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Review article

Governance of urban informal settlements in Africa: A scoping review

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This scoping review examines the challenges in the governance of informal settlements in Africa and the existing interactions among different stakeholders. The objective is to identify emerging topics in the management of informal settlements and research gaps that will inform future research. Based on the specific inclusion and exclusion criteria, we reviewed 30 peer-reviewed articles, papers, and UN-Habitat documents that collectively address urban governance and informal settlements across various African regions and countries. The descriptive and thematic analyses reveal that over the past 22 years, 20 out of 54 African countries have produced knowledge on informal settlement governance. Our review highlights the national and local government's inability to coordinate the problems in the informal settlements and the existence of varying interests of different stakeholders that readily provoke disputes. It urges stakeholders to make more accountable commitments and coordination in managing the upgrading of the informal settlements and suggests a few research gaps to be filled. This review sheds light on the literature on urban governance of informal settlements in Africa and the global South.

1. Introduction

The term informal settlement refers to a region where people live illegally and is primarily characterised by the lack of essential social amenities, violence, and severe socio-economic difficulties [1]. A peri-urban community's unstructured, unbalanced, unprompted, illegal, and subsidiary residents are also called informal settlements [2]. UN-Habitat estimated that 24.4 % of the urban population worldwide resides in informal settlements, most of which are found in low-income countries [3].

Informal settlements, a rapidly growing and uncontrollable issue in African cities, have become a pressing concern [4–6]. African urban areas now host 51.3 % of the global informal settlers [7], which continues to rise. The migration to metropolitan regions, driven by poverty, low employment, poor quality of life, legal and regulatory hurdles, and natural disasters in rural areas, has been a key factor in this expansion [8–11]. Researchers have found that low-income rural-to-urban migrants often end up in informal settlements, or slums, as a gateway to urban life despite the lack of affordable and adequate housing and infrastructure [12–14].

Some researchers argue that informal settlements facilitate job creation and are conducive to urban labour supply and income generation, ultimately contributing to economic growth [15]. However, there has been a consensus that urban informal settlements are associated with many social and environmental problems. Informal settlements are considered an urban threat that could potentially harm and threaten the urban population and environment [12,16], and the prevailing violence has often threatened informal settlers'

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safety [1]. Informal settlements tend to create a hazardous and unhygienic living environment, which makes their dwellers the first victims of all [11]. Specifically, informal settlements are the most severely affected areas by modern infectious diseases [17]. The COVID-19 pandemic had far-reaching repercussions for African cities, especially the informal settlements [18,19]. COVID-19 has relocated residents from informal settlements to remote peripheral areas, leading to further social exclusion of the informal settlers [20]. The social challenges of marginalisation and stigmatisation, the political difficulties of law enforcement regarding land ownership and utility service, and the economic difficulties of integrating their informal city into the formal urban area were also faced by informal settlers [5]. Moreover, environmental risks, such as floods and fires, pose a significant challenge to the lives of informal residents, who are mainly vulnerable to natural disasters [9]. Poor social infrastructure (e.g., drainage, water supply, roads, electricity, markets, sanitation, and medical facilities) also affects the welfare of informal settlers in shanty areas [17,21].

Despite the numerous problems in informal settlements, effective urban governance to curb them seems yet to exist in Africa [20]. While the literature has urged collaborative actions among different stakeholders and strategic coordination of such interactions [22, 23], which aspects of the informal settlement governance in Africa need to be addressed has been relatively less explored. Furthermore, the fragmented investigations of informal settlement governance in different African localities hinder us from comprehending the distinctive regional characteristics and identifying a missing link to effective governance practices.

Therefore, this article reviews the existing body of literature on the governance of informal settlements in Africa and seeks to answer the following two research questions.

- 1. What are the pressing challenges in the governance of urban informal settlements in Africa?
- 2. Which actors are involved in the governance of urban informal settlements, and how do they collaborate or conflict with one another?

This review will also identify the existing knowledge gaps in the literature on the governance of informal settlements and inform future research directions for effective governance models to address the problems of informal settlements in Africa [24,25].

2. Urban governance: a conceptual clarification

Urban governance can be depicted and deciphered from different points of view and at various levels [26]. It is a broad concept involving many elements and actors, so drawing a unanimous definition is challenging [26]. Yet, there are two primary perspectives from which we can understand the concept of urban governance.

First, urban governance can be perceived as an innovative form of interaction, collaboration, and decision-making process on urban matters [27]. In contemporary society, governments tend to adopt an approach to managing urban issues which differs from the traditional forms of public administration. The conventional governance arrangement has been dominantly characterised by the existence of hierarchy and commandments by the authorities to regulate and govern urban problems [28]. Under this type of governance, the government is seen as the embodiment of society's interests and governs by enforcing regulations. In contrast, the new mode of urban governance is horizontal, participatory, and inclusive, based on the networks among various actors [29–31]. Thus, urban governance is seen as a network of individuals, institutions, and public and private entities working together to plan and manage the everyday affairs of the city and the continuous process through which diverse or conflicting interests are accommodated, and cooperative actions are taken. It is a multi-sector and multi-actor process concerning the city's economic development, public participation, and social equality [29]. It has been contended that the traditional mode of urban governance has been shifting towards network governance, acknowledging the importance of collaborative interaction among stakeholders in regulating and coordinating urban affairs.

The other perspective is grounded on a prescriptive approach, which emphasises formulating a set of organisational and political values and practices to enhance municipal societies' efficiency, responsibility, and ability to deal with multifaceted challenges. This perspective understands urban governance as setting up and practising prescribed rules and directions with which local, national, and global policy actors are required to comply in decision-making on specific urban issues [32]. From this point of view, urban governance is a fundamental process of persuading others towards specific policymaking processes and outcomes. This perspective suggests that the management and administration of urban areas should not be just reactive but should adhere to specific legal and institutional frameworks assisting policymakers in addressing various urban issues systematically and effectively [29].

It should be noted that, in the informal settlements' context, both the innovative and prescriptive perspectives are mutually inclusive concepts in that urban governance requires both a set of guiding principles and cooperative activities to function effectively. While the uncontrollable expansion of informal settlements poses critical problems [5], many African governments have been unable to produce accurate, up-to-date information about informal settlements. The urban informal settlers have thus mainly been excluded from the continent's urban planning and development processes. Furthermore, the urban governance system often lacks the necessary financial resources to manage and improve informal residents' livelihood, which makes it challenging to plan and implement effective interventions.

Therefore, to address these problems urban administrators face, efficacious collaboration among different actors should be established to coordinate and implement effective governing rules and guidelines to manage urban informal settlements adequately. In the governance process, governmental and non-governmental institutions, private sectors, and societies should be actively engaged in planning and managing the everyday affairs of the city [33].

3. Materials and methods

3.1. Study design

To address the research questions in line with the two perspectives of urban governance discussed above, we conducted a scoping review following the PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews) reporting guidelines, which are widely used in academic scoping reviews [34]. While PRISMA was initially developed to report the findings of systematic reviews, its recent extensions (PRISMA 2020) provide useful guidelines for reporting scoping reviews [35]. Following the steps suggested by Arksey and O'Malley, we defined research questions, searched for relevant studies, extracted data, screened according to inclusion and exclusion criteria, and reported results with conclusions and implications [24].

3.2. Search strategy

In conducting this study, we used Scopus, Google Scholar, and Web of Science as the primary databases to search for documents published in English between 2002 and 2023. We purposely selected these databases due to their comprehensive coverage of peer-reviewed literature across various disciplines, including urban studies, social sciences, and geography. Scopus offers extensive coverage of peer-reviewed journals, while Google Scholar provides broad access to diverse academic outputs, including books, conference papers, and grey literature. Web of Science is favored for its detailed citation analysis and metrics, making it a preferred choice for academic research. With the aid of Boolean operators [36], we keyed into the databases "governance" OR "informal settlement" OR "squatter settlement" OR "governance and informal settlement" OR "African countries" OR "urbanisation" OR "housing" OR "slums" OR "urban governance." These search phrases were consistent across all databases in this scoping review.

3.3. Study selection and data extraction

Various inclusion and exclusion criteria were applied during the search and selection of relevant papers. From the initial search results, we selected papers most pertinent to our topic, specifically the governance of informal settlements in Africa. We included studies that focus on urban informal settlement governance, policies, and institutional frameworks in Africa. This encompassed peer-reviewed journal articles, conference papers, and relevant grey literature, such as reports from international organisations, theses, and policy documents, all published in English.

The initially selected papers were independently screened by two authors based on their titles and abstracts. Any documents with ambiguity were further screened using the full text. Discrepancies between the authors were discussed regularly to reach a final decision. The scoping review began with 2377 papers identified from three databases: Google Scholar, Web of Science, and Scopus. After removing duplicates, 2350 records underwent title and abstract screening, resulting in the exclusion of 2283 papers due to irrelevance. The remaining 67 papers underwent a full-text assessment for eligibility, with 37 further excluded due to irrelevant findings or ineligible publication years. Ultimately, 30 papers met the inclusion criteria and were incorporated into the review. The selected papers were predominantly published in journals related to social sciences, arts and humanities, geography, and urban studies. Data extraction involved identifying key themes and findings relevant to urban governance in informal settlements in Africa.

In summary, papers that were outside the scope of this review such as those discussing only a single aspect of the concerned keywords (e.g., urbanisation, governance, or informal settlements), studies focusing exclusively on regions outside Africa, those published before 2002 or after 2023, and duplicated studies were excluded. Fig. 1 and Table 1 illustrate the process of searching and

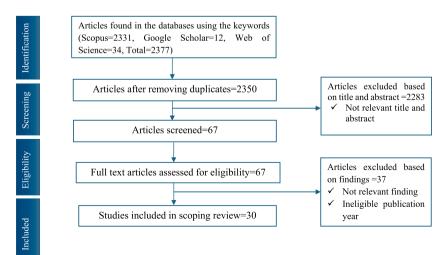


Fig. 1. PRISMA-ScR flow chart of the studies selection process.

Table 1 Article search criteria.

No	Criteria	Database					
		Scopus	Google Scholar	Web of Science			
1	Subject area	Social Science and art and humanities	Social Science and art and humanities	Geography, urban studies, and social science			
2	Document Type	Article, conference paper, theses, book chapter	Article, conference paper, theses, book chapters	Article, conference paper, theses, book chapters			
3	Language	English	English	English			
4	Keyword	Governance, informal settlement, squatter settlement, governance and informal settlement, African countries, urbanisation, housing, slums, urban governance	Governance, informal settlement, squatter settlement, governance and informal settlement, African countries, urbanisation, housing, slums, urban governance	Governance, informal settlement, squatter settlement, governance and informal settlement, African countries, urbanisation, housing, slums, urban governance			
5	Country	African Countries	African Countries	African Countries			
6	Source Title	Journal, conference paper, theses, book chapter	Journal, conference paper, theses, book chapter	Journal, conference paper, theses, book chapter			
7	Author Name	All	All	All			
8	Publication Stage	Final	Final	Final			
9	Affiliation	All	All	All			
10	Funding Sponsor	All	All	All			
11	Access	Open access	Open access	Open access			

selecting relevant papers, following the PRISMA-ScR framework. This process includes searching databases, screening titles and abstracts, screening full-text articles, and selecting articles that meet our inclusion criteria.

3.4. Data synthesis

In this scoping review, data analysis was conducted after completing all essential procedures and identifying relevant documents. The two primary data analysis methods employed were descriptive and thematic analyses. In the descriptive analysis, we systematically organised the selected studies to present the overall characteristics of the included studies. This analysis involved extracting and summarising key information, such as the distribution of publication years, the distribution of regions, the research methods used in the reviewed studies, and a description of the studies included in this review. We utilised charts, graphs, and tables to present the results of the descriptive analysis.

In addition to the descriptive analysis, we conducted a thematic analysis. This process began with a thorough and repeated reading of the selected studies to gain a deeper understanding of each study's content. We then identified sub-themes related to the governance challenges of urban informal settlements and the actors involved in their governance. Finally, we organised these sub-themes into broader themes that encapsulate the main findings of the review.

4. Results and discussion

4.1. Descriptive summary of the reviewed articles

A total of 30 documents were selected and reviewed by the authors. Fig. 2 indicates that while studies on the governance of urban informal settlements in Africa were scarce until 2012, the number of relevant publications increased in 2013, culminating in 2021. From 2002 to 2006, no literature was produced concerning the governance of informal settlements in Africa. This result shows the limited knowledge available on the informal settlement governance in the African continent.

According to Table 2, the majority of the studies were conducted in East African countries (e.g., Kenya, Ethiopia and Tanzania).

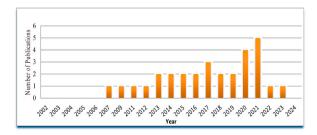


Fig. 2. Distribution of publication years. Source: based on authors' analysis

Table 2Distribution of regions.

Region	No. of Studies
East Africa (e.g., Kenya, Ethiopia, Tanzania)	14
West Africa (e.g., Guinea, Nigeria, Ghana)	5
South Africa (e.g., Zimbabwe, Zambia, Namibia)	12
North Africa (e.g., Egypt)	1
Entire Africa	2

Source: based on authors' analysis

Despite being one of the world's poorest regions [37], North Africa has not been a popular locality for investigating informal settlement governance.

Fig. 3 shows the methodological approaches employed in the reviewed papers. We found that most studies employed qualitative methods (63.33 %) dominantly using interviews, focus group discussion, and document analysis to investigate the complex social phenomena concerning the governance of urban informal settlements in Africa [1,22,38,39]. In comparison, fewer studies were conducted using quantitative methods (3.33 %) and mixed methods (33.33 %). This seems related to the nature of this topic, which concerns various stakeholders' perspectives. There are difficulties in using quantitative methods to study this topic due to the limited accessibility to the stakeholders. Integrating quantitative and qualitative data seems necessary to offer more in-depth, multi-layered knowledge on this issue. The summarised descriptions of the reviewed documents are provided in Table 3.

4.2. The challenges in the governance of urban informal settlements

Our thematic analysis of the documents revealed that informal settlements have become an obstacle to effective urban management [5,16,21,33]. As African countries have been experiencing rapid urbanisation, informal settlements have proliferated in many of the major African cities, causing various problems in urban governance [6,10,13,33]. Consequently, governing informal settlements has been imposing critical challenges to the grassroots and the governments [5], which can be categorised into three areas: resource deficit and mismanagement, government's administrative incapacity and problematic governmentality, and the conflict of interest among stakeholders and the lack of collaborative governance mechanisms.

4.2.1. Resource deficits and mismanagement

Effective governance of urban informal settlements depends on resource management efficacy and adequacy [9]. When there is a deficit and mismanagement of resources, it poses a daunting challenge to the governance of urban informal settlements. Studies have proven that the shortage of land for upgrading programs in informal settlements is a significant problem in the governance of urban informal settlements [40,41]. Notably, Zulu & Oyama study showed that urban land has become precious and highly demanded by all segments of Zambian society [17], yet the government has not been able to meet the overwhelming demands for urban land necessary for upgrading programs [38,42]. Muraguri in his study also noted that the lack of land to accommodate informal settlers' relocation is a grave challenge in the governance of urban informal settlements in Kenya. In most informal settlements, land ownership is private [41]. Therefore, acquiring land to improve infrastructure and housing in informal settlements is a great challenge for local governments, thereby constraining their ability to upgrade the areas [10,43]. The government's inability to meet the residents' dire needs could, in turn, undermine its legitimacy as a governing body.

Moreover, the land occupied by informal settlements is not necessarily secured for residents, which worsens the problem of infrastructural provision and other social services [9,12,44]. Without household land legalisation, residents could not secure their land tenure and invest in the development and improvement of their properties, and it could impede local authorities from providing services and infrastructure for informal settlements [9,12]. The studies agree that this can negatively affect the implementation of effective and participatory urban informal settlement governance [39,45,46]. Relatedly, the governance of urban informal settlements in Africa is also challenged by the mismanagement of the existing limited resources. A shortage of infrastructure and resources and mismanagement create a multitude of problems that will worsen living situations and further exclude informal settlements from the

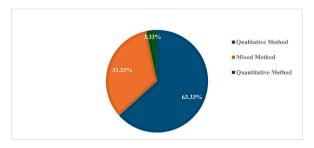


Fig. 3. Research methods used in the reviewed articles. Source: based on authors' calculation, 2023

Table 3 Description of studies (n = 30).

Document	Study country	Findings	Study design	Sampl size
Adam (2014) Ethiopia		Official urban land malfunction and distribution failed to address the housing needs of the urban population, causing the proliferation of	Survey	116
Alene (2022)	Ethiopia	informal settlements. The informal settlement is a complex phenomenon driven by socio- economic, political, legislative, and demographic factors.	Survey	184
Amao (2012)	Nigeria	Inadequate physical infrastructure and growing socio-economic challenges endanger informal residents' long-term means of subsistence.	Survey	NR
Amin & Cirolia (2018)	South Africa	The complex challenges facing informal settlement require the engagement of state and non-state actors.	Case study	NR
Baye et al. (2020)	Ethiopia	Socio-economic and demographic factors such as lower housing affordability and inefficient land provision contribute to the proliferation of informal settlements.	Survey	331
Bisaga et al. (2019)	South Africa	The government, NGOs, civil society organisations, and private sectors govern urban informal settlements.	Case study & Survey	203
Brown-Luthango	South	The governance of urban informal settlements presents several challenges	Case study	81
et al. (2017)	Africa	in healthcare. Fragmented health service provision and lack of cohesiveness in healthcare centers exacerbate people's health conditions.	Case study	01
Chege (2013)	Kenya	Various stakeholders are involved in the upgrading program of urban informal settlements. However, in the upgrading process, these stakeholders faced several challenges, including complexities of informal settlement tenure arrangements, lack of coordination of various stakeholders, resistance to the upgrading program, lack of participation,	Descriptive& Case study	231
Chitekwe-Biti (2009)	Zimbabwe	and mistrust from the dwellers. Once partnerships among various stakeholders scale up, they can be an adequate solution to address land and housing problems for informal settlers.	Case study	NA
Conteh et al. (2021)	Sierra Leone	Informal settlers are particularly vulnerable to the COVID-19 pandemic because of limited access to health services and inadequate living conditions. This situation calls for integrated governance strategies to mitigate the risks effectively.	Case study	64
Croese et al. (2016)	(Angola, Namibia, Ethiopia & South Africa)	Housing allocation programs to upgrade informal settlements are ineffective in meeting their housing needs.	Case study	NA
Dakyaga et al. (2021)	Tanzania	Governing informal settlement requires collaborative actions of different actors. Of the actors, community members play a paramount role in addressing the problem of water infrastructure in informal settlements.	Case study	35
Ehebrecht (2014)	South Africa	Upgrading informal settlements is a promising solution to the Cape Town, South Africa housing crisis. Though the upgrading program benefits informal residents, several limitations constrain the effective implementation of the upgrading program.	Case study	34
El Menshawy et al. (2011)	Egypt	Collaborative governances involving community members play a significant role in addressing the challenges faced by informal settlements.	Case study	NR
Ezebilo & Savadogo (2021)	Guinea	Of the various interventions carried out by different actors, the infrastructure and service upgrading paradigm is conceived as a widely accepted solution to urban informal settlements.	Survey and case study	231
Hove et al. (2013)	Sub-Saharan Africa	The pace of urbanisation adversely affects housing affordability and other essential services in urban areas.	Secondary data review	NA
John-Nsa (2021)	Nigeria	Though several initiatives have been implemented to improve the living conditions of informal settlements, their focus is on the symptoms rather than the underlying causes that contribute to informal settlements' development.	Exploratory survey	323
Kimani et al. (2021)	Kenya	Informal settlers are particularly vulnerable to COVID-19, which calls for effective integrated governance strategies to mitigate the risks.	Case study	NA
Kovacic et al. (2019)	(Uganda, Kenya, and South Africa)	Africa's urban development is highly diversified and complex, with elements that defy simple international classifications. Thus, standards-based governance is challenged by informal settlements.	Survey &case study	372
Mitra et al. (2017)	Kenya	Informal settlement upgrading is crucial in improving physical infrastructure and other services; it also significantly maintains social cohesion and contract.	Survey &case study	420
Muchadenyika (2015)	Zimbabwe	To tackle the challenges inclusively, the informal settlements upgrading program requires collaborative municipal and community partnerships.	Case study	NR
Muchadenyika &Waiswa (2018)	Zimbabwe and Uganda	Policies, party politics, and leadership play a significant role in achieving effective governance of informal settlements.	Case study	16
Mulligan et al. (2019)	Kenya	The complex challenges facing informal settlements require collaborative	Case study	17

(continued on next page)

Table 3 (continued)

Document	Study country	Findings	Study design	Sample size
Ngwenya & Cirolia (2021)	South Africa	The formal housing shortage is a primary cause that leads to the informal occupation of urban land, creating conflict between the state and occupiers and within the state.	Case study	42
(Nuhu et al., 2023)	Tanzania	The existing structural governance operation of various stakeholders is the main challenge of the governance of urban informal settlements	Case study	15
Okyere & Kita (2015)	In all African countries	Lack of economic opportunities is one of the fundamental triggering factors for the development of informal settlements.	Secondary data review	NR
Otsuki (2016)	Kenya	Inclusive governance is a viable option for public service delivery in informal settlements.	Ethnographic design	NR
Smit (2021)	African cities	Informal settlers are highly vulnerable to the COVID-19 pandemic, which calls for effective integrated governance strategies to mitigate the risks.	Secondary data review	NR
Stacey & Lund (2016)	Ghana	Informal settlers face a complicated problem that requires collaborative actions involving informal communities to address the challenges.	Case study	NR
Zulu & Oyama (2017)	Zambia	It delves into the history of land governance and how it impacts housing issues and contributes to disputes over residential property rights.	Case study	NA

fruits of the urban environment [43].

Another challenge is the reliance on external financial resources for upgrading projects. The reviewed study showed that most Sub-Saharan African upgrading programs have received funding from outside the country, such as international social organisations and foreign development agencies. The lack of long-term governance and management of projects initiated by international organisations has made strategic planning and infrastructure upkeep difficult after upgrading. The heavy reliance on external funding sources has precluded informal settlement upgrading programs from being scaled up and has limited the feasibility and sustainability of similar programs elsewhere [46]. In addition to external dependency, the deficit in the national government budget for informal settlement upgrading resulted in further neglect of the dire needs of informal residents [9,45]. The external dependency of the program and the budget deficit entrenched further marginalisation of the informal residents and set pressure on the government's capacity to address their priorities and concerns [9,46].

Furthermore, it is challenging for the government to ensure that adequate urban infrastructure is available and operational in informal settlements. Citizens' demand for urban infrastructure rises as informal settlers grow fast. The road networks, houses, energy facilities, water supply systems, markets, and recreation areas all require land and operational systems, which are non-existent. In addition, the constant strain induced by the increasing population and their overuse of public utilities has accelerated the deterioration of the existing urban infrastructure [9,44,45,47]. In fact, it has been determined that the government's fundamental urban services have not adequately met the needs for services among the entire urban population [48]. The studies included in this review emphasise that the absence of basic infrastructure can jeopardise the overall well-being of informal settlers, thereby negatively affecting governments' effective governance, and developing adequate public infrastructure at the local level is a pressing issue for urban governors to deal with [9,17,19,47,49].

4.2.2. Government's administrative incapacity and problematic governmentality

Our scoping review found that the most pervasive challenge in African cities is the government's inability to coordinate informal settlement improvement programs [12,45,46]. Similarly, a study by Ehebrecht in South Africa proved that lack of political support, absence of a long-term strategic approach, and the reluctance of communities to engage extensively in the upgrading program are the major impediments to informal settlements' governance [40]. The success of informal settlement upgrading is contingent upon the flexibility and suitability of building standards, land use, and tenure legislation and procedures [41,50]. However, African city governments tend to lack the goodwill to cope with the problems of informal settlers and implement necessary policy measures [40,46], which can significantly affect the upgrading of informal settlements. Compounding this, a study in Kenya indicated that informal settlement upgrading necessitates the political will and steadfast dedication of local governments capable of maintaining long-term implementation and programming [45]. Without solid commitment and active engagement of the national government agencies, designing and implementing policies, programs, and interventions were likely to become futile [45]. The government's lack of goodwill seems to misallocate the resources for upgrading programs and expose informal settlers to insecure lives in shanty houses.

The reviewed papers argue that although upgrading programs have immense potential for improving the well-being of informal settlements, African governments tend to fall short of effective and efficient upgrading strategies and techniques [39,46]. While multiple government agencies have to handle various issues related to upgrading infrastructure, housing, and other services [4], a lack of government coordination among key actors has led to the duplication of certain stages of the projects, inefficient use of resources, and fragmented execution of the upgrading projects [51]. Consequently, socio-economic inequalities in the upgrading areas have become worse, and the rights of informal settlers have been largely neglected.

Besides, the national governments' belief of informal settlements as an area of disorder, inherently criminal, and an eyesore is also problematic since it adversely influences the practices of civil organisations in informal settlements [52,53]. Many African governments seem to consider informal settlements geographically, economically, socially, and politically isolated from the existing urban systems and thus be reluctant to institutionalise the upgrading process [37]. Our review identified that government-led upgrading programs are less successful than community-led ones due to the lack of community ownership of the upgrading program. Although

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 Table 4

 Different actors' roles by types of governance of informal settlements.

Governance	Approach	Actors and their roles				Sources
Perspective		Government	Local Communities	Civil Organisations	Private Sectors	
Innovative Perspective	Bottom-up (Participatory)	✓ Operators and facilitators of community activities in collaboration with the community and other actors ✓ Builds capacity, offers technical help, and backs community-led projects ✓ Creates conducive platforms for dialog and consultation with the communities to address the needs and priorities of informal settlers	 ✓ Organise themselves together, express their needs, identify their priorities, and propose solutions for the grave challenges they encountered ✓ Create their centers and thereby improve local infrastructure in the sense of self-help groups 	✓ Encourage and manage community- based initiatives	✓ Manage and finance utilities in urban areas	[4, 9, 21–23, 39, 45, 47, 61, 64]
	Cooperation (Partnership)	 Provides land and other provisions to upgrade informal settlers, Facilitates a fusion that brings together several organisations and institutions 	✓ Form networks with other actors ✓ Participate in a variety of activities like the upgrading program, self-help initiatives, local peace initiatives, awareness and sensitisation, monitoring and evaluation of project activities	✓ Engage in a gamut of actions and activities like fundraising, resource mobilisation, and financial support in the governance of informal settlements, in collaboration with government and community	✓ Participate through partnerships with the government or civil society organisations to implement upgrading projects in informal settlements	[1, 23, 44, 49, 53]
Prescriptive Perspective	Top-down (Government lead)	 Plays a key role in the everyday governance practice of urban informal settlements An overall administrative wing of urban informal settlements governance including area identification for upgrading housing policy formulation and regulation Provide basic services, infrastructure development, and upgrading initiatives 	 ✓ Participate and provide input concerning their needs, preferences, and concerns ✓ Comply with the government policies and provide feedback for the government about its performance in the governance of informal settlers 	 ✓ Present and advocate the rights and needs of informal settlement dwellers ✓ Monitor government actions and policies to ensure responsiveness 	✓ Supports top-down strategy by funding initiatives run by the government, abiding by rules, and offering services and jobs	[1, 9, 23, 49]

community-led upgrading necessitates the coordination of the national government and local authorities in resolving issues in the informal settlements, adequate political leadership and assistance are nearly non-existent [46]. A study carried out in Ghana exhibited a case in which some politicians intentionally initiated informal settlement upgrading programs to pursue electoral support. Similarly, a study in South Africa showed that informal settlement upgrading projects are initiated for political campaigns [40]. Such political instrumentalization of upgrading has achieved only partial success in the improvement programs, hampering the adjacent built-up environment and the potential upgrading sites [41,46,51,54].

Moreover, the lack of regulations for informal economic activities in informal settlements is found to be another challenge. According to one of the articles we reviewed, most urban populations, particularly those living in informal villages, have considerable freedom to participate in any kind of economic activity without much consideration of governmental regulations. Consequently, metropolitan areas are now plagued with street selling, indiscriminate business premises construction, roadside hawking, and environmental contamination from negligent trash management. The government finds this situation extremely unsettling because it is challenging city governors to keep sufficient control over time [5].

The last challenge under this theme is the government's dilemma about opening new economic opportunities for informal settlers. Several studies we reviewed showed that urbanisation in African cities has attracted massive rural-to-urban migration [8,9,55,56]. Specifically, many young people have moved from rural to urban areas for better employment and livelihood opportunities [56]. However, the metropolitan government is unable to provide new migrants with sufficient employment opportunities, which seems to drive the migrants to severe economic hardships [8,11,18,38]. Another study shows that, in contrast to many other developed regions, Africa's urban population has not grown hand in hand with the growth of formal employment, resulting in a significant increase in urban poverty [57]. In an attempt to help reduce the poverty of the new migrants, the urban administration has faced the dilemma of providing migrants with job opportunities in the public sector or leaving them to find their jobs by themselves in the informal communities [9,55].

4.2.3. Conflict of interest and the lack of collaborative governance mechanisms

Our review also showed that the existence of disputes among the stakeholders, particularly among the informal setters or official authorities, is another formidable obstacle to formulating effective governance systems in informal settlements [40,45,51,58]. One of the reviewed articles from Western Africa proves that the expansion of urban informal settlements is often accompanied by emerging interests to take control of the management of the city's resources [17]. Tension and conflicts between interest groups tend to arise from their efforts to obtain the right to manage and regulate the city's hotspots, such as markets, investment districts, and industrial zones. Similarly, while contention occurs when private sectors prioritise profit-making, local authorities might focus on urban development projects at the expense of the well-being and rights of informal settlements [51]. Meanwhile, residents may also have different visions about access to essential services, infrastructure improvement, and tenure security for the settlements. These conflicts typically occur between the state, the private sector, and local governments. A study shows that this situation is often seen in Nigeria, where disputes over controlling the state's resources have strained the ties between the state and local government units [55]. Governments and other stakeholders compete at different scales rather than cooperating to maximise mutual benefits [59].

Similarly, a study by Muraguri indicates that dealing with the conflicting interests of different organisations, such as donor agencies, local governments, central government, faith-based organisations, NGOs, and community-based organisations, is a demanding task in the governance of urban informal settlements in Kenya [41]. This problem seems to occur when the stakeholders want to prioritise their interests at the expense of the well-being and rights of informal settlers. The reviewed studies demonstrate that antagonistic relationships and interests among various stakeholders create a formidable obstacle to communication and collaboration among themselves, making the governance of urban informal settlements extremely difficult [40,45,51,58].

One of the article reviewed in this paper also pointed to the unavailability of adequate procedural principles to safeguard stakeholder engagement and collaboration to tackle the problems in informal settlements [45]. A qualitative study in Egypt showed that its government is often incapable of finding relevant stakeholders and assisting in their collaborations in upgrading programs [60]. The reviewed articles illustrated many cases in which some stakeholders intentionally hide their motives or their political or religious affiliations when engaging in informal settlement upgrading programs, often leading to a negative impact on the programs' sustainability [23,41,45]. The article suggests that competent urban managers with sufficient knowledge and instruments to coordinate the interests and engagement of different stakeholders are required in urban informal settlements [33]. The absence of clear procedural instructions, monitoring mechanisms, and accountability measures has often resulted in the mismanagement of resources, corruption, and inadequate service delivery in informal settlements.

4.3. Interaction between governance actors in urban informal settlements

The papers we reviewed recognised the importance of recognising a range of actors involved in the governance of informal settlements [38,44–46,56,61]. Most of the qualitative research found that *governments* are the key players in the governance of urban informal settlements in Africa [9,23,38,61]. The governments are expected to address the adverse effects of informal settlements on the well-being of informal settlers and the surrounding regions. The government's awareness of the problems in the informal settlements enables them to set up systems to incorporate the new settlements into the existing network of metropolitan areas. Improving informal settlements to the point where they can be integrated into formal regions and offering a solid mechanism to prevent the formation of new informal settlements, are two possible approaches carried out by African governments [23,49,62]. Other studies also noted that the national Ministry of Land and city governments play a paramount role in housing allocation for informal settlers [9,45]. For instance, the Nigerian government set up a particular agency and assigned it to alleviate the problems in the urban informal

settlements in Lagos [9]. Similarly, a study in Kenya showed that the Kenyan government launched a program to coordinate and collaborate with other stakeholders to tackle the issues among urban informal settlers. This program aims to enhance living standards for those who work and live in informal settlements by helping with housing improvements, generating revenue, securing tenancy, and supplying infrastructure [45,62].

A few qualitative studies pointed out that, coupled with the governments, *local communities*, and their traditional leaders play a pivotal role in the governance of urban informal settlements [23,39,51]. Specifically, traditional leaders play a crucial role in advocating for the community's rights (e.g., access to essential services) by representing the interests of the informal community to external entities, such as the government and non-governmental organisations. Traditional leaders are also working to increase community members' understanding of the importance of their participation in the governance of informal settlements [51]. Moreover, they mobilise neighbourhood residents for group projects such as building community facilities, organising clean-up campaigns, or coordinating security patrols. It is noted that the governance of urban informal settlements becomes more effective and efficient if municipal and community members and their representatives collaborate inclusively [23,49,63]. Similarly, evidence from quantitative study shows that the collaborative engagement of informal residents, adjacent communities, and city officials is essential to managing urban service provisions, such as water, sanitation, tenure security, and roads [23].

Civil society organisations are the other essential actors in the governance of informal settlements [21]. The reviewed papers proved that civil society organisations work to build the capacity of informal settlement residents and act as mediators between residents and local government authorities [40,47]. They provide essential services to informal residents, such as waste management and healthcare. Most studies showed that residents of informal settlements could only practice inclusive urban governance when they were given assistance from civil society organisations and the opportunity to participate fully in decision-making and action-taking processes [21, 40,47]. Studies have shown that the initiatives carried out by civil society organisations in the Global South are visible mainly in sub-Saharan Africa, where access to public water services in informal settlements is limited. In effect, the Sustainable Development Goals acknowledged the importance of civil society organisations in supplying water to unauthorised settlements [22,23].

Another important actor in the informal settlement governance is *the private sector*. Many of the reviewed papers illustrated how private sectors are involved in the governance of urban informal settlements, particularly in the creation of jobs and provision of housing and other services, subsequently improving residents' lives [9,19,38,39]. Furthermore, Chege's study indicated that private sectors play a crucial role in setting up microfinance institutions to provide access to credit and financial services for individuals and communities living in informal areas. They also offer resources like construction materials to support infrastructure development and invest in housing development to address the housing needs of urban informal communities [45].

From the above discussion, it is evident that the administration of urban informal settlements is a multi-actor process that requires the participation and interaction of diverse stakeholders in various contexts. These stakeholders play a unique role in the governance process of informal settlements, contributing their expertise, resources, and perspectives to collective decision-making.

Table 4 illustrates governance perspectives and the existing approaches to dealing with the problems of informal settlements in Africa reported in the reviewed articles. The different roles of the actors by different approaches are summarised as follows.

4.4. Limitations of the study

Though this scoping review provides valuable insights into the governance of urban informal settlements in Africa, it has several limitations. First, it was based solely on articles and grey literature written in English, excluding papers in other languages due to limited access to translation resources. Second, this study offers a descriptive and thematic overview of the reviewed articles without conducting a critical appraisal of individual studies, as would be done in a systematic review [24,34]. Finally, limited access to crucial information about the challenges and underlying conflicts in managing urban informal settlements across the African continent may constrain our understanding of real-world scenarios. Information about governance models in informal settlements in Africa is not readily available.

4.5. Implications and future research directions

Although an increasing body of literature has emphasised the importance of a bottom-up approach to urban governance in urban policy administration, our review shows that the existing governance in Africa's informal settlements is characterised as a top-down approach. Reflecting on the two perspectives of urban governance discussed above, our review suggests that the governance of informal settlements in African cities has not been equipped with innovative and inclusive mechanisms that can effectively coordinate the varying interests of different stakeholders in the improvement programs and embrace the needs of the residents in the informal settlements. Without effective communication and collaboration, aligning the efforts of all concerned stakeholders and working towards a common goal is challenging. Disjointed initiatives often fail to eradicate the root causes of the problems faced by the inhabitants of these settlements. Moreover, the national and local governments and the social organisations, who are deemed to have relatively more power and authority to set up guidelines and enforce legal actions, appear to be incompetent in formulating effective procedural systems to address the problems and, at the same time, facilitate economic growth, leveraging the improvement of informal settlements in the long run. Therefore, we suggest that more academic efforts are necessary to inform future policy actions to reform the existing administrative systems and promote inclusive and collaborative approaches to addressing the existing problems in informal settlements.

In this connection, we have formulated the following four prospective research directions, calling for academic debates and discussions.

1) Information about the current situations of informal settlers is a crucial foundation for discussing potential policies and programs that can improve the governance of informal settlements. However, there is a lack of research on how these settlers obtain food, water, shelter, and other necessities under constrained economic and environmental circumstances. More research in this area can provide valuable insights for prioritising informal settlers' various life domains as the objects of the governance practices and exploring which governance approaches could effectively deal with specific issues in the informal settlements.

- 2) The nature and degree of coordination among various stakeholders in the governance of urban informal settlements should be further investigated for two reasons. First, it helps to identify the weaknesses and strengths of different types of governance and, in turn, enhances the governance mechanisms, ensuring the efficient delivery of urban infrastructure and services to informal settlers. Second, it can contribute to identifying possible points of contention in the stakeholder interactions and create strategies to address potential disputes. Yet, our synthesised understanding of the characteristics of the existing collaborations among different stakeholders and the factors in the African context is lacking. Further investigation in this area can offer new insights into the best practices for stakeholder coordination.
- 3) The impact of different institutional arrangements is another issue that needs a thorough investigation. Though institutional arrangements, such as rules, regulations, public institutions, and finance systems, play a pivotal role in the governance of informal settlements, how such roles and institutional arrangements influence the lives of informal settlers is not adequately studied. Thus, further research is needed to know how different institutional arrangements contribute to the governance of informal settlements and how they can be optimised to improve living conditions for the residents.
- 4) The potential challenges that governance stakeholders might face when trying to practice good governance in managing urban informal settlements could also be further explored. Though there are many challenges in governing informal settlements, the barriers faced by different stakeholders have been less explored. Investigating this issue can help to develop targeted strategies to overcome these obstacles and improve governance.

5. Conclusion

This scoping review examined the challenges in the governance of urban informal settlements in Africa and the different actors involved in informal settlement governance. This review shows that the main challenges that put pressure on the governance of urban informal settlements in Africa were the existence of conflict among various stakeholders, the lack of coordination among governance actors, the government's restrictive policies against informal settlements, funding insufficiency, and the government's loose regulation of the social and economic activities of informal settlers. These governance problems seem to have resulted in a highly disastrous urban environment for both informal settlements and urban governors.

This scoping review also highlights how the national governments, non-governmental organisations, local communities, and the commercial sectors in many African countries have participated in the problem-solving processes with varying interests and aims. According to the papers we reviewed, upgrading informal settlements has been state and non-state actors' most common policy choice. Yet such efforts have been accompanied by many challenges, mainly due to disparate stakeholder interests.

CRediT authorship contribution statement

Behailu Mulate Ewnetu: Writing - original draft. Bo Kyong Seo: Writing - review & editing.

Ethical approval

This research does not involve human or animal participation.

Data availability statement

Since this study is a scoping review, no new data were generated for the research presented in the article.

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The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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