (Chileshe & Kavishe, 2024; Arijeloye et al., 2025). Despite that, its implementation suffers from complex processes that go beyond construction and finance in Africa. Particularly, undefined risk-sharing strategies, unclear government structures, and organisational misalignment. These affect project performance and sometimes lead to outright failure across Africa.

According to Canelas and Alves (2024), governance often oversimplifies PPP agreements, which limits long-term social impacts in favour of short-term financial gains, and prioritises private interests over public interests. These limitations often lead to divergent project objectives, distorted power relations, and flawed accountability frameworks. Moreover, fragmented regulations and institutions across African countries create project risk that affects the success of PPP implications decisions in housing. Besides from this, risk allocation across PPP parties has become a core challenge. According to Makhloufi (2025), risk allocation in PPPs for housing delivery suffers from weak contract design, uncertain risk distribution, and political interference. For instance, in Nigeria, despite the availability of risk allocation mechanisms, there exists institutional uncertainty and weak enforcement, which leads to stalled housing project outcomes, rising costs, and unforeseen liabilities (Arijeloye, 2025).

Furthermore, Chiang et al. (2022) provide evidence from the Australian housing sector where robust financial modelling and discount rate estimation are employed to assess public sector risk exposure and determine project viability. Such tools remain largely absent in many African PPP contexts, where budget constraints and governance limitations hinder strategic decision-making. Similarly, in Algeria, studies by Makhloufi (2025) and PPP housing initiatives are affected by political agendas and undefined stakeholder roles shift PPP initiatives in

Algeria (Bouteche & Bougdah, 2023). However, these challenges across Africa fuel the need to assess PPP failures in housing delivery beyond technical and institutional challenges and focus largely on risk supremacy and how stakeholder harmonisation affects housing delivery decisions through PPPs. While various scholars have assessed isolated case studies, few studies have systematically reviewed risk mismanagement patterns across PPP housing projects in Africa. There is a neglect of how risk allocation models are considered in PPP frameworks for affordable housing projects in Africa. These neglects continue to obstruct and perpetuate the development of context-specific affordable housing solutions through PPPs. Based on that, this study systematically reviews the risk allocation and failure approaches in affordable housing PPPs in Africa.

The study synthesises grey literature to examine the structural drivers, categories of risk, and institutional challenges that affect affordable housing PPP outcomes. The study is drawn from the institutional theory to provide a clear understanding of risk management across both private and public institutions in PPPs on affordable housing in Africa. By systematically presenting holistic evidence through the mapping of risk allocation models and critical causes of PPP failures, this will contribute to achieving Africa's Agenda 2063 and SDG 11 on inclusive and affordable housing. Furthermore, private developers, government agencies, and housing policy experts will recognise the various forms of institutional weaknesses that affect PPP implementations in other countries and adopt strategic approaches to mitigate them. The recognition of these weaknesses will inform the design, implementation, and monitoring of PPPs in affordable housing projects across Africa. Finally, the study offers an evidence-based risk allocation strategy for improving the design, implementation, and monitoring of PPPs in affordable housing projects across Africa.

2.0 Literature Review

2.1 Intuitional theory and risk allocation in affordable housing

Institutional theory was propounded by Philip Selznick in 1948 and later by John W. Meyer and Brian Rowan in 1977. The theory describes the role of norms, governance, and structures in shaping

behaviours within institutions, recognising that both formal and informal norms, and established rules and regulations, guide how actors operate within a given system. Furthermore, the theory holds that institutional decisions are often shaped by the desire to achieve legitimacy within their environment. This theory is relevant to the context of public-private partnerships for affordable housing, especially in Africa, as it helps explain how perceived risk allocation and management practices are influenced by both private and public sector organisations.

Institutional theory offers a robust, multi-pillar framework for systematically analyzing risk dynamics in Public-Private Partnership (PPP) housing projects by dissecting the institutional environment into three distinct dimensions (Scott, 2014). First, the regulative pillar, encompassing formal laws, enforcement mechanisms, and policies, is foundational to governing legal risk such as that arising from regulatory instability and weak contract enforcement, and the structural fiscal

risk, which involves the necessary, auditable management of contingent liabilities. Second, the normative pillar, reflecting societal values, professional standards, and expectations for accountability and equity, directly shapes financial and reputational risk; norms regarding affordability, transparency, and the demonstration of Value-for-Money (VfM) constrain revenue stability and influence the likelihood of political intervention. Finally, the cognitive pillar, relating to shared beliefs, technical capacity, and organisational learning routines, is critical to managing operational risk, which is heightened by misaligned expertise, limited inter-organisational learning, and the subconscious acceptance of ineffective technical practices in complex domains like structural housing safety. Linking the identified risk modes, legal, financial, and operational risks to these triadic pillars provides a coherent framework for understanding how institutional deficits amplify risks in PPP arrangements, particularly in emerging economies characterised by evolving governance structures.

Table 1: Conceptual Mapping of Institutional Pillars and PPP Risk Modes

Institutional Pillar	Institutional Mechanism	Primary Associated Risk in PPP Housing	Mechanism of Risk Manifestation
Regulative	Coercive	Legal and Structural Fiscal Risk	Regulatory instability, weak contract enforcement, land governance deficits, and inadequate management of contingent liabilities (CLs).
Normative	Normative	Financial (Socio-Political/Reputational) Risk	Societal demands for accountability, transparency, equity, affordability, and failure to deliver demonstrable Value-for-Money (VfM).
Cognitive	Mimetic	Operational (Capacity/Expertise) Risk	Limited technical expertise, weak inter-organizational learning, misaligned expectations, and subconscious acceptance of ineffective practices.

Source: Authors construct, 2025

Within this context, risk modes can be understood as recurring patterns of failure that arise from implementation challenges and misalignments within the institutional frameworks governing PPPs. Scholars have revealed that institutional fragmentation is a common fundamental cause of risk in affordable housing PPP projects. For instance, Canelas and Alves (2024) argue that the PPP planning and governance are frequently affected by generalised contrasts between public and private sector expectations. Their study found that, although PPPs can contribute to collaborative learning across both parties, their execution often leads to

institutional tensions, intensified by project objectives, public interest considerations, and delivery timelines, leading to poor risk anticipation. Similarly, Arijeloye (2025) adopted a structural equation modelling approach to analyse risk allocation criteria in Nigeria. The study found that while formal risk allocation frameworks are typically embedded within PPP contracts, their effectiveness in practice remains limited. The analysis demonstrates that institutional mechanisms intended to support risk allocation are often weak or poorly coordinated among stakeholders, which undermines their influence on project delivery outcomes.

According to Chiang et al. (2022), financial risk remains a prominent challenge in PPP housing projects, as evidenced by experiences from Australia. Their study further found that the Australian government applies public sector comparators and discount rates to assess and manage risk in social housing PPPs. While these models seem promising, Africa governments face difficulties in establishing comparable benchmarks for evaluating private sector proposals. This challenge in the long term affects the protection of public interest (Arijeloye, 2025). These unclear benchmarks allow private partners to define risk parameters, often resulting in arrangements that are skewed in their favour.

In addition, Akhtar et al. (2023) examined the differences in execution modes for PPPs and their unique risk profiles. Their study found that the absence of risk assessments customised to local institutional realities affected large-scale affordable housing schemes among multiple stakeholders. These are structural and institutional risks, further reinforced by Akomea-Frimpong et al. (2021), who identified political and financial risks as major concerns for private sector participants in affordable housing PPPs. Their review highlighted how heightened risk perceptions reduce investor confidence, limit risk appetite, and contribute to project delays or abandonment across African contexts. Jiang et al. (2025) further argued that institutional voids, such as dispute resolution and contract enforcement, encourage the creation of informal arrangements that either avoid or distort formal risk allocation mechanisms. These findings, though situated in the Chinese context, provide a comparative argument that the long-term operational success of PPPs depends on the presence of robust institutional mechanisms. According to their study, viewing risk as a solely technical issue does not provide a clear picture of successes of PPPs, which have vulnerability effects. Based on this, this study systematically reviews risk allocation mechanisms and failure modes in affordable housing delivery through PPPs in Africa.

3.0 Research Methodology

The study is qualitative, based on a systematic review of relevant scientific literature across Africa. The PRISMA guideline for systematic reviews was

followed, and the study examined the risk allocation mechanisms and their effects on project failure in affordable housing public-private partnerships (PPPs) across Africa. Review synthesised findings from documented case studies and case study analyses, and empirical research that focuses on the challenges and risks associated with affordable housing in African PPPs. Based on the dimensions of challenges related to affordable housing in Africa, these challenges are categorised into institutional, regulatory, and financial dimensions, as well as operational risks experienced in the region.

This review is specifically focused on Africa, given its diverse economic and legal systems. The systematic review process follows three main steps. Firstly, the process developed a search strategy. Secondly, the review outlined the inclusion and exclusion criteria relevant to the literature supporting the study. The final section is the data extraction and data analysis. This structured approach ensures a thorough understanding of the risk factors impacting affordable housing projects in Africa and provides a foundation for improving project success rates within the region.

3.1 Data Search Strategy

The study relied on the Web of Science and Scopus databases for searching relevant literature. These databases were selected based on their credibility and extensive coverage of interdisciplinary and multidisciplinary, rigorous, peer-reviewed content. The study selected published articles from 2010 and 2025, with a primary focus on affordable housing projects under PPP models, their risk allocation mechanisms, and project failures in Africa.

The search process involved a careful selection of Boolean prompts that ensured target results. Based on that, the study used a combination of key terminologies to include: “Affordable housing” and “Risk allocation” OR “Risk failure”, “Public Private Partnership”, “failure modes”, “operational risk”, and “legal risk”. These search strategies helped to find articles within the discourse of construction management, housing, urban planning, finance, and law. Based on the initial search, 956 articles were retrieved. After an initial screening based on articles published in Scopus and Web of Science, 224

articles met the criteria. After further assessment of titles, abstracts, and screening for duplicates, 59 articles were shortlisted for full-text review. Again, the study conducted backward and forward citation

tracking to identify relevant sources from the reference lists of selected articles. Based on this, the study ultimately selected 38 studies that met all the inclusion criteria (see Table 1).

Table 2: Source of data

Country	Number of Citations	Citations
South Africa	1	Fayomi et al. (2024)
Chad	1	Haou et al. (2020)
Ethiopia	6	Abera et al. 2025; Nguendo-Yongsi et al. 2022; Wanie 2019; Daget & Zhang, 2020; Bekele et al., 2025; Admasu et al., 2025
Algeria	2	Makhloufi, 2025; Bouteche & Bougdah, 2023
Rwanda	2	Mugisha, 2020; Nkubito & Baiden-Amisshah (2019)
Kenya	3	Kieti et al. 2020; Mwangi, 2019; Chiatii & Aloysius 2021
DR Congo	2	Kalonda (2020), Jacobs et al. (2019)
Nigeria	9	Arijeloye, 2025, Ugochukwu & Opawole & Jagboro, (2018); Kieti et al. 2020; Obioha 2022; Ajayi et al., 2019; Fadeyi & Ogunleye, 2020; Muhammad, & Johar, 2019; Ogunbayo, et al., 2021; Alteneiji, Alkass, & Abu Dabous, (2020).
Ghana	5	Acheampong & Anokye 2015; Abera et al., 2025; Kieti et al. 2020; Amoako & Boamah, 2017, Kofie et al., 2024
Cameroon	7	Nguendo-Yongsi et al., 2019; Njor 2017a, Kenfack Essougong & Teguaia, (2019; Njor, 2017b; Raoul, 2019; Wanie 2019; Haou et al. 2025)
Total	38	

Source: Authors construct, 2025

3.2 Data inclusion and exclusion criteria

The purpose of this section is to ensure a consistent and rigorous selection of studies that directly address the aim of the study. As presented in Figure 1, the inclusion criteria include studies that directly focused on affordable housing projects within Africa under Public-Private Partnership (PPP) arrangements, with an emphasis on their risks and failures. Furthermore, only studies published in peer-reviewed journals and indexed academic conference proceedings were considered for this

analysis. On the other hand, studies on Public-Private Partnerships in energy, health, and transport that did not directly address housing were not eligible and were not considered. Also, literature that did not explicitly discuss risk-allocation mechanisms was excluded, regardless of its focus on urban planning and housing. Finally, studies that focused on PPPs and their risk sharing outside non-African countries were excluded from the search and screening.

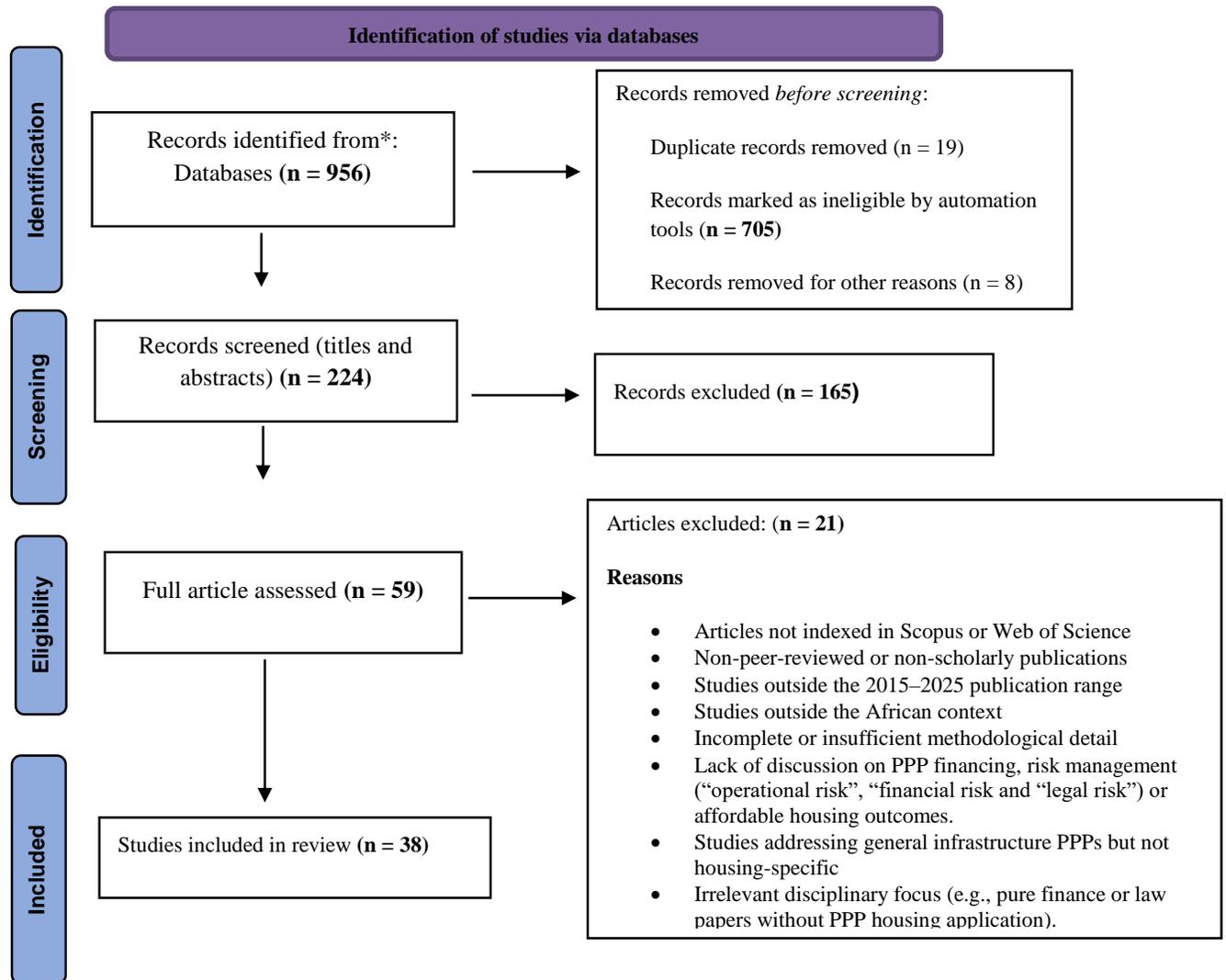


Figure 1: PRISMA Flowchart of the synthetic review

Source: Authors’ Construct (2025) adapted from Page MJ et al. (2021)

3.3 Data Extraction and Analysis

The data extraction stage started with a thorough review by two independent researchers to assess the steps, selection, inclusion, and exclusion criteria used for the study. No cases of disagreement were found that offered an opportunity for data extraction and analysis. Following that, the study imported the selected articles into Microsoft Excel and grouped them into headings: theme, country, method, findings, and citations. Particular emphasis was placed on the findings regarding financial, operational, and legal risks and their consequences on project failures in Africa. The extracted data were coded and thematically analysed based on

financial risk, legal risk structures, and operational risk. Furthermore, the failure modes of PPPs were thematised based on cost overruns, delays, legal disputes, and project abandonment. Finally, a comparative analysis was conducted across different countries in Africa to ensure consistency and generalizability of the study’s findings.

4.0 Research Findings and Discussion

4.1 Descriptive Synthesis of Risk-Allocation Mechanisms and Failure Modes of Affordable Housing under PPPs

This section presents descriptive findings from studies conducted on risk-allocation mechanisms and failure modes of affordable housing under public-private partnerships across Africa. Based on the 38 peer-reviewed articles systematically reviewed, Figure 2 shows that Nigeria emerged country with the highest contributions, representing nine studies.

Most of these studies discussed issues of weak enforcement, politicisation of housing allocations, indeterminate stakeholder responsibilities in PPPs, and legal challenges related to PPP contracts. Figure 2 shows that most of these studies conduct analysis and structural equation modelling to determine risk, institutional failures, and project outcomes. Secondly, Cameroon reports seven studies that largely focused on stakeholder coordination, legal disputes, lack of performance monitoring, and land tenure challenges. The core methodology employed across these studies was qualitative techniques, including case studies and policy reviews. Thirdly, Ethiopia contributed six studies to this review, with a strong emphasis on the operation and financial risk allocation of affordable housing projects. These studies paid more attention to cooperative, affordable housing schemes and financial risk models associated with their implementation, as well as operational risks related to infrastructure provision and the alignment of utility services.

Methodologically, the studies employed qualitative Research methods, including stakeholder interviews and comparative case analysis.

Furthermore, five studies from Ghana were found that discussed affordable housing failure modes, including challenges with rent management, delayed government disbursements, and procurement failures. Most of these studies were qualitative, based on a document review of PPP contracts and their associated risks. Furthermore, three studies on operational management risk, overcrowding and subletting, and informal tenancies were typical studies found in Kenya.

These studies employed surveys and case studies among urban dwellers. Similarly, the descriptive analysis identified two articles from Rwanda that focused on the financing of PPP, its legality, and operational failures. Algeria and Chad contributed 2 and 1 articles, respectively. Two studies from Algeria discussed areas of hybrid rental-ownership housing schemes and the risks associated with governance frameworks. A case study in Chad focused on the macroeconomic aspects of PPP implementations. Finally, studies on South Africa and the DR Congo focused on social housing and urban informality, utilising descriptive surveys and comparative urban analysis.

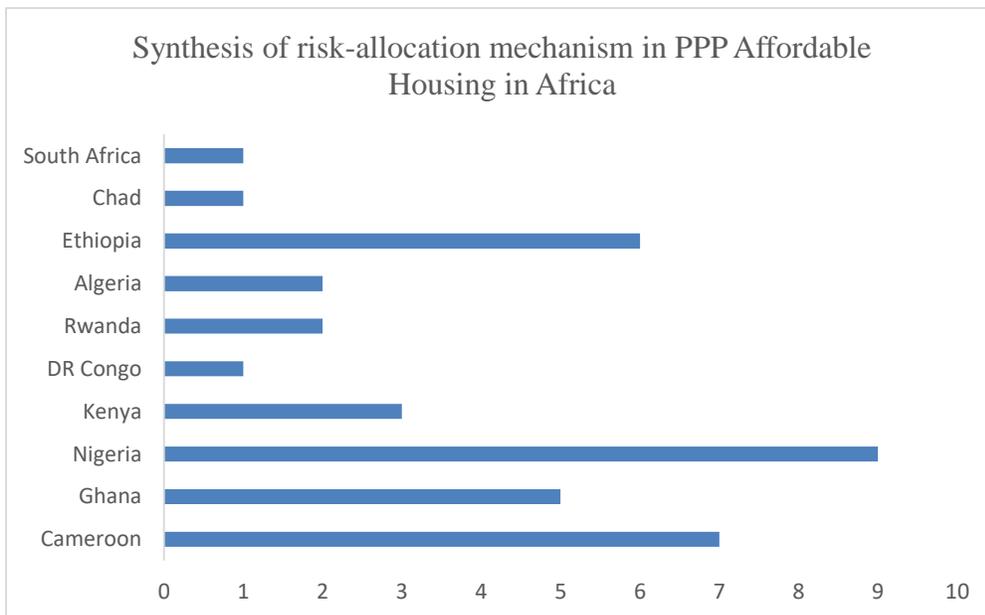


Figure 2: Risk-Allocation in affordable housing under PPPs in Africa

Source: Authors Construct, 2025

4.2 Legal Risk Allocation in Affordable Housing PPPs in Africa

Out of the 38 articles, 12 articles reported that directly legal risk allocation mechanisms are critical to affordable housing in PPP arrangements across Africa. These were grouped as: land tenure insecurity and legal ambiguity risk in Nigeria, Ethiopia, and Cameroon, as presented in Figure 3. Also, poorly structured contracts and imprecise roles among state and private partners were common in Ethiopia and Ghana. Notwithstanding, the absence of dispute resolution mechanisms in affordable PPP projects was found in Kenya, Ghana, and Nigeria. Furthermore, regulatory misalignment, legal reforms, and fragmented laws have been reported in Rwanda, Cameroon, and Ethiopia. The synthesis revealed that PPP affordable housing projects frequently encounter delays during the pre-construction phase due to the absence of title and land ownership, legal uncertainties, and expropriation (Ugochukwu & Chioma, 2015). According to Wanie (2019), in Ethiopia, such projects sometimes encounter opposition from local communities who fear eviction without tenure security. In a similar scenario, where contracts fail to assign clear roles for stakeholders, they often avoid accountability, which in turn leads to project failures.

Typical instances occurred in Ghana where developers abandoned incomplete housing units

after legal battles hindered the disbursement of funds (Acheampong & Anokye, 2015). Despite this, PPP contracts refer to national courts as a place of hope for redress; however, few PPPs include arbitration clauses and mediation protocols in their contracts. The study found that countries with under-resourced judicial systems lead to delays and discourage private sector participation in PPPs. However, some countries, such as Rwanda, have highlighted the inclusion of comprehensive legal frameworks in PPP housing contracts under the auspices of the Rwanda Development Board (Malonza & Brunelli, 2023). Ethiopia has adopted a similar mechanism by centralising housing PPPs under specific development institutions, but most of these authorities lack the technical capacity to interpret legal agreements (Abera et al., 2025).

Aside from the weak regulatory integration of land use plans, tenure rights, and building codes, this poses a significant problem during PPP housing implementations (Raoul, 2019). For example, in Douala and Addis Ababa, private developers struggled to secure permits due to community land claims and restrictions on new building typologies imposed by local laws (Nguendo-Yongsi et al., 2022). The complexities of these risks create a cascading effect on finance, operations, and the failure of most affordable housing projects in Africa.

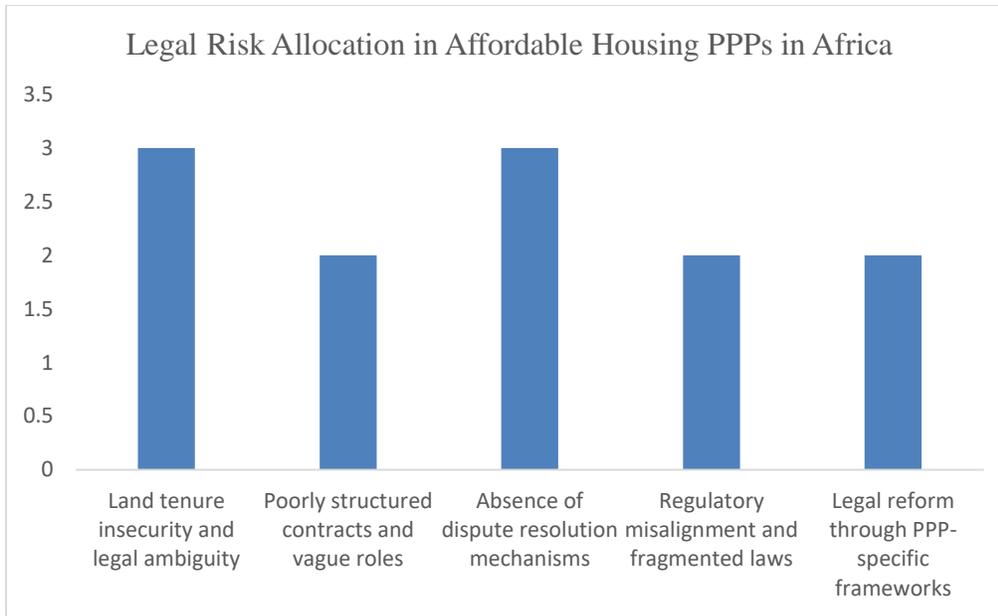


Figure 3: Legal risk allocation in affordable housing in PPPs in Africa

Source: Authors Construct, 2025

4.3 Financial Risk Allocation in Affordable Housing PPPs in Africa

Figure 4 presents the financial risk allocation mechanisms of affordable housing PPPs in Africa. Financial risk allocation in PPPs under affordable housing programmes explains both the project's capacity and feasibility in relation to its affordability target and the needs of the project beneficiaries. The analysis grouped these risk mechanisms into five themes. First is inaccessible mortgage finance. These were common in Ghana, Nigeria, and Kenya.

Secondly, inadequate subsidies and support were found among projects in Cameroon, Nigeria, and Ghana. Thirdly, instances of delayed disbursement and weak procurement processes were significant contributors to financial risk allocation in Ghana and Cameroon. Cooperative-based financing, inflation, foreign exchange risk, and project costs were financial risks associated with projects in Rwanda, Chad, and Ethiopia.

The analysis revealed that financial institutions and governments frequently hinder low-income households' ability to meet payment conditions. For instance, in Kenya and Ghana, the study found that private developers lacked adequate guarantees in PPP affordable housing investments, which created market fluctuations and exposed them to liquidity

risks (Kieti et al., 2020). In Nigeria, payment-to-income ratios of conventional mortgage requirements exceed specific limits for most low-income groups. This inability to meet the mortgage requirement distorts mortgage-led PPP housing projects (Ugochukwu & Chioma, 2015). Similar instances were found in projects in Cameroon, where low-income residents were unable to transition into formal ownership within 15-20 years, as per the agreement, due to local economic conditions and failed financial structures (Raoul, 2019). These financial uncertainties were also exhibited in Ethiopia.

According to the study, multi-PPP municipal support and cooperative-based savings from multilateral agencies in Ethiopia helped mitigate expected financial risk while maintaining affordability thresholds in the project's implementation (Abera et al., 2025). Studies from Malonza and Brunelli (2023) in Rwanda share similar findings. However, their study reported that housing initiatives were executed successfully. Thus, the developer was awarded payments tied to delivery outcomes at each phase of the project.

Aside from labour costs and the cost of building materials, these are drivers of financial risk allocations in Africa. For instance, several case studies from Cameroon and Chad show that cost

estimates became outdated due to exchange rate fluctuations and inflation on imported construction materials (Haou et al., 2025).

These outdated estimates affected most contracts, as those projects did not include financial buffers or price adjustment mechanisms in their estimations. Moreover, where the government fails to co-invest in social services, it becomes an additional cost to private developers, diminishing their investment returns after project completion. Despite progress

made by a few Africa countries, such as Ghana, in introducing financial instruments that guarantee microfinance to provide housing finance, they are challenged by limited capital support (Acheampong & Anokye, 2015). In some instances, projects are delayed due to procurement challenges and delayed payments by government. For instance, in Ghana and Cameroon, developers are disinclined to proceed when funds are not guaranteed due to the strict requirements of escrow accounts by governments.

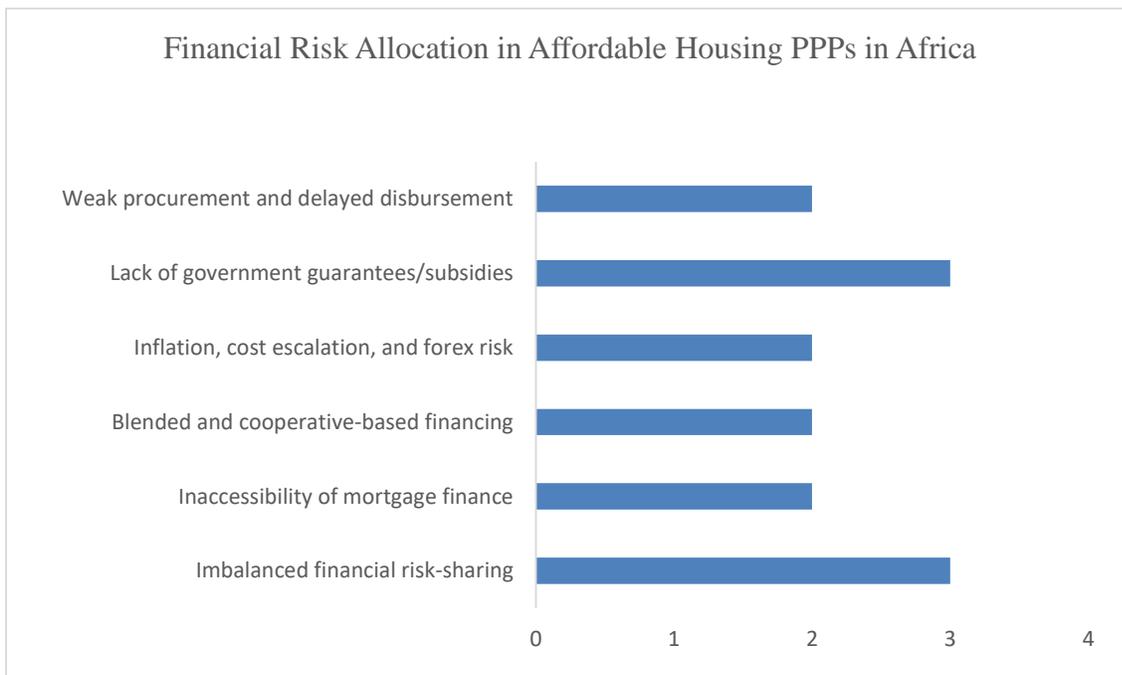


Figure 4: Financial risk allocation in affordable housing in PPPs in Africa
Source: Authors Construct, 2025

4.4 Operational Risk Allocation in Affordable Housing PPPs in Africa

This section describes the operational risk in PPP housing projects in Africa. As presented in Figure 5, the study found that affordable housing PPP agreements in Africa focus extensively on the financing and construction stages, with limited emphasis on the operation aspect of the projects. This operational risk affects affordable housing projects targeting low-income groups, where facilities management presents a significant challenge. For example, in countries such as Nigeria, Cameroon, and Ghana, several housing projects have suffered from rapid deterioration due

to the lack of maintenance plans (Wanie, 2019; Ugochukwu & Chioma, 2015).

According to Chiatii and Aloysius (2021), it is common to find that PPP contracts shift maintenance responsibility to underfunded public housing authorities, which affects the building performance. Typical maintenance challenges include sanitation failures, electrical faults, dampness, and water leakages, with their associated health consequences and tenant dissatisfaction (Chiatii & Aloysius, 2021). Another dimension of operational risk is the lack of integration of utility providers at the design stage of the project affects its operations. For instance, in Ethiopia and Ghana,

the study found that sometimes completed housing units were not connected to electricity grids, roads, and public sewer systems, compelling residents to occupy unfinished buildings (Acheampong & Anokye, 2015; Abera et al., 2025).

Other case studies in Rwanda resulted in positive outcomes. According to Malonza and Brunelli (2023), community-led housing projects have shown more durable outcomes in Rwanda. A typical example is the Imidugudu housing model, where housing cooperatives train residents in basic facility management and respond to their maintenance issues. This model not only shared operational risk but also ensured social inclusion and fostered accountability among the community residence (Malonza & Brunelli, 2023). Moreover, the review found that tenant selection and rent collection were also other forms of operation risk in countries like Kenya and Nigeria. Thus, some affordable housing projects failed to define clear occupancy rules. The

project failures due to unclear occupancy rules resulted in default payments, illegal subletting among tenant leaders, and an increase in overcrowding (Kieti et al., 2020).

In other instances, political leaders reallocate housing units to unintended beneficiaries, affecting the social impact of the scheme (Njoh, 2017). Another critical operational risk was the lack of performance tracking and monitoring in affordable housing PPP contracts. The study found that where service-level agreements were included, consequences for non-compliance were not indicated in contract documents. According to Obioha (2022), PPP projects with external donor funding involve third-party audits to check operational risk. However, these are for corrective actions, but instances of tenant dissatisfaction and accelerated project delays are less focused (Obioha, 2022). These are long-term operational risk that affects affordable housing projects under PPPs across Africa.

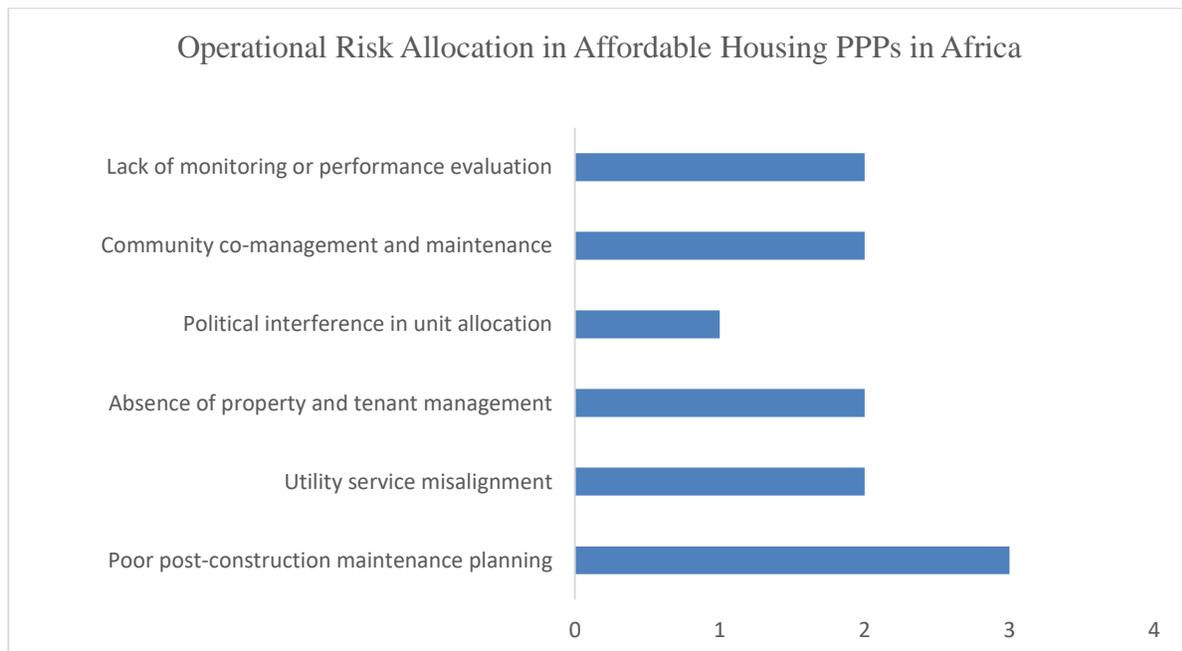


Figure 5: Operational risk allocation in affordable housing in PPPs in Africa

Source: Authors’ Construct, 2025

4.5 Key Dimensions of Institutional Elements for Risk Mitigation

The study systematically reviews the role of risk allocation factors and failure modes of affordable housing public-private partnerships in Africa. The synthesis found that, despite the high contributions

of PPPs in reducing housing deficits, their successes are often misguided by risk-sharing mechanisms, among other factors, in Africa. According to Canelas and Alves (2024), PPP arrangements under affordable housing schemes are largely understood to encompass both public and private goals, which

are often guided by simplistic motivations and clauses. This assertion is partially evident in the African context. For instance, the study found that government agencies and private developers often skew aims, objectives, timelines, and success parameters to favour themselves in Algeria and Nigeria. Even where PPP housing contracts properly allocate risks among stakeholders, their frameworks on project delivery are often weakened by enforcement and capacity issues (Arijeloye, 2025). This finding can be situated within the institutional theory, where the formal structure and norms of institutions offer positive outcomes.

However, findings in Australia present a contrasting view. According to Chiang et al. (2022), the execution of PPP housing benefits from transparent risk design, accurate use of public sector comparators, and sound financial planning. Apart from that, the risk premium, as estimated by the discount of PPP housing projects and long-term treasury bond rates, showcases the growth of fiscal and institutional planning in Australia, which is absent in the African context. Another critical finding in the fragmented institutional approach to affordable housing in Africa, particularly in Algeria, is worrisome.

The study found that, despite the successes of rental sale affordable housing schemes for middle-income earners, insufficient public engagement and a lack of coordination among stakeholders led to financial and operational risks (Makhloufi, 2025; Bouteche & Bougdah, 2023). These findings support Canelas and Alves's (2024) study, which suggests that the oversimplification of sustainability in PPPs for affordable housing in Africa is susceptible to inadequate institutional coordination. Discussion on operational risk is further heightened by Jiang et al. (2025), who found that risk-sharing mechanisms focused on minimising internal challenges are more effective than those addressing external risks, such as political risk and market risk, as seen in most PPP projects.

Within the African region, this scenario implies that the introduction of clear exit clauses and performance evaluation strategies is crucial, as these internal mechanisms can have a significant impact on PPPs, particularly in terms of economic and political risk, as observed in some case studies.

Moreover, the study identified some inconsistencies across the study. The study found that risk allocation mechanisms have minimal direct effects on affordable housing under PPPs thresholds (Arijeloye, 2025). This finding does not align with Akhtar et al. (2023), who emphasised the need to tailor PPP implementation modes to specific risks across each phase of the project. The mismatched risk-sharing modes among projects in Africa lead to risk accruals and delivery challenges. This inconsistency suggests that, despite the neutral functionality of the risk allocation mechanism in some cases, its efficiency may be relevant depending on the accuracy of PPP arrangements at project inception.

In Africa, Nigeria presents a unique case where institutional capacity is enhanced but still fragmented under PPP project execution, despite the national PPP guidelines and frameworks, with many projects failing before the planning stage. This chronic underperformance is rooted in an institutional misalignment where overlapping and unclear mandates among key agencies, including the Infrastructure Concession Regulatory Commission (ICRC) and the Bureau of Public Procurement (BPP), generate procedural uncertainty and regulatory delays. While the ICRC Act of 2005 provides a foundation, it is considered "not sufficiently robust to support complex" PPPs, and the coexistence of both the ICRC and BPP (which oversees public procurement, including some PPP arrangements) creates legislative ambiguity and conflict, hindering a unified process. These regulative conditions limit interagency coordination, resulting in technical expertise being dispersed across government levels and weakly translated into project preparation and delivery.

The absence of effective coordination mechanisms, or a "recognized interagency platform for exchange and harmonization of actions and resources," contributes to recurrent implementation failures and declining stakeholder confidence in the PPP model. By contrast, Algeria has established innovative approaches to risk-sharing, such as the famous rental-sale housing scheme. South Africa and other southern African countries, although not central to this scope, consider value for money in most PPP risk discourse, especially in PPP projects in high-density inner cities.

In emerging economies, the active institutional work across all three dimensions is essential not only to prevent systemic failure but also to construct the foundational capabilities necessary for sustained PPP success. Where institutional pillars are lacking, to mitigate risks in Public-Private Partnerships (PPPs), it is crucial to establish clear and enforceable contracts that outline specific roles, responsibilities, and performance metrics for all stakeholders involved. Regular workshops and training programmes should be implemented to enhance the technical skills and knowledge of project team members, ensuring they are equipped to handle operational challenges.

Additionally, creating a transparent communication platform can facilitate real-time updates and feedback from community stakeholders, helping to align project goals with public expectations. Finally, setting up an independent oversight body can ensure compliance and accountability, providing an additional layer of assurance that risks are actively monitored and managed throughout the project lifecycle. Table 3 synthesizes the required policy focus by aligning the basis of institutional compliance with the key mechanisms and targeted risk mitigation strategies.

Table 3: Key Dimensions of Institutional Elements for Risk Mitigation

Institutional Element	Basis of Compliance	Indicators/Mechanisms	Focus of Risk Mitigation
Regulative	Expedience (Coercive)	Rules, Laws, Sanctions, Formal Policies, Enforcement Capacity	Contractual Certainty, Fiscal and Institutional Stability
Normative	Social Obligation (Normative) ⁷	Values, Professional Standards, Certifications, Accountability Demands	VfM Demonstration, Transparency of Financial Performance, Equity/Affordability Adherence
Cognitive	Taken-for-Granted/Shared Beliefs (Mimetic)	Common Meaning Systems, Technical Expertise, Organizational Learning Routines, Cultural Support	Capacity Development, Alignment of Expectations, Systemic Technical Understanding

Source: Authors Construct, 2025

5.0 Theoretical and Practical Contributions

This study contributes to the discussion on affordable housing under public-private partnerships (PPPs) in Africa. The study extends institutional theory by indicating that risk is socially constructed through institutions as mediating factors, unlike other studies that have a limited focus on technical and financial challenges in Africa. The focus of this study implies that PPPs in affordable housing must focus more broadly on legitimacy, coordination, and resilience among both stakeholders, beyond economic and technical lenses.

Practically, the study provides several practical recommendations for efficient risk-sharing in affordable housing PPPs in Africa. First, governments must ensure that PPP policies are clear, with risk allocation guidelines that specify the project type and local capacities, rather than general guidelines that apply to all projects. Second,

external donor funders supporting PPPs in affordable housing must rely on integrating local knowledge and effective government reforms rather than imposing external models. Third, stakeholders must include performance evaluation metrics and clear contract exit provisions in PPP affordable housing projects. These are proactive steps towards risk management in PPPs in affordable housing projects across Africa.

Additionally, governments across Africa must include institutional capacity-building as a core element of PPPs in the design and implementation processes of affordable housing projects. Capacity building would equip public institutions with the necessary negotiation skills, enable effective contract enforcement, and foster the development of monitoring skills. Lastly, governments should rely on independent mediators and joint committees across various government institutions of the project to help reduce coordination challenges.

6.0 Conclusions

This study assesses the risk-allocation mechanism of affordable housing under PPPs in Africa using a systematic review. The study concludes that the failures of affordable housing public-private partnerships (PPPs) in Africa are mainly driven by stakeholder coordination and the strength of frameworks governing risk allocation of the project. Inadequate capacity building, weak enforcement of guidelines, and poor institutional alignment have constantly weakened affordable housing delivery, subsequently leading to frequent failure modes in Africa. Based on this, the study recommends that governments across the continent develop PPP learning centres of excellence. This will help facilitate best practices across regions, enhance

knowledge exchange, and offer comparative evaluation of affordable housing case studies across the continent. Additionally, affordable housing contracts under PPPs should include adaptive performance-based renegotiation clauses, which will help projects survive changing socio-economic conditions.

Despite this contribution, the study encountered one limitation. Thus, considering the reliance on secondary data in the study, which may not capture recent, unpublished realities on the ground regarding PPP. Future studies should incorporate primary data from project stakeholders to provide a deeper understanding of key risk changes that have occurred and the outcomes of PPP implementation across the continent.

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